



Variance Components Analysis - Subarea A

"Near" Sample Group = 48.6  
 "Far" Sample Group = 87.6

**Laboratory component** =  $Var_{Dup} = 2.4$   
**Dredging process component** =  $Var_{Near} - Var_{Dup} = 48.6 - 2.4 = 46.2$   
**Model uncertainty component** =  $Var_{Far} - Var_{Near} = 87.6 - 48.6 = 39.0$

\* Conclusion: Approximately equal sources of variation from dredging process and model uncertainty.

Variance Component Analysis - Subarea C

"Near" Sample Group = 1.1  
 "Far" Sample Group = 5.4

**Laboratory component** =  $Var_{Dup} = 2.4$   
**Dredging process component** =  $Var_{Near} - Var_{Dup} = 1.1 - 2.4 \sim 0$   
**Model uncertainty component** =  $Var_{Far} - Var_{Near} = 5.4 - 1.1 = 4.3$

\* Conclusion: Little variation entering from dredging process and model uncertainty.

<sup>(1)</sup> Variance of prediction errors, which are defined as post-dredge PCB - model prediction. When using composite samples, individual term in variance equation was multiplied by the number of samples in composite.

"Near" group consists of post-dredge data not more than 11 feet distant from a pre-dredge sample location. These are mostly the post-dredge primary samples. "Far" group consists of post-dredge data at least 17 feet from a pre-dredge location. These are mostly secondary samples.

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FIGURE 3-37 Lower Fox River OU1 Estimated Variance in PCB Prediction Errors Sub-Areas A and C		
Scale: Not To Scale	Revised December 2006	
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