COLUMBIA RIVER TECHNICAL MANAGEMENT TEAM

April 16, 2025

Facilitator's Summary

Facilitation Team: Emily Stranz & 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; it is not intended to be the "record" of the meeting. Official minutes can be found on the TMT website: https://public.crohms.org/tmt/agendas/2025/. Suggested edits for the summary are welcome and can be sent to Colby at colby@dsconsult.co.

Review Meeting Summaries & Minutes – TMT Members approved the official meeting minutes and facilitator's summary from the April 9 TMT meeting.

McNary Dam Inflow Forecast – In response to a previous request from Fish Managers, Aaron Marshall, Corps, reported on McNary Dam (MCN) inflow forecasts. Recent inflow values were around 237 kcfs, with a downward trend expected to around 200 kcfs in the coming week. The STP forecast indicates decreasing flows throughout April, with a sharp inflection point in early May and a potential peak around 280 kcfs in early June. Aaron emphasized the uncertainty in the forecast due to upstream reservoir operations and weather conditions, including the potential for rapid snowmelt or rain on snow events that could result in higher flows. While ESP traces show some potential for peak flows exceeding 400 kcfs, factors like the shape and timing of runoff, or unexpected atmospheric rivers, can influence this in the end.

The following discussion points and clarifications were made following Aaron's update:

- Are there updates on the current spill cap for reaching the 125% gas level at MCN? From a fish
 perspective, there is uncertainty surrounding this issue and a need for real-time adjustments based on
 environmental conditions.
 - The Corps noted there are no real changes; the spill cap of 220 kcfs remains a good estimate. Adjustments will be made in real-time.
- Some Fish Managers noted concern regarding the forecasted reduction in flows in early May coinciding with the peak migration period for spring fish. There is incompatibility between managing reservoir levels and optimizing conditions for fish travel time; this issue should be addressed in future discussions. BPA noted that in order to resolve concerns about the drop in MCN flows, Lake Roosevelt would need to continue drafting; the drop in flows occurs after the FRM draft is complete. Another option offered was to adjust FRM targets. There was interest from some TMT partners for the Corps to reconsider FRM targets given the drying forecast. The Corps will take the recommendation back for internal conversations; the Corps noted that they track conditions and FRM on a regular basis.
- The Corps confirmed that the ESP model showing a potential for 400 kcfs is a low possibility, however, remains a potential outcome depending on runoff and environmental conditions.

Erick Van Dyke, ODFW/FPAC Chair, followed up on last week's conversation regarding flexibility to use bay 18 this year, inquiring to see if there were any updates that the Corps could provide regarding their internal coordination. Doug Baus, Corps/TMT Chair, confirmed that there is no further information at this time; a MCN Task Group meeting is scheduled next week to discuss this issue further. Additionally, the Corps confirmed that they put in a request for bay 18 model runs at ERDC, however, it is unclear if it will happen due to schedule and budget constraints.

Questions or Comments from Non-TMT Members – There were no questions or comments from members of the public.

Columbia River Regional Forum Technical Management Team OFFICIAL MINUTES Wednesday, April 16, 2025

Minutes: Andrea Ausmus, BPA (contractor, CorSource Technology Group)

Today's TMT meeting was held via conference call and webinar, chaired by Doug Baus, Corps, and facilitated by Emily Stranz, DS Consulting. A list of today's attendees is available at the end of these minutes.

1. Review Summary and Minutes

- a. April 9 Summary and Minutes
 - Approved
- b. Website Concerns
 - There was a reminder that the new TMT website URL is: https://public.crohms.org/tmt/.
 - The Corps requested that TMT let the Corps know about any broken links.

2. McNary (MCN) Dam Inflow Forecast – Aaron Marshall, Corps-NWD

- a. RFC Inflow Forecasts for McNary Dam
 - 10–day Forecast (April 15)

Low: 150 kcfs (April 9)
 High: 250 kcfs (April 14)

Yesterday's Inflow: 237 kcfs
 Trend: Downward
 Week Forecast: 210 kcfs

- STP Extended Forecast (April 14)
 - o Incorporates all the reservoir operations upstream of MCN.
 - As best we know what the operations will look like.
 - o April
 - Decreasing flows over the month of April.
 - o May
 - There is a bit of an inflection point likely in early May.
 - Sharp and abrupt change that will likely get smoothed down.
 - Reservoir operations that are upstream are triggering the inflection point as we transition from the FRM Draft period into Spring Refill period.
 - June

- Early June is where the Corps sees the forecast peak.
- MCN Peak: 280 kcfs
- Caution: Do not put a lot of stock into this because it is influenced significantly by reservoir operations upstream, weather, and runoff conditions.
- The Spring Runoff period can be volatile, especially if there is a rapid warm up that triggers snow melt or a rain on snow event.
- Provides an outlook based on current snowpack volume and historical weather forcings.

b. Internal Corps – RCC Models

- Internal analysis and models, the Corps' ESP traces, are showing a median trace around what the STP is showing.
 - \circ ESP trace: 280 300 kcfs
- Some ESP traces are showing in late May to early June a pretty good potential for peak flows well in excess of 400 kcfs.
- A lot of uncertainty going into the Spring Runoff period.

