

**RFI 151
Pebble Project EIS**

Request for Information

Title/Subject:	Fish Density Estimates
Requestor:	AECOM
Date Transmitted:	10/22/19
Recipient:	Pebble Limited Partnership
Response Requested by:	11/01/2019
Rationale:	Resident and anadromous fish density estimates are needed to better assess potential impacts.
Describe the Information Requested and Level of Detail:	<p>Please complete the attached spreadsheet with fish density estimates.</p> <p>Note:</p> <p>NFK, SFK and UTC mainstem all species data request:</p> <ul style="list-style-type: none"> • Density estimates for juvenile anadromous fish only • Density estimates for adult/juvenile (combined) select resident fish species <p>NFK, SFK and UTC tributaries resident fish data request:</p> <ul style="list-style-type: none"> • Density estimates for adult/juvenile (combined) select resident fish species only <p>It is understood data from 2004-2007 was collected at different sites and habitats and may not be perfectly comparable to the 2008 and 2009 index estimates, but we desire multiple years of similar data. Note the "All Reach" rows for 2004-2007 data is in reference to data such as that portrayed in Figure B.1-8 of the EBD. Please choose counts producing the maximum density for the 2009 dataset, as was done for the 2008 dataset (and presumably the 2004-2007 data). To the extent possible, please use juvenile counts for anadromous fish and juvenile plus adult counts for resident species. If data represent multiple habitat types, combine across habitats to produce a single density estimate for each site; same for combining index sites for the 2008 and 2009 All Reach estimates.</p>

Recipient Response Form

Date Received from USACE:	10/22/19
Response from Recipient (Describe Information Requested to the Level of Detail Requested; Provide Attachments as Needed):	Additional data that identified night sampling locations and allowed information to be broken up by tributaries was identified by R2 Resource Consultants. A revised version of the winter sampling table that incorporates this information is included.
List Number and Type of Response Attachments:	10-22-2019_RFI_Fish_Density_Request_Winter_w_Tributaries (1).xlsx

Date Returned to USACE:	10/30/19
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AECOM Intake Form

Date Response was Received:	11/1/2019
Received by:	AECOM
Describe any Follow-up Related to this RFI:	Click here to enter text.

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Recipient Response Form

Date Received from USACE:	10/22/2019
Response from Recipient (Describe Information Requested to the Level of Detail Requested; Provide Attachments as Needed):	The response for this RFI is completed data tables as described below.
List Number and Type of Response Attachments:	Four total data tables, three fish density tables are attached. The *.Mainstem and *.Tributaries tables are formatted as requested per the RFI. In addition, we are sending a supporting mainstem table (*SupportingTable_Mainstem_all_sites) that

	provides all data by Rkm of the site, with the thinking that this data may be useful in explaining patterns, if necessary. The fourth table we have provided, *Winter, is a table on winter fish counts. As described in notes there was insufficient field data to estimate habitat area sampled for many of these winter sites, so the data is presented strictly as counts. The winter count table includes both day and night-time sampling events at some sites.
Date Returned to USACE:	10/30/19

AECOM Intake Form

Date Response was Received:	10/30/2019
Received by:	AECOM
Describe any Follow-up Related to this RFI:	Click here to enter text.

Request is for juvenile anad

Stream Reach	River Km	Index Site ^a	Juvenile Chinook #/100m2			Juvenile Chum #/100m2		
			2004-2007	2008	2009	2004-2007	2008	2009
Koktuli	All Reach		71.22	ns	ns	0	ns	ns
	18.84	n/a	34.77	-	-	0	-	-
	25.37	n/a	51.43	-	-	0	-	-
	25.37	n/a	33.65	-	-	0	-	-
	29.74	n/a	141.20	-	-	0	-	-
	31.97	n/a	101.51	-	-	0	-	-
NFK-A	All Reach		1.84	3.77	18.84	0	0	0
	0.00	0.00	-	19.29	73.05	-	0	0
	4.33	4.33A	-	0	19.77	-	0	0
	4.33	4.33B	-	0.55	28.33	-	0	0
	6.82	n/a	1.84	-	-	0	-	-
	8.66	8.66	-	0.10	2.01	-	0	0
	12.99	12.99A	-	0	1.26	-	0	0
	12.99	12.99B	-	0	2.97	-	0	0
NFK-B	All Reach		30.68	8.77	5.78	0	0	0
	14.06	n/a	32.68	-	-	0	-	-
	15.97	n/a	29.52	-	-	0	-	-
	17.32	17.32A	-	0.90	0	-	0	0
	17.32	17.32B	-	18.03	13.65	-	0	0
NFK-C	All Reach		2.01	0.88	8.24	0	0	0
	21.33	n/a	2.01	-	-	0	-	-
	21.65	21.65	-	0.41	13.89	-	0	0
	25.98	25.98	-	3.19	21.03	-	0	0
	30.31	30.31	-	0.59	3.99	-	0	0
	34.64	34.64	-	0	0.99	-	0	0
NFK-D	All Reach		ns	0.38	0	ns	0	0
	38.97	38.97	-	0.68	0	-	0	0
	43.30	43.30	-	0.27	0	-	0	0
	47.63	47.63	-	0	0	-	0	0
NFK-E	All Reach		ns	0	0	ns	0	0
	51.96	51.96	-	0	0	-	0	0
SFK-A	All Reach		24.86	10.62	22.48	0	0	0
	0.00	0.00	-	5.11	15.46	-	0	0
	4.33	4.33	-	10.59	95.26	-	0	0
	8.66	8.66	-	1.30	31.66	-	0	0
	12.99	12.99	-	15.45	11.25	-	0	0
	17.32	17.32	-	41.74	10.22	-	0	0
	19.80	n/a	73.85	-	-	0	-	-
	19.80	n/a	8.69	-	-	0	-	-
	21.65	21.65	-	0.15	0.31	-	0	0
SFK-B	All Reach		0.19	0.16	0.21	0.03	0	0
	25.98	25.98	-	0.17	0.45	-	0	0
	26.22	n/a	0.26	-	-	0	-	-
	29.24	n/a	0.24	-	-	0	-	-
	30.31	30.31	-	0.15	0	-	0	0
	31.37	n/a	0.43	-	-	0.22	-	-
	33.80	n/a	0	-	-	0	-	-
	All Reach		0	0	0.12	0	0	0
	34.64	34.64	-	0	0.32	-	0	0

SFK-C	38.67	n/a	0	-	-	0	-	-
	38.97	38.97	-	0	0	-	0	0
	43.03	n/a	0	-	-	0	-	-
	43.30	43.30	-	0	0	-	0	0
	43.37	n/a	0	-	-	0	-	-
	43.41	n/a	0	-	-	0	-	-
	43.68	n/a	0	-	-	0	-	-
	43.74	n/a	0	-	-	0	-	-
	43.90	n/a	0	-	-	0	-	-
	43.93	n/a	0	-	-	0	-	-
	43.93	n/a	0	-	-	0	-	-
	44.16	n/a	0	-	-	0	-	-
	44.34	n/a	0	-	-	0	-	-
	44.58	n/a	0	-	-	0	-	-
	44.72	n/a	0	-	-	0	-	-
	44.79	n/a	0	-	-	0	-	-
	47.63	47.63	-	0	0	-	0	0
	51.26	n/a	0	-	-	0	-	-
	51.45	n/a	0	-	-	0	-	-
	51.67	n/a	0	-	-	0	-	-
	51.67	n/a	0	-	-	0	-	-
SFK-D	All Reach		0	1.39	0	0	0	0
	51.75	n/a	0	-	-	0	-	-
	51.95	n/a	0	-	-	0	-	-
	51.96	n/a	0	-	-	0	-	-
	51.96	51.96		1.39	0	-	0	0
	52.25	n/a	0	-	-	0	-	-
	52.34	n/a	0	-	-	0	-	-
	52.45	n/a	0	-	-	0	-	-
	52.71	n/a	0	-	-	0	-	-
	52.82	n/a	0	-	-	0	-	-
	52.97	n/a	0	-	-	0	-	-
	53.42	n/a	0	-	-	0	-	-
	54.01	n/a	0	-	-	0	-	-
	54.33	n/a	0	-	-	0	-	-
SFK-E	All Reach		0	0	0	0	0	0
	56.29	56.29	-	0	0	-	0	0
	56.78	n/a	0	-	-	0	-	-
	56.98	n/a	0	-	-	0	-	-
	57.68	n/a	0	-	-	0	-	-
	57.75	n/a	0	-	-	0	-	-
	57.84	n/a	0	-	-	0	-	-
	58.19	n/a	0	-	-	0	-	-
	58.99	n/a	0	-	-	0	-	-
	59.86	n/a	0	-	-	0	-	-
	59.96	n/a	0	-	-	0	-	-
	59.99	n/a	0	-	-	0	-	-
	60.14	n/a	0	-	-	0	-	-
	60.22	n/a	0	-	-	0	-	-
	60.27	n/a	0	-	-	0	-	-
	60.62	60.62	-	0	0	-	0	0
	60.67	n/a	0	-	-	0	-	-
	61.00	n/a	0	-	-	0	-	-
UTC-A	All Reach		ns	0	0.38	ns	0	0
	0.00	0.00	-	0	0		0	0

