



Pre-Permitting Environmental / Socio-Economic Data Report Series

Report Series H- Macroinvertebrates and Periphyton

Report H-7 Aquatic and Riparian Habitat Quality Scores 2004-2007

Submitted to the Alaska Department of Natural Resources April 2009

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 Do not cite or quote.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.

Collected for the Pebble Partnership by:



HDR Alaska
2525 C Street, Suite 305
Anchorage, AK 99503



ABR, Inc.
P.O. Box 24068
Anchorage, AK 99524



Northern Ecological Services
3373 Hillside Rd.
Deming, WA 98244



REPORT H-7.1

Average Scores for Aquatic Habitat Quality Parameters, Mine Study Area, 2004 and 2005

Site ID	Epifaunal Substrate	Embeddedness	Velocity-depth	Sediment Deposition	Channel Flow Status	Channel Alteration	Channel Sinuosity	AVERAGE
CR199A	20	20	20	15	11	20	20	18
KC100A	18	16	17	16	20	20	20	18
NK100A	16	18	14	19	14	20	20	17
NK100C	18	18	19	19	20	20	17	19
NK100B04	20	19	14	20	20	20	15	18
NK119A	19	20	19	18	17	20	20	19
SK100A	19	19	17	19	15	20	18	18
SK100B	16	18	19	19	20	20	19	19
SK100C	19	19	13	20	20	20	15	18
SK100F	17	18	18	19	20	20	20	19
SK100G	11	11	14	10	20	20	15	14
SK119A	16	19	18	20	16	20	16	18
UT100B	19	18	16	19	16	20	20	18
UT100C	20	20	18	20	18	20	20	19
UT100D	15	18	18	16	17	20	18	17
UT100E	19	17	18	20	20	20	20	19
UT119A	19	20	17	20	20	20	20	19

SCORE RANKING: Optimal 20-16, Suboptimal 15-11, Marginal 10-6, Poor 5-1



REPORT H-7.2

Average Scores for Select Aquatic Habitat Quality Parameters, Transportation Corridor, August 2004 and June 2005

Site ID	Epifaunal Substrate	Embeddedness	Velocity-Depth	Sediment Deposition	Channel Flow Status	Channel Alteration	Channel Sinuosity	AVERAGE
Bear Den Cr	20	20	19	20	18	20	20	20
Red Creek	18	20	15	20	20	20	20	19
Ursa 100B	20	17	20	18	15	20	20	19

SCORE RANKING: Optimal 20-16, Suboptimal 15-11, Marginal 10-6, Poor 5-1

REPORT H-7.3

Scores for Aquatic Habitat Quality Parameters, Cook Inlet Drainages, 2004 and 2005

Site ID	Sampling Event	Epifaunal Substrate	Embeddedness	Velocity-depth	Sediment Deposition	Channel Flow Status	Channel Alteration	Channel Sinuosity	AVERAGE
Unnamed creek	Aug 2004	15	20	9	12	16	20	20	16
Y Valley Creek	Aug 2004 & June 2005	13	20	20	20	20	20	20	19

SCORE RANKING: Optimal 20-16, Suboptimal 15-11, Marginal 10-6, Poor 5-1

Note: Scores for each parameter for each sampling location are an average of multiple sampling events unless only a single event is listed in the sampling event column.



REPORT H-7.4

Scores for Riparian Habitat Quality Parameters, Cook Inlet Drainages, 2004 and 2005

Site ID	Sampling Event	Left Bank Stability	Right Bank Stability	Left Bank Vegetative Protection	Right Bank Vegetative Protection	Left Bank Vegetative Zone Width	Right Bank Vegetative Zone Width	AVERAGE
Unnamed creek	Aug 2004	7	9	10	10	10	10	9
Y Valley Creek	Aug 2004 & June 2005	10	10	10	10	10	10	10

SCORE RANKING: Optimal 10-8, Suboptimal 7-5, Marginal 4-3, Poor 2-1

Note: Scores for each parameter for each sampling location are an average of multiple sampling events unless only a single event is listed in the sampling event column.