

Phil Rockefeller
Chair
Washington

Tom Karier
Washington

Henry Lorenzen
Oregon

Bill Bradbury
Oregon



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

W. Bill Booth
Vice Chair
Idaho

James Yost
Idaho

Pat Smith
Montana

Jennifer Anders
Montana

Council Meeting
Vancouver, Washington
October 13 and 14, 2015

Council Chair Phil Rockefeller brought the meeting to order at 1:30 p.m. Members Rockefeller, Booth, Yost, Lorenzen, Smith, Bradbury and Karier were in attendance. Member Jennifer Anders attended by phone.

Reports from Fish and Wildlife, Power and Public Affairs committee chairs

Fish and Wildlife Committee

Council Member Bill Bradbury, Chair of the Fish and Wildlife Committee, reported that their session began with a presentation by the Columbia River Inter-Tribal Fish Commission on the status of white sturgeon in the Columbia River. Summer mortality in the past couple of years has increased along with water temperatures. Two percent of sexually mature fish have been lost and this figure may be a serious underestimate. This trend could continue into the future, so efforts to counteract the impact of warmer summer temperatures will be critical to sturgeon health.

The committee heard about the draft recommendations of the wildlife advisory subcommittee. It has a meeting to finalize its recommendations on assessing hydro's operational impacts on wildlife, and on the use of the Habitat Evaluation Procedures (HEP). It was a preliminary look at the recommendations and the full Council will get to evaluate them in November.

The committee received a briefing on the regional defense framework for quagga and zebra mussels. If one goes to the Colorado River and looks at the boats on Lake Roosevelt and Lake Powell, they have mussels all over their hulls. If they come to the Pacific Northwest, it will be a massive problem. Bradbury said we are blessed to not have this invasion yet. The real work is to create a framework to prevent their growth in the region. It involves boat inspections and a state-coordinated effort to stem the transport of mussels at their source. The Pacific Northwest spent \$3.3 million in 2014, while the identified need is around \$20 million, if we're to have an adequate defense. Impact of the invasion is about \$379 million per year in the Pacific Northwest if we let mussels spread.

Lynn Palensky, staff program development manager, and Mark Fritsch, staff project implementation manager, presented a brief update on the upcoming wildlife project review. The review will begin in 2016 by evaluating the implementation of Council policy from the current Fish and Wildlife Program before moving into a project evaluation of wildlife projects in 2017.

The committee listened to the Lower Columbia Estuary Partnership's (LCEP) presentation on the challenges of mitigating fish and wildlife for impacts in the Lower Columbia River in the face of Climate Change. LCEP has habitat targets to address the loss of stork habitat coverage, and it has identified 77,000 potential recoverable acres in the Lower Columbia River. The challenge ahead with climate change is how the decreased flow and increased temperatures will impact migrating fish in the Lower Columbia. They have identified areas of cold-water refugia to counter climate change effects.

Finally, the committee discussed the implementation of its emerging priorities in the Fish and Wildlife program. The staff continues to make progress on implementing these priorities, and it will report back in a few months.

Power Committee

Council Member Pat Smith, Chair of the Power Committee, said they had a productive meeting the previous day, working through the six substantive issues in the Seventh Northwest Power Plan. They completed the second edit on the Executive Summary, Chapter One, and the State of the System (Chapter Two). Council members will get a red-line version of the Action Plan tomorrow. The committee had more edits today, reviewing the energy-efficiency goals, the revised executive summary, and engaged in lots of discussion. Council Member Jim Yost expressed his discomfort with some issues. The committee discussed them, and a consensus was reached to move forward. Two action items relating to renewable energy were melded into one.

The language is revised regarding BPA 1, relating to BPA's backstop role on energy efficiency. The committee added a sentence that if the public utility sector should fall short, it's up to BPA to step in and suggest solutions to it. You'll see that issue on MCS1 on hard-to-reach sectors.

The executive summary chapter had edits. In the state of the system chapter, the most substantive issue was the Columbia Treaty issue. They deleted the language that gets into policy and advocacy, and just state the factual setting of what's taking place. In the committee meeting there was a review of the language in the Action Plan and the committee reviewed Chapter 3 – the Resource Strategies chapter.

Next, they had a first look at the balancing reserves section. It is a statutory requirement that the Council looks at those. That issue hasn't been big in the past with our wealth of hydro, but now it's a bigger issue. The two-page chapter on transmission had minor edits.

The committee heard a presentation on climate change impacts relevant to the Power Plan, Appendix B.

The power committee's consensus is that the Seventh Northwest Power Plan is in a form to present to the Council and then release it for public review. There's still some editing to be done, as staff and policy people review drafts. Smith proposed to have an editing committee, which he and Council Member Henry Lorenzen will oversee. The three main chapters of interest are the Executive Summary, Action Plan and Resource Strategy.

