

Bill Bradbury
Chair
Oregon

Henry Lorenzen
Oregon

W. Bill Booth
Idaho

James A. Yost
Idaho



Bruce A. Measure
Vice-Chair
Montana

Pat Smith
Montana

Tom Karier
Washington

Phil Rockefeller
Washington

Council Meeting Portland Oregon

February 12-13, 2013

Minutes

Council Chair Bill Bradbury called the meeting to order at 1:32 pm on February 12, 2013 and adjourned it at 12:20 pm on February 13. All members were present.

The Council welcomed new Montana member Pat Smith. Smith said he was “humbled, honored, and appreciative of the great complexity of the issues” facing the Council.

At the end of the meeting, the Council said farewell to Montana member Bruce Measure. Bradbury said Measure “has been a strong voice of behalf of Montana and served his state with distinction on the Council since 2005.” Council members said Measure was not only a strong advocate for Montana, but also had a great ability to collaborate with his colleagues, leading to his being elected to leadership positions several times. Tom Karier pointed out that Measure had been “a strong spokesman for the interests of small and rural utilities in Montana and throughout the region.”

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

Phil Rockefeller, chair, fish and wildlife committee; and Jim Yost, chair, power committee.

Phil Rockefeller reported that the Fish and Wildlife (F&W) Committee discussed the solicitation letter and arrangements for the upcoming kickoff of the F&W program amendment process. We had briefings on the Pacific Northwest Aquatic Monitoring Program (PNAMP) and StreamNet, he said. The committee also discussed the work of the Fish Tagging Forum, Rockefeller added.

Jim Yost reported the Power Committee discussed the comments the Council received on the Mid-term Assessment of the Sixth Power Plan and how they would be handled. We had a report on electricity sales and revenues from 2007 to 2011 and found that rates in the region are going up for all utilities and that electricity bills are increasing, he said. The committee had a briefing from representatives of Portland General Electric and Puget Sound Energy on their demand response programs and how those relate to their Integrated Resource Plans, Yost added. We also talked about Council advisory committees and whether there should be a new one related to the Seventh Power Plan, he said.

Bradbury reported the Public Affairs Committee had not met, but there are some items to note, including work being done on a new brochure to explain what the Regional Technical Forum does. He also reported progress on final design work on the Council's annual report to Congress and the spring edition of the Council *Quarterly*. Bradbury noted the newly redesigned Council website should be up and running soon. At the end of the meeting, Bradbury appointed Henry Lorenzen to be the new chair of the Public Affairs Committee.

1. Council decision on Project Reviews:

Mark Fritsch, manager, project implementation.

- **Project #2008-301-00, Habitat Restoration Planning, Design and Implementation within the boundaries of the Confederated Tribes of the Warm Springs Reservation of Oregon, lower Deschutes River, Oregon.**

Staffer Mark Fritsch presented a request for Council action on an Accord project, sponsored by the Warm Springs Tribes, for habitat restoration. Fritsch recounted the background of the project, including previous Council actions and scientific reviews of the project. Jason Sweet of BPA said that the project would fit in nicely with the agency's new approach to monitoring effectiveness of habitat programs.

Measure moved that: 1) the Council recommend to BPA the implementation of the actions proposed in Beaver and Mill creeks as part of Project No. 2008-301-00, with the condition that the further information requested by the Independent Scientific Review Panel (ISRP) for Beaver Creek be addressed in contracting and included in the narrative associated with the Geographic Review; and 2) implementation of proposed work in the Warm Springs River as part of the same project depends on a submission and favorable review by the ISRP. Bill Booth seconded, and the motion passed.

2. Council decision on the Work Plan for Fish Data Products:

Nancy Leonard, fish, wildlife and ecosystem monitoring and evaluation manager.

Staffer Nancy Leonard presented a request for Council action on BPA funding for the technical services work plan for fish data products to support the Council's and BPA's reporting needs. She described a proposed work plan that addresses the gaps to be filled as a result of the absence of the Status of the Resource (SOTR) products and services. The budget for the project would be \$250,000 for April 1, 2013 to March 31, 2014, Leonard said.

Is the plan to maintain the SOTR? Karier asked. That's not known yet, and this pilot project will help determine an answer, replied Bryan Mercier of BPA. After a year, we would make a recommendation for an SOTR or SOTR-like functions, he said.

