From: <u>Ptolemy, Ron WLRS:EX</u>

To: <u>Clare Atkinson</u>

Cc: <u>Tschaplinski, Peter J WLRS:EX</u>; <u>Bobrowski, Russell FOR:EX</u>

Subject: RE: Bella Coola and Dean River **Date:** March 30, 2023 4:51:30 PM

Attachments: <u>image001.pnq</u>

image003.png

Hi Clare!

Sorry for the delay; busy time of year given "March Madness" and other distractions.

Please find a summary table by year and site for the Dean River which includes the most current data to 2022. I would statistically structure the among year contrast model of standardized steelhead fry density (FPU) on Site and Year effects using SAS JMP or R. Some years like 2015 were limited in scope due to a large flood event on our scheduled 2nd day of total population removal estimates at the meso-habitat scale. Other low sample years like 2006 were reconnaissance efforts exploring sampling bias. Year 1988 was a standout year for extremely high steelhead fry abundance with sampling in late August; fry were quite small

Yes there are more data on the Bella Coola River since 2006; surveys of juvenile salmonid abundance have been completed each year to 2022. Adult steelhead counts are sporadic dependent on snorkel survey conditions and road access in March.

For your information (Dean River):

- 1. Obsv FPU is the observed or estimated number of steelhead fry in 100m² Unit;
- 2. WUA is the fraction of sample area usable by steelhead fry using detailed hydraulic characterization and depth-velocity preferences; this should equate to the extent of site width where fry were observed; you will note few sites were ideal;
- 3. Std FPU is simply Obsv FPU/WUA;
- 4. Wt (g) is the mean weight of fry in the site sample; and
- 5. Biomass (g/100m2) is the product of Std FPU times Wt; the empirical upper limit for biomass per Age of steelhead from the aggregate total data for the Dean River is 268 g/100m² per Age.

Best regards,

Ron

Year	Site (km)	Description	Obsv FPU	WUA	Std FPU	Wt (g)	Biomass
2022	4.83	U/S Fisheries Cabin	41	0.56	73	2.57	188
2022	10.12	Hornet	30	0.41	73	2.12	155
2022	15.03	Pats Run	80	0.53	151	1.73	261
2022	18.64	12 Mile (Bridge)	17	0.36	47	2.46	116
2022	21.62	New Anchor Hole	30	0.48	63	2.03	127
2022	23.79	B/W Anchor & Willow	64	0.31	206	2.38	491
2022	27.25	Willow	83	0.82	101	2.44	247
2022	30.8	300m D/S Kalone Creek	97	0.36	269	1.64	442
2022	34.9	3 km U/S Kalone Creek					
2022	38.1	Slide (Omitted for safety reasons)					
2022	41.22	U/S Danny's Upper Camp	55	0.53	104	2.5	259
2022	45.41	d/s Crag CreekHeaven's Gate	79	0.79	100	2.04	204
2022	47.53	3 km u/s Crag Creek	71	0.52	137	2.87	392

