

Appendix: Fish Consumption Rates: Notes on Descriptive Terms

Attachment to NWIFC Comments to the WA Department of Ecology on the State's Draft Rule for Human Health Criteria and Implementation Tools; March 23, 2015

The usage of terms in this document differs slightly from previous comments on usage prepared by Donatuto, Harper and O'Neill¹ and submitted in comments to the state of Idaho related to state rule-making for Human Health Criteria.

Heritage Rates “refer to the rates of fish intake consonant with traditional tribal practices, prior to contact with European settlers” and assume rates that were “uncontaminated and available” and not subject to suppression. The term Heritage Rates, used herein, represents the same definition as used by Donatuto et al.

Contemporary rates of tribal fish consumption, as used in this document, refers to fish consumption that has occurred in recent history, i.e. since the early 1990s when tribes began conducting dietary surveys to document modern consumption. The term “contemporary” is a temporal term and describes consumption rates identified as snapshots in time, generally through a similar methodology.²

Donatuto et al. use the term **Aspirational Rates** to refer to fish consumption rates that are higher than what is currently consumed or documented in fish intake surveys. The term aspirational rates is intended to recognize that present-day fish consumption may be suppressed due to resource availability, resource contamination, lack of access to fishing areas and other factors that have resulted in a reduction in consumption from heritage rates. Aspirational rates are not interchangeable with heritage rates; aspirational rates may be established at a level equal to heritage rates, or set at a lower level.

Subsistence is described by Donatuto et al. as, “a term that is inconsistently used and understood.” They point out that use of the word “subsistence,” as it is applied to fish consumption rates, differs from the way that the word is commonly understood in colloquial use. They also point out that subsistence is used by the Environmental Protection Agency in various guidance documents as described below.

¹ Donatuto, J., B. Harper and C. O'Neill; February 14, 2014. “Heritage, Subsistence, and Aspirational Fish Consumption Rates: Comments on Usage.

² It should be noted that some tribes (e.g. the Lummi Nation) have conducted studies that retroactively estimate fish consumption rates during the peak of salmon harvest levels in the 1980's. This was an effort to quantify some suppression factors, but such analysis is not characterized as heritage, aspirational, or contemporary.

For purposes of this document (i.e. comments to the WA Department of Ecology; March 2015), the term subsistence is used in two different ways, and its meaning must be inferred from context.

- 1) The Department of Ecology uses the term “subsistence” in the context of EPA usage in Ambient Water Quality Criteria. The EPA, as described by Donatuto, et al., uses the term, “in a more generic sense, i.e., to refer to individuals who simply eat a lot of fish, for whatever reason” rather than specific reference to tribal fishers and consumers. As described by EPA, the term subsistence would encompass both subsistence fishing by treaty tribal harvesters and recreational harvest by non-treaty fishers.
- 2) In the context of treaty-reserved fishing rights held by tribes, tribal fisheries managers typically use subsistence to differentiate treaty tribal catch for personal use from commercial, ceremonial, or recreational fisheries, as follows³:

Commercial – fish/shellfish caught by a licensed fisher (treaty or non-treaty) and sold to someone (tourist, local store, wholesale buyer, etc.)

Subsistence – treaty harvest for personal use and the fisher’s family

Ceremonial – treaty harvest that takes place for a culturally important event (funeral, marriage, annual event, etc.)

Recreational – non-treaty sport harvest for personal use (no sales)

The term **sustenance** was used by the Department of the Interior in January 2015 related to Maine’s water quality standards and tribal fishing rights in Maine, and stated that, “it is reasonable to include that the term encompasses, at a minimum, the notion of tribal members taking fish to nourish and sustain themselves.”⁴ By this description, the term sustenance is similar to “subsistence” in the context of treaty-reserved fishing rights in the Pacific Northwest. However the circumstances in Maine differ from Washington State, and the terms cannot necessarily be used interchangeably.

³ Chitwood, S. 2015. Pers. Comm. with the Natural Resources Director of the Jamestown S’Klallam Tribe.

⁴ U.S. Department of the Interior, Office of the Solicitor. January 30, 2015. Letter from Hilary C. Tomkins to Avi Garbow, General Counsel, U.S. Environmental Protection Agency. RE: Maine’s WQS and Tribal Fishing Rights of Maine Tribes.