Jay Hesse, Nez Perce, asked if Marshall had any updates on what the current spill cap thinking is for reaching the 125% TDG gas level at MCN. He asked if there have been any updates in that.

Alexis Mills, Corps, said that there were no updates. She said as was discussed last year, there was uncertainty about TDG generation under the new gate configuration and that flows were not high enough to reach the spill cap of 220 kcfs in 2024. She said opening two additional gates resulted in a higher estimate of the 125% TDG spill cap as the resultant pattern was less bulky. MCN still has not yet hit the spill cap, but TDG generated at the levels that MCN has been spilling, indicates that 220 kcfs is still a relatively good estimate. She said that as has always been the case the Corps will adjust the spill caps in real-time as needed in response to environmental conditions.

Hesse said that he thought that the region had heard his concerns about that reduction in the spill cap level from what had been with the traditional spill patterns, just curious about monitoring that. He said his second statement is relative to the forecasted reduction in flows or lower flows in early May and highlighting that he thinks that is highly influenced by how the region is managing reservoirs to start to refill at that point throughout the basin. He said for long-term considerations that reduction in flows at that point happen to coincide with when we typically see a big pulse of spring migrants headed out. He said if we are trying to maximize flows to reduce fish travel times during that time frame we have some incompatibilities there. He said that it is an area that he thought there is room for improvement on significantly below flood risk management levels at that time, but we are not doing the best for fish. He said that he would highlight those inconsistencies, and it would be a good discussion item for the future.

Charles Morrill, WA, echoed Hesse that we normally see peak fish passage passing Lower Granite sometime between the end of April and May 10 - 12. Spring Spill. *Morrill had some issues with audio quality and was asked to share more in the chat if possible.*

Erick Van Dyke, OR, said at the last TMT the region talked a great deal about trying to look at flexibility for using more capacity in the spillway at MCN, in particular investigating the use of Spill Bay 18. He asked if the information that Marshall shared so far indicated something specific about whether we could do that or not.

Marshall said that there was nothing more on that topic right now. He said that there is an MCN Task Group meeting next week. He said that he would like to let that group take this topic into consideration and then come up with a recommendation. He said that with the fact that we are not very far into Spring Runoff, the Corps would not be comfortable opening up the third gate until we get past Spring Runoff, because that would further constrain the Project and the spillway capacity. He said that MCN would need to get past that point. He said that he would like to hear what the MCN Task Group would like the Corps to take into consideration for future operations. He said that the Corps would definitely have a lot of homework to do for that (incl., discussions with Walla Walla district, Engineering, and Dam Safety). He said that this is not something that can be done at this point in time and the Corps will need to do quite a bit of homework, but he would like to hear from MCN Task Group about this after they meet next week.

Van Dyke thanked Marshall for summary. He asked if the 10% climatology that Marshall referred to being over 450 kcfs was something that they were using to recognize risk. If it was going to be this particular forecast tool or if it would be something else that would be used for that.

Marshall said that he mentioned that there was still a chance that MCN may see flows in excess of 400 kcfs. He said that it was based on their internal ESP model that RCC was using to assess the potential risk that is still out there. He said that it is just different possible outcomes given that the RFC forecast uses a single deterministic trace, and it does not provide much in the way of a range of outcomes with this year.

Van Dyke said right and that there are other details in the ESP traces. He thanked Marshall, saying that it was helpful. Van Dyke asked if MCN had over 400 kcfs what kind of things would have to happen to see flows that high. He asked if it would be a major snow event or some rapid melt and runoff throughout the entire basin. He asked if there was a reference point that might be helpful for the FM to understand.

Marshall said it could be like a rapid warm up, any sort of precipitation event, or if there is a rain on snow event that ramps up the snowmelt quickly. He said that it is more about the shape of how the runoff comes off rather than the volume. He said that we have below average runoff volume expected this coming April through August period but even in a below average year we can still initiate or have high flows and have an FRM operations in effect based on the shape of the runoff. It would be a rapid melt of some type to initiate that.

Ebel said a bit about the MCN Task Group. He said that he expected the Corps to have some of the homework done prior to the MCN Task Group next week. He asked, as well, if the Corps could have someone available for the Task Group that is doing the runoff

forecasting. He said that is something that is not typically in that group but is germane and actually necessary to discuss in this context.

