

COLUMBIA RIVER TECHNICAL MANAGEMENT TEAM

January 25, 2017

Facilitator's Summary

Facilitator: Emily Stranz; Notes: Tory Hines 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.

Review Meeting Minutes

The official TMT Minutes and the Facilitator's Summaries for November 16, November 22, December 7, December 14, December 21 and January 4 were reviewed and approved by TMT members. The January 18 TMT Minutes and Facilitator Summary will be reviewed at the February 15th face to face meeting.

Dworshak Update

Steve Hall, Corps, provided an update on Dworshak operations. He noted that current discharge is around 5kcfs, of which 2.3kcfs is generation flow and 2.4kcfs is spill. TDG levels are currently being held around 108%, and the Corps is operating to stay below 110%. As of January 24th, the pool elevation was just under 1,529ft. Steve noted that the Peck gage is operating and provides TDG data downstream of Dworshak in the mainstem Clearwater River.

Steve added that at this point, Unit 2 is the only unit online, Unit 1 is being tested and is expected to be back in service next week (the unit was originally planned to be online by 2/3/17), which will double the projects' generation capacity.

The January runoff forecast predicts an April-July runoff volume of 3.055maf, placing the January 31st flood risk management elevation at 1,528.3ft. However, Steve noted that the mid-month water supply forecast dropped and the anticipated February 1st runoff volume will be closer to 2.8maf or lower. The Snotel sites are tracking around 90% of average, with higher elevation stations showing below average percentages but lower elevation sites are above average. For more detail on the snow water equivalent values at various sites, see the TMT agenda attachments and/or join the NWRFC update meetings.

Steve described four operational scenarios that examine 3.055maf and 2.8maf forecasts along with flat operations and operating to the end of month flood control. The group discussed the TDG impacts of operating under each scenario.

Steve noted that the Corps thinks it prudent to follow an operation similar to the 2.8maf flat operation examined in slide four: hold a flat discharge around 10kcfs February through the end of March, with TDG levels around 113%. This operation is expected to prevent needing to move large amounts of water in April and jumping up to around 125% TDG. Dave Statler, Nez Perce, observed that if the operation in slide 4 is carried out, there will be about a 20ft difference between the flood control rule curve and the elevation come April. He expressed concern that if the forecast changes and less water is available, the operation could risk refill and summer cooling operations. Steve assured that the TMT will continue to monitor the forecasts and system conditions and course correct as needed. Tom Lorz, CRITFC, urged the Corps to continue running mid-month models to provide more up to date forecasts and fluctuations, this will allow TMT to finalize course corrections sooner rather than later. Steve provided a disclaimer that not all of the principle components needed to run the mid-month forecast are available, however, the Corps will continue to run the mid-months and provide them to the TMT.

→ **ACTION:** The Corps will provide mid-month forecasts to the TMT to help inform adaptive management of Dworshak.

Russ Kiefer, ID, shared that he coordinated with Idaho Department of Water Quality, and the State will support the region if they feel it is prudent to exceed the water quality standard of 110% TDG in order to avoid even higher TDG levels later in the season. However, it does not appear that the region supports exceeding 110% at this point. Russ provided a suggested operation to operate close to, but below 110% TDG until the updated water supply forecast is available on February 3rd, at which time TMT can reassess.

Emily asked other Salmon Managers for input on Russ' suggestion to operate close to, but not to exceed 110% TDG until the February forecast is in and they can reassess. The Colvilles, Idaho, Montana, Nez Perce, NOAA, Umatilla, Warm Springs, and Washington all supported the operation. Oregon did not support the operation, however, did not object. TMT will revisit the operation once the February forecast is available.

It was clarified that if Unit 2 is brought back online, it will increase the amount of water that can be moved through the project while maintaining TDG below 110%. This means that the pool could come in between 2-5 ft below flood control by the end of January. The Corps did not think that it would be difficult to make up the 2-5ft if later determined necessary.

- **ACTION:** The Corps will operate Dworshak to stay close to, but not to exceed 110% TDG until the TMT reviews the February forecast and revisits the operation.
- **ACTION:** The Corps will inform the region when Unit 1 returns to service.

There was discussion as to if the Corps will need to apply for a short-term water quantity exemption to go above 110% TDG. It was suggested that the exemption may provide clear documentation of the planning efforts and group buy-in. The Corps, Idaho and Nez Perce agreed to follow-up offline to discuss the formalities needed moving forward. They will report back to the TMT.