Traditional refers to a body of fish harvest and consumption practices. In general, traditional fishing families rely extensively on fisheries resource consumption similar to ancestral practices. Traditional fish consuming families are generally high consumers, and may represent consumers who eat parts of the fish that may be discarded by other users (and thereby susceptible to exposure to toxic chemicals at a different level).

Fish Consumption Rates in Tribal Water Quality Standards

Several tribes have developed their own set of human health criteria in water quality standards. The fish consumption rates adopted in tribal standards vary widely depending on the timing, circumstances, and evidence that was available at the point of tribal approval and subsequent EPA approval. Some tribes adopted the existing National Toxics Rule standards as a default value, or other national criteria in effect at the time. Other tribes have adopted individualized standards based on contemporary dietary surveys, heritage rates, or other information. Tribal standards are in various stages of development, approval by EPA, and revision.

Heritage, Subsistence, and Aspirational Fish Consumption Rates: Comments on Usage

Jamie Donatuto, Barbara Harper, and Catherine O’Neill
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Disclaimer: The following comments reflect the views of the authors, in their capacity as scholars in the field, and should not be taken to represent the view of any particular tribe or group of tribes.

Heritage Rates

We use the term “heritage” rates to refer to the rates of fish intake consonant with traditional tribal practices, prior to contact with European settlers. Heritage rates are thus fixed; they are determined by reference to this historical touchstone. For the fishing tribes, heritage rates may also be legally protected by treaty, executive order, or other federal law. Heritage rates, properly understood, are “baseline” rates – that is, they capture the amount of fish that would be consumed if fish were uncontaminated and available, and if tribal rights to acquire those fish were able to be fully enjoyed. Heritage rates are the only rates for the fishing tribes that can be said to be “unsuppressed” – that is, free from the biasing influence of suppression effects.ⁱ

We have also used the term “historical” rates, particularly in earlier discussions, in a sense interchangeable with heritage rates. However, we became concerned that the term “historical” carried connotations of *past* tribal practices that might be misperceived as irrelevant to *future* tribal practices.ⁱⁱ So, we have more recently preferred the term “heritage” rates. The National Environmental Justice Advisory Council, writing in 2002, similarly used the terms “baseline” and “historical” consumption to discuss unsuppressed intake by tribal fishing peoples.ⁱⁱⁱ

Other Terms

No other terms are interchangeable with the term “heritage” rates in this context. However, two terms have sometimes been used, often loosely, to refer to fish consumption rates other than contemporary, general population rates. These terms have sometimes been misunderstood in the tribal context to be substitutes for heritage rates or for unsuppressed rates; such a usage is incorrect.

Subsistence Rates

“Subsistence” is a term that is inconsistently used and understood. It can be used as a disparaging term, as in eking out a poor or meagre existence – one necessitated by poverty. It

can be understood to imply a lifestyle choice to eat fish and other wild foods (as opposed to a mandatory sacrament), but one that is chosen by an otherwise amorphous population, such as a rural population. It is a term of art in some contexts (e.g., in legislation applicable to Alaska). By contrast, “subsistence” is understood by many American Indian and Alaska Native people to refer to a set of interwoven cultural practices and lifeways that includes but is not coterminous with heavy reliance on fish, wildlife, and other natural resources for food and other purposes. So understood, “subsistence” means thriving within an ecology, with reciprocity between all components of the ecology, including people. Thriving here includes not only physiological or economic health, but also spiritual, cultural, social, and political well-being.

