

**TECHNICAL MANAGEMENT TEAM
MEETING NOTES**

August 24, 2000

**CORPS OF ENGINEERS NORTHWESTERN DIVISION OFFICES – CUSTOM HOUSE
PORTLAND, OREGON**

DRAFT

FACILITATOR'S NOTES

Facilitator: Jacqueline Abel

The following is a list of items that the Technical Management Team (TMT) discussed at its meeting on August 24, and that will require future action or discussion, some of them before the next TMT meeting. For a more complete discussion of agenda items, see the meeting minutes when they are posted on the TMT homepage.

1. MINUTES. Any corrections or additions to the minutes of the August 17 TMT meeting should be sent to Cindy by 5 PM on August 25. The notes for the August 21 Emergency TMT conference call were posted on the TMT homepage the morning of the 24, so they will be reviewed at next week's TMT meeting.

2. McNARY TEMPERATURE TEST. There was nothing further to report this week, and Scott Boyd indicated that any recommendation that might come out of the test would go to FPOM, and be considered for the next Fish Passage Plan.

3. PRIORITIZATION LIST of FCRPS Operations Which May Be Used During a NW or SW System Reliability Event, Revised as of 8/10/00. TMT had an extensive discussion about the use of the priority list(s) during recent emergency situations, and how such prioritizations could help them make decisions in the future. There appeared to be agreement that having such a list was useful, and that it should be used as a starting point, then be prioritized for each emergency rather than implemented in the same order each time. It would be useful to have documentation (after the emergency) about what steps were actually implemented and in what order.

Cindy agreed to make a new version of the "list" which would include these changes:

(a) Insert in the title after the word operations: "arranged in an order to reduce biological impact" and put the date of 8/24/00 on this version (b) add a new sentence after the title to explain that this list should be viewed as a starting point, then be prioritized for each emergency rather than implemented in the same order each time (c) #8 delete "draft at 1.5 ft/day" and insert "draft Coulee to 1280" (d) #25 delete "increase to 2 ft/day draft" (e) delete the entire second footnote about the fire at GCL because it is out of date. Scott agreed to add information about what steps

were implemented and in what order to the email he is sending out to TMT after an emergency is over.

4. TMT PROTOCOL FOR DECLARING EMERGENCY OPERATIONS. Cindy distributed a new version of the protocols, but needs additional time to add some more detailed language to Section E (2) to replace the proposed language that says "Additional emergency actions will be taken as necessary". It was decided to put this on next week's agenda after Cindy sends out another version to TMT members via email in advance of the meeting.

5. NMFS FISH MITIGATION MEASURES. NMFS reported that they had reviewed the emergency operations through August 10 and that no offsetting measures are warranted for that period. They have not reviewed the more recent emergency actions, and this item will be on the August 31 agenda.

6. LIBBY OPERATIONS IN SEPTEMBER. After some discussion of this item, BPA and the COE agreed that their baseline for planning through the end of September would be to at 8,000 KCFS. They will come back to TMT if there are changes.

7. RECOMMENDED OPERATIONS. SOR #2000-30 was discussed and the COE and others said they needed more time and information to assess this request, since it was received just before the meeting. A smaller group of representatives of NMFS, the COE, Idaho (Steve Pettit), USF&W, CRITFC (Kyle Martin) and the Nez Perce (Dave Statler) will exchange information and meet on Monday to see if they can reach agreement regarding the study proposed in this SOR.

Cindy will set up a conference call on Monday afternoon and notify those involved. Paul agreed to send the information supporting the SOR, including modeling and the "Evaluation of Adult Salmon, Steelhead, and Lamprey Migrations Past Dams and through Reservoirs in the Columbia River and Tributaries, Adult Salmon and Steelhead Study Plan 2000" cited in the SOR, by Friday at the latest. Cindy will send out the modeling that the COE has done with different assumptions also by Friday. Cindy and Paul agreed to talk further about what degree of coordination the COE would like to make sure has happened with the Nez Perce and Idaho.

TMT empowered this small group to resolve this issue if possible, on Monday. If it isn't resolved, the COE said that their default operation would be to operate Dworshak to 1520 by August 31 and then operate on minimum flow in September. It was agreed that NMFS or USF&W could raise this to the IT, if they choose to after Monday's meeting, without convening another TMT meeting or call.

Jim Litchfield will continue to coordinate with Kim about Montana's tests.

