APPENDICES A AND B

OF THE REPORT TO

THE INTERNATIONAL JOINT COMMISSION

ON

THE DIVISION OF THE WATERS OF

THE ST. MARY AND MILK RIVERS

FOR THE YEAR 2016

Submitted By

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The data contained in these appendices are the culmination of a concerted effort by personnel of the Alberta and Saskatchewan Districts of the Water Survey of Canada, Environment Canada and the United States Geological Survey, Wyoming-Montana Water Science Center.

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APPENDIX A

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Table 6 NATURAL FLOW AND WATER DIVISION OF ST. MARY RIVER AT INTERNATIONAL BOUNDARY

MARCH 2016

QUANTITIES IN CUBIC DECAMETRES

DAY	CHANGE IN CONTENTS OF LAKE SHERBURNE (WITH 1 DAY LAG)	DIVERTED BY ST. MARY CANAL	TOTAL USED BY UNITED STATES	ST.MARY RIVER NATURAL FLOW AT INTERNATIONAL BOUNDARY	AT INTERNATIONAL BOUNDARY	SHARES OF NATURAL FLOW UNITED STATES	CANADA	FLOW IN EXCESS OR DEFICIT (-) OF CANADIAN SHARE
1	93	0	93	475	568	284	284	191
2	127	0	127	467	594	297	297	170
3	157	0	157	465	622	311	311	154
4	157	0	157	453	610	305	305	148
5	95	0	95	438	533	267	266	172
6	159	0	159	435	594	297	297	138
7	223	0	223	440	663	331	332	108
8	159	0	159	431	590	295	295	136
9	242	0	242	433	675	338	337	96
10	159	0	159	470	629	314	315	155
11	374	0	374	497	871	436	435	62
12	210	0	210	506	716	358	358	148
13	328	0	328	560	888	444	444	116
14	362	0	362	599	961	480	481	118
15	382	0	382	624	1 006	503	503	121
S.TOTAL	3 227	0	3 227	7 293	10 520	5 260	5 260	2 033
MEAN	215	0.0	215	486	701	351	351	136
16	301	0	301	648	949	475	474	174
17	284	0	284	678	962	481	481	197
18	303	0	303	705	1 008	504	504	201
19	183	0	183	690	873	436	437	253
20	237	0	237	695	932	466	466	229
21	137	0	137	685	822	411	411	274
22	203	3	206	680	886	443	443	237
23	34	154	188	607	795	398	397	210
24	51	203	254	592	846	423	423	169
25	-171	267	96	592	688	344	344	248
26	-152	269	117	639	756	378	378	261
27	-103	269	166	661	827	413	414	247
28	-152	303	151	668	819	410	409	259
29	-169	423	254	665	919	459	460	205
30	-369	514	145	619	764	382	382	237
31	-318	519	201	744	945	473	472	272
S.TOTAL	299	2 924	3 223	10 568	13 791	6 896	6 895	3 673
MEAN	18.7	183	201	661	862	431	431	230
TOTAL	3 526	2 924	6 450	17 861	24 311	12 156	12 155	5 706
MEAN	114	94.3	208	576	784	392	392	184

APPROVED BY FIELD REPRESENTATIVES FOR THE UNITED STATES AND CANADA

Table 6 (Continued)

NATURAL FLOW AND WATER DIVISION OF ST. MARY RIVER AT INTERNATIONAL BOUNDARY

APRIL 2016

QUANTITIES IN CUBIC DECAMETRES

DAY	CHANGE IN CONTENTS OF LAKE SHERBURNE (WITH 1 DAY LAG)	DIVERTED BY ST. MARY CANAL	TOTAL USED BY UNITED STATES	ST.MARY RIVER NATURAL FLOW AT INTERNATIONAL BOUNDARY	ST.MARY RIVER NATURAL FLOW AT INTERNATIONAL BOUNDARY	SHARES OF NATURAL FLOW UNITED STATES	SHARES OF NATURAL FLOW CANADA	FLOW IN EXCESS OR DEFICIT (-) OF CANADIAN SHARE
1	-367	580	213	761	974	244	730	31
2	-480	695	215	687	902	226	676	11
3	-347	700	353	724	1 077	269	808	-84
4	-374	758	384	702	1 086	272	814	-112
5	49	898	947	658	1 605	401	1 204	-546
6	17	1 145	1 162	619	1 781	483	1 298	-679
7	-744	1 253	509	612	1 121	280	841	-229
8	-558	1 228	670	766	1 436	359	1 077	-311
9	-631	1 233	602	954	1 556	389	1 167	-213
10	-514	1 240	726	1 162	1 888	537	1 351	-189
11	-308	1 238	930	1 385	2 315	750	1 565	-180
12	-404	1 218	814	1 573	2 387	786	1 601	-28
13	-308	1 221	913	1 774	2 687	936	1 751	23
14	-215	1 223	1 008	1 864	2 872	1 029	1 843	21
15	-335	1 231	896	2 087	2 983	1 084	1 899	188
S.TOTAL	-5 519	15 861	10 342	16 328	26 670	8 045	18 625	-2 297
MEAN	-368	1 057	689	1 089	1 778	536	1 242	-153
16	-396	1 226	830	2 158	2 988	1 087	1 901	257
17	-577	1 223	646	2 107	2 753	969	1 784	323
18	-648	1 218	570	2 077	2 647	916	1 731	346
19	-631	1 218	587	2 065	2 652	919	1 733	332
20	-521	1 214	693	2 104	2 797	991	1 806	298
21	-281	1 218	937	2 351	3 288	1 237	2 051	300
22	15	1 221	1 236	2 520	3 756	1 471	2 285	235
23	223	1 236	1 459	2 862	4 321	1 753	2 568	294
24	372	1 233	1 605	3 205	4 810	1 998	2 812	393
25	313	1 228	1 541	3 401	4 942	2 064	2 878	523
26	166	1 228	1 394	3 376	4 770	1 978	2 792	584
27	164	1 226	1 390	3 278	4 668	1 927	2 741	537
28	166	1 221	1 387	3 009	4 396	1 791	2 605	404
29	105	1 214	1 319	2 740	4 059	1 622	2 437	303
30	15	1 204	1 219	2 496	3 715	1 450	2 265	231
S.TOTAL	-1 515	18 328	16 813	39 749	56 562	22 173	34 389	5 360
MEAN	-101	1 222	1 121	2 650	3 771	1 478	2 293	357
TOTAL	-7 034	34 189	27 155	56 077	83 232	30 218	53 014	3 063
MEAN	-234	1 140	905	1 869	2 774	1 007	1 767	102

APPROVED BY FIELD REPRESENTATIVES FOR THE UNITED STATES AND CANADA

Table 6 (Continued)

NATURAL FLOW AND WATER DIVISION OF ST. MARY RIVER AT INTERNATIONAL BOUNDARY

MAY 2016

QUANTITIES IN CUBIC DECAMETRES

DAY	CHANGE IN CONTENTS OF LAKE SHERBURNE (WITH 1 DAY LAG)	DIVERTED BY ST. MARY CANAL	TOTAL USED BY UNITED STATES	ST.MARY RIVER NATURAL FLOW AT INTERNATIONAL BOUNDARY	AT INTERNATIONAL BOUNDARY	SHARES OF NATURAL FLOW UNITED STATES	CANADA	FLOW IN EXCESS OR DEFICIT (-) OF CANADIAN SHARE
1	59	1 194	1 253	2 185	3 438	1 312	2 126	59
2	76	1 199	1 275	1 935	3 210	1 198	2 012	-77
3	61	1 201	1 262	1 784	3 046	1 116	1 930	-146
4	152	1 211	1 363	1 784	3 147	1 166	1 981	-197
5	484	1 214	1 698	1 994	3 692	1 439	2 253	-259
6	930	1 221	2 151	2 361	4 512	1 849	2 663	-302
7	1 018	1 233	2 251	2 642	4 893	2 039	2 854	-212
8	932	1 240	2 172	2 936	5 108	2 147	2 961	-25
9	1 111	1 218	2 329	3 670	5 999	2 592	3 407	263
10	1 813	1 054	2 867	4 037	6 904	3 045	3 859	178
11	1 409	1 006	2 415	3 939	6 354	2 770	3 584	355
12	851	942	1 793	3 743	5 536	2 361	3 175	568
13	844	788	1 632	3 694	5 326	2 256	3 070	624
14	487	675	1 162	3 425	4 587	1 886	2 701	724
15	489	668	1 157	3 058	4 215	1 700	2 515	543
S.TOTAL	10 716	16 064	26 780	43 187	69 967	28 876	41 091	2 096
MEAN	714	1 071	1 785	2 879	4 664	1 925	2 739	140
16	401	661	1 062	2 765	3 827	1 506	2 321	444
17	389	678	1 067	2 544	3 611	1 398	2 213	331
18	372	710	1 082	2 447	3 529	1 357	2 172	275
19	533	712	1 245	2 862	4 107	1 646	2 461	401
20	1 184	719	1 903	3 229	5 132	2 159	2 973	256
21	1 160	729	1 889	3 670	5 559	2 372	3 187	483
22	842	732	1 574	3 841	5 415	2 300	3 115	726
23	886	714	1 600	3 963	5 563	2 374	3 189	774
24	893	580	1 473	4 208	5 681	2 433	3 248	960
25	695	484	1 179	4 233	5 412	2 299	3 113	1 120
26	639	480	1 119	4 208	5 327	2 256	3 071	1 137
27	624	477	1 101	4 257	5 358	2 272	3 086	1 171
28	1 008	470	1 478	4 282	5 760	2 473	3 287	995
29	844	465	1 309	4 110	5 419	2 302	3 117	993
30	538	470	1 008	4 012	5 020	2 103	2 917	1 095
31	541	465	1 006	3 963	4 969	2 077	2 892	1 071
S.TOTAL	11 549	9 546	21 095	58 594	79 689	33 327	46 362	12 232
MEAN	722	597	1 318	3 662	4 981	2 083	2 898	765
TOTAL	22 265	25 610	47 875	101 781	149 656	62 203	87 453	14 328
MEAN	718	826	1 544	3 283	4 828	2 007	2 821	462

APPROVED BY FIELD REPRESENTATIVES FOR THE UNITED STATES AND CANADA

Table 6 (Continued)