2022	54.37	DS Takia	25	0.37	68	2.64	178
2022		Lower Takia River (Takia 1)	50	0.26	192	1.16	223
2022		Takia 2_4km US Junction					
2022	50	D/S Takia 2					
2019	4.83	U/S Fisheries Cabin	71	0.43	165	1.44	238
2019	10.12	Hornet	133	0.82	162	1.78	289
2019	15.03	Pats Run	199	0.38	524	1.6	838
2019	18.64	12 Mile (Bridge)	155	0.77	201	1.86	374
2019	21.62	New Anchor Hole	53	0.61	87	1.63	142
2019	23.79	B/W Anchor & Willow	81	0.64	127	1.45	184
2019 2019	27.25 30.8	Willow 300m D/S Kalone Creek	79 97	0.6 0.36	132 269	1.37 1.64	180 442
2019	34.9	3 km U/S Kalone Creek	3/	0.56	203	1.04	442
2019	38.1	Slide (Omitted for safety reasons)					
2019	41.22	U/S Danny's Upper Camp	160	0.65	246	1.46	359
2019	45.41	d/s Crag CreekHeaven's Gate	234	0.67	349	1.64	573
2019	47.53	3 km u/s Crag Creek					
2019	54.37	DS Takia	50	0.76	66	1.92	126
2019		Lower Takia River (Takia 1)					
2019		Takia 2_4km US Junction					
2019	50	D/S Takia 2					
2018	4.83	U/S Fisheries Cabin	26	0.67	39	1.54	40
2018	10.12	Hornet	20	0.54	37	1.99	40
2018	15.03	Pats Run	76	0.66	115	1.68	128
2018	18.64	12 Mile (Bridge)	58	0.64	91	1.79	104
2018	21.62	New Anchor Hole	35	0.66	53	2.59	91
2018	23.79	B/W Anchor & Willow	94	0.61	153 on	2.12	199
2018 2018	27.25	Willow 300m D/S Kalone Creek	33 105	0.41	80 420	1.77	58 147
2018	34.9	3 km U/S Kalone Creek	82	0.25	96	1.71	147
2018	34.9	Slide (Omitted for safety reasons)	02	0.05	- 56	1./1	140
2018	41.22	U/S Danny's Upper Camp	27	0.47	58	2.72	73
2018	45.41	d/s Crag CreekHeaven's Gate	236	0.47	346	1.37	323
2018	47.53	3 km u/s Crag Creek	80	0.30	263	1.96	157
2018	54.37	DS Takia	99	0.31	322	1.47	146
2018		Lower Takia River (Takia 1)	58	0.69	84	1.15	67
2018		Takia 2_4km US Junction	19	0.35	55	2.46	47
2018	50	D/S Takia 2	111	0.59	188	3.52	391
2017	4.83	U/S Fisheries Cabin	115	0.69	166	1.1	127
2017	10.12	Hornet	173	0.69	250	0.72	125
2017	15.03	Pats Run	55	0.38	144	1.49	82
2017	18.64	12 Mile (Bridge)	96	0.47	206	1.48	142
2017	21.62	New Anchor Hole	134	0.65	205	1.52	204
2017	23.79	B/W Anchor & Willow	82	0.43	190	2.01	165
2017	27.25	Willow	116	0.85	136	1.85	215
2017	30.8	300m D/S Kalone Creek	86	0.59	147	0.97	83
2017	34.9	3 km U/S Kalone Creek	82	0.85	96	1.71	140
2017	38.1	Slide (Omitted for safety reasons)			24.5		
2017	41.22	U/S Danny's Upper Camp	94	0.44	213	1.19	112
2017 2017	45.41 47.53	d/s Crag CreekHeaven's Gate 3 km u/s Crag Creek	205	0.81	254	1.27	260
2017	54.37	DS Takia	92	0.47	197	0.99	91
2017	34.37	Lower Takia River (Takia 1)	32	0.47	157	0.55	51
2017		Takia 2_4km US Junction					
2017	50	D/S Takia 2					
2016							499
	4.83	U/S Fisheries Cabin	186	0.55	339	1.47	
2016		U/S Fisheries Cabin Hornet	186 100	0.55 0.55	339 181	1.47	267
2016	4.83						
2016 2016	4.83 10.12	Hornet	100	0.55	181	1.47	267
2016 2016 2016	4.83 10.12 15.03	Hornet Pats Run	100 70	0.55 0.61	181 115	1.47	267 150
2016 2016 2016 2016	4.83 10.12 15.03 18.64	Hornet Pats Run 12 Mile (Bridge)	100 70 189	0.55 0.61 0.53	181 115 360 87 328	1.47 1.31 1.2	267 150 432
2016 2016 2016 2016 2016 2016 2016	4.83 10.12 15.03 18.64 21.62 23.79 27.25	Hornet Pats Run 12 Mile (Bridge) New Anchor Hole B/W Anchor & Willow Willow	100 70 189 51 192 61	0.55 0.61 0.53 0.59 0.59 0.87	181 115 360 87 328 70	1.47 1.31 1.2 1.93 1.59 1.18	267 150 432 167 521 83
2016 2016 2016 2016 2016 2016 2016 2016	4.83 10.12 15.03 18.64 21.62 23.79 27.25 30.8	Hornet Pats Run 12 Mile (Bridge) New Anchor Hole B/W Anchor & Willow Willow 300m D/S Kalone Creek	100 70 189 51 192	0.55 0.61 0.53 0.59 0.59	181 115 360 87 328	1.47 1.31 1.2 1.93 1.59	267 150 432 167 521
2016 2016 2016 2016 2016 2016 2016 2016	4.83 10.12 15.03 18.64 21.62 23.79 27.25 30.8 34.9	Hornet Pats Run 12 Mile (Bridge) New Anchor Hole B/W Anchor & Willow Willow 300m D/S Kalone Creek 3 km U/S Kalone Creek	100 70 189 51 192 61	0.55 0.61 0.53 0.59 0.59 0.87	181 115 360 87 328 70	1.47 1.31 1.2 1.93 1.59 1.18	267 150 432 167 521 83
2016 2016 2016 2016 2016 2016 2016 2016	4.83 10.12 15.03 18.64 21.62 23.79 27.25 30.8 34.9 38.1	Hornet Pats Run 12 Mile (Bridge) New Anchor Hole B/W Anchor & Willow Willow 300m D/S Kalone Creek 3 km U/S Kalone Creek Slide (Omitted for safety reasons)	100 70 189 51 192 61 51	0.55 0.61 0.53 0.59 0.59 0.87 0.68	181 115 360 87 328 70 75	1.47 1.31 1.2 1.93 1.59 1.18 1.8	267 150 432 167 521 83 135
2016 2016 2016 2016 2016 2016 2016 2016	4.83 10.12 15.03 18.64 21.62 23.79 27.25 30.8 34.9 38.1	Hornet Pats Run 12 Mile (Bridge) New Anchor Hole B/W Anchor & Willow Willow 300m D/S Kalone Creek 3 km U/S Kalone Creek Slide (Omitted for safety reasons) U/S Danny's Upper Camp	100 70 189 51 192 61 51	0.55 0.61 0.53 0.59 0.59 0.87 0.68	181 115 360 87 328 70 75	1.47 1.31 1.2 1.93 1.59 1.18 1.8	267 150 432 167 521 83 135
2016 2016 2016 2016 2016 2016 2016 2016	4.83 10.12 15.03 18.64 21.62 23.79 27.25 30.8 34.9 38.1 41.22 45.41	Hornet Pats Run 12 Mile (Bridge) New Anchor Hole B/W Anchor & Willow Willow 300m D/S Kalone Creek 3 km U/S Kalone Creek Slide (Omitted for safety reasons) U/S Danny's Upper Camp d/s Crag Creek—Heaven's Gate	100 70 189 51 192 61 51 36	0.55 0.61 0.53 0.59 0.59 0.87 0.68	181 115 360 87 328 70 75	1.47 1.31 1.2 1.93 1.59 1.18 1.8	267 150 432 167 521 83 135
