



## **Northwest Power and Conservation Council**

**Meeting Notes**  
**January 9-10, 2018**  
**Portland, Oregon**

January’s meeting saw the Council bid farewell to its two Oregon members: Henry Lorenzen and Bill Bradbury. Member Lorenzen joined the Council in 2012 and Member Bradley joined in 2010. Incoming Oregon Members Richard Devlin and Ted Ferrioli will begin their terms next month. Going forward, the Council elected **Idaho Member Jim Yost** to serve as chair and **Montana Member Jennifer Anders** as vice chair.

The meeting agenda was fairly light. Its highlights included an interesting update on ocean conditions and their potential impact on listed fish, the introduction of an impressive power generation map on the Council’s website, and a presentation on how Chinook salmon are faring with an increase in mammal predation. The Council also voted to release an “Avoided Rate of CO2 Emissions Study” for public review and comment.

All Council Members were in attendance. The next Council meeting will be in Portland, Oregon, on February 13 and 14, 2018.

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### **The Agenda**

#### **Ocean conditions for salmon poor**

##### **High potential for negative impact on adult returns**

Data collected during summer 2017 suggests ocean conditions for salmon have been poor, according to Laurie Weitkamp, with the Northwest Fisheries Science Center. She provided a review of the environment in the Columbia River Plume and near ocean where Columbia River salmon reside for one to three years, noting that the observed poor conditions have a high potential of negatively impacting the number of adult salmon returning to the Columbia River to spawn.

Weitekamp said that warmer ocean temperatures have impacted all levels of the marine ecosystem. The extremely low juvenile salmon abundances in 2017 will likely result in poor adult returns in 2018 and 2019. In addition, bad conditions off the coast of Southern California have spurred a migration of sea lions north to the Columbia that will further affect adult salmon numbers. On the positive side, she said that cooler coastal waters forecast for spring 2018 should be good for young salmon entering the ocean.

Member Guy Norman said he could see a number of connections with this information and the Council's Fish and Wildlife Program. He said it could help shed a light on how to separate passage measures in the mainstem from the variability in estuary and ocean survival. It may also provide a deeper understanding of the latent mortality question — how much is associated with hydro operations and how much is associated with variability in the ocean, he said.

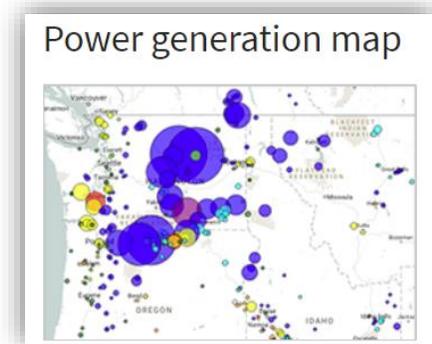
## **Power generation map provides look at region's resources**

[Hundreds of Northwest power facilities on one interactive map](#)

Gillian Charles, staff energy policy analyst, demonstrated the Council's new [power generation map](#), which traces the growth of resources in the Northwest. Users can filter projects on the map by resource, size and operating year.

Charles provided a review of 20 years' worth of energy resource activity in the Pacific Northwest. She traced the growth of wind turbines starting in 1999, as well as the addition of natural gas generation.

In 2005, 2006 and 2007, renewable portfolio standards were enacted by states, further spurring the growth of renewables. Today, according to recent utility integrated resource plans, we're starting to see energy storage facilities come online.



## **Council staff releases revised Avoided Rate of CO2 Emissions Study for comment**

The Council voted to release another draft of its Avoided Rate of CO2 Emissions Study for public comment. [Comments are due February 16<sup>th</sup>](#). The uncertainty of future carbon dioxide regulation and the related costs have been a significant factor in the region's resource planning. To help inform resource decisions, an estimate of the carbon dioxide emissions avoided by purchasing conservation or another resource was completed.

The first draft of the study was released for public comment in April 2017. After receiving significant stakeholder response expressing concerns with the methodology and lack of stakeholder

involvement, Council staff developed, in conjunction with the System Analysis Advisory Committee, a revised methodology for calculating the best estimate for an avoided carbon dioxide emissions rate.

