Northwest **Power** and **Conservation** Council

Council Meeting
August 14 and 15, 2018
Portland, Oregon

Tuesday, August 14

Chair Jim Yost brought the meeting to order at 1:31 p.m. All members were in attendance except for Member Ted Baker, who joined by phone.

Reports from Fish and Wildlife, Power and Public Affairs Committees

Fish and Wildlife Committee

Council Member and Fish and Wildlife Committee Chair Guy Norman reported on a loaded agenda:

1. Nancy Leonard, fish, wildlife and ecosystem M&E report manager, walked through a presentation on NOAA's Columbia Basin Partnership Task Force. Short and long-term goals have been established for wild population escapement and hatcheries. There will be a full presentation before the Council tomorrow. The goals are out for review by stakeholders.

2. Patty O'Toole, program implementation manager, discussed the Fish and Wildlife Amendment process, including requests for an extension. Eight parties wanted a 90-day extension of the comment period, while Bonneville wanted 30 days. The committee will bring a 90-day extension before the Council for a decision.

3. CRITFC talked about the accomplishments of its 10-year accord. Over those 10 years, $560 million has been spent with tribes on different activities associated with the accords. The committee saw an informative document and slide presentation that

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summarized the accomplishments of habitat restoration, predation, invasive species, lamprey and sturgeon activities, and the RM&E program they administered.

4. Mark Fritsch, project implementation manager, introduced the response submittal for the Walla Walla Spring Chinook Hatchery Master Plan. The Council approved the plan in 2013. Tribes are in the final steps of phase two and three in completing the process. They hope to break ground on the hatchery by the end of the year. They expect to have ISRP questions answered shortly and brought to the full Council in October.

5. Member Bill Booth talked about the Asset Management Subcommittee, which met yesterday. There is an updated plan for the maintenance of hatcheries and screens. They have come up with a tentative annual asset appropriation of $500,000. A decision will come to the committee in September and to the full Council in October.

6. The committee looked at the Independent Economic Analysis Board (IEAB) and the needs associated with the asset management process, including invasive species and predation costs.

7. Tony Grover, Fish and Wildlife Division manager, and Bryan Mercier, BPA's executive manager of Fish and Wildlife, discussed BPA's budget reductions and policy concerns. These include:
   - The reduction and elimination of the *Columbia Basin Bulletin*;
   - Reduction and elimination of funding for conferences;
   - Reduced travel and fees for conference attendance;
   - Reducing the Water Transaction Program by $1 million;
   - Reduction in technical assistance funding of some umbrella projects, and estuary habitat work;
   - Reduction of funding for StreamNet by $80,000;
   - Elimination of Select Area Fisheries Enhancement (SAFE) funding over three years, which Bonneville currently budgets at $1,908,145 per year; and
   - Reduction of Lower Snake River Compensation Plan (LSRCP) funding by about $2.3 million dollars.

Power Committee

Council Member and Power Committee Member Tom Karier reported on four items:

1. The Committee heard a staff presentation on renewable portfolio standards (RPS) in the Northwest. Twenty-nine states have them, including Washington, Oregon and Montana. The RPS for Washington and Montana is 15 percent, and Oregon's is 50 percent. Today, there are 9,000 MW of installed capacity of renewables in the Northwest. One-third of that is contracted to California. The Seventh Plan forecasted little renewables expansion over the next 20 years, about 250–400 MW. But things have changed, utilities and corporations are taking charge and are ordering renewables, explained Member Karier. For example, PGE and PacifiCorp are putting out RFPs for up to 1,500 MW of

renewables.

2. Gillian Charles, energy policy analyst, and Mike Starrett, energy analyst, made a presentation of resource acquisition trends and current utility requests for proposals. Some utilities are purchasing renewables because they're cheaper than existing thermal generation. They are coming in at under $20–$25 per MWh. Constraints lie in how transmission is organized and owned, more than because of physical limitations.

3. There was a heated discussion on the Mid-Term Assessment. Staff was given input to refine it. At some point, the whole Council will look at it and release it for public comment. They reviewed accomplishments in the Action Plan. We didn't do everything, but a lot of things did get done, Member Karier said.

4. The committee reviewed a conservation white paper that looked at value streams for Bonneville and utilities. There is a lot of detail on how its rate structure funds energy efficiency. There's a question about whether the Council wants staff to complete the qualitative report, or whether they prefer a quantitative report for specific utilities. The consensus is that a qualitative report is sufficient with some additions.

Public Affairs
Council Member and Power Committee Chair Bill Booth reported that the committee met last month. They discussed two items:

1. They reviewed details of the congressional tour, which begins in Walla Walla on Monday with 17 Congressional staff. In addition, a BPA representative from Washington, D.C., will attend, as well as Tim Petty, assistant secretary for water and science at the Department of Interior. There were some U.S. Senate staff cancellations due to the shortened recess. A few U.S. Department of Energy staff members will attend as well as a couple from the State of Idaho. Four Council Members will attend: Members Norman, Devlin, Karier and Booth, as well as some Council staff members.

2. They discussed Council sponsorship of the Joint Columbia Basin Trust and Transboundary Conference, scheduled to take place in British Columbia in May 2019. These discussions will continue at the meeting later today, and will include other Council sponsorships for the remainder of fiscal years 2018 and 2019.

1. Presentation on California Markets and California Independent System Operator

Ben Kujala, Power Division director, introduced Stacey Crowley, vice president of regional and federal affairs for CAISO. Member Jennifer Anders welcomed her brother, John Anders, who serves as general counsel for CAISO.

Crowley began with an overview of CAISO, one of nine independent grid operators in North America. It has 80 percent of California's load and a small percentage of Nevada's. She

mentioned the possibility of a Mountain West Transmission group of eight utilities joining the Southwest Power Pool, but Excel Energy recently withdrew from the effort.

They have balancing authority duties for their footprint, as do 37 other authorities. They use advance technologies to administer a real-time and day-ahead market. supply and demand. As a market operator, they manage interconnection requests, bring new resources online and conduct transmission planning.

