

# **COLUMBIA RIVER REGIONAL FORUM**

## **TECHNICAL MANAGEMENT TEAM**

June 29, 2005

### **FACILITATOR'S SUMMARY NOTES ON FUTURE ACTIONS**

Facilitator: Robin Harkless

The following notes are a summary of issues that are intended to 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.

#### **Comments on Notes**

Dave Wills, USFWS, will send suggested changes to the June 22 meeting to Cindy Henriksen, COE, and the revised notes will be posted to the web.

#### **Dworshak Temperatures**

The COE provided a graph temperature profile of the Dworshak forebay. The project is currently within 1' from full and filling. While there have been preliminary discussions between the COE and Nez Perce about operations in September, the COE requested additional discussion and feedback from the salmon managers for July and August operations. Dave Wills reported that this issue was discussed at FPAC earlier this week. Given current data and the status of the reservoir, the salmon managers recommended the project release 3-5 kcfs through July 4<sup>th</sup>, and ramp up to 7 kcfs on July 5<sup>th</sup>. They requested a follow-up TMT call next week to look at current temperature conditions and make further recommendations about how to proceed. The purpose of today's recommendation was to get ahead of rising temperature issues at Lower Granite.

It was clarified that the recommendation for the weekend would be to pass inflow (~3 kcfs). It was also clarified that the current outflow target temperature is 46-47°, which was acceptable to the salmon managers. The Nez Perce Tribe representative agreed with the salmon managers' recommendation, adding that releasing about 7 kcfs through mid-July would be beneficial. The action agencies agreed to implement the salmon managers' proposed operation, and TMT will revisit the issue during a conference call next week (7/6).

#### **Libby Operations**

SOR 2005-MT-1: Jim Litchfield, MT, presented this SOR which is based on the NPCC's recommendation put forth in 2003. Jim noted that last year the operation was implemented and provided excellent conditions for biological productivity. Stable flows were maintained through September, and Montana hopes to continue that effort again this year. The specifications are listed in the SOR, pertaining to Libby, Hungry Horse, and Grand Coulee operations, and there is a section on the ISAB findings from a science symposium held last year on the issue following discussions and implementation of the operation. At Libby, the flat flow through September would equal, from the COE's current estimates, about 13.6 kcfs. At Hungry Horse, the request is also for stable flows to 20' from full at the end of September. Finally, Grand Coulee refill would be limited to 1282-1285', with additional flows passed in September. The Grand Coulee piece

would be negotiated for future years, as Jim noted that, through other discussions, Washington has indicated particular concerns with specifying an elevation limit at that project.

Montana also requested that the action agencies explore water swap options with Canada. At this point, the COE has not been in negotiations about Kootenai Lake, and Cindy Henriksen, COE, noted that a Libby/Arrow swap is not likely this year given the conditions.

The COE reported that high inflows are continuing at Libby; the project is being held at full powerhouse and the COE is working to avoid fill and spill. Montana offered support for the current operation and does not suggest moving into the proposed operation while flows remain high. The Kootenai Tribe in Idaho and Salish Tribe in Montana support the Montana proposal and will likely sign on. This operation, with the intent of flat flows, would support implementation of the Kootenai Tribe's nutrient study.

NOAA responded that it needs to analyze the request in the context of this year's conditions, with more spill and more fish in the river. NOAA will run the model and have a rough analysis to report on next week. Montana cautioned that it will be difficult to analyze the operation's impacts on lower river fish without flow survival and other data. The COE will provide NOAA with current flow projections to use in the SIMPASS model. Jim Litchfield will request information from Brian Marotz, MT Fish Wildlife and Parks, on the requested operation's impacts/benefits to bull trout. It was noted (and some TMT members agreed) that the results of the analyses will be difficult to detect, and that the decision might be a policy call.

It was clarified that the Grand Coulee elevation range of 1282-1285' was incorporated to provide flexibility for BPA to operate the project. Another comment was made that in the proposal, 'normative' river should actually read 'flat'. Finally, BPA offered that the Montana proposal should pose no impact on rate payers.