Public Affairs

Council Member Jennifer Anders, Chair of the Public Affairs Committee, had four items on the agenda: A final review of the draft report to Congress, a review of the public affairs division's Web pages on the reintroduction of salmon in blocked areas, a review of Web pages on predation, and a review of a potential contract on the redesign of the Council's website.

The committee met in Eagle, Idaho. It approved the draft annual report to Congress. The Council released it for 90 days of public comment. Members reviewed Web pages on predation and those are now posted on the website. Staff has approval from the committee to seek permission from the full Council to negotiate with Owen Jones & Partners for the new website. Member Lorenzen cautioned that care was needed to ensure that contract milestone are established, monitored and achieved.

1. Presentation on Eulachon (smelt): status, science, and recovery planning.

Lynn Palensky introduced Robert Anderson, eulachon recovery coordinator for NOAA; Taylor Aalvik, director of natural resources for the Cowlitz Tribe; and Dan Rawding, acting regional director for Southwest Washington for Washington Department of Fish and Wildlife.

Eulachon is also known as smelt. Palensky said that there are many references to eulachon in the program, one of which was to hold a forum in 2015 to address biological requirements of eulachon. The aim was to learn about the relationship of flow, hydropower dam operations and what we can do with actions in recovery plan. The forum was held August 21, and had 60 attendees who came as far away as Alaska and Long Beach. The summary is available on the Council's website.

Anderson went through a PowerPoint presentation covering eulachon biology, history, its ESA listing and critical habitat. He discussed threats, limiting factors and factors for eulachon's decline. In listing eulachon's threats, the primary was climate change impacts on ocean conditions, followed by dams, eulachon by-catch, climate change impacts to freshwater and predation.

He said it is a poorly studied species. Since its listing, there's been some funding from NOAA to the states to do spawning stock biomass estimations and other types of biological studies. There has been progress in reducing eulachon by-catch in ocean shrimp fisheries. Anderson discussed spawning stock biomass estimates of eulachon in the Colombia and Fraser rivers.

Anderson said they have been working on recovery planning for the past two years. He summarized the conservation recommendations included in the 2014 FCRPS Biological Opinion. He said that it's important to understand how many fish are coming into the

system, and they're working on a draft plan to do so, and they are looking at a suite of actions to address the threat. They will have a plan going out for public comment in February 2016, with a final plan released December 2016.

Council Member Bill Booth remarked that he was surprised by the graph showing a marked increase in eulachon biomass from the year 2000 to the present, and asked if it represented a recovery. Anderson replied that he wouldn't characterize it as recovering, but he said they are resilient. "They're stochastic, much like anchovies and sardines, with big swings in abundance and crashes." He said they're trying to figure out what the variables are.

Member Booth observed that it looked like pretty good news. Anderson replied that it is, and they are optimistic. Member Booth inquired that if eulachon are cyclical, if prior to 2000, would there be the same variability? Anderson replied that it was hard to say. There was a harvest program in the Columbia for 70-plus years without constraints. He hasn't seen similar patterns based on this pattern because of the difference in the data.

Member Rockefeller said that Anderson previously stated that the fish are listed as threatened, and said that several hundred miles of river are identified as important habitat. He asked if any of those miles are along the Columbia River. Anderson replied that a majority of critical habitat is in the Columbia River Basin — the entire mainstem from the mouth up to the Bonneville Dam. There are 12 miles along the Sandy River, 49 miles on the Cowlitz, and a few miles along the Grays River. Well over 60 percent of the critical habitat is in the Columbia River Basin.

Member Lorenzen asked what is the major source of predation? Pinnipeds and birds, Anderson replied. Last year, harbor seals in the river consume about three million eulachon daily.

Council Member Karier asked Anderson to address specifically what the hydro impact is on eulachon. He said that the Fraser River doesn't have dams and they seem to be in serious trouble there, while the Columbia River does have dams and the areas you describe are below them.

"When you look at Columbia River and how water management at the Basin scale has affected the hydrograph in terms of its timing and magnitude, and how that hydraulic energy and material influx has shifted," Anderson explained, "this is a species that is well synchronized with the spring freshet, and also with the timing of the upwelling of the California current. Those two are well synched and when those two get out of synch that's one of the theories of hydro's impact on the river to ocean transition of larvae. I think you have a large shift in water management that has changed wind and how much water is allowed in the plume environment, which is the nursery of these larval fishes. I don't know if anyone has quantified what it is. This is a fairly understudied species, so trying to connect those dots is tenuous at this time."

Taylor Aalvik talked about the Cowlitz Tribe's resource plan. They secured a grant from NOAA in its Section Six program. He said that culturally, eulachon are important — calling it a "savior fish." Smelt are cycled coming into the Columbia River. There is a time in the

dead of winter with no salmon runs. In late winter, that's when smelt arrives. It brings nutritious food for the people. There are a variety of ways they harvest it with dip nets and rakes. They used to be thick in the river and were a trade commodity.