What has launched discussions about market opportunities in the West is the energy imbalance market (EIM). The EIM got underway in 2013–14 after CAISO was asked by regulators to integrate renewables and find efficiencies in the system. PacifiCorp was the first to join. CAISO offered a real-time EIM, which builds on its existing market, and gives utilities an opportunity to buy and sell energy after their trading options are done. This allows them to take advantage of pluses and minuses in real time. If there's cloud cover over a solar panel or a maintenance issue, we can call upon real-time resources, Crowley said. She explained that their technology can deliver the least-cost energy (with congestion in mind) to market participants. It has allowed each balancing authority to maintain their obligations. It has kept risk load and engagement at a voluntary basis, and it allows utilities to introduce themselves to market opportunities at low risk. There is significant penetration in the West with two-thirds of the load interested in or participating in the market. Each has determined it's in the best interest of their ratepayers to engage in it.

Crowley explained that demand is served through the bilateral trading system. It isn't until real time that the EIM takes place, so it's about five percent of all transactions in normal processes. Still, participants are seeing significant benefits.

John Anders discussed BPA's role in the EIM. BPA's transmission system sits among EIM participants and it has been a good partner in the effort. The first issue to come up is BPA's rate of change constraints on its system, which restricts the pace a resource can move in response to a dispatch instruction. EIM modeled those constraints in their market to respect BPA's limits. When PGE decided to join, were going to use the transmission rights they held on BPA's system. CAISO worked with BPA on how it could work and it now functions on the availability of transmission transfer capability between the systems. CAISO has a coordination transmission agreement with BPA that starts with the exchange of information and data.

John Anders said that flows can be respected in CAISO's market, and there's a coordinated effort to identify those limits. He said they are looking forward to helping BPA maximize the use of their transmission and to avoid expensive upgrades, as BPA was able to do in the South of Allston decision.

EIM has been successful for all participating utilities, Crowley said, with gross economic benefits totaling $401.73M since November 2014. In the second quarter of 2018 alone, the EIM has achieved $71.12M in benefits, the highest quarter they've seen.

Crowley discussed governance. When was EIM developed, there needed to be a governance model allowing for a regional voice. A transitional committee of western stakeholders had three main tracks: EIM Governing Body, EIM body of State Regulators and a Regional Issues Forum. She discussed the aspects of each. She listed the members of the Governing Body and the Body of State Regulators.

Looking at what's possible, she said they have day-ahead market and the real-time market. Regional entities participate in the real-time market. Initial conversations with utilities show that there's interest in the EIM growing into a day-ahead market. First, CAISO wants to enhance the day-ahead market for its current footprint. Solar is creating power ramp challenges in the afternoons. Instead of procuring energy in hourly blocks, they want to move to 15-minute blocks to better align the load with the market. CAISO's technology team is working on transforming the day-ahead market from an hourly to a 15-minute block system. They want to explore how their enhanced day-ahead market can be offered to the West. They will undertake discussions on transmission, resource adequacy and governance next year.

Crowley said there is a bill (Assembly Bill 813) in the California Legislature to allow CAISO's governance to become a more regional system operator. Also, there's a provision allowing utilities to withdraw since ISOs are voluntary markets.

In 2017, CAISO saw uncertainties in the West and began evaluating becoming its own reliability coordinator, which has been performed by Peak Reliability. John Anders told Council Members that they were disappointed to learn that Peak intended to offer market services in partnership with PJM. CAISO then issued a formal notice withdrawing from the funding agreement, effective September 2019. Recently, Peak announced it is winding down its operations by the end of 2019. CAISO's objective is to stand up its services to provide reliability coordination to its balancing area, he said.

Member Karier asked about the benefits calculation and observed that it doesn't include the cost of participating. He asked what was being measured, and whether members should be buying cheaper and selling for more than they would be otherwise? Crowley replied that the EIM opens up a pool of resources. Often there is less-expensive energy and their system automatically dispatches optimized resources. It picks the best resources to meet that need. it used to be done manually. It's a stacked system, so it will go down the list of the least-expensive resource to the more-expensive. Anders said there's a publication with a more-detailed evaluation of how the benefits are calculated — what would the benefits be of the dispatch with and without the EIM?

Member Karier asked if there's an annual report that will document that. Also, over the year, the high-cost resource should be dispatched less, and the low-cost one should be dispatched more in order to have a real regional benefit. He asked if they document that as well. Crowley said they have not done an annual report, but they do market reports for the ISO generally. Their department of market analysis does a report and they're following trends of resources. There are seasonal differences on what's a high-cost resource and what's not. There are two other benefits that are calculated. One is the reduction in need for flexible reserves. Each balancing

authority has to maintain set of resources that can be counted upon. We can reduce that by a third, she said. A second benefit is the reduction in greenhouse gas emissions, which is done with greater clarity on what is being dispatched. They are tracking that as well. She'll bring back the question about an annual report to her team.

Member Richard Devlin said all states represented on the Council operate in markets (publics or IOUs) where their generating capabilities have been constrained in order to limit the costs customers will bear, and to ensure that we don't build more generation than we need. On the edge, the EIM will be good for purchasers and sellers. But there's a concern about opening up everything to a free market system. There are liabilities that have been built into the system that are dependent upon ratepayer to pay them back. How do you deal with that broader issue?

One of tenets of independent system operators is we dispatch the resources sent to us, Crowley said. She then traced the process of utilities determining their need. She said states can have different policies, but as long as they bring sufficient resources to meet their load, they operate the system. They have backstop authority to help meet shortfalls in an emergency situation. We work with the CPUC on the analysis for that planning.

BPA at one time was a monopoly, Member Devlin said. Now it faces competition. How it addresses that determines its ability to pay off its liabilities in the future and to meet the needs of its customers.

Crowley commented that it's a value proposition they'll have to maintain. A lot of states are grappling with issues such as consumer choice, and all the options pertaining to procuring and maintaining energy resources. We rely on the states to make sure their utilities are procuring the right resources, she said. John Anders added that they hear a lot of similar commentary and reemphasized the voluntary nature of the EIM.