2016 2016 2016 2016 2016 2016 2016 2016	4.83 10.12 15.03 18.64 21.62 23.79 27.25 30.8 34.9 38.1 41.22 45.41 47.53	Hornet Pats Run 12 Mile (Bridge) New Anchor Hole B/W Anchor & Willow Willow 300m D/S Kalone Creek 3 km U/S Kalone Creek Slide (Omitted for safety reasons) U/S Danny's Upper Camp d/s Crag Creek—Heaven's Gate 3 km u/s Crag Creek	100 70 189 51 192 61 51 36 61	0.55 0.61 0.53 0.59 0.87 0.68 0.61 0.79 0.54	181 115 360 87 328 70 75 59 77	1.47 1.31 1.2 1.93 1.59 1.18 1.8 1.86 1.25 1.38	267 150 432 167 521 83 135 110 96 254
2016 2016 2016 2016 2016 2016 2016 2016	4.83 10.12 15.03 18.64 21.62 23.79 27.25 30.8 34.9 38.1 41.22 45.41	Hornet Pats Run 12 Mile (Bridge) New Anchor Hole B/W Anchor & Willow Willow 300m D/S Kalone Creek 3 km U/S Kalone Creek Slide (Omitted for safety reasons) U/S Danny's Upper Camp d/s Crag Creek—Heaven's Gate 3 km u/s Crag Creek DS Takia	100 70 189 51 192 61 51 36 61 100 45	0.55 0.61 0.53 0.59 0.59 0.87 0.68 0.61 0.79 0.54 0.34	181 115 360 87 328 70 75 59 77 184	1.47 1.31 1.2 1.93 1.59 1.18 1.8 1.86 1.25 1.38 1.93	267 150 432 167 521 83 135 110 96 254 252
2016 2016 2016 2016 2016 2016 2016 2016	4.83 10.12 15.03 18.64 21.62 23.79 27.25 30.8 34.9 38.1 41.22 45.41 47.53	Hornet Pats Run 12 Mile (Bridge) New Anchor Hole B/W Anchor & Willow Willow 300m D/S Kalone Creek 3 km U/S Kalone Creek Slide (Omitted for safety reasons) U/S Danny's Upper Camp d/s Crag Creek-Heaven's Gate 3 km u/s Crag Creek DS Takia Lower Takia River (Takia 1)	100 70 189 51 192 61 51 36 61	0.55 0.61 0.53 0.59 0.87 0.68 0.61 0.79 0.54	181 115 360 87 328 70 75 59 77	1.47 1.31 1.2 1.93 1.59 1.18 1.8 1.86 1.25 1.38	267 150 432 167 521 83 135 110 96 254
2016 2016 2016 2016 2016 2016 2016 2016	4.83 10.12 15.03 18.64 21.62 23.79 27.25 30.8 34.9 41.22 45.41 47.53 54.37	Hornet Pats Run 12 Mile (Bridge) New Anchor Hole B/W Anchor & Willow Willow 300m D/S Kalone Creek 3 km U/S Kalone Creek Slide (Omitted for safety reasons) U/S Danny's Upper Camp d/s Crag Creek-Heaven's Gate 3 km u/s Crag Creek DS Takia Lower Takia River (Takia 1) Takia 24km US Junction	100 70 189 51 192 61 51 36 61 100 45	0.55 0.61 0.53 0.59 0.59 0.87 0.68 0.61 0.79 0.54 0.34	181 115 360 87 328 70 75 59 77 184	1.47 1.31 1.2 1.93 1.59 1.18 1.8 1.86 1.25 1.38 1.93	267 150 432 167 521 83 135 110 96 254 252
2016 2016 2016 2016 2016 2016 2016 2016	4.83 10.12 15.03 18.64 21.62 23.79 27.25 30.8 34.9 38.1 41.22 45.41 47.53 54.37	Hornet Pats Run 12 Mile (Bridge) New Anchor Hole B/W Anchor & Willow Willow 300m D/S Kalone Creek 3 km U/S Kalone Creek Slide (Omitted for safety reasons) U/S Danny's Upper Camp d/S crag Creek-Heaven's Gate 3 km u/s Crag Creek DS Takia Lower Takia River (Takia 1) Takia 2_4km US Junction D/S Takia 2	100 70 189 51 192 61 51 36 61 100 45	0.55 0.61 0.53 0.59 0.59 0.87 0.68 0.61 0.79 0.54 0.34	181 115 360 87 328 70 75 59 77 184 130	1.47 1.31 1.2 1.93 1.59 1.18 1.8 1.86 1.25 1.38 1.93 1.74	267 150 432 167 521 83 135 110 96 254 252 287
2016 2016 2016 2016 2016 2016 2016 2016	4.83 10.12 15.03 18.64 21.62 23.79 27.25 30.8 34.9 38.1 41.22 45.41 47.53 54.37	Hornet Pats Run 12 Mile (Bridge) New Anchor Hole B/W Anchor & Willow Willow 300m D/S Kalone Creek 3 km U/S Kalone Creek Silde (Omitted for safety reasons) U/S Danny's Upper Camp d/s Crag Creek - Heaven's Gate 3 km u/s Crag Creek DS Takia Lower Takia River (Takia 1) Takia 2 dkm U/S Junction D/S Takia 2 U/S Fisheries Cabin	100 70 189 51 192 61 51 36 61 100 45	0.55 0.61 0.53 0.59 0.59 0.87 0.68 0.61 0.79 0.54 0.34	181 115 360 87 328 70 75 59 77 184 130 165	1.47 1.31 1.2 1.93 1.59 1.18 1.8 1.86 1.25 1.38 1.93	267 150 432 167 521 83 135 110 96 254 252
2016 2016 2016 2016 2016 2016 2016 2016	4.83 10.12 15.03 18.64 21.62 23.79 27.25 30.8 34.9 38.1 41.22 45.41 47.53 54.37	Hornet Pats Run 12 Mile (Bridge) New Anchor Hole B/W Anchor & Willow Willow 300m D/S Kalone Creek 3 km U/S Kalone Creek Side (Omitted for safety reasons) U/S Danny's Upper Camp d/s Crag Creek—Heaven's Gate 3 km u/s Crag Creek DS Takia Lower Takia River (Takia 1) Takia 2_4km US Junction D/S Takia U/S Fisheries Cabin Hornet	100 70 189 51 192 61 51 36 61 100 45	0.55 0.61 0.59 0.59 0.87 0.68 0.61 0.79 0.34 0.41	181 115 360 87 328 70 75 59 77 184 130 165	1.47 1.31 1.2 1.93 1.59 1.18 1.8 1.8 1.86 1.25 1.38 1.93 1.74	267 150 432 167 521 83 135 110 96 254 252 287
2016 2016 2016 2016 2016 2016 2016 2016	4.83 10.12 15.03 18.64 21.62 23.79 27.25 30.8 34.9 38.1 41.22 45.41 47.53 54.37	Hornet Pats Run 12 Mille (Bridge) New Anchor Hole B/W Anchor & Willow Willow 300m D/S Kalone Creek 3 km U/S Kalone Creek Side (Omitted for safety reasons) U/S Danny's Upper Camp d/s Crag Creek-Heaven's Gate 3 km u/s Crag Creek DS Takia Lower Takia River (Takia 1) Takia 2_dkm US Junction D/S Takia 2 U/S Fisheries Cabin Hornet Pats Run	100 70 189 51 192 61 51 36 61 100 45 67	0.55 0.61 0.53 0.59 0.59 0.87 0.68 0.61 0.79 0.54 0.34	181 115 360 87 328 70 75 59 77 184 130 165	1.47 1.31 1.2 1.93 1.59 1.18 1.8 1.86 1.25 1.38 1.93 1.74	267 150 432 167 521 83 135 110 96 254 252 287
