DEPARTMENT OF ECOLOGY TRIENNIAL REVIEW OF

WASHINGTON'S SURFACE WATER QUALITY STANDARD

VERBATIM TRANSCRIPTION OF PUBLIC MEETING HELD BEFORE

CYNTHIA H. WALL, HEARING OFFICER,

IN SPOKANE, WASHINGTON

NOVEMBER 9, 2010



Taken Before:

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PUBLIC COMMENTS SUBMITTED BY:

MARK CAUCHY

THE HEARING OFFICER: Let the record show it's three o'clock p.m. on Tuesday, November 9th, 2010, and this hearing is being held in Spokane, Washington, at the Spokane Regional Health District, 1101 West College Avenue.

Notices of the hearing were electronically distributed to about 1200 interested people and delivered through the postal system to about 250 people. Many of you have received that notice. Additionally, a press release was issued on October 8th, 2010.

So when I call your name, again, please come up here, state your name and address for the record. If I obliterate your name, I'm sorry; feel free to correct me.

So the first person I have is Mark Cauchy.

MARK CAUCHY: I'm Mark Cauchy from Pend Oreille County PUD located at 130 North Washington Avenue, Newport, Washington, 99156. Our mailing address: P.O. Box 190. Phone number: 509-447-9331.

I want to first open up that we have a good working relationship with Ecology, but we have some main concerns, or actually three main issues

with current water quality standards as they apply to temperature TMDL. And in my discussion I'll be using the Pend Oreille River as an example in my comments.

What we're asking is to allow averaging the water temperature in the whole water column across a transect. And I'll explain each one of these in more details.

Secondly is having in the regulations about how you measure success.

And three is some standards for accuracy and an allowable error band in computer models if they are the sole tool used to identify non-compliance.

No. 1: Average temperature in the water column.

The PUD has a concern with DOE's interpretation of the temperature standard, specifically interpretation of the maximum temperature. Part 1 of the criteria states that when natural conditions results in temperatures above 20 C, Celsius, human-caused increases in one-day maximum temperature shall not exceed 0.3 centigrade above natural conditions.

For the Pend Oreille River temperature,

TMDL, DOE has chosen to interpret this by saying that (modeled) daily maximum temperatures at any given point in the water column cannot increase by more than 0.3 degrees centigrade.

Since maximum temperatures in summer typically occur at the surface of the water in this particular river system, this restricts the entire analysis to the upper one meter of the water column. So it's focused on one meter and basically ignoring the rest of the column of water.

This approach does not accurately represent the heat load imparted to the water in the reservoir because, in effect, it appears as if the entire water column has been heated, when in fact it has not.

DOE modeling shows that temperatures more than two to three meters below the surface is unaffected compared to natural conditions, yet non-compliance is claimed.

A more realistic approach would be to average the temperatures throughout the water column or use a simple arithmetic average of the vertical temperature distribution, or even a weighted average based on flow through each

modeling cell at each vertical location in the water column.

This approach would be more realistic to determining if heat load is truly being added to a body water -- water body, excuse me.

No. 2: Measure success.

Non-compliance on the Pend Oreille River is based entirely on results of computer modeling to compare existing to natural conditions. No actual physical temperature readings are available to know if the computer models are predicting correctly at all times.

As steps are taken to address temperature issues in the reservoir, it is unclear what will be used as the temperature -- as a measure of success toward meeting allocation goals.

Effective adaptive management requires clear and timely measures of success toward improvement goals. If it takes an entire cycle of model calibration and scenario testing, it would be months or possibly even years before any management efforts can be interpreted.

As an example of a difficulty of measuring success solely by modeling, the TMDL suggest the PUD make efforts to increase shade along the

river and along tributaries, when in fact their own modeling results show that this effort will result in little or no improvement in non-compliance temperatures.

The computer model is set up with a considerable number of assumptions, weighing factors, and correction factors built into it. Changing assumptions changes results. Is it fair and realistic to use computer modeling only to determine non-compliance?

Another case in point, the Pend Oreille River TMDL reveals that the temperature non-compliance in the Box Canyon Reservoir occurs only from a period of July through August. It occurs in only 17 miles of the 55 miles and not every day in this two-month period and only several hours in duration on those days and only at the surface and not further in the water column.

We acknowledge that a non-compliant situation does occur at times and in some places near the water surface. However, the report is vague about the extent of non-compliant events and in fact leads the reader to conclude that non-compliance lasts all year.