In 2008, the tribe petitioned for an ESA listing. Critical habitat was established in 2011.

The Cowlitz tried to establish a cost-effective method for evaluating eulachon. Why the Cowlitz? One might assume it's because the river has a lot of sediment. "We're in our infancy in the science of eulachon," Aalvik said. "The tribe is committed to understanding smelt and restoring an important part of our culture."

Member Smith asked how the smelt were dealt with in terms of the treaty. Aalvik replied that it hasn't arisen. He said he believes it's the Federal Government's responsibility to look into the smelt's crash in the early 2000s. They're just trying to find answers.

Dan Rawding, Washington Department of Fish and Wildlife, highlighted page 30 of the forum's summary where he said that there are four great recommendations. First is to maintain spawning stock biomass. Second, think about how to improve monitoring programs. Third, it would be nice to understand what caused the crash in population. We've never studied them enough to know. Fourth, consider the protection and restoration recommendations. Some uncertainties were identified in the document and this is a great opportunity to build off of the hard work done in this forum.

Member Yost asked what difference would it make if we knew if they were a unimodal or bimodal? Rawding replied that it helps understand life history patterns and understanding those basics are important to making management decisions.

2. Briefing on Independent Economic Analysis Board report: Long-term cost planning for the Fish and Wildlife program.

Terry Morlan, chair of the Independent Economic Analysis Board, met with the Council about long-term cost planning for the Fish and Wildlife Program. He is spearheading an effort to look at Fish and Wildlife Program costs, including the vast number of fish screens that are involved in the Lower Columbia Basin.

"We looked at the program as a long-term mitigation investment," Morlan said. "As such, the program has matured for last 35 years to the point where it's more of an operations and maintenance program that is geared to protect its program investments. We're now at a point where funding and organizing these growing O&M costs is a problem."

Morlan noted that the when fish and wildlife projects are approved, there's not a lot of thought given to how long they will be needed. Second, when the Council and the Independent Scientific Review Panel (ISRP) reviews projects, it's more on the basis of biological benefits, and not a lot of thought is given to budgetary impacts. Finally, Bonneville is the manager of the costs and budget of the program, and it is more focused on short-term costs and integrated program review, and rate-setting cycles.

A long-term vision of costs, commitments and risks can improve and reduce unanticipated needs for emergency funding, he said.

Morlan had five recommendations designed to improve the long-term cost planning for fish and wildlife program-funded projects:

1. Implement an asset management process for the major physical assets of the Fish and Wildlife Program. Tony Grover, fish and wildlife division director, remarked that a hatchery assessment approved last month cost about \$250,000 to look at a \$100 million investment.
2. Develop an information system to encompass the life-cycle activities, costs, and benefits of all Fish and Wildlife Program projects. The 2014 Fish and Wildlife Program recommended that the federal action agencies provide 20-year cost estimates to the Council annually.
3. Use the life-cycle project information to improve the management of the long-term costs of the Fish and Wildlife Program, to improve the cost effectiveness of the program, and to supplement the information available for project reviews.
4. Consider establishing a dedicated endowment fund for unanticipated program costs, including but not limited to natural disaster costs.
5. Create one or more staff positions at Bonneville with responsibilities in fixed asset accounting, operations and maintenance monitoring and budgeting, and endowment fund management for the Fish and Wildlife Program.

The Council's Fish and Wildlife Committee will explore these recommendations in greater detail.

Member Lorenzen said that he has been exposed to BPA's complex methodology. How does the establishment of the fund fit with BPA's structure of rate-period to rate-period funding?

Morlan answered, "The contingency fund? They could fund it with partially with capital commitment. They could put an equal amount in every year and, as it's built up, it can grow or be drawn down depending on what problems come up in certain projects. Once it's funded, it might stabilize Bonneville's requirements." Morlan added he believes they have taken that kind of approach in some areas and isn't aware of problems with that kind of funding. BPA would still go through their integrated process review and bi-year budget cycles, but they'd have a longer-term view of their requirements for their fish and wildlife stuff than they do now.

Member Karier said that the recommendations are good ones. Regarding the endowment fund, there is a precedent with the Willamette Wildlife Settlement and Southern Idaho endowment funds that were set up to fund O&M long-term. They had to be managed by others. He said he's not sure if BPA can manage one itself. That would have to be verified and tested.

Morlan said they didn't look into the legality of that and it's something that would have to be addressed.

Bonneville's Bill Maslen said that it would take some creative discussions. The Willamette and Southern Idaho settlement was an upfront populating of an endowment fund, which resulted in permanence of the O&M to the benefit of the projects, Bonneville ratepayers and management of the entity.

Member Karier asked if BPA managed its own fund over time. Maslen replied that he'd have to look into it.