2016 2016 2016 2016 2016 2016 2016 2016	4.83 10.12 15.03 18.64 21.62 23.79 27.25 30.8 34.9 38.1 41.22 45.41 47.53 54.37	Hornet Pats Run 12 Mile (Bridge) New Anchor Hole B/W Anchor & Willow Willow 300m D/S Kalone Creek 3 km U/S Kalone Creek Side (Omitted for safety reasons) U/S Danny's Upper Camp d/s Crag Creek—Heaven's Gate 3 km u/s Crag Creek DS Takia Lower Takia River (Takia 1) Takia 2_4km US Junction D/S Takia U/S Fisheries Cabin Hornet	100 70 189 51 192 61 51 51 192 61 51 100 45 67	0.55 0.61 0.53 0.59 0.59 0.87 0.68 0.61 0.79 0.54 0.34 0.41	181 115 360 87 328 70 75 59 77 184 130 165	1.47 1.31 1.2 1.93 1.59 1.18 1.8 1.8 1.86 1.25 1.38 1.93 1.74	267 150 432 167 521 83 135 110 96 254 252 287
2016 2016 2016 2016 2016 2016 2016 2016	4.83 10.12 15.03 18.64 21.62 23.79 27.25 30.8 34.9 38.1 41.22 45.41 47.53 54.37	Hornet Pats Run 12 Mile (Bridge) New Anchor Hole B/W Anchor & Willow Willow 300m D/S Kalone Creek 3 km U/S Kalone Creek Slide (Omitted for safety reasons) U/S Danny's Upper Camp d/S crag Creek-Heaven's Gate 3 km u/s Crag Greek DS Takia Lower Takia River (Takia 1) Takia 2_4km US Junction D/S Takia 2 U/S Fisheries Cabin Hornet Pats Run 12 Mile (Bridge)	100 70 189 51 192 61 51 51 36 61 100 45 67	0.55 0.61 0.53 0.59 0.59 0.87 0.68 0.61 0.79 0.54 0.34 0.41 0.61	181 115 360 87 328 70 75 59 77 184 130 165	1.47 1.31 1.2 1.93 1.59 1.18 1.8 1.86 1.25 1.38 1.93 1.74	267 150 432 167 521 83 135 110 96 254 252 287 235 206 225
2016 2016 2016 2016 2016 2016 2016 2016	4.83 10.12 15.03 18.64 21.62 23.79 27.25 30.8 34.9 38.1 41.22 45.41 47.53 54.37	Hornet Pats Run 12 Mile (Bridge) New Anchor Hole B/W Anchor Millow Willow 300m D/S Kalone Creek 3 km U/S Kalone Creek Slide (Omitted for safety reasons) U/S Danny's Upper Camp d/s Crag Creek—Heaven's Gate 3 km u/s Crag Creek DS Takia Lower Takia River (Takia 1) Takia 2_4km US Junction D/S Takia 2 U/S Fisheries Cabin Hornet Pats Run 12 Mile (Bridge) New Anchor Hole	100 70 189 51 192 61 51 51 36 61 100 45 67	0.55 0.61 0.53 0.59 0.59 0.87 0.68 0.61 0.79 0.54 0.34 0.41 0.61	181 115 360 87 328 70 75 59 77 184 130 165	1.47 1.31 1.2 1.93 1.59 1.18 1.8 1.86 1.25 1.38 1.93 1.74	267 150 432 167 521 83 135 110 96 254 252 287 235 206 225 155
2016 2016 2016 2016 2016 2016 2016 2016	4.83 10.12 15.03 18.64 21.62 23.79 27.25 30.8 34.9 38.1 41.22 45.41 47.53 54.37 50 4.83 10.12 15.03 18.64 21.62 23.79	Hornet Pats Run 12 Mile (Bridge) New Anchor Hole B/W Anchor & Willow Willow 300m D/S Kalone Creek 3 km U/S Kalone Creek Side (Omitted for safety reasons) U/S Danny's Upper Camp d/s Crag Creek-Heaven's Gate 3 km u/s Crag Creek DS Takia Lower Takia River (Takia 1) Takia 2_4km US Junction D/S Takia 2 U/S Fisheries Cabin Hornet Pats Run 12 Mile (Bridge) New Anchor Hole B/W Anchor & Willow	100 70 189 51 192 61 51 51 26 61 100 45 67	0.55 0.61 0.59 0.59 0.87 0.68 0.61 0.79 0.54 0.34 0.41 0.61 0.5 0.52 0.61	181 115 360 87 328 70 75 59 77 184 130 165	1.47 1.31 1.2 1.93 1.59 1.18 1.8 1.86 1.25 1.38 1.93 1.74	267 150 432 167 521 83 135 110 96 254 252 287 235 206 225 155
2016 2016 2016 2016 2016 2016 2016 2016	4.83 10.12 15.03 18.64 21.62 23.79 27.25 30.8 34.9 38.1 41.22 45.41 47.53 54.37 50 4.83 10.12 15.03 18.64 21.62 23.79 4.83	Hornet Pats Run 12 Mile (Bridge) New Anchor Hole B/W Anchor & Willow Willow 300m D/S Kalone Creek 3 km U/S Kalone Creek Side (Omitted for safety reasons) U/S Danny's Upper Camp d/s Crag Creek—Heaven's Gate 3 km u/s Crag Creek DS Takia Lower Takia River (Takia 1) Takia 2_4km US Junction D/S Takia 2 U/S Fisheries Cabin Hornet Pats Run 12 Mile (Bridge) New Anchor Hole B/W Anchor & Willow U/S Fisheries Cabin Hornet Fats Run 17 Mile (Bridge) New Anchor Millow U/S Fisheries Cabin Hornet B/W Anchor & Willow U/S Fisheries Cabin Hornet Pats Run 19 Mile (Bridge) New Anchor & Willow U/S Fisheries Cabin Hornet Pats Run	100 70 189 51 192 61 51 100 45 67 49 54 70 49 74 61 36	0.55 0.61 0.53 0.59 0.59 0.87 0.68 0.61 0.79 0.54 0.34 0.41 0.61 0.5 0.5 0.7 0.7 0.7 0.7	181 1115 360 87 328 70 75 59 77 184 130 165 121 135 108 134 80 96 101 85	1.47 1.31 1.2 1.93 1.59 1.18 1.8 1.86 1.25 1.38 1.93 1.74 1.94 1.94 1.94 1.94 1.94	267 150 432 167 521 83 135 110 96 254 252 287 235 206 225 155
2016 2016 2016 2016 2016 2016 2016 2016	4.83 10.12 15.03 18.64 21.62 23.79 27.25 30.8 34.9 38.1 41.22 45.41 47.53 50 4.83 10.12 15.03 18.64 21.62 23.79 4.83 10.12 15.03 18.64	Hornet Pats Run 12 Mile (Bridge) New Anchor Hole B/W Anchor & Willow Willow 300m D/S Kalone Creek 3 km U/S Kalone Creek Side (Omitted for safety reasons) U/S Danny's Upper Camp d/s Crag Creek-Heaven's Gate 3 km u/s Crag Creek DS Takia Lower Takia River (Takia 1) Takia 2_dkm US Junction D/S Takia 2 U/S Fisheries Cabin Hornet Pats Run 12 Mile (Bridge) New Anchor Hole B/W Anchor & Willow U/S Fisheries Cabin Hornet Pats Run 12 Mile (Bridge) New Anchor & Willow U/S Fisheries Cabin Hornet Pats Run 12 Mile (Bridge)	100 70 189 51 192 61 51 100 45 67 49 54 70 49 74 61 36 49	0.55 0.61 0.59 0.59 0.59 0.87 0.68 0.61 0.79 0.54 0.34 0.41 0.5 0.52 0.61 0.73 0.73 0.73	181 1115 360 87 328 70 75 59 77 184 130 165 121 135 108 134 80 96 101 85 89 73	1.47 1.31 1.2 1.93 1.59 1.18 1.8 1.8 1.25 1.38 1.93 1.74 1.94 1.94 1.94 1.94 1.43 1.54 2.21 1.6	267 150 432 167 521 83 135 110 96 254 252 287 235 206 225 155 144 131 197 117
