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November 8, 2004

BOISE

Department of Ecology
Water Quality Program

NOV 12 2004

Ken Koch
Water Quality Program
WA Department of Ecology
POB 47600
Olympia, WA 98504

RE: Redesignation of WRIA28 to Category 2 from Category 5 for Contaminated Sediments.

Dear Mr. Koch,

I recently reviewed the Washington State's Water Quality Assessment [303d] list for 2002/2004 on the Ecology Web page and would like to formally submit comment. I believe there is an error in the contaminated sediments listing for WRIA 28, Columbia River. It is currently listed as a Category 5, but should be designated a Category 2 waterbody.

I have some correspondance (enclosed) from Sharon R. Brown which supports this position.

I appreciate the work from your office and cooperation received in this matter. Should you have any questions or concerns, please feel free to contact me.

Sincerely,



Raymond Lam
Environmental Manager
Boise Paper Solutions
509-545-3318

kk
WATS - 39566, 39570, 39569, and 39568 are INACTIVE. Sediment Bioassay
CA: 2 2 2 5
STATIONS 1 1 1 3

DEPARTMENT OF ECOLOGY

July 13, 2004

TO: Ken Koch and Susan Braley, WQP
FROM: Sharon R. Brown, TCP/Sediment Management Unit (SMU)
SUBJECT: TCP Response to Boise Cascade Corporation 303(d) Comments (#02???)

TCP/SMU's response to the subject's March 11, 2004 comment letter concerning Sediment Bioassay Toxicity. WQP needs to address the Temperature section.

Listing Basis

The listings (39563-39565) were based on the Sediment Management Unit's (SMU) SEDQUAL (Sediment Quality Information System) survey BOISECAS. The SMU SEDQUAL contains only one bioassay test (i.e., Hyalella azteca 10 day) with a mortality endpoint for this survey. The SEDQUAL BSA (Bioassay Statistical Analysis) Tool reports the following biological failures (Figure 1).

Table with 5 columns: Listing ID, Location, SEDQUAL Station, SQS, CSL. Rows include Badger Island, Abandoned Outfall, Port Kelley, and Hat Rock. Includes a NOTE section with two explanatory points.

According to SEDQUAL GIS (Geographical Information System), surveys upstream (SNCL0600) and downstream (PMOR0399) of BOISECAS do not contain any biological data and thus, are not included in a 303(d) freshwater sediment evaluation.

Listings (39563-39565) based on Sediment Bioassays should be removed from Category 5 and placed in Category 2, because the listing criteria has not been met. Each segment contains one sample with one bioassay test. As shown in the above table, the bioassay points only amount to 1 (SQS hit) or 2 (CSL hit) and the listing criteria requires >= 3 points per segment to be listed in Category 5.

Data not in SMU's SEDQUAL Database

A cursory look at Lake Wallula listed segments found that Ecology's EAP (Environmental Assessment Program) apparently reported information that is not in SMU's SEDQUAL. For

1 SEDQUAL: www.ecy.wa.gov/programs/tcp/smu/sedqualfirst.htm.
2 SEDQUAL Survey BOISECAS: Boise Cascade Class 2 Inspection. Ecology. April 13-14, 1992.
3 SEDQUAL Survey SNCL0600: Sediment Sampling for Dredging. USACE Walla Walla District. June 2-9, 2000.
4 SEDQUAL Survey PMOR0399: Port of Morrow Sediment Sampling Evaluation. USACE Portland District. March 17, 1999.

example, listing id #36556 states that *Data from ... SEDQUAL database (stations BOISECAS*BADGER...) show no excursions beyond the criterion based on the Microtox Apparent Effects Threshold recommended by Cabbage and Batts (1997) on 4/14/1992 for the parameter 'zinc'. What does this mean / signify?*

1. Only *Hyaella azteca* biological test results are recorded in SMU's SEDQUAL.
2. There are no numeric freshwater sediment chemical criteria.
 - a. There is no legal authority for stating that there are *no excursions beyond the criterion ...* for freshwater sediment chemicals.
 - i. Chemical concentrations can be presented as additional information; not as a criteria violation.
 - ii. **Category 1 should not contain any freshwater sediment chemical segments.**
 - b. WQP Policy 1-11⁵ states that *information on chemical effects ... can be used to place a segment in the Waters of Concern category [2]*.
 - i. **Category 2** may contain freshwater sediment chemical segments where the chemical has exceeded the guidelines contained in *Creation and Analysis of Freshwater Sediment Quality Values in Washington State*.⁶ And, bioassay segments when the listing criteria is not met (i.e., there are < 3 points per segment).
 - ii. **Category 4b** may contain freshwater sediment chemical and bioassay segments when legally enforceable mechanisms [(i.e., MTCA Cleanup Action Plan (CAP), CERCLA Record of Decision (ROD), or RCRA Corrective Measures (CM)] have been signed in the given segment.
 - iii. **Category 5** may contain freshwater sediment bioassay segments when the listing criteria is met (i.e., there are ≥ 3 points per segment). Category 5 should not contain any freshwater sediment chemical segments.
3. One cannot state that a specific chemical does or does not cause an adverse effect to sediments based on the results of a biological test.
4. SMU must confer with EAP to ensure all sediment data (chemical and biological) is recorded in SMU's SEDQUAL.
 - a. An EIM (Environmental Information Management) data transfer will not suffice, because EIM does not contain biological data.