I recommend you consider doing this through an RFP, Karier stated. I think it could be done for less than \$250,000, he said. Booth said he agreed, noting that the Program Evaluation and Reporting Committee (PERC) voted to eliminate the SOTR. I'm a little disappointed we have a \$250,000 price tag for the first year, he added. I'll support this, but with the same caveat that Tom mentioned, Booth said, and Rockefeller said he agreed.

Measure moved that the Council recommend that BPA fund the technical services work plan for fish data products as described by staff, in an amount not to exceed \$250,000 for the period April 1, 2013 to March 31, 2014. Booth seconded, and the motion passed.

3. Update on Bonneville's fish and wildlife budget decisions and management tools:

Bill Maslen and Bryan Mercier, Bonneville Power Administration.

Bryan Mercier and Bill Maslen of BPA updated the Council on the agency's FY 2013 F&W budget and some of the new practices and tools they are developing to manage this budget more closely in the future. Mercier said the F&W expense budget has grown significantly since 2000. Last year, we were \$3 million over our target, but this year, with the additional money BPA has added and the adjustments in project budgets we made in consultation with sponsors, we are in a better position, he reported. BPA's year-to-date expense spending is about \$5 million lower than it was at this time last year, Mercier said.

Besides collaborative spending adjustments with project sponsors, we are doing rigorous tracking of expenses and have continued a strong focus on efficiencies, he reported. We plan to use land acquisitions as a spending "dial" in the fourth quarter to help us manage our spending, Mercier added.

We have made changes to our contract management, he noted. For example, no-cost time extensions will be limited to three months, and contract extensions will be by exception only, Mercier stated. We will not allow as many two-year contracts, and we are looking at establishing a management reserve in FY 2014, he said.

What size would the reserve be? Smith asked. We haven't decided -- it could be as little as \$5 million and no more than \$10 million, replied Mercier.

Do you have the same flexibility with capital projects? Booth asked. We have more flexibility on capital projects than we do expense projects, replied Mercier.

Mercier explained that to have invoices submitted more promptly sponsors will be expected to submit a final invoice within 90 days of the expiration of a contract, and at 180 days of the expiration of a contract, BPA will initiate close-out and de-obligate any unbilled funds, he said.

He said the program budget will increase to \$254 million in FY 2014, which should afford the opportunity to begin restoring agreed-upon deferrals and that efficiencies in research, monitoring, and evaluation could allow dollars to be reprogrammed to higher priority on-the-ground mitigation.

It's good to see BPA responding this way, said Karier. Your efforts parallel recommendations the Council has made in the past, especially with respect to freeing up more dollars from research for on-the-ground work, he added.

4. Update on Fish and Wildlife Program Amendment process:

Tony Grover, John Shurts, general counsel; and Patty O'Toole, program implementation manager.

Staffer Patty O'Toole, who will be the lead person for the upcoming F&W amendment process, said the schedule for that process is designed to have the Council complete the F&W amendments before it begins work on the Seventh Power Plan. Since the work on the plan will start in the fall of 2014, staff recommends the F&W amendment process be initiated this April, she stated.

We are working with the F&W Committee to prepare for that, and we have discussed the process with a variety of groups, O'Toole noted. We hope that in March, the Council will be able to review a draft letter calling for recommendations to amend the program and that a final will be approved in April, she said.

In the past, we've had themes for the amendment process -- is there one? Karier asked. Everything is working pretty well, and we don't think any massive changes are needed, replied staffer Tony Grover. The Independent Scientific Advisory Board (ISAB) said "food webs" need attention, he added. We also think there's "undone work" with respect to artificial production, Grover said.

We are not seeing a lot of interest in the region in having a big new planning process -- everyone is interested in implementing current plans, O'Toole noted. We think the current program's organization and measures are sound and that we don't need a big program redesign, stated staffer John Shurts. But there are questions that could be addressed about the Council's role over the next five years and the long term, and about how the Council can add value, he said.

The F&W Committee has said it would like to see some attention to the role of the Council and how it can be more efficient and effective, noted Rockefeller. We are also looking for input on monitoring, evaluation, and research, he said.