	4.33	4.33	-	0	1.20		0	0
UTC-B	All Reach		ns	17.62	2.65	ns	0	0
	8.66	8.66A	-	40.82	0	-	0	0
	8.66	8.66B	-	0.69	3.25	-	0	0
	12.99	12.99A	-	7.63	7.87	-	0	0
	12.99	12.99B	-	6.76	1.63	-	0	0
UTC-C	All Reach		11.31	2.26	5.84	0	0	0
	16.84	n/a	8.24	-	-	0	-	-
	16.84	n/a	0.82	-	-	0	-	-
	17.32	17.32	-	2.33	13.51	-	0	0
	17.36	n/a	13.62	-	-	0	-	-
	19.34	n/a	2.36	-	-	0	-	-
	19.82	n/a	9.09	-	-	0	-	-
	19.82	n/a	9.11	-	-	0	-	-
	21.54	n/a	8.99	-	-	0	-	-
	21.65	21.65A	-	0	0.5	-	0	0
	21.65	21.65B	-	47.71	b	-	0	b
	23.61	n/a	15.17	-	-	0	-	-
	24.36	n/a	39.48	-	-	0	-	-
	24.59	n/a	6.17	-	-	0	-	-
UTC-D	All Reach		3.61	4.64	0.30	0.01	0	0
	25.98	25.98	-	1.20	0	-	0	0
	26.02	n/a	0.19	-	-	0	-	-
	26.02	n/a	0	-	-	0	-	-
	27.23	n/a	1.52	-	-	0.14	-	-
	27.23	n/a	0.10	-	-	0	-	-
	29.31	n/a	12.26	-	-	0	-	-
	29.31	n/a	4.69	-	-	0	-	-
	30.04	n/a	5.82	-	-	0	-	-
	30.04	n/a	0.17	-	-	0	-	-
	30.31	30.31	-	10.60	1.13	-	0	0
	30.46	n/a	6.42	-	-	0	-	-
	30.89	n/a	1.31	-	-	0	-	-
	32.36	n/a	3.86	-	-	0	-	-
	34.63	n/a	5.96	-	-	0	-	-
	34.64	34.64	-	2.56	0	-	0	0
	34.76	n/a	9.46	-	-	0	-	-
	35.64	n/a	3.81	-	-	0	-	-
UTC-E	All Reach		4.77	0.15	0.58	0	0	0
	36.72	n/a	1.78	-	-	0	-	-
	37.91	n/a	19.09	-	-	0	-	-
	37.91	n/a	7.33	-	-	0	-	-
	37.91	n/a	0.24	-	-	0	-	-
	37.91	n/a	0	-	-	0	-	-
	38.97	38.97	-	0.27	0.21	-	0	0
	41.90	n/a	1.02	-	-	0	-	-
	41.90	n/a	0	-	-	0	-	-
	42.71	n/a	5.33	-	-	0	-	-
	42.71	n/a	0	-	-	0	-	-
	42.71	n/a	3.32	-	-	0	-	-
	42.82	n/a	2.25	-	-	0	-	-
	42.82	n/a	1.36	-	-	0	-	-
	42.82	n/a	0	-	-	0	-	-
	43.30	43.30	-	0	1.08	-	0	0
	44.56	n/a	20.80	-	-	0	-	-

UTC-F	44.63	n/a	7.14	-	-	0	-	-
	44.63	n/a	2.65	-	-	0	-	-
	All Reach		1.53	0	0	0	0	0
	45.59	n/a	11.39	-	-	0	-	-
	45.69	n/a	4.20	-	-	0	-	-
	46.02	n/a	13.16	-	-	0	-	-
	46.13	n/a	1.92	-	-	0	-	-
	46.60	n/a	7.87	-	-	0	-	-
	47.14	n/a	0	-	-	0	-	-
	47.30	n/a	22.08	-	-	0	-	-
	47.63	47.63	-	0	0	-	0	0
	47.74	n/a	1.14	-	-	0	-	-
	48.86	n/a	0	-	-	0	-	-
	48.96	n/a	0	-	-	0	-	-
	49.45	n/a	0	-	-	0	-	-
	49.93	n/a	1.49	-	-	0	-	-
	50.94	n/a	0	-	-	0	-	-
	51.06	n/a	0	-	-	0	-	-
	51.07	n/a	0	-	-	0	-	-
	51.65	n/a	2.26	-	-	0	-	-
	51.88	n/a	0	-	-	0	-	-
	51.96	51.96	-	0	0	-	0	0
	52.04	n/a	0	-	-	0	-	-
	52.15	n/a	0	-	-	0	-	-
	52.35	n/a	0	-	-	0	-	-
	52.52	n/a	11.96	-	-	0	-	-
	53.60	n/a	2.70	-	-	0	-	-
	54.06	n/a	0	-	-	0	-	-
	54.70	n/a	0	-	-	0	-	-
	55.15	n/a	0	-	-	0	-	-
	55.33	n/a	0	-	-	0	-	-
	55.47	n/a	0	-	-	0	-	-
	56.29	56.29	-	0	0	-	0	0
	56.67	n/a	0	-	-	0	-	-
	56.83	n/a	0.79	-	-	0	-	-
	56.88	n/a	0	-	-	0	-	-
	57.04	n/a	0	-	-	0	-	-
	57.12	n/a	0	-	-	0	-	-
	57.25	n/a	0	-	-	0	-	-
	57.31	n/a	0	-	-	0	-	-
	57.39	n/a	0	-	-	0	-	-
	57.71	n/a	0	-	-	0	-	-
	57.73	n/a	0	-	-	0	-	-
	57.78	n/a	0	-	-	0	-	-
	57.94	n/a	0	-	-	0	-	-
	57.96	n/a	0	-	-	0	-	-
	57.98	n/a	0	-	-	0	-	-
	58.10	n/a	0	-	-	0	-	-
	58.12	n/a	0	-	-	0	-	-
	58.18	n/a	0	-	-	0	-	-
	58.18	n/a	0	-	-	0	-	-
	58.19	n/a	0	-	-	0	-	-
	58.24	n/a	0	-	-	0	-	-
	58.27	n/a	0	-	-	0	-	-
	58.38	n/a	0	-	-	0	-	-

	58.52	n/a	0	-	-	0	-	-
	58.63	n/a	0	-	-	0	-	-
	58.65	n/a	0	-	-	0	-	-
	58.75	n/a	0	-	-	0	-	-
	58.89	n/a	0	-	-	0	-	-
UTC-G	All Reach		0	0	0	-	0	0
	59.21	n/a	0	-	-	0	-	-
	60.17	n/a	0	-	-	0	-	-
	60.40	n/a	0	-	-	0	-	-
	60.62	60.62	-	0	0	-	0	0

Notes

2008 and 2009 mainstem sampling includes densities for beach seine and snorkel, if species documented with multiple sampling in KR, 2008 in query "90_MSIndex_FishDensByHabType 08" or 2009 in query "90_MSIndex_FishDensByHabType sites among habitat types, 2008 and 2009 MS index sampling occurred at 43 index sites established at 2.7-mile intervals along the river, two NSO habitat units sampled in 21.65A
 fishObs_2004-2007", 2008 "EDB Appx B tables; Appx 90 2008". 2009 "SEBD; Appx 90 2009"

lromous fish only AND juvenile/adult (combined) select resident fish density estim

Juvenile Coho #/100m2			Juvenile Sockeye #/100m2			Rainbow Trout #/100m2		
2004-2007	2008	2009	2004-2007	2008	2009	2004-2007	2008	2009
16.85	ns	ns	3.32	ns	ns	0.07	ns	ns
14.97	-	-	3.84	-	-	0.08	-	-
24.57	-	-	0.23	-	-	0.11	-	-
4.91	-	-	3.33	-	-	0	-	-
21.82	-	-	1.33	-	-	0.12	-	-
15.18	-	-	7.22	-	-	0	-	-
17.67	0.52	8.89	0.14	0.03	0.15	0	0	0.23
-	0	2.69	-	0	0	-	0	1.05
-	0.95	8.41	-	0	1.14	-	0	0.23
-	0.27	23.57	-	0	0.24	-	0	0.24
17.67	-	-	0.14	-	-	0	-	-
-	1.51	3.64	-	0.10	0	-	0	0
-	0	11.70	-	0	0	-	0	0
-	0	11.36	-	0	0	-	0	0
34.52	4.60	11.31	0.27	1.18	0	0	0	0
41.39	-	-	0	-	-	0	-	-
30.51	-	-	0.42	-	-	0	-	-
-	0.39	4.75	-	2.19	0	-	0	0
-	9.55	20.26	-	0	0	-	0	0
28.07	7.19	21.17	0.84	0	1.89	0	0	0
28.07	-	-	0.84	-	-	0	-	-
-	1.04	2.08	-	0	0	-	0	0
-	32.18	32.71	-	0	0	-	0	0
-	0	29.60	-	0	6.44	-	0	0
-	2.30	18.08	-	0	0	-	0	0
ns	0.10	2.73	ns	0	0.12	ns	0	0
-	0	0		0	0	-	0	0
-	0	0		0	0.37	-	0	0
-	0.43	18.50		0	0	-	0	0
ns	0	0	ns	0	0	ns	0	0
-	0	0	-	0	0	-	0	0
37.40	17.02	10.95	1.77	0.28	0.51	0	0.03	0.02
-	4.20	3.09	-	0	0	-	0	0
-	28.24	1.64	-	0.20	0	-	0	0.18
-	6.65	2.44	-	0.14	0	-	0	0
-	17.58	22.38	-	0.30	2.49	-	0	0
-	65.91	30.38	-	1.24	0.27	-	0.21	0
74.04	-	-	2.88	-	-	0	-	-
25.32	-	-	1.40	-	-	0	-	-
-	0	2.86	-	0.15	0	-	0	0
6.88	13.75	20.21	0.32	0.48	0.57	0.03	0	0.29
-	29.17	37.50	-	0.69	1.19	-	0	0.60
4.88	-	-	0.39	-	-	0	-	-
14.99	-	-	0.24	-	-	0	-	-
-	0.45	4.26	-	0.30	0	-	0	0
9.52	-	-	1.08	-	-	0.22	-	-
0.30	-	-	0	-	-	0	-	-
0.64	19.77	7.16	0	0.35	0	0	0	0
-	82.34	11.86	-	1.49	0	-	0	0