Member Booth asked if there's a provision for thermal resources to kick in if no solar or wind is available. Crowley replied that to make sure the lights are on, you go down that list, with the lowest cost, and that they don't pick and choose the resource attributes. In the event an out-of-state carbon resource bids in, there's a GHG-adder. It gets put into the settlement and helps it comply. That cost will be part of that bid stack. But they haven't come across a situation where they didn't have enough resources.

Member Ted Ferrioli wanted it reemphasized that access to this mechanism reduces the flexible reserve requirements of operators. You could reduce the risk to individual operatosr that they would have an unmeetable load if they are a part of the system. That's as valuable as any of the other benefits.

Crowley said these are real-time, flexible reserves, not the long-term reserves that are in planning. It's the benefit of a larger pool or resources that each utility can draw upon.

Member Ferrioli said that in a way, you're making more energy available if those reserve requirements restrict a utility's ability to put that reserve online, and you reduce the requirement.

Doesn't that make more energy available throughout the system? Yes, and it requires that you to have less ready to go to serve that real-time load, Crowley replied.

Member Devlin asked, when you indicated a circumstance that California might have to draw upon a thermal resource, there is an additional surcharge. We call it the greenhouse gas bid adder, John Anders replied. It's paid by the load in California and goes to the supplier.

Member Devlin said he could understand from an environmental standpoint that people might prefer wind and solar over hydro, but from an emissions standpoint there isn't any significant difference. Crowley said they look at the operational characteristics of hydro and see great value. It's not our call, she said, it's the individual states.

Member Karier said they you haven't talked about the current situation of forest fires and transmission lines. Is it affecting prices and stresses? Crowley said they monitor the fires and have had to derate lines. They have a close eye on it.

Member Booth asked if BPA is part of the supply opportunity? Crowley said they have not signed on for the EIM. They might have separate contracts. Kujala said that Bonneville has worked heavily on the transmission side, so there's access.

Member Anders asked that assuming BPA were to join the EIM, would they be subject to the greenhouse gas adder? John Anders replied that BPA would not have a GHG bid adder nor be subject to the compliance obligations of the California Resources Board.

Member Yost asked, what is the ISO's feeling on a capacity market? Crowley said they don't operate a capacity market and don't intend to. In reference to the bill AB 813, the state wants to prohibit us from operating one in California. Some states want to go to full retail competition. There may need to be some central procurement process.

Member Yost said if you have a problem with a ramp between 4–7 p.m., how are you meeting that load today? Crowley replied they're addressing it with a mix of conventional resources. Member Yost said you must be successfully meeting it. John Anders replied the balancing authority is still responsible for meeting the load. They're doing it through the day ahead market and the real time, which includes the EIM and backstop markets that are available to them.

2. Briefing on 2017 Regional Conservation Progress Survey Results

Jennifer Light, Regional Technical Forum (RTF) manager, and Garrett Herndon, RTF assistant, briefed the Council on the annual energy efficiency savings acquired in the region, and the related expenditures for 2016 and 2017. It's the second look at the milestones set in the Seventh Power Plan.

Light explained the data gathering and analysis processing. She explained the types of savings in the survey:

- Total regional savings

- Program savings
- NEEA Alliance savings
- Momentum savings
- Codes and standards savings

The survey looks at total regional savings for the following residential markets:

- Lighting
- Ductless heat pumps
- Refrigerators
- Heat pump water heaters
- Clothes washers

Member Booth asked when did they start adding momentum savings. Light replied it began when they were able to measure and track the total market. It's grounded in understanding the total market change. They were able to do it in the Sixth Plan for a handful of markets. Now we added residential and commercial HVAC and water heating, Light said. Booth asked if she will you show how much savings it added compared to fifth plan. She said they will show savings from the 2016 and 2017 period, which currently is a negative.

Light then provided a detailed description of the adjustment to total regional savings, and Herndon provided some caveats to the results. The RTF received savings and expenditures data from 136 reporting entities.

Light reviewed the Seventh Plan Conservation Milestones. Currently the region is on track with the Council's Seventh Plan, with a total of 404 MW in regional savings over two years. Total utility expenditures were $512 million in 2017. IOUs accounted for 65 percent, publics 27 percent, NEEA 7 percent and Mid-C 1 percent.

Light raised a cautionary yellow card: while the region is on track, it is possible that it won't meet the six-year goal. Milestones grow, but program budgets and savings are flat or declining. Achieving the goal will require significant savings outside of programs, but this is an area of large uncertainty. Bonneville appears to be falling behind in its share of the target.

Light reviewed the estimated achievements versus the cumulative six-year milestone. A total of 631 MW of remaining savings would be needed to hit the mark.

Member Karier asked about NEEA savings. It conceivably could be enough to make the 2018-2019 target, Member Karier said. Yes, it conceivably would, Light replied, but when they adjust for total regional savings, it might not.

Member Anders asked if the numbers are a function of how programs are run or a function of what's available for energy efficiency. Some are tied to budgets and budgets are tied to savings, Light replied. A lot of savings are coming from lighting, which are cheap. They'll need more savings from HVAC, which are more expensive.

NEEA Alliance savings are 63 aMW for 2016 and 2017. They are forecasting an additional 60 MW in 2018-2019. Again, the uncertainty is the total regional savings. Adjusting to total regional savings resulted in a reduction of savings by 95 aMW. Most of the savings were in the residential lighting sector. Programs in NEEA are tracking all of the efficient lamps, but when they look at the total regional savings, there are still a lot of inefficient lamps, which brings down the savings.

Expect total market data for:

- Commercial lighting – a lot of savings in lighting here could increase or decrease the savings;
- Residential HVAC (beyond DHPs);
- Residential Water Heating (beyond HPWHs); and
- Commercial HVAC.

Commercial savings are likely to change when adjusted to total regional savings. Most of the commercial savings is lighting. Utilities are using an in-ceiling baseline, which could decrease savings by 30 aMW.

What's driving projections? As expenditures go up, the savings go up. There will be further reductions in expenditures in 2020-2021 by BPA, which will contribute to the flat savings.