- **ACTION:** Doug Baus will follow up with Dave Statler and Russ Kiefer regarding documentation needs moving forward.

Dworshak Operational Concerns

Jay Hesse, Nez Perce, shared the Nez Perce Tribe's concerns around spring and summer Dworshak operations as it pertains to fish, encouraging TMT to continue discussions on the spring run, and also look ahead to potential impacts on the summer runs. He pointed the TMT to a memo prepared by the Nez Perce and Idaho Fish and Game (available on the TMT website) detailing fall Chinook emergence timing.

Jay noted that the fish closest to the dam will experience high TDG levels and they expect 50% of juvenile fall Chinook to emerge between March 15-April 1 in the North Fork. This means that there will be a significant number of juvenile fall Chinook in the system through August. Jay also noted that the Dworshak Hatchery degassers can handle up to 115% TDG, anything above 115% will expose hatchery fish to gas levels in excess of 100% from January-April. Hatchery Chinook will be released from Dworshak directly in to the North Fork Clearwater on March 15th, so Jay suggested that TMT should discuss minimizing spill around this time to give fish time to move through the mainstem to a safer environment. Steelhead releases will occur on April 10th and they will be released in to the mainstem Clearwater.

After overlaying the various emergence timings and releases, there appears to be a two-week window in early March where minimal impact to juvenile fall Chinook, adult Steelhead and hatchery populations will occur.

Nez Perce recommends following a similar operation to what the Corps' is suggesting: spilling more now and keeping TDG levels around 113% to minimize the risk of exposing fish to higher gas levels in March and April. Jay concluded that even with this operation, Nez Perce is still very concerned about chronic exposure to gas levels above 100% for natural origin fall Chinook, as well as, chronic exposure to gas levels above 115% for hatchery fish.

It was requested that Jay incorporate the emergence timing data to the timing spreadsheet earlier provided by Dave Swank, clarifying specific dates where possible. Steve Hall noted that he received a request to update the Unit 3 Outage Milestone schedule to reflect the changes in schedule; it will be provided at the next TMT meeting.

- **ACTION:** Jay will add timing dates to the DWR Hatchery Cohort Timing spreadsheet and provide it to TMT.
- **ACTION:** Steve will update the Unit 3 milestone schedule and provide it at the next TMT meeting on February 1st.

Chum Update

Todd Hillson, WDFW, provided an update on chum. He noted that 208 adults were collected at the Duncan trap, roughly 330 adults were collected at the Hamilton Springs trap, and approximately 1,800 adults were collected in Hamilton Creek Basin (similar to last year). Todd shared that the biggest surprise was out of the Grays River Basin, where total chum counts were near 31,000. Estimates for the Grays River were based on carcass mark and recapture methods. The 2016 total chum counts from Bonneville, tributaries and Gray's River were near 46,000.

Todd addressed why spawning ground survey counts do not reflect final population estimates. He noted that the Multnomah numbers are low due to missed counts during peak spawning. The other reasons the population estimates and survey results differ is due to how survey data is collected, using observer efficiency and apparent residency timing. These methods provide an index and assume 100% observer efficiency, yet are not as accurate as population estimate methods. Scott Bettin, BPA, asked that Todd if he is willing to come back to TMT to provide more depth on the 2016 and previous years' survey results and the location and process for carcass work. Todd agreed, noting that after February would be best for him.

- **ACTION:** Todd will provide a presentation on 2016 and previous year survey results, as well as the process and location for carcass surveys at the March 15th TMT meeting.

Operations Review

Reservoirs:

Lisa reported on Corps projects:

- Libby midnight elevation was 2,397.1ft, with 10kcfs outflow and 6.6kcfs inflow.
- Albeni Falls midnight elevation was 2,051.9ft, with 19.3kcfs inflow and 14kcfs outflow.
- Dworshak midnight elevation was 1,529.6ft, with 2.2kcfs inflow and 4.8kcfs outflow.
- Lower Granite average outflow was 27.1kcfs.
- McNary average outflow was 162.9kcfs.
- Bonneville average outflow was 180.6kcfs

Joel Fenolio, Corps, noted that Libby spillway controls will be replaced on February 1st. He noted that the Libby forecast is drying up and volumes are dropping; Joel expected volume to be down to 5.8 maf or lower for February. The project will maintain minimum flows starting in February.