8. STOPPING SPILL FOR END OF SEASON. BPA asked whether spill could stop at Ice Harbor. Co-managers asked that BPA continue spill until FPAC has a chance to discuss this next Tuesday, and it will be put on the next TMT agenda.

9. TRIBAL FISHING SEASON. Kyle Martin will send an email to TMT member about the dates for the tribal fishing season, regarding CRITFC's SOR #2000 C-4.

10. NEXT MEETING. TMT agreed to meet at the COE office next week for an "in person meeting". The conference call-in line will be available for those who cannot attend in person.

AGENDA items (in addition to the regular items involving system operations) for August 31 noted at this meeting included:

- * NMFS Fish Mitigation Measures for period since August 10
- * Revised version of language changes to the Protocols for Emergency Operations
- * Stopping spill at Ice Harbor
- * Ending MOP operation at Ice Harbor, Lower Monumental and Little Goose

REMINDER: TMT is planning a field trip on September 7, 2000, to Hardy Creek and Pierce Island. A meeting room has been reserved at Bonneville Dam and field personnel will be ready to conduct a tour.

I. Greeting and Introductions

The August 24 Technical Management Team meeting, held at the Custom House in Portland, Oregon, was chaired by Cindy Henriksen of COE and facilitated by Jacqueline Abel. The following is a distillation, not a verbatim transcript, of items discussed at the meeting and actions taken. Anyone with questions or comments about these minutes should call Henriksen at 503/808-3945.

Abel welcomed everyone to the meeting, then led a round of introductions and a review of the agenda.

II. Review of Minutes from August 17 TMT Meeting and August 21 Conference Call.

Abel asked that any changes to the minutes from the last TMT meeting or conference call be submitted to Henriksen by close of business Friday, August 25.

III. McNary Temperature Test Update.

Scott Boyd said there is little new on this topic this week; Dave Hurson and Paul Hoffarth are still planning to develop a series of draft protocols for McNary operations during the late-summer period for inclusion in next year's Fish Passage Plan. Until that proposal is developed, however, there isn't much to discuss, said Boyd; Hurson is very busy reviewing the draft Biological Opinion at the moment. Unless we start to see very high mortality at McNary, there probably isn't much we need to do with this right away, he said.

IV. Emergency Protocols.

The group briefly discussed the emergency actions list, which has gone through a series of iterations at previous TMT meetings and conference calls; Kim Fodrea asked that Item 8 (the 1.5-foot-per-day draft at Grand Coulee) be amended to incorporate a draft limit of 1280 feet at that project. She also asked that Item 25 (increase Grand Coulee draft to two feet per day) be amended to include a draft limit of 1278 feet. Somewhere in between those two items, said Fodrea, I would also suggest that we insert a draft to elevation 1279 -- perhaps Item 16 or 17. Mainly, she said, I just wanted everyone to understand that there is some flexibility to draft Grand Coulee below elevation 1280 under certain emergency circumstances.

Scott Bettin noted that there has been some confusion about the fact that the emergency actions list has not been followed in order during the recent emergencies; that's because each emergency is different, and while this is a rough list of biological priorities, intended to provide guidance, all of these items won't necessarily be used, in order, for each emergency -- we have to take actions that fit the situation, he said. It may be simpler just to delete the word "prioritized," and possibly add an explanatory paragraph to this document, articulating how the list will be used, Bettin suggested. As long as the action agencies can provide a written explanation of what steps were taken, and why, after the fact, that would probably be acceptable, said Marv Yoshinaka. We can provide that, Bettin relied.

After a few minutes of discussion, it was agreed that the TMT will refine this list further during the post-season review and pre-season planning periods. It was agreed to delete the word "prioritized" and insert the sentence "...arranged in biological order, with the intent of reducing biological impacts," as well as a sentence articulating the fact that this list is intended as a starting-point for developing actions in response to power system emergencies, and that the action agencies, with TMT's input, will draw actions from the list in whatever order is most appropriate for a particular emergency. Henriksen agreed to make these changes, and distribute the revised list of emergency actions to the TMT via email. She added that she will make the first two changes requested by Fodrea (after a few minutes of discussion, it was agreed not to make the third change, draft Grand Coulee to elevation 1279, at this time). It was also agreed that, at the conclusion of an emergency, BPA will produce a memo (to be distributed to the TMT membership via email) explaining what actions were implemented and why.

With respect to the emergency notification list, Bettin said he has received no further additions to the list. If anyone else needs to be on the list, said Abel, please email that information to Scott Bettin.