SOR 2005-16: The USFWS and CRITFC presented this SOR, requesting that the action agencies operate Libby to maintain stable outflows while drafting to 2439' by August 31. Dave Wills, USFWS, suggested that this SOR is in line with the COE's previously stated intended operations. This, Dave clarified, is a technical recommendation, not a policy call. The operation is not intended to negatively impact bull trout, though Montana said there are concerns that this operation would potentially be harmful to bull trout, by removing nutrient sources without a flat flow in September. Jim Litchfield expressed frustration, saying that Montana would like to work with the USFWS to meet the needs of the fish, but at this point has not been successful. Dave Statler commented that nutrient deficiencies at Libby and elsewhere should be considered.

This SOR does not address Hungry Horse operations. At this point, the salmon managers were not prepared to comment on Montana's proposed Hungry Horse operations and will look at the proposal further. The action agencies commented that ramp rates are very restrictive at Libby.

**ACTION**: While some TMT members felt that how to implement Libby operations this year may be a policy decision, the group agreed that it would be important to gather as much useful information as possible, and will meet next Wednesday, July 6, to look at information and further

discuss the operating options. The following action items will be completed to help aid in that discussion:

- The COE will engage in discussions with Canada about the possibility of a water swap through Kootenai.
- NOAA will run a SIMPASS model with current flow projections and current conditions to analyze the Montana proposal and its potential impacts on Fall Chinook.
- Montana will gather information on how the proposed operation would impact/benefit bull trout.
- TMT members will notify their IT representatives that there may be a need for an emergency IT meeting next Thursday, July 7 (the IT changed their regular July meeting date to 7/14). Many thought the need was unlikely given the continuing high flows at Libby.
- The COE will continue to operate Libby to full powerhouse, avoiding fill and spill, while inflows remain high. If a reduction is needed between now and next Wednesday, outflows will drop to about 20 kcfs. Operations will be adjusted if needed based on Libby discussions at the July 6 TMT meeting.

### **Status of Summer Operations**

The COE reported that spill began on June 20 at Lower Granite, Little Goose, and Lower Monumental, and spill changes were made at Ice Harbor. Graphics were provided, showing power generation, spill caps, and tailwater and forebay TDG at each of the projects. The COE's objective at each project is to spill to the gas standard. Adult passage issues at Little Goose have prompted the action agencies to work with the Plaintiffs to find an operation that will help the fish find the ladders and pass the dam. Per those discussions, the COE is operating Little Goose at 50% generation, 50% spill from 5am-9pm, then spilling to the gas cap at night; this operation seems to be working so far. Lower Granite and Ice Harbor are alternating operations for RSW tests as well. Lower Monumental is spilling to the gas cap. McNary spill is set to begin on July 1, with 50 kcfs through the powerhouse and spill to the gas cap. The COE will continue to graph the operations and present them to TMT at future meetings.

Jim Adams, COE, noted that exceedances have been occurring at the forebays, particularly at Lower Monumental and Ice Harbor. The COE expects that gas caps may need to be reduced due to this under-estimation, and will continue to make adjustments day to day. TMT members expressed appreciation for the COE's efforts with summer spill operations this year.

### **Feedback on Emergency Protocols**

As follow-up from last week's TMT meeting, it was clarified that the priority actions list relate to the emergency protocols, finalized in 2004 in Appendix 1 of the WMP. The list presented is specific to this water year and the action agencies would like feedback from the salmon managers so operators can use the list as guidance in the event that a short-term emergency occurs in the system. John Wellschlager, BPA, said that the list will need to be used at some point, and that certain instances will require taking action further down the list.

The salmon managers have had some discussion and will provide more definitive feedback/a revised list before the next TMT meeting. At this point, they suggested that actions should provide tiered reductions in spill at more than one project before reducing spill to zero at one

project. It was clarified that ‘short term’ is less than half a day, and that if a longer-term emergency occurred, TMT would hold an emergency meeting to discuss the issue.

### **McNary Transport Operations**

McNary transport operations began on June 20, with a minimum of 20 kcfs spill for 24 hours and some involuntary spill with the high flows. The project will begin spilling to the gas cap on July 1.