NATURAL FLOW AND WATER DIVISION OF ST. MARY RIVER AT INTERNATIONAL BOUNDARY

JUNE 2016

QUANTITIES IN CUBIC DECAMETRES

DAY	CHANGE IN CONTENTS OF LAKE SHERBURNE (WITH 1 DAY LAG)	DIVERTED BY ST. MARY CANAL	TOTAL USED BY UNITED STATES	ST.MARY RIVER NATURAL FLOW AT INTERNATIONAL BOUNDARY	AT INTERNATIONAL BOUNDARY	SHARES OF NATURAL FLOW UNITED STATES	CANADA	FLOW IN EXCESS OR DEFICIT (-) OF CANADIAN SHARE
1	389	462	851	3 817	4 668	1 927	2 741	1 076
2	448	460	908	3 768	4 676	1 931	2 745	1 023
3	761	460	1 221	3 963	5 184	2 185	2 999	964
4	1 101	460	1 561	4 428	5 989	2 587	3 402	1 026
5	1 368	460	1 828	4 869	6 697	2 941	3 756	1 113
6	1 360	514	1 874	5 309	7 183	3 184	3 999	1 310
7	1 292	778	2 070	5 505	7 575	3 380	4 195	1 310
8	1 223	1 057	2 280	5 749	8 029	3 607	4 422	1 327
9	1 289	1 133	2 422	6 190	8 612	3 899	4 713	1 477
10	1 116	1 133	2 249	6 337	8 586	3 886	4 700	1 637
11	849	1 138	1 987	6 116	8 103	3 644	4 459	1 657
12	396	1 138	1 534	5 603	7 137	3 161	3 976	1 627
13	291	1 165	1 456	4 918	6 374	2 780	3 594	1 324
14	-42	1 267	1 225	4 159	5 384	2 285	3 099	1 060
15	252	1 343	1 595	3 572	5 167	2 176	2 991	581
S.TOTAL	12 093	12 968	25 061	74 303	99 364	43 573	55 791	18 512
MEAN	806	865	1 671	4 954	6 624	2 905	3 719	1 234
16	-44	1 426	1 382	3 083	4 465	1 825	2 640	443
17	105	1 458	1 563	2 716	4 279	1 732	2 547	169
18	-374	1 473	1 099	2 310	3 409	1 297	2 112	198
19	-42	1 495	1 453	2 143	3 596	1 391	2 205	-62
20	-252	1 473	1 221	1 918	3 139	1 162	1 977	-59
21	-291	1 475	1 184	1 894	3 078	1 132	1 946	-52
22	-269	1 473	1 204	1 982	3 186	1 186	2 000	-18
23	-538	1 480	942	2 119	3 061	1 123	1 938	181
24	-416	1 500	1 084	2 219	3 303	1 244	2 059	160
25	-391	1 502	1 111	2 354	3 465	1 325	2 140	214
26	-369	1 502	1 133	2 356	3 489	1 337	2 152	204
27	-369	1 502	1 133	2 368	3 501	1 343	2 158	210
28	-350	1 505	1 155	2 344	3 499	1 342	2 157	187
29	-389	1 478	1 089	2 383	3 472	1 329	2 143	240
30	-306	1 468	1 162	2 412	3 574	1 380	2 194	218
S.TOTAL	-4 295	22 210	17 915	34 601	52 516	20 148	32 368	2 233
MEAN	-286	1 481	1 194	2 307	3 501	1 343	2 158	149
TOTAL	7 798	35 178	42 976	108 904	151 880	63 721	88 159	20 745
MEAN	260	1 173	1 433	3 630	5 063	2 124	2 939	692

APPROVED BY FIELD REPRESENTATIVES FOR THE UNITED STATES AND CANADA

Table 6 (Continued)

NATURAL FLOW AND WATER DIVISION OF ST. MARY RIVER AT INTERNATIONAL BOUNDARY

JULY 2016

QUANTITIES IN CUBIC DECAMETRES

DAY	CHANGE IN CONTENTS OF LAKE SHERBURNE (WITH 1 DAY LAG)	DIVERTED BY ST. MARY CANAL	TOTAL USED BY UNITED STATES	ST.MARY RIVER NATURAL FLOW AT INTERNATIONAL BOUNDARY	AT INTERNATIONAL BOUNDARY	SHARES OF NATURAL FLOW UNITED STATES	CANADA	FLOW IN EXCESS OR DEFICIT (-) OF CANADIAN SHARE
1	-61	1 468	1 407	2 437	3 844	1 515	2 329	108
2	-164	1 470	1 306	2 447	3 753	1 469	2 284	163
3	-161	1 473	1 312	2 471	3 783	1 484	2 299	172
4	-164	1 470	1 306	2 398	3 704	1 445	2 259	139
5	-303	1 468	1 165	2 341	3 506	1 346	2 160	181
6	-448	1 468	1 020	2 248	3 268	1 227	2 041	207
7	-343	1 463	1 120	2 114	3 234	1 210	2 024	90
8	-484	1 453	969	1 928	2 897	1 041	1 856	72
9	-462	1 448	986	1 776	2 762	974	1 788	-12
10	-460	1 443	983	1 651	2 634	910	1 724	-73
11	-401	1 451	1 050	1 727	2 777	981	1 796	-69
12	-179	1 446	1 267	1 659	2 926	1 056	1 870	-211
13	-259	1 446	1 187	1 666	2 853	1 019	1 834	-168
14	-279	1 443	1 164	1 620	2 784	985	1 799	-179
15	-416	1 443	1 027	1 637	2 664	925	1 739	-102
S.TOTAL	-4 584	21 853	17 269	30 120	47 389	17 587	29 802	318
MEAN	-306	1 457	1 151	2 008	3 159	1 172	1 987	21.2
16	-475	1 446	971	1 588	2 559	872	1 687	-99
17	-550	1 446	896	1 529	2 425	805	1 620	-91
18	-629	1 441	812	1 475	2 287	736	1 551	-76
19	-665	1 441	776	1 456	2 232	709	1 523	-67
20	-776	1 441	665	1 456	2 121	653	1 468	-12
21	-927	1 441	514	1 441	1 955	570	1 385	56
22	-959	1 443	484	1 468	1 952	569	1 383	85
23	-878	1 446	568	1 510	2 078	632	1 446	64
24	-1 076	1 443	367	1 456	1 823	504	1 319	137
25	-996	1 439	443	1 397	1 840	513	1 327	70
26	-1 006	1 443	437	1 426	1 863	524	1 339	87
27	-996	1 443	447	1 434	1 881	533	1 348	86
28	-1 042	1 441	399	1 436	1 835	510	1 325	111
29	-1 052	1 441	389	1 402	1 791	488	1 303	99
30	-1 037	1 439	402	1 387	1 789	487	1 302	85
31	-1 099	1 431	332	1 324	1 656	421	1 235	89
S.TOTAL	-14 163	23 065	8 902	23 185	32 087	9 526	22 561	624
MEAN	-885	1 442	556	1 449	2 005	595	1 410	39.0
TOTAL	-18 747	44 918	26 171	53 305	79 476	27 113	52 363	942
MEAN	-605	1 449	844	1 720	2 564	875	1 689	30.4

APPROVED BY FIELD REPRESENTATIVES FOR THE UNITED STATES AND CANADA

Table 6 (Continued)

NATURAL FLOW AND WATER DIVISION OF ST. MARY RIVER AT INTERNATIONAL BOUNDARY

AUGUST 2016

QUANTITIES IN CUBIC DECAMETRES

DAY	CHANGE IN CONTENTS OF LAKE SHERBURNE (WITH 1 DAY LAG)	DIVERTED BY ST. MARY CANAL	TOTAL USED BY UNITED STATES	ST.MARY RIVER NATURAL FLOW AT INTERNATIONAL BOUNDARY	AT INTERNATIONAL BOUNDARY	SHARES OF NATURAL FLOW UNITED STATES	CANADA	FLOW IN EXCESS OR DEFICIT (-) OF CANADIAN SHARE
1	-1 103	1 431	328	1 311	1 639	412	1 227	84
2	-1 072	1 429	357	1 245	1 602	400	1 202	43
3	-1 111	1 431	320	1 243	1 563	391	1 172	71
4	-1 243	1 431	188	1 209	1 397	349	1 048	161
5	-1 267	1 426	159	1 157	1 316	329	987	170
6	-1 221	1 424	203	1 099	1 302	326	976	123
7	-1 177	1 439	262	1 125	1 387	347	1 040	85
8	-1 099	1 453	354	1 155	1 509	377	1 132	23
9	-1 189	1 448	259	1 111	1 370	342	1 028	83
10	-1 103	1 451	348	1 157	1 505	376	1 129	28
11	-986	1 451	465	1 162	1 627	407	1 220	-58
12	-1 006	1 453	447	1 140	1 587	397	1 190	-50
13	-998	1 451	453	1 147	1 600	400	1 200	-53
14	-1 003	1 446	443	1 111	1 554	388	1 166	-55
15	-1 067	1 446	379	1 069	1 448	362	1 086	-17
S.TOTAL	-16 645	21 610	4 965	17 441	22 406	5 603	16 803	638
MEAN	-1 110	1 441	331	1 163	1 494	374	1 120	42.5
16	-1 052	1 431	379	1 057	1 436	359	1 077	-20
17	-1 059	1 368	309	1 072	1 381	345	1 036	36
18	-1 032	1 287	255	1 174	1 429	357	1 072	102
19	-981	1 277	296	1 194	1 490	372	1 118	76
20	-971	1 233	262	1 128	1 390	348	1 042	86
21	-922	1 211	289	1 032	1 321	330	991	41
22	-873	1 204	331	974	1 305	326	979	-5
23	-837	1 057	220	915	1 135	284	851	64
24	-827	954	127	886	1 013	253	760	126
25	-680	849	169	905	1 074	268	806	99
26	-634	812	178	864	1 042	260	782	82
27	-553	724	171	856	1 027	257	770	86
28	-700	717	17	766	783	196	587	179
29	-482	714	232	727	959	240	719	8
30	-538	712	174	702	876	219	657	45
31	-548	712	164	683	847	212	635	48
S.TOTAL	-12 689	16 262	3 573	14 935	18 508	4 626	13 882	1 053
MEAN	-793	1 016	223	933	1 157	289	868	65.8
TOTAL	-29 334	37 872	8 538	32 376	40 914	10 229	30 685	1 691
MEAN	-946	1 222	275	1 044	1 320	330	990	54.5

APPROVED BY FIELD REPRESENTATIVES FOR THE UNITED STATES AND CANADA

Table 6 (Continued)

NATURAL FLOW AND WATER DIVISION OF ST. MARY RIVER AT INTERNATIONAL BOUNDARY

SEPTEMBER 2016

QUANTITIES IN CUBIC DECAMETRES

DAY	CHANGE IN CONTENTS OF LAKE SHERBURNE (WITH 1 DAY LAG)	DIVERTED BY ST. MARY CANAL	TOTAL USED BY UNITED STATES	ST.MARY RIVER NATURAL FLOW AT INTERNATIONAL BOUNDARY	ST.MARY RIVER NATURAL FLOW AT INTERNATIONAL BOUNDARY	SHARES OF NATURAL FLOW UNITED STATES	SHARES OF NATURAL FLOW CANADA	FLOW IN EXCESS OR DEFICIT (-) OF CANADIAN SHARE
1	-519	705	186	670	856	214	642	28
2	-614	702	88	656	744	186	558	98
3	-438	697	259	639	898	224	674	-35
4	-614	697	83	612	695	174	521	91
5	-514	697	183	607	790	198	592	15
6	-546	658	112	597	709	177	532	65
7	-389	413	24	776	800	200	600	176
8	-294	262	-32	832	800	200	600	232
9	-130	196	66	839	905	226	679	160
10	154	130	284	881	1 165	291	874	7
11	69	0	69	976	1 045	261	784	192
12	93	0	93	944	1 037	259	778	166
13	259	0	259	900	1 159	290	869	31
14	176	0	176	847	1 023	256	767	80
15	166	0	166	822	988	247	741	81
S.TOTAL	-3 141	5 157	2 016	11 598	13 614	3 403	10 211	1 387
MEAN	-209	344	134	773	908	227	681	92.5
16	142	0	142	810	952	238	714	96
17	142	0	142	798	940	235	705	93
18	228	0	228	822	1 050	262	788	34
19	443	0	443	993	1 436	359	1 077	-84
20	651	0	651	1 211	1 862	524	1 338	-127
21	499	0	499	1 355	1 854	520	1 334	21
22	492	0	492	1 514	2 006	596	1 410	104
23	531	0	531	1 576	2 107	646	1 461	115
24	484	0	484	1 541	2 025	605	1 420	121
25	352	0	352	1 490	1 842	514	1 328	162
26	426	0	426	1 429	1 855	520	1 335	94
27	203	0	203	1 346	1 549	387	1 162	184
28	330	0	330	1 270	1 600	400	1 200	70
29	306	0	306	1 209	1 515	379	1 136	73
30	269	0	269	1 167	1 436	359	1 077	90
S.TOTAL	5 498	0	5 498	18 531	24 029	6 544	17 485	1 046
MEAN	367	0.0	367	1 235	1 602	436	1 166	69.7
TOTAL	2 357	5 157	7 514	30 129	37 643	9 947	27 696	2 433
MEAN	78.6	172	250	1 004	1 255	332	923	81.1

