

FISHERIES DEPARTMENT

360/598-3311

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THE SUQUAMISH TRIBE

P.O. Box 498 Suquamish, Washington 98392

30 April 2008

Ken Koch
WA State Department of Ecology
P. O. Box 47600
Olympia, WA 98504-7600

VIA EMAIL

Subject: Draft 2008 303(d) list of impaired water bodies

Dear Mr. Koch:

Thank you for the opportunity to comment on the draft 303(d) list for 2008. During the previous update of the 303(d) list (the 2002/04 list) the Tribe raised a number of concerns with the draft contaminated sediments portion of the list for Sinclair Inlet. Although some of the Tribe's concerns were addressed when the final list was released and approved by USEPA, we now find similar and new problems with the draft list for 2008 (the Tribe's comment letter on the previous 303(d) list is attached).

This comment letter addresses only the draft contaminated sediments portion of the 303(d) list for Sinclair Inlet. The Tribe has also reviewed the latest version of WQP Policy 1-11 which provides guidance to Ecology when making listing decisions. Based on our review of the draft list and the listing policy, we believe there are several problems with the draft 2008 list for contaminated sediments in Sinclair Inlet.

New category 4 listings for metals

Ecology proposes adding multiple category 4b (exceeds but has a cleanup plan) listings for the following metals: arsenic, cadmium, chromium, copper, lead, silver, and zinc. There are 13 4b listings for each of these metals on the Draft 2008 list (see attached table). Except for silver, none of these metals appeared in category 5 of the list in 2002/4. The Tribe is not aware of any data that would support these 4b listings. In addition, the Tribe is not aware of any cleanup plan for these parameters that would be necessary for them to be placed in category 4(b). There is a record of decision for the CERCLA site associated with Puget Sound Naval Shipyard (Operable Unit B – Marine), but that ROD addresses only PCBs.

Mercury listings

There were 9 listings for mercury on the 2002/04 list: 2 category 2 listings, 1 category 4b listing, and 6 category 5 listings. The draft 2008 list has just 1 listing for mercury, category 1. Aside from the obvious problem of going from 9 listings to just 1, mercury concentrations above the

sediment standard is well documented in Sinclair Inlet. Category 5 listings for mercury should be retained on the 2008 list for the reasons provided in the Tribe's letter on the draft 2002/04 letter, namely, that the ROD for OUB – Marine firstly only addresses PCBs and secondly does not contain an action level for mercury low enough to meet sediment quality standards.

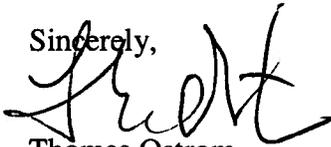
Organic contaminants

Previous listings for the following organic compounds have been dropped without any rationale provided: 1,4-Dichlorobenzene, 1,2-Dichlorobenzene, 2,4-Dimethylphenol, 1,2,4-Trichlorobenzene, Hexachlorobenzene, Hexachlorobutadiene, Benzyl alcohol, 2-methylphenol.

A comparison of the draft 2008 list with the previous 2 lists (1998 and 2002/04) is provided in the attached table and raises questions about the origin and rationale for several other listing decisions proposed for 2008. The Tribe would appreciate an opportunity to discuss with Ecology the draft 2008 list for Sinclair Inlet sediments.

Thank you again for the opportunity to comment on the draft 303(d) list. Please call me directly if you have any questions.

Sincerely,



Thomas Ostrom
(360) 394-8446

Cc: Martha Turvey, USEPA
Sally Lawrence, Washington Department of Ecology

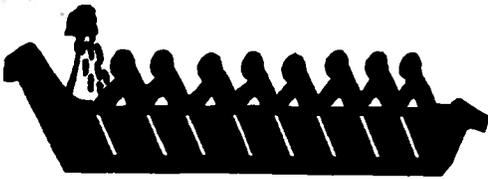
Attachments

Sinclair Inlet Water Quality Assessment
Comparison of Draft 2008 Sediment 303(d) List to Previous Years

