



Pre-Permitting Environmental / Socio-Economic Data Report Series

Report Series H- Macroinvertebrates and Periphyton

Report H-5 P-Values of Response Variables 2004-2007

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Preliminary data. Do not cite or quote.

The Pebble Partnership is providing environmental and socio-economic baseline data collected to inform the development of the Pebble Project to state and federal agencies, project stakeholders and the general public prior to project permitting as part of its commitment to full and open disclosure.

A comprehensive Environmental Baseline Document (EBD) will subsequently be prepared and appended to future project permit applications. The EBD will also be made publicly available when complete.

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REPORT H-5.1

P-values of response variables for repeated-measures ANOVA of Surber samples, 2005 and 2007

Variable	Intercept	Year	River	Year*River
Total Taxa	<0.001	0.270	0.459	0.868
Ephemoptera	<0.001	0.880	0.008	0.890
Plecoptera	0.011	0.396	0.571	0.895
Trichoptera	0.004	0.525	0.161	0.409
Chironomidae	<0.001	0.375	0.154	0.536
Diptera-Chironomidae	0.200	0.282	0.346	0.732
Diptera	<0.001	0.967	0.013	0.163
Other	0.001	0.151	0.034	0.599
EPT	<0.001	0.180	0.005	0.488
CTI	<0.001	0.323	0.111	0.737

REPORT H-5.2

P-values of response variables for paired T-Test of ASCI samples, upstream verses downstream sites on Upper Talarik and the North Fork of the Kaktuli, 2005 and 2007

Variable	Upper Talarik	North Fork Kaktuli
Total Taxa	0.130	0.868
Ephemoptera	0.033	0.933
Plecoptera	0.127	0.100
Trichoptera	0.074	0.135
Chironomidae	0.050	0.017
Diptera-Chironomidae	0.165	0.269
Diptera	0.006	0.024
Other	0.067	0.136
EPT	0.072	0.582
CTI	0.387	0.402



REPORT H-5.3

P-values of response variables for repeated-measures ANOVA of Surber samples, upstream versus downstream sites on Upper Talarik and the North Fork of the Koktuli, 2005 and 2007

Variable	Upper Talarik	North Fork Koktuli
Total Taxa	0.584	0.140
Ephemoptera	0.167	0.909
Plecoptera	0.983	0.068
Trichoptera	0.230	0.306
Chironomidae	0.374	0.557
Diptera-Chironomidae	0.277	0.434
Diptera	0.344	0.757
Other	0.302	0.060
EPT	0.337	0.635
CTI	0.176	0.212

REPORT H-5.4

P-values of response variables for repeated-measures ANOVA of Surber samples for the relationship between water quality and macroinvertebrate metrics for sites on the Upper Talarik and the North Fork and South Fork of the Koktuli, 2005 and 2007

Variable	Total Taxa	Percent EPT
DO mg/L	0.091	0.035
DO percent	0.100	0.085
Specific Conductance	0.454	0.752
Relative Conductivity	0.764	0.377
Temperature	0.413	0.066
pH	0.431	0.152



REPORT H-5.5

P-values of response variables for simple linear regression of ASCI samples for the relationship between water quality and macroinvertebrate metrics for sites on the Upper Talarik, the North Fork and the South Fork of the Kaktuli, 2004, 2005 and 2007

Variable	Total Taxa	Percent EPT
DO mg/L	0.627	0.260
DO percent	0.841	0.084
Specific Conductance	0.795	0.667
Relative Conductivity	0.762	0.287
Temperature	0.049	0.156
pH	0.220	0.395