2016 2016 2016 2016 2016 2016 2016 2016	4.83 10.12 15.03 18.64 21.62 23.79 30.8 34.9 38.1 41.22 45.41 47.53 54.37 50 4.83 10.12 15.03 18.64 21.62 23.79 18.03	Hornet Pats Run 12 Mile (Bridge) New Anchor Hole B/W Anchor & Willow Willow 300m D/S Kalone Creek 3 km U/S Kalone Creek Slide (Omitted for safety reasons) U/S Danny's Upper Camp d/s Crag Creek-Heaven's Gate 3 km u/s Crag Creek DS Takia Lower Takia River (Takia 1) Takia 2_4km US Junction D/S Takia 2 U/S Fisheries Cabin Hornet Pats Run 12 Mile (Bridge) New Anchor Hole B/W Anchor & Willow U/S Fisheries Cabin Hornet Pats Run 12 Mile (Bridge) New Anchor Hole	100 70 189 51 192 61 51 51 51 49 49 54 70 49 74 61 36 61 36 61	0.55 0.61 0.59 0.59 0.59 0.68 0.61 0.79 0.54 0.41 0.61 0.5 0.52 0.61 0.73 0.72 0.4 0.56	181 1115 360 87 328 70 75 59 77 184 130 165 121 135 108 80 96 101 85 89	1.47 1.31 1.2 1.93 1.59 1.18 1.8 1.8 1.85 1.25 1.38 1.74 1.94 1.94 1.94 1.94 1.94 1.94 1.94 1.9	267 150 432 167 521 83 135 110 96 254 252 287 206 225 155 144 131 197 117 243
2016 2016 2016 2016 2016 2016 2016 2016	4.83 10.12 15.03 18.64 21.62 23.79 30.8 34.9 38.1 41.22 45.41 47.53 54.37 50 4.83 10.12 15.03 18.64 21.62 23.79 4.83	Hornet Pats Run 12 Mile (Bridge) New Anchor Hole B/W Anchor & Willow Willow 300m D/S Kalone Creek 3 km U/S Kalone Creek Slide (Omitted for safety reasons) U/S Danny's Upper Camp d/s Crag Creek—Heaven's Gate 3 km u/s Crag Creek DS Takia Lower Takia River (Takia 1) Takia 2_4km US Junction D/S Takia 2 U/S Fisheries Cabin Hornet Pats Run 12 Mile (Bridge) New Anchor Hole B/W Anchor & Willow U/S Fisheries Cabin Hornet Pats Run 12 Mile (Bridge) New Anchor Hole B/W Anchor & Willow New Anchor Hole Pats Run 12 Mile (Bridge) New Anchor Hole Pats Run New Anchor Hole Pats Run New Anchor Hole B/W Anchor & Willow New Anchor Hole B/W Anchor & Willow	100 70 189 51 192 61 51 100 45 67 49 54 70 49 74 61 36 41 36 41	0.55 0.61 0.59 0.59 0.89 0.89 0.68 0.61 0.79 0.54 0.34 0.41 0.61 0.5 0.52 0.61 0.73 0.72 0.4 0.56 0.76	181 1115 360 87 328 70 75 59 77 184 130 165 121 135 108 134 80 96 101 85 89 73 100 64	1.47 1.31 1.2 1.93 1.59 1.18 1.8 1.8 1.86 1.25 1.38 1.93 1.74 1.94 1.94 1.94 1.94 1.94 1.94	267 150 432 167 521 83 135 110 96 254 252 287 206 225 155 144 131 197 117 243 125
2016 2016 2016 2016 2016 2016 2016 2016	4.83 10.12 15.03 18.64 21.62 23.79 30.8 34.9 38.1 41.22 45.41 47.53 54.37 50 4.83 10.12 15.03 18.64 21.62 23.79 4.83 10.12 15.03 18.64 21.62 23.79 23.79 27.25	Hornet Pats Run 12 Mile (Bridge) New Anchor Hole B/W Anchor & Willow Willow 300m D/S Kalone Creek 3 km U/S Kalone Creek Side (Omitted for safety reasons) U/S Danny's Upper Camp d/s Crag Creek-Heaven's Gate 3 km u/s Crag Creek DS Takia Lower Takia River (Takia 1) Takia 2_4km US Junction D/S Takia 2 U/S Fisheries Cabin Hornet Pats Run 12 Mile (Bridge) New Anchor Hole B/W Anchor & Willow U/S Fisheries Cabin Hornet Pats Run 12 Mile (Bridge) New Anchor Hole B/W Anchor & Willow U/S Fisheries Cabin Hornet Pats Run 12 Mile (Bridge) New Anchor Hole B/W Anchor & Willow U/S Fisheries Cabin Hornet Pats Run 12 Mile (Bridge) New Anchor Hole B/W Anchor & Willow U/S Fisheries Cabin	100 70 189 51 192 61 51 51 51 49 49 54 70 49 74 61 36 61 36 61	0.55 0.61 0.59 0.59 0.59 0.68 0.61 0.79 0.54 0.41 0.61 0.5 0.52 0.61 0.73 0.72 0.4 0.56	181 1115 360 87 328 70 75 59 77 184 130 165 121 135 108 80 96 101 85 89	1.47 1.31 1.2 1.93 1.59 1.18 1.8 1.8 1.85 1.25 1.38 1.74 1.94 1.94 1.94 1.94 1.94 1.94 1.94 1.9	267 150 432 167 521 83 135 110 96 254 252 287 206 225 155 144 131 197 117 243 125
2016 2016 2016 2016 2016 2016 2016 2016	4.83 10.12 15.03 18.64 21.62 23.79 27.25 30.8 34.9 38.1 41.22 45.41 47.53 54.37	Hornet Pats Run 12 Mile (Bridge) New Anchor Hole B/W Anchor & Willow Willow 300m D/S Kalone Creek 3 km U/S Kalone Creek Slide (Omitted for safety reasons) U/S Danny's Upper Camp d/s Crag Creek-Heaven's Gate 3 km u/s Crag Creek DS Takia Lower Takia River (Takia 1) Takia 2_4km US Junction D/S Takia 2 U/S Fisheries Cabin Hornet Pats Run 12 Mile (Bridge) New Anchor Hole B/W Anchor & Willow U/S Fisheries Cabin Hornet Pats Run 12 Mile (Bridge) New Anchor Hole B/W Anchor & Willow U/S Fisheries Cabin Hornet Pats Run 12 Mile (Bridge) New Anchor Hole B/W Anchor & Willow U/S Fisheries Cabin Hornet Pats Run 12 Mile (Bridge) New Anchor & Willow Willow New Anchor Hole B/W Anchor & Willow New Anchor Hole B/W Anchor & Willow New Anchor Hole	100 70 70 189 51 192 61 51 51 36 61 100 45 67 49 54 70 49 74 61 36 41 56 49 73	0.55 0.61 0.59 0.59 0.59 0.88 0.61 0.79 0.54 0.41 0.61 0.5 0.52 0.61 0.73 0.72 0.4 0.56 0.76 0.56	181 1115 360 87 328 70 75 59 77 184 130 165 108 134 80 96 101 85 89 100 64 118	1.47 1.31 1.2 1.93 1.59 1.18 1.8 1.8 1.25 1.33 1.74 1.94 1.94 1.94 1.94 1.94 1.94 1.94 1.9	267 150 432 167 521 83 135 110 96 254 252 287 235 206 225 155 144 131 197 117 243 125 248