Member Lorenzen said the issue it came up in the context of conservation funding and he wondered if those same issues carried over here.

Member Karier said that these are important recommendations and I wonder how we can convey these, perhaps a letter on how to implement them — maybe with exception of the endowment where we need more background.

Member Booth said that this project of the IEAB was one that came hand in glove with the subcommittee work we're doing right now. He said that Terry has attended their subcommittee meetings. The subcommittee has incorporated recommendations one and two into an RFP that will be issued before long. The remaining three will take some discussion. They do fall within the subcommittee's area. "As we complete the assessment of the hatcheries, the next steps will be to evaluate what should be the asset management plan, the 20-year plan you suggested, and how should it be formatted, implemented and integrated into a system? The issue of how we fund it will be addressed, at least when it comes to hatchery screens and wildlife O&M."

Member Booth said that they will work through four recommendations and that the fifth recommendation regarding an employee will require more discussion. "I think from a practical sense, we'll incorporate IEAB's advice," he said. "I think it's a perfect example of how the IEAB can be more helpful to us, and we intend to implement as many recommendations as we can."

Member Rockefeller said it would be a good idea to have the fish and wildlife committee take up these recommendations in more detail, to think about the implications for actions within the Council, and how to best convey the ideas that have a wider sweep on Bonneville and other parties.

Tony Grover said that they're folding these concepts into the wildlife review. Steps one and two initially, and the plan is to go as far as step three with Council support.

Member Bradbury said, "As chair of the fish and wildlife committee, I want to see these recommendations come before committee in more detail.

Tony Grover said staff will bring it to the committee in November for initial discussion.

3. Council decision on Habitat Reach Assessment for blocked area mitigation.

Tony Grover said that staff recommends supporting a habitat assessment to do a RFP for one area of blocked mitigation. The RFP is to investigate the suitability of salmon survival potential in habitats above Grand Coulee Dam. The area goes from Chief Joseph Dam to the border, which is river mile 541 to river mile 745. It would include tributaries that have the potential to support anadromous fish.

The Council has had the proposal for several days. Member Rockefeller asked if there were any questions.

Member Karier said that it looks fine and is clear and concise. On the first page, there isn't a title that this is a habitat assessment request for proposal. This is specifically about habitat.

Grover said that it's the subject line on the first page of the packet. They are using a general RFP guidance document that goes into the specifics. Page six in the packet describes what we're looking for.

Member Yost asked if this request will go out to everyone and anyone interested in bidding on it. Grover replied that respondents can't just have the low bid, they also have to have access to the data and area. He said that anybody could bid on it and he heard that there's a coalition of people coming together, but he haven't seen the proposal yet. The coalition is comprised of the Spokane Tribe, Couer d'Alene Tribe, Upper Columbia United Tribes, Colville Tribe, Washington Dept. of Fish and Wildlife and Upper River Salmon Recovery Board. Staff will send the RFP to any interested parties.

Northwest Power and Conservation Council Motion to Approve the Release of a Request for Proposals to Assess Habitat for Block Area Mitigation Between Columbia River Mile 545.1 and River Mile 745 at the Canadian Border.

Member Booth moved that the Council approve the release of a Request for Proposals to investigate the availability, suitability and salmon survival potential in habitats between Columbia River mile 545.1 and river mile 745 at the Canadian border, including in any tributaries in this area that have the potential to support anadromous fish, as presented by staff and recommended by the Fish and Wildlife Committee [with changes agreed to by the Members at today's meeting].

Member Bradbury seconded.

Discussion:

Member Karier observed that this was a joint request from the Council and BPA. He asked if the Council had BPA's approval. Bill Maslen said BPA is supportive of it.

Member Booth said, "I do intend to support this motion, however I don't believe that reintroduction via upriver and downriver passage above Grand Coulee Dam is economically feasible. Nor can it be done while maintaining the hydroelectric integrity of

Grand Coulee operations.” He added that Grand Coulee is the heart of the region’s hydroelectric system. “However, we have successfully demonstrated in Idaho that a put and take fishery can be implemented and be successful,” he said. “I hope it will be focused in that arena and that they’ll use the blocked area in the Snake River as an example.” He thanked the staff for working on the issue.

Member Yost said he is glad the cost is more than a dollar because he said that he wouldn’t vote for “one dollar.” He asked if he could assume that BPA will cover all of it? Grover said that the top amount is \$200,000 of federal money. There are other third parties not in federal government who want to bring resources to this effort. Member Yost asked how much will BPA put on the table. Grover replied he heard \$200,000. Member Yost said he heard \$100,000 and that figure should have been worked out before the meeting.

Member Lorenzen said he would vote for the motion.

Member Bradbury expressed his appreciation for all parties who worked together to see if fish could survive above Lake Roosevelt. He noted that there is nothing in the motion about how the fish get there. It’s a study of the habitat. Lake Roosevelt is a key resource for this entire power system. This looks at the possibility of fish surviving upstream in the tributaries. He said that he’s glad to see all the parties have come together to look at the feasibility.