5. Briefing on Fish Tagging Forum:

Therese Hampton; Tony Grover, director, fish and wildlife division; and Kevin Kytola.

Therese Hampton, chair of the Fish Tagging Forum, updated the Council on the forum's work, noting the forum was created to determine what the region is doing with tagging programs, evaluate the cost-effectiveness of fish tagging, and make recommendations for cost efficiencies. BPA spent about \$58.1 million on fish tagging and marking in 2012, she reported. There are seven primary tagging technologies and about 100 biological indicators that rely on tags to support decisionmaking, Hampton said. Kevin Kytola of Sapere Consulting pointed out there are also seven or eight fish species involved, which adds another level of complexity.

He said the forum has met 10 times and described the participants. Accomplishments to date include reviewing and summarizing all tag types, summarizing BPA costs per tag type, summarizing management questions, and determining which tagging technologies provide information for which questions and indicators, Kytola said.

We are working with the Independent Economic Analysis Board (IEAB) on cost-effectiveness evaluation, he reported. We have started to formulate recommendations, such as what if we didn't invest in coded-wire tags, which cost \$7 million in 2012, Kytola noted. He said acoustic tags cost \$18 million. Why are they so expensive? Bradbury asked. They are used for short-term studies of fish passage through a dam, and they provide three-dimensional recovery of actual fish travel paths per dam, replied staffer Tony Grover. The real question now is when we will need to do another 3-D study of dam passage -- is it five years or can we wait 20? he said.

Is this cost cluster for tagging the most expensive part of the Council's F&W program? Rockefeller asked. I can't think of another that's more, replied Grover.

Are you trying to answer the question of why we invest this amount of money? Rockefeller asked. We'll be talking about which tags drive which management questions at our next meeting, Grover said. We'll consider what we are getting for \$58.1 million and which management questions are supported by these expenditures, added Kytola.

Are there inefficiencies and overlaps in fish tagging programs? Lorenzen asked. There are clearly overlaps, and we'll discuss whether there are inefficiencies, Grover replied.

This is valuable because we've never seen these costs before, said Karier. We were surprised to see how much is being spent on tagging, he stated. The Council needs to figure out what information we absolutely need and set priorities, Karier said.

I'm encouraged by the work you've done, Bradbury said. There is the question of whether ratepayers should be paying for what is mostly a fish managers' program, he stated. Your data and efforts will help improve the output from tagging in the region, Bradbury added.

I view the forum's work as an opportunity for corroboration of information, said Tom Rien of the Oregon Dept. of Fish and Wildlife. As we parse out geographic areas and species, some tagging technologies will rise up as hitting important management questions, said Dan Rawding of the Washington Dept. of Fish and Wildlife. We are on the way to finding tag types that are the most important in answering management questions, he added.

The real value of the forum is that rather than look at individual tag types, the forum looked across all tag types and how they apply to management questions important to the region, Pete Hassemer of the Idaho Dept. of Fish and Game said. The real hard work of the forum has yet to be done, he added. The heavy lifting will come in the next series of meetings as we develop recommendations, Hassemer said.

6. Presentation on Columbia Basin Water Transaction Program:

Lynn Palensky, program development; and Andrew Purkey,

Andrew Purkey of the National Fish and Wildlife Foundation (NFWF) gave a presentation on the achievements and goals of the Columbia Basin Water Transactions Program, which has been in existence for 11 years. He explained the background of the program, including the Oregon

Instream Water Rights Act of 1987 and the founding of the Oregon Water Trust in 1993. Chris Furey of BPA said the Council's F&W program and federal Biological Opinions were factors in the program's creation. He described how the program has evolved and who participates in it. The Columbia Basin Fish Accords help expand the potential of the program, Furey noted.

He explained the tools used in the program, including leases and acquisitions, reverse auctions, and efficiency gains. The outcomes we focus on are passage benefits, spawning and rearing habitat improvements, and riparian restoration, Furey said.

NFWF does three solicitations annually, ranks proposals, and then makes recommendations to BPA, while also notifying the Council, Purkey said. The Council can then ask questions and raise any concerns, he stated.

Since 2003, we have supported 340 water transactions that total almost 1 million acre-feet of water, and our program has improved over 1,500 miles of tributaries, Purkey reported. He described transactions in different parts of the region, including the Salmon Basin in Idaho, Upper Grande Ronde in Oregon, Salmon Creek in Washington, and Wasson Creek in Montana.