APPROVED BY FIELD REPRESENTATIVES FOR THE UNITED STATES AND CANADA

Table 6 (Continued)

NATURAL FLOW AND WATER DIVISION OF ST. MARY RIVER AT INTERNATIONAL BOUNDARY

OCTOBER 2016

QUANTITIES IN CUBIC DECAMETRES

DAY	CHANGE IN CONTENTS OF LAKE SHERBURNE (WITH 1 DAY LAG)	DIVERTED BY ST. MARY CANAL	TOTAL USED BY UNITED STATES	ST.MARY RIVER NATURAL FLOW AT INTERNATIONAL BOUNDARY	NATURAL FLOW AT INTERNATIONAL BOUNDARY	SHARES OF NATURAL FLOW		FLOW IN EXCESS OR DEFICIT (-) OF CANADIAN SHARE
						UNITED STATES	CANADA	
1	284	0	284	1 111	1 395	349	1 046	65
2	269	0	269	1 072	1 341	335	1 006	66
3	259	0	259	1 015	1 274	318	956	59
4	220	0	220	981	1 201	300	901	80
5	220	0	220	935	1 155	289	866	69
6	223	0	223	905	1 128	282	846	59
7	196	0	196	878	1 074	268	806	72
8	223	0	223	856	1 079	270	809	47
9	328	0	328	917	1 245	311	934	-17
10	675	0	675	1 189	1 864	525	1 339	-150
11	1 309	0	1 309	1 544	2 853	1 019	1 834	-290
12	1 030	0	1 030	1 752	2 782	984	1 798	-46
13	739	0	739	1 862	2 601	893	1 708	154
14	480	0	480	1 999	2 479	832	1 647	352
15	1 209	0	1 209	2 324	3 533	1 359	2 174	150
S.TOTAL	7 664	0	7 664	19 340	27 004	8 334	18 670	670
MEAN	511	0.0	511	1 289	1 800	556	1 245	44.7
16	1 617	0	1 617	2 520	4 137	1 661	2 476	44
17	1 341	0	1 341	2 691	4 032	1 609	2 423	268
18	1 387	0	1 387	2 789	4 176	1 681	2 495	294
19	1 023	0	1 023	2 838	3 861	1 523	2 338	500
20	900	0	900	2 740	3 640	1 413	2 227	513
21	773	0	773	2 667	3 440	1 313	2 127	540
22	658	0	658	2 544	3 202	1 194	2 008	536
23	648	0	648	2 429	3 077	1 131	1 946	483
24	604	0	604	2 354	2 958	1 072	1 886	468
25	533	0	533	2 263	2 796	991	1 805	458
26	413	0	413	2 185	2 598	892	1 706	479
27	477	0	477	2 168	2 645	915	1 730	438
28	930	0	930	2 239	3 169	1 177	1 992	247
29	1 277	0	1 277	2 471	3 748	1 467	2 281	190
30	1 113	0	1 113	2 642	3 755	1 470	2 285	357
31	891	0	891	2 740	3 631	1 408	2 223	517
S.TOTAL	14 585	0	14 585	40 280	54 865	20 917	33 948	6 332
MEAN	912	0.0	912	2 518	3 429	1 307	2 122	396
TOTAL	22 249	0	22 249	59 620	81 869	29 251	52 618	7 002
MEAN	718	0.0	718	1 923	2 641	944	1 697	226

NATURAL FLOW OF ST. MARY RIVER

APPROVED BY:

JOHN KILPATRICK
2020.08.24 11:57:54 -06'00'

FOR THE UNITED STATES

FOR CANADA

Table 7: HISTORICAL SUMMARY OF COMPUTED NATRUAL FLOW ST. MARY AT INTERNATIONAL BOUNDARY

(VALUES IN CUBIC DECAMETRES)

Period	Computed Natural Flow		Share April to October	
	Non - Irrigation Season (Nov to Mar)	Irrigation Season (Apr to Oct)	United States	Canada
1902 - 1903	71,500	1,033,000	434,300	599,100
1903 - 1904	118,900	684,800	270,100	414,700
1904 - 1905	48,260	569,700	212,400	357,300
1905 - 1906	63,640	630,700	236,000	394,700
1906 - 1907	153,100	969,500	402,800	566,700
1907 - 1908	77,020	1,123,000	485,500	637,800
1908 - 1909	80,520	968,900	408,500	560,300
1909 - 1910	108,200	679,700	257,700	422,000
1910 - 1911	120,100	802,800	318,700	484,200
1911 - 1912	72,890	623,900	234,600	389,300
1912 - 1913	85,860	849,600	346,400	503,200
1913 - 1914	72,240	654,100	245,200	409,000
1914 - 1915	103,600	654,100	243,400	410,800
1915 - 1916	135,400	973,300	405,600	567,700
1916 - 1917	72,560	807,400	330,300	477,000
1917 - 1918	112,600	631,300	239,900	391,400
1918 - 1919	61,290	476,500	175,900	300,600
1919 - 1920	75,270	715,400	280,700	434,700
1920 - 1921	88,960	784,700	315,400	469,300
1921 - 1922	79,750	698,000	281,800	416,200
1922 - 1923	58,210	719,400	283,500	435,900
1923 - 1924	63,410	641,600	250,900	390,700
1924 - 1925	96,980	889,000	364,500	524,500
1925 - 1926	60,690	458,700	152,700	306,000
1926 - 1927	92,310	1,154,000	495,100	658,700
1927 - 1928	138,300	905,900	373,400	532,400
1928 - 1929	81,460	527,300	200,300	327,000
1929 - 1930	64,600	660,600	258,100	402,500
1930 - 1931	47,930	461,400	165,500	295,900
1931 - 1932	103,300	636,300	249,700	386,500
1932 - 1933	83,250	793,400	322,000	471,500
1933 - 1934	207,600	775,900	318,000	458,000
1934 - 1935	168,500	576,700	221,500	355,300
1935 - 1936	37,010	511,700	194,400	317,300
1936 - 1937	41,960	617,600	246,800	370,800
1937 - 1938	80,500	705,500	284,000	421,600
1938 - 1939	73,220	497,100	184,700	312,400
1939 - 1940	46,650	449,100	157,700	291,400

Continued ...

Table 7 (continued): HISTORICAL SUMMARY OF COMPUTED NATURAL FLOW
ST. MARY RIVER AT INTERNATIONAL BOUNDARY
(VALUES IN CUBIC DECAMETRES)

Period	Computed Natural Flow		Share April to October	
	Non - Irrigation Season (Nov to Mar)	Irrigation Season (Apr to Oct)	United States	Canada
1940 - 1941	40,510	413,000	135,500	277,500
1941 - 1942	116,300	660,700	255,000	405,700
1942 - 1943	78,160	833,600	343,100	490,500
1943 - 1944	44,830	392,400	131,800	260,600
1944 - 1945	57,320	623,800	246,800	377,000
1945 - 1946	94,750	660,600	255,200	405,400
1946 - 1947	107,100	770,900	303,300	467,600
1947 - 1948	88,050	894,300	378,600	515,700
1948 - 1949	43,690	563,300	210,000	353,200
1949 - 1950	118,600	945,800	395,700	550,200
1950 - 1951	174,400	1,092,000	459,300	632,600
1951 - 1952	102,200	637,800	246,800	391,000
1952 - 1953	77,150	970,700	414,800	556,000
1953 - 1954	77,240	981,700	410,300	571,400
1954 - 1955	97,770	727,400	293,100	434,300
1955 - 1956	109,800	804,700	326,700	478,000
1956 - 1957	73,220	672,600	272,900	399,700
1957 - 1958	72,180	654,600	254,200	400,400
1958 - 1959	115,300	881,600	355,200	526,400
1959 - 1960	117,700	595,700	227,300	368,400
1960 - 1961	72,160	699,100	276,000	423,100
1961 - 1962	74,860	611,000	230,000	381,000
1962 - 1963	122,700	629,900	248,000	381,800
1963 - 1964	54,720	942,300	396,500	545,800
1964 - 1965	83,860	828,000	333,900	494,100
1965 - 1966	87,680	712,100	279,600	432,500
1966 - 1967	81,470	840,500	354,000	486,500
1967 - 1968	116,600	720,900	281,200	439,700
1968 - 1969	97,360	669,700	262,000	407,700
1969 - 1970	66,380	738,700	305,600	433,100
1970 - 1971	83,120	850,900	351,400	499,500
1971 - 1972	106,600	928,700	382,500	546,100
1972 - 1973	67,390	501,800	189,000	312,800
1973 - 1974	130,500	849,900	353,700	496,200
1974 - 1975	50,050	1,024,000	437,100	586,600
1975 - 1976	148,600	716,600	282,600	434,000
1976 - 1977	46,900	406,500	131,300	275,200
1977 - 1978	72,760	766,600	303,500	463,200
1978 - 1979	75,210	611,700	240,200	371,500
1979 - 1980	45,120	680,000	264,900	415,100

Continued ...

Table 7 (continued): HISTORICAL SUMMARY OF COMPUTED NATURAL FLOW
ST. MARY RIVER AT INTERNATIONAL BOUNDARY
(VALUES IN CUBIC DECAMETRES)

	Period			Computed Natural Flow		Share April to October	
				Non - Irrigation Season (Nov to Mar)	Irrigation Season (Apr to Oct)	United States	Canada
	1980	-	1981	134,200	674,700	270,700	404,000
	1981	-	1982	57,200	685,900	274,300	411,600
	1982	-	1983	60,010	517,900	193,800	324,100
	1983	-	1984	83,050	534,200	195,800	338,400
	1984	-	1985	50,470	670,800	254,800	416,000
	1985	-	1986	165,000	589,500	216,000	373,500
	1986	-	1987	86,590	600,800	228,200	372,600
	1987	-	1988	39,370	496,000	182,200	313,800
	1988	-	1989	80,730	775,300	308,400	466,900
	1989	-	1990	196,800	738,300	289,800	448,500
	1990	-	1991	138,000	905,000	381,000	524,000
	1991	-	1992	59,160	478,300	164,400	313,900
	1992	-	1993	75,110	629,700	235,100	394,600
	1993	-	1994	79,800	534,500	202,300	332,200
	1994	-	1995	92,460	877,700	365,200	512,600
	1995	-	1996	234,500	781,800	314,300	467,500
	1996	-	1997	94,070	917,200	378,000	539,100
	1997	-	1998	62,430	631,900	252,300	379,500
	1998	-	1999	60,620	698,100	274,500	423,600
	1999	-	2000	157,900	548,300	203,700	344,500
	2000	-	2001	32,490	417,900	156,300	261,700
	2001	-	2002	69,030	981,100	419,600	561,500
	2002	-	2003	69,690	534,000	201,500	332,500
	2003	-	2004	61,950	639,400	239,500	399,900
	2004	-	2005	119,800	591,500	222,900	368,700
	2005	-	2006	106,200	657,300	263,100	394,200
	2006	-	2007	233,900	501,700	183,900	317,800
	2007	-	2008	69,840	796,000	331,400	464,600
	2008	-	2009	56,750	547,900	207,600	340,300
	2009	-	2010	74,750	724,700	286,300	438,400
	2010	-	2011	105,800	936,600	394,800	541,800
	2011	-	2012	76,090	783,300	320,700	462,600
	2012	-	2013	154,200	698,400	273,800	424,600
	2013	-	2014	68,970	884,700	367,700	517,000
	2014	-	2015	201,500	460,800	165,600	295,100
	2015	-	2016	119,800	624,700	232,700	392,000
AVERAGE	1903	-	2015	91,800	709.500	281,700	427,800