2016 2016 2016 2016 2016 2016 2016 2016	4.83 10.12 15.03 18.64 21.62 23.79 38.1 41.22 45.41 47.53 54.37 50 4.83 10.12 15.03 18.64 21.62 23.79 4.83 10.12 15.03 18.64 21.62 23.79 27.25 30.8	Hornet Pats Run 12 Mile (Bridge) New Anchor Hole B/W Anchor Millow Willow 300m D/S Kalone Creek 3 km U/S Kalone Creek 3 km U/S Kalone Creek Glide (Omitted for safety reasons) U/S Danny's Upper Camp d/s Crag Creek—Heaven's Gate 3 km u/s Crag Creek DS Takia Lower Takia River (Takia 1) Takia 2_4km US Junction D/S Takia 2 U/S Fisheries Cabin Hornet Pats Run 12 Mile (Bridge) New Anchor Hole B/W Anchor & Willow U/S Fisheries Cabin Hornet Pats Run 12 Mile (Bridge) New Anchor Hole B/W Anchor & Willow U/S Fisheries Cabin Hornet Pats Run 12 Mile (Bridge) New Anchor Millow U/S Fisheries Cabin Hornet Qos Millow 300m D/S Kalone Creek 3 km U/S Kalone Creek	100 70 189 51 192 61 51 100 45 67 49 54 70 49 74 61 36 41 56 49 73	0.55 0.61 0.59 0.59 0.89 0.89 0.61 0.79 0.54 0.34 0.41 0.61 0.73 0.72 0.4 0.73 0.72 0.4 0.56 0.76 0.56 0.76 0.59	181 1115 360 87 328 70 75 59 77 184 130 165 121 135 108 134 80 96 185 89 73 73 74 75 75 76 77 184 185 186 187 187 187 187 187 187 187 187	1.47 1.31 1.2 1.93 1.59 1.18 1.8 1.8 1.8 1.93 1.74 1.91 1.68 1.94 1.91 1.68 1.94 1.91 1.68 1.94 1.91 1.68 1.94 1.91 1.68 1.94	267 150 432 167 521 83 135 110 96 254 252 287 235 206 225 155 144 131 197 117 124 243 243
2016 2016 2016 2016 2016 2016 2016 2016	4.83 10.12 15.03 18.64 21.62 23.79 30.8 34.9 38.1 41.22 45.41 47.53 54.37 50 4.83 10.12 15.03 18.64 21.62 23.79 4.83 10.12 15.03 18.64 21.62 23.79 27.25 30.8	Hornet Pats Run 12 Mile (Bridge) New Anchor Hole B/W Anchor & Willow Willow 300m D/S Kalone Creek 3 km U/S Kalone Creek 3 km U/S Kalone Creek Glide (Omitted for safety reasons) U/S Danny's Upper Camp d/s Crag Creek—Heaven's Gate 3 km u/s Crag Creek DS Takia Lower Takia River (Takia 1) Takia 2_4km US Junction D/S Takia 2 U/S Fisheries Cabin Hornet Pats Run 12 Mile (Bridge) New Anchor Hole B/W Anchor & Willow U/S Fisheries Cabin Hornet Pats Run 12 Mile (Bridge) New Anchor Hole B/W Anchor & Willow U/S Fisheries Cabin Hornet Pats Run 12 Mile (Bridge) New Anchor Hole B/W Anchor & Willow U/S Fisheries Cabin Hornet Pats Run 13 Mile (Bridge) New Anchor Hole B/W Anchor & Willow U/S Fisheries Cabin Hornet Pats Run 13 Mile (Bridge) New Anchor & Willow Willow Willow 300m D/S Kalone Creek Slide	100 70 189 51 192 61 51 51 100 45 67 49 54 70 49 74 61 36 41 56 49 73	0.55 0.61 0.59 0.59 0.87 0.68 0.61 0.79 0.54 0.34 0.41 0.61 0.5 0.52 0.61 0.73 0.72 0.4 0.56 0.76 0.76 0.76 0.76 0.76 0.76 0.77 0.78	181 115 360 87 328 70 75 59 77 184 130 165 121 135 108 134 80 96 101 85 89 73 100 64 118	1.47 1.31 1.2 1.93 1.59 1.18 1.8 1.8 1.8 1.93 1.74 1.94 1.94 1.94 1.94 1.94 1.95 1.94 1.95 1.95 1.96 1.96 1.97 1.98 1.99	267 150 432 167 521 83 135 254 252 287 235 206 225 155 144 197 117 243 125 248
2016 2016 2016 2016 2016 2016 2016 2016	4.83 10.12 15.03 18.64 21.62 23.79 27.25 30.8 34.9 38.1 41.22 45.41 47.53 54.37 50 4.83 10.12 15.03 18.64 21.62 23.79 4.83 10.12 15.03 18.64 21.62 23.79 27.25 30.8 34.9 34.9	Hornet Pats Run 12 Mile (Bridge) New Anchor Hole B/W Anchor & Willow Willow 300m D/S Kalone Creek 3 km U/S Kalone Creek Silde (Omitted for safety reasons) U/S Danny's Upper Camp d/s Crag Creek—Heaven's Gate 3 km u/s Crag Creek DS Takia Lower Takia River (Takia 1) Takia 2_dkm US Junction D/S Takia 2 U/S Fisheries Cabin Hornet Pats Run 12 Mile (Bridge) New Anchor Hole B/W Anchor & Willow U/S Fisheries Cabin Hornet Pats Run 12 Mile (Bridge) New Anchor Hole B/W Anchor & Willow U/S Fisheries Cabin Hornet Pats Run 12 Mile (Bridge) New Anchor & Willow Willow Willow Willow 300m D/S Kalone Creek 3 km U/S Kalone Creek Silde U/S Danny's Upper Camp	100 70 189 51 192 61 51 192 61 51 100 45 67 49 54 70 49 74 61 36 41 56 56 56 56 56 56 56 56 56 56	0.55 0.61 0.59 0.59 0.59 0.68 0.61 0.79 0.54 0.41 0.61 0.5 0.52 0.61 0.73 0.72 0.4 0.56 0.76 0.76 0.76 0.76 0.76 0.77 0.78	181 1115 360 87 328 70 75 59 77 184 130 165 121 135 108 134 80 96 61 101 85 89 60 1122 145	1.47 1.31 1.2 1.93 1.59 1.18 1.8 1.8 1.8 1.93 1.74 1.94 1.94 1.94 1.94 1.94 1.94 1.94 1.9	267 150 432 167 521 83 135 254 252 287 206 225 155 244 131 127 243 125 248
2016 2016 2016 2016 2016 2016 2016 2016	4.83 10.12 15.03 18.64 21.62 23.79 27.25 30.8 34.9 38.1 41.22 45.41 47.53 54.37 50 4.83 10.12 15.03 18.64 21.62 23.79 27.25 30.8 34.9 38.1 41.22 45.41 47.53 54.37	Hornet Pats Run 12 Mile (Bridge) New Anchor Hole B/W Anchor Millow Willow 300m D/S Kalone Creek 3 km U/S Kalone Creek 3 km U/S Kalone Creek Slide (Omitted for safety reasons) U/S Danny's Upper Camp d/s Crag Creek-Heaven's Gate 3 km u/s Crag Creek DS Takia Lower Takia River (Takia 1) Takia 2_4km US Junction D/S Takia 2 U/S Fisheries Cabin Hornet Pats Run 12 Mile (Bridge) New Anchor Hole B/W Anchor & Willow U/S Fisheries Cabin Hornet Pats Run 12 Mile (Bridge) New Anchor Hole B/W Anchor & Willow U/S Fisheries Cabin Hornet Pats Run 12 Mile (Bridge) New Anchor Hole B/W Anchor & Willow U/S Fisheries Cabin Hornet Pats Run 12 Mile (Bridge) New