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**Additional comments of Claudia Wise, Physical Scientist
To the
Oregon State Senate Environment and Natural Resources Committee**

Chair Dingfelder, Members of the committee,

I oppose SB 838 and SB 401 and support SB 838-1

My name is Claudia Wise and I am a very concerned citizen.

I was expecting much more from your proposed panels. The miner's group wasn't even asked a single question. By taking up some much time with agency personnel and proposed experts it was more than obvious your mind was already made up and you just had to check the box that you took public testimony. You really have done harm to this procedure.

This accomplished nothing. I said to myself well it's your committee to do as you please but then again it's not. This process belongs to the citizens of Oregon and you made a pretense of learning the truth about suction dredging and possible effects on the environment. Then scuttled us through so fast I couldn't get my thoughts straight.

I was so frustrated with all the misinformation from your experts I didn't present the best case to you as I had prepared. True I did get my 3 minutes however if you really wanted to learn from this process you blew your chance also. I truly hope you will go through my written testimony I will try to be at the work session so if you have questions please ask. I am in a unique position being knowledgeable of the science and suction dredge activity.

The most important points I would like to leave you are that suction dredging has such a small footprint on the environment. In all Oregon waters suction dredging only impacts a linear area of less than 0.0067-percent and has benefits that have helped salmonids

and other fish survive the warmer waters of summer and helps create spawning gravels were none is present or in inadequate supply.

Salmonids do not show a preference to deposit redds on current year dredge tailings, and only using them when no natural substrate available. This can be a plus for salmonid survival since if none were available salmonids would either lay them over previously laid redds, sweeping them away or dredge tailings. Both dredge tailings and natural substrate scour (are washed out of the substrate in winter high flow events) so you lose some on both substrates. Those redds that survive on dredge tailings are a net benefit.

I hope you can see that if you do not understand the limit of material that a dredge can move then you will fall back to the many studies that show harm for events that are massively larger than what a dredge can move. This is unique to a dredge study that an individual looking only at whole system disturbance cannot judge and will miss.

This is the position that the American Fishery's Society found their selves in when testifying 4/15/2013. They had no knowledge of suction dredge disturbance and were reacting to the only thing they know and that is the effects you would see in a whole watershed magnitude study and should have testified neutral.

Mercury is an issue that was brought up as a concern during the Environment and Natural Resources committee meeting. This is an area I have studied much and have current information that I can share. Mercury is not as toxic as we previously thought. Much of the earlier concerns were due to several human disaster events that were out of the ordinary and have never happened in the United States.

Of those Hg disasters only one was caused by eating fish contaminated with MethylMercury that occurred in Minamata, Japan after tons of industrial waste was dumped into the bay they caught their fish in. Nothing like that has ever happened since.

Data from The Faroe Islands study is what USEPA used to make their determination on the number of fish meals per week you should limit yourself and children to. It turns out that the Hg problem was not from eating fish but from the pilot whale they consumed. The findings from the study were to recommend limiting pilot whale meals to once per week for adults and no pilot whale for pregnant women and children. Also recommended was eating fish.

At the time of USEPA was studying Hg contamination from eating fish the Seychelles Island study had not completed however now that this 9 year study is finished and the

results are positive for eating many meals of fish per week (12 meals/week in the study) based on the levels of Hg in fish in the United States EPA will change their standing on this issue. Dr. Ralston is working with them on this issue currently.

Several selenium mercury antagonism studies have been completed one in 2009 by Dr. Peterson USEPA showed Selenium found in adequate levels in fish, and in fact all living things will sequester mercury and bind it up making it bio-unavailable to cause harm. There are many Journal articles that have come to the same conclusion. Currently USEPA has 6 studies recently completed by Dr. Ralston call for "**Fish Selenium Health Benefit Values in Mercury Risk Management**" measuring only mercury further exaggerates this hypothetical risk of methylmercury in your diet.

Selenium's protective qualities over mercury have not become main stream yet however this does not change the fact that Mercury in any form is not as toxic as we thought as long as there is an equal molar ratio of selenium. This information has been around since the 1960's but now we are better able to understand the mechanism.

Selenium is found in soil, plants and the waters of the US including Oregon. Dr. Peterson's 2009 study found that 98% of the fish in Oregon and overall in the United States are protected from mercury toxicity by selenium. We do not have a major mercury problem in Oregon and this issue should be put to rest. Suction dredging is not aggravating a no existent problem.

Spending more funds to further study this is absolutely not necessary and will give you no information you do not already have. Keep the honest suction dredge miners working and putting these young miners through college.

Respectfully,

Claudia Wise