

## The Department of Ecology's Response to: Richard Jack – King County D.N.R. (Comment 34)

### Response to Water Quality comments:

#### **1. Listing 42475 (ammonia nitrogen)**

Ecology recognizes that this listing was calculated in error and has been removed from the 2008 WQ Assessment.

#### **2. Listing 48986 (dissolved oxygen)**

A request was made in the 2008 listing cycle to determine whether this listing is not meeting D.O. standards due to natural conditions. A TMDL Study is underway in South Puget Sound for D.O., which will provide information that will determine whether there are anthropogenic sources causing a D.O. decrease of more than 0.2 mg/l. This listing will remain on Category 5 until the TMDL is approved, at which time the study information will inform a category decision (either Category 4A or Category 1 for natural conditions).

#### **3. Listing 48995 (dissolved oxygen)**

A request was made in the 2008 listing cycle to determine whether this listing is not meeting D.O. standards due to natural conditions. A TMDL Study is underway in South Puget Sound for D.O., which will provide information that will determine whether there are anthropogenic sources causing a D.O. decrease of more than 0.2 mg/l. This listing will remain on Category 5 until the TMDL is approved, at which time the study information will inform a category decision (either Category 4A or Category 1 for natural conditions).

#### **4. Listing 49000 (dissolved oxygen)**

A request was made in the 2008 listing cycle to determine whether this listing is not meeting D.O. standards due to natural conditions. A TMDL Study is underway in South Puget Sound for D.O., which will provide information that will determine whether there are anthropogenic sources causing a D.O. decrease of more than 0.2 mg/l. This listing will remain on Category 5 until the TMDL is approved, at which time the study information will inform a category decision (either Category 4A or Category 1 for natural conditions).

#### **5. Listing 49002 (dissolved oxygen)**

A request was made in the 2008 listing cycle to determine whether this listing is not meeting D.O. standards due to natural conditions. A TMDL Study is underway in South Puget Sound for D.O., which will provide information that will determine whether there are anthropogenic sources causing a D.O. decrease of more than 0.2 mg/l. This listing will remain on Category 5 until the TMDL is approved, at which time the study information will inform a category decision (either Category 4A or Category 1 for natural conditions).

#### **6. Listing 48981 (dissolved oxygen)**

A request was made in the 2008 listing cycle to determine whether this listing is not meeting D.O. standards due to natural conditions. A TMDL Study is underway in South Puget Sound for D.O., which will provide information that will determine whether there are anthropogenic

sources causing a D.O. decrease of more than 0.2 mg/l. This listing will remain on Category 5 until the TMDL is approved, at which time the study information will inform a category decision (either Category 4A or Category 1 for natural conditions).

**7. Listing 48985 (dissolved oxygen)**

A request was made in the 2008 listing cycle to determine whether this listing is not meeting D.O. standards due to natural conditions. A TMDL Study is underway in South Puget Sound for D.O., which will provide information that will determine whether there are anthropogenic sources causing a D.O. decrease of more than 0.2 mg/l. This listing will remain on Category 5 until the TMDL is approved, at which time the study information will inform a category decision (either Category 4A or Category 1 for natural conditions).

**8. Listing 15395 (fecal coliform bacteria)**

This waterbody segment shows Cat 5 for data collected in 2004 and an exceedance occurs in 2005.

**9. Listing 15802 (fecal coliform bacteria)**

No new data, review possible mislocation of sampling location. -- roll-up with 45583, new location information needed in listing 15802.

**10. Listing 45102 (fecal coliform bacteria)**

Data from 2007 is not included in this assessment. The call for data for the 2008 list ended in December, 2006. These data will be considered in the next listing cycle.

**11. Listing 45436 (fecal coliform bacteria)**

Data from 2007 is not included in this assessment. The call for data for the 2008 list ended in December, 2006. However, after review of this listing data from 2005 meets the minimum requirements to determine a waterbody category change for fecal coliform from Category 5 to Category 1, as describe in WQ Program Policy 1-11. Data from 2006 does not meet the minimum requirements but the waterbody remains on Category 1 because no further exceedances are shown in the 2006 data.

**12. Listing 42489 (fecal coliform bacteria)**

Data from 2007 is not included in this assessment. The call for data for the 2008 list ended in December, 2006. These data will be considered in the next listing cycle.

**13. Listing 45470 (fecal coliform bacteria)**

Data collected in 2004, 2005, and 2006 show exceedances of the fecal coliform percent criterion with data from 2005 showing enough exceedances to place in Category 5 according to WQ Program Policy 1-11. Data from 2007 is not included in this assessment. The call for data for the 2008 list ended in December, 2006. These data will be considered in the next listing cycle.

