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November 6, 2015

Paula Wilson
DEQ State Office
Attorney General's Office
1410 N. Hilton
Boise, ID 83706

Submitted via email: paula.wilson@deq.idaho.gov

Re: Docket No. 58-0102-1201- Fish Consumption Rate and Human Health Water Quality Criteria – Proposed Rule

Dear Ms. Wilson;

Since 1973, the Idaho Conservation League (ICL) has been Idaho's voice for clean water, clean air and wilderness—values that are the foundation for Idaho's extraordinary quality of life. The Idaho Conservation League works to protect these values through public education, outreach, advocacy and policy development. As Idaho's largest state-based conservation organization, we represent over 25,000 supporters, many of whom have a deep personal interest in protecting Idaho's water quality, fisheries and the health of Idaho residents.

We have participated extensively in this rulemaking – participating in nearly all of the rulemaking sessions and providing extensive written comments as the opportunity was provided.

We appreciate that time and resources that the agency has devoted to this matter. The agency has made many decisions throughout the course of this rulemaking that are coming together and affecting the final proposed rule language. While we have supported many of these individual decisions, we have also objected to several critical decisions. Unfortunately, as a result of that path that DEQ chose to take in some of these individual decisions, we are not able to support key aspects of this proposed rule.

Our most significant point of objection here is the final Fish Consumption number that DEQ has chosen to integrate into its standards. The number that is being used is not protective of human health. As a result, this proposed rule incorporates water quality standards for numerous pollutants that are not sufficiently protective. This is especially true with regard to how these rules will affect the health of Tribal Members.

It is totally unacceptable to intentionally develop standards that are protective for 95% of Idaho's white population and only protective for the mean of Tribal members. While there might be some means to rationalize this with statistics, it is immoral and wrong for the State of Idaho to develop standards that fail to provide Tribal members with the same level of protection as is provided for Idaho's larger white population. We urge you to revisit this decision.

Our attached comments outline our concerns in greater detail.

Please contact me if you have any questions at 208-345-6933 x 24 or jhayes@idahoconservation.org

Sincerely,

Justin Hayes
Program Director

070.08 Protection of Downstream Waters

While we support the inclusion of this clause directing that water quality in downstream waters shall be protected, we believe that the proposed language needs refinement. We advocate that language be added that states that existing and designated uses shall be protected. Doing so more accurately reflects the true extent of what is required to comply with the legal antidegradation requirements of protecting downstream water quality. See proposed additional language inserted into DEQ's proposed rule language below.

> All waters shall maintain a level of water quality at their pour point into downstream waters that provides for the attainment and maintenance of the water quality standards and protection of existing and designated uses of those downstream waters, including waters of another state of tribe.

210.03.b.

Upon review of this section, it appears that DEQ is proposing language that would allow the exceedance of water quality criteria in streams during periods of low flow. What is the justification for this provision?

Periods of extreme low flow are inherently stressful for aquatic life. DEQ's provision to allow WQS to be exceeded during periods of low flow is the exact opposite of what should be happening. Allowing increased concentrations of pollutants during periods of low flow is likely to increase the detrimental impacts of these pollutants.

210.05.b.ii

We believe that DEQ should state what fish consumption rate is to be utilized to derive water quality criteria, rather than just reference that a fish consumption rate that is representative will be utilized. This level of vagueness is inappropriate in Rules.

We are concerned that this section's proposed use of a mean adult body weight value may place children (who weigh less than the mean adult body weight) at greater risk. DEQ should ensure that its criteria are protective of children because the implications of over exposure to children may be direr and longer lasting than the implications of adult exposure. The average Idaho household has just over two children in the home. To protect Idaho children, DEQ should utilize a mean child weight when calculating water quality criteria.

Scope of Criteria Updates

We support DEQ's decision to broadly update Idaho's water quality criteria. Doing so is an efficient use of agency resources and will save the agency time and money. Further, by updating all of the criteria which have available updates, the DEQ will be helping to ensure that Idaho's rules are as up to date as possible, reflect the best available information and are protective of the health and welfare of Idahoans and our natural resources.

Other matters
DEQ has undertaken an effort to determine how much fish is consumed by Idahoans. Pursuant to this, Idaho has determined that it will utilize 16.1 g/day when calculating water quality criteria.