Member Karier said he’s supportive of it. Everyone has an opinion if fish can survive and it’s better to have an informed discussion about this.

Lorenzen said it may be a sensitive area, but it’s important to consider if those who will do the studies will have a stake in the outcome. In order for the study to have credibility, the study should not be tainted by self-interest.

The motion carried unanimously.

4. Council decision to approve Regional Technical Forum 2016 Work Plan

Jennifer Anziano Light, manager of the Regional Technical Forum, presented the work plan development schedule. In its fifth year, the RTF’s mandate is to:

1. Develop and maintain standardized protocols for verification and evaluation of energy savings;
2. Conduct periodic reviews of the region’s progress toward meeting its conservation resource goals, acknowledging changes in the market for energy services, and the potential availability of cost-effective conservation opportunities; and
3. Provide feedback and suggestions for improving the effectiveness of the conservation resource development programs and activities in the region.

The RTF will continue to provide recommendations to the Bonneville Power Administration, the region’s utilities, and system benefit charge administrators to support conservation resource acquisition programs. Its approved budget for 2016 is \$1.696 million.

The RTF is funded by contributions from Bonneville and the region's utilities, in-kind Council staff time, and donated time from many organizations through committee work.

Member Smith said that the proposed budget dovetails with the Council's five-year funding agreement, and they have funding for this.

Member Bradbury said he's very supportive of this proposal and that we should all appreciate this effort to lead the nation in real efficiency and conservation activities.

Member Karier lauded the great leadership from Jim West, Pat Smith and Jennifer Light. "What we have here is a very efficient operation," he said.

Northwest Power and Conservation Council Motion to Approve the 2016 Regional Technical Forum Work Plan, Budget and Business Plan

Member Booth moved that the Council approve the 2016 Regional Technical Forum work plan, budget and business plan as presented by staff and recommended by the RTF Policy Advisory Committee and Council staff [with changes agreed to by the Members at today's meeting].

Pat Smith seconded.

Motion passed unanimously.

Member Smith said that the Council could vote on TFW memberships later on the Council business docket.

5. Briefing and discussion of Climate Change 7th Power Plan appendix

Council staff's John Fazio, senior power systems analyst, and Jim Ruff, manager, mainstem passage and river operations, briefed the Council on Appendix M in the Draft Power Plan. Its main focus is to determine if a climate change scenario would have any effect on the Plan's resource strategies. Appendix M describes how current climate change data is used to analyze the physical impacts to loads and river flows, and how those effects might alter the resource strategy in this power plan.

Fazio said that there are two ways that climate change can affect the power plan: through policies on greenhouse gases or portfolio standards. He said we've seen how those policies have impacted those resource choices.

The discussion before the Council was how the physical impacts of climate change might affect resource choices.

Fazio said that in climate change scenarios, there are about 20 models that show temperature increases. As temperature increases, there will be impacts on the demand for electricity, on snowpack and on river flows.

He said they did an analysis of three different power supplies: One in 2026 and two in 2035. In each case, they checked the adequacy of the projected power supply with and without climate change.

Key Findings:

With higher temperatures, the load will be lower in winter and higher in summer. River flows will be higher in the winter and lower in summer, due to a lower snowpack. The timing shifts a little earlier by two weeks to a month as well. The changes affect hydro generation and the changes in demand make things better in the winter. The summer is opposite. With less natural flow, there's less generation when demand is higher.

Resource acquisitions to offset climate change:

- 2016 to 2026 – none are required.
- 2026 to 2035 – resources are needed only when load is greater than the medium forecast.

Therefore it doesn't change the resource strategy, but we should continue to participate in climate change research and repeat this analysis in the future.

Ruff said they have been working with River Management Joint Operating Committee to downscale global climate data to a regional level. That work is in progress. They will stay involved in that group. They'll get hydrologic data in 2017, will run it through the Genesys model and will look at temperatures.

Fazio said that the governmental panel on climate change finished report last year. It takes staff a couple of years to downscale that data. It's the stream flows information that takes a long time. "The fact that we don't have that data has never stopped us before," he said.

They use some data from previous a previous study and our 80-year water record to estimate what a future, climate change-induced stream flow record would look like.

Member Rockefeller said that the regional director of NOAA said that there's a risk involved in relying upon that 80-year record, in that the projected flows might be markedly different. The tendency is to look at the record rather than trust projections.

Fazio replied that the information will be available at the end of 2016 or early 2017, and they will rerun them. They're not capturing years that we haven't seen yet, and they have projected an average. Fazio then showed a chart showing the average flows versus a year-to-year variation.