### **System Operations Review**

*Reservoirs* – Libby is passing inflows, and expected to do so through next weekend. The project is within 2.5’ from full and filling. Grand Coulee is at 1288.2’ and is expected to reach full on Monday, July 4. Hungry Horse is at 3559.7’. The BOR is providing 427 kaf for flow augmentation this year.

**ACTION:** Tony Norris, BOR, will provide the break-down of the flow augmentation numbers at a future TMT meeting. This will meet the Nez Perce agreement.

Dworshak is at 1599.7’ and passing inflow over the weekend (inflows were 3.7 kcfs on 6/28). Season average flows at Priest Rapids were 119 kcfs, 195 kcfs at McNary, and 66 kcfs at Lower Granite.

*Fish – Juveniles:* Subyearling numbers decreased just after spill began, as did yearling numbers, so passage is occurring with the spill operation. McNary subyearling numbers are high; subyearling passage is early this year.

*Adults:* Adult numbers at Little Goose dropped when spill began, and the action agencies are working with the Plaintiffs to resolve this issue through alternative operations. At this point, there is no single factor that is standing out to explain the difference between the low spring chinook adult numbers and average summer chinook adult numbers, which are tracking as expected (62,400 counted).

*Power system* – CGS will likely be back on line on July 1. This will be the third attempt to get it up and running.

*Water quality* – The Lower Columbia has seen just one TDG exceedance, at the McNary forebay.

**Next Meeting, July 6 Conference Call, 9:00 am:** Agenda items include:

- Libby/Hungry Horse Operations
- Dworshak Temperatures/Operations
- Emergency Protocols List

## **1. Greetings and Introductions.**

The June 29 Technical Management Team meeting was chaired by Cindy Henriksen and facilitated by Robin Harkless. The following is a summary (not a verbatim transcript) of the topics discussed and decisions made at this meeting. Anyone with questions or comments about these minutes should contact Henriksen at 503/808-5945.

## **2. Dworshak Water Temperature and Flow.**

Henriksen said that, as this is June 29, tomorrow is the refill date for Dworshak; the project is at 1599.6 and filling. Normally, this is the time of year the salmon managers provide their input on Dworshak temperature and flow. We have been discussing this topic with Dave Statler and the SRBA board, but we wanted to give the salmon managers an opportunity to provide us their feedback, she said.

The salmon managers would like to recommend that Dworshak release 3-5 Kcfs through the weekend, increasing to 7 Kcfs on July 5, Wills said; we will then revisit this topic at a conference call next week. We would like to start to get a jump on the water temperature situation; the current Dworshak release temperature of 46-47 degrees F is acceptable. And is passing inflow over the weekend acceptable? John Wellschlager asked. It is currently in the 3 Kcfs+ range. That is acceptable, was the reply.

Statler said that, from the perspective of the Nez Perce Tribe, passing inflow through July 4 is fine, as is bumping up Dworsahak outflow to 7 Kcfs on July 5. We also think a conference call to review the water temperature situation at Lower Granite on July 6 would be appropriate, he said – we don't want to see water temperatures get out of hand early. The action agencies agreed to implement this operation as requested.

Henriksen noted that a graph showing Dworshak reservoir temperatures is available via hot-link from today's agenda on the TMT homepage.

## **3. Libby Operations.**

Jim Litchfield said that, as promised, Montana has submitted an SOR covering Libby and Hungry Horse operations, requesting operations that closely mirror the Council's recommendations. Last year's operation was excellent; Brian Marotz told me it produced the best biological conditions below the project he has ever seen. This SOR is intended to continue that operation, and produce the same conditions this year.