Additional Sediment Data

If an entity is aware of additional sediment data, they must submit the results in a report documenting the sediment investigation and electronically in SEDQUAL¹ template format. Electronic data must be verified prior to delivery to Ecology SMU. Verification shall be

⁵ Ecology 2002. *Assessment of Water Quality for the Section 303(d) List*. Water Quality Program Policy 1-11. September 2002.

⁶ Ecology 1997. *Creation and Analysis of Freshwater Sediment Quality Values in Washington State*. Publication Number 97-323a. July 1997.

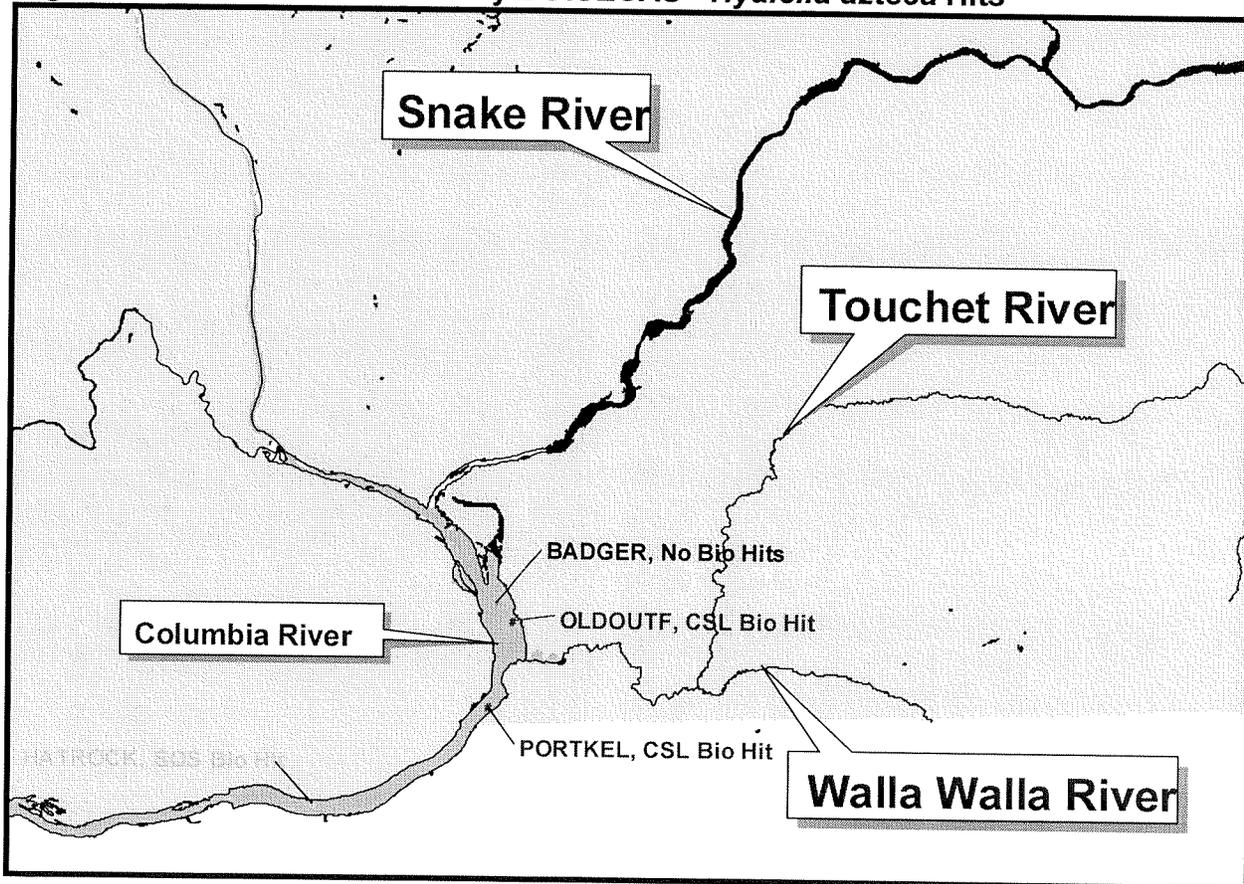
conducted by importing the data into the consultant's SEDQUAL database, correcting errors, and then exporting the corrected templates for delivery to Ecology SMU.

Delisting – Freshwater Sediment Biological Tests

For the above segments of concern, there are known biological hits, therefore, the segments must be reevaluated biologically with at least three freshwater sediment toxicity tests per segment.

That is, to meet the intent of adopted narrative freshwater *Sediment Management Standards*,⁷ freshwater sediments will be assessed on a case-by-case, site-specific basis in accordance with WAC 173-204-100(3), (7); and -340. Three freshwater biological assessments must be performed in a listed segment and found to have no biological impact for the segment to be considered for delisting (i.e., removal from Category 5). For freshwater, Ecology recommends that sediment toxicity tests be performed on Amphipod *Hyaella azteca*, Midge *Chironomus tentans*, and Microtox.⁸

Figure 1. 1992 SEDQUAL Survey BOISECAS - *Hyaella azteca* Hits



cc: SMU: Pete Adolphson; Kathryn DeJesus
IND: Robert Carruthers, P.E.; Merley McCall

⁷ Ecology 1995. *Sediment Management Standards Chapter 173-204*. Amended December 1995.

⁸ Ecology 2003. *Sediment Sampling and Analysis Plan Appendix: Guidance on the Development of Sediment Sampling and Analysis Plans Meeting the Requirements of the Sediment Management Standards (Chapter 173-204 WAC)*. Ecology Publication No. 03-09-043. Revised April 2003.