Marshall said that the Corps would have to take that into consideration and see if they have someone available. He said that they would try.

Ebel said that there is all sorts of risk but one thing that is known is if we would like to try to make the best situation for fish at MCN waiting until absolute certainty of not exceeding a certain flow is going to miss the vast majority of fish.

- from Charles Morrill to everyone: 9:23 AM
- Aaron ... your model showing 400 Kcfs ... not publicly available ??

Marshall confirmed that this was the Corps' internal ESP, so it was not a publicly available model.

- from Charles Morrill to everyone: 9:22 AM
- Chris Perry ... any updates from Ryan and ERDC on looking at McNary model runs

Peery said that Ryan is in contact with Cody and he has given them a list of model runs that we would be interested in seeing. He said primarily the content was model runs that have already been done that we wanted to document and with the camera system get velocity measurements. He said adding to that would be the inclusion of Bay 18 spill patterns. He said that they will work on that, and they are trying to fit it into their schedule. Peery said that the caveat also depends on funding. Some of the funding is quite uncertain at this time so Ryan does not have that nailed down.

- from Charles Morrill to everyone: 9:24 AM
- does model show probability of that type of event

Marshall said no that he did not have any additional information to share on the probability of that. He said that it is just toward the higher end of the possible outcomes.

- | from Charles Morrill to everyone: 9:27 AM
- time frame for McN runs pending funding ... correct :

Stranz said that this was answered before that it sounded like not yet in the schedule for the model run.

Tony Norris, BPA, addressed Morrill's comment about the drop in MCN flows shown in the RFC forecast. He said that granted Morrill may not feel that the drop in flow is ideal but the only way to resolve that is to continue drafting Lake Roosevelt past the April 30. The drop in flows comes after the FRM draft is complete and refill begins. He said that the drop may be softened a little depending on refill timing, the release to refill, and the timing of the runoff. He said regardless, there is a drop in flows after the FRM draft is complete and the only way to resolve that would be to continue to draft.

Tom Lorz, Umatilla/CRITFC, said the other option would be to not keep drafting now but that would break FRM. Lorz said that he was hoping that the Corps would rerun

FRM and find out if they still think they need to go to the depth they do. He asked Marshall about the internal ESP runs. He said that the ESP runs are like 50 traces usually and Marshall had said that a few had hit 400 kcfs. He asked how many of them out of the 50 traces. He said that Marshall had said that it was the upper end. He asked if Marshall could give the region a sense of how likely the 400 kcfs would be to hit.

Marshall said that he did not have a count on that. He said that they had several traces that were popping up at different points in time from different year conditions. He said that it is at this point in time looking like it is a lower possible outcome. He said that he would also like to add that it is not uncommon to see observed conditions that go outside of the Corps' forecast traces. He said that there are certain conditions in the ESP traces that are not captured in that probability. He said that one event to highlight for this is June 2022. He said that the region had a below average runoff year but then we were hit with back-to-back atmospheric rivers in June, which is something that was never observed in the historical period of record. He said that we saw a significant exceedance beyond the top end of the Corps' ESP traces. The back-to-back atmospheric rivers passed through the basin and made it all the way up to the Flathead Basin. He said that this is a good one to keep in mind that the Corps' ESP traces do not capture all possible outcomes.

3. Set agenda for next meeting – April 23, 2025

Meeting Location: Webex

Today's Attendees:

Agency	TMT Representative(s)
NOAA Fisheries	Kelsey Swieca
Oregon	Erick Van Dyke
Washington	Charles Morrill
Kootenai Tribe	
Confederated Tribes of Colville Reservation	Dennis Moore
Umatilla Tribe (CRITFC)	Tom Lorz, Pete McHugh
Yakama Nation	Tom Iverson
Bureau of Reclamation	Chris Runyan
Army Corps of Engineers	Doug Baus, Aaron Marshall, Lisa Wright
US Fish & Wildlife Service	Dave Swank
Idaho	Jonathan Ebel
Montana	Brian Marotz
Spokane Tribe	
Nez Perce Tribe	Jay Hesse
Warm Springs Tribe	
Confederated Salish and Kootenai Tribes	
Bonneville Power Administration	Tony Norris, Ben Hausmann

Other Attendees (non-TMT members):

COE – Alexis Mills, Tom Conning, Jessika Solleder, Chris Peery

Oregon DEQ – David Gruen

Washington Ecology – Thomas Starkey

DS Consulting - Emily Stranz (Facilitator), Colby Mills

CorSource – Andrea Ausmus (BPA note taker, Contractor)