Litchfield then went briefly through the specifications of SOR 2005 MT-1, which include:

Hungry Horse

- maintain minimum flows for bull trout (expected to be 3.25 Kcfs at Columbia Falls and 483 cfs from Hungry Horse)
- Refill by about June 30
- Fill Hungry Horse by June 30. Following refill, USBR will use its hydrologic models to estimate a flat flow that will draft Hungry Horse by 20 feet by September 30
- Attempt to provide even or gradually declining flows at Columbia Falls during the draft (minimize double peak)
- Limit spill to avoid exceeding the Montana state TDG standard (110%)

#### Libby

- As inflows drop below current turbine capacity and the reservoir approaches full, establish a flat flow using the Corps' hydrologic model. This model is currently projecting that a flat flow of 13.6 Kcfs would draft Libby to elevation 2439, 20 feet from full, by September 30.
- Operate to provide at least minimum bull trout flows from Libby during September.
- Provide even or gradually declining flows through the summer months (no double peak).
- Investigate the possibility of a storage exchange with Canada to reduce summer flows from Libby.

#### Grand Coulee

- Limit September refill to elevation 1282-1285 feet to assure that additional September flows from Libby and Hungry Horse are passed through Lake Roosevelt.

The overall goal is to produce the most stable possible operating conditions below Libby and Hungry Horse through the summer period, and to avoid a double peak, Litchfield explained. Essentially, we're asking for a repeat of what we did last year, because it resulted in excellent biological conditions in Montana, he said.

You refer to an exchange with Canada, said Paul Wagner – is that a Libby/Arrow swap? That will be up to the action agencies, Litchfield replied – have there been any discussions with Canada? There have been some, Henriksen replied, but a Libby/Arrow swap is unlikely this year, because Arrow is still 20 feet from full. A Libby/Kootenay swap is possible, but unlikely. We're looking at holding Libby at full powerhouse capacity for another week or so, because the project is two feet from full and inflows are still in the 30 Kcfs range due to recent rain events. Outflows could stay as high as 20 Kcfs through July and August, she added. We understand, said Litchfield; our main concern is to maintain a steady flow once you begin to draft the project. He added that he has

heard this morning that both the Kootenai Tribe of Idaho and the Salish-Kootenai Tribe support this SOR and the operations it requests.

Will it be possible to work out an agreement with the Canadian entities to release more flow in July and August, with the understanding that our releases during September will help their refill? Russ Kiefer asked. Last year the Canadians were willing to limit Kootenay Lake refill in September, Litchfield replied – we'll have to see what we can get them to agree to this year. If the action agencies are willing to limit refill at Grand Coulee to 1285, as requested, that will help anadromous fish flows through the summer period, he added.

Ron Boyce said the salmon managers are concerned about the effects of refilling Grand Coulee from 1278 to 1285 during September on downstream flows. Wagner said NMFS has not yet had time to fully analyze Montana's proposed operation; however, they had an opportunity last year to use SIMPASS to look at flows, temperature and the flow-survival relationship through John Day pool, and the operation had a small negative effect last year. We need to re-run that analysis, and will do so next week, he said; perhaps we can revisit Montana's proposed operation at next week's TMT meeting. One other process issue, he said – the BiOp does have some flexibility in terms of changed operations; however, if that different operation results in a negative impact, are there any plans to provide an offset? Litchfield replied that there are considerable uncertainties inherent in the flow/survival relationship, including the influence of the undetected "holdover" Snake River fall chinook that appear to comprise half of the returning adults for that stock. I think you should do the analysis, he said; the SOR is not time-critical today, given the fact that inflows continue to be so high at Libby. We'll try to have the SIMPASS results by next Tuesday, Wagner said.

What do you expect the SIMPASS analysis to show? Cindy LeFleur asked. I expect to see a larger effect, given the fact that there are more in-river migrants in 2005 than there were in 2004, Wagner replied. The model showed a 1.6% reduction in survival due to the Montana operation in 2004; we expect that will increase, said Wagner. Why did you limit your analysis to John Day? Kiefer asked – won't the effects extend all the way downstream? Yes, Wagner replied; however, John Day is the longest pool, and the most free-flowing mainstem reach. If you're going to see a change in velocity, that's where you would see the greatest impact, he explained. In response to a request from Boyce, Henriksen said it would be possible for the Corps to analyze the potential impacts of Montana's requested operation on flows through the lower river. Wagner said NMFS' analysis showed about a 7 Kcfs reduction in lower river flow as a result of the 2004 operations at Libby and Hungry Horse during July and August.