Henriksen noted that she had revised the most recent emergency actions list to incorporate comments made at last week's TMT meeting. Fodrea said the comment at the bottom of the list regarding the fire at Grand Coulee can now be deleted.

V. Discussion of NMFS Fish Mitigation Measures.

At last week's TMT meeting, we talked about the possibility of requesting mitigation for the actions that have taken place for the emergencies through August 10, said Wagner; the

feeling at NMFS is that, for the emergencies that occurred through August 10, no offsetting measures are warranted. We have not yet reviewed the current emergency, Wagner said, but we will be taking a look at any mitigation measures we feel may be necessary. Wagner said he will report back to TMT once that review is complete and NMFS has reached a decision.

VI. Power System Emergency Update.

Bettin said the most recent power system emergency mercifully started and ended briefly. On Monday, he said, it looked as though BPA would not be able to purchase enough power to meet the requested load from California. However, said Bettin, by Tuesday, people were knocking on our doors wanting to sell us power. We'll hope that the cooler temperatures in California continue, he said, because a one-degree difference in California can make a 1,500 MW difference in load. We were able to restore normal fish operations in the FCRPS by 10 a.m. Tuesday, he added.

During this particular event, conditions were very different than in previous emergencies, Bettin added. Our response to the previous emergencies was limited primarily by Intertie capacity, he said; again, this time, we didn't think we had enough access to energy, but it turned out we were able to purchase enough power through the end of the month to avoid drafting Grand Coulee below elevation 1280, or increasing the draft at other projects. It was basically an example of the fact that BPA will buy its way out of an emergency if it possibly can, Bettin said. Henriksen noted that the minutes from Monday's emergency conference call are available via the TMT website.

VII. Libby September Operations .

Henriksen said the Corps is in the process of evaluating how best to get from the end-of-August elevation at Libby to elevation 2411 by the end of December, and has modeled various flow scenarios designed to get us there. We didn't find a lot of flexibility, she said; basically, it looks like we'll need to release 10 Kcfs-11 Kcfs during December in order to achieve that elevation, and there doesn't appear to be a lot of flexibility to make Libby outflow higher or lower, given current low-flow conditions and the fact that we don't know when the rains will begin this fall.

Jim Litchfield said he has been discussing this operation with his clients in Montana; essentially, they favor a very gradual rampdown, starting with a reduction from 8 Kcfs to 7 Kcfs outflow. If we can hold 8 Kcfs through September, that would be preferable, he said. Bettin noted that it will be necessary to release minimum outflow from Libby for an extended period beginning January 1 in order to meet the April 10 refill target at that project if the January water supply forecast is below average. After a brief discussion, it was agreed to hold 8 Kcfs outflow for the present time, and to discuss this operation further once a change is necessary.

VIII. Current System Conditions.

Fodrea said the current Grand Coulee elevation is 1281.5; there are now four pumps back on line at Banks Lake. Over the weekend, she said, we were able to increase Banks Lake elevation to 1565.5, and have since reduced pumping somewhat. Unit 1 in the left powerhouse is now back on-line, which allowed us to restart two pumps at a time, she said; it is somewhat problematic to start and stop those pumps. With four pumps online, we are now able to keep up with irrigation demand, Fodrea added.

At Hungry Horse, Fodrea continued, current elevation is 3542; the project is releasing 5 Kcfs. The plan is to reduce discharge further next week; Hungry Horse will be at minimum outflow (3.5 Kcfs) by August 31. Montana is collecting wetted perimeter data below the project as discharge recedes, Fodrea added. If we need more data points, it may be necessary to vary the Columbia Falls minimum flow for a couple of hours, said Litchfield – we'll talk further if that appears to be necessary.

On the Payette, we're still on track to deliver the full flow augmentation volume, said Fodrea, adding that the problem with the accounting on the Boise system, referenced at last week's TMT meeting, has now been resolved. On the Upper Snake, normally, as we approach the end of the flow augmentation period, we include a gradual rampdown for snails, she added; this year, Idaho Power would like to drop flows abruptly to minimum (200-300 cfs) as soon as the flow augmentation volume is out. We settled that dispute, but we're going to have to retain a small portion of the Upper Snake flow augmentation volume in order to accomplish a more gradual rampdown, she said, adding that this rampdown operation shouldn't have much of an impact on Snake River flows. If you have a problem with this operation, she said, I would suggest that you contact Idaho Power directly.