Table 8:

Summary of Daily Net Change, Natural Flow, Evaporative and Net Consumptive Uses of Milk River at Eastern Crossing of International Boundary March, 2016

Date at Eastern Crossing	Natural Flow at Western Crossing	East to West Net Change	Incremental Evaporative Trans. Loss	Total Consumptive Use		Natural Flow at Eastern Crossing	Share		Excess / Deficit to U.S.	Cumulative Excess / Deficit to U.S.
				U.S.	Canada		U.S.	Canada		
	C9,T2	C10,T2	C8,T4	C3,T3	C8,T3				(9-6)	
1	2	3	4	5	6	7	8	9	10	11
Accumulated deficit including carry over from previous division period										#N/A
Note: Eligible June 01 to September 15 accumulated carry over is 4900 dam^3 (2000 cfs-days).										
Mar 01	0.0	-	4.1	0.0	0.0	159.0	79.5	79.5	79.5	79.5
Mar 02	0.0	-	5.5	0.0	0.0	171.3	85.6	85.7	85.7	165.2
Mar 03	0.0	-	8.0	0.0	0.0	195.7	97.8	97.9	97.9	263.1
Mar 04	0.0	-	8.8	0.0	0.0	220.2	110.1	110.1	110.1	373.2
Mar 05	0.0	-	11.6	0.0	0.0	244.7	122.4	122.3	122.3	495.5
Mar 06	101.6	-	4.1	0.0	0.0	232.4	116.2	116.2	116.2	611.7
Mar 07	79.1	-	5.2	0.0	0.0	220.2	110.1	110.1	110.1	721.8
Mar 08	86.0	-	4.6	0.0	0.0	244.7	122.4	122.3	122.3	844.1
Mar 09	94.3	-	4.6	0.0	0.0	264.2	132.1	132.1	132.1	976.2
Mar 10	117.9	-	4.1	0.0	0.0	239.8	119.9	119.9	119.9	1096.1
Mar 11	115.1	-	4.1	0.0	0.0	225.1	112.6	112.5	112.5	1208.6
Mar 12	121.8	-	2.9	0.0	0.0	215.3	107.6	107.7	107.7	1316.3
Mar 13	119.9	-	3.0	0.0	0.0	198.2	99.1	99.1	99.1	1415.4
Mar 14	113.1	-	3.0	0.0	0.0	183.5	91.8	91.7	91.7	1507.1
Mar 15	112.0	-	1.0	0.0	0.0	178.6	89.3	89.3	89.3	1596.4
15 day Total	*1060.8*	*0.0*	*74.6*	*0.0*	*0.0*	*3192.9*	*1596.5*	*1596.4*	*1596.4*	
Accumulated deficit including carry over from previous division period										#N/A
Note: Eligible June 01 to September 15 accumulated carry over is 4900 dam^3 (2000 cfs-days).										
Mar 16	109.6	-	2.0	0.0	0.0	173.7	86.8	86.9	86.9	86.9
Mar 17	108.6	-	0.9	0.0	0.0	163.9	82.0	81.9	81.9	168.8
Mar 18	114.3	-	0.7	0.0	0.0	161.5	80.8	80.7	80.7	249.5
Mar 19	123.4	-	0.7	0.0	0.0	161.5	80.8	80.7	80.7	330.2
Mar 20	119.8	-	0.7	0.0	0.0	149.2	74.6	74.6	74.6	404.8
Mar 21	112.3	-	1.8	0.0	0.0	168.8	84.4	84.4	84.4	489.2
Mar 22	124.3	-	0.3	0.0	0.0	159.0	79.5	79.5	79.5	568.7
Mar 23	122.7	-	0.4	0.0	0.0	159.0	79.5	79.5	79.5	648.2
Mar 24	121.7	-	0.6	0.0	0.0	163.9	82.0	81.9	81.9	730.1
Mar 25	121.6	-	0.3	0.0	0.0	159.0	79.5	79.5	79.5	809.6
Mar 26	118.5	-	0.6	0.0	0.0	156.6	78.3	78.3	78.3	887.9
Mar 27	119.2	-	0.8	0.0	0.0	161.5	80.8	80.7	80.7	968.6
Mar 28	122.8	-	0.3	0.0	0.0	163.9	82.0	81.9	81.9	1050.5
Mar 29	123.0	-	0.7	0.0	0.0	176.2	88.1	88.1	88.1	1138.6
Mar 30	131.7	-116.2	3.4	0.0	0.0	18.9	9.4	9.5	9.5	1148.1
Mar 31	130.9	-288.6	6.0	0.0	0.0	0.0	0.0	0.0	0.0	1148.1
16 day Total	*1924.4*	*-404.8*	*20.2*	*0.0*	*0.0*	*2296.6*	*1148.5*	*1148.1*	*1148.1*	
Accumulated deficit including carry over from previous division period										#N/A
Note: Eligible June 01 to September 15 accumulated carry over is 4900 dam^3 (2000 cfs-days).										
Mar Totals	*2985.2*	*-404.8*	*94.8*	*0.0*	*0.0*	*5489.5*	*2745.0*	*2744.5*	*2744.5*	

All figures in cubic decametres.

Five day lag period is applied between west and east to determine natural flow at Eastern Crossing.

Grey areas indicate natural flow equal to the recorded flow at the gauge (11AA031) Milk River at Eastern Crossing plus United States and Canadian consumptive use.

APPROVED BY THE FIELD REPRESENTATIVES OF CANADA AND THE UNITED STATES

Table 8 (Continued) Summary of Daily

Net Change, Natural Flow, Evaporative and Net Consumptive Uses of Milk River at Eastern Crossing of International Boundary

April, 2016

Date at Eastern Crossing	Natural Flow at Western Crossing	East to West Net Change	Incremental Evaporative Trans. Loss	Total Consumptive Use		Natural Flow at Eastern Crossing	Share		Excess / Deficit to U.S.	Cumulative Excess / Deficit to U.S.
				U.S.	Canada		U.S.	Canada		
	C9,T2	C10,T2	C8,T4	C3,T3	C8,T3				(9-6)	
1	2	3	4	5	6	7	8	9	10	11
Accumulated deficit including carry over from previous division period										#N/A
Note: Eligible June 01 to September 15 accumulated carry over is 4900 dam^3 (2000 cfs-days).										
Apr 01	126.0	-175.1	15.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Apr 02	128.9	-122.1	19.6	0.0	0.0	26.4	19.8	6.6	6.6	6.6
Apr 03	135.9	-163.3	24.1	0.0	0.0	0.0	0.0	0.0	0.0	6.6
Apr 04	138.2	-284.5	17.1	0.0	0.0	0.0	0.0	0.0	0.0	6.6
Apr 05	165.8	-223.1	16.1	0.0	0.0	0.0	0.0	0.0	0.0	6.6
Apr 06	188.8	-157.6	22.1	0.0	0.0	53.3	40.0	13.3	13.3	19.9
Apr 07	221.8	-133.5	22.5	0.0	0.0	110.8	83.1	27.7	27.7	47.6
Apr 08	208.5	-179.1	25.0	0.0	0.0	54.4	40.8	13.6	13.6	61.2
Apr 09	188.7	-204.4	34.7	0.0	0.0	19.0	14.2	4.8	4.8	66.0
Apr 10	195.5	-174.8	29.0	0.0	0.0	49.7	37.3	12.4	12.4	78.4
Apr 11	193.6	-59.7	31.9	0.0	0.0	165.8	124.4	41.4	41.4	119.8
Apr 12	180.0	-177.5	41.0	0.0	0.0	43.5	32.6	10.9	10.9	130.7
Apr 13	165.6	-291.6	26.4	0.0	0.0	0.0	0.0	0.0	0.0	130.7
Apr 14	154.5	-208.8	9.9	0.0	0.0	0.0	0.0	0.0	0.0	130.7
Apr 15	145.5	558.7	15.5	0.0	0.0	719.7	539.8	179.9	179.9	310.6
15 day Total	*2537.3*	*-1996.4*	*350.5*	*0.0*	*0.0*	*1242.6*	*932.0*	*310.6*	*310.6*	
Accumulated deficit including carry over from previous division period										#N/A
Note: Eligible June 01 to September 15 accumulated carry over is 4900 dam^3 (2000 cfs-days).										
Apr 16	139.4	108.5	44.0	0.0	0.0	291.9	218.9	73.0	73.0	73.0
Apr 17	134.8	-207.5	42.3	0.0	0.0	0.0	0.0	0.0	0.0	73.0
Apr 18	130.5	-298.7	41.9	0.0	0.0	0.0	0.0	0.0	0.0	73.0
Apr 19	128.8	-277.4	44.7	0.0	0.0	0.0	0.0	0.0	0.0	73.0
Apr 20	163.5	-318.1	43.3	0.0	0.0	0.0	0.0	0.0	0.0	73.0
Apr 21	176.5	-335.3	46.9	0.0	0.0	0.0	0.0	0.0	0.0	73.0
Apr 22	196.5	-279.7	36.9	0.0	0.0	0.0	0.0	0.0	0.0	73.0
Apr 23	211.4	-201.4	30.7	0.0	0.0	40.7	30.5	10.2	10.2	83.2
Apr 24	199.6	-170.0	11.0	0.0	0.0	40.6	30.4	10.2	10.2	93.4
Apr 25	181.3	-150.8	11.2	0.0	0.0	41.7	31.3	10.4	10.4	103.8
Apr 26	159.9	-21.7	11.8	0.0	0.0	150.0	112.5	37.5	37.5	141.3
Apr 27	139.0	-32.8	10.4	0.0	0.0	116.6	87.4	29.2	29.2	170.5
Apr 28	126.6	47.8	38.8	0.0	0.0	213.2	159.9	53.3	53.3	223.8
Apr 29	128.6	51.9	20.8	0.0	0.0	201.3	151.0	50.3	50.3	274.1
Apr 30	129.3	46.8	30.7	0.0	0.0	206.8	155.1	51.7	51.7	325.8
15 day Total	*2345.7*	*-2038.4*	*465.4*	*0.0*	*0.0*	*1302.8*	*977.0*	*325.8*	*325.8*	
Accumulated deficit including carry over from previous division period										#N/A
Note: Eligible June 01 to September 15 accumulated carry over is 4900 dam^3 (2000 cfs-days).										
Apr Totals	*4883.0*	*-4034.8*	*815.9*	*0.0*	*0.0*	*2545.4*	*1909.0*	*636.4*	*636.4*	

All figures in cubic decametres.

Five day lag period is applied between west and east to determine natural flow at Eastern Crossing.