Generally, the less you save, the more expensive your savings are. It's tied to where we have to spend money to get savings, Light explained. Member Ferrioli and Member Booth asked for clarifications on the slide "Comparison of Level of Savings with Acquisition Costs." There was a detailed discussion on the intent of the wording and graph.

Light reviewed program savings by organization type in 2016 and 2017: IOUs – 64 percent, publics (self-funded) – 10 percent, publics (EEI) – 21 percent, and Mid-C – 5 percent.

Light shared BPA's progress toward the Plan's 2016-2017 milestone: 123 aMW accomplishments versus a goal of 155 aMW. BPA program savings represent an overachievement to what they planned for in the Action Plan. BPA's plan assumes 33 a MW of NEEA and Momentum savings in 2016 and 2017, and a total of 229 aMW over six years. We're seeing a delta of 40 aMW, Light said. BPA remains confident in its projections.

Member Devlin asked for a clarification on the slide showing BPA's aMW savings. Light explained the math involved.

Member Karier asked about calculating the total regional savings adjustment. What if we didn't do the programs at all and people bought fewer lightbulbs or efficient appliances?

Light replied, for residential lighting, the market is getting more efficient. But our baseline already assumed some percentage of those would be sold. In our math, it's one example of where the programs and NEEA touched every efficient lamp. The negative is all the inefficient

lights that weren't otherwise claimed. Another example is the commercial washer market got less efficient overall, going from front-loading washers to top-loading washers.

Light added that they're trying to capture the efficiency that's happening outside of the market. It's an efficiency that is not happening at the pace the programs are claiming. I encourage us to not just look at when it's a positive change, but also when it's not moving as quickly, she said. It helps us know where to put our money in a more positive way.

Some markets continue to have significant cost-effective potential. Two bars (lighting and residential HVAC) have the highest potential. They need to shift to HVAC and water heating, which is more expensive to get.

Herndon said that taking a long view, energy efficiency is a low-cost resource. Over 22 years, efficiency costs hovered around $22 per MWh, while energy costs have varied widely.

Efficiency continues to contribute significant capacity savings to the region: 865 MW of winter savings and 499 MW of summer savings. The region has achieved more than 6,600 aMW of savings since 1978, which is more than two Grand Coulee Dams of output. It represents enough energy savings to save the region's electricity consumers $4.8 billion in 2017. It also has saved 35.6 million metric tons of CO2.

In conclusion, the region is on track to meeting the two-year milestone. There is uncertainty in meeting the six-year goal. Budgets are flat, with reduced spending on energy efficiency in 2020-2021. We will need savings to come from outside of programs.

Member Booth asked to see the cost of conservation per MW. Light said she can pull that.

Member Karier said normally we hear that the region met the target. That's good news. It's normal to raise cautions about the next few years. We knew it would be tougher.

3. **Council decision to release draft White Paper on Development and Use of Regional Savings Estimates in the Northwest for public comment.**

Jennifer Light said the white paper looks at the methodology for developing and using regional savings estimates, and how the RTF does its baselines. The RTF's advisory committee is interested in receiving this paper and putting it out for public comment.

Member Anders moved that the Council approve the release of the white paper Methodology for Estimating Energy Efficiency Savings in the Northwest for public comment for a period of 60 days as presented by staff and recommended by the Power Committee.

Member Karier second.
Motion passes without objection.

4. Council decision to adopt Final Underserved Energy Efficiency Markets Report

Kevin Smit, senior energy analyst, has been working with the region for the past year and a half to develop an underserved energy efficiency markets assessment — an item in the Seventh Power Plan's Action Plan: MCS-1: Secure proportional savings from "underserved" or "hard-to-reach" populations. A working group looked at several possibilities listed in the Action Plan, performed research, and found that manufactured housing and the rental market stood out as key, underserved sectors. The results varied by utility.

After putting out a draft report, Smit gathered public comments, and received them from BPA, Northwest Energy Coalition, UCONS, LLC and two individuals. He encouraged Council members to read the complete comments.

Smit shared some general observations about the comments. The next steps include monitoring and supporting utility efforts to revise program strategies and to perform additional data analysis. The Council will request an update on utility efforts in a year or two and will lend support.

Member Booth said that on a project this extensive; if you're not prepared to put out conclusions, don't start the process. He asked how expensive was it to do this project? Smit replied they didn't hire anyone. Each utility donated time to do their own work. They had a small contract to have a contractor help, costing about $10,000–$15,000. The Energy Trust of Oregon is doing a lot of work in this area on their own.

Member Karier said the way this was done avoided a lot of expense and data collection. It's fortunate that the utilities had same questions we had.

Member Baker echoed Tom's comments and thanked entities for participating and thanked staff.

Member Anders asked if the report addresses what the Action Plan called for. Smit replied that a lot of entities and members were involved in writing the report, but that some entities probably will not be satisfied. Still, he believes that what they got was better than expected. "We recommend that utilities take it from here," Smit said. "We stepped in because it wasn't happening on its town. Now utilities are moving with it."

Member Ferrioli said wherever utilities, regardless of size, dedicate more resources, outreach and education to serving underserved, they got better results.

Member Devlin said one under-served area was multifamily and there are a number of examples of utilities getting through those barriers. They could reexamine it two years from now to see if more utilities are making efforts in this area.

Member Yost said we made a mistake when we drafted that MCS-1 language. We didn't mean what we said. So I think the report's good.

Member Anders moved that the Council approve the final Underserved Energy Efficiency Markets Issue Paper as presented by staff and recommended by the Power Committee.

Member Karier second
Motion approved without objection.

The Public Affairs Committee and the Executive Committee will meet following the meeting.

Member Yost recessed the meeting at 4:15 p.m.

Wednesday, August 15

Member Yost brought the meeting to order at 8:59 a.m. Member Baker did not join.

5. Presentation on National Oceanic and Atmospheric Administration Columbia Basin Partnership Task Force's Provisional Products and Next Steps

Grover introduced Mike Edmondson, Idaho Governor's Office of Species Conservation; Nancy Leonard, staff fish, wildlife and ecosystem M&E report manager; Katherine Cheney, NOAA; Urban Eberhart, Kittitas Reclamation District; Norm Semanko, Idaho Water Users Association; and Kevin Scribner, Salmon Safe.