**14. Listing 45625 (fecal coliform bacteria)** This listing was reviewed and found to be mislocated. Once corrected, it was found to be at the same location as a previous listing. These two listings were combined as Listing ID 15805.

**15. Listing 7474 (pH)**

Ecology was not provided the supporting data for this listing and therefore can not update this listing. These data will be considered in the next listing cycle if King county provides them in a future data submittal.

### **Response to Sediment Comments:**

#### **1. Sediment Listings Based on Incorrect Matrix**

(1a-c) All samples are identified as sediment per King County (KC) SEDQUAL data submittals (ALKI9497; WPNT9497). KC may electronically provide Sample Type and any other corrections to applicable SEDQUAL surveys in order for a re-evaluation to be performed. Any changes should be readily identified in the corrected SEDQUAL templates.

(1b) Listing ID 632657 (2,4-dimethylphenol) now 511570

Listing ID 632660 (2-methylphenol) now 511573

Listing ID 632673 (benzoic acid) now 511586

Listing ID 632674 (benzyl alcohol) now 511587

Proposed Category: 5

Water Body: Puget Sound (central)

King County data submittal (WPNT9497, West Point Subtidal NPDES Monit. 1994-97, John Blaine).

(1c) Listing ID 633148 (2,4-dimethylphenol) now 512061

Listing ID 633151 (2-methylphenol) now 512064

Listing ID 633164 (benzoic acid) now 512077

Listing ID 633165 (benzyl alcohol) now 512078

Proposed Category: 5

Water Body: Puget Sound (central)

King County data submittal (WPNT9497, West Point Subtidal NPDES Monit. 1994-97, John Blaine).

#### **2. Sediment Listings Based on Incorrect Interpretation of SEDQUAL Data**

(2a-b) To-date, the sediment 303d evaluation is a preliminary evaluation of Washington State sediments. Thus, the sediment 303d list was created by comparing a sample's chemical concentration to the Sediment Management Standards without taking into account site specific total organic carbon (TOC) variation.

The referenced table contains draft LAET and 2LAET values (Ecology 1999). Dry weight values for the promulgated Sediment Management Standards can be found in SEDQUAL's Chemical Sediment Quality Value Group 88\_PS\_LAET\_DRY (1988 Puget Sound LAET normalized to dry weight Puget Sound Estuary Program September 1988). The 1988 values for bis(2-ethylhexyl)phthalate are 1,300 µg/kg (LAET) and 1,900 µg/kg (2AET).

Internal discussions will be undertaken to determine if future lists will be evaluated based on a site's TOC value.

(2a) Listing 631596 (bis(2-ethylhexyl)phthalate) now 510509

Proposed Category: 5

Water Body: Puget Sound (central)

(2b) Listing 632038 (bis(2-ethylhexyl)phthalate) now 510967

Proposed Category: 5

Water Body: Puget Sound (central)

### **3. Sediment Listings Based on Detection Limit Exceedances**

and

#### **4. Sediment Listings Based on Detection Limit Exceedances in the Lower Duwamish**

These listings will remain on Category 5 until such time as new data is provided that supersedes current results. The chemical criterion for a Category 5 listing requires that the mean concentration of each SMS chemical measured at three spatially distinct and chemically similar stations must exceed the CSL within a given grid and meet the assessment criteria in WAC 173-204-510 through 520.

The SMS [WAC 173-204-320(2)(a)] requires that, when laboratory results indicate a undetected chemical, the detection limit shall be reported to be at or below the Marine Sediment Quality Standards (SQS) chemical criteria. Sediment Sampling and Analysis Plan Appendix Chapter 7 (Ecology Pub No. 03-09-043) notes that the PQL shall not be greater than the SQS of the SMS. Therefore the PQL must be at or below the SQS chemical criteria. It is the interpretation of Ecology that, when the PQL is above the SQS chemical criteria it is considered an exceedance of the SMS. Ecology must enforce the SMS chemical criteria limits for all sediment data.

The Sediment Sampling and Analysis Plan Appendix Table 5 lists the recommended PQL limits for each SMS chemical. If a chemical concentration is reported as undetected or estimate between PQL and MDL, then the PQL should also be provided. NOTE: Ecology worked with the King County Environmental Laboratory to determine what PQL limits could be met.

Confirmatory biological testing would be required when a CSL chemical exceedance occurs which would include MDL or PQL CSL exceedances. A listing can be avoided if confirmatory biological testing is performed in compliance with the SMS and Ecology requirements.