Mary Mellema, BOR, reported on Reclamation projects:

- Hungry Horse midnight elevation was 3,543.3ft, with 2.4kcfs outflow.
- Grand Coulee elevation was 1282ft.

Fish: Paul Wagner, NOAA, reported on fish. He noted that the adult ladders are out for maintenance and the juvenile season has ended.

Water Quality: Laura Hamilton, COE-NWD, noted that all gauges are working well and there is no system-wide spill at this time.

Power System: Tony Norris, BPA, shared that there was nothing to report.

The next TMT meeting will be a conference call on February 1, 2017.

**Columbia River Regional Forum
TECHNICAL MANAGEMENT TEAM OFFICIAL MINUTES**

January 25, 2017
Minutes: Pat Vivian

1. Introduction and Review Meeting Minutes – Nov. 16 and 22; Dec. 7, 14 and 21; January 4 and 18

Representatives of the COE, Umatilla Tribe, BPA, NOAA, Montana, USFWS, Washington, Warm Springs Tribe, Oregon, BOR, Nez Perce Tribe, Idaho, Colville Tribe and others participated in today's TMT meeting chaired by Doug Baus, COE, and facilitated by Emily Plummer, DS Consulting. The meeting minutes and facilitator's summaries for November, December, and January 4 were all approved as final. The January 18 minutes and notes will be finalized at the next TMT meeting.

2. Dworshak Update

TMT followed up on its conversation a week ago re: Dworshak Dam operations, when the COE proposed to increase spill to slightly above 110% TDG saturation in the tailrace and draft below the January 31 flood control elevation as a hedge against higher TDG levels later for flood risk management. The Salmon Managers present said they would need to confer with others before taking a position on the issue. Steve Hall, COE Walla Walla, started today's conversation with a presentation on current Dworshak operation, the runoff forecast, and a proposed operation.

2a. Current Operations Data. As of 3 pm yesterday, January 24, Dworshak discharges were around 5 kcfs with 2.3 kcfs of that in generation and the rest as spill. This operation is generating around 108% TDG saturation below the dam. Reservoir elevation is just under 1529 ft. Approximately 50% of inflows are being spilled because Unit 1 is out of service, limiting generation to the smaller Unit 2. Total dissolved gas saturation levels in the Clearwater River are being monitored at the Peck gage on the mainstem. No TDG data were collected today because a server crashed yesterday; the problem should be resolved soon.

2b. January Runoff Forecast. The current spill operation is in response to the official January water supply forecast for April-July of 3.055 maf, which would put the January 31 flood control elevation at 1528.3 ft. As mentioned last week, that forecast is probably high. The mid-month forecast is for a 2.8 maf year. Nevertheless, the COE thought it prudent to move water early to ensure the reservoir will attain its January 31 flood control elevation.

There are several reasons the water supply forecast for Dworshak is declining, Hall said. The current forecast of 3.055 maf is based heavily on Southern Oscillation Index (SOI) indicators of El Nino or La Nina ocean conditions. As the year progresses, the influence of cumulative precipitation and SOI readings on forecasting diminishes, placing more weight on Snotel station readings. On January 1, the inflow forecast was 111% of normal. However, due

to warm temperatures last fall, snow stations at higher elevations that typically have the most snow are only 40% of normal, while the lower elevations have higher snow water equivalent (SWE) readings than usual. Recently the lowest elevation station was 142% of normal. This trend, which is expected to continue, is the main cause of the disparity between COE and River Forecast Center forecasts. The two forecasts also used different methodologies. A recent COE sensitivity analysis indicated the water supply forecast will probably be greater than normal this year even if there is no additional precipitation until April 1.

Tom Lorz, CRITFC/Umatilla, asked what the end of month flood control elevation would be using the 3.055 maf forecast; it would be 1528.3 ft. What about the 2.8 maf forecast? Mid-month forecasts are not official, Hall said. The COE bases flood control elevation requirements on the first of the month forecast. The reason for doing a mid-month forecast in January was to indicate the direction the official February forecast will probably take.