0	-	-	0	-	-	0	-	-
-	0	14.88	-	0	0	-	0	0
0	-	-	0	-	-	0	-	-
-	0.96	0.56	-	0	0	-	0	0
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0.78	-	-	0	-	-	0	-	-
20.98	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
-	0	0.50	-	0	0	-	0	0
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
2.52	1.85	0	0	0	0	0	0	0
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
-	1.85	0	-	0	0	-	0	0
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
8.28	-	-	0	-	-	0	-	-
108.40	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
1.18	0.19	0.15	0	0	0	0	0	0
-	0.21	0.16	-	0	0	-	0	0
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
1.23	-	-	0	-	-	0	-	-
1.00	-	-	0	-	-	0	-	-
2.92	-	-	0	-	-	0	-	-
5.85	-	-	0	-	-	0	-	-
21.55	-	-	0	-	-	0	-	-
-	0	0	-	0	0	-	0	0
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
ns	0	1.25	ns	0	0	ns	0.06	0.11
	0	0		0	0		0	0

	0	3.97		0	0		0.19	0.36
ns	36.04	46.24	ns	0.14	0	ns	10.64	0.21
-	55.66	25.59	-	0	0	-	10.35	0
-	56.25	160.39	-	0.35	0	-	11.81	0
-	1.32	10.65	-	0	0	-	7.89	0.46
-	27.03	36.14	-	0.34	0	-	13.51	0.54
67.24	17.10	18.16	2.28	0	0.06	0.80	0	11.03
29.33	-	-	1.82	-	-	0.97	-	-
290.51	-	-	32.73	-	-	0	-	-
-	8.85	14.80	-	0	0	-	0	26.58
18.88	-	-	0	-	-	0.13	-	-
29.78	-	-	1.26	-	-	0.63	-	-
84.36	-	-	4.29	-	-	0.25	-	-
9.83	-	-	0.14	-	-	3.18	-	-
22.68	-	-	0.08	-	-	0.08	-	-
-	4.40	20.50	-	0	0.1	-	0	0.2
-	405.53	b	-	0	b	-	0	b
103.73	-	-	5.22	-	-	0.50	-	-
105.46	-	-	3.33	-	-	0.18	-	-
191.67	-	-	2.92	-	-	1.30	-	-
48.99	13.72	34.13	0.29	0	0	0.30	0.45	0.24
-	9.76	7.64	-	0	0	-	0	0
60.32	-	-	0	-	-	0.37	-	-
0.24	-	-	0	-	-	0.40	-	-
23.48	-	-	0.55	-	-	0.28	-	-
0	-	-	0	-	-	0	-	-
40.25	-	-	1.07	-	-	0	-	-
1.38	-	-	0	-	-	1.24	-	-
49.91	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0.51	-	-
-	17.60	68.06	-	0	0	-	1.2	0
154.26	-	-	0.39	-	-	0.13	-	-
107.59	-	-	1.64	-	-	0.33	-	-
104.83	-	-	0.12	-	-	0.48	-	-
20.46	-	-	0.14	-	-	0.14	-	-
-	14.53	45.90	-	0	0	-	0.21	0.87
39.23	-	-	0.56	-	-	0.28	-	-
121.90	-	-	0	-	-	0	-	-
42.09	13.24	115.42	1.43	4.12	0.58	0.32	0.15	0.23
24.23	-	-	0.89	-	-	0.59	-	-
226.07	-	-	10.14	-	-	1.79	-	-
51.14	-	-	0.92	-	-	0.18	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
-	10.11	82.03	-	7.45	0.82	-	0.27	0
71.63	-	-	0.68	-	-	0	-	-
0	-	-	0	-	-	0	-	-
44.22	-	-	5.56	-	-	0	-	-
0.15	-	-	0	-	-	0	-	-
37.54	-	-	1.37	-	-	0.98	-	-
57.96	-	-	0.75	-	-	0.45	-	-
19.47	-	-	1.60	-	-	0	-	-
0	-	-	0	-	-	0.14	-	-
-	17.11	159.12	-	0	0.27	-	0	0.54
126.70	-	-	2.23	-	-	1.52	-	-

72.92	-	-	3.77	-	-	0	-	-
0.43	-	-	0	-	-	0	-	-
123.78	76.30	123.10	0.67	0	0.22	0.87	0	0.87
105.79	-	-	0	-	-	1.63	-	-
69.33	-	-	0	-	-	0	-	-
39.47	-	-	0	-	-	0	-	-
101.96	-	-	0	-	-	0	-	-
59.55	-	-	0	-	-	7.87	-	-
35.71	-	-	0	-	-	0	-	-
254.55	-	-	1.30	-	-	3.90	-	-
-	41.25	151.24	-	0	0.36	-	0	0.73
135.01	-	-	2.29	-	-	0	-	-
397.39	-	-	0	-	-	0	-	-
19.36	-	-	0	-	-	0	-	-
7.09	-	-	0	-	-	0	-	-
26.77	-	-	0	-	-	0	-	-
89.60	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	-	-	30.45	-	-	0	-	-
139.01	-	-	0	-	-	3.39	-	-
120.07	-	-	0	-	-	0	-	-
-	113.54	87.05	-	0	0	-	0	1.49
306.54	-	-	0	-	-	0	-	-
128.60	-	-	0	-	-	0	-	-
70.39	-	-	2.07	-	-	0	-	-
319.98	-	-	0	-	-	0	-	-
37.84	-	-	1.35	-	-	0	-	-
441.56	-	-	0	-	-	0	-	-
13.74	-	-	0	-	-	0	-	-
132.58	-	-	0	-	-	18.94	-	-
219.54	-	-	0	-	-	2.68	-	-
199.78	-	-	0	-	-	0	-	-
-	79.55	68.44	-	0	0	-	0	0
9.43	-	-	0	-	-	0	-	-
142.29	-	-	0	-	-	4.34	-	-
377.78	-	-	0	-	-	0	-	-
72.73	-	-	0	-	-	0	-	-
138.30	-	-	0	-	-	2.13	-	-
29.46	-	-	0	-	-	1.55	-	-
7.50	-	-	0	-	-	2.5	-	-
60.47	-	-	0	-	-	0	-	-
52.70	-	-	0	-	-	0	-	-
29.66	-	-	0	-	-	0	-	-
27.17	-	-	0	-	-	0	-	-
79.83	-	-	0	-	-	0	-	-
6.65	-	-	0	-	-	0	-	-
31.30	-	-	0	-	-	0	-	-
30.86	-	-	0	-	-	0	-	-
10.01	-	-	0	-	-	0	-	-
328.24	-	-	0	-	-	0	-	-
48.08	-	-	0	-	-	0	-	-
85.14	-	-	0	-	-	7.74	-	-
7.72	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-

118.75	-	-	0	-	-	0	-	-
130.30	-	-	0	-	-	0	-	-
9.18	-	-	0	-	-	0	-	-
6.26	-	-	0	-	-	0	-	-
75.97	-	-	0	-	-	0	-	-
0	21.53	10.22	0	0	0	0	0	0
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	21.53	10.22	-	0	0	-	0	0

methods, method with lower count omitted, this is consistent with EBD Appendix B

09"