Kiefer asked whether Montana can provide an analysis of the expected benefits of Montana's proposed operation for listed bull trout in Montana; Litchfield replied that this should be possible. Kiefer observed that, essentially,

implementation of SOR 2005 MT-1 is going to be a policy, rather than a technical, decision; in all likelihood, the decision on this issue is going to be bumped to the Implementation Team. Harkless noted that the July IT meeting has been bumped to July 14, so if a faster decision is needed, it might be a good idea for the TMT participants to inform their IT representatives that a conference call may be needed next week. Montana would prefer to have this issue resolved prior to July 14, Litchfield said.

The group devoted a few minutes of discussion to the September refill target at Grand Coulee; Litchfield noted that whatever refill elevation is achieved will primarily result from natural runoff conditions in the basin, more than human operations. Kiefer observed that, while the SOR frequently mentions the creation of “normative” river conditions; in fact, what is being proposed is a flat flow through September, rather than the steadily-receding hydrograph you would see under natural conditions. That’s true, Litchfield replied. In response to a question, Wellschlagler said Montana’s proposed operation is essentially revenue-neutral for Bonneville.

The discussion then turned to SOR 2005-15. This SOR, supported by USFWS and CRITFC, requests the following specific operations:

- Draft Libby Reservoir to elevation 2439 by August 31

Essentially, the salmon managers, after discussing current and projected in-river conditions and the status of the outmigration, we feel that drafting Libby to elevation 2439 by August 31 would be the most beneficial operation, biologically, in 2005, Wills said. So in the best professional judgement of your agency, this recommended operation would have no negative impact on bull trout? Litchfield asked. None that has been communicated to me, Wills replied. That is quite troubling to the State of Montana, said Litchfield, given the fact that the Fish and Wildlife Service is the agency that is tasked to protect the bull trout – we believe the Mainstem Amendment should be implemented.

What information does Montana have that indicates that Montana’s requested operation would be more beneficial for bull trout? Boyce asked. It would be helpful if we could have an informed discussion of the biological pros and cons of the two alternative operations. We have provided that information in the past, Litchfield replied, and can do so again. However, as Russ Kiefer observed, essentially, this is going to boil down to a policy call. In response to a question, Greg Hoffman said the primary benefit of Montana’s requested operation is increased productivity during September. While that assessment is largely intuitive and anecdotal, because the State of Montana didn’t have the funding to measure river productivity during September 2004, to a biologist, the increase in September productivity was obvious. The problem with the operation requested in SOR 2005-15 is that it maintains a flat Libby outflow of 20 Kcfs during July and August, watering up a significant amount of habitat. It would then

abruptly drop Libby outflow to 7 Kcfs on September 1, desiccating much of that wetted perimeter and killing off the aquatic insects the bull trout feed on, Litchfield said.

Does the fact that your SOR does not mention Hungry Horse mean you're OK with Montana's proposed Hungry Horse operation? Litchfield asked. We just saw that proposed operation this morning, Wills replied – we'll need to look more closely at what you propose and talk about it in-house, and with CRITFC.

After a few minutes of further discussion, it was agreed to revisit this topic, and the additional information requested, at next week's TMT conference call. Harkless reiterated that it is likely that an IT conference call will be needed next week; she again encouraged the other TMT participants to give a heads-up to their IT representatives. It may be that this issue can wait until July 14, said Litchfield; however, if inflows drop precipitously, that could be a problem. We don't want to see Libby and Hungry Horse outflows drop sharply, then come up again. In response to a question from Bob Heinith, Henriksen said the Corps will begin to explore an agreement under which the water from Libby would be passed through Kootenay Lake in September.

In the interim, it was agreed that the Corps will continue to operate Libby and Hungry Horse as planned; once inflows begin to recede, the action agencies will reduce outflow to no lower than 17 Kcfs until a decision is made on summer operations at those projects. It was agreed that the TMT will revisit this topic at next week's conference call, which will begin Wednesday morning at 9 am.