APPROVED BY THE FIELD REPRESENTATIVES OF CANADA AND THE UNITED STATES

Table 8 (Continued) Summary of Daily
Net Change, Natural Flow, Evaporative and Net Consumptive Uses of Milk River at Eastern Crossing of International Boundary
May, 2016

Date at Eastern Crossing	Natural Flow at Western Crossing	East to West Net Change	Incremental Evaporative Trans. Loss	Total Consumptive Use		Natural Flow at Eastern Crossing	Share		Excess / Deficit to U.S.	Cumulative Excess / Deficit to U.S.
				U.S.	Canada		U.S.	Canada		
	C9,T2	C10,T2	C8,T4	C3,T3	C8,T3				(9-6)	
1	2	3	4	5	6	7	8	9	10	11
Accumulated deficit including carry over from previous division period										#N/A
Note: Eligible June 01 to September 15 accumulated carry over is 4900 dam^3 (2000 cfs-days).										
May 01	134.4	22.8	49.9	0.0	0.0	207.1	155.3	51.8	51.8	51.8
May 02	133.5	-36.2	53.6	0.0	0.0	150.9	113.2	37.7	37.7	89.5
May 03	133.8	-79.9	59.9	0.0	0.0	113.8	85.4	28.4	28.4	117.9
May 04	129.6	-99.6	60.5	0.0	0.0	90.5	67.9	22.6	22.6	140.5
May 05	127.0	-126.5	58.3	0.0	0.0	58.8	44.1	14.7	14.7	155.2
May 06	129.3	-174.7	52.1	0.0	0.0	6.7	5.0	1.7	1.7	156.9
May 07	125.3	-184.6	55.3	0.0	0.0	0.0	0.0	0.0	0.0	156.9
May 08	119.9	-190.5	62.5	0.0	0.0	0.0	0.0	0.0	0.0	156.9
May 09	107.3	-174.3	18.3	0.0	0.0	0.0	0.0	0.0	0.0	156.9
May 10	97.6	-152.6	17.9	0.0	0.0	0.0	0.0	0.0	0.0	156.9
May 11	97.5	-64.0	53.2	0.0	0.0	86.7	65.0	21.7	21.7	178.6
May 12	90.0	-36.8	15.1	0.0	0.0	68.3	51.2	17.1	17.1	195.7
May 13	86.0	19.2	44.6	0.0	0.0	149.8	112.4	37.4	37.4	233.1
May 14	97.7	-96.8	51.7	0.0	0.0	52.6	39.4	13.2	13.2	246.3
May 15	104.4	-186.9	50.5	0.0	0.0	0.0	0.0	0.0	0.0	246.3
15 day Total	*1713.3*	*-1561.4*	*703.4*	*0.0*	*0.0*	*985.2*	*738.9*	*246.3*	*246.3*	
Accumulated deficit including carry over from previous division period										#N/A
Note: Eligible June 01 to September 15 accumulated carry over is 4900 dam^3 (2000 cfs-days).										
May 16	115.5	-1.2	53.5	100.2	61.3	329.3	247.0	82.3	21.0	21.0
May 17	171.2	-101.0	49.3	100.2	61.3	281.0	210.8	70.2	8.9	29.9
May 18	195.1	-205.1	34.9	100.2	61.3	186.4	139.8	46.6	-14.7	15.2
May 19	194.5	-125.6	27.8	100.2	61.3	258.2	193.6	64.6	3.3	18.5
May 20	213.7	-21.7	7.2	100.2	61.3	360.7	270.5	90.2	28.9	47.4
May 21	209.8	186.6	9.0	100.2	61.3	566.9	425.2	141.7	80.4	127.8
May 22	173.0	257.4	23.1	100.2	61.3	615.0	461.2	153.8	92.5	220.3
May 23	144.9	290.3	21.9	100.2	61.3	618.6	464.0	154.6	93.3	313.6
May 24	126.2	488.2	25.7	100.2	61.3	801.6	601.2	200.4	139.1	452.7
May 25	136.1	423.4	40.2	100.2	61.3	761.2	570.9	190.3	129.0	581.7
May 26	150.4	378.4	43.5	100.2	61.3	733.8	550.3	183.5	122.2	703.9
May 27	159.8	393.9	31.5	100.2	61.3	746.7	560.0	186.7	125.4	829.3
May 28	240.0	325.0	39.9	100.2	61.3	766.4	574.8	191.6	130.3	959.6
May 29	268.8	143.5	32.9	100.2	61.3	606.7	455.0	151.7	90.4	1050.0
May 30	263.0	64.6	12.7	100.2	61.3	501.8	376.4	125.4	64.1	1114.1
May 31	243.7	102.7	17.7	100.2	61.3	525.6	394.2	131.4	70.1	1184.2
16 day Total	*3005.7*	*2599.4*	*470.8*	*1603.2*	*980.8*	*8659.9*	*6494.9*	*2165.0*	*1184.2*	
Accumulated deficit including carry over from previous division period										#N/A
Note: Eligible June 01 to September 15 accumulated carry over is 4900 dam^3 (2000 cfs-days).										
May Totals	*4719.0*	*1038.0*	*1174.2*	*1603.2*	*980.8*	*9645.1*	*7233.8*	*2411.3*	*1430.5*	

All figures in cubic decametres.

Five day lag period is applied between west and east to determine natural flow at Eastern Crossing.

APPROVED BY THE FIELD REPRESENTATIVES OF CANADA AND THE UNITED STATES

Table 8 (Continued) Summary of Daily
Net Change, Natural Flow, Evaporative and Net Consumptive Uses of Milk River at Eastern Crossing of International Boundary
June, 2016

Date at Eastern Crossing	Natural Flow at Western Crossing	East to West Net Change	Incremental Evaporative Trans. Loss	Total Consumptive Use		Natural Flow at Eastern Crossing	Share		Excess / Deficit to U.S.	Cumulative Excess / Deficit to U.S.
				U.S.	Canada		U.S.	Canada		
	C9,T2	C10,T2	C8,T4	C3,T3	C8,T3				(9-6)	
1	2	3	4	5	6	7	8	9	10	11
Accumulated deficit including carry over from previous division period										#N/A
Note: Eligible June 01 to September 15 accumulated carry over is 4900 dam^3 (2000 cfs-days).										
Jun 01	215.7	119.4	31.5	100.2	63.9	530.7	398.0	132.7	68.8	68.8
Jun 02	183.8	118.5	33.1	100.2	63.9	499.5	374.6	124.9	61.0	129.8
Jun 03	183.1	105.2	45.1	100.2	63.9	497.5	373.1	124.4	60.5	190.3
Jun 04	169.7	57.6	43.4	100.2	63.9	434.8	326.1	108.7	44.8	235.1
Jun 05	150.9	24.2	43.6	100.2	63.9	382.8	287.1	95.7	31.8	266.9
Jun 06	139.2	12.8	40.8	100.2	63.9	356.9	267.7	89.2	25.3	292.2
Jun 07	137.1	-18.9	44.0	100.2	63.9	326.3	244.7	81.6	17.7	309.9
Jun 08	127.6	-32.5	39.3	100.2	63.9	298.5	223.9	74.6	10.7	320.6
Jun 09	112.7	12.2	46.2	100.2	63.9	335.2	251.4	83.8	19.9	340.5
Jun 10	101.3	-68.2	41.3	100.2	63.9	238.5	178.9	59.6	-4.3	336.2
Jun 11	90.4	-3.9	22.1	100.2	63.9	272.7	204.5	68.2	4.3	340.5
Jun 12	82.3	-95.6	55.3	100.2	63.9	206.1	154.6	51.5	-12.4	328.1
Jun 13	75.8	-44.1	59.0	100.2	63.9	254.8	191.1	63.7	-0.2	327.9
Jun 14	81.5	-108.5	62.9	100.2	63.9	200.0	150.0	50.0	-13.9	314.0
Jun 15	66.5	-170.3	66.8	100.2	63.9	127.1	95.3	31.8	-32.1	281.9
15 day Total	*1917.6*	*-92.1*	*674.4*	*1503.0*	*958.5*	*4961.4*	*3721.0*	*1240.4*	*281.9*	
Accumulated deficit including carry over from previous division period										#N/A
Note: Eligible June 01 to September 15 accumulated carry over is 4900 dam^3 (2000 cfs-days).										
Jun 16	72.3	-200.2	54.8	14.7	24.2	0.0	0.0	0.0	-24.2	-24.2
Jun 17	68.9	-209.3	66.6	14.7	24.2	0.0	0.0	0.0	-24.2	-48.4
Jun 18	69.2	-125.9	44.6	14.7	24.2	26.8	20.1	6.7	-17.5	-65.9
Jun 19	70.2	-75.3	75.4	14.7	24.2	109.2	81.9	27.3	3.1	-62.8
Jun 20	70.9	-131.2	74.9	14.7	24.2	53.5	40.1	13.4	-10.8	-73.6
Jun 21	67.3	-161.1	43.1	14.7	24.2	0.0	0.0	0.0	-24.2	-97.8
Jun 22	59.5	-156.6	83.8	14.7	24.2	25.6	19.2	6.4	-17.8	-115.6
Jun 23	54.4	-103.5	75.2	14.7	24.2	65.0	48.8	16.2	-8.0	-123.6
Jun 24	52.9	-223.8	59.8	14.7	24.2	0.0	0.0	0.0	-24.2	-147.8
Jun 25	47.3	-186.4	59.1	14.7	24.2	0.0	0.0	0.0	-24.2	-172.0
Jun 26	48.8	-203.2	69.3	14.7	24.2	0.0	0.0	0.0	-24.2	-196.2
Jun 27	48.1	-194.4	84.3	14.7	24.2	0.0	0.0	0.0	-24.2	-220.4
Jun 28	41.1	-205.6	77.2	14.7	24.2	0.0	0.0	0.0	-24.2	-244.6
Jun 29	38.2	-238.0	90.1	14.7	24.2	0.0	0.0	0.0	-24.2	-268.8
Jun 30	41.5	-318.0	85.9	14.7	24.2	0.0	0.0	0.0	-24.2	-293.0
15 day Total	*850.6*	*-2732.5*	*1044.1*	*220.5*	*363.0*	*280.1*	*210.1*	*70.0*	*-293.0*	
Accumulated deficit including carry over from previous division period										-293.0
Note: Eligible June 01 to September 15 accumulated carry over is 4900 dam^3 (2000 cfs-days).										
Jun Totals	*2768.2*	*-2824.6*	*1718.5*	*1723.5*	*1321.5*	*5241.5*	*3931.1*	*1310.4*	*-11.1*	

All figures in cubic decametres.

Five day lag period is applied between west and east to determine natural flow at Eastern Crossing.

APPROVED BY THE FIELD REPRESENTATIVES OF CANADA AND THE UNITED STATES

Table 8 (Continued) Summary of Daily
Net Change, Natural Flow, Evaporative and Net Consumptive Uses of Milk River at Eastern Crossing of International Boundary
July, 2016