And that's see Table 6 on Page 41 and Table 11 on Page 73 as citing examples.

We would like to request that when temperature non-compliance is found that the amount of time per year that the non-compliance is asserted to take place be clearly stated in the finding so that in the future, as improvements in temperature are achieved, a reduction in the annual time of non-compliance can be used as a metric to measure success.

No. 3: Accuracy and Error Band and Models.

The Pend Oreille River TMDL includes no discussion of model uncertainty or how it is considered in the analysis or the allocation. The TMDL states that model calibration uncertainty was 0.41 degrees centigrade.

The determination of impairment is based on the difference between a predicted existing temperature and predicted natural condition temperatures, in which case the errors in each of these two quantities should be combined statistically, resulting in an overall error of 0.58 degrees centigrade.

At the very least, charts and graphs should include appropriate error bars, and the text

should include explanation of how model uncertainty is considered, particularly since the overall error (.58 degrees centigrade) is close to the value of exceedance (.95 degrees centigrade).

If modeling is to be used as the sole tool to determine if non-compliance exists, we would like to request that DOE set a standard for the accuracy of the models used; for example, set a standard that model error band must be 10 percent or less than the maximum predicted temperature exceedance above the standard, so that inaccurate models are not used to claim non-compliance and then order mitigation.

In conclusion, it seems poor to invest millions and possibly more for non-compliance when we do not really know if there is a problem or if we're even having any positive effect.

The Pend Oreille River is a transitional river; it's not really a western mountain river and it's not really a desert river. Standards need to address unique river systems.

Thank you, and I appreciate the opportunity to comment.

HEARING EXAMINER: Okay, the next person I

have would like to testify is Patrick Buckley.

PATRICK BUCKLEY: My comments were covered by the previous speaker, so I'll pass.

HEARING EXAMINER: Okay. So Mr. Buckley's going to pass.

Troy Lyssen? SEC Water Resources? Troy? Did Troy ditch us? Okay, no Troy.

And Ken Windram? No Ken?

Todd McLaughlin, Pend Oreille County?

TODD McLAUGHLIN: I'm going to submit written comments.

HEARING EXAMINER: Written comments? Okay. Well, so you were it. So is there anyone else that would like to testify that didn't sign up on a card? This is your last chance, Craig.

"CRAIG": I'll save it for later.

HEARING EXAMINER: Okay. So if you'd like to send written comments, midnight by -- well, 5:00 by regular mail, midnight by e-mail, December 17th, 2010. Send all comments to Becca Conklin, Water Quality Program, Washington State Department of Ecology, P.O. Box 47600, Olympia, Washington, 98501. Or electronically at swqs@ecy.wa.gov.

All testimony received at this hearing, as

well as hearings already held in Lacey and to be held in Yakima, Washington, on November 10th, Vancouver, Washington, on November 15th, and Mount Vernon, Washington, on November 16th, along with all written comments received, will be part of this official hearing record for this proposal.

It's anticipated spring of 2011 we're posting the transcript from this and other hearings on Ecology's website.

If we can be of further assistance to help you, please hang around. We'll be breaking down the room, and you can always contact Becca. Susan was mentioning local contacts. I work in the Eastern Region office. If you want my card, I have some; and I may not be the person to go to first, but I can get you to somebody who is.

So on behalf of the Department of Ecology, thank you for coming and all your good questions and for your testimony.

And let the record show that this hearing is adjourned at 3:15 p.m., November 9th, 2010.

# C E R T I F I C A T E

STATE OF WASHINGTON )
) ss.
COUNTY OF YAKIMA )

This is to certify that I, Louise Raelene Bell, Registered Professional Reporter and Certified Court Reporter in and for the State of Washington, residing at Yakima, reported the within and foregoing deposition; said deposition being taken before me on the date herein set forth;

I further certify that, pursuant to RCW 5.28.010, the witness was first by me duly sworn; that said examination was taken by me in shorthand and thereafter under my supervision transcribed, and that same is a full, true and correct record of the testimony of said witness, including any and all questions, answers, and objections, of counsel.

I further certify that I am not a relative, employee, or attorney of any of the parties, nor am I financially interested in the outcome of the cause.

IN WITNESS WHEREOF I have set my hand this 3rd day of December, 2010.

Louise R. Bell

Certified Court Reporter No. 2676
In and for the State of Washington
Residing at Yakima, Washington
My CCR certification expires 6-13-11