We object to a number of the decisions that were made throughout the course of the rulemaking that resulted in the identification 16.1 as the number that DEQ would use.

Market Fish
We disagree with DEQ's decision to exclude the consumption of market fish when calculating Idaho's fish consumption rate and urge the Department to reconsider this matter and include market fish.

The consumption of Idaho fish must be considered within the context of the actual (surveyed) eating patterns of Idahoans. If Idahoans are consuming market fish, and thus being exposed to contaminants in these fish, Idaho water quality standards must be set such that the consumption of Idaho fish does not add to a consumers pollutant burden in a way that results in physical harm to the consumer. Idaho consumers should not have to choose between eating market fish and eating Idaho fish; Idaho's standards should be set in such that a consumer can consume fish from both sources and do so at the levels that they are accustom to. In order to do so safely, Idaho standards should be set in a manner that accounts for the consumption of both local and market fish.

Anadromous Fish
We disagree with DEQ's decision to exclude the consumption of anadromous fish when calculating Idaho's fish consumption rate and urge the Department to reconsider this matter and include anadromous fish.

Our decision to support the inclusion of anadromous fish in the calculation of Idaho's fish consumption rate is based in part on the fact that various species of anadromous fish spend varying lengths of time in Idaho waters and/or in waters that could be affected by Idaho water quality standards. The duration of such residency of anadromous fish varies from one to three years and there is scant scientific evidence to determine what proportion of a fish's pollutant burden comes from its time in Idaho or in downstream waters affected by Idaho water quality standards. As such, it does not seem to be defensible to lump all anadromous fish together and exclude them from inclusion.

Additionally, if Idahoans are consuming anadromous fish, and thus being exposed to contaminants in these fish, Idaho water quality standards must be set such that the consumption of Idaho fish does not add to a consumers pollutant burden in a way that results in physical harm to the consumer. Idaho anglers should not have to choose between eating anadromous fish (or market fish) and eating resident fish; Idaho's standards should be set such that a consumer can consume fish from all sources and do so at the levels that they are accustom to. In order to do so safely, Idaho standards should be

set in a manner that accounts for the consumption of resident fish, anadromous fish and market fish.

Risk and Human Health Protection

We are concerned that certain high consuming subpopulations will be placed at an unacceptable risk if DEQ provides 10^{-6} level of protection only to the mean of the overall subpopulation. We advocate that DEQ instead provides this level of protection to the 95th percentile of the high consumer subpopulation. Failure to do so creates environmental justice issues as it exposes Tribal members and all fishing/angling Idahoans to elevated levels of risk. These high consuming members of the public are specifically the people that need to be protected – they are the people eating larger quantities of fish.

It is totally unacceptable to intentionally develop standards that are protective for 95% of Idaho's white population and only protective for the mean of Tribal members. While there might be some means to rationalize this with statistics, it is immoral and wrong for the State of Idaho to develop standards that fail to provide Tribal members with the same level of protection as is provided for Idaho's larger white population. We urge you to revisit this decision.

If the State chose to provide 95% protection Tribal members, under one set of circumstances this could be accomplished by utilizing a fish consumption rate of 56.6 g/day.

56.6 g/day is the Nez Perce Tribe 'adjusted rate' as described in the Oct. 6th 2015 WindWard report that was developed for DEQ. Granted that there is not total support for DEQ utilizing the "adjusted rate" of Tribal consumption. Indeed, ICL does not support DEQ's decision to manipulate the Tribal data to generate the 'adjusted rate.' However, setting side our concern over DEQ's manipulation of the Tribes' data, utilizing this 55.6 g/day rate at least attempts to treat Tribal members and whites equally. Use of 56.6 g/day is not perfect in that is the 'adjusted' rather than 'overall' rate, but it at least addresses the glaring and grievous environmental justice concerns created by DEQ's proposed protection of only the mean of Tribal members.

Treatment of the Tail

In both the WindWard Report generated for DEQ and DEQ's 'Idaho Human Health Criteria: Technical Support Document,' it is reported that certain statistical methods applied to the upper end distribution tail (95th percentile to 100th percentile) of the Nez Perce Tribe data result in a mean value of 19.2 g/day. DEQ has not explained why it chose to use 16.1 g/day instead of the more protective 19.2.