Member Lorenzen commented that according to an earlier chart shown to the power committee, the expected impact on precipitation due to climate change was not that great, just a few millimeters — especially given this year of terrible drought conditions. "We hope this is an anomaly," he said. "It might give some comfort to the wheat farmer that the rains will come back someday."

Fazio said that it's the shift in that a lot of the precipitation comes as rain instead of snow. That makes the big difference. Ruff said but if we lose that snowpack, we'll see summer conditions like this summer, which are not good for fish or power.

Council Business:

Northwest Power and Conservation Council Motion to Approve the Minutes of the September 15-16, 2015 Council Meeting.

Member Booth moved that the Council approve for the signature of the Vice-Chair the minutes of the September 15-16, 2015 Council Meeting held in Eagle, Idaho.

Member Bradbury seconded.

Motion approved unanimously

Northwest Power and Conservation Council Motion to Approve the Appointment of Voting Members to the Regional Technical Forum for 2015 to 2018.

Member Booth moved that the Council appoint as voting members of the Regional Technical Forum for 2015 to 2108 the list of candidates recommended by staff, and appoint Jennifer Anziano Light as RTF Chair and reappoint Charlie Grist as RTF Vice-Chair.

Member Bradbury seconded.

Discussion:

Charlie Grist, staff manager of conservation resources, said the Council members have all received a series of memos about the selection of members for RTF. It is done every three years or so. The charter says that the Council appoints 20-30 members. It includes utility commission staff members who don't cast votes, but they are the big users of the work. The selection process started in June, and they reviewed 48 candidates for up to 30 slots. Staff called references and evaluated each candidate's commitment to attend. Member Pat Smith and Tom Eckman, staff director of power division, and received the recommendations. Then the Council considers their recommendations.

Grist said that the caliber of applicants is great and the number has increased this year. They solicited statisticians, evaluators and more women. They were very successful in recruiting top-notch folks. The roster is made up of almost all new members, who participate in subcommittees. He said he strongly supports the roster.

Unanimously approved.

Adjourned at 4:02.

October 13, 2015

Council Chair Phil Rockefeller brought the meeting to order at 8:36 a.m.

6. Briefing on Bonneville Power Administration's Focus 2028 process.

Greg Delwiche, BPA's deputy administrator, met with the Council to outline the agency's upcoming *BPA Focus 2028* initiative. He also announced his retirement at year's end after 33 years with the organization.

Delwiche said that the current sales power contracts that BPA signed with 135 public utilities in the region expire in 2028. "It's time for a more strategic conversation about the long-term view of our structure and business models, so that when it's time to sign new contracts, our customers are saying 'sign me up' versus running the other way," he said.

Taking a look in the rear view mirror, Delwiche said the creation of the Power Act in the late 1970s occurred when load forecasts had run amok. There was WNP 1, 2, 3, 4 and 5; the associated construction of W 1, 2 and 3 and the bond default on 4 and 5, which led to the creation of the NW Power Act and the Council, and the regional power process.

He said that BPA started down a path on new resource acquisition, and had to turn back. So the 6(c) process didn't play out as planned. They had the 7(i) process and the residential exchange as well. Most important, the Power Act had language in it of serving up load growth with conservation when it's the least-cost resource. Looking back, BPA acquired 5,000 MW of energy through conservation, which is 10 baseload coal plants, or 20 combined-cycle combustion turbines.

Reflecting on fish and wildlife, the context that led to the Power Act was the result of two things: the completion of the dam-building era and the 1977 drought. BPA embarked on a fish substitution strategy with the Council and Tribes. "When I think about fish, I think about the long view, find myself thinking about it in an episodic manner," Delwiche said. He mentioned the 1880s to 1920s, during the era of big population growth and the European settlement of the Northwest. There was mechanized harvest, large-scale hatchery production with the Mitchell Act Hatcheries. Between the 1930s and 1970s, was the dam-building era. "Then in the 1970s and 1980s, we had the era of denial and resistance in terms of impact on wildlife, which led to ESA listings," he said. "Now we're in the era of accepting our responsibilities."

He observed that this month, we will see our millionth Chinook over Bonneville Dam. That will break the record of 950,000 set last year. Next biggest was the year before. We've improved passage conditions at the four lower dams. Sometimes hatcheries have bad times, but the Nez Perce Tribal hatchery has been rebuilding populations on the Snake River, and they have found a way to make hatcheries work.

In the six years running the Fish and Wildlife program, he is most excited about habitat program progress in improving stream flows, removing blockage, screening and restoring streams. In the future, we'll see tougher ocean conditions. Some say we have too many hatchery fish. But consider that we have 10 million people, railroads, highways, flood plain

development, massive agricultural economy, and a lot of dams producing greenhouse gas-free electricity. We have a lot to be appreciative of for what we've accomplished on the fish side.

