Table A2-1

Regression Equations Used in the Development of PRGs for Biota and Sediments
Fireworks Site

Trophic Level	Trophic Guild	Representative Species	Medium	Regression Equation	N	r^2	*p*
4	Piscivorous Fish	Largemouth Bass (LM Bass)	Fillet Tissue	$\ln (C_{MeHg}$ LM Bass wwt.) = 2.267 + [0.425 * $\ln (C_{MeHg}$ Sed dwt.)]	6	0.70	0.037
4	Piscivorous Fish	Largemouth Bass (LM Bass)	Whole Body Tissues	$\ln (C_{MeHg}$ LM Bass wwt.) = 1.927 + [0.391 * $\ln (C_{MeHg}$ Sed dwt.)]	6	0.64	0.056
3	Insectivorous Fish	Bluegill	Whole Body Tissues	$\ln (C_{MeHg}$ Bluegill wwt.) = 0.952 + [0.348 * $\ln (C_{MeHg}$ Sed dwt.)]	6	0.93	0.002
2	Omnivorous Invertebrate	Crayfish	Whole Body Tissues	$\ln (C_{MeHg}$ Crayfish wwt.) = 0.116 + [0.373 * $\ln (C_{MeHg}$ Sed dwt.)]	5	0.75	0.058
2	Deposit Feeding Invertebrate	Aquatic Worm (AQ Worm)	Whole Body Tissues	$\ln (C_{MeHg}$ AQ Worm wwt.) = - 0.486 + [1.052 * $\ln (C_{MeHg}$ Sed dwt.)]	14	0.81	<0.001
				$\ln (C_{THg}$ AQ Worm wwt.) = -3.763 + [0.789 * $\ln (C_{THg}$ Sed dwt.)]	14	0.81	<0.001
1 [1]	Aquatic Plants	Pondweed (AQ Plant)	Leaf and Stem Tissues	$\log_{10} (C_{Metal}$ AQ Plant wwt.) = 0.12 + [0.76 * $\log_{10} (C_{metal}$ Sed dwt.)]	8	0.78	NA
0	MeHg:THg in Sediments	-	Aquatic Sediments	$\ln (C_{MeHg}$ Sed dwt.) = -6.427 + [0.62 * $\ln(C_{THg}$ Sed dwt.)]	87	0.74	<0.001

Notes:

[1] General equation applied from Jackson and Kalff (1993)

Abbreviations:

dwt. = mg/kg dry weight
wwt. =mg/kg wet weight
THg = total mercury
MeHg =methyl mercury
Sed. = surface sediment
NA =not available

N Number of data points used in the regression

r^2 Coefficient of Determination from the regression (the proportion of the variance in the dependent variable that can be predicted by the independent variable)

p Probability value for testing the significance of the regression coefficients