

APPENDIX A. COMPARISON TO PREVIOUS RESULTS

Appendix A. Comparison to Previous Results

This appendix compares the results from the 2005 clam and sediment sampling from background areas presented in Sections 4.1 and 4.2 to similar results from 2004 sampling from the LDW and other background areas.

Table A-1 presents a summary of the total and inorganic arsenic concentrations in composite clam tissue samples from the two background areas sampled in 2005, the two background areas sampled in 2004, and the LDW sampled in 2004.

Table A-1. Summary of total and inorganic arsenic concentrations in composite clam tissue samples

SAMPLING AREA	ANALYTE	DETECTION FREQUENCY	MINIMUM DETECTED CONCENTRATION (mg/kg ww)	MAXIMUM DETECTED CONCENTRATION (mg/kg ww)
Dungeness NWR (2005 background)	arsenic (total)	6/6	0.63	0.82
	arsenic (inorganic)	6/6	0.047	0.112
Vashon Island (2005 background)	arsenic (total)	6/6	0.92	1.52
	arsenic (inorganic)	6/6	0.093	0.211
Fay Bainbridge State Park (2004 background) ^a	arsenic (total)	6/6	1.69	2.83
	arsenic (inorganic)	6/6	0.044 J	0.446 J
Seahurst Park (2004 background) ^a	arsenic (total)	6/6	1.09	2.25
	arsenic (inorganic)	6/6	0.098 J	0.616 J
LDW (2004) ^a	arsenic (total)	14/14	1.30 J	5.87 J
	arsenic (inorganic)	8/8	0.132	3.27

^a Results for the Fay Bainbridge State Park, Seahurst Park, and LDW samples are presented in the benthic invertebrate data report (Windward 2005).

ww – wet weight

J – estimated concentration

The total and inorganic arsenic concentrations in the composite clam tissue samples from Seahurst Park and Fay Bainbridge State Park (2004 background areas) are higher than those at the Dungeness NWR and Vashon Island (Table A-1), although they were for different clam species than those collected from the 2005 background areas. Total and inorganic arsenic concentrations from LDW clams were higher than those at all four background locations.

Table A-2 presents a summary of the total and inorganic arsenic concentrations in co-located sediment composite samples from the two background areas sampled in 2005, the two background areas sampled in 2004, and the LDW sampled in 2004.

Table A-2. Summary of total arsenic concentrations in co-located composite sediment samples

SAMPLING AREA	ANALYTE	DETECTION FREQUENCY	MINIMUM DETECTED CONCENTRATION (mg/kg dw)	MAXIMUM DETECTED CONCENTRATION (mg/kg dw)
Dungeness NWR (2005 background)	arsenic (total)	4/4	2.43 J	3.34 J
Vashon Island (2005 background)	arsenic (total)	6/6	1.73 J	3.05 J
Fay Bainbridge State Park (2004 background) ^a	arsenic (total)	6/6	1.39	1.63
Seahurst Park (2004 background) ^a	arsenic (total)	6/6	1.34	1.76
LDW(2004) ^a	arsenic (total)	14/14	3.13	49.0

^a Results for the Fay Bainbridge State Park, Seahurst Park, and LDW samples are presented in the benthic invertebrate data report (Windward 2005).

dw – dry weight

J – estimated concentration

Total arsenic concentrations in the LDW co-located sediment samples ranged from 3.13 mg/kg dw at sampling location LDW-C2-S2 to 49.0 mg/kg dw at location LDW-C4 (Windward 2005). Total arsenic concentrations in the co-located sediment samples from Seahurst Park and Fay Bainbridge State Park ranged from 1.30 to 1.76 mg/kg dw (Windward 2005). Total arsenic concentrations in co-located composite sediment samples from the Dungeness NWR and Vashon Island were slightly higher than in those from Seahurst Park and Fay Bainbridge State Park.

REFERENCE

Windward. 2005. Lower Duwamish Waterway remedial investigation. Data report: Chemical analyses of benthic invertebrate and clam tissue samples and co-located sediment samples. Prepared for Lower Duwamish Waterway Group. Windward Environmental LLC, Seattle, WA.