If unit 1 comes back on line before January 31, it will increase generation capacity. The current STP forecast calls for releases of 5 kcfs, but having both units on line a few days before the end of the month would double generation capacity on those days. The number of days will affect the spill volume as well as the January 31 reservoir elevation. With 5 kcfs releases, the reservoir would be at approximately 1528.3 ft by January 31. Unit 1 might be back in service a week ahead of time, but testing of the new digital governor could cause delay.

Hall presented four potential scenarios at Dworshak, starting with the official April-July runoff forecast of 3.055 maf. By April 15, the reservoir would have to be down to 1445 ft or basically empty, which would probably require releases of 8 kcfs and produce slightly higher than 110% TDG saturation levels using two units. The next step up would be releases of 13 kcfs, which would produce TDG levels greater than 120% saturation. The next step, 20 kcfs out, would produce well above 125% TDG saturation. These releases could be required if the project is operating to a 3.055 maf forecast.

The next scenario is more conservative in keeping TDG levels low. With one unit operating, the project would pass about 6 kcfs and produce 115% TDG. With two units, the project would pass about 10 kcfs and produce 115% TDG. In April, this would require total project outflow of 15-20 kcfs to get down to the April 15 flood control elevation.

Hall compared this scenario to the end of month elevations required for a 2.8 maf volume forecast. The April 15 flood control elevation rises to 1481-2 ft, meaning smaller releases are needed. The end of February elevation rises to 1520 ft, and the end of March elevation is just above 1500 ft, with the deepest draft close to 1480 ft. That would mean releases of 10 kcfs in March, producing TDG levels of 110-115% depending on temperature and other variables. Operating two units would produce TDG levels of around 100%. The scenario is based on having only one unit in service through end January. It could mean having to release 19 kcfs in April to draft to a flood control elevation of 1480 ft. It can be difficult to draft additional water out of the reservoir in April when inflows are rising.

Paul Wagner, NOAA, asked about the possibility of doing a flood control shift from DWR to GCL this year to avoid steep TDG increases at DWR in April. Normally a shift would be possible, Hall said, but it's not considered prudent in high-inflow years because the shift needs to be reversed in April when the ability to release water is constrained by high inflows. Normally 14-15 kcfs of reservoir capacity can be shifted, but that gets more difficult as the Dworshak flood control elevation drops. A water supply forecast of 2.4 maf or less is generally needed to do a shift without violating flood control requirements.

Dave Swank, USFWS, asked about the disparity between RFC and COE forecasts. The RFC forecast shows the Dworshak water supply has dropped significantly over the past week. Hall said the two forecasts use completely different methodologies, ESP traces vs. principal components. Since the beginning of January, the RFC forecast has dropped to about 2.2-2.3 maf based on weather changes in the ESP traces. The RFC forecast tends to fluctuate rapidly in response to daily changes in weather, while the COE doesn't base operations on short term events such as snowstorms. Further details on water supply forecasting are available at Columbia River Forecast Center monthly meetings.

2c. Proposed Dworshak Operation. The conversation began with a COE proposal for operating Dworshak which Idaho modified. The intent of the COE's proposed operation is an effort to draft the reservoir a little more now during the months on January and February in an effort to minimize potentially high TDG and associated impacts on salmon later during the months of March and April for Flood Risk Management Operations. The COE initially proposed to increase project outflow not to exceed 113% TDG saturation downstream, based on the Climate Prediction Center's long range forecast of 2.8 maf as shown on page 4 of 4 on agenda item 3.c of today's agenda.

Dave Statler, Nez Perce Tribe, asked about the risk of releasing too much water if inflows turn out to be less than anticipated, jeopardizing summer refill and temperature augmentation. This will be reevaluated and plans adjusted throughout passage season, Hall replied. Tom Lorz advocated using mid-month forecasts to track inflow predictions more closely and allow for greater operational flexibility; several other Salmon Managers also expressed support for mid-month forecasting.

Russ Kiefer reported IDEQ's position: Idaho recommends continuing to release flows that produce close to 110% TDG without violating state water quality standards, then reassessing the situation when the February water supply forecast is available. At that time Idaho may coordinate as necessary with the COE on the need to seek a short duration activity exemption with Idaho and the Nez Perce Tribe.

Because flood risk management takes precedence over state water quality standards, Julie Ammann, COE, questioned the need for a short term exemption. She asked for TMT's feedback on this. Kiefer said FPAC concluded yesterday the difference between 110% and 113% TDG won't have much influence on TDG levels in April. A waiver might be unnecessary if releases are needed for flood control.