Pollutant	1998 List	2002/4 - # of listings			Draft 2008 - # of listings			
		Cat 2	Cat 4b	Cat 5	Cat 1	Cat 2	Cat 4b	Cat 5
1,4-Dichlorobenzene	X	4	1	2	1			
1,2-Dichlorobenzene		2	1	3	1			
2,4-Dimethylphenol	X	2	1	5	1			
1,2,4-Trichlorobenzene		2	1	3	1			
Hexachlorobenzene		3	1	3		1		
Hexachlorobutadiene		2	1	3	1			
Benzyl alcohol		2	1	4	1			
2-methylphenol		2	1	3	1			
4-methylphenol	X				1			
Phenol	X				1			
Benzoic acid	X			1	1			
Benz(a)anthracene	X				1			
Benzo(g,h,i)perylene	X				1			
Chrysene	X							
Indeno(1,2,3-cd)pyrene	X				1			
Fluoranthene	X				1			
Phenanthrene	X				1			
Bis(2-ethylhexyl)phthalate	X				1			
Butylbenzyl phthalate	X	3			1			
Pentachlorophenol		3			1			
Total PCBs		3					3	1
Arsenic							13	
Cadmium	X	1			1		13	
Chromium					1		13	
Copper	X				1		13	
Lead	X				1		13	
Silver	X	1	1	1	1		13	
Mercury	X	2	1	6	1			
Zinc	X				1		13	
Sediment bioassay	X	2					3	2
Dibenzo(a,h)anthracene					1			
2-Methylnaphthalene					1			

Comparison of Draft 2008 Sediment 303(d) List to Previous Years (continued)

Pollutant	1998 List	2002/4 List			Draft 2008 List			
		Cat 2	Cat 4b	Cat 5	Cat 1	Cat 2	Cat 4b	Cat 5
Di-N-Octyl Phthalate					1			
Acenaphthene					1			
Acenaphthylene					1			
Anthracene					1			
Benzo(a)pyrene					1			
Diethylphthalate					1			
Dibenzofuran					1			
Di-N-Butylphthalate					1			
Fluorine					1			
Naphthalene					1			
N-Nitrosodiphenylamine					1			
Pyrene					1			
LPAH						1		
HPAH						1		



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THE SUQUAMISH TRIBE

P.O. Box 498

Suquamish, Washington 98392

23 February 2005

Ken Koch
Water Quality Program
WA Department of Ecology
P.O. Box 47600
Olympia, WA 98504-7600

Subject: 2002/04 303(d) draft list of impaired waterbodies

Dear Mr. Koch:

The Suquamish Tribe has reviewed the proposed 2002/04 list of impaired waterbodies (the "303(d) list") and is concerned with the contaminated sediments portion of the list. In particular, the Tribe is concerned about waterbody segments listed for several pollutants in Sinclair Inlet that are assigned to Category 4b (has a pollution control plan) in the proposed list for 2002/04. The Tribe believes that these listings under 4b are inconsistent with Ecology's 303(d) listing policy (WQP Policy 1-11).

WQP Policy 1-11 and listings for 303(d) and 4b

In September 2002, the Department of Ecology published a 303(d) listing policy to guide the assessment of the state's waters. This policy (known as WQP Policy 1-11) establishes criteria for the assignment of waters to various categories describing the status of impairment, actions planned or already undertaken to correct impairment, and required future actions (such as a TMDL). Under the listing policy, waters assigned to Category 5 make up the 303(d) list (i.e. impaired waters requiring a TMDL).

In order to account for water pollution control plans or sediment cleanup plans for otherwise impaired waters, WQP Policy 1-11 creates category 4b. Because the 303(d) list is intended for impaired waters that require action (such as a TMDL), the rationale for 4b is that many impaired waters already have approved pollution control or cleanup plans in place and should therefore not be placed on the 303(d) list. WQP Policy 1-11 enumerates several criteria that pollution control (or sediment cleanup) plans must meet before placing a waterbody segment on the 4b list:

- a. Must have enforceable actions stringent enough to meet sediment quality standards
- b. Must be problem specific and waterbody specific
- c. Must have reasonable time limits established for correcting problems
- d. Must have a monitoring component
- e. Must have an adaptive management component
- f. Must be feasible and enforceable
- g. Must be actively and successfully implemented and show progress
- h. Plan must clearly explain and support how it meets the above listed criteria *for each specific pollutant and waterbody* (emphasis added)

Ecology's draft 4b listings for Sinclair Inlet

The Department of Ecology proposes placing 9 separate pollutants in multiple Sinclair Inlet waterbody segments on the 4b list. Ecology cites the CERCLA Record of Decision for Marine Operable Unit B (OUB Marine) at Bremerton Naval Shipyard as the cleanup plan addressing these impaired waters. The Suquamish Tribe does not believe that the Record of Decision for OUB Marine meets Ecology's listing policy criteria for placing any of the 9 pollutant listings in Sinclair Inlet on the 4b list.