Inappropriate treatment of Tribal Data

As was discussed in great detail at a rulemaking meeting, we do not support DEQ's utilization of only certain aspects of the Tribal data. The Tribes conducted surveys of their members to develop information to aid in the calculation of fish consumption rates.

DEQ appears to be dissatisfied with the high fish consumption rate that the Tribes calculated. This dissatisfaction appears to have lead the State to cherry pick certain data out of the Tribal data and then to use this data to develop a fish consumption rate that is significantly different than the rate that the Tribe calculated. This repurposing of Tribal data is inappropriate and at a minimum violates the understanding of how this data was to be used. We ask DEQ to respect the Tribes' wishes with regard to how the State utilizes Tribal data.

Suppression

DEQ has decided to not integrate suppression into its determination of a FCR. Establishing the appropriate fish consumption rate is important because Idaho will use this information to establish certain water quality standards. If Idaho under estimates the fish consumption rate then the DEQ will establish water quality standards that are not protective of human health.

DEQ should identify a fish consumption rate that reflects the fact that fish consumption is currently being 'suppressed.' DEQ's proposes fish consumption rate should be inflated to account for this suppression.

For the purposes of this discussion, we are considering that a suppressing effect occurs when a population, or a subset of the population, experiences a reduction in the amount of fish that they consume; and that this reduction in consumption occurs as a result of some exterior or artificial force beyond the control of the consumer and counter to the wishes of the consumer.

There are two primary means of suppressing fish consumption that warrant consideration here. First, suppression based on contamination of the fishery. Second, suppression based on the lack of availability of fish to consume.

Under this framework, if a consumer chose to eat less fish because the local pizza parlor had a sale, this would be an example of individual choice – not suppression. But if an entire population of consumers wanted to eat large quantities of fish but could not because all of the local fish were unsafe to eat, this would be an example of suppression. Their desire to consume locally caught fish is being depressed because of an external force affecting the entire population or a significant portion of the population.

Suppression as a result of contamination

The State of Idaho – via a collaboration of the Idaho Department of Health and Welfare, the Idaho Department of Fish and Game and the Idaho Department of Environmental Quality – implements a program to monitor the healthfulness of Idaho fisheries and to protect the health of Idaho fish consumers. This program is described by the State in the following way:

> The Idaho Fish Consumption Advisory Program (IFCAP) informs Idahoans

> about possible contamination of lakes and streams that may affect fish and the humans who eat the fish. When contaminant levels are unsafe, IFCAP may recommend that people limit or avoid eating certain species of fish caught in certain places. IFCAP does this by issuing a Fish Advisory.[1]

Numerous resident fisheries have been determined to be have elevated levels of certain pollutants, especially mercury. Contaminant levels are such that the State has issued a Statewide Fish Consumption Advisory for all bass (largemouth and smallmouth) caught in Idaho and Fish Consumption Advisories for certain other species of fish caught in Priest Lake, Lake Pend Oreille, Lake Coeur d'Alene, Hells Canyon Reservoir, Payette Lake, Brownlee Reservoir, Payette River, Boise River Lake Lowell, Jordan Creek, CJ Strike Reservoir, Grasmere Reservoir, Shoofly Reservoir. Salmon Falls Creek Reservoir, Oakley Reservoir, Weston Reservoir, Bear River, Glendale Reservoir, Chesterfield Reservoir, Portneuf River, American Falls Reservoir, and the South Fork of the Snake River.[2] As you can see, these Fish Consumption Advisories are distributed across the entire state and encompass some of Idaho's most popular recreational fishing areas.

The State counsels Idahoans that:

> A fish advisory means that you should be aware of the **amount** of certain types of fish you should eat. A fish advisory doesn't mean that you should stop fishing in a favorite lake or stream. Idaho fish are an excellent source of good nutrition. We encourage you to keep fishing and continue enjoying healthy meals.[3]

Thus, the State of Idaho, through its Fish Consumption Advisories is advising all Idahoans to "be aware of the amount of certain types of fish you should eat."[4]

The State also provides information critical to all Idahoans to protect their health and the health of their families. Namely, the State has issued guidelines that advise Idahoans to limit their consumption of certain locally caught fish.