Anchor Hole B/W Anchor & Willow U/S Fisheries Cabin Hornet Pats Run 12 Mile (Bridge) New Anchor Hole B/W Anchor & Willow U/S Fisheries Cabin Hornet Pats Run 12 Mile (Bridge) New Anchor Hole B/W Anchor & Willow U/S Fisheries Cabin Hornet Pats Run 12 Mile (Bridge) New Anchor Hole B/W Anchor & Willow U/S Fisheries Cabin Hornet Pats Run 12 Mile (Bridge) New Anchor Hole B/W Anchor & Willow U/S Fisheries Cabin Hornet Pats Run 12 Mile (Bridge) New Anchor Hole B/W Anchor & Willow U/S Fisheries Cabin Hornet Pats Run 12 Mile (Bridge) New Anchor Hole B/W Anchor & Willow U/S Fisheries Cabin Hornet Pats Run 12 Mile (Bridge) New Anchor Hole	100 70 70 189 51 192 61 51 51 36 61 100 49 54 70 49 74 61 36 41 55 49 73 51 80 36 161	0.55 0.61 0.59 0.59 0.59 0.88 0.61 0.79 0.54 0.34 0.41 0.5 0.52 0.61 0.72 0.4 0.72 0.4 0.56 0.76 0.56 0.76 0.56	181 115 360 87 328 70 75 59 77 184 130 165 121 135 108 80 96 101 85 89 73 100 64 118	1.47 1.31 1.2 1.93 1.59 1.18 1.8 1.8 1.8 1.93 1.74 1.91 1.68 1.94 1.91 1.68 1.94 1.91 1.68 1.94 1.91 1.68 1.94 1.91 1.68 1.94 1.91 1.68 1.94 1.94 1.91 1.68 1.94 1.94 1.91 1.68 1.94 1.94 1.91 1.08 1.94 1.94 1.94 1.94 1.94 1.94 1.94 1.94	267 150 432 167 521 135 135 135 254 252 287 206 225 155 144 131 197 117 243 248 109 153 333 333
2016 2016 2016 2016 2016 2016 2016 2016	4.83 10.12 15.03 18.64 21.62 23.79 30.8 34.9 38.1 41.22 45.41 47.53 54.37 50 4.83 10.12 15.03 18.64 21.62 23.79 27.25 30.8 34.9 4.83 10.12 15.03 18.64 21.62 23.79 27.25 30.8 34.9 38.1 41.22 45.41 47.53 36.8 36.8 36.8 36.8 36.8 36.8 36.8 36.	Hornet Pats Run 12 Mile (Bridge) New Anchor Hole B/W Anchor & Willow Willow Willow 300m D/S Kalone Creek 3 km U/S Kalone Creek Glide (Omitted for safety reasons) U/S Danny's Upper Camp d/s Crag Creek—Heaven's Gate 3 km u/s Crag Creek DS Takia Lower Takia River (Takia 1) Takia 2_4km US Junction D/S Takia 2_U/S Fisheries Cabin Hornet Pats Run 12 Mile (Bridge) New Anchor Hole B/W Anchor & Willow U/S Fisheries Cabin Hornet Pats Run 12 Mile (Bridge) New Anchor Hole B/W Anchor & Willow U/S Fisheries Cabin Hornet Pats Run 13 Mile (Bridge) New Anchor & Willow U/S Fisheries Cabin Hornet Pats Run 13 Mile (Bridge) New Anchor & Willow U/S Fisheries Cabin Hornet Pats Run 13 Mile (Bridge) New Anchor & Willow Willow 300m D/S Kalone Creek 3 km U/S Kalone Creek Slide U/S Danny's Upper Camp d/s Crag Creek—Heaven's Gate 3 km u/s Crag Creek 3 km u/s Crag Creek	100 70 189 51 192 61 51 100 45 67 49 54 70 49 74 61 36 41 36 41 55 56 61 100 45 67	0.55 0.61 0.59 0.59 0.59 0.79 0.68 0.61 0.79 0.54 0.34 0.41 0.61 0.5 0.52 0.61 0.73 0.72 0.4 0.56 0.76 0.62	181 1115 360 87 328 70 75 59 77 184 130 165 121 135 108 134 80 96 101 85 89 73 100 64 118 60 122 145 307 233	1.47 1.31 1.2 1.93 1.59 1.18 1.8 1.86 1.25 1.38 1.93 1.74 1.94 1.91 1.68 1.94 2.21 1.6 2.1 1.82 1.25 1.82 1.25 1.02 1.25	267 150 432 167 521 83 135 254 252 287 235 206 225 155 144 197 117 243 125 248 109 153 358 358 358 358 368 378 378 378 378 378 378 378 378 378 37
2016 2016 2016 2016 2016 2016 2016 2016	4.83 10.12 15.03 18.64 21.62 23.79 27.25 30.8 34.9 38.1 41.22 45.41 47.53 54.37 50 4.83 10.12 15.03 18.64 21.62 23.79 27.25 30.8 34.9 38.1 41.22 45.41 47.53 54.37	Hornet Pats Run 12 Mile (Bridge) New Anchor Hole B/W Anchor Millow Willow 300m D/S Kalone Creek 3 km U/S Kalone Creek 3 km U/S Kalone Creek Slide (Omitted for safety reasons) U/S Danny's Upper Camp d/s Crag Creek-Heaven's Gate 3 km u/s Crag Creek DS Takia Lower Takia River (Takia 1) Takia 2_4km US Junction D/S Takia 2 U/S Fisheries Cabin Hornet Pats Run 12 Mile (Bridge) New Anchor Hole B/W Anchor & Willow U/S Fisheries Cabin Hornet Pats Run 12 Mile (Bridge) New Anchor Hole B/W Anchor & Willow U/S Fisheries Cabin Hornet Pats Run 12 Mile (Bridge) New Anchor Hole B/W Anchor & Willow U/S Fisheries Cabin Hornet Pats Run 12 Mile (Bridge) New Anchor Hole B/W Anchor & Willow U/S Fisheries Cabin Hornet Pats Run 12 Mile (Bridge) New Anchor Hole B/W Anchor & Willow U/S Fisheries Cabin Hornet Pats Run 12 Mile (Bridge) New Anchor Hole B/W Anchor & Willow U/S Fisheries Cabin Hornet Pats Run 12 Mile (Bridge) New Anchor Hole B/W Anchor & Willow U/S Fisheries Cabin Hornet Pats Run 12 Mile (Bridge) New Anchor Hole B/W Anchor & Willow U/S Fisheries Cabin Hornet Pats Run 12 Mile (Bridge) New Anchor Hole B/W Anchor & Willow U/S Fisheries Cabin Hornet Pats Run 12 Mile (Bridge) New Anchor Hole B/W Anchor & Willow U/S Fisheries Cabin Hornet Pats Run 12 Mile (Bridge) New Anchor Hole	100 70 70 189 51 192 61 51 51 36 61 100 49 54 70 49 74 61 36 41 55 49 73 51 80 36 161	0.55 0.61 0.59 0.59 0.59 0.88 0.61 0.79 0.54 0.34 0.41 0.5 0.52 0.61 0.72 0.4 0.72 0.4 0.56 0.76 0.56 0.76 0.56	181 115 360 87 328 70 75 59 77 184 130 165 121 135 108 80 96 101 85 89 73 100 64 118	1.47 1.31 1.2 1.93 1.59 1.18 1.8 1.8 1.8 1.93 1.74 1.91 1.68 1.94 1.91 1.68 1.94 1.91 1.68 1.94 1.91 1.68 1.94 1.91 1.68 1.94 1.91 1.68 1.94 1.94 1.91 1.68 1.94 1.94 1.91 1.68 1.94 1.94 1.91 1.08 1.94 1.94 1.94 1.94 1.94 1.94 1.94 1.94	267 150 432 167 521 135 135 135 254 252 287 206 225 155 144 131 197 117 243 248 109 153 333 333