Record of Decision for OUB Marine addresses only PCBs

The 9 pollutants on the 4b list for Sinclair inlet are:

1, 2, 4-Trichlorobenzene
 Benzyl alcohol
 Hexachlorobutadiene
 Hexachlorobenzene
 1,2-Dichlorobenzene
 2,4-Dimethylphenol
 2-Methylphenol
 Benzoic acid
 Mercury

The ROD for OUB Marine only directly addresses PCBs in sediments. Specifically, the ROD contains the following Remedial Action Objectives:

1. Reduce the concentration of PCBs in sediments to below the minimum cleanup level [defined as 3mg/kg OC elsewhere in the ROD] in the biologically active zone (0-10 cm depth) within marine OU B, as a measure expected to reduce PCB concentrations in fish tissue
2. Control shoreline erosion of contaminated fill material at Site 1
3. Selectively remove sediment with high concentrations of mercury collocated with PCBs

By restricting cleanup of mercury contaminated sediments to those areas collocated with PCB contamination, the ROD only incidentally addresses mercury contamination. It is likely that areas with mercury concentrations exceeding the state's sediment quality standard were not treated during the remedial action. Also, it appears that one waterbody grid placed on the 4b list for mercury in sediments is outside the boundaries of OUB Marine (grid 47122F6E7) and so should not be placed into category 4b as the remedial actions would only address contamination within OUB Marine.

Action level for mercury not consistent with 4b criteria

Notwithstanding the incidental nature of the RAOs and the remedial action itself in addressing mercury contamination, the OUB Marine ROD defines the action level for mercury as the combined, collocated concentrations of 3mg/kg mercury and 6mg/kg OC PCBs. In contrast, the cleanup screening level for mercury is 0.59 mg/kg (see WAC 173-204-520). The Tribe does not believe that the RAO and action level for mercury meet the first criterion for placing mercury in category 4b (that such plans must have enforceable actions stringent enough to meet sediment quality standards). Indeed, the post-remediation draft monitoring report for OUB Marine shows the area weighted average concentration of mercury within OUB Marine to be 1.0 mg/kg with a maximum concentration of 6.1 mg/kg, well above the state's standard for mercury. Outside OUB Marine, the draft monitoring report documents a range of mercury concentration from 0.022 mg/kg to 0.982 mg/kg.*

No adaptive management for mercury in OUB Marine ROD

The requirement that 4b-listed waterbody segments have adaptive management components should also disqualify the OUB Marine ROD as a cleanup plan meeting the conditions established in WQP Policy 1-11. In response to a comment from the Suquamish Tribe that the monitoring plan for OUB Marine should include an evaluation of the effectiveness of the mercury RAO, the Navy's response was:

The beneficial effects of the cleanup with respect to mercury are considered an incidental element of the cleanup. The long-term monitoring plan clearly focuses on PCBs as the basis for evaluating the results of the remediation. The OUB Marine ROD does not define a clean up level for mercury, nor does the OUB Marine monitoring plan identify questions necessary to evaluate mercury cleanup... [The Navy] has no plans to analyze the effectiveness of the remedy in reducing mercury concentrations in sediment.

* Based on preliminary analysis of the results of post-remedial monitoring at OUB Marine, the effectiveness of the PCB remedial action is inconclusive. Ecology should therefore review monitoring data, modeling results, and any corrective measures for OUB Marine before making category 4b or category 5 listing decisions for total PCBs in Sinclair Inlet in 2006.

It is clear that monitoring results for mercury will not trigger adaptive management under the OUB Marine ROD. Although analysis of the effectiveness of the PCB remediation may result in "adaptive" action, any beneficial effects with respect to mercury contamination would be, as with the completed remediation, incidental to the cleanup of PCBs. The OUB Marine ROD was not developed to address mercury contamination in the way contemplated in WQP Policy 1-11 and does not satisfy the WQP Policy 1-11 requirement of having an adaptive management plan for mercury.

Placing mercury on 4b list for Sinclair Inlet erroneous

Based on the above discussion, the Tribe believes that Ecology erred in placing mercury contaminated waterbody segments from Sinclair Inlet on the draft 4b list. These segments should be moved to category 5, the 303(d) list, when the water quality assessment is finalized.

Sinclair Inlet 4b listings for organic pollutants erroneous

In addition to mercury, the Tribe considers all other 4b listings for Sinclair Inlet to be in error. Each of these listings cites the OUB Marine ROD as the basis for the 4b listing. The OUB Marine ROD does not in any way address these other contaminants. This is clearly inconsistent with the WQP Policy 1-11 requirement that the cleanup plan be pollutant and segment specific. These segments and pollutants should be moved to category 5, the 303(d) list, when the water quality assessment is finalized.

