Southeast Alaska Conservation Council

Inside Passage WATERKEEPER

November 12, 2015

Dennis McLerran, Regional Administrator
Email: mclerran.dennis@epa.gov
EPA - Region 10
1200 6th Ave., Suite 900
Seattle, WA. 98101

Re: Petition For Revision of Alaska's Fish Consumption Rate

Director McLerran:

The Southeast Alaska Conservation Council (SEACC) and Inside Passage Waterkeeper (IPW) respectfully petition EPA Region 10 to revise the remarkably outdated Fish Consumption Rate (FCR) used by the State of Alaska to derive applicable human health criteria to waters under Alaska's jurisdiction. *See* 33 U.S.C. § 1313(c)(4)(B); 40 C.F.R. 131.11(a)(1). The current FCR in Alaska fails to protect Alaskans who consume fish, shellfish, aquatic plants and mammals, a fundamental objective of the Clean Water Act. The science confirming the need to update the FCR has been available for at least 15 years. The State's continued lack of action is inexcusable.

The fact that Alaskans consume far more fish than most other U.S. populations means we deserve and require more stringent water quality criteria, because a higher fish consumption rate increases exposure to any contaminants that may be present in these fish.

The proposed rate of 175 g/day represents an interim protective FCR for the consumption of fish and shell fish from marine, estuarine and freshwaters by the subsistence users in Alaska until such time ADEC conducts surveys and sets local or regional values. We further request EPA to lower the existing lifetime cancer risk estimate that the Alaska Department of Environmental Conservation (DEC) deemed acceptable for Alaska back in 1997 from one person in 100,000 to one person in a million to account for the fact that actual consumption rates are likely much higher. *See* 18 AAC 70.025 (2012).[1] Current existing criteria no longer protect designated uses of waters in Alaska and do not protect the large proportion of Alaska's rural population who rely on subsistence foods.

EPA recommends that states consider developing criteria to protect highly exposed population groups and use local or regional data in place of a national default value as more representative of their target population group(s). The preferred hierarchy is: (1) use of local data; (2) use of data reflecting similar geography/ population groups; (3) use of data from national surveys; and

[1] See also 40 CFR§131.36(d)(12)(iii)(2015).

(4) use of EPA's default consumption rates. Alaska continues to rely on default criteria set 35 years ago at 6.5 grams per person per day. Alaska now has the lowest FCR in the nation despite the fact that residents in Alaska consume more fish than any other state and this default rate remains far below EPA's 15-year old recommendation that states apply a rate of at least 142.4g/d for subsistence users.[2]

The Alaska Department of Environmental Conservation (ADEC) has failed to act in the face of sound science and ever rising national recommendations. The current FCR of 6.5g/p/d for Alaska stems from the national dietary information published in 1992. In 2000, EPA published new Human Health methodology that raised the national criteria to 17.5g/p/d and recommended a value for subsistence users of 142.4g/p/d, yet Alaska has retained the 6.5g/p/d value. In the subsequent 15 years the ADEC has not acted to meet national guidelines nor has conducted a single survey to collect local data.

For the second Triennial Review in a row, ADEC made the review of the FCR a priority. Further delay is inevitable because at the very beginning of the 2015-2018 Triennial Review, ADEC stated categorically that it would not propose any regulatory changes during this triennial review. Instead, the State only committed to 'studying' the issue and formed a workgroup. In a presentation to the work group (and public), ADEC appears to question the legitimacy of the 2000 recommendations:

> Setting the value at the 99th would be very problematic (although that is how EPA got 142 g/d for the national *subsistence* criteria in the 2000 recommendation) because it would create a situation that may be unrealistic- Do folks really eat that much fish ALL their lives?

See Slide 48, Water Quality Standards, Human Health Criteria Presentation Technical Workgroup Meeting #1 (August 20, 2015)(parenthetical in original).[3]

Alaska leads the nation in subsistence food use. An estimated 36.9 million pounds of wild foods are harvested annually by rural users and residents of urban areas harvest about 13.4 million pounds of wild food under subsistence, personal use, and sport regulations. *See* http://www.adfg.alaska.gov/index.cfm?adfg=subsistence.main. Among rural Southeast residents, 80% consume fish and nearly everyone consumes subsistence seafood. This, in addition with other wild foods, accounts for 155% of the annual protein requirements of rural residents.[4]

---

[2] USEPA. 2000. Methodology for Deriving Ambient Water Quality Criteria for the Protection of Human Health at 1-10. U.S. Environmental Protection Agency, Office of Water, Washington, DC. EPA–822–B–00–004. *http://www.epa.gov/waterscience/criteria/humanhealth/method/complete.pdf*.

[3] Attached to this petition and available at: http://dec.alaska.gov/water/FCWQS/HumanHealthCriteriaTechWG.html. Last accessed September 30, 2015.