Henriksen said current Hells Canyon discharge continues to be about 8.9 Kcfs; Brownlee is approaching elevation 2045. At Dworshak, as a result of the conference call on Monday, we stopped spill, and are releasing 10.5 Kcfs through the powerhouse. Current elevation at the project is 1528. The current plan is to reduce flow over the weekend to 8 Kcfs, then down to 4.8 Kcfs on Tuesday, which will take us to 1520 on August 31, Henriksen said.

Last week's average flow at Lower Granite was 27 Kcfs, Henriksen said; average flow at McNary was 148 Kcfs, and in general, flows are continuing to recede.

The spreadsheet shows an average flow of 121 Kcfs at McNary for the week ending August 27, said Chris Ross – is that still accurate? It's probably pretty close, Bettin replied.

Dick Cassidy said there is little to report on the TDG front this week; we stopped spill at Dworshak, as Cindy mentioned, and we spilled to the cap at Bonneville. We were below 115% at Camas/Washougal last week. On the water temperature front, Cassidy said average release temperatures at Dworshak continued to be a fairly constant 48 degrees. He noted that even five miles downstream from Dworshak, air temperatures are starting to have an effect on water

temperature. At Lower Granite forebay, for a good part of last week, there was a cooling trend, but temperatures have started to creep up again over the last few days, Cassidy added.

On the fish migration front, Wagner reported that subyearling chinook indices are declining at Lower Granite (to 1,500-2,000 fish per day) as we near the end of the season. At McNary, we went from an index of about 40,000 fish per day to fewer than 20,000 last week. In general, he said, the migration is continuing, but is falling with flows and chronology within the season.

At Lower Granite, the most recent cumulative index shows that we're approaching the lower confidence interval, Wagner said; at McNary, the cumulative index continues to rise. He said Snake River wild fall chinook indices were very low last week at both McNary and Lower Granite – at Lower Granite, the last wild fall chinook was reported on August 13, and we've been seeing daily indices of 1-2 at McNary over the past week or so. It sounds as though it may be time to consider stopping spill at Little Goose, said Bettin – the run has been flat-lined for the past week or so.

On the adult front, with respect to fall chinook at Bonneville, we're seeing very large numbers for this point in the run – about 5,000 fish per day, Wagner continued. They're also counting about 4,000 steelhead per day at that project, he said – again, large numbers for this time of year. A few fall chinook are starting to show up at Ice Harbor, he said – 269 so far, to date. A few steelhead are showing up in the Snake as well – 32 to date. In general, he said, the adult run is beginning. A total of 214 Snake River sockeye adults have returned to Redfish Lake this year, Bettin added.

IX. New System Operational Requests.

Early this morning, the Corps received SOR 2000-30. This SOR, supported by ODFW, USFWS, WDFW and NMFS, requests the following specific operations:

- Draft Dworshak reservoir to elevation 1500 by September 17 to evaluate the effects of cool water releases from this reservoir on Lower Snake River temperatures and the response of migrating adult salmon and steelhead to the cooler water river condition.

Yoshinaka went briefly through the background and justification for this new SOR; please refer to the full text of SOR 2000-30 (available via the TMT and FPC websites) for further details. He noted that, according to a recent BPA analysis, this operation would result in a refill probability (by June 30) of 98% at Dworshak next year. It would also likely decrease spring flows next year by an average of 1.7 Kcfs. Yoshinaka added that Ted Bjorn is available to conduct the monitoring needed for this evaluation.

Kyle Martin said he assumes the BPA analysis was done using the HydroSim model, which is not intended for use as a forecast model – it is based on the 50-year historic water record, not on starting conditions and on forecast information. Actually, it does take into account starting conditions, Bettin replied. One concern the tribes have is that, looking at the 30-90-day forecast, we’re looking at dryer than average conditions during the fall, and HydroSim does not take that information into account, Martin said – that will have an effect on both river flows and on refill at Dworshak.

The group spent a few minutes debating the suitability of the HydroSim model for this type of forecasting. Henriksen said the Corps had looked at the BPA model runs; her suggestion is that BPA needs to use 1.5 Kcfs as the minimum flow for Dworshak from October-April, rather than the 1.3 Kcfs shown in the current model runs, which could have a significant impact on the probability of refill at that project.

A detailed discussion of the impacts of this SOR on Dworshak refill and spring operations ensued. Litchfield observed that the TMT continually calls for flow augmentation from Dworshak during the spring period, and often cuts refill very close. If we start out 20 feet lower, he said, that’s going to make Dworshak refill that much more problematic. Dave Statler said he has a very hard time accepting the idea that, if Dworshak starts out 50 feet below the upper flood control rule curve, that isn’t going to impact the probability of Dworshak refill, or flows during the spring.