ong the entire mainstem lengths of the NFK, SFK, and UT

notes

Dolly Varden #/100m2			Arctic Grayling #/100m2			Sculpin #/100m2		
2004-2007	2008	2009	2004-2007	2008	2009	2004-2007	2008	2009
0.20	ns	ns	0.38	ns	ns	0.02	ns	ns
0	-	-	0.08	-	-	0.08	-	-
0	-	-	0.11	-	-	0	-	-
0.18	-	-	0	-	-	0	-	-
0.12	-	-	1.82	-	-	0	-	-
0.74	-	-	0	-	-	0	-	-
0	0.74	0.20	0	0.52	2.44	0	1.31	1.52
-	3.71	0.15	-	2.71	14.07	-	0	0
-	0	0	-	0	0	-	2.53	0.91
-	0	0	-	0	0	-	1.65	0.24
0	-	-	0	-	-	0	-	-
-	0	0	-	0	0.10	-	1.81	0.96
-	0	0.25	-	0	0	-	0.58	4.15
-	0.17	0.87	-	0	0.17	-	2.01	2.10
0	0.14	0.24	0	0.21	0	0	1.25	2.01
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
-	0	0.11	-	0.13	0	-	1.93	2.11
-	0.30	0.43	-	0.30	0	-	0.45	1.87
0	0.10	1.76	6.68	0.26	0.32	0	1.35	1.76
0	-	-	6.68	-	-	0	-	-
-	0.21	1.85	-	0.21	0.69	-	2.69	2.31
-	0	3.50	-	0.27	0	-	0.27	1.40
-	0	2.30	-	0.20	0.46	-	1.18	1.38
-	0.18	0.14	-	0.35	0.14	-	1.06	1.98
ns	1.05	0	ns	6.01	3.68	ns	6.77	4.15
-	1.58	0		13.96	6.03		0.23	0.67
-	0.81	0		0.27	1.11		1.3	4.06
-	0.43	0		0	0.80		28.0	16.89
ns	0	0	ns	0	0	ns	0	10
-	0	0	-	0	0	-	0	10
3.44	0.03	0.45	0.19	0.08	0.67	0	1.13	2.52
-	0	0.54	-	0	0.67	-	0.45	0.54
-	0	0.91	-	0	1.64	-	1.18	0.91
-	0	0.32	-	0	0.16	-	1.73	3.25
-	0	0.59	-	0.15	0	-	0.91	2.72
-	0.21	0.54	-	0.41	1.75	-	2.69	4.84
6.73	-	-	0	-	-	0	-	-
2.35	-	-	0.25	-	-	0	-	-
-	0	0	-	0	0.20	-	0.45	2.55
0.62	0.64	0.29	2.47	1.53	1.21	0	1.05	1.29
-	0.52	0	-	3.30	2.23	-	1.04	1.79
0.13	-	-	1.03	-	-	0	-	-
0.12	-	-	4.60	-	-	0	-	-
-	0.75	0.55	-	0	0.27	-	1.05	0.82
3.46	-	-	6.28	-	-	0	-	-
0.10	-	-	0	-	-	0	-	-
0.21	0.82	0	6.19	35.31	11.17	4.94	0.94	0.24
-	2.98	0	-	6.94	14.10	-	3.47	0.32

0	-	-	3.13	-	-	0	-	-
-	0.36	0	-	42.14	11.16	-	0	0
0.71	-	-	1.42	-	-	3.56	-	-
-	0	0	-	74.04	0.56	-	0.48	0
0	-	-	0	-	-	17.78	-	-
0	-	-	3.50	-	-	2.33	-	-
0	-	-	0	-	-	8.96	-	-
0	-	-	7.50	-	-	0	-	-
0	-	-	6.99	-	-	11.66	-	-
0	-	-	2.04	-	-	4.08	-	-
0	-	-	0	-	-	7.33	-	-
0	-	-	0	-	-	13.85	-	-
3.70	-	-	11.11	-	-	37.02	-	-
0	-	-	33.44	-	-	41.81	-	-
15.63	-	-	10.42	-	-	31.25	-	-
0	-	-	0	-	-	12.07	-	-
-	0	0	-	8.74	16.11	-	0	0.50
0	-	-	9.94	-	-	34.09	-	-
0	-	-	10.96	-	-	12.53	-	-
0	-	-	14.35	-	-	14.35	-	-
0	-	-	19.02	-	-	15.06	-	-
0	5.55	0	45.02	7.86	24.27	19.78	0.92	3.41
0	-	-	10.15	-	-	32.47	-	-
0	-	-	10.15	-	-	0	-	-
0	-	-	7.87	-	-	7.87	-	-
-	5.55	0	-	7.86	24.27	-	0.92	3.41
0	-	-	38.70	-	-	9.68	-	-
0	-	-	62.79	-	-	16.28	-	-
0	-	-	85.23	-	-	33.42	-	-
0	-	-	49.69	-	-	24.84	-	-
0	-	-	0	-	-	0	-	-
0	-	-	13.89	-	-	37.04	-	-
0	-	-	27.27	-	-	0	-	-
0	-	-	62.91	-	-	58.25	-	-
0	-	-	73.89	-	-	0	-	-
0	0	0	7.85	0.75	15.90	9.29	0.38	0.92
-	0	0	-	0.83	13.96	-	0.41	0.47
0	-	-	200.00	-	-	200.00	-	-
0	-	-	62.50	-	-	17.19	-	-
0	-	-	0	-	-	3.09	-	-
0	-	-	5.81	-	-	7.75	-	-
0	-	-	0	-	-	0	-	-
0	-	-	1.43	-	-	0	-	-
0	-	-	0	-	-	3.85	-	-
0	-	-	2.00	-	-	14.00	-	-
0	-	-	7.38	-	-	13.52	-	-
0	-	-	2.00	-	-	3.00	-	-
0	-	-	2.92	-	-	8.77	-	-
0	-	-	0	-	-	70.18	-	-
0	-	-	12.93	-	-	30.17	-	-
-	0	0	-	0	88.81	-	0	17.76
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	2.91	-	-
ns	0	0	ns	0	0.04	ns	0.66	0.15
	0	0		0	0		0.80	0.17

	0	0		0	0.12		0.37	0.12
ns	0.20	0	ns	0.61	0	ns	1.90	1.96
-	0.20	0	-	0.20	0	-	3.13	1.03
-	0	0	-	0	0	-	1.74	4.55
-	0	0	-	0	0	-	0.79	2.78
-	0.68	0	-	2.70	0	-	1.35	0.82
0.47	0	0.24	32.10	0.06	0.06	13.31	0.26	2.24
0.36	-	-	0.61	-	-	13.94	-	-
0	-	-	119.48	-	-	5.73	-	-
-	0	0.57	-	0	0	-	0.31	5.17
0	-	-	0	-	-	0	-	-
0.16	-	-	190.51	-	-	18.44	-	-
2.02	-	-	1.77	-	-	45.21	-	-
1.30	-	-	0	-	-	31.65	-	-
0	-	-	0	-	-	0	-	-
-	0	0	-	0.12	0.1	-	0.23	0.2
-	0	b	-	0	b	-	0	b
0.50	-	-	0.25	-	-	13.93	-	-
0.00	-	-	125.28	-	-	13.16	-	-
0.87	-	-	1.73	-	-	11.04	-	-
0.15	1.22	0.06	1.19	0.39	0	3.46	0.97	3.70
-	0.17	0	-	0	0	-	1.03	1.42
0	-	-	12.14	-	-	0	-	-
0.08	-	-	0	-	-	0.08	-	-
0.41	-	-	0.28	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	-	-	2.40	-	-	0	-	-
0.28	-	-	0	-	-	0	-	-
0	-	-	0.56	-	-	0	-	-
0	-	-	0	-	-	0	-	-
-	3.40	0.23	-	0	0	-	1.40	8.59
0	-	-	0.39	-	-	0	-	-
0	-	-	4.09	-	-	8.18	-	-
0.48	-	-	0.12	-	-	25.85	-	-
0	-	-	0	-	-	0	-	-
-	0.21	0	-	1.28	0	-	0.43	2.81
1.39	-	-	0.83	-	-	23.93	-	-
0	-	-	0.14	-	-	0	-	-
0.44	0.15	0	0.18	0.29	0.70	7.53	2.06	1.99
0.89	-	-	0.15	-	-	5.20	-	-
0.60	-	-	0	-	-	17.30	-	-
1.83	-	-	0.37	-	-	20.71	-	-
0	-	-	0	-	-	0.24	-	-
0	-	-	0	-	-	0	-	-
-	0.27	0	-	0	0	-	1.33	3.30
0	-	-	0.51	-	-	0	-	-
0	-	-	0.15	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0.98	-	-	0.20	-	-	47.31	-	-
2.40	-	-	0.15	-	-	36.64	-	-
0	-	-	0.99	-	-	0	-	-
0	-	-	0.00	-	-	0	-	-
-	0	0	-	0.66	1.62	-	2.96	0.27
0.71	-	-	0.18	-	-	12.32	-	-

0.08	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0.17	-	-
0.37	3.35	0.87	0.25	0.16	0.43	28.65	2.55	4.12
0	-	-	0	-	-	27.67	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	6.07	-	-
0	-	-	0	-	-	15.39	-	-
0	-	-	0	-	-	14.61	-	-
0	-	-	0	-	-	20.68	-	-
1.30	-	-	0	-	-	27.27	-	-
-	0	0	-	0	0	-	2.08	4.37
0	-	-	0	-	-	24.03	-	-
0	-	-	2.61	-	-	0.26	-	-
0.84	-	-	0	-	-	73.23	-	-
1.18	-	-	0	-	-	31.90	-	-
1.49	-	-	0	-	-	20.82	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	15.36	-	-
2.77	-	-	0	-	-	26.30	-	-
2.26	-	-	0	-	-	53.12	-	-
0	-	-	0	-	-	84.23	-	-
-	0.48	2.23	-	0	1.49	-	2.38	5.21
0	-	-	0	-	-	0.42	-	-
0	-	-	0	-	-	71.93	-	-
0	-	-	0	-	-	64.18	-	-
0	-	-	0	-	-	364.83	-	-
0	-	-	0	-	-	59.46	-	-
0	-	-	0	-	-	98.12	-	-
0	-	-	0	-	-	36.65	-	-
0	-	-	0	-	-	66.29	-	-
0	-	-	0	-	-	219.54	-	-
0	-	-	0	-	-	67.34	-	-
-	11.36	1.90	-	0.57	0	-	3.41	0
0	-	-	0	-	-	52.83	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	6.06	-	-
0	-	-	0	-	-	65.96	-	-
0	-	-	0	-	-	22.48	-	-
0	-	-	0	-	-	37.50	-	-
4.65	-	-	0	-	-	34.88	-	-
0	-	-	0	-	-	24.32	-	-
0	-	-	0	-	-	14.59	-	-
0	-	-	0	-	-	41.30	-	-
0	-	-	0	-	-	39.92	-	-
0	-	-	0	-	-	26.60	-	-
0	-	-	0	-	-	3.48	-	-
0	-	-	0	-	-	51.44	-	-
0	-	-	0	-	-	40.04	-	-
0	-	-	0	-	-	39.62	-	-
9.62	-	-	0	-	-	28.85	-	-
5.16	-	-	0	-	-	59.34	-	-
0	-	-	0	-	-	36.04	-	-
0	-	-	0	-	-	68.97	-	-
0	-	-	0	-	-	26.46	-	-