Comparison of current 303(d) list with the draft 2002/04 list

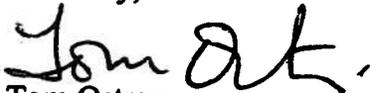
The current (1998) 303(d) list documents waterbody impairment in Sinclair Inlet sediments (in multiple waterbody segments) for 20 separate parameters (see attached table). In contrast, Ecology's draft 2002/04 list contains no Category 5 listings for contaminated sediments. Seven of the 20 sediment listings on the 1998 list have either been placed in Category 4b (has pollution control plan) or Category 2 (waters of concern – insufficient data) in the draft 2002/04 list. Thirteen other pollutant listings on the current 303(d) list appear nowhere in the draft 2002/04 lists. The 2002/04 draft list has additional pollutants not previously listed on the 303(d) list, including 6 compounds added to the Category 4b list, and 9 added to the Category 2 list. The attached table summarizes the listings for both the current (1998) list and the draft 2002/04 list.

Because Ecology chose not to include a category 1 for sediment listings (meets tested standard), it is impossible to determine how or why 13 pollutants on the 303(d) list in 1998 were removed completely from the 2002/04 draft list. The Tribe believes that when Ecology proposes the removal of sites or pollutants from the 303(d) list, it should provide a basis or rationale supporting its action. Absent a rationale consistent with the listing criteria established in WQP Policy 1-11 for delisting these waterbodies and contaminants, the Tribe believes that Ecology should retain them on the 303(d) list.

The Tribe's review of the category 5, 4b, and 2 draft listings for Sinclair Inlet was prompted by the noticeable absence of a significant list of contaminants and waterbody segments on the current 303(d) list. The Tribe's review of sediment listings was limited to Sinclair Inlet. It is possible that listing decisions for other waterbodies were based on rationale similar to those used in Sinclair Inlet and should be reversed accordingly.

Thank you for considering the Tribe's comments on the draft sediment 303(d) list for 2002/04. If you have any questions, please contact me directly. The Tribe would also be willing to meet with Ecology staff to discuss these issues in more detail.

Sincerely,



Tom Ostrom
(360) 394-8446

Cc: Sharon Brown, WDOE
Lisa Jacobsen, USEPA
Martha Turvey, USEPA
Robert Johnston, Space and Naval Warfare Systems Center, Bremerton

Enclosure

Comparison of 1998 303(d) list with draft 2002/04 listing decisions for Sinclair Inlet, Washington

Pollutant	1998	Draft 2002/04			Draft 2002/04 Rationale
		5	4b	2	
1,4-Dichlorobenzene	X			X	Does not exceed CSL; other grids exceed but too few samples
1,2-Dichlorobenzene			X	X	Exceeds CSL criterion but has ROD (OUB Marine); other grids exceed but too few samples in grid
2,4-Dimethylphenol	X		X	X	Exceeds CSL criterion but has ROD (OUB Marine); other grids exceed but too few samples in grid
1,2,4-Trichlorobenzene			X	X	Exceeds CSL criterion but has ROD (OUB Marine); other grids exceed but too few samples in grid
Hexachlorobenzene			X	X	Exceeds CSL criterion but has ROD (OUB Marine); other grids exceed but too few samples in grid
Hexachlorobutadiene			X	X	Exceeds CSL criterion but has ROD (OUB Marine); other grids exceed but too few samples in grid
Benzyl alcohol			X	X	Exceeds CSL criterion but has ROD (OUB Marine); other grids exceed but too few samples in grid
2-methylphenol			X	X	Exceeds CSL criterion but has ROD (OUB Marine); other grids exceed but too few samples in grid
4-methylphenol	X				No delisting rationale
Phenol	X				No delisting rationale
Benzoic acid	X		X		Exceeds CSL criterion but has ROD (OUB Marine); listed grid changed
Benz(a)anthracene	X				No delisting rationale
Benzo(g,h,i)perylene	X				No delisting rationale
Chrysene	X				No delisting rationale
Indeno(1,2,3-cd)pyrene	X				No delisting rationale
Fluoranthene	X				No delisting rationale
Phenanthrene	X				No delisting rationale
Bis(2-ethylhexyl)phthalate	X				No delisting rationale
Butylbenzyl phthalate	X			X	Does not exceed CSL; other grids exceed but too few samples
Pentachlorophenol				X	Does not exceed CSL; other grids exceed but too few samples
Total PCBs				X	Does not exceed CSL
Cadmium	X			X	Exceeds CSL but too few samples
Copper	X				No delisting rationale
Lead	X				No delisting rationale
Silver	X				Exceeds CSL but too few samples
Mercury	X		X	X	Exceeds CSL criterion but has ROD (OUB Marine); other grids exceed but too few samples in grid
Zinc	X				No delisting rationale
Sediment bioassay	X			X	Too few samples