In its *Methodology for Deriving Ambient Water Quality Criteria for the Protection of Human Health* (AWQC guidance),^{iv} EPA uses the term “subsistence” both in describing the national default FCR for higher-consuming populations and in discussing the range of risk levels from which states and tribes might choose. In the Technical Support Document (TSD) for the AWQC guidance, EPA’s use of the term “subsistence” is not consistent.^v While the term often includes tribal populations alongside other higher-consuming populations, EPA clearly does not mean to refer only to tribal people or other American Indians/Alaska Natives in discussing “subsistence” fishers. Rather, EPA seems to use the word in a more generic sense, i.e., to refer to individuals who simply eat a lot of fish, for whatever reason. Thus, for example, among the groups considered in the TSD’s discussion of “subsistence” are “Florida residents receiving food stamps,” and “high-end Caucasian consumers on Lake Michigan.”^{vi}

Aspirational Rates

“Aspirational” rates is a relatively new term; as such, usage may be inconsistent. It may refer to rates of fish intake that are simply greater than currently consumed, i.e., greater than those captured by surveys that document contemporary fish intake. It may also refer to rates of fish intake that are greater than reflected in current regulatory standards (e.g., the 6.5 grams/day figure currently used by the states of Washington, Idaho, and Alaska) – which standards themselves are based on dated surveys of (then-) contemporary fish intake. In either case, the use of the term “aspirational” appears to recognize the fact that consumption in the present or recent past is distorted due to suppression. However, the term has no particular agreed-upon touchstone for a given population (whether temporal, physiological, etc.) and so is susceptible to vague or multiple meanings. “Aspirational” is not a technical term; there is no recognized methodology for determining an aspirational rate (by contrast, there is a recognized methodology for ascertaining heritage rates for American Indian tribal people^{vii}). Indeed, the very experience of suppression, wrought by decades of injustice toward tribal fishers, means that aspirations expressed in the current generation may be biased downward.

Although an aspirational rate *could theoretically be set equal to* a heritage rate, care is warranted to retain the distinction between the two terms. In particular, if an aspirational rate that is lower than a heritage rate for a particular tribe or tribes is (incorrectly) referred to as a heritage rate, this usage could lead to an erosion of the meaning and understanding of heritage rates. By the same token, unless an “aspirational” rate is set equal to a “heritage” rate, an aspirational rate will not truly be “unsuppressed” (even if an aspirational rate reflects some increase over a contemporary, suppressed rate).

Endnotes

ⁱ “A ‘suppression effect’ occurs when a fish consumption rate (FCR) for a given population, group, or tribe reflects a current level of consumption that is artificially diminished from an appropriate baseline level of consumption for that population, group, or tribe. The more robust baseline level of consumption is suppressed, inasmuch as it does not get captured by the FCR.” NATIONAL ENVIRONMENTAL JUSTICE ADVISORY COUNCIL, FISH CONSUMPTION AND ENVIRONMENTAL JUSTICE 43-45 (2002). For tribal people in the Pacific Northwest, the forces of suppression, often perpetrated or permitted by federal and state governments, have included inundation of fishing places; depletion and contamination of the fishery resource; and years of prosecution, intimidation, and gear confiscation. Suppressed fish consumption rates form a problematic basis for setting water quality standards that are designed to ensure “fishable waters” under the Clean Water Act (CWA). If water quality standards are set at a level that assumes only suppressed fish intake, the waters will only ever be clean enough to support that level of suppressed fish intake.

ⁱⁱ See generally, See Jamie Donatuto & Barbara L. Harper, *Issues in Evaluating Fish Consumption Rates for Native American Tribes*, 28 RISK ANALYSIS 1497(2008).

ⁱⁱⁱ *Id.* at 43-49.

^{iv} EPA, Methodology for Deriving Ambient Water Quality Criteria for the Protection of Human Health (2000), available at http://water.epa.gov/scitech/swguidance/standards/upload/2005_05_06_criteria_humanhealth_method_complete.pdf

^v See Catherine A. O’Neill, *Variable Justice: Environmental Standards, Contaminated Fish, and “Acceptable” Risk to Native Peoples*, 19 STANFORD ENVIRONMENTAL LAW JOURNAL 3, n.194 (2000)(cataloguing different uses of the term “subsistence,” and different groups included among those referred to as “subsistence fishers” in the TSD).

^{vi} *Id.*

^{vii} See, e.g., Barbara Harper, et al., *Subsistence Exposure Scenarios for Tribal Applications*, 18 HUMAN & ECOLOGICAL RISK ASSESSMENT 810 (2012); see also Barbara L. Harper, et al., *The Spokane Tribe’s Multipathway Subsistence Exposure Scenario and Screening Level RME*, 22 RISK ANALYSIS 513 (2002).