Cheney provided background on the Columbia Basin and the creation of the task force:

The Columbia Basin is home to 24 salmon stocks – 13 listed under the ESA. NOAA Fisheries, states and tribes have multiple management responsibilities and plans. For example, NOAA Fisheries has multiple responsibilities such as ESA, Magnuson-Stevens Act, treaty/trust to tribes and mitigation. Various plans and processes are underway related to habitat, hydrosystem, harvest, hatchery and other ecological considerations, addressing varying aspects of salmon management.

A 2012 assessment by the Ruckelshaus Center and Oregon Consensus found the need for more coherent, integrated, and efficient means of addressing the complexities of salmon recovery; and for identifying common goals for measuring progress and success. NOAA Fisheries convened a Task Force under its Marine Fisheries Advisory Committee (MAFAC) to comply with Federal Advisory Committee Act.

The CBP Task Force began in January 2017. It has 28 members from states, tribes and various interests:

- NGO/environmental;
- Commercial fishing;
- Recreational fishing;

- Utilities;
- River industry;
- Agricultural/irrigation; and
- A local recovery group representative from each state.

The desired task force outcomes are:

- Quantitative adult abundance goals for both listed and nonlisted stocks;
- Goals that address both conservation and harvest/fishing aspirations;
- Goals consider various users of Columbia Basin resources;
- Better coordination, more effective use of resources, and alignment of strategic priorities; and
- Enhanced relationships, trust and knowledge.

How will NOAA use the goals? They have several different mandates that inform these processes with integrated goals.

The provisional qualitative goals are in four categories: natural production, hatchery/mitigation, harvest fisheries, and social, cultural, economic and ecological considerations.

The provisional quantitative goals are in three categories: natural production, hatchery/mitigation and harvest/fishing. The task force is using the Council's database as a starting point. Cheney went into an explanation of how they plan to further define these goals.

Cheney outlined the next steps:

- In October, CBP Task Force members will provide feedback on provisional goals from outreach to constituents and communities over the summer.
- The CBP Task Force recommendations report will go to MAFAC in January 2019.
- The CBP Task Force plans to continue to integrate and further evaluate provisional quantitative goals across species and the basin.
- Once phase two is complete, the provisional goals may be adjusted.

Member Karier said this has been a long, fascinating process. He asked about the low number in the range, a number that would be used to avoid listing or delisting. He believes that NOAA used to have a formula — it wasn't one number, but some formula with different values. Would this replace that and become the new delisting target? No, replied Cheney, delisting criteria is the viable salmonid parameters. There are four and abundance is only one. Productivity, diversity and spatial distribution are the others. It's captured in the qualitative statements of natural production.

Member Ferrioli asked who from forestry, cattle and forage crop producers is on the task force? Cheney replied there are no cattle interests. We reached out, but nobody was nominated, she said. We do have a private rancher, but she probably wouldn't represent that segment. Member Ferrioli wanted to know who could represent BLM grazing. In some counties, that's 90 percent of the land. If they're not represented, I don't know how you can effectively partner with land owners on who we rely for cooperation on riverside management, stream quality and other

things, he said. If there isn't an iteration of their interest, I don't see how they can be expected to carry the burden of regulation we put on them. I see that as a serious deficiency.

Member Booth said yesterday there was a presentation on the details. NOAA's recovery goal is based on natural populations, whereas here it's focused on an overall goal that combines hatchery fish, which are the only ones that should be harvestable. Hatchery production has been declining. There used to be 200 million smolts sent out, now there's 139 million smolts. Those are the harvestable of the run. A 61 million fish reduction is a large number. Maybe 40 percent. Therefore, we can expect declining returns.

"It's 30.5 percent," interjected Member Devlin.

Cheney said it's important to consider the timeframe of 20-50 and 100 years. We see progression over time of an increase in natural production, therefore the need for emphasis on hatchery production will decrease over time.

Member Devlin asked, "Was there any effort to evaluate these recommendations in terms of goals and the current level of resources being devoted, and what level of resources might be needed to achieve these goals?" Cheney replied they hope to accomplish these goals in phase two.

Member Devlin observed that many of the goals appear aspirational, even beyond reality. We could pick a few species in a few areas and achieve delisting. But to achieve delisting all species, given other factors out there, I don't know if that's achievable. There is no mention of ocean conditions. We've seen clearly though all the effort that has been made, only to have adverse ocean conditions make the numbers go down. Also, water temperatures can thwart efforts. Has there been any discussion on those factors?

Cheney said there was discussion and that will be part of the phase two discussion. First, they were trying to establish common goals.

Member Devlin said he tends to be skeptical of goal-related documents with no specifics in them. He's hoping for some achievable goals in the first 20 years. Keeping people focused for the first five years is almost impossible.

Cheney agreed and said they hope for more specificity in phase two.

Member Norman said it would be informative to hear from the guests who arrived from the task force.

Deb Marriott, of the Lower Columbia River Partnership, said this has been a challenging process. One of the benefits is the building of relationships. They're learning more about impacts of ranchers, utilities, environmental and recreational interests. This is large, but it's not the only effort in the basin. Other efforts are looking at toxics and water quality issues.

Edmondson said he represents a lot of ranching interests. We in Idaho see Eastern Oregon as Western Idaho. He's happy to meet and share this report with anyone, including Idaho water users. We have that interest covered in spades. The membership of the group is incredible. I get to sit with ocean fisherman, seafood packers. There's some tongue biting involved. It is a very functional group. People can air their opinions and bring in their sacred cows. I also wear a state hat. To have goals beyond the ESA is an important thing. In Idaho, a lot of our lessons have to do with wolves and delisting. Having hard numbers is important and we want to stick to those. All this beyond delisting and it is good to keep our recovery plans clean and concise, because our number-one goal is to get the fish delisted. I'm excited to have a document with this type of information.