Jay Hesse, Nez Perce Tribe, said a waiver should be sought for the purpose of documenting impacts on fish, and because releases in excess of 110% TDG can be expected to continue throughout fall chinook rearing. Idaho supported the Nez Perce proposal to initiate paperwork for a short-term state water quality exemption. Ultimately, the COE will coordinate with the Nez Perce Tribe and Idaho on any issues associated with the acquisition if a short term activity exemption.

The COE altered its proposal to flatten discharges by moving more water as soon as possible while operating DWR at or below 110% TDG for the rest of January without exceeding the state water quality standards, or only for brief periods. Drafting will be restricted to 95% confidence of refill throughout the season. **Idaho** accepted this proposal. The **Nez Perce** advocated using a mid-month forecast to fine-tune the operation, focusing on moving water earlier rather than later.

Hall said the latest STP indicates that 5 kcfs releases until the end of January would draft the reservoir elevation down to 2-4 ft below its January 31 flood control requirement. However, if Unit 2 comes back on line a week early, it could mean eliminating spill for a week and returning to a more normal operation, which would draft the January 31 elevation to 5 ft below the flood control requirement. He asked TMT for feedback on this.

TMT members gave their views of Idaho's proposal to continue managing releases as close to the 110% TDG saturation limit as possible, keeping releases below the state water quality limit until TMT meets again February 1:

- **NOAA** – No objection.
- **Nez Perce Tribe** – No objection.
- **Umatilla** – Supports the Nez Perce position.
- **USFWS** – No objection. Dworshak National Fish Hatchery managers say that increasing spill levels to 112% TDG levels over the next few weeks would be acceptable.
- **Washington** – Concurs with Idaho's proposal.
- **Oregon** – Idaho and the Nez Perce are the most directly impacted by this decision. Advocates using mid-month forecasting for flood risk management, as well as adhering to the 110% TDG limit until the February official forecast comes out. Oregon does not support drafting the reservoir to 5 ft below its required end of January flood control elevation, but does not plan to elevate the issue.
- **Colville Tribe** – No objection.
- **Montana** – No objection.

Margaret Filardo, FPC, wanted to clarify that people were aware they had agreed to draft the reservoir 5 ft below its required flood control elevation on January 31. **USFWS** didn't necessarily agree to a flat operation, but to continue the current operation. **NOAA's** position is that adopting the Idaho proposal will not draft out much more water than flood risk management already requires. **Washington** questioned how many feet below the flood control elevation Dworshak will actually draft, 2 ft or 5? That's unclear because the Unit 1 return to service date will affect the end-of-month elevation. Hall projected the January 31 elevation will

be 2-5 ft below its flood control requirement depending on when Unit 1 returns to service. He assured everyone that refill is not a concern this year because the water supply forecast is well above normal.

Given the nuances involved, the Action Agencies caucused to discuss this operation. When TMT reconvened, Idaho refined its recommendation: operate Dworshak not to exceed 110%.

With TMT consensus on the Idaho proposal according to today's poll, the COE will manage Dworshak releases not to exceed 110% TDG and will check in on operations at the next TMT meeting. This means the project will release 4.8-5 kcfs with just Unit 2 in service. When Unit 1 comes back, releases will increase to 9 kcfs, with 4.6 of that as generation and the rest as spill. The COE will notify TMT when Unit 1 returns to service.

When TMT reconvenes on February 1, the COE will have a better idea of what the February inflow volume forecast for Dworshak might be, although the official forecast won't be available until February 3. The COE will also give TMT an update on the Dworshak Unit 3 overhaul at the next TMT meeting.

3. Dworshak Operational Concerns

Jay Hesse, Nez Perce Tribe, gave a presentation on tribal fisheries concerns related to the timing of total dissolved gas releases from Dworshak Dam. According to a memo by the Nez Perce Tribe and IDFW Conservation re: emergence timing of fall chinook in the Clearwater River and the North Fork, 50% or more of the run is expected to emerge between March 15 and April 1, with those closest to the dam experiencing the highest levels of TDG. These fish will arrive at Lower Granite Dam in early August and will be impacted by summer spill operations.