There is no question that this operation will affect spring flows, said Wagner – it is an attempt to gain some additional information that will help us avoid our annual debate over the effects of holding an addition volume in Dworshak for use in September. Martin noted that CRITFC had put forward a plan that would have accomplished the same thing at the TMT meeting in Lapwai, but that NMFS had vigorously opposed that plan.

So where do we go from here? Litchfield asked. The question is, will the information gained by drafting Dworshak to elevation 1500 be definitive enough to offset the risk to refill and spring flows?

The discussion then turned to release temperatures at Dworshak; Henriksen said the cool water in that reservoir is nearly exhausted, and a gradual warming trend in Dworshak outflow temperatures will yield a release temperature of about 55 degrees by mid-September. Has NMFS talked about impacts to cultural resources? Rick Eichstadt asked. How will consultation work in this process? Wagner replied that he will need to discuss that issue with others in his agency.

After a few minutes of further debate, Henriksen observed that implementation of this SOR is some distance in the future; it isn't necessary to reach resolution on it today. The big issue is NMFS' consultation with the Nez Perce Tribe and Idaho, she said; in the interim, the Corps' intended operation will be to ramp down to minimum outflow at Dworshak starting September 1.

Ed Bowles said that, while Idaho's preference would be to retain a volume of water in Dworshak above elevation 1520 feet for release in September, Idaho will not object to this additional 20-foot draft, with the caveat that this operation not jeopardize the probability of Dworshak meeting its April 10 flood control refill elevation. I'm not at that comfort level yet, he said – that's why Idaho did not support this SOR at this time.

Martin reiterated that the 30-90-day forecast is predicting dryer-than-average conditions in the Columbia and Snake River Basins. We need to keep that in mind, as we evaluate the potential impacts of this proposed operation on refill probability, said Martin. We also need to bear in mind that, while the probability of refill by June 30 may look good in the model studies, if we start the spring season 20 feet down from where we would normally be, that is going to result in proportionately lower Snake River flows until Dworshak refills in June, said Henriksen.

Statler said that, at minimum, more time is needed to examine the study design and to evaluate the risks to refill, spring flows and cultural resources. We need to look closely at the assumptions used in the model study; he said; if that can be done, we may be in a position to propose such a study next year, but I don't think it's very likely for this year.

What aspect of this proposal is different from what the tribes were proposing, in terms of September operations, aside from the additional 20-foot draft? Jim Nielsen asked. We need more time to look specifically at the study design, and what the study is expected to produce, in terms of the data it yields, Statler replied. Our proposal was to retain a volume above elevation 1520 for use in early September, to keep water temperatures cool until ambient cooling kicks in he said – I don't recall what evaluation process we were proposing. Actually, our proposal wasn't a study, said Rick Eichstadt of the Nez Perce Tribe – it was our shot at the best operation for fish. Yoshinaka observed that the proposal in this SOR has gone through the SRWG process.

Ultimately, Wagner said both the study proposal and the refill probability model assumptions, methodology, and results are available. It was agreed that he will distribute this information in support of this SOR by later today; Henriksen said she will attempt to include the results of the Corps' modeling runs in this package as well. This information

will take the form of a fax. Does the tribe have any information on the impacts to cultural resources that have occurred when Dworshak has been drafted to elevation 1500 in previous years? Nielsen asked. I'll have to check, Eichstadt replied.

Perhaps we can agree to exchange the available information in support of this SOR, plus whatever information may be available from the tribes on potential cultural impacts, and agree to discuss this SOR at next week's TMT meeting, Abel suggested. We will need to begin the operation on September 1, the day after next week's meeting, Yoshinaka replied. The group briefly discussed the consultation process; it was agreed that NMFS, the Corps, the Nez Perce Tribe and Idaho will need to discuss the appropriate level and form of consultation for this issue outside of today's meeting. Martin said CRITFC would like to be included in that meeting; a sentiment echoed by Yoshinaka for the Fish and Wildlife Service and Fodrea for Reclamation. After a few minutes of additional debate, it was agreed to schedule a TMT conference call, involving these participants, for Monday afternoon, August 28 (exact time t.b.a.).