Delwiche said that one area to improve is expenditures on research, monitoring and evaluation. It is not a cottage industry, but rather a mega industry with \$60 million a year devoted to studying. That's a drain on program resources. It seems intuitive that we could do better and spend a lot less, and dedicate those funds to mitigation efforts themselves instead of just studying.

He characterized the utility business today as facing unprecedented change. He said that looking forward reminded him of the Yogi Berra quote, "Predictions are hard, especially about the future."

In the Northwest, federal tax credits and state renewable portfolio legislation has catalyzed the construction of 6,000 MW of renewable energy generation. While coal plants are closing, there's been an increase in hydraulic fracturing, which has made America the Saudi Arabia of natural gas supplies. It also has created downward pressure on energy markets.

In California, distributed generation from rooftop solar may be the resource choice of the future for large portions of residential load, and it also could happen in the Northwest. The consequence is a glut of energy in the afternoon, he said. How all this plays out is that it puts pressure on BPA. Some drivers create more challenges to narrow the gap between tier one energy product and other alternatives for utilities. "If rates continue to rise, with falling market prices, there may be more of a crossover, and that's something we want to avoid," he said.

"This isn't about the raw costs of producing electricity with falling water, it's all the other things we've added on to our rate structure," Delwiche explained. He said that BPA been sufficiently concerned over the past few months that they have developed a more robust analytical tool for analyzing where their rates might be headed, and to perform "what if" scenarios.

He said that unveiling the results of the scenarios this Fall is part of BPA's Focus 2028 effort. He then discussed BPA's recent rate hikes. "On the power side, the past three rate cases have been increases of 8, 9 and 7 percent, for a total of 24 percent over a six-year period."

He next described BPA's cost structure growth since 2009. "Hydro O&M costs have risen 44 percent, while the consumer price index rose 11 percent," he said. "Fish and wildlife is up 29 percent, the Columbia Generating Station O&M is up 12 percent, and energy-efficiency spending up 74 percent. Capital investments are up 3 percent, so those aren't driving the increases."

He said BPA's challenge is to position the agency to negotiate new power contracts so that customers say, "sign me up."

“They won’t be saying that now with what they’ve seen in the past six years,” he said.

Delwiche told the Council that everyone loses if people decide to walk. “Snohomish County Public Utility District is our single-largest power customer, purchasing \$300 million of electricity from BPA and purchasing transmission wheeling to get it into their system. If we lose them to a lower-cost alternative, we can’t force someone else to buy that power.” He said BPA would embark on a massive, cost-cutting regime to repay Treasury.

He said that *Focus 2028* is not to make decisions, but to engage the region, look at BPA’s cost structure and evaluate forks in the road.

BPA will hold a technical workshop on October 27 for anyone who wishes to attend. On November 4, the agency is holding its *Focus 2028* kickoff meeting at the Sheraton Portland Airport Hotel, where the conversation will be at a higher level. BPA will have an industry panel, made up of public power, IOUs, the Council’s Tom Eckman, a tribal representative and the Northwest Energy Coalition. After a broad discussion, attendees will break into smaller workgroups based on individual areas to decide alternative scenarios to analyze.

“Our ultimate objective is to practice good risk management,” Delwiche said. “We want our customers to stick with us.”

Member Rockefeller thanked Delwiche for his work and leadership with Bonneville and Corps of Engineers. “We look forward to working with you as you engage in this conversation with the public, ratepayers and the Council,” he said. “You’ve had a distinguished career in public service; only my colleague, Tom Karier, was present when you were appointed vice president for environment for fish and wildlife.”

Rockefeller said the Council and Bonneville have worked together to help enhance wildlife, stopped needless investments in carbon-emission generating stations, and saved ratepayers billions of dollars in energy-efficiency gains.

Member Lorenzen remarked on the end-year analysis of BPA’s competitive position in 2028. You mentioned cost structure. What about the market price of power and what the competition will be doing? To what extent will you be looking at projections on what the alternatives might be for your customers? Will it be like zucchinis in July, when the supply is really deep and it’s not really needed?

Will this be a focus of Bonneville to look at what market price might be and its availability?

We will engage that question, Delwiche said. The Mid C price index is not market. It’s a commodity price not representative of providing load following to an electricity consumer. It’s a key question in judging where we are.

Member Karier echoed the comments of the chair in complimenting Delwiche. He said that BPA’s competitiveness is a critical issue. One is the issue about market prices for some kinds of power are underpriced because they don’t include the price of carbon. That could be a major advantage for Bonneville. Other uncertainties are about the treaty negotiations, biop decisions, climate change and California market development in the Northwest.

Council looks at all those uncertainties and tries to put it into a model, and explain that reasoning in the Seventh Plan.

Then there's the issue of debt and how you finance your costs. Years ago when I was on the Council there was a projection that BPA could pay off WPPS in 10 years, which didn't happen, it was just pushed off into the future. That's happened quite a few times at BPA. Now the debt is larger and looming in 2028. One thing that lowers future costs is paying that debt off, but that hikes current rates.