0	-	-	0	-	-	25.00	-	-
0	-	-	0	-	-	39.39	-	-
0	-	-	0	-	-	58.77	-	-
6.26	-	-	0	-	-	12.53	-	-
0	-	-	0	-	-	37.99	-	-
7.46	0	0	0	0	0	16.58	0	0
2.60	-	-	0	-	-	25.97	-	-
17.09	-	-	0	-	-	0	-	-
15.33	-	-	0	-	-	0	-	-
-	0	0	-	0	0	-	0	0

Sucker #/100m2			Whitefish species group #/100m2			Northern Pike #/100m2		
2004-2007	2008	2009	2004-2007	2008	2009	2004-2007	2008	2009
0	ns	ns	0.73	ns	ns	0	ns	ns
0	-	-	0	-	-	0	-	-
0	-	-	0.11	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	-	-	3.88	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	0	0.15	0	0.30	0	0	0	0
-	0	0.90	-	1.57	0	-	0	0
-	0	0	-	0	0	-	0	0
-	0	0	-	0	0	-	0	0
0	-	-	0	-	-	0	-	-
-	0	0	-	0	0	-	0	0
-	0	0	-	0	0	-	0	0
-	0	0	-	0	0	-	0	0
0	0	0	0	0	0	0	0	0
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
-	0	0	-	0	0	-	0	0
-	0	0	-	0	0	-	0	0
0	0	0	4.68	0	0	0	0	0
0	-	-	4.68	-	-	0	-	-
-	0	0	-	0	0	-	0	0
-	0	0	-	0	0	-	0	0
-	0	0	-	0	0	-	0	0
-	0	0	-	0	0	-	0	0
ns	0	0	ns	0	0	ns	0.10	0
-	0	0	-	0	0	-	0	0
-	0	0	-	0	0	-	0.27	0
-	0	0	-	0	0	-	0	0
ns	0	0	ns	0	0	ns	0	0
-	0	0	-	0	0	-	0	0
0	0	0	0	0	0	0	0	0
-	0	0	-	0	0	-	0	0
-	0	0	-	0	0	-	0	0
-	0	0	-	0	0	-	0	0
-	0	0	-	0	0	-	0	0
-	0	0	-	0	0	-	0	0
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
-	0	0	-	0	0	-	0	0
0	0	0	2.89	0.40	0	0	0	0
-	0	0	-	0.87	0	-	0	0
0	-	-	0	-	-	0	-	-
0	-	-	7.79	-	-	0	-	-
-	0	0	-	0	0	-	0	0
0	-	-	4.98	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	0	0	0	0	0	0.39	0.47	0
-	0	0	-	0	0	-	0	0

0	-	-	0	-	-	0	-	-
-	0	0	-	0	0	-	0	0
0	-	-	0	-	-	0	-	-
-	0	0	-	0	0	-	0	0
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	2.33	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	3.66	-	-
0	-	-	0	-	-	4.62	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	8.36	-	-
0	-	-	0	-	-	15.63	-	-
0	-	-	0	-	-	0	-	-
-	0	0	-	0	0	-	2.50	0
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	3.19	-	-
0	-	-	0	-	-	0	-	-
0	0	0	0	0	0	1.26	0.46	0
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	3.93	-	-
-	0	0	-	0	0	-	0.46	0
0	-	-	0	-	-	2.42	-	-
0	-	-	0	-	-	2.33	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	2.07	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	9.09	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	0	0	0	0	0	2.36	0.57	0
-	0	0	-	0	0	-	0.62	0
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	6.18	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	1.43	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	5.00	-	-
0	-	-	0	-	-	4.92	-	-
0	-	-	0	-	-	1.00	-	-
0	-	-	0	-	-	2.92	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	17.24	-	-
-	0	0	-	0	0	-	0	0
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
ns	0	0	ns	0	0	ns	0	0
-	0	0	-	0	0	-	0	0

[illegible]

[illegible]

0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	0	0	0	0	0	0	0	0
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
-	0	0	-	0	0	-	0	0

Stickleback species group #/100m2			Lamprey species group #/100m2			Burbot #/100m2		
2004-2007	2008	2009	2004-2007	2008	2009	2004-2007	2008	2009
0.07	ns	ns	0	ns	ns	0	ns	ns
0	-	-	0	-	-	0	-	-
0.34	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	0	0	0	0	0	0	0	0
-	0	0	-	0	0	-	0	0
-	0	0	-	0	0	-	0	0
-	0	0	-	0	0	-	0	0
0	-	-	0	-	-	0	-	-
-	0	0	-	0	0	-	0	0
-	0	0	-	0	0	-	0	0
-	0	0	-	0	0	-	0	0
0	0	0	0	0	0	0	0	0
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
-	0	0	-	0	0	-	0	0
-	0	0	-	0	0	-	0	0
0	0	0	0	0	0	0	0	0
0	-	-	0	-	-	0	-	-
-	0	0	-	0	0	-	0	0
-	0	0	-	0	0	-	0	0
-	0	0	-	0	0	-	0	0
-	0	0	-	0	0	-	0	0
ns	0.19	0	ns	0	0	ns	0	0
-	0.45	0	-	0	0	-	0	0
-	0	0	-	0	0	-	0	0
-	0	0	-	0	0	-	0	0
ns	0	0	ns	0	0	ns	0	0
	0	0		0	0		0	0
0	0	0	0.05	0.03	0	0	0	0
-	0	0	-	0.11	0	-	0	0
-	0	0	-	0	0	-	0	0
-	0	0	-	0	0	-	0	0
-	0	0	-	0	0	-	0	0
-	0	0	-	0	0	-	0	0
0	-	-	0.19	-	-	0	-	-
0	-	-	0	-	-	0	-	-
	0	0		0	0		0	0
0	0	0	0	0	0	0	0	0
-	0	0	-	0	0	-	0	0
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
-	0	0	-	0	0	-	0	0
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0.21	0	0	0	0	0	0.04	0	0
-	0	0	-	0	0	-	0	0

0	-	-	0	-	-	0	-	-
-	0	0	-	0	0	-	0	0
0	-	-	0	-	-	0	-	-
-	0	0	-	0	0	-	0	0
4.44	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0.52	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	3.70	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
-	0	0	-	0	0	-	0	0
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	0	0	0	0	0	0	0	0
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
-	0	0	-	0	0	-	0	0
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	0	0.15	0	0	0	0	0	0
-	0	5.92	-	0	0	-	0	0
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
-	0	0	-	0	0	-	0	0
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
ns	14.55	7.71	ns	0	0	ns	0	0
-	21.52	0	-	0	0	-	0	0

-	0	0	-	0	0	-	0	0
ns	0	0	ns	0	0	ns	0	0
-	0	0	-	0	0	-	0	0
-	0	0	-	0	0	-	0	0
-	0	0	-	0	0	-	0	0
-	0	0	-	0	0	-	0	0
0.54	0	0	0	0	0	0	0	0
1.45	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
-	0	0	-	0	0	-	0	0
0.13	-	-	0	-	-	0	-	-
0.16	-	-	0	-	-	0	-	-
0.25	-	-	0	-	-	0	-	-
0.14	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
-	0	0	-	0	0	-	0	0
-	0	b	-	0	b	-	0	b
0	-	-	0	-	-	0	-	-
0.35	-	-	0	-	-	0	-	-
1.84	-	-	0	-	-	0	-	-
0.44	0	0	0	0	0	0	0	0
-	0	0	-	0	0	-	0	0
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0.14	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
	0	0		0	0		0	0
4.98	-	-	0	-	-	0	-	-
0.16	-	-	0	-	-	0	-	-
0.60	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
-	0	0	-	0	0	-	0	0
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0.04	0	0	0	0	0	0	0	0
0.30	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
-	0	0	-	0	0	-	0	0
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0.20	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
	0	0		0	0		0	0
0	-	-	0	-	-	0	-	-

[illegible]

0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	0	0	0	0	0	0	0	0
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
0	-	-	0	-	-	0	-	-
-	0	0	-	0	0	-	0	0