Purkey explained the accounting methodology they created to track progress. We have also asked our projects to develop strategic plans, he noted.

I hope BPA was listening to your presentation, Karier told Purkey. We are at risk of duplicating monitoring, and this is a great opportunity to fold your work on metrics into the region's monitoring efforts, he said. We are working on that, Purkey responded.

Rockefeller asked if NFWF has talked with the PNAMP program. Molly Whitney of NFWF said they had, and that the basis for their accounting framework came from PNAMP.

Do some states have more activity than others? Smith asked. All the states have active programs, replied Purkey. It has become a regional success -- it's not just one state, it's four, he said.

Idaho supports this program, but all projects in Idaho have to go through the Idaho Water Resources Dept., noted Yost. All our agencies work together to establish priorities for water transactions, he said. Idaho is a bit unique, and we'd like other states to take a look at how we do it, Yost stated. We haven't been submitting projects to you, but we will, he told Purkey.

Idaho is the only one of the four states where a state agency has administered it from the beginning, and it has done a great job, Purkey said. One of the things I love about the water transactions program is that it is completely voluntary, stated Bradbury. It's very positive due to that, he added.

7. Council decision on Mid-term Assessment report (or summary of comments received):

Charlie Black, director, power division.

Staffer Charlie Black said the Council received 10 sets of written comments on the draft Sixth Power Plan Mid-term Assessment report. Overall, the comments were very favorable, and we received strong support for the Council's active outreach and engagement during the report's preparation, he noted.

What surprised me was the scope and extensiveness of the comments, Black stated. The commenters showed an interest in continuing to work with us on these topics, especially as the Seventh Power Plan gets under way, he said. We have a good conversation going, and it bodes well for moving forward into the next plan, Black added.

The comments we received included suggestions for clarifications, text additions, and editorial changes, but the most popular topic was what stakeholders want to see in the Seventh Power Plan, he reported. Black explained how staff would address some of the comments. For example, we will add more information comparing the levelized costs of various resources, including energy efficiency, as BPA suggested, he said.

PNUCC recommended we add a narrative on the Columbia River Treaty, and additional information on the role of natural gas for electricity generation, and we will do that, Black stated.

Jim Yost said the Power Committee has instructed staff to circulate for review a strike/insert document incorporating all the changes so the Council will be ready to adopt a final mid-term assessment report in March.

Black handed out a list of issues to be addressed in the Seventh Power Plan, based on the comments. There has been an impressive amount of engagement from the region on this, stated Karier. It would be best to clarify some issues early on, such as what the plan's energy efficiency targets mean, he recommended.

I've asked the Power Committee to identify the five or six issues we need to do first for the seventh plan so we can get started on them, Yost said. The committee also discussed setting up a stakeholder advisory committee for the next plan, he stated. We could have an advisory committee, or we may decide to hold work sessions on specific issues outside of Council meetings, Yost noted.

The committee asked staff to draft a charter for an advisory committee for the power plan and present that to us next month, he said. The Council has advisory committees with technical perspectives, but we don't have a committee that can look at the kinds of issues that came up in the comments on the mid-term assessment, Black explained. It would be useful to have a place for such conversations, he added.

I think a new advisory committee would be good, said Measure. This would be a different kind of advisory committee than in the past, stated Karier. It would involve policy, and inevitably that will bring in politics and a wide range of views, he said. We will develop a draft charter, talk to the stakeholder groups, and report back, Black told the Council.

8. Regional Technical Forum Policy Advisory Committee update on work to date:

Jim West, Co-Chair, RTF

Jim West of Snohomish PUD, co-chair of the Regional Technical Forum (RTF) Policy Advisory Committee (PAC), updated the Council on what the PAC has been doing. The PAC was created to advise the Council on RTF policy and governance issues, he noted.

The PAC met in October and January, West said. Tom Karier was re-appointed as PAC chair, and I was re-elected co-chair in January, he reported. The PAC recently reviewed the proposed RTF “performance metrics dashboard,” as well as RTF financial and contracting activity, West said.