Member Ferrioli said it's not the first time he's heard Eastern Oregon referred to as Western Idaho. It's a surprise to people in Portland that Ontario and Nyssa are in a different time zone. I appreciate some articuluation of the interests going on in the task force, he said. He asked Edmondson if he has heard of the Three Reds Rule proposed for Malheur National Forest. Edmondson replied he had not. Member Ferrioli said if three reds on an allotment are disturbed by elk, bear, trout fishermen or deer, the allotment will be closed and the cattle removed. There's no recourse to a hearing, just a demand letter for removal. This rule is proposed largely without any input from the grazing industry. "What worries me that we have people promulgating rules and talking cooperation, and the end result could be bankruptcy for families," Member Ferrioli said. "That disturbs me. These are the same families we're relying on to manage their allotments and private landholdings for the benefit of salmon recovery. It's an incongruity I'd like to see addressed."

People in Idaho think people in Portland and Seattle are in a different time zone, and we're not talking time of day, Member Yost said.

Eberhart shared how they've moved in the Yakima Basin and discussed the history of litigation. They realized that all adversarial activities weren't helping anything. They began the Yakima Basin Integrated Plan process. He said the basin is second only to the Snake River system in the numbers of fish sent into the Columbia. What had been 800,000 fish has been knocked down to 2,000 fish in past couple of decades, he said. They're working to bring it back to 300,000 fish and do it in a way that agriculture, municipals and species are protected. When we get into next phase, we're going to work on longer term solutions, he said.

Semanko represents water interests in the Snake River Basin. He said it's important to us from Idaho, from the governor on down, to be a part of the process. If you're not at the table, you're on the menu, he said. We were all invited to be at the table. He said it's not easy to get people to come. If they're not coming, it's on them. Folks who aren't there need to be re-invited and they need to invest to be at these meetings. This is our ticket out of the courtroom, he said, it's our opportunity to do regionwide what the Nez Perce did in 2004. It's an embarrassment we're in the courtroom every day on these issues. He said they have worked hard with their friends in the Upper Snake River Tribes. Full-blown reintroduction isn't practical. But we have the discussions. We're turned in and invested.

Scribner said the task force members have covered all the bases. This is the third initiative he's been involved in influenced by the Rucklehouse Consensus Policy Center. We're able to get into a conversation of interests beyond positions. There's a frankness and honesty and we're willing to tango with the taboos and get into the numbers in phase two.

Zach Penny, CRITFC, is a designee on the task force. He came to observe. It's important for treaty tribes, and he reiterated relationship building and addressing the issues in the room. He's working with four tribes and they're pretty supportive.

Bob Austin represents tribes and how to get fish above the dam complex. Difficult discussions are being had and that's monumental.

Member Yost recognized Ray Beamesderfer, NOAA biologist. He complimented the process and praised NOAA for its boldness.

Member Karier said he's impressed with this process. He has seen so many failures over 20 years. The Power Act had expectations that we were going to develop quantitative goals in the region. We've tried a lot of things that didn't work out. The Council can consider these for adoption into the Fish and Wildlife Program, but generally we have independent science review of that kind of work. Have you done that or will you in the future? Cheney replied that probably would take place in the future, at the end of phase two.

6. Briefing on Surface Collectors in the Pacific Northwest: Operating Characteristics and Collection Success

Laura Robinson introduced Toby Kock, U.S. Geological Survey. Robinson said in 2016, Council staff also produced a report on fish passage at high head dams. In 2017, the USGS conducted a thorough review of forebay collectors located at eight projects in Washington and Oregon.

First-generation collectors appeared in the 1950s. Most were abandoned within a few years. Second-generation collectors were developed and installed at several locations. Floating forebay collectors have been developed to capture downstream-migrating juvenile salmon and steelhead.

He discussed the terminology of the collectors. These forebay (or floating) surface collectors are located just upstream from the dam. Many have net systems, which help keep fish from going downstream and help them use other routes. He discussed how those structures work.

Kock talked about the top seven facilities:

- Upper Baker Dam and Lower Baker Dam, Baker River, Washington
- Cushman Dam, Skokomish River, Washington
- Swift Dam, Lewis River, Washington
- North Fork Dam and River Mill Dam, Clackamas River, Oregon
- Round Butte Dam, Deschutes River, Oregon

- Cougar Dam, McKenzie River, Oregon

Kock discussed collector inflow levels. Member Anders asked if it was the amount of water required to allow the collectors to function or is it the collector's capacity. Kock said it's the amount of water coming into the "front door" of the facility. It attracts fish into the forebay of the facility. He said their analysis looks at inflow. Our facilities can operate, but doesn't mean they will collect fish, he said. The facility floats and they can adjust the facility to the flow. If you want to increase the flow, you reduce the height of the structure.

He talked about effective forebay size, confinement distance and water temperature. During fish collection season, they're not dealing with a lot of reservoir fluctuations. He talked about the size of the front door if you're operating in a small forebay. The larger the forebay, the more important the size of the entrance.

Member Norman asked a question about the relationship between the forebay total area and the inflow. Kock replied it's a function of the collector structure itself, it's not influenced by the natural flow. These were built to operate regardless of the natural flow.

The significant predictors of collection success include:

- Inflow
- Lead net presence
- Entrance area
- Effective forebay area
- Entrance area x effective forebay area

Modifications have been made at Cushman and Swift Dam to improve collection. It will be interesting to see how future modifications will improve our understanding of how these facilities operate.

Member Anders asked about the cost and ownership of the facilities. They are very expensive, Kock replied. Upper Baker was built in 2008 and the most recent, River Mill, in 2015. They cost between $30 and $110 million. The PUD that are operating the dams own them.

Member Karier asked about the nets funneling the fish in. If you have a low collection, where are the fish going? At Upper Baker, after the collection season ends, they pull the collector and nets out, Kock replied. They could go through the power house or with the spill. Fish that don't pass the dam at other places stay in the reservoir. Member Karier asked questions about the sizing of the nets and their ability to hold fish. Kock replied that by and large, they are staying in the reservoir.

Member Devlin asked a question about the natural geography surrounding the forebay. Kock explained of how Cushman works. The nets keep fish from passing the dam. The distance upstream is pretty arbitrary. The main thing we've learned is that when you have a small forebay, maybe the nets are less important, he said.

