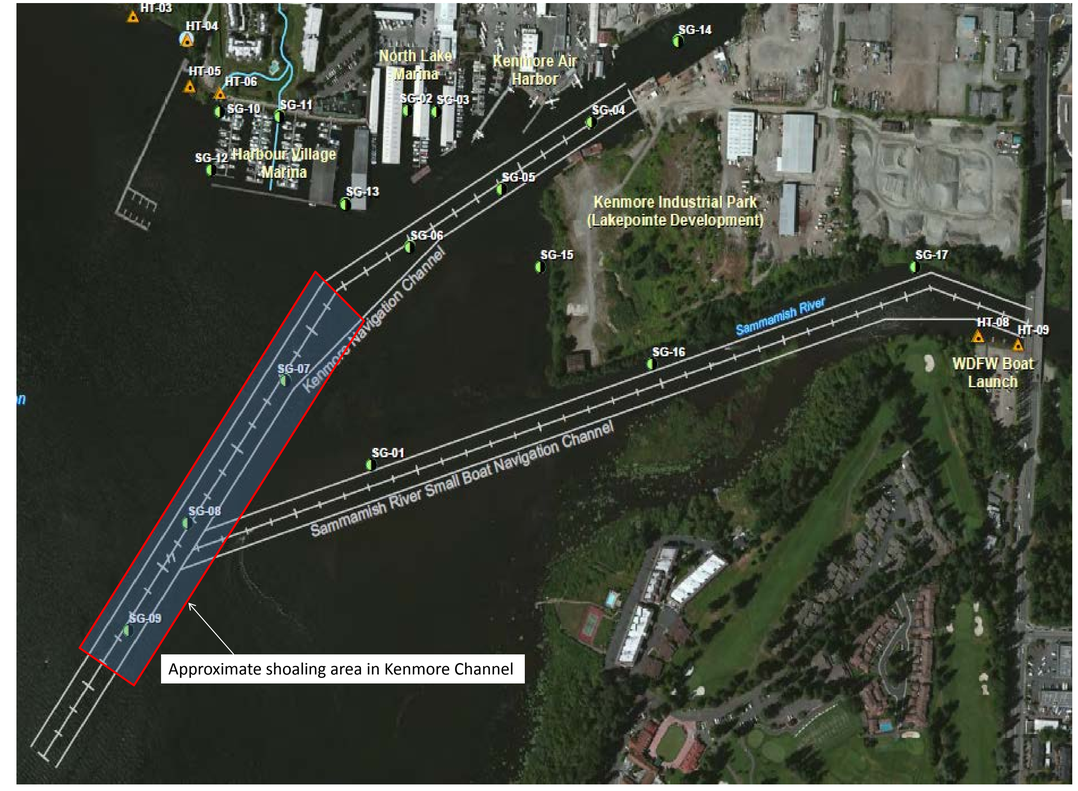
DMMP Evaluation of Potential Dredge Sediments in the Kenmore Navigation Channel and Surrounding Areas

Sample information				Comparison to DMMP Marine Open Water Disposal Screening values								Comparison to RSET Freshwater Screening Values (SEF 2006)							
Sample ID	Location	Sample depth (cm)	% TOC	Dioxin (ng/kg DW)		Benzyl alcohol (ug/kg, DW)		Benzoic Acid (ug/kg, DW)		TBT (ug/L, porewater)	Butyl Benzyl Phthalate (ug/kg, DW)		Copper (mg/kg, DW)		Zinc (mg/kg, DW)		Bis(2-ethylhexyl) phthalate (ug/kg, DW)		Di-n-Octyl phthalate (ug/kg, DW)	
				SL 4	BT 10	SL 57	ML 870	SL 650	ML 760	SL = BT 0.15	SL 63	ML 970	SL 1 80	SL2 830	SL1 130	SL2 400	SL1 220	SL2 320	SL1 26	SL2 45
SG04	Kenmore Navigational channel	20	2.73	1.6		20 (U)		390		0.049	20 (U)		14.6		49		62		20 (U)	
SG05		23.5	5.43	6.8		160		1300		0.008	20 (U)		35.6		143		260		22	
SG06		25	4.89	8.4		190		1100		0.023	57		43.6		164		540		41	
SG07		27	4.95/7.07	4.2/4.0		120/100		430/480		0.005/0.005 (U)	28/19 (U)		30.0/28.0		126/126		330/300		22/19(U)	
SG08		26	3.3	3.9		61		61		0.005 (U)	36		28.7		113		240		20(U)	
SG09		26.5	5.22	4.9		110		110		0.005 (U)	29		31.1		130		240		20(U)	
SG02	North Lake Marina	22	7.1	37		82		960		0.67	32		92.4		231		680		19 (U)	
SG03		25	6.6	20.3		130		1300		0.058	32		18.8		97		510		58	
SG10	Harbour Village Marina	10	3.1	6.6		200		520		Analyzed as bulk TBT (ug/kg DW)	20 (U)		88.1		267		480		20(U)	
SG11		10	10.8	71		530		1400			24		97		377		740		87	
SG12		10	4.7	26.6		300		1500			71		47.5		185		360		20 (U)	
SG13		10	5.45/3.8	50.1/18.9		360/280		1500/1700			82/56		62.1/62.8		205/205		560/430		73/42	
SG14	NE of Kenmore Ind. Park	10	4.33	10.1		100		610			43		111		182		280		24	
SG16	Sammamish River	10	0.72	0.36		19 (U)		390 (U)			19 (U)		5.4		43		19 (U)		19 (U)	
SG17		10	3	2.3		62		430			150		13.5		64		150		11 (U)	
SG01		10	1.33	0.47		19 (U)		380 (U)			48 (U)		5.9		43		28		19 (U)	

Table Legend:

Yellow highlight represents lower screening value exceedance (DMMP SL, RSET SL1).

Orange highlight represents upper screening level exceedance (DMMP BT or ML, RSET SL2).

- The DMMP evaluation for Harbour Village Marina was completed previously; data from this study indicates that dioxin is still elevated in the top 10 cm (as opposed to the full dredge prism evaluated previously), although concentrations appear to be lower in the more recently deposited sediments.
- In this sampling event, only the more recently deposited sediments (top 10 to 27 cm) were evaluated in this sampling event. Since this material does not represent the entire dredge prism or the surface exposed by dredging, the DMMP cannot use the data for determining suitability for open water disposal or for antidegradation evaluation.
- This data does indicate that material will need further sampling to support dredging of the Kenmore Navigational Channel and Northlake Marina. Deeper sediments and "Z-layer" samples representing surface exposed by dredging must be characterized prior to dredging the material.
- Comparison to DMMP marine open-water values would be used to evaluate material for open water disposal. At the PSSDA marine open-water disposal sites.
- Comparison to the RSET FW values would be used for in-water re-use in freshwater bodies, and for antidegradation evaluation. Since the release of the Screening Level Evaluation, Ecology has promulgated new freshwater criteria for protection of benthic invertebrate communities, which become effective in Sept 2013. The DMMP and RSET agencies are currently working on adopting these values along with "overlays" for protection of other species. Please see the Ecology presentations for comparison of the data to the new freshwater criteria.