For instance, the State advice to pregnant women, woman who are nursing or planning to become pregnant is "Do Not Eat More Than 2 meals[5] per month of Bass." The State

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[1]Website: Idaho Department of Health and Welfare. Idaho Fish Consumption Advisory Program at: http://healthandwelfare.idaho.gov/Health/EnvironmentalHealth/FishAdvisories/tabid/180/default.aspx

[2] Eat Fish, Be Smart, Choose Wisely – A guide to save fish consumption for fish caught in Idaho waters. Idaho Department of Health and Welfare, Bureau of Community and Environmental Health. Available on line at: http://healthandwelfare.idaho.gov/LinkClick.aspx?fileticket=KdiAtzzdouA%3d&tabid=180&portalid=0&mid=1471

[3]Website: Idaho Department of Health and Welfare. Idaho Fish Consumption Advisory Program at: http://healthandwelfare.idaho.gov/Health/EnvironmentalHealth/FishAdvisories/tabid/180/default.aspx

[4] ibid

[5] An adult size meal is 8 oz. uncooked fish.

advice to children under the age of 15 years is "Do Not Eat More Than 2 meals[6] per month of Bass." For the general public, i.e. people not in the previous two categories, the State advice is that they not eat more than 8 means per month of Bass. The Bass advisory further states that "All people SHOULD NOT eat any other fish during the month if you eat these amounts of Bass caught in Idaho."[7]

Advisories limiting consumption have also been issued for rainbow trout, lake trout, redband trout, lahontan cutthroat trout, brown trout, cutthroat trout, perch, walleye, crappie, suckers, carp, bullhead, bluegill, whitefish and catfish. Each of these advisories is specific to the individual waterbody where the fish was caught. And, as noted above in the discussion of the Bass advisory, the State advises Idahoans to not eat any other fish during the month if you eat the amount of fish described in any one fish consumption advisory.

Pursuant to the State of Idaho's fish consumption advisory, a young woman is admonished to not eat more than 16 oz. of uncooked Idaho caught Bass per month and to eat *no other* fish in that same month. This translates into a State advisory for young women to not consumer more than 15.12 grams of fish per day. Children are advised to not eat more than 4.25 grams of fish per day. According to the State of Idaho, consuming fish at a greater rate than this can result in harm to one's health.

Idahoans who abide by the State's fish consumption advisories are suppressing their fish consumption, upon the advice of the State, in order to protect their health.

Idaho's Fish Consumption Advisory program has been in existence for a number of years and it's advisories are noted in the annual Idaho Department of Fish and Game regulations, there are flyers posted at numerous points of access at popular fishing areas, news stories in various media outlets periodically report on the advisories and the advisories are available online. The State has done a reasonably good job of informing the public about the existence of these advisories' recommended limits on fish consumption. As a result of these advisories, it is reasonable to assume that Idahoans are limiting their consumption of locally caught fish in order to protect their health – as advised by the State.

Thus, because Idahoans are suppressing their fish consumption, it is likely that any effort to survey current fish consumption rates will observe an artificially low rate of consumption. If this suppressed rate of consumption is utilized for the development of water quality standards, DEQ will set standards that are not protective of the fish consumption rates that will be expected as fishery health rebounds.

A 2002 report[8] from the National Environmental Justice Advisory Council, a Federal

[6] A child size meal is 2.25 oz. uncooked fish.
[7] Eat Fish, Be Smart, Choose Wisely – A guide to save fish consumption for fish caught in Idaho waters. Idaho Department of Health and Welfare, Bureau of Community and Environmental Health. Page 5.
[8] FISH CONSUMPTION AND ENVIRONMENTAL JUSTICE, A Report developed from the National

Advisory Committee to the U.S. Environmental Protection Agency, describes standards set on suppressed consumption rates as the beginning of a "downward spiral." See Below:

> To the extent that people are prevented from consuming fish as they had or would due to contamination or depletion of the fish and aquatic ecosystems that support the fish, there are important implications for EPA's and other agencies' risk assessment, risk management, and risk communication approaches. As noted above, when environmental agencies set or approve water quality standards that rely on a picture of exposure that takes people to be eating smaller quantities of fish, agencies will permit relatively greater quantities of pollutants to remain in or be discharged to the waters and sediments. That is to say, agencies will set less protective standards. The downward spiral thus begins, as these aquatic environments and the fish they support will be permitted to become increasingly contaminated, and some individuals in turn might be expected to respond by reducing their fish consumption even further. Or some individuals in turn might find that there are fewer fish to be caught (and those that remain to be increasingly contaminated) or there are fewer places open for shellfish harvesting. In either case, studies would reflect even lower FCRs, and agencies would then set new standards assuming that little or no human exposure to contaminants occurs via fish consumption, and permit even greater quantities of pollutants in aquatic ecosystems.

To avoid this 'downward spiral' the DEQ must take the necessary steps to ensure that the baseline fish consumption rate that is developed takes into consideration the fish consumption suppression that is occurring. Merely relying on the current, reported fish consumption levels recorded via surveys will not accurately capture the fish consumption rate that the DEQ should utilize when setting water quality standards.

Suppression as a result of lack of abundance

An additional circumstance that can result in suppression of fish consumption is the scarcity of fish to consume. If a population wishes to consume fish in greater number than can be obtained, the population's reported fish consumption rate will be lower than it would be if the desired fish were locally abundant. And, when fish abundance increases, it is appropriate to believe that consumption rates will similarly increase.

Historically, Native American populations in Idaho consumed significant quantities of salmon and steelhead. More recently, however, these fisheries have declined and salmon and steelhead are no longer available for consumption at these historic rates. This decline in consumption is not the result of a choice that individuals have made. This decline in consumption reflects the lack of abundance and reduction of the geographic range that support salmon and steelhead. A survey of current consumption rates would collect data that reflects this current, suppressed consumption.

Environmental Justice Advisory Council Meeting of December 3-6, 2001. Printed November 2002. Page 49.

Significant efforts are underway – both in Idaho and throughout the Pacific Northwest – to restore salmon and steelhead populations. Indeed, hundreds of millions of dollars are being spent in an effort to restore these fish. As these fisheries are restored, Idahoans – Native Americans and Europeans alike – will consume more salmon and steelhead. In time, consumption of salmon and steelhead will no longer be suppressed.

If the DEQ utilizes the current observed fish consumption rates to set water quality standards, Idahoans' health will be harmed when more salmon and steelhead are available for Idahoans to consume and our fish consumption rates increase.

Suppression Conclusion

Fish consumption rates are being significantly suppressed in Idaho. Lack of abundant fisheries – which the state is working hard to rebuild – is one source of this suppression. The other cause of suppression is that the State of Idaho has formally told Idahoans to limit their consumption of many species of locally caught fish.

The State of Idaho provides that, "When contaminant levels are unsafe, IFCAP may recommend that people limit or avoid eating certain species of fish caught in certain places.[9]" As reported above, IFCAP has issued such a recommendation for all Bass caught in Idaho and for many other species of fish in many of Idaho's most popular recreational fisheries.

Many Idahoans — myself included — are significantly suppressing fish consumption in our families because we want to follow the health advice of the State on this matter, even though I (and others) aspire to again be able to eat significantly larger quantities of the readily available, locally abundant resident fish.

It seems very significant to us that the State is telling people to limit their fish consumption — and then potentially using these reduced rates of consumption to set water quality standards. As Idahoans return to our desired patterns of fish consumption as the causes of suppression diminish – because contamination issues are resolved and/or the State's salmon and steelhead restoration efforts are successful – then we will be harmed by the water quality standards that were set to be protective for current suppressed rates of consumption. To avoid this harm to our health, we will need to continue to suppress our fish consumption.

It is imperative that the DEQ integrate ongoing suppression of fish consumption into account when determining the appropriate fish consumption rate to utilize when setting Idaho's water quality standards.

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[9] Website: Idaho Department of Health and Welfare. Idaho Fish Consumption Advisory Program at: http://healthandwelfare.idaho.gov/Health/EnvironmentalHealth/FishAdvisories/tabid/180/default.aspx