What we’ve found from our reviews is that “the RTF is operating like we would want it to operate,” he stated. We identified some improvements for the dashboard, including trying to create more transparency and insight into measures useful for small and rural utilities, West noted.

He said the PAC is considering doing a qualitative survey of RTF stakeholders to get opinions on questions such as: are regional stakeholders engaged in developing priorities for the RTF, and are they consistently using RTF data and outputs? At our next meeting, we will discuss how to conduct and fund such a study, West added. The PAC is pleased with the RTF’s budget and financial management and with the shift in the way consultants are used for RTF tasks, he reported.

Today I want to tee up two issues for Council action, West said. First, the PAC has revised its conflicts of interest policy, he stated. The revised policy, among other things, emphasizes disclosure as the key to managing conflicts and appearances of conflicts, clarifies the procedure for disclosure, is more comprehensive as to who it applies to, and maintains the exclusion for persons who work for, make recommendations to, or regulate utilities, West explained.

The second item involves the RTF charter, he said. The PAC was chartered in April 2011 for two years, and we are recommending renewal of the charter for an additional two years, West stated. At the March meeting, we will ask the Council to renew the PAC charter and approve the revised conflicts of interest policy, he said.

9. Capacity Primer:

Charlie Black.

Black presented a primer on power system capacity, another in a series of briefings aimed at building knowledge about basic concepts that underpin the Northwest power system in preparation for the Seventh Power Plan. He explained the difference between single-hour peaking capacity and sustained peaking capacity, noting the latter involves whether the region has enough power to serve load in the winter at peak hours for several days.

Utilities plan to meet their expected peak demands, plus a capacity reserve margin to cover things like extreme weather and forced outages, Black said. Most utilities use capacity reserve margins from 15 percent to 20 percent, he noted.

Black explained the Council uses a resource adequacy standard based on a metric that is a maximum loss of load probability (LOLP) of 5 percent or less. LOLP analysis is performed using the GENESYS model and is translated into minimum planning requirements for annual energy load/resource balance and a capacity reserve margin, he said. For the Seventh Power Plan, we intend to feed the GENESYS minimum planning requirements into the Regional Portfolio Model, Black noted. This should mean a better integration of energy and capacity planning and risk analysis in the plan, he said.

A key takeaway, according to Black, is that “it’s not an either/or proposition” in terms of planning for energy, capacity, and flexibility. They are not independent concepts, and there are important interactions among them, he said. Resource planning needs to address all three concepts together, and the region is still facing energy constraints, as well as capacity constraints, Black added.

He explained how different types of resources provide different levels of energy, capacity, and flexibility, noting that hydro is the most useful resource for all purposes. Renewables, Black said, provide energy, but are not dispatchable. They “are dispatched by someone other than humans,” and they create flexibility needs, he stated.

Staffer John Fazio said that a shortfall occurs when generation is less than load, and he described the difference between capacity and energy shortfalls. Fazio noted that one shortfall can include both energy and capacity deficiencies. At this point, it looks like the region will be limited in both capacity and energy in 2017, he said.

Bradbury asked why the hydro system has problems with sustained peaking capacity. There are limits from non-power constraints like fish requirements, and also from minimum elevations and outflows, replied Fazio. There are limits on storage and how we can release water from the reservoirs, he said. It’s a balancing act, added Black.

Smith asked about the model’s assumptions for the phaseout of Boardman and Centralia. We gave a presentation on that in January, but the bottom line is there’s a gap of 2,000 MW of resources in 2021 that needs to be filled to ensure adequacy, Black responded.

GENESYS sounds like it is a black box, said Phil Rockefeller. What’s so magical about it? Did we create it and have we patented it? he asked. The Council created it in 1999 to address adequacy, and it’s in the public domain, replied Fazio. BPA has adapted it to do its own studies, he noted.

The Council discussed the merits of combined cycle versus single cycle gas plants in meeting capacity needs. A number of utilities in the region are developing combined cycle, as well as single cycle plants, Black noted. In California, they are putting in single cycle plants specifically to back up wind, he added. There’s a proposal for a gas plant in Hermiston, and it’s being called a “wind chaser” project, Lorenzen said.

10. Introduction of Richard Genece, VP of Energy Efficiency, Bonneville Power Administration:

Charlie Black

Richard Genece, BPA's new vice president of energy efficiency, told the Council a large part of his job will be "listening, learning, and understanding the dynamics of this unique region." Before taking the BPA position, Genece was residential portfolio manager of energy efficiency programs for Southern California Edison.