As for impacts on hatchery fish, the degassers are expected to process levels of up to 115% TDG in the Dworshak tailrace, reducing them to zero inside the hatchery – but levels above 115% would mean chronic TDG exposure for hatchery fish throughout passage season.

Timing will be of the essence in terms of TDG releases. On March 15, 5.5 million spring chinook hatchery smolts will be released into the north fork of the Clearwater. They will need protection from high gas levels. Steelhead releases will begin April 10 on the mainstem Clearwater. Levels of 115% TDG saturation would probably be acceptable for these fish, but higher levels should be avoided while they are in the river. Of the estimated 6,400 fall chinook redds in the Snake River basin, over half are in the north fork of the Clearwater or downstream. This places half of the 2017 chinook run at risk of exposure to high TDG levels.

All told, there's a 2-3 week window in early March before hatchery fish are released when TDG releases would have the least impact on juvenile fall chinook and adult steelhead. Hesse characterized prolonged early spill as the "best of no good options."

The tribe favors an operation similar to the COE's recommendation, with releases increasing to 113% TDG starting early in February in order to minimize exposures later in the month. The tribe's main concern at this point is chronic exposure to TDG levels of over 100% saturation for natural production of fall chinook.

The tribe will work with the COE and USFWS to develop graphics that can be used to overlay fish emergence dates in the Clearwater basin with flow proposals for Dworshak.

4. Chum Update

Todd Hillson, WDFW, gave an update on chum redd counts and escapement estimates, noting that this year's abundance of chum redds is not reflected in the official spawning counts.

It has been a great year for chum. Escapement counts were 208 adults at the Duncan Creek trap last fall, 1500 adults at Hamilton Springs based on weir recoveries, a little more than 130 adults at Hamilton Creek, and 1800 in the Hamilton Creek basin. A total return of just over 46,000 chum is expected on the Washington side of the Columbia. In Oregon, chum counts along coastal streams are reportedly the highest in 40 years.

Hillson will return in mid-March to give TMT a presentation explaining how WDFW conducts carcass surveys and prepares escapement estimates.

5. Operations Review

5a. Reservoirs. Lisa Wright, COE, and Mary Mellema, BOR, reported. Libby is at elevation 2397.1 ft, with inflows of 6.6 kcfs and releases of 10 kcfs. Reservoir elevation will be limited to 2404 ft for spillway maintenance the first week of March. Because the inflow forecast is drying up, Libby will drop to minimum flows in February. Albeni Falls is at elevation 2051.9 ft with inflows of 19.3 kcfs and releases of 14 kcfs. Dworshak is at elevation 1529.6 ft, with inflows of 2.2 kcfs and releases of 4.8 kcfs. Lower Granite releases are 27.1 kcfs, McNary releases are 162.9 kcfs, and Bonneville releases are 180.6 kcfs. Hungry Horse is at elevation 3543.3 ft with releases of 2.4 kcfs. Grand Coulee is at elevation 1282 ft.

5b. Water Quality. All gages are functioning well, and there has been no spill system-wide for the past several weeks, Laura Hamilton, COE, reported.

5c. Fish. Wagner had nothing to report today. Juvenile season is over and the adult ladders are out of service for maintenance.

5d. Power. There was nothing to report today.

6. Next TMT Meeting

The next TMT meeting will be a conference call on February 1 to follow up on the Dworshak operation.

Name	Affiliation
Doug Baus	COE
Tom Lorz	CRITFC/Umatilla
Joel Fenolio	COE
Lisa Wright	COE
Tony Norris	BPA
Paul Wagner	NOAA
Jim Litchfield	Montana
Dave Swank	USFWS
Laura Hamilton	COE
Charles Wiggins	DSC
Tory Hines	DSC
Julie Ammann	COE

<i>Phone:</i>	
Charles Morrill	Washington
Jen Graham	Warm Springs Tribe
Erick Van Dyke	Oregon
Scott Bettin	BPA
Mary Mellema	BOR
Dave Statler	Nez Perce Tribe
Becky Johnson	Nez Perce Tribe
Steve Hall	COE
Laura Berg	Clearinghouse
Wayne Jousma	COE
Michael Bryant	CBB
Margaret Filardo	FPC
Shane Scott	PPC
Todd Hillson	WDFW
Russ Kiefer	Idaho
Mike Toole	Nez Perce Tribe
Jay Hesse	Nez Perce Tribe
Sheri Sears	Colville Tribe