

From: [Larry Dunn](#)
To: [ECY RE Fish Consumption](#)
Subject: comments on fishconsumption
Date: Monday, October 10, 2011 11:27:30 AM

COMMENTS ON THE DEFAULT FISH CONSUMPTION RATE ISSUE:

Under the Preliminary recommendation section it should be noted that the 157 to 267 gram per day rate is not protective of most of the Salish tribes. Therefore individual tribal rates should be considered and will be necessary in many cases.

it needs to remain clear that this rate is not to be construed as a tribal default rate. If it becomes the water quality rate then it will be the default for all water quality programs, is that correct? If it is then I think that it should be clearly stated as such.

Page 77 there is a reference to the EPA recommendations to states it appears that the options range is all over the place but I think that the Suquamish rate as the highest average rate is the most appropriate to use when setting the standards. Using the lowest recommended standard of the mean it will give a 214 grams per day number which is protective of all non-native consumers and some native consumers to the 85% or better, though 267 would be protective of most groups to the 90% which is the standard percentile used for MTCA.

Just a comment on the current EPA water quality rates, they are based on data from the 1990's and are not consistent with the current knowledge of tribal consumption.

The diet fraction from the site should be based upon how much fish **could be acquired** from the restored site or 100% as default.

Exposure duration should be 70 years tribal members don't leave their U&A and most don't move far from the reservation due to service availability. Many Northwest people stay in the northwest most of their lives, even expatriates tend to return eventually.

Body weight is another problematic issue since the average body weight of an adult in the US has gone up considerably in recent years. According to the reports published by the Centers for Disease Control and Prevention (CDC), average [body mass index](#) BMI, has increased among American adults from approximately 25 in 1960 to 28 in 2002. BMI is a weight-for-height formula used to measure [obesity](#). Study reports show that the average American man's (20-74 years old) height has increased from 5'8" to 5'9½", while the average height of an American woman of the same age has increased from 5'3" to 5'4". But in the meantime, average American male weight (aged 20-74 years) has increased dramatically from 166.3 pounds to 191 pounds and the average American female weight (of the same age) has increased from 140.2 pounds to 164.3 pounds.

The high end of your recommendations (267 g/day) is the most appropriate default number particularly for cleanups and based upon the recent studies of salmon the water quality

program as well. It should be noted on page 105 bullet #4 that ... default fish

Consumption rate in the proposed range would be protective of “most” fish consumers.

On the question of whether to include salmon I think that you should cite the two studies which indicate that the salmon pick up their body burden in the rivers and streams as a counter to the widely held belief that salmon pick up their body burden in the open

ocean (a conclusion which is illogical). I would hope that those would change the conclusion on page 108 “ A significant part of salmon contamination occurs in waters and from sources outside of individual MTCA sites or the waters regulated under the CWA-based criteria.” This conclusion is based upon studies which did not collect salmon at sea and are based upon assumptions of life cycle which are questionable, since not all species of salmon spend the same amount of time at sea in fact some(sockeye) spend very little time at sea and most spend a year or more in the streams, rivers and estuaries.

These two newer studies were well done and I believe are of sufficient value to at least counter the accepted assumption that the contamination is from the open ocean. The science is there to support the assumption that salmon get their contamination in the stream, rivers and embayments of Puget Sound, therefore I would recommend that either these studies be cited to show the difficulty or be used as a basis for including salmon in the fish consumption. (NOAA 3/18/2008 Technical study/ Laliberte 2006)

Generally the report is excellent. Sincerely, Larry Dunn, LEKT