Compared to California, the Northwest is much more collaborative, he said. I don't come in with an agenda; I want to establish a two-way dialogue with customers, Genece stated, adding that he prefers to call customers "business partners."

Genece described his background, noting work with several big companies, including seven years at GE involved in its global green initiative and energy efficiency programs. At SCE, I managed 21 efficiency programs, he noted.

BPA has historically taken a "one system fits all" model for conservation programs, but I think we need to be more flexible in the future, Genece said. We will solicit input on how we can do that, he added. We will also seek advice as we work to develop a new system for processing conservation invoices, Genece said.

We want to collaborate with the Council on what the critical inputs for the Seventh Power Plan should be, he stated. We have been talking about how utility efficiency targets under I-937 differ from what's in the Council's power plan, and we need to develop a strategy to deal with the gap between them, Genece said.

Another area I want to focus on is the smart grid and demand response, he told the Council. Demand response is just emerging in this region, and there's an opportunity to do it right, Genece said. There needs to be an equitable distribution of costs in demand response solutions, he stated, adding that both cost and benefit allocations are important.

I am glad to hear you say "one system doesn't fit all" -- that's really welcome to hear in Montana, Measure said. The solution is in the collaboration, responded Genece. The math still has to add up, but customers have different needs, he added.

I've always thought BPA should take the approach that it is buying a resource from utilities, and operate more on a contractual basis, Karier stated. It's an enforceable contract, and the more we move in that direction, the better, he added.

Genece said another one of his priorities is to move toward tighter integration of demand response and energy efficiency. They shouldn't be separate, he stated.

Henry Lorenzen encouraged Genece to look at the impediments BPA wholesale power contracts pose for small, rural utilities. There's a rigidity there, and it is getting in the way of demand response and distributed generation at those utilities, he said.

It is wonderful you are going to focus on fully developing and integrating energy efficiency and demand response, Bradbury stated. There are utilities with long and successful demand response programs, and those results need to be shared, Genece responded. And there are myths to be debunked, such as the idea that time-of-use rates negatively affect low-income customers, he said.

Greg Delwiche of BPA said he agreed with Karier's recommendation to adopt a more contractual business relationship with utilities for conservation. In our comments on the Council's Mid-term Assessment of the Sixth Power Plan, we recommended the report provide more information on the costs of different resources, he noted. In recent years, renewables have received a lot of attention, and there has been less emphasis on the cost-effectiveness of conservation compared to other resources, according to Delwiche. Conservation is by far the most cost-effective resource for addressing load growth, and it would be good to shine a light on that more than we have recently, he said.

11. Presentation on Portland State University research findings related to Quagga mussels:

Jim Ruff, manager, mainstem passage and river operations; and Raquel Crosier, Western Washington Council staff.

Mark Sytsma led off a panel presentation on Portland State University (PSU) research, funded by BPA, on quagga mussel survival and growth in water samples taken from the Columbia and Willamette rivers, and on the effectiveness of certain coatings that could mitigate the impacts of a mussel infestation if it were to happen. Sytsma said there are no quagga or zebra mussels in the Columbia Basin yet, but the research tried to model quagga mussel growth in our river systems by looking at the influence of the two biggest growth determinants, temperature and calcium.

Brian Adair of PSU said the study found the Columbia River appears to be suitable habitat for quagga mussels and that 68 percent of them reared in untreated water from the Columbia gained weight. "This does not bode well for the Columbia," he stated. And the results we got likely underestimate the growth rate, added Sytsma.

The Willamette River may be marginal habitat, but there is the potential for regional spread of the mussels from there to other bodies of water in the region where they could grow, Adair noted. After we finish analyzing the data, we will develop predictive models that can describe the growth potential of mussels in the Columbia Basin, he said.

This confirms our concern that the Columbia would be good habitat for the mussels to survive, said Karier. Council members asked about the Snake River, and the researchers said they haven't studied that yet. We do know the Snake, especially the upper Snake, has the highest levels of calcium of anywhere in the system, said staffer Jim Ruff.