2011	4.83	U/S Fisheries Cabin	11	0.48	23	1.29	30
2011	10.12	Hornet	105	0.73	126	1	126
2011	15.03	Pats Run	67	0.4	167	0.93	155
2011	18.64	12 Mile (Bridge)	67	0.8	84	0.81	68
2011		New Anchor Hole		0.8	38	1.4	
	21.62		30				53
2011	23.79	B/W Anchor & Willow	115	0.62	184	1.25	230
2011	27.25	Willow	84	0.53	158	0.93	147
2011	30.8	300m D/S Kalone Creek	69	0.4	172	0.86	148
2011	34.9	3 km U/S Kalone Creek	101	0.85	119	0.84	100
2011	38.1	Slide	30	0.2	151	1.25	189
2011	41.22	5.102	41				357
		U/S Danny's Upper Camp		0.25	166	2.15	
2011	45.41	d/s Crag CreekHeaven's Gate	71	0.52	136	1.02	139
2011	47.53	3 km u/s Crag Creek	65	0.45	145	1.2	174
2011	54.37	DS Takia DS Takia	88	0.45	195	1.19	232
2011		Lower Takia River (Takia 1)	96	0.6	160	0.94	150
2011		Takia 2_4km US Junction	101	0.58	174	0.83	144
	4.83	U/S Fisheries Cabin					155
2009			60	0.58	103	1.5	
2009	10.12	Hornet	50	0.43	118	1.25	148
2009	15.03	Pats Run	98	0.4	233	1.28	298
2009	18.64	12 Mile (Bridge)	74	0.47	58	1.32	77
2009	21.62	New Anchor Hole	105	0.7	151	1.6	242
2009	23.79	B/W Anchor & Willow	93	0.57	162	2.05	332
		<u> </u>					
2009	27.25	Willow	44	0.51	85	2.17	184
2009	30.8	300m D/S Kalone Creek	84	0.62	135	1.57	212
2009	34.9	3 km U/S Kalone Creek	67	0.53	127	1.52	193
2009	38.1	Slide	3	0.26	11	1.64	18
2009	41.22	U/S Danny's Upper Camp	70	0.64	109	1.85	202
2009	45.41	d/s Crag CreekHeaven's Gate	82	0.46	178	1.37	244
2009	47.53	3 km u/s Crag Creek	64	0.52	122	1.67	204
2009	54.37	DS Takia	67	0.56	119	1.35	161
2009		Lower Takia River (Takia 1)	131	0.52	252	1.08	272
2009		Takia 2_4km US Junction	53	0.48	111	1.11	123
2008	4.83	U/S Fisheries Cabin	21	0.23	89	1.18	105
2008	10.12	Hornet	40	0.45	89	1.05	93
2008	15.03	Pats Run	28	0.4	69	1.73	119
2008	18.64	12 Mile (Bridge)	31	0.64	48	1.56	75
2008	21.62	New Anchor Hole	58	0.49	118	1.86	219
2008	23.79	B/W Anchor & Willow	16	0.41	40	1.86	74
2008	27.25	Willow	50	0.56	88	1.88	165
2008	30.8	300m D/S Kalone Creek	13	0.4	32	2.42	77
2008	34.9	3 km U/S Kalone Creek	46	0.3	152	1.62	246
2008	38.1	Slide	87	0.3	132	1.73	228
2008	41.22	U/S Danny's Upper Camp	87	0.64	50	1.73	87
2008	45.41	d/s Crag CreekHeaven's Gate	54	0.51	106	1.25	133
2008	47.53	3 km u/s Crag Creek	58	0.44	132	1.56	206
			84				225
2008	54.37	DS Takia		0.51	163	1.38	
2008		Lower Takia River (Takia 1)	76	0.76	101	3.11	314
2008		Takia 2_4km US Junction	15	0.53	29	0.8	23
2006	4.83	U/S Fisheries Cabin	26	0.38	47	2.21	104
2006	10.12	Hornet	71	0.35	198	1.64	325
2006	18.64	12 Mile (Bridge)	64	0.59	104	1.98	206
2006	27.25	Willow	61	0.72	82	1.83	150
2006	45.41	d/s Crag CreekHeaven's Gate	94	0.83	107	2.2	235
2006		Lower Takia River (Takia 1)	66	0.57	113	1.7	192
1988	4.83	U/S Fisheries Cabin	365	0.68	537	0.88	473
1988	10.12	Hornet	119	0.51	239	0.91	217
1988	15.03	Pats Run	143	0.83	178	0.79	141
1988	18.64	12 Mile (Bridge)	234	0.25	330	0.62	205
1988	21.62	New Anchor Hole	318	0.85	374	0.67	251
1988	23.79	B/W Anchor & Willow					
1988	27.25	Willow	323	0.74	436	0.75	327
1988	30.8	300m D/S Kalone Creek					
1988	34.9	3 km U/S Kalone Creek	74	0.43	172	1.36	234
1988		Slide	′•	0.43	1,2	1.50	234
1200							
	38.1						
1988	41.22	U/S Danny's Upper Camp	104	0.67	155	0.63	98
1988 1988	41.22 45.41	U/S Danny's Upper Camp d/s Crag CreekHeaven's Gate	104 302	0.67 0.64	155 472	0.63	98 283
1988	41.22	U/S Danny's Upper Camp					
1988 1988	41.22 45.41	U/S Danny's Upper Camp d/s Crag CreekHeaven's Gate	302	0.64	472	0.6 0.86	283
1988 1988 1988 1988	41.22 45.41 47.53	U/S Danny's Upper Camp d/s Crag CreekHeaven's Gate 3 km u/s Crag Creek DS Takia	302 60 84	0.64 0.43 0.53	472 172 159	0.6 0.86 0.79	283 148 126
1988 1988 1988 1988 1988	41.22 45.41 47.53	U/S Danny's Upper Camp d/s Crag CreekHeaven's Gate 3 km u/s Crag Creek DSTakia Lower Takia River (Takia 1)	302 60 84 250	0.64 0.43 0.53 0.57	472 172 159 439	0.6 0.86 0.79 0.42	283 148 126 184
1988 1988 1988 1988 1988 1988	41.22 45.41 47.53	U/S Danny's Upper Camp d/s Crag CreekHeaven's Gate 3 km u/s Crag Creek DS Takia Lower Takia River (Takia 1) Takia 2_4km US Junction	302 60 84 250 85	0.64 0.43 0.53 0.57 0.6	472 172 159 439 173	0.6 0.86 0.79 0.42 0.55	283 148 126 184 95
1988 1988 1988 1988 1988	41.22 45.41 47.53	U/S Danny's Upper Camp d/s Crag CreekHeaven's Gate 3 km u/s Crag Creek DSTakia Lower Takia River (Takia 1)	302 60 84 250	0.64 0.43 0.53 0.57	472 172 159 439	0.6 0.86 0.79 0.42	283 148 126 184

From: Clare Atkinson <catkinson@PSF.CA>
Sent: Tuesday, March 21, 2023 4:10 PM

To: Ptolemy, Ron WLRS:EX <Ron.Ptolemy@gov.bc.ca>

Subject: Bella Coola and Dean River

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