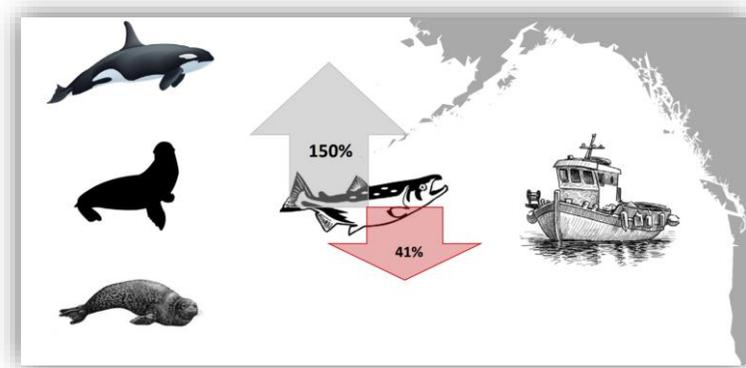
Optimizing for the lowest carbon emissions is a different objective than meeting load at the lowest cost, explained John Ollis, staff power system analyst. This revised study looks at changes in the region based on changes in the Northwest. “When we reduce output by 100 MW in the region, it doesn’t necessary equate to a 100 MW-output reduction in the WECC,” he said.

Council Member Tom Karier explained that it’s easy to get lost in the details, but when you reduce load in Northwest, you reduce the overall carbon in the system. It’s good we provide benefits for California that we’re not necessarily being compensated for, he said.

### **Mammal predation is taking a bite out of Chinook recovery**

The primary takeaway of a paper produced by scientists from Oregon State University and NOAA Northwest Fisheries Science Center is that predation of Chinook salmon by killer whales, sea lions and harbor seals has increased by 150 percent over the past 40 years. On the other hand, capture of Chinook salmon by West Coast fisheries has decreased by 41 percent. Therefore, increased consumption by growing marine mammal populations in the Northeast Pacific could be masking the success of the region’s salmon recovery efforts.

Brandon Chasco, from Oregon State University, published a paper with 16 co-authors on marine mammal predation research. In it they used a model of the Northeast Pacific Ocean to quantify how pinniped and killer whale predation has impacted Chinook salmon returns, and to compare the resulting estimates with salmon fisheries.



Chasco told the Council that killer whales are only eating larger, adult fish. Harbor seals eat juvenile smolts right when they come out of the river. Sea lions enjoy a banquet of both smolts and larger fish. Harbor seals are eating 25 million juveniles the first year.

There are about 6,000 harbor seals at the mouth of Columbia. In Puget Sound, there are 15,000 seals, which is up from a few thousand. A large caveat in the study is a lack of ocean survival data, Chasco said.

## Council briefs

### Council approves PAH story map

Council voted to make final edits and post a Polycyclic Aromatic Hydrocarbons (PAH) story map on its website. The Council's toxics workgroup has focused on PAHs, which are known to cause adverse effects on salmon and steelhead, and they are widespread and ubiquitous in the Columbia River Basin. The map shows the overlap where salmon are using the system and where PAHs are, and it includes the Portland Harbor area where there are some significant PAHs. According to Tony Grover, director of the Council's Fish and Wildlife Division, the Independent Scientific Advisory Board (ISAB) said there is an urgent need to specify the accumulation of these chemicals.

### Albany Falls settlement raises questions

Fish and Wildlife Committee Chair and Council Member Jennifer Anders reported on a pending agreement between Bonneville and Idaho to mitigate the impact of construction and inundation at Albany Falls. The agreement includes a stewardship fund for O&M funding, and restoration work to address operational losses.

Member Karier wanted to know how much money is involved in the settlement. He said a utility described it to him as a multimillion-dollar settlement and that utilities are worried about BPA's potential insolvency in 2028. Member Bill Booth replied that the Council doesn't have an approval or disapproval role in this. He added that there are still details to work out and a fact sheet should be ready in a couple of days. Then, there will be a 30-day comment period. Idaho Fish and Game will come back before the Committee and the full Council with a presentation.

### Eighth Power Plan may expand its reach

The Council's Power Committee is looking at a decision on whether the Eighth Power Plan will continue to focus just on the region or incorporate Bonneville as well. Some presentations make it clear in the Power Act that there's an expectation that the Council will do both, Member Karier reported. "In past years, we have done both, but the emphasis has been on the region, with less emphasis on the Bonneville part," he said. There was a Committee consensus that a greater focus was needed on the Bonneville component. He said they will need more data and more models to incorporate BPA into the plan, and they will be directing staff in that direction.