Steve Wells reported on PSU's study of the efficacy of three foul-release coatings placed on concrete and steel panels in Columbia River conditions. Foul-release coatings could be part of an integrated control plan for invasive mussels at hydro facilities in the basin, he noted.

Quagga mussels did not attach to any of the foul-release coatings in an *in vitro* test, and a field test will be conducted in California in a reservoir infested with zebra mussels to measure coating effectiveness under natural conditions, Wells reported. The coatings seem to work, but they are soft, and there are questions about their longevity, he stated.

We are developing a timeline and cost estimate for applying one of the coatings to a federal hydro facility in the Columbia Basin, possibly John Day, Wells said. Bradbury asked for an estimate for using these coatings on all the projects in the Federal Columbia River Power System. We need to see if the coatings will last five years -- that's a cost factor, and we need to determine which parts of the facilities to coat, replied Wells. For example, trash racks and screens would be coated, said Ruff.

"It will be really expensive," said Sytsma. An estimate is about \$130 per square meter, Wells stated.

Bradbury asked if there were other questions, and there was silence. "You've managed to depress the entire Council," he quipped.

12. Council decision on Habitat Evaluation Procedures (HEP) projects:

Peter Paquet, manager, wildlife and resident fish.

Staffer Peter Paquet explained the background of the Habitat Evaluation Procedures (HEP) effort, which has been used to evaluate and document habitat losses and habitat gains for mitigation programs to compensate for losses resulting from dam construction and inundation. The Council, through the PERC, decided to evaluate the continued use of HEP and asked staff to reconvene the Wildlife Crediting Forum and use it to address specific issues and questions, including the need for continued use of HEP surveys and recommendations on what to do in the future, he said.

The group met three times and sought public comment on the recommendations it produced, Paquet reported. Staff recommends the Council endorse the Wildlife Crediting Forum recommendations, including a work plan for FY 2013 and 2014, and the re-establishment of a Wildlife Advisory Committee to consider the use of HEP in FY 2015 and beyond, he said.

Phillip Key of BPA said the agency did a contract last September to maintain the regional HEP team for a year to carry out Wildlife Crediting Forum recommendations and assist BPA with wildlife settlement discussions. The PERC's recommendation was to archive the HEP data, said Booth. We saw a declining need for HEP in the region and thought it had served its purpose, he added. Recent settlements haven't used the HEP process -- what is the future need? Booth asked. You are proposing to hire new staff in 2013, but I haven't seen any metrics for the need for this program in the future, he said.

I'll vote for this, but I would like more information, Booth stated.

New acquisitions for construction and inundation losses are going to be decreasing, said Key. We don't want to use HEP for operational losses, he added. In Idaho, we have some acquisition agreements that rely on HEP, and right now, it is what we are using to track certain acquisitions

in Idaho, Key stated. We support the staff recommendation because we want to look at the need and let the need drive the ultimate recommendations, he added.

Booth asked to be provided a linear timeline of hours spent in 2012 and projections for FY 2013 and beyond. One of the main functions of the advisory committee will be to bring recommendations to the Council about what should be done after FY 2014, said Paquet.

Measure moved that the Council recommend a two-year work plan for the Regional HEP Team, details of which for FY 2013 and 2014 are summarized in Attachment 1 of the staff recommendation. The Council further recommends reconvening the Wildlife Advisory Committee to facilitate discussions about the need for a Regional HEP Team for FY 2015 and beyond. Rockefeller seconded, and the motion passed.

13. Briefing on February 14, 2013 Ocean Science Workshop:

Patty O'Toole and Jim Ruff.

O'Toole briefed the Council on an Ocean Science Workshop to discuss the latest research on ocean and plume science and its management implications to be held February 14. She said Council member Rockefeller will lead the workshop, which will help in preparations for the upcoming F&W amendment process. One of its purposes, Ruff noted, is to try to link information collected in ocean research with its management implications. I hope we can get freshwater F&W managers and ocean researchers talking together, Rockefeller stated. This will help us update the Council's research plan and also help inform our ocean strategy in our F&W program, he said.

14. Council Business

– Approval of minutes

Measure moved that the Council approve the minutes of the January 15-16, 2013 Council meeting held in Portland, Oregon. Booth seconded, and the motion passed.

Approved March _____, 2013

Vice-Chair

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