#### ***4. Status of Summer Operations as a Result of Recent Court Rulings.***

Henriksen said the action agencies started spill on June 20 at Lower Granite, Little Goose and Lower Monumental; spill has also begun at Ice Harbor. The Corps provided information on total river flow, spill volumes, and forebay and tailwater TDG levels at each project. There have been issues with adult passage at Little Goose, Henriksen said; adult counts fell significantly after June 20. We have been discussing some changes in operation at Little Goose with the plaintiffs, she said; last night, it was agreed to spill half of the river, and generate with half of the river, from 5 am-9 pm, to reduce the eddy and help the adults find the ladder. The fish counter at Little Goose reported some increase in adult passage at Little Goose, so the 50% spill operation is back in effect today, Henriksen said.

Henriksen added that Lower Monumental continues to spill to the gas cap, while RSW testing is influencing spill operations at Ice Harbor and Lower Granite. She directed the TMT's attention to the hot-link to this item on today's agenda on the TMT homepage, which summarizes hourly flow, spill and TDG information for each project. In response to a question from Litchfield, Henriksen said Judge Redden's order allows some operational flexibility, as long as agreement can be

reached with the plaintiffs; this change in Little Goose operations was coordinated with the plaintiffs and the Department of Justice.

Henriksen added that, beginning Friday morning, July 1, McNary will spill total river flow above the station service generating minimum of 50 Kcfs, up to the TDG waiver limits. Jim Adams briefly reviewed the water quality conditions resulting from the court-ordered summer spill operations, noting that the Corps has been monitoring the TDG data closely, and has had to make a number of adjustments to the spill volumes at the Lower Snake projects to keep them in compliance with the TDG waiver limits. Despite the Corps' best efforts, however, a number of exceedences have occurred. We appreciate the fact that this is a difficult job, and appreciate the good job the Corps is doing, said Kiefer.

In response to a question from Litchfield, Henriksen said the Corps will monitor the adult passage situation at Little Goose today, and if no response is seen, in terms of increased adult passage, then the Corps will coordinate with plaintiffs to change the spill operation at Little Goose again tomorrow.

#### ***5. Feedback on Emergency Protocols.***

Wellschlager asked whether the other TMT participants had any feedback on the list of emergency response protocols he provided at last week's meeting. Henriksen noted that the reason such lists have been developed in the past have been in response to sudden changes in conditions – reductions in flow, transmission system problems etc. Generally, there are procedures in place to guide how and when emergencies are declared; there is also a spill priority list and an emergency action plan, included as appendices. In other words, the list of emergency protocols has been in existence for several years, Henriksen said; there is no reason, however, why the TMT should not develop a year-specific list of emergency protocols.

I guarantee that there will be times when we need to lean on this over the summer, said Wellschlager. Assuming that we can agree to a sequence of actions, or a prioritized list, our schedulers will do their best to honor the sequence. There could be instances, however, when the schedulers will have to move outside the sequence, and go further down the list, in order to solve a specific problem.

Wills said the salmon managers have had some discussion of the list of emergency protocols, but have not yet reached consensus. If you would like more time to discuss it, by all means take it, said Wellschlager – just bear in mind that this is the list we're using today, and if an emergency arises, this is the list we will use. Understood, said Wills. We'll revisit this issue next Wednesday, said Boyce.

In response to a question, Wellschlager said that, 90% of the time, emergency situations persist for half a day or less. Any more lengthy emergencies will be closely coordinated with the salmon managers, he said. Kiefer reiterated Idaho's recommendation, from last week's meeting, that Bonneville spill not be reduced to zero in response to an emergency – Idaho would prefer to see proportional reductions in spill at several projects, rather than zero spill at Bonneville.

## **6. McNary Transport Operations.**

Henriksen said transport started at McNary on June 20. We have continued to spill 20 Kcfs minimum around the clock at McNary since transport operations began; on Friday, we will begin the court-ordered spill at McNary, spilling the remainder of river flow above the 50 Kcfs station service minimum.

## **7. Operations Review.**

Henriksen said Libby is at elevation 2457, two feet from full and releasing full powerhouse capacity, about 25 Kcfs, with 30 Kcfs inflow. Libby is filling slowly. Norris said Grand Coulee is at 1288.2 feet, and is expected to fill over Fourth of July weekend. At Hungry Horse, the current elevation is 3559.7 feet, creeping up on full; we have reduced discharge slightly, and are preparing to fill and spill. We will be providing 427 kaf of flow augmentation from the Upper Snake system this year, Norris added – we're actually discharging water from Milner already, at 1.5 Kcfs.

