

## Robert Neal

I first became aware of this issue when I read an article by Lynda Mapes in the Seattle times in early February, which made it sound like the Trump Administration was attempting to circumvent state efforts to regulate the temperature of the discharges of water from the Federal Columbia & Lower Snake River dams, to the detriment of salmon runs. Now I agree that the state should be allowed to apply its regulations to these dams just as it would to other river users. However, the article seems to imply that the state's uppermost temperature standard of 68 degrees should also apply to the water being released through the turbines & over the spillways. If I am incorrect, or the newspaper article is incorrect, then ignore the rest of this letter & sorry for bothering you.

However if the article is correct then I am in the uncomfortable position of agreeing with actions taken by the Trump administration. The reason that the water released from these dams is too warm is that it has been warmed above the 68 degree standard by the 30 or so dams upstream of Hells Canyon Dam and by flowing through hundreds of miles of irrigation canals before being returned to the Snake River. If I remember correctly the four Snake River dams all have temperature selection structures so they can, and do, try to keep the summer water temperature as low as possible. I know that cold water is being released from Dworshak each summer to try & meet the fisheries mandated maximum temperatures, but it still it is not enough. Trying to apply a state maximum temperature to the Federal dam's outflows is not going to work when the water arriving at Lower Granite forebay is already above the state temperature standard. That water is arriving, and with one foot forebay limits it will pass through the dams within a day & it doesn't matter what your regulations may state. It would be just as effective to try to control sea level rise by having a regulation requiring maximum allowable high tides or global warming by setting state standards for maximum summertime temperatures. Removal of the Snake River Dams would likewise not resolve the temperature problem. You would have a too warm free-flowing river, and add millions of tons of CO2 to the atmosphere each year as a result of the lost hydropower.

There are those who say that the power generation from the Snake River can be economically replaced by wind and solar. They are wrong, although in fairness, some of them may not be aware of it. The power produced from the Snake Dams is dispatchable, that is, when you need it, the dams can produce it. Our region's highest loads occur during summer heat waves and during winter cold snaps. During both of these occurrences there is normally a high pressure area over the PNW and wind power is producing zero energy. I have personally observed this, as I worked for over 25 years as a BPA duty scheduler, implementing the hourly changes on the Federal Power system as well as implementing the hourly fisheries requirements.

I would like to make it clear that I am for sustainable energy, but it needs to be integrated into the system in a sensible manner. In many ways, that is not currently the case. Good water quality is also vital, but realistic measures need to be put in place and trying to enforce unrealistic temperature standards is doomed to fail. A partnership with Idaho to require planting of shade trees along those irrigation canals might actually do some good, and more shade along the free-flowing sections of the Snake. I don't know if Brownlee has temperature selection capability or not, but this capability at Brownlee and other Upper Snake River dams might also help. Another option, although too radical for many would be to stop catching and eating salmon. I can't think of any other endangered species that allows mixed stock harvest.