Member Norman asked a question about the lead net. Kock said most don't go too far upstream. Factors include debris, wave action and are very site-specific.

Member Booth said he's a skeptic on putting something like this on Grand Coulee for the reasons Kock outlined. There seems to be a tendency to think that things being achieved elsewhere that could be applied to Grand Coulee and Chief Joseph dams. He mentioned a failed trial at Cougar Dam and said it probably should be added to the discussion. He said it's tough to collect fish with a huge forebay. Baker is 1,200-feet long versus a mile for Grand Coulee, and he has a hard time picturing a collector expanded to that size and being economic and feasible. You're dealing with much-larger flows, Member Booth said, and it seems like an almost impossible technical challenge. It's good work, but I don't know why we're not looking at the scale of issues when we make these presentations. I remain skeptical and this report hasn't convinced me otherwise, he said.

7. Council decision on Project Review

Mark Fritsch, project implementation manager, said a decision is before the Council on the Lamprey Master Plan. He introduced Siena Lopez-Johnston, BPA project manager; Brian McIlraith from CRITFC; Aaron Jackson, Umatilla Tribe; and Ralph Lapman, Yakama Nation. Each have individual projects with a common goal.

They received the Lamprey Master Plan on March 28 and received a favorable ISRP review in May. Six qualifications raised by the ISRP are to be addressed as a part of the Step 2 review. in 2022 or later, depending on how the next phase of this project proceeds.

McIlraith presented the plan at the Fish and Wildlife Committee meeting in Missoula last month. The master plan was organized by CRITFC on behalf of its member tribes, primarily the Umatilla and Yakama tribes (who were the brains and brawn behind the plan). Nez Perce and Warm Springs tribes reviewed the plan, as well as various state and federal agencies, BPA and the ISRP, and HDR Engineering. The intent is to restore and improve life for Pacific lamprey.

They are getting ready to begin phase two, which is the release and monitoring of the fish. The basic goal is to evaluate the feasibility of using artificial propagation and adult translocation to better restore lamprey throughout its range. Lamprey have declined for a number of reasons. There are passage issues and lots of factors at play. The restoration plan is just one tool, it's not the only tool.

There was a discussion of the Master Plan timeline and phases:

Phase 1: Laboratory 2012 – 2020.
Phase 2: Release fish into the environment, 2018-2026.
Phase 3: Synthesize the two phases to develop a potential path forward, 2020 – 2029+.
Phase 4: Implement a path, 2027-2029+.

Lapman said the Yakama have started translocation and have seen positive, initial results. The next step is to release them in the Upper Yakima and Naches watersheds. They plan to release larvae/juveniles of various age-classes into different habitats at predetermined sites and observe their performance over time.

Jackson said the Umatilla project started in 1994. They started translocation in 2000 in the Umatilla River. They used to count the number on two hands. This year, they had 3,300 returns. The Confederated Tribes of the Umatilla Indian Reservation (CTUIR) will release larvae/juvenile in watersheds within the Walla Walla and Tucannon subbasins over the next 10 years. The plan is to release larvae and identify which mechanism works best. The Yakama Nation and CTUIR have facilities to maintain adult lamprey and propagated larval lamprey that are operational at various capacities.

Lapman described the layout of the Yakama Nation hatchery. He mentioned that larvae are very sensitive to density, so it's prime time to begin releasing them. We were able to raise them from eggs on small budget, he said. They're one of two centers in the world to do so, and they have learned a lot in the last four to five years.

Jackson described the layout of the Umatilla facility. One used to be a steelhead facility, and it's now being used for lamprey.

Short-term next steps include: using existing facilities to save money, creating an extra space to hold more fish, provide a status review to ISRP, and implement phase three.

Member Karier asked, what if lamprey don't return to native stream? How do you measure results? Lapman said they are looking at the short term where the fish go, and survive in enclosures. They look at survival in release sites. Longer term, they'll be monitoring to catch them downstream. Adults will be clipped. We'll know where they came from whether they're wild fish or translocated, he said. They will be collected at John Day Dam where lots of juveniles are collected.

Jackson said that short term, looking for juveniles. Self-sustaining, harvestable populations is the ultimate measure of success.

Member Booth said the project has come before committee for number of years. It has evolved from a number of smaller sponsors. One of the key services we do as a Council to bring people together. After getting it through a review process, the project got better. The monitoring issue is one example, he said.

Asked about the ESA status of Pacific lamprey, McIlraith replied that lamprey aren't listed. It was petitioned in the early 2000s, but it was denied. The season is one or two months for personal catch at Willamette Falls. There's no commercial fishing.

Northwest Power and Conservation Council Motion to Recommend the Implementation of Work Outlined in Lamprey Master Plan

Member Anders moved that the Council recommend that Bonneville implement the work outlined in the Pacific Lamprey Master Plan through Phase 3, Objective 5, involving three projects (Project #s 1994-026, 2008-470 and 2008-524). With this recommendation, the Council requests that Bonneville and the sponsors address the following:

- Assess whether and how these projects will be adequately funded through this phase of the Master Plan, and report back to the Council if funding difficulties are expected; and
- Provide a status review for ISRP review and a Council decision prior to the initiation of Objective 6 of Phase 3 in 2022

as presented by staff and recommended by the Fish and Wildlife Committee.

Member Booth second.
Motion carries without objection.

8. Presentation on Bonneville's decision to implement the FY 2018 Spill Surcharge

Bryan Mercier, Peter Cogswell and Daniel Fisher, power rates manager, Bonneville Power Administration.

Cogswell said last week, BPA teed up its rates conversation, BP 20, which will set rates in 2021. It's having a real effect on the things we're doing today, he said. The spill charge may not be around long term as they are evaluating whether or not they're going to need it in future rate cases.