***request is for all life stages of select resident fish species: Rainbow Trout, Dolly Varden, sculpin s

Request is for juvenile and adult density estim

EBD Reach	Stream	Total Area Surveyed (m ²) ^a	Juvenile Chinook Salmon	Juvenile Chum Salmon	Juvenile Coho Salmon
North Fork Koktuli River					
NFK-C	NFK 1.190 and Tributaries	27,318	0.19	0	1.35
NFK-D	NFK 1.200 and Tributaries ^a	15,361	0.08	0	2.24
South Fork Koktuli River					
SFK-B	SFK 1.190 and Tributaries	16,794	0.05	-	2.30
SFK-C	SFK 1.240 and Tributaries	21,502	0.11	-	10.11
	SFK 1.260	184	-	-	0.54
	SFK 1.310 and Tributaries	3,165	-	-	-
SFK-E	SFK 1.320	24	-	-	-
	SFK-1.330	655	-	-	-
	SFK-1.340	837	-	-	-
	SFK-1.350	617	-	-	-
	SFK-1.360	493	-	-	-
	SFK-1.370	279	-	-	-
	SFK-1.380	1,010	-	-	-
	SFK-1.400	288	-	-	-
Upper Talarik Creek					
UT-C	UT 1.190	1,134	0	0	0.88
	UT 1.360 and Tributaries	2,241	0	0	0.40
	UT 1.370 and Tributaries	2,718	0	0	42.12
	UT 1.380 and Tributaries	4,244	0.02	0	38.86
	UT 1.390 and Tributaries	2,914	0	0	2.81
UT-F	UT 1.400	14	0	0	0.00
	UT 1.410 and Tributaries	2,574	0	0	40.71
	UT 1.420	261	0	0	45.26
	UT 1.430	234	0	0	16.21
	UT 1.440	60	0	0	0.00
	UT 1.460	816	0	0	15.68
	UT 1.470	150	0	0	115.49
UT-G	UT 1.490	56	0	0	32.14
	UT 1.500	2,222	0	0	1.17

The Following MS records are in tbl30 (HDR 2004-2007) and tbl60 (R2 2008) but were not part of c

Mainstem KR 1.0	4,515	71.22	0	16.85
Mainstem NFK 1.0 ^b	53,991	5.30	0	25.34
Mainstem SFK 1.0	13,218	3.99	0.01	8.02
Mainstem UT 1.0	41,975	3.99	0.002	45.05

Footnotes:

a: includes density estimate for highest species-specific count per habitat sampled by electrofishing

b: does not include NFK 1.0 off-channel habitat

p. and stickleback sp. Juvenile andromous salmon denities were allso generated and reported.

ates for select resident species

Juvenile Sockeye Salmon	Rainbow Trout	Dolly Varden	Arctic Grayling	Sculpin sp.	Stickleback sp.	Burbot
0	0.30	6.30	0.11	4.12	0	0
0	0	0.93	0.23	1.72	1.50	0
-	0.18	6.76	2.20	4.65	0.05	0
0.27	-	1.35	0.17	2.21	0.42	0
3.26	-	-	-	-	-	0
-	-	3.51	1.14	0.54	0.16	0
-	-	-	21.10	-	-	0
-	-	-	0.46	5.49	-	0
-	-	-	0.72	0.60	11.35	0
-	-	-	0.32	-	0.32	0
-	-	1.01	-	-	-	0
-	-	-	1.43	9.67	-	0
-	-	-	0.10	3.37	-	0
-	-	-	-	-	-	0
0	0	3.44	0.09	0	0	0
0	0	8.17	0	1.61	0	0
0	0	0.88	0	6.77	0	0
0.31	0	2.90	0	1.77	0	0
0.34	0	5.22	0	0	0	0
0	0	0	0	0	0	0
0	0	8.62	0	1.01	0.31	0
0	0	11.51	0	7.67	0	0
0	0	1.71	0	8.53	0	0
0	0	3.35	0	0	0	0
0	0	0	0	4.41	0	0
0	0	0	0	12.02	0	0
0	0	8.93	0	46.43	0	0
0	0	0.59	0	3.87	0	0

ata request, could be nested within table above, were applicable

3.32	0.07	0.20	0.38	0.02	0.07	0
0.02	0.02	2.26	0.50	2.75	0	0
0.36	1.56	1.46	8.05	2.13	0.13	0.01
0.85	0.36	0.28	5.36	7.84	0.22	0

and snorkling only. Density estimates for minnow trapping and seining were not used for tributary density es

Lamprey Northern F Whitefish sp.

0	0	0
0	0	0
0	0	0
0	0.03	0
0	0	0
0	0.03	0
0	0	0
0	0	0
0	0.36	0
0	0	0
0	0	0
0	2.51	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0.73
0	0	0.05
0.01	0.26	0.67
0	0	0.01

estimates.

***Winter fish density data were requested but not included in RFI tables provided. However sufficient data were provided to estimate density.
 Date source: tmp70_FishWinterHDR_Total_FigToExport

Fish observation data collected during winter sampling, 2004-2007. Observations include:

EBD Reach	No. Sites	Chinook Salmon	Chum Salmon	Coho Salmon	Sockeye Salmon	Arctic Grayling
KR	1					
NFK-A	1					
NFK-B	6	10		21		
NFK-C	18	50	15	27	93	
NFK-D	3					
SFK-A	12	226	5	64	141	
SFK-B	49	43	14	303	565	118
SFK-D	3					1
SFK-E	2					2
UT-C	13	7		29	2	
UT-D	20	9		253	11	
UT-E	10	8		119		
UT-F	17			132		
UT-G	2					
Total	157	353	34	948	812	121

t site measurement data (sample lengths) were lacking from more than 75% of sample records. In lieu

aquascope, electrofishing, minnow trapping, snorkeling, and visual observations.

Burbot	Dolly Varden	Lamprey sp.	Northern Pike	Rainbow Trout	Salmonid sp.	Sculpin sp.	Stickleback sp.	Ninespine Stickleback
	1				1			
						1		
	23					4		1
	39		1			9		
								9
	24	4		1		36	1	34
1	135		3		163	208	6	19
	7							
	9			2				1
	2			31	12	79	4	36
	5			12		8	1	3
	2					28		1
	2							
1	249	4	4	46	176	373	12	104

i of generating densities for the subsample of sites where it was possible the following winter fish count summr

Threespine Stickleback	Unidentified sp.	Grand Total
8		10
		1
		59
		234
		9
3		539
1	33	1,612
		1
		9
3		53
17	19	473
		156
		163
		2
32	52	3,321

rary table was generated.

***Winter fish density data were requested but not included in RFI tables provided. However sufficient site r
 Query table 70 "FishWinterSamp_AbundanceHDR All Reaches Figure DES112009.xls"FishWinterSamp_T

EBD Reach	Stream	No Sites	Chinook Salmon	Chum Salmon	Coho Salmon	Sockeye Salmon
KR	KR 1.0	1				
NFK-A	NFK 1.0	1				
NFK-B	NFK-B Total	6	10		21	
	NFK 1.0	4	10		21	
	NFK 1.80	2				
NFK-C	NFK-C Total	18	50	15	27	93
	NFK 1.0	13	44	14	19	56
	NFK 1.110 and tributaries	3	2	1	7	2
	NFK 1.120	1	4		1	35
	NFK 1.190	1				
NFK-D	NFK-D Total	3				
	NFK 1.0	1				
	NFK 1.220 and tributaries	2				
SFK-A	SFK 1.0	12	226	5	64	141
SFK-B	SFK 1.0	49	43	14	303	565
SFK-D	SFK 1.0	3				
SFK-E	SFK-E Total	2				
	SFK 1.0	1				
	SFK 1.310	1				
UT-C	UT-C Total	13	7		29	2
	UT 1.0	6	7		29	2
	UT 1.190	7				
UT-D*	UT 1.0	20	9		253*	11*
UT-E	UT 1.0	10	8		119	
UT-F	UT-F Total	17			132	
	UT 1.0	14			125	
	UT 1.390	1				
	UT 1.410	1				
	UT 1.460	1			7	
UT-G	UT-G Total	2				
	UT 1.0	1				
	UT 1.490	1				
Grand Total		157	353	34	948	812

* incldues fish counts during the night surveys

measurement data (sample lengths) were lacking from more than 75% of sample records. In lieu of general HDR ALL Reaches Figure

Arctic Grayling	Burbot	Dolly Varden	Lamprey	No Fish	Northern Pike	Rainbow Trout	Salmonid sp.	Sculpin sp.	Stickleback sp.
		1					1		
								1	
		23						4	
		19						3	
		4						1	
		39			1			9	
		30			1			8	
		7						1	
		2							
				0					
		24	4			1		36	1
118	1	135			3		163	208	6
1									
2		7							
2									
		7							
		9				2			
		1				2			
		8							
		2				31*	12*	79	4
		5				12		8	1
		2						28	
		2						26	
				0					
								2	
		2							
		2							
				0					
121	1	249	4	0	4	46	176	373	12

ating densities for the subsample of sites where it was possible the following winter fish count summary table

Ninespine Stickleback	Threespine Stickleback	Unidentified sp.	Grand Total
	8		10
			1
1			59
1			54
			5
			234
			172
			20
			40
			2
9			9
			0
9			9
34	3		539
19	1	33	1,612
			1
			9
			2
			7
1	3		53
1	3		45
			8
36	17	19*	473*
3			156
1			163
			153
			0
1			3
			7
			2
			2
			0
104	32	52	3,321

e was generated.

