Weyerhaeuser

CH 1J32
PO Box 9777
Federal Way, WA 98477-9777
Office: (253) 924-3426
Mobile: (253) 279-4073
E-Mail: ken.johnson@weyerhaeuser.com

May 13, 2015

Patrick Lizon
Water Quality Program
Washington Dept of Ecology

Sent by electronic mail to: 303d@ecy.wa.gov

Subject: Comments on proposed freshwater 303(d) list

Dear Mr. Lizon:

Weyerhaeuser Company comments on the Dept of Ecology's proposed 303(d) freshwater list are presented. These will supplement an April 14 submittal specific to ID# 6697 (bacteria – Columbia River).

Waterbody and Listing Number	Requested Action	Support for Request
Columbia River - Listing ID #3788 Temperature	Change this Category 5 listing to Category 1 or perhaps Category 3	Ecology's database indicates this waterbody segment is being downgraded from Category 2 to Category 5 as a result of a discretionary re-segmentation of the Columbia River, coupled with temperature data apparently collected at river mile 71.9. Weyerhaeuser believes Ecology has not properly applied the WAC 173-201A temperature water quality standard for this segment of the Columbia River. Proper interpretation of the water quality criteria and consideration of available river temperature data would best support a Category 1 or perhaps a Category 3 listing. An assessment of impairment/non-impairment[1] of the temperature criteria for the lower Columbia River require determinations of ambient river temperature attributable to "natural conditions" and then "due to human activities." Table 602 of WAC 173-201A presents the water quality numeric temperature criteria for the Columbia River mouth to river mile 309.3. To support a regulatory determination of impairment Ecology must demonstrate (paraphrasing the regulation requirement): - The maximum one-day river temperature exceeds 20.0° C. due to human activities, - When the natural conditions exceed 20.0° C. then no single source, or all source activities collectively, shall be allowed to increase the

[1] We assume Ecology's use of the term "impairment" is synonymous with a regulatory determination of non-achievement or violation of a WAC 173-201A water quality standard

		temperature by more than 0.3° C. or 1.1° C., respectively. The data record for the ID# 3788 listing includes information indicating temperatures above 20.0° C., but is silent on what Ecology believes the natural condition is. Absent a natural condition determination, Ecology lacks information to support a regulatory determination on possible impairment of the Columbia River temperature standard. Since the agency cannot demonstrate impairment of the water quality standard, a Category 5 listing cannot be defended. The WQP Policy 1-11 discussion concedes the difficulty of a natural conditions determination and generously defaults to listing as Category 5 based on an assumption of some anthropogenic influence. Continued agency reliance on this qualitative decision criterion is disappointing. Ecology is responsible for implementing WAC 173-201A, but has apparently made no progress for at least a decade on the salient technical and regulatory policy factors that need consideration for defining a key feature of several numeric water quality criteria.[2] Meanwhile, Category 5 listings have tangible regulatory consequences for NPDES permittees who discharge heat into the Columbia River.[3] WQP Policy 1-11 offers that "further information or data" could be a reason for re-categorization of a waterbody listing. Weyerhaeuser suggests the 2002 and 2004 Northwest Pulp and Paper Association-sponsored ambient temperature studies conducted between Columbia River miles 57.4 to 71.9[4] provide "further information" on anthropogenic impacts on temperature in this Columbia River segment.[5] These studies indicate summer (critical condition) river temperatures exceed 20.0° C. While the NWPPA studies do not address the natural conditions concept directly, it can be intuited that the recorded temperatures at river mile 71.9 are at equilibrium with geohydrological and meteorological factors and thus represent natural conditions.[6] The central objective of the NWPPA studies was to evaluate whether the large heat inputs from the Weyerhaeuser and Longview Fiber pulp and paper mills in this river segment created ambient river temperature increases of more than the allowed 0.3° C. (single source) or 1.1° C. (all sources) human activity increments. The data indicate and Ecology has acknowledged that the allowed human activity increments are not exceeded. In essence, large heat inputs to the Columbia

[2] Joint EPA Region X, Washington WDOE and Oregon DEQ work on a Columbia River Temperature TMDL was abandoned in about 2002. This effort was providing some insights on the natural conditions topic.