An issue close to my heart is fish and wildlife monitoring. We haven't done a very good job. Council asked BPA to come up with better reporting. We've seen progress on better templates, but we haven't seen the reports yet.

On the issue of energy efficiency, converting it to an expense rather than capital was a good decision because it won't add to the 2028 cost. I also thought offering autonomy through net billing for energy efficiency was a good opportunity for utilities, but none of them selected it.

Member Booth said that the Council has taken positive steps to address cost of the program. In a subcommittee chaired by Member Anders, we came up with a cost-cutting methodology that comes up at the start of the year. There is some positive cooperation between Council and BPA. Thank you from Idaho for the work you've done for our state. You've personally pitched in and solved problems.

He said, "We're getting ready to do a celebration in the Upper Lemhi for a tremendous, successful conservation easement that will protect spawning habitat and allow farmers and ranchers to continue their livelihoods. When you leave, I'll lead a standing ovation."

Member Smith and Member Yost both added their comments lauding Delwiche's work at BPA and with the Council.

Member Smith asked what the timeframe is for concluding *BPA Focus 2028*. Delwiche said that it will conclude in late February or early March 2016. It depends on the scope of the workshops to drill down into each program area.

7. Council Member Questions and Comments on Draft 7th Power Plan.

Tom Eckman provided a briefing to the Council to release the Draft Seventh Power Plan for public comment.

Starting with the executive summary, Eckman discussed edits to the document.

Member Booth asked if Eckman knew of any new natural gas generating facilities planned in the next five years in the region. Eckman replied that Carty and Port Westward 2 are included in the Plan. Those are the ones already permitted and under construction.

Member Bradbury inquired if the increased use of existing natural gas plants would cover

coal retirements. Eckman said there are three parts: all the energy efficiency is equivalent to load growth, but if that's not accomplished, then we'll need more gas. The first thing you do is run more of what you already own. Many natural gas plants operate in areas where water is poor. It's cheaper to buy on the market than it is to buy fuel. When we take coal out of fleet, the next best option is to run existing resources more hours a year. We're not building for load growth because energy efficiency is taking care of that. But we have resources in our current inventory.

In the State of the System chapter, a few changes were made. In the reference to the Columbia River Treaty, they deleted policy statements on whether the treaty should be changed or modified.

There were other edits including a graph change in the Resource Strategy section. This section is compliant with the law, said John Shurts, staff general counsel. We lay out a resource strategy, which is an obligation to fulfill the needs of the region.

Eckman said that staff added nuclear as a carbon-based resource, but they didn't evaluate it. While it may be economically viable, it's not feasible in two states. We talk about emerging technologies, so when they get their license, we can talk about them.

Shurts urged the Council to examine the table of content, load forecasts, operating plan reserves and new resource potential. In part four, the plan has an explanation of the modeling. It includes model conservation standards, which is a requirement of the Draft Power Plan. There's a description of environmental methodology. Plus the fish and wildlife program gets into resource planning.

Member Karier asked if there's a chapter identifying specific conservation measures. Yes, Appendix G goes through the steps of the analysis. There are multiple spreadsheets that sit behind this narrative that analysts can download and make use of. It's quite detailed. There was a discussion of conservation standards.

8. Council decision to release the draft 7th Power Plan for public comment

Northwest Power and Conservation Council Motion to Release Draft Seventh Power Plan for Public Review and Comment

Member Booth moved that the Council release the draft Seventh Power Plan for public review and comment, as presented by staff and with the changes made by the members at today's meeting, with the following further details:

- The draft power plan consists of Chapters 1-20 and Appendices A-O.
- Staff will do final editing and prepare the document for public release, in a manner that does not materially alter the substance of the draft approved today.
- Staff will release the draft plan for public review no later than October 20, 2015.
- Staff will give the appropriate public notice of the release of the draft, schedule public hearings in all four states, make arrangements to receive written and oral comments, and schedule the appropriate consultations.

- Close of comment will be December 18, 2015.

Member Smith seconded.

The motion passed unanimously

Shurts said that the Council will receive a lot of informal comments. If members get an email about the plan, or that are relevant to the plan, they should be forwarded to Chad Madron. He will circulate them to all the other members, and he will have it in the record.

Formal written comments must be received by Dec 18. But it's not the end of the opportunity to interact. There will be a consultation period after that. Then we'll have to set a date where we go dark, Shurts said.

Eckman said that staff is preparing a brochure that will be posted online. Shurts added that staff will provide wide public notice via email. The Council has a large email list of about 700 recipients.

The Council Members each conveyed their thanks to staff for producing the draft plan.

Member Rockefeller said to let the record show we invited Scott Libby from Bluefish to offer his comments.

Adjourned at 11:30 a.m.

Approved November 18, 2015

/s Bill Booth
Vice-Chair