Request is for juvenile anad

Stream Reach	Index Site ^a	Juvenile Chinook #/100m2			Juvenile Chum #/100m2			Juveni
		2004-2007	2008	2009	2004-2007	2008	2009	2004-2007
Koktuli	All Reach	71.22	ns	ns	0	ns	ns	16.85
NFK-A	All Reach	1.84	3.77	18.84	0	0	0	17.67
	0.00	-	19.29	73.05	-	0	0	-
	4.33A	-	0	19.77	-	0	0	-
	4.33B	-	0.55	28.33	-	0	0	-
	8.66	-	0.10	2.01	-	0	0	-
	12.99A	-	0	1.26	-	0	0	-
	12.99B	-	0	2.97	-	0	0	-
NFK-B	All Reach	30.68	8.77	5.78	0	0	0	34.52
	17.32A	-	0.90	0	-	0	0	-
	17.32B	-	18.03	13.65	-	0	0	-
NFK-C	All Reach	2.01	0.88	8.24	0	0	0	28.07
	21.65	-	0.41	13.89	-	0	0	-
	25.98	-	3.19	21.03	-	0	0	-
	30.31	-	0.59	3.99	-	0	0	-
	34.64	-	0	0.99	-	0	0	-
NFK-D	All Reach	ns	0.38	0	ns	0	0	ns
	38.97	-	0.68	0	-	0	0	-
	43.30	-	0.27	0	-	0	0	-
	47.63	-	0	0	-	0	0	-
NFK-E	All Reach	ns	0	0	ns	0	0	ns
	51.96	-	0	0	-	0	0	-
SFK-A	All Reach	24.9	10.62	22.48	0	0	0	37.40
	0.00	-	5.11	15.46	-	0	0	-
	4.33	-	10.59	95.26	-	0	0	-
	8.66	-	1.30	31.66	-	0	0	-
	12.99	-	15.45	11.25	-	0	0	-
	17.32	-	41.74	10.22	-	0	0	-
	21.65	-	0.15	0.31	-	0	0	-
SFK-B	All Reach	0.19	0.16	0.21	0.03	0	0	6.88
	25.98	-	0.17	0.45	-	0	0	-
	30.31	-	0.15	0	-	0	0	-
SFK-C	All Reach	0	0	0.12	0	0	0	0.64
	34.64	-	0	0.32	-	0	0	-
	38.97	-	0	0	-	0	0	-
	43.30	-	0	0	-	0	0	-
	47.63	-	0	0	-	0	0	-
SFK-D	All Reach	0	1.39	0	0	0	0	2.52
	51.96	-	1.39	0	-	0	0	-
SFK-E	All Reach	0	0	0	0	0	0	1.18
	56.29	-	0	0	-	0	0	-
	60.62	-	0	0	-	0	0	-
UTC-A	All Reach	ns	0	0.38	ns	0	0	ns
	0.00	-	0	0	-	0	0	-
	4.33	-	0	1.20	-	0	0	-
UTC-B	All Reach	ns	17.62	2.65	ns	0	0	ns
	8.66A	-	40.82	0	-	0	0	-
	8.66B	-	0.69	3.25	-	0	0	-
	12.99A	-	7.63	7.87	-	0	0	-

	12.99B	-	6.76	1.63	-	0	0	-
UTC-C	All Reach	11.31	2.26	5.84	0	0	0	67.24
	17.32	-	2.33	13.51	-	0	0	-
	21.65A	-	0	0.5	-	0	0	-
	21.65B	-	47.71	b	-	0	b	-
UTC-D	All Reach	3.61	4.64	0.30	0.01	0	0	48.99
	25.98	-	1.20	0	-	0	0	-
	30.31	-	10.60	1.13	-	0	0	-
	34.64	-	2.56	0	-	0	0	-
UTC-E	All Reach	4.77	0.15	0.58	0	0	0	42.09
	38.97	-	0.27	0.21	-	0	0	-
	43.30	-	0	1.08	-	0	0	-
UTC-F	All Reach	1.53	0	0	0	0	0	123.78
	47.63	-	0	0	-	0	0	-
	51.96	-	0	0	-	0	0	-
	56.29	-	0	0	-	0	0	-
UTC-G	All Reach	0	0	0	-	0	0	0
	60.62	-	0	0	-	0	0	0

Notes

2008 and 2009 mainstem sampling includes densities for beach seine and snorkel, if species documented with multiple sampling in KR, 2008 in query "90_MSIndex_FishDensByHabType 08" or 2009 in query "90_MSIndex_FishDensByHabType 09" among habitat types, 2008 and 2009 MS index sampling occurred at 43 index sites established at 2.7-mile intervals along the river, two NSO habitat units sampled in 21.65A. Data sources: 2004-2007 "fishObs_2004-2007", 2008 "EDB Appx B tables; Appx 90 2008". 2009 "SEBD; Appx 90 2009"

lromous fish only AND juvenile/adult (combined) select resident fish density estim

nile Coho #/100m2		Juvenile Sockeye #/100m2			Rainbow Trout #/100m2			Dolly
2008	2009	2004-2007	2008	2009	2004-2007	2008	2009	2004-2007
ns	ns	3.32	ns	ns	0.07	ns	ns	0.20
0.52	8.89	0.14	0.03	0.15	0	0	0.23	0
0	2.69	-	0	0	-	0	1.05	-
0.95	8.41	-	0	1.14	-	0	0.23	-
0.27	23.57	-	0	0.24	-	0	0.24	-
1.51	3.64	-	0.10	0	-	0	0	-
0	11.70	-	0	0	-	0	0	-
0	11.36	-	0	0	-	0	0	-
4.60	11.31	0.27	1.18	0	0	0	0	0
0.39	4.75	-	2.19	0	-	0	0	-
9.55	20.26	-	0	0	-	0	0	-
7.19	21.17	0.84	0	1.89	0	0	0	0
1.04	2.08	-	0	0	-	0	0	-
32.18	32.71	-	0	0	-	0	0	-
0	29.60	-	0	6.44	-	0	0	-
2.30	18.08	-	0	0	-	0	0	-
0.10	2.73	ns	0	0.12	ns	0	0	ns
0	0		0	0	-	0	0	-
0	0		0	0.37	-	0	0	-
0.43	18.50		0	0	-	0	0	-
0	0	ns	0	0	ns	0	0	ns
0	0	-	0	0	-	0	0	-
17.02	10.95	1.77	0.28	0.51	0	0.03	0.02	3.44
4.20	3.09	-	0	0	-	0	0	-
28.24	1.64	-	0.20	0	-	0	0.18	-
6.65	2.44	-	0.14	0	-	0	0	-
17.58	22.38	-	0.30	2.49	-	0	0	-
65.91	30.38	-	1.24	0.27	-	0.21	0	-
0	2.86	-	0.15	0	-	0	0	-
13.75	20.21	0.32	0.48	0.57	0.03	0	0.29	0.62
29.17	37.50	-	0.69	1.19	-	0	0.60	-
0.45	4.26	-	0.30	0	-	0	0	-
19.77	7.16	0	0.35	0	0	0	0	0.21
82.34	11.86	-	1.49	0	-	0	0	-
0	14.88	-	0	0	-	0	0	-
0.96	0.56	-	0	0	-	0	0	-
0	0.50	-	0	0	-	0	0	-
1.85	0	0	0	0	0	0	0	0
1.85	0	-	0	0	-	0	0	-
0.19	0.15	0	0	0	0	0	0	0
0.21	0.16	-	0	0	-	0	0	-
0	0	-	0	0	-	0	0	-
0	1.25	ns	0	0	ns	0.06	0.11	ns
0	0		0	0		0	0	
0	3.97		0	0		0.19	0.36	
36.04	46.24	ns	0.14	0	ns	10.64	0.21	ns
55.66	25.59	-	0	0	-	10.35	0	-
56.25	160.39	-	0.35	0	-	11.81	0	-
1.32	10.65	-	0	0	-	7.89	0.46	-

27.03	36.14	-	0.34	0	-	13.51	0.54	-
17.10	18.16	2.28	0	0.06	0.80	0	11.03	0.47
8.85	14.80	-	0	0	-	0	26.58	-
4.40	20.50	-	0	0.1	-	0	0.2	-
405.53	b	-	0	b	-	0	b	-
13.72	34.13	0.29	0	0	0.30	0.45	0.24	0.15
9.76	7.64	-	0	0	-	0	0	-
17.60	68.06	-	0	0	-	1.2	0	-
14.53	45.90	-	0	0	-	0.21	0.87	-
13.24	115.42	1.43	4.12	0.58	0.32	0.15	0.23	0.44
10.11	82.03	-	7.45	0.82	-	0.27	0	-
17.11	159.12	-	0	0.27	-	0	0.54	-
76.30	123.10	0.67	0	0.22	0.87	0	0.87	0.37
41.25	151.24	-	0	0.36	-	0	0.73	-
113.54	87.05	-	0	0	-	0	1.49	-
79.55	68.44	-	0	0	-	0	0	-
21.53	10.22	0	0	0	0	0	0	7.46
21.53	10.22		0	0		0	0	-

methods, method with lower count omitted, this is consistent with EBD Appendix B
09"