Fisher explained that BP-18 is the last rate case they ran. The spill surcharge is a formula rate adjustment that approximates the additional cost that power customers would have been charged if BPA had known planned fish passage spill operations when setting final BP-18 rates. Daniel Fisher, BPA's power rates manager, said that the rates are set based on an analysis of monthly forecast generation and market prices over 80 years of historical water conditions. In reviewing the cost calculations, Fisher explained that the administrator recognized that the agency's cost-reduction measures could help offset the financial uncertainty the spill surcharge placed on customers. "We don't like our rates to move in the middle of a rate case," he said. BPA is forecasting it will spend $20 million less than its rate case estimates on fish and wildlife in fiscal year 2018.

The spill cost formula:
Spill cost for FY 2018: 38.6 million
Cost reduction: ($15.5 million)
Non-slice PF customers: × .7726
Secondary reduction: ($7.6 million),
FY 2018 spill surcharge total: $10.2 million

Member Karier said that as more spill was ordered and there was less supply in the market, the mid C price was moved higher. Is the base $20-$30 per MWh? Is that a 3-6 percent increase? I don't know, Fisher said, it's pretty low in the spring, probably sub-$20. Member Karier asked, if it could be a 5-10 percent increase in price? Yes, replied Fisher.

Fisher continued to break down the calculations and explained the administrator's cost reductions across the agency. BPA is forecasting it will spend $20 million less than its rate case estimates for fish and wildlife.

From June to September, the spill surcharge rate is 0.71 per hr. He said they have the ability to spread out increases for the rate period for customers in a financial bind.

Member Norman asked for an explanation of the $20 million fish and wildlife reduction. Mercier said BPA forecasts an underspend of $20 million. He explained that will reduce a credit they get from Treasury for not spending that money. The slice-to-nonslice is about 23 percent, added Fisher.

Member Yost asked about customer reactions.

Fisher said it has gone pretty smooth. Customers understand we're in a difficult position, that we're trying not to bring difficult issues into the rate case and that we're trying to recover our costs. Mercier said this balanced approach is working to minimize effects to all.

Member Anders said she's heard from electric co-ops in Montana who would say it's a fair process, but we were in a year where there was no cost to spill due to plenty of water in the system. So what happens with that $10.2 million? Is it set aside for future years? Bryan Mercier, BPA's executive manager in the Fish and Wildlife Division, replied that rates are set on the averages based on the below-average water year they could have next year. In good year, reserves are likely to be higher. They try to smooth it out, he said. The energy market is very volatile, whereas BPA's product is not.

Member Devlin said that when they speak of being offset by $15.5 million in reductions in fish and wildlife, you're talking about current fiscal year. Items that were budgeted that are not being expended are separate from discussions of fish and wildlife. Mercier said the short answer is yes, but they're related. It's a multiyear effort. The savings this year are in actuals versus budget. They're unexpended funds that we're applying in the surcharge. The reductions going through for fiscal year 2019, are part of this multiyear effort.

9. Council Business:

Northwest Power and Conservation Council Motion to approve the minutes of the July 10-11, 2018, Council Meeting

Member Anders moved that the Council approve for the signature of the Vice-Chair the approve the minutes of the July 10-11, 2018, Council Meeting held in Missoula, Montana.

Member Norman second.
Motion carried without objection

Northwest Power and Conservation Council Motion to approve ISRP and ISAB appointments and renewals

Erik Merrill, ISRP and ISAB Manager, explained the rationale for the appointments and renewals, both from a continuity standpoint and for the nominees' expertise.

Member Anders moved that the Council:

- Appoint Kurt Fausch to the Independent Scientific Review Panel for a first term of October 1, 2018, to September 30, 2021;
- Renew the appointments of Desiree Tullos and Wayne Hubert to the Independent Scientific Review Panel for second terms through September 30, 2021;
- Approve the letter to the region inviting nominations for potential ISAB and ISRP members to be considered by the National Academy of Sciences; and
- Recommend to Chair Yost consideration of the renewal of the appointments to the Independent Scientific Advisory Board of Cynthia Jones, Tom Turner and William Jaeger as presented by staff.

Member Booth second.
Motion approved without objection.

Northwest Power and Conservation Council Motion to approve the Extension of the Deadline for Recommendations to Amend the Columbia River Basin Fish and Wildlife Program

Patty O'Toole, program implementation manager, explained that the original deadline was September 14, 2018. There were eight requests to extend the deadline, and she listed some of the reasons given.

Member Norman said they have reviewed the requests, have heard the rationale, and they are leaning towards allowing folks to have adequate time.

Member Ferrioli asked if this would trigger additional extension requests and if those would be accommodated. O'Toole said they don't have that history to lean on, but that it would be important to stick to the schedule.

Member Anders moved that the Council extend the deadline for submission of recommendations to amend the Columbia River Basin Fish and Wildlife Program for 90 days to December 13, 2018, as presented by staff and recommended by the Fish and Wildlife Committee.

Member Ferrioli second.
Motion carrids without objection.

Report on disclosure of earned outside income.

John Shurts, general counsel, said that the Council's financial disclosure policy provides that "[a]t the first regularly scheduled Council meeting after May 15th each year, all Council members' earned outside income during the preceding year will be disclosed."

Shurts said that Member Booth reported fees as a director of a bank in Post Falls, Idaho; and Member Ferrioli reported pasture fees.

Public comment

Fred Hewitt, Northwest Energy Coalition analyst, said Member Anders raised a good question about the spill surcharge. He said that he was the reason for the controversy surrounding the spill surcharge. There's a question on whether it was done on actuals or projections. They used a formula approach. I was asked to be an expert witness on the rate case supplemental spill surcharge. He raised questions about BPA's proposed approach. Wouldn't it be better, given the circumstances, to use an actual data for market prices? He questioned the timing and mentioned a concern about potential for overcollection. That's because the runoff is higher than average. BPA is basing it on 80 years, and natural gas commodity prices are softer than normal. How much did additional spill cost? We don't know. He will continue to ask BPA to make that calculation.

One concern is the BPA formula. If you have more spill, market prices will be higher, and it ends up costing ratepayers a little more this year. But everything rolls into the next rate period anyway.

Member Yost adjourned the meeting at 12:11 p.m.

Approved September ___, 2018

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Vice Chair