[3] Friends of Pinto Creek/Carlota Copper v USEPA (2007), which preclude new or expanded discharges of a pollutant causing impairment until compliance schedules are issued (presumably through a TMDL process)

[4] The upriver boundary of the waterbody segment in Listing #3788 appears to be the mouth of the Cowlitz River (Columbia River mile 71.9)

[5] Temperature Study Results for Critical Period June 15 to September 15, 2003, for Columbia River and White/Stuck River," Parametrix, December 2002. Also, "Temperature Study Results for Critical Period June 15 to September 15, 2003, for Columbia River and White/Stuck River," Parametrix, March 2004

[6] There are no significant "human activity" heat sources to influence the Columbia in the immediate 50 miles upstream of the Listing ID# 3788 segment (the Georgia-Pacific pulp and paper mill discharge point at river mile 121) or maybe 73 miles upriver to the Bonneville Dam at river mile 145.

		quickly equilibrate with the flowing river. This reality, and considering the absence of any significant human activity heat sources for tens of miles upstream of river mile 71.9, directly supports the proposition that the Columbia River temperatures at river mile 71.9 represents natural conditions. To summarize, the best information available says that natural conditions are greater than 20.0° C., one day maximum, in the listing segment #3788, and that human activities do not cause increases of more than the 0.3° C. to 1.1° C. thresholds. As such, this segment of the Columbia River achieves the WAC 173-201A temperature standard. It should be listed as Category 1. It could be assigned a placeholder spot on the Category 3 list ("...there are insufficient water quality data available to make a determination on the status of water quality criteria or a designated use...").
Columbia River – Listing IDs #72805 and #3784 (and possibly #3785) Temperature	Correctly identify the relevant criterion and re-evaluate available data	The basis statement incorrectly lists the temperature criterion as 17.5° C (7DADmax). Table 602 identifies the correct criterion of this section of the Columbia River (20.0° C, 1-DMax, then allowed human activity increases). These waterbody segments should be re-categorized to Category 1 or 3, based on the rationale offered for listing ID# 3788.
Columbia River – Listing ID# 78120 Dissolved Oxygen	Correctly identify the relevant criterion and re-evaluate available data	The draft listing description incorrectly says the dissolved oxygen water quality criterion is 8 mg/l, one-day minimum. Table 602 in WAC 173-201A indicates the dissolved oxygen criterion is "Dissolved oxygen shall exceed 90 percent of saturation" for this section of the Columbia River.
Longview Ditches – Listing ID# 7783 Dissolved Oxygen	Change this Category 5 listing to Category 2 or 3	The Longview Ditches are not named in Table 602 of WAC 173-201A. The applicable dissolved oxygen criterion are thus to support "salmonid spawning, rearing, and migration" and are presented at WAC 173-201A-200(1)(d). The given aquatic life criterion of 8.0 mg/l, lowest one-day minimum, also includes a natural conditions provision. Dissolved oxygen in the Longview Ditches is surely low. A water quality assessment by the City of Longview (2002) presented technical information supporting a proposition that low dissolved oxygen is due to natural conditions. The agency apparently disagrees. Ecology rationalizes that human activities contribute to dissolved oxygen excursions and the raw data therefore justifies a Category 5 listing. Weyerhaeuser believes the agency is mis-applying the WAC 173-201A standard. In order to demonstrate a water quality standards impairment and then a Category 5 listing, it is first necessary to define the natural condition of the Longview Ditches. The agency has made no attempt to determine the natural conditions over the last decade, let alone whether human activities contribute to greater than a 0.2 mg/l deficit from those natural conditions. The appropriate listing for this Longview Ditches segment/dissolved oxygen would be Category 2 or 3.

Thank you for the opportunity to comment on this proposed 303(d) list.

Sincerely,

Ken Johnson
Corporate Environmental Manager