Date at Eastern Crossing	Natural Flow at Western Crossing	East to West Net Change	Incremental Evaporative Trans. Loss	Total Consumptive Use		Natural Flow at Eastern Crossing	Share		Excess / Deficit to U.S.	Cumulative Excess / Deficit to U.S.
				U.S.	Canada		U.S.	Canada		
	C9,T2	C10,T2	C8,T4	C3,T3	C8,T3				(9-6)	
1	2	3	4	5	6	7	8	9	10	11
Accumulated deficit including carry over from previous division period										-293.0
Note: Eligible June 01 to September 15 accumulated carry over is 4900 dam^3 (2000 cfs-days).										
Jul 01	34.4	236.8	98.4	26.8	44.1	440.5	330.4	110.1	66.0	66.0
Jul 02	33.7	-264.8	88.4	26.8	44.1	0.0	0.0	0.0	-44.1	21.9
Jul 03	32.8	-293.1	100.3	26.8	44.1	0.0	0.0	0.0	-44.1	-22.2
Jul 04	37.3	-314.5	89.1	26.8	44.1	0.0	0.0	0.0	-44.1	-66.3
Jul 05	42.1	-278.4	75.8	26.8	44.1	0.0	0.0	0.0	-44.1	-110.4
Jul 06	35.2	-247.6	30.9	26.8	44.1	0.0	0.0	0.0	-44.1	-154.5
Jul 07	31.6	-243.4	75.2	26.8	44.1	0.0	0.0	0.0	-44.1	-198.6
Jul 08	31.0	-228.8	45.8	26.8	44.1	0.0	0.0	0.0	-44.1	-242.7
Jul 09	28.3	-184.8	81.8	26.8	44.1	0.0	0.0	0.0	-44.1	-286.8
Jul 10	28.0	-169.3	53.7	26.8	44.1	0.0	0.0	0.0	-44.1	-330.9
Jul 11	27.8	-137.1	36.4	26.8	44.1	0.0	0.0	0.0	-44.1	-375.0
Jul 12	30.0	32.8	67.5	26.8	44.1	201.2	150.9	50.3	6.2	-368.8
Jul 13	30.4	-122.6	52.8	26.8	44.1	31.5	23.6	7.9	-36.2	-405.0
Jul 14	30.0	-184.9	76.2	26.8	44.1	0.0	0.0	0.0	-44.1	-449.1
Jul 15	27.1	-62.6	75.7	26.8	44.1	111.1	83.3	27.8	-16.3	-465.4
15 day Total	*479.7*	*-2462.3*	*1048.0*	*402.0*	*661.5*	*784.3*	*588.2*	*196.1*	*-465.4*	
Accumulated deficit including carry over from previous division period										-758.4
Note: Eligible June 01 to September 15 accumulated carry over is 4900 dam^3 (2000 cfs-days).										
Jul 16	37.1	-169.3	44.8	26.8	44.1	0.0	0.0	0.0	-44.1	-44.1
Jul 17	37.0	-115.1	76.8	26.8	44.1	69.6	52.2	17.4	-26.7	-70.8
Jul 18	40.3	97.5	95.7	26.8	44.1	304.4	228.3	76.1	32.0	-38.8
Jul 19	37.5	91.7	95.9	26.8	44.1	296.0	222.0	74.0	29.9	-8.9
Jul 20	36.6	-54.7	94.7	26.8	44.1	147.5	110.6	36.9	-7.2	-16.1
Jul 21	42.1	-100.6	95.3	26.8	44.1	107.7	80.8	26.9	-17.2	-33.3
Jul 22	45.0	-160.3	93.0	26.8	44.1	48.6	36.4	12.2	-31.9	-65.2
Jul 23	43.6	-256.8	86.2	26.8	44.1	0.0	0.0	0.0	-44.1	-109.3
Jul 24	38.0	-254.0	83.8	26.8	44.1	0.0	0.0	0.0	-44.1	-153.4
Jul 25	32.1	-263.8	86.4	26.8	44.1	0.0	0.0	0.0	-44.1	-197.5
Jul 26	27.3	-224.1	70.2	26.8	44.1	0.0	0.0	0.0	-44.1	-241.6
Jul 27	26.1	-150.7	62.4	26.8	44.1	8.7	6.5	2.2	-41.9	-283.5
Jul 28	26.6	-7.9	81.5	26.8	44.1	171.1	128.3	42.8	-1.3	-284.8
Jul 29	25.6	22.3	85.6	26.8	44.1	204.4	153.3	51.1	7.0	-277.8
Jul 30	25.5	-69.5	83.9	26.8	44.1	110.8	83.1	27.7	-16.4	-294.2
Jul 31	27.5	-75.3	82.5	26.8	44.1	105.6	79.2	26.4	-17.7	-311.9
16 day Total	*547.9*	*-1690.6*	*1318.7*	*428.8*	*705.6*	*1574.4*	*1180.7*	*393.7*	*-311.9*	
Accumulated deficit including carry over from previous division period										-1070.3
Note: Eligible June 01 to September 15 accumulated carry over is 4900 dam^3 (2000 cfs-days).										
Jul Totals	*1027.6*	*-4152.9*	*2366.7*	*830.8*	*1367.1*	*2358.7*	*1768.9*	*589.8*	*-777.3*	

All figures in cubic decametres.

Five day lag period is applied between west and east to determine natural flow at Eastern Crossing.

APPROVED BY THE FIELD REPRESENTATIVES OF CANADA AND THE UNITED STATES

Table 8 (Continued) Summary of Daily

Net Change, Natural Flow, Evaporative and Net Consumptive Uses of Milk River at Eastern Crossing of International Boundary

August, 2016

Date at Eastern Crossing	Natural Flow at Western Crossing	East to West Net Change	Incremental Evaporative Trans. Loss	Total Consumptive Use		Natural Flow at Eastern Crossing	Share		Excess / Deficit to U.S.	Cumulative Excess / Deficit to U.S.
				U.S.	Canada		U.S.	Canada		
	C9,T2	C10,T2	C8,T4	C3,T3	C8,T3				(9-6)	
1	2	3	4	5	6	7	8	9	10	11
Accumulated deficit including carry over from previous division period										-1070.3
Note: Eligible June 01 to September 15 accumulated carry over is 4900 dam^3 (2000 cfs-days).										
Aug 01	38.0	-78.3	81.2	21.6	36.3	98.8	74.1	24.7	-11.6	-11.6
Aug 02	40.1	-144.4	84.3	21.6	36.3	37.9	28.4	9.5	-26.8	-38.4
Aug 03	33.9	-213.9	62.3	21.6	36.3	0.0	0.0	0.0	-36.3	-74.7
Aug 04	30.4	-107.4	79.5	21.6	36.3	60.4	45.3	15.1	-21.2	-95.9
Aug 05	28.7	-213.0	87.7	21.6	36.3	0.0	0.0	0.0	-36.3	-132.2
Aug 06	27.9	-246.9	35.9	21.6	36.3	0.0	0.0	0.0	-36.3	-168.5
Aug 07	27.8	-216.4	74.4	21.6	36.3	0.0	0.0	0.0	-36.3	-204.8
Aug 08	25.5	-183.7	85.2	21.6	36.3	0.0	0.0	0.0	-36.3	-241.1
Aug 09	27.9	538.0	65.6	21.6	36.3	689.4	517.0	172.4	136.1	-105.0
Aug 10	27.6	506.8	57.6	21.6	36.3	649.9	487.4	162.5	126.2	21.2
Aug 11	25.1	262.9	78.0	21.6	36.3	423.9	317.9	106.0	69.7	90.9
Aug 12	28.0	259.8	85.2	21.6	36.3	430.9	323.2	107.7	71.4	162.3
Aug 13	40.9	-4.8	74.7	21.6	36.3	168.7	126.5	42.2	5.9	168.2
Aug 14	35.3	-27.2	82.4	21.6	36.3	148.4	111.3	37.1	0.8	169.0
Aug 15	32.8	-67.6	80.8	21.6	36.3	103.9	77.9	26.0	-10.3	158.7
15 day Total	*469.9*	*63.9*	*1114.8*	*324.0*	*544.5*	*2812.2*	*2109.0*	*703.2*	*158.7*	
Accumulated deficit including carry over from previous division period										-1070.3
Note: Eligible June 01 to September 15 accumulated carry over is 4900 dam^3 (2000 cfs-days).										
Aug 16	32.3	23.4	85.1	21.6	36.3	198.7	149.0	49.7	13.4	13.4
Aug 17	37.0	-23.4	76.5	21.6	36.3	148.0	111.0	37.0	0.7	14.1
Aug 18	37.8	-55.7	25.0	21.6	36.3	65.0	48.8	16.2	-20.1	-6.0
Aug 19	36.4	-27.4	51.0	21.6	36.3	117.9	88.4	29.5	-6.8	-12.8
Aug 20	36.1	12.8	70.8	21.6	36.3	177.6	133.2	44.4	8.1	-4.7
Aug 21	32.8	-12.1	82.1	21.6	36.3	160.7	120.5	40.2	3.9	-0.8
Aug 22	32.2	-96.5	77.5	21.6	36.3	71.1	53.3	17.8	-18.5	-19.3
Aug 23	32.3	-105.4	38.5	21.6	36.3	23.3	17.5	5.8	-30.5	-49.8
Aug 24	39.8	-64.8	30.0	21.6	36.3	62.9	47.2	15.7	-20.6	-70.4
Aug 25	34.6	-63.2	33.0	21.6	36.3	62.3	46.7	15.6	-20.7	-91.1
Aug 26	31.9	-1.0	49.2	21.6	36.3	138.0	103.5	34.5	-1.8	-92.9
Aug 27	29.4	-5.4	55.0	21.6	36.3	136.9	102.7	34.2	-2.1	-95.0
Aug 28	29.4	-61.6	57.8	21.6	36.3	83.5	62.6	20.9	-15.4	-110.4
Aug 29	29.4	-69.5	54.9	21.6	36.3	72.7	54.5	18.2	-18.1	-128.5
Aug 30	31.8	-85.1	57.4	21.6	36.3	62.0	46.5	15.5	-20.8	-149.3
Aug 31	31.8	-59.8	47.7	21.6	36.3	77.6	58.2	19.4	-16.9	-166.2
16 day Total	*535.0*	*-694.7*	*891.5*	*345.6*	*580.8*	*1658.2*	*1243.6*	*414.6*	*-166.2*	
Accumulated deficit including carry over from previous division period										-1236.5
Note: Eligible June 01 to September 15 accumulated carry over is 4900 dam^3 (2000 cfs-days).										
Aug Totals	*1004.9*	*-630.8*	*2006.3*	*669.6*	*1125.3*	*4470.4*	*3352.6*	*1117.8*	*-7.5*	

All figures in cubic decametres.

Five day lag period is applied between west and east to determine natural flow at Eastern Crossing.

APPROVED BY THE FIELD REPRESENTATIVES OF CANADA AND THE UNITED STATES

Table 8 (Continued) Summary of Daily
Net Change, Natural Flow, Evaporative and Net Consumptive Uses of Milk River at Eastern Crossing of International Boundary
September, 2016