Dworshak was at 1599.7 feet as of midnight last night; we will be passing inflow of 3-5 Kcfs through the holiday weekend. For April 10-June 22, at Priest Rapids, average flow was 119 Kcfs; at McNary, 195 Kcfs; for the spring period at Lower Granite, it was 66 Kcfs. Do you want to see a 3 Kcfs minimum outflow at Dworshak even if inflows fall below 3 Kcfs? Cathy Hlebechuk asked. That would be our desire, Wills replied.

Moving on to fish status, Wagner said both yearling and subyearling numbers dropped dramatically at Lower Granite, Little Goose and Lower Monumental once spill began; what that means is that fish passage via spill is happening, in a big way. Subyearling indices have continued strongly at McNary, in the 300,000-400,000 range. There are both wild and hatchery fish passing the project, currently, including Snake River, Hanford Reach and Ringgold Hatchery fish. Wagner said cumulative passage at Lower Granite has increased earlier than normal this year; at McNary, things are pretty much on-schedule.

Moving on to adult passage at Little Goose, Wagner said the daily indices prior to June 20 were on the order of 500-600; once spill started, those numbers went down to double digits. You think spill operations are affecting the ladder entrances? Litchfield asked. Correct, was the reply. LeFleur added that the US v.

Oregon technical advisory committee looked at the status of the summer chinook run yesterday, and found that it is tracking very close to the pre-season estimate of 62,400 fish.

Why is that run performing up to expectation, while the spring chinook run was so horrible? Litchfield asked. Good question, LeFleur replied – the two stocks have different life-histories, which may be having an impact. Kiefer noted that a large proportion of the Upper Columbia summer chinook outmigrated as subyearlings in 2002, while the Snake River spring chinook outmigrated as yearlings in 2003 – it is possible that ocean conditions were better in 2002. LeFleur added that the TAC will be investigating what happened to the 2005 spring chinook run later this year. NMFS has concluded that there was no single factor – ocean conditions, marine mammal impacts, forecasting error – that was clearly responsible for the dramatically-reduced 2005 spring run. There are some indications that ocean conditions have changed, but they don't appear to have changed dramatically enough to account for the low 2005 return, said LeFleur. In response to a question, she said smelt also did not show up in the numbers expected this year – we don't really know where the spring chinook go in the ocean, but maybe they go where the smelt go.

Wellschlager said CGS is scheduled to return to the grid on July 1.

Moving on to water quality, Adams said that, since the last TMT meeting, there was a single water quality exceedence reported at McNary.

**8. Next TMT Meeting Date.**

The next meeting of the Technical Management Team was set for Wednesday morning, July 6. Meeting summary prepared by Jeff Kuechle.

**TMT Participant List**

**June 29, 2005**

<b>Name</b>	<b>Affiliation</b>
Cindy Henriksen	COE
Robin Harkless	Facilitation Team
Paul Wagner	NMFS
Dan Bedbury	EWEB
Ron Boyce	ODFW
John Wellschlager	BPA

Jim Litchfield	Montana
David Wills	USFWS
Ray Gonzales	COE
Jim Adams	COE
Tony Norris	USBR
Cindy LeFleur	WDFW
Russ Kiefer	IDFG
Cathy Hlebechuk	COE
Russ George	WMCI
Nic Lane	BPA
Dan Spear	BPA
Laura Hamilton	COE
Dave Statler	NPT
Tim Heizenrater	PPM
Tom Haymaker	PNGC
Lee Corum	PNUCC
Dave Benner	FPC
Margaret Filardo	FPC
Kevin Nordt	Mid-Cs
Greg Hoffman	COE
Jeff Loughley	COE
Lance Elias	PPL
Ruth Burris	PGE
Bruce MacKay	Consultant
Glenn Traeger	AVISTA
Bruce Suzumoto	NWPPCC
Tom Lorz	CRITFC