[4] John Sisk, *Subsistence Use in Southeastern Alaska*, *in* Audubon Alaska & The Nature Conservancy, The Coastal Forests And Mountains Ecoregion Of Southeastern Alaska And The Tongass National Forest: A Conservation

Another report published in 2004 found that mean daily intake of fish and shellfish for Alaska Natives was 109g/p/d. *See* Use of Traditional Foods in a Healthy Diet in Alaska: Risks in Perspective Second Edition: Volume 2. Alaska Division of Public Health Department of Health and Social Services State of Alaska December 2, 2004 at 11.[5]

More recent data confirms the earlier findings. Alaska specific data now demonstrate that fish consumers in Alaska, including tribes, consume much more fish than 6.5 g/day and more likely in excess of 142.4g/d. The most recent well-designed effort to estimate fish consumption rates for Alaska communities comes from the Seldovia Village Tribe that conducted interviews with a statistically representative sample of residents from four villages in South Central Alaska. The 95th percentile fish and shellfish consumption rates in these villages were 247.1 grams/day. *See* Merrill & Opheim, *Assessment of Cook Inlet Tribes Subsistence Consumption* at 6 (Sept. 30, 2013)(prepared for Seldovia Village Tribe Council).[6]

In response to growing concerns among Alaska Natives about potential contaminant content in their diet, the Alaska Area Institutional Review Board, National Indian Health Service, and participating Native villages conducted surveys of villagers to measure the types and quantities of traditional, subsistence foods consumed. *See* Final Report on the Alaska Traditional Diet Survey, Alaska Native Epidemiology Center and Alaska Native Health Board, March 2004.[7] The project included 125 participants from the Southeast Alaska Regional Health Consortium region. The survey found the median amount of aquatic subsistence foods consumed per person surveyed was 75 pounds per year up to a maximum of 1,478 pounds per person per year. *Id.*, at Table 5e at 39.[8] The same report listed the salmon and halibut total amounts separately from those surveyed at 9,746 pounds annually -- 78 pounds per year in salmon and halibut alone (9,746/125). *Id.* at Table 6e at 44 (Note: total for deer muscle was not included).

As far back as 1997, ADEC knew actual fish consumption rates far exceeded the default rate used to determine water quality criteria. A survey conducted then showed that based on harvest data in the SE Alaska Costal communities, between 174.98-175.86 lbs. per person each year of fish, large mammals, marine invertebrates, and vegetation were collected. *See* Establishing Alaska Subsistence Exposure Scenarios ASPS #97-0165 Submitted to the Alaska Department of Environmental Conservation September 1, 1997, IDM Consulting Appendix D Table 19-21 at 63-65.[9]

All of these studies indicate that the current FCR used by the State does not accurately represent actual fish consumption rates for a large percentage of Alaska's population. Furthermore, none

---

Assessment And Resource Synthesis Chap. 9.1 at 3 (John W. Schoen & Erin Dovichin, eds., 2007). Available at http://www.conservationgateway.org/ConservationByGeography/NorthAmerica/UnitedStates/alaska/seak/era/cfm/Documents/9.1_Subsistence.pdf. Last accessed November 6, 2015.

[5] Available at: http://www.epi.hss.state.ak.us/bulletins/docs/rr2004_11.pdf. Last accessed Nov. 6, 2015.

[6] Available at http://www.seaotter-sealion.org/downloads/SVT_Subsistence_Consumption_report.pdf. Accessed last on Nov. 6, 2015.

[7] Available at: http://www.nativescience.org/assets/Documents/PDF%20Documents/ATDP_final.pdf

[8] Petitioner removed all food items not under CWA jurisdiction such as moose and berries from Table 5e, then added the remaining items to derive minimum/maximum values.

[9] Available at: http://www.deq.idaho.gov/media/895865-idm-1997.pdf. Last accessed September 30, 2015.

of these studies took into consideration factors that serve to suppress full utilization of fish and seafood available to the communities. Unsuppressed fish consumption is likely much higher when factors such as the cost of fuel, seasonal closures and other regulatory restrictions, and competition with commercial and sport harvesting are taken into consideration.

We also request EPA lower the lifetime cancer risk for the State of Alaska to 10^{-6} given the likelihood that 175g/d still underestimates the actual FCR. Additionally, many rural villages representing the same populations with high FCR's also lack access to treated drinking water. Human health criteria are designed to minimize the risk of adverse cancer and non-cancer effects occurring from lifetime exposure to pollutants through the ingestion of drinking water as well as the consumption of fish/shellfish. According to ADEC, over 3,300 rural Alaska homes lack running water and a flush toilet. *See* The Problem, Alaska Water and Sewer Challenge at http://watersewerchallenge.alaska.gov/. Many more depend on aging and deteriorating piped and haul systems. Given the likely exposure to pollutants through untreated drinking water and suppressed fish consumption rates, EPA needs to lower the cancer risk level from the current 10^{-5} life-time risk to 10^{-6} to account for lack of treated water in many rural homes and the uncertainty from suppressed and underestimated fish consumption rates.

Alaska is a unique state with numerous communities and villages who rely on healthy seafood for primary nutrition. The Clean Water Act should protect Alaskans most essential food source. We urge EPA R-10 to take immediate action to protect the health of the residents of Alaska until such time as the State conducts appropriate regional surveys and finalizes an Alaska-specific fish consumption value. Further delay is unwarranted.

We look forward to your decision.

Thank you,

Buck Lindekugel

SEACC
907-586-6942
buck@seacc.org

Guy Archibald

Inside Passage Waterkeeper
907-209-2720
guy@seacc.org