ong the entire mainstem lengths of the NFK, SFK, and UT

notes

Varden #/100m2		Arctic Grayling #/100m2			Sculpin #/100m2			St
2008	2009	2004-2007	2008	2009	2004-2007	2008	2009	2004-2007
ns	ns	0.38	ns	ns	0.02	ns	ns	0
0.74	0.20	0	0.52	2.44	0	1.31	1.52	0
3.71	0.15	-	2.71	14.07	-	0	0	-
0	0	-	0	0	-	2.53	0.91	-
0	0	-	0	0	-	1.65	0.24	-
0	0	-	0	0.10	-	1.81	0.96	-
0	0.25	-	0	0	-	0.58	4.15	-
0.17	0.87	-	0	0.17	-	2.01	2.10	-
0.14	0.24	0	0.21	0	0	1.25	2.01	0
0	0.11	-	0.13	0	-	1.93	2.11	-
0.30	0.43	-	0.30	0	-	0.45	1.87	-
0.10	1.76	6.68	0.26	0.32	0	1.35	1.76	0
0.21	1.85	-	0.21	0.69	-	2.69	2.31	-
0	3.50	-	0.27	0	-	0.27	1.40	-
0	2.30	-	0.20	0.46	-	1.18	1.38	-
0.18	0.14	-	0.35	0.14	-	1.06	1.98	-
1.05	0	ns	6.01	3.68	ns	6.77	4.15	ns
1.58	0		13.96	6.03		0.23	0.67	-
0.81	0		0.27	1.11		1.3	4.06	-
0.43	0		0	0.80		28.0	16.89	-
0	0	ns	0	0	ns	0	10	ns
0	0	-	0	0	-	0	10	-
0.03	0.45	0.19	0.08	0.67	0	1.13	2.52	0
0	0.54	-	0	0.67	-	0.45	0.54	-
0	0.91	-	0	1.64	-	1.18	0.91	-
0	0.32	-	0	0.16	-	1.73	3.25	-
0	0.59	-	0.15	0	-	0.91	2.72	-
0.21	0.54	-	0.41	1.75	-	2.69	4.84	-
0	0	-	0	0.20	-	0.45	2.55	-
0.64	0.29	2.47	1.53	1.21	0	1.05	1.29	0
0.52	0	-	3.30	2.23	-	1.04	1.79	-
0.75	0.55	-	0	0.27	-	1.05	0.82	-
0.82	0	6.19	35.31	11.17	4.94	0.94	0.24	0
2.98	0	-	6.94	14.10	-	3.47	0.32	-
0.36	0	-	42.14	11.16	-	0	0	-
0	0	-	74.04	0.56	-	0.48	0	-
0	0	-	8.74	16.11	-	0	0.50	-
5.55	0	45.02	7.86	24.27	19.78	0.92	3.41	0
5.55	0	-	7.86	24.27	-	0.92	3.41	-
0	0	7.85	0.75	15.90	9.29	0.38	0.92	0
0	0	-	0.83	13.96	-	0.41	0.47	-
0	0	-	0	88.81	-	0	17.76	-
0	0	ns	0	0.04	ns	0.66	0.15	ns
0	0		0	0		0.80	0.17	-
0	0		0	0.12		0.37	0.12	-
0.20	0	ns	0.61	0	ns	1.90	1.96	ns
0.20	0	-	0.20	0	-	3.13	1.03	-
0	0	-	0	0	-	1.74	4.55	-
0	0	-	0	0	-	0.79	2.78	-

0.68	0	-	2.70	0	-	1.35	0.82	-
0	0.24	32.10	0.06	0.06	13.31	0.26	2.24	0
0	0.57	-	0	0	-	0.31	5.17	-
0	0	-	0.12	0.1	-	0.23	0.2	-
0	b	-	0	b	-	0	b	-
1.22	0.06	1.19	0.39	0	3.46	0.97	3.70	0
0.17	0	-	0	0	-	1.03	1.42	-
3.40	0.23	-	0	0	-	1.40	8.59	-
0.21	0	-	1.28	0	-	0.43	2.81	-
0.15	0	0.18	0.29	0.70	7.53	2.06	1.99	0
0.27	0	-	0	0	-	1.33	3.30	-
0	0	-	0.66	1.62	-	2.96	0.27	-
3.35	0.87	0.25	0.16	0.43	28.65	2.55	4.12	0
0	0	-	0	0	-	2.08	4.37	-
0.48	2.23	-	0	1.49	-	2.38	5.21	-
11.36	1.90	-	0.57	0	-	3.41	0	-
0	0	0	0	0	16.58	0	0	0
0	0	-	0	0		0	0	

Jucker #/100m2		Whitefish species group #/100m2			Northern Pike #/100m2			Stickleback
2008	2009	2004-2007	2008	2009	2004-2007	2008	2009	2004-2007
ns	ns	0.73	ns	ns	0	ns	ns	0.07
0	0.15	0	0.30	0	0	0	0	0
0	0.90	-	1.57	0	-	0	0	
0	0	-	0	0	-	0	0	
0	0	-	0	0	-	0	0	
0	0	-	0	0	-	0	0	
0	0	-	0	0	-	0	0	
0	0	-	0	0	-	0	0	
0	0	0	0	0	0	0	0	0
0	0	-	0	0	-	0	0	
0	0	-	0	0	-	0	0	
0	0	4.68	0	0	0	0	0	0
0	0	-	0	0	-	0	0	
0	0	-	0	0	-	0	0	
0	0	-	0	0	-	0	0	
0	0	-	0	0	-	0	0	
0	0	ns	0	0	ns	0.10	0	ns
0	0	-	0	0		0	0	
0	0	-	0	0		0.27	0	
0	0	-	0	0		0	0	
0	0	ns	0	0	ns	0	0	ns
0	0	-	0	0	-	0	0	
0	0	0	0	0	0	0	0	0
0	0	-	0	0	-	0	0	
0	0	-	0	0	-	0	0	
0	0	-	0	0	-	0	0	
0	0	-	0	0	-	0	0	
0	0	-	0	0	-	0	0	
0	0	-	0	0	-	0	0	
0	0	2.89	0.40	0	0	0	0	0
0	0	-	0.87	0	-	0	0	
0	0	-	0	0	-	0	0	
0	0	0	0	0	0.39	0.47	0	0.21
0	0	-	0	0	-	0	0	
0	0	-	0	0	-	0	0	
0	0	-	0	0	-	0	0	
0	0	-	0	0	-	2.50	0	
0	0	0	0	0	1.26	0.46	0	0
0	0	-	0	0	-	0.46	0	
0	0	0	0	0	2.36	0.57	0	0
0	0	-	0	0	-	0.62	0	
0	0	-	0	0	-	0	0	
0	0	ns	0	0	ns	0	0	ns
0	0	-	0	0		0	0	
0	0	-	0	0		0	0	
0	0	ns	0	0	ns	0	0	ns
0	0	-	0	0	-	0	0	
0	0	-	0	0	-	0	0	
0	0	-	0	0	-	0	0	

0	0	-	0	0	-	0	0	
0	0	0.03	0	0	0	0	0	0.54
0	0	-	0	0	-	0	0	
0	0	-	0	0	-	0	0	
0	b	-	0	b	-	0	b	
0	0	0.01	0	0	0	0	0	0.44
0	0	-	0	0	-	0	0	
0	0	-	0	0	-	0	0	
0	0	-	0	0	-	0	0	
0	0	0	0	0	0	0	0	0.04
0	0	-	0	0	-	0	0	
0	0	-	0	0	-	0	0	
0	0	0	0	0	0	0	0	0.17
0	0	-	0	0	-	0	0	
0	0	-	0	0	-	0	0	
0	0	-	0	0	-	0	0	
0	0	0	0	0	0	0	0	0
0	0		0	0		0	0	

species group #/100m2		Lamprey species group #/100m2			Burbot #/100m2		
2008	2009	2004-2007	2008	2009	2004-2007	2008	2009
ns	ns	0	ns	ns	0	ns	ns
0	0	0	0	0	0	0	0
0	0		0	0		0	0
0	0		0	0		0	0
0	0		0	0		0	0
0	0		0	0		0	0
0	0		0	0		0	0
0	0		0	0		0	0
0	0	0	0	0	0	0	0
0	0		0	0		0	0
0	0		0	0		0	0
0	0	0	0	0	0	0	0
0	0		0	0		0	0
0	0		0	0		0	0
0	0		0	0		0	0
0.19	0	ns	0	0	ns	0	0
0.45	0		0	0		0	0
0	0		0	0		0	0
0	0		0	0		0	0
0	0	ns	0	0	ns	0	0
0	0		0	0		0	0
0	0	0.05	0.03	0	0	0	0
0	0		0.11	0		0	0
0	0		0	0		0	0
0	0		0	0		0	0
0	0		0	0		0	0
0	0		0	0		0	0
0	0		0	0		0	0
0	0	0	0	0	0	0	0
0	0		0	0		0	0
0	0		0	0		0	0
0	0	0	0	0	0	0	0
0	0		0	0		0	0
0	0		0	0		0	0
0	0		0	0		0	0
0	0	0	0	0	0	0	0
0	0		0	0		0	0
0	0.15	0	0	0	0	0	0
0	5.92		0	0		0	0
0	0		0	0		0	0
14.55	7.71	ns	0	0	ns	0	0
21.52	0		0	0		0	0
0	0		0	0		0	0
0	0	ns	0	0	ns	0	0
0	0		0	0		0	0
0	0		0	0		0	0
0	0		0	0		0	0

0	0		0	0		0	0
0	0		0	0		0	0
0	0		0	0		0	0
0	0		0	0		0	0
0	b		0	b		0	b
0	0		0	0		0	0
0	0		0	0		0	0
0	0		0	0		0	0
0	0		0	0		0	0
0	0		0	0		0	0
0	0		0	0		0	0
0	0		0	0		0	0
0	0		0	0		0	0
0	0		0	0		0	0
0	0		0	0		0	0
0	0		0	0		0	0
0	0		0	0		0	0
0	0		0	0		0	0
0	0		0	0		0	0
0	11.28		0	0		0	0
0	0		0	0		0	0
0	0		0	0		0	0