What if this small group can't reach consensus, Bettin asked – would NMFS want to raise this issue to IT? We'll need to see what happens on Monday, Wagner replied. He asked whether the Corps has a position on this SOR; Henriksen replied that the requested operation goes beyond the operation called for in the Biological Opinion. This SOR was received only 45 minutes prior to today's meeting, she said; the default operation is to go to elevation 1520 on August 31, and release minimum outflow from Dworshak after that.

Wagner noted that this evaluation is called for in the 2000 FCRPS Biological Opinion; there was agreement among the action agencies to implement at least some of the measures called for in that BiOp, such as the spill program, this year, even though the BiOp has not yet been signed. We have a long way to go before the new BiOp is signed, Henriksen replied; also, we had a signed agreement specifically regarding this year's spill program.

After a few minutes of additional discussion, Wagner said it is likely that NMFS will elevate this issue to the IT, if the Monday's conference call does not result in consensus. I'll alert our IT representative that this may be on the horizon, Bettin said.

X. Recommended Operations .

To be clear, said Henriksen, next Thursday is August 31, the end of the in-season management period. Hungry Horse will be at elevation 3540 feet on that date; it will continue to release 4.8 Kcfs until then. We are modeling Grand Coulee drafting to its interim draft limit, 1280 feet, on August 31, she added. At Dworshak, we are on a path to achieve the interim draft limit of 1520 feet on August 31, after which that project will pass inflow or release minimum flow, which could be as low as 1.3 Kcfs.

XI. Other.

A. Lower Snake River Projects – Operating Range. This is traditionally the time of year when we start to discuss restoring the full operating range at the Lower Snake projects, said Bettin – it’s a formality, but we need to go through it. After a brief discussion, Bettin said his intent was simply to begin discussion on this issue now and, if possible, to pick a date when MOP will end and operational flexibility will be restored at the Lower Snake projects – perhaps August 31 for Ice Harbor, Lower Monumental and Little Goose. Yoshinaka said the salmon managers will discuss this proposal at Tuesday’s FPAC conference call. Abel said she will place this topic on next week’s TMT agenda.

B. Stopping Spill for End of Season. We would like a decision about stopping spill at Ice Harbor today, if possible, Bettin said – it appears the migration is pretty much over at that project. After a brief caucus, Wagner said the salmon managers would like spill to continue, at least through next week’s TMT meeting. We would like to stay the course, in other words, he said – we’re still seeing juveniles at Lower Monumental. What criteria would you suggest we use to decide when to stop spill at Ice Harbor? Bettin asked. We would like to extend spill as long as possible in order to benefit all components of the population, said Wagner. However, I think once we start seeing indices in the single digits, every day, that would be time to consider stopping spill.

So you’re saying NMFS now has no firm criteria as to when spill should stop at the Lower Snake projects? Bettin asked. I’m not sure we ever did, Wagner replied. So FPAC will discuss this again on Tuesday, and will make a recommendation at Thursday’s TMT meeting? Bettin asked. Yes, Wagner replied. Bettin said BPA will agree to continue to spill at Ice Harbor, at least until August 31.

C. September Field Trip to Hardy Creek and Pierce Island. Abel reminded the group that this field trip is scheduled for Thursday, September 7.

XI. Next TMT Meeting Date.

The next meeting of the Technical Management Team (and the last of the in-season management period) was set for Thursday, August 31, at the Corps’ Northwestern Division headquarters. It was agreed that this meeting will be a face-to-face meeting. Meeting notes prepared by Jeff Kuechle, BPA contractor.

TMT ATTENDANCE LIST

AUGUST 24, 2000

Jacqueline Abel	Facilitator	
Ruth Abney	COE	
Scott Bettin	BPA	

Scott Boyd	COE	503/808-3943
Dick Cassidy	COE	
Kim Fodrea	Reclamation	
Tim Heizenrater	ENRON	
Cindy Henriksen	COE	503/808-3945
Jim Litchfield	Consultant (Montana)	
Kyle Martin	CRITFC	
Mike O'Bryant	Columbia Basin Bulletin	
Chris Ross	NMFS	
Maria Van Houten	ENRON	
Paul Wagner	NMFS	
Marv Yoshinaka	USFWS	

On Phone:

Name	Affiliation	Phone
Eric Barker	Lewiston Tribune	
Ed Bowles	IDFG	
Rick Eichstadt	Nez Perce Tribe	
Steve Hemstrom	AVISTA Utilities	
Dusica Jevremovich	FPC	
Jim Nielsen	WDFW	
Dave Statler	Nez Perce Tribe	
Don Tinker	Seattle City Light	
Glen Traeger	Avista Energy	