Date at Eastern Crossing	Natural Flow at Western Crossing	East to West Net Change	Incremental Evaporative Trans. Loss	Total Consumptive Use		Natural Flow at Eastern Crossing	Share		Excess / Deficit to U.S.	Cumulative Excess / Deficit to U.S.
				U.S.	Canada		U.S.	Canada		
	C9,T2	C10,T2	C8,T4	C3,T3	C8,T3				(9-6)	
1	2	3	4	5	6	7	8	9	10	11
Accumulated deficit including carry over from previous division period										-1236.5
Note: Eligible June 01 to September 15 accumulated carry over is 4900 dam^3 (2000 cfs-days).										
Sep 01	31.8	-99.8	59.6	14.7	24.2	30.5	22.9	7.6	-16.6	-16.6
Sep 02	29.4	-66.3	46.8	14.7	24.2	48.8	36.6	12.2	-12.0	-28.6
Sep 03	29.4	-88.0	40.9	14.7	24.2	21.2	15.9	5.3	-18.9	-47.5
Sep 04	29.4	-96.0	12.6	14.7	24.2	0.0	0.0	0.0	-24.2	-71.7
Sep 05	29.4	-78.4	11.0	14.7	24.2	0.9	0.7	0.2	-24.0	-95.7
Sep 06	29.4	-62.8	28.3	14.7	24.2	33.8	25.3	8.5	-15.7	-111.4
Sep 07	26.9	-49.0	43.7	14.7	24.2	60.5	45.4	15.1	-9.1	-120.5
Sep 08	26.9	-40.8	39.4	14.7	24.2	64.4	48.3	16.1	-8.1	-128.6
Sep 09	26.9	-57.1	36.9	14.7	24.2	45.6	34.2	11.4	-12.8	-141.4
Sep 10	26.9	-57.6	37.9	14.7	24.2	46.1	34.6	11.5	-12.7	-154.1
Sep 11	26.9	-63.9	9.4	14.7	24.2	11.3	8.5	2.8	-21.4	-175.5
Sep 12	26.9	-69.4	21.2	14.7	24.2	17.6	13.2	4.4	-19.8	-195.3
Sep 13	26.9	33.0	29.6	14.7	24.2	128.4	96.3	32.1	7.9	-187.4
Sep 14	26.9	93.4	21.5	14.7	24.2	180.7	135.5	45.2	21.0	-166.4
Sep 15	26.9	110.4	15.4	14.7	24.2	191.6	143.7	47.9	23.7	-142.7
15 day Total	*420.9*	*-592.3*	*454.2*	*220.5*	*363.0*	*881.4*	*661.1*	*220.3*	*-142.7*	
Accumulated deficit including carry over from previous division period										-1379.2
Note: Eligible June 01 to September 15 accumulated carry over is 4900 dam^3 (2000 cfs-days).										
Sep 16	26.9	115.5	17.9	0.0	0.0	160.3	120.2	40.1	40.1	40.1
Sep 17	39.1	156.7	11.5	0.0	0.0	207.3	155.5	51.8	51.8	91.9
Sep 18	31.8	161.1	14.2	0.0	0.0	207.1	155.3	51.8	51.8	143.7
Sep 19	29.4	-	8.6	0.0	0.0	183.5	137.6	45.9	45.9	189.6
Sep 20	26.9	-	5.3	0.0	0.0	163.9	122.9	41.0	41.0	230.6
Sep 21	24.5	-	3.3	0.0	0.0	144.3	108.2	36.1	36.1	266.7
Sep 22	26.9	-	1.3	0.0	0.0	173.7	130.3	43.4	43.4	310.1
Sep 23	24.5	-	3.9	0.0	0.0	286.2	214.6	71.6	71.6	381.7
Sep 24	24.5	-	9.0	0.0	0.0	296.0	222.0	74.0	74.0	455.7
Sep 25	24.5	-	6.9	0.0	0.0	220.2	165.1	55.1	55.1	510.8
Sep 26	24.5	-	5.3	0.0	0.0	151.7	113.8	37.9	37.9	548.7
Sep 27	34.3	-	5.1	0.0	0.0	127.2	95.4	31.8	31.8	580.5
Sep 28	41.6	-	3.8	0.0	0.0	117.4	88.1	29.3	29.3	609.8
Sep 29	29.4	-	3.7	0.0	0.0	107.6	80.7	26.9	26.9	636.7
Sep 30	26.7	-	3.1	0.0	0.0	100.3	75.2	25.1	25.1	
15 day Total	*435.5*	*433.3*	*102.9*	*0.0*	*0.0*	*2646.7*	*1984.9*	*661.8*	*661.8*	
Accumulated deficit including carry over from previous division period										#NA
Note: Eligible June 01 to September 15 accumulated carry over is 4900 dam^3 (2000 cfs-days).										
Sep Totals	*856.4*	*-159.0*	*557.1*	*220.5*	*363.0*	*3528.1*	*2646.0*	*882.1*	*519.1*	

All figures in cubic decametres.

Five day lag period is applied between west and east to determine natural flow at Eastern Crossing.

Grey areas indicate natural flow equal to the recorded flow at the gauge (11AA031) Milk River at Eastern Crossing plus United States and Canadian consumptive use.

APPROVED BY THE FIELD REPRESENTATIVES OF CANADA AND THE UNITED STATES

Table 8 (Continued) Summary of Daily Net Change, Natural Flow, Evaporative and Net Consumptive Uses of Milk River at Eastern Crossing of International Boundary October, 2016

Date at Eastern Crossing	Natural Flow at Western Crossing	East to West Net Change	Incremental Evaporative Trans. Loss	Total Consumptive Use		Natural Flow at Eastern Crossing	Share		Excess / Deficit to U.S.	Cumulative Excess / Deficit to U.S.
				U.S.	Canada		U.S.	Canada		
	C9,T2	C10,T2	C8,T4	C3,T3	C8,T3				(9-6)	
1	2	3	4	5	6	7	8	9	10	11
Accumulated deficit including carry over from previous division period										#NA
Note: Eligible June 01 to September 15 accumulated carry over is 4900 dam^3 (2000 cfs-days).										
Oct 01	25.8	-	2.2	0.0	0.0	97.9	73.4	24.5	24.5	24.5
Oct 02	27.5	-	2.5	0.0	0.0	100.3	75.2	25.1	25.1	49.6
Oct 03	45.4	-	0.9	0.0	0.0	93.0	69.8	23.2	23.2	72.8
Oct 04	39.9	-	0.8	0.0	0.0	117.4	88.1	29.3	29.3	102.1
Oct 05	36.5	-	1.9	0.0	0.0	156.6	117.4	39.2	39.2	141.3
Oct 06	36.5	-	2.5	0.0	0.0	154.1	115.6	38.5	38.5	179.8
Oct 07	34.7	-	0.9	0.0	0.0	115.0	86.2	28.8	28.8	208.6
Oct 08	32.4	-	0.7	0.0	0.0	97.9	73.4	24.5	24.5	233.1
Oct 09	33.9	-	0.9	0.0	0.0	85.6	64.2	21.4	21.4	254.5
Oct 10	34.3	-	0.2	0.0	0.0	102.8	77.1	25.7	25.7	280.2
Oct 11	38.0	-	0.4	0.0	0.0	115.0	86.2	28.8	28.8	309.0
Oct 12	39.2	-	0.4	0.0	0.0	137.0	102.8	34.2	34.2	343.2
Oct 13	38.3	-	0.5	0.0	0.0	119.9	89.9	30.0	30.0	373.2
Oct 14	38.1	-	1.1	0.0	0.0	122.3	91.7	30.6	30.6	403.8
Oct 15	50.9	-	6.1	0.0	0.0	286.2	214.6	71.6	71.6	475.4
15 day Total	*551.4*	*0.0*	*22.0*	*0.0*	*0.0*	*1901.0*	*1425.6*	*475.4*	*475.4*	
Accumulated deficit including carry over from previous division period										#NA
Note: Eligible June 01 to September 15 accumulated carry over is 4900 dam^3 (2000 cfs-days).										
Oct 16	53.6	-	5.0	0.0	0.0	237.3	178.0	59.3	59.3	59.3
Oct 17	53.7	-	1.1	0.0	0.0	141.9	106.4	35.5	35.5	94.8
Oct 18	77.3	-	0.4	0.0	0.0	110.1	82.6	27.5	27.5	122.3
Oct 19	94.6	-	0.1	0.0	0.0	97.9	73.4	24.5	24.5	146.8
Oct 20	82.5	-	0.2	0.0	0.0	93.0	69.8	23.2	23.2	170.0
Oct 21	92.5	-	0.3	0.0	0.0	97.9	73.4	24.5	24.5	194.5
Oct 22	134.2	-	-0.4	0.0	0.0	107.6	80.7	26.9	26.9	221.4
Oct 23	123.7	-	-0.2	0.0	0.0	110.1	82.6	27.5	27.5	248.9
Oct 24	103.5	-	0.5	0.0	0.0	124.8	93.6	31.2	31.2	280.1
Oct 25	88.9	-	0.8	0.0	0.0	129.7	97.3	32.4	32.4	312.5
Oct 26	80.4	-	0.9	0.0	0.0	122.3	91.7	30.6	30.6	343.1
Oct 27	71.3	-	0.5	0.0	0.0	119.9	89.9	30.0	30.0	373.1
Oct 28	65.1	-	0.6	0.0	0.0	115.0	86.2	28.8	28.8	401.9
Oct 29	60.4	-	0.3	0.0	0.0	107.6	80.7	26.9	26.9	428.8
Oct 30	57.2	-	0.8	0.0	0.0	105.2	78.9	26.3	26.3	455.1
Oct 31	56.4	-	0.7	0.0	0.0	154.1	115.6	38.5	38.5	493.6
16 day Total	*1295.3*	*0.0*	*11.6*	*0.0*	*0.0*	*1974.4*	*1480.8*	*493.6*	*493.6*	
Accumulated deficit including carry over from previous division period										#NA
Note: Eligible June 01 to September 15 accumulated carry over is 4900 dam^3 (2000 cfs-days).										
Oct Totals	*1846.7*	*0.0*	*33.6*	*0.0*	*0.0*	*3875.4*	*2906.4*	*969.0*	*969.0*	

All figures in cubic decametres.

Five day lag period is applied between west and east to determine natural flow at Eastern Crossing.

Grey areas indicate natural flow equal to the recorded flow at the gauge (11AA031) Milk River at Eastern Crossing plus United States and Canadian consumptive use.

John M. Kilpatrick JOHN KILPATRICK 2020.08.24 11:58:34 -06'00'

Approved by: _____For Canada _____For The United States

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Table 9: HISTORICAL SUMMARY OF MARCH – OCTOBER COMPUTED NATURAL FLOW MILK RIVER AT EASTERN CROSSING OF INTERNATIONAL BOUNDARY

(VALUES IN CUBIC DECAMETRES)

YEAR	COMPUTED NATURAL FLOW	UNITED STATES SHARE	CANADIAN SHARE	YEAR	COMPUTED NATURAL FLOW	UNITED STATES SHARE	CANADIAN SHARE
				1941	31,230	21,500	9,730
1912	140,600	93,500	47,060	1942	105,500	75,880	29,610
1913	156,000	109,700	46,310	1943	143,500	98,570	44,880
1914	85,080	59,420	25,650	1944	27,940	19,940	8,000
1915	172,100	121,300	50,770	1945	53,840	36,160	17,680
1916	279,900	187,800	92,050	1946	51,470	35,060	16,410
1917	270,300	174,300	96,000	1947	203,600	128,600	75,020
1918	79,710	55,670	24,040	1948	253,700	167,800	85,970
1919	33,800	24,100	9,700	1949	69,920	49,710	20,200
1920	212,700	135,200	77,520	1950	149,100	106,100	42,960
1921	70,180	50,360	19,820	1951	342,400	226,300	116,000
1922	107,500	76,500	31,040	1952	249,000	154,300	94,720
1923	101,400	72,610	28,800	1953	316,700	200,200	116,600
1924	89,170	63,320	25,850	1954	181,800*	127,200	54,610
1925	148,900	100,700	48,240	1955	197,300	133,700*	63,580
1926	30,240	21,220	9,020	1956	138,900	97,270	41,600
1927	449,200	280,800	168,400	1957	129,300	88,470	40,810
1928	273,000	177,700	95,300	1958	139,200	89,690	49,550
1929	183,400	122,800	60,570	1959	159,600	105,100	54,490
1930	131,000	87,900	43,070	1960	121,300	76,290	45,010
1931	36,720	25,050	11,670	1961	46,770	32,760	14,010
1932	94,350	64,710	29,650	1962	72,190	48,500	23,690
1933	117,200	80,590	36,580	1963	34,260	23,630	10,630
1934	116,700	79,580	37,080	1964	154,100	104,300	49,750
1935	97,570	64,590	32,980	1965	283,600	181,200	102,500*
1936	79,920	50,220	29,700	1966	146,500	98,500	48,020
1937	111,600	78,980	32,660	1967	309,000	193,200	115,800
1938	133,200	89,640	43,520	1968	139,200	96,540	42,690
1939	50,110	33,540	16,560	1969	236,000	147,000	88,930
1940	69,710	46,390	23,320	1970	121,300	84,790	36,460

Continued…

* Revised

Note: The totals of the United States and Canadian shares may not agree with the computed natural flows as all figures have been rounded for this summary. The table is a direct conversion from English to SI units. Totals prior to 1985 may not concur in some cases.

Table 9 (continued): HISTORICAL SUMMARY OF MARCH – OCTOBER COMPUTED NATURAL FLOW MILK RIVER AT EASTERN CROSSING OF INTERNATIONAL BOUNDARY

(VALUES IN CUBIC DECAMETRES)

YEAR	COMPUTED NATURAL FLOW	UNITED STATES SHARE	CANADIAN SHARE
1971	127,900	91,280	36,650
1972	228,700	148,500	80,260
1973	44,490	29,600	14,890
1974	116,700	82,190	34,530
1975	324,200	206,100	118,100
1976	117,800	80,360	37,400
1977	37,180	25,800	11,380
1978	273,900	173,200	100,700
1979	248,200	152,600	95,570
1980	99,420	69,480	29,940
1981	113,300	79,170	34,170
1982	164,500	109,300	55,150
1983	46,550	32,650	13,910
1984	26,550	17,490	9,060
1985	58,800	41,680	17,110*
1986	88,070	58,850	29,220
1987	58,300	40,890	17,410
1988	35,930	25,010	10,920
1989	116,800*	78,520	38,320
1990	121,000	82,250	38,730
1991	148,100	105,200	42,840
1992	38,900	26,910	11,990
1993	160,300	109,500	50,770
1994	188,000	115,400	72,590
1995	229,300	155,200	74,110
1996	200,300	124,800	75,500
1997	173,800	113,500	60,280
1998	75,030*	53,920*	21,100*
1999	76,810	54,810	22,000
2000	35,390	24,320	11,070
2001	21,730	15,100	6,630
2002	235,400	145,600	89,820*
2003	97,260	63,670	33,600
2004	61,960	42,350	19,620
2005	73,300	51,190	22,110
2006	83,750	58,480	25,270
2007	75,980	48,600	27,380
2008	108,700	77,000	31,660
2009	79,840	56,010	23,830
2010	278,100	186,800	91,290
2011	358,700	227,400	131,200
2012	111,700	78,570	33,100
2013	97,590	67,340	30,250
2014	196,900	128,400	68,410
2015	66,620	44,100	22,520
2016	37,150	26,490	10,660
AVERAGE 1912 – 2015	137,000	91,110	45,920

* Revised

Note: The totals of the United States and Canadian shares may not agree with the computed natural flows as all figures have been rounded for this summary. The table is a direct conversion from English to SI units. Totals prior to 1985 may not concur in some cases.

Table 10: NATURAL FLOW OF LODGE CREEK AT THE INTERNATIONAL BOUNDARY FOR THE YEAR 2016

	1	2	3	4	5	6		7	8	9		10
Period Upper Lodge Area	Michel Reservoir Depletion	Greasewood Reservoir Depletion	Massy Reservoir Depletion	Minor Diversions (Upper Lodge Incl. Bare Cr.)	Total Depletion Upper Lodge Reservoirs	Channel Loss to International Boundary 7.34 dam^3/day +% of remainder		Net Depletion Upper Lodge	Bare Creek Reservoir Depletion	Channel Loss to International Boundary 7.34 dam^3/day +% of remainder		Net Depletion Bare Creek
	Observed	Observed	Observed	Reported	1+2+3+4			5 - 6	Observed			8 - 9
Feb 26-Mar 11	99	72	141	0	312	6	122	190	333	6	123	210
Mar 12 - 27	9	1	9	0	19	6	19	0	-6	6	-6	0
Mar 28-Apr 11	5	-2	4	0	7	9	7	0	-13	9	-13	0
Apr 12 - 26	13	4	9	0	26	9	26	0	2	9	2	0
Apr 27-May 11	12	-1	13	0	24	15	24	0	11	15	11	0
May 12 - 27	18	6	20	391	435	15	165	270	14	15	14	0
May 28-Jun 11	8	-3	6	0	11	24	11	0	10	24	10	0
Jun 12 - 26	5	-53	-39	0	-87	24	-87	0	6	24	6	0
Jun 27-Jul 11	9	-48	61	0	22	24	22	0	43	24	43	0
Jul 12 - 27	27	19	22	0	68	24	68	0	-52	24	-52	0
Jul 28-Aug 11	43	17	-4	0	56	24	56	0	64	24	64	0
Aug 12 - 27	5	1	-34	0	-28	24	-28	0	3	24	3	0
Aug 28-Sep 11	0	2	-90	0	-88	15	-88	0	0	15	0	0
Sep 12 - 26	0	3	2	0	5	15	5	0	4	15	4	0
Sep 27-Oct 11	14	7	7	0	28	9	28	0	8	9	8	0
Oct 12 - 27	14	14	32	0	60	9	60	0	25	9	25	0
Total	281	39	159	391	870		410	460	452		242	210

All values are derived from data as published in Appendix B.
All quantities in cubic decametres. Totals may not add or subtract exactly as a result of rounding.

Table 10 (continued): NATURAL FLOW OF LODGE CREEK AT THE INTERNATIONAL BOUNDARY FOR THE YEAR 2016

	11	12		13	14	15	16	17		18		19	20		21
Period Cressday and Mitchell Reservoir Area	Cressday Reservoir Depletion		Channel Loss to Inter-national Boundary	Net Depletion Cressday	Mitchell Reservoir Depletion	Minor Diversions	Total Depletion Mitchell Reservoir		Channel Loss to Inter-national Boundary	Net Depletion Mitchell	Period Jaydot Reservoir Area	Jaydot Reservoir Depletion		Channel Loss to Inter-national Boundary	Net Depletion Jaydot
	Observed	4.92 dam^3/day +% of	remainder	11 - 12	Observed	Reported	14 + 15	4.92 dam^3/day +% of	remainder	16 – 17		Observed	2.42 dam^3/day +% of	remainder	19 - 20
Feb 27-Mar 12	36	4	36	0	8	0	8	4	8	0	Feb 27-Mar 13	0	2	0	0
Mar 13 - 28	-13	4	-13	0	-4	0	-4	4	-4	0	Mar 14 - 29	0	2	0	0
Mar 29-Apr 12	-16	6	-16	0	-2	0	-2	6	-2	0	Mar 30-Apr 13	0	3	0	0
Apr 13 - 27	5	6	5	0	10	0	10	6	10	0	Apr 14 - 28	0	3	0	0
Apr 28-May 12	3	10	3	0	1	0	1	10	1	0	Apr 29-May 13	0	5	0	0
May 13 - 28	2	10	2	0	4	0	4	6	4	0	May 14 - 29	0	5	0	0
May 29-Jun 12	8	16	8	0	-2	0	-2	16	-2	0	May 30-Jun 13	0	8	0	0
Jun 13 - 27	-3	16	-3	0	-2	0	-2	16	-2	0	Jun 14 - 28	0	8	0	0
Jun 28-Jul 12	4	16	4	0	10	0	10	16	10	0	Jun 29-Jul 13	0	8	0	0
Jul 13 - 28	5	16	5	0	-4	0	-4	16	-4	0	Jul 14 - 29	0	8	0	0
Jul 29-Aug 12	10	16	10	0	-1	0	-1	16	-1	0	Jul 30-Aug 13	0	8	0	0
Aug 13 - 28	2	16	2	0	1	0	1	16	1	0	Aug 14 - 29	0	8	0	0
Aug 29-Sep 12	9	10	9	0	-5	0	-5	10	-5	0	Aug 30-Sep 13	0	5	0	0
Sep 13 - 27	3	10	3	0	-8	0	-8	10	-8	0	Sep 14 - 28	0	5	0	0
Sep 28-Oct 12	5	6	5	0	-8	0	-8	6	-8	0	Sep 29-Oct 13	0	3	0	0
Oct 13 - 28	20	6	20	0	-7	0	-7	6	-7	0	Oct 14 - 29	0	3	0	0
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Total	80		80	0	-9	0	-9		-9	0		0		0	0

All values are derived from data as published in Appendix B.
All quantities in cubic decametres. Totals may not add or subtract exactly as a result of rounding.

Table 10 (continued): NATURAL FLOW OF LODGE CREEK AT THE INTERNATIONAL BOUNDARY FOR THE YEAR 2016

	22	23	24	25	26	27	28		29
Period Middle Creek Reservoir Area	Middle Creek Reservoir Inflow	Bedford Outlet	Flood Spillway	Irrigation Return Middle Creek Below Middle Creek Reservoir	Minor Diversions (Middle Cr.)	Gross Depletion	Channel Loss to International Boundary		Net Depletion Middle Creek
	Observed	Observed	Observed	Observed	Reported	22-23-24-25+26	4.92 dam^3/dav +% of remainder		27 - 28
Feb 27-Mar 12	13	0	0	0	0	13	4	13	0
Mar 13 - 28	12	0	0	0	0	12	4	12	0
Mar 29-Apr 12	9	0	0	0	0	9	6	9	0
Apr 13 - 27	9	0	0	0	0	9	6	9	0
Apr 28-May 12	6	0	0	0	0	6	10	6	0
May 13 - 28	8	0	0	395	17	-370	10	-108	-262
May 29-Jun 12	6	0	0	13	3	-4	16	-4	0
Jun 13 - 27	7	0	0	3	0	3	16	3	0
Jun 28-Jul 12	6	0	0	0	0	6	16	6	0
Jul 13 - 28	4	0	0	0	0	4	16	4	0
Jul 29-Aug 12	4	0	0	0	0	4	16	4	0
Aug 13 - 28	7	0	0	0	0	7	16	7	0
Aug 29-Sep 12	4	0	0	0	0	4	10	4	0
Sep 13 - 27	4	0	0	0	0	4	10	4	0
Sep 28-Oct 12	5	0	0	0	0	5	6	5	0
Oct 13 - 28	4	0	0	0	0	4	6	4	0
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Total	110	0	0	412	21	-281		-20	-262

All values are derived from data as published in Appendix B.
All quantities in cubic decametres. Totals may not add or subtract exactly as a result of rounding.

Table 10 (continued): NATURAL FLOW OF LODGE CREEK AT THE INTERNATIONAL BOUNDARY FOR THE YEAR 2016

	30	31			32	33	34	35		36
Period Middle Creek Near Govenlock	Middle Creek Near Govenlock	Channel Loss to Middle Cr Above Lodge Creek		Period To Middle Creek Above Lodge Creek	Apparent Flow At Middle Creek Above Lodge Creek	Measured Flow At Middle Creek Above Lodge Creek	Water Use Stokke - Buchanan Projects	Channel Loss to International Boundary		Net Depletion Stokke - Buchanan
	Observed	1.21 dam^3/day +% of remainder			30 - 31	Observed	32 - 33	1.21 dam^3/day +% of remainder		34 - 35
Feb 28-Mar 13	51	1	18	Feb 28-Mar 14	33	0	33	1	18	14
Mar 14 - 29	62	1	20	Mar 15 – 30	42	0	42	1	20	22
Mar 30-Apr 13	32	2	18	Mar 31-Apr 14	14	0	14	2	14	0
Apr 14 - 28	59	2	19	Apr 15 – 29	40	1	39	2	19	20
Apr 29-May 13	59	3	19	Apr 30-May 14	40	0	40	3	19	21
May 14 - 29	257	3	27	May 15 – 30	231	21	210	3	25	185
May 30-Jun 13	109	4	22	May 31-Jun 14	87	238	-151	4	-23	-127
Jun 14 - 28	16	4	16	Jun 15 – 29	0	24	-24	4	-18	-6
Jun 29-Jul 13	3	4	3	Jun 30-Jul 14	0	9	-9	4	-9	0
Jul 14 - 29	0	4	0	Jul 15 – 30	0	1	-1	4	-1	0
Jul 30-Aug 13	0	4	0	Jul 31-Aug 14	0	0	0	4	0	0
Aug 14 - 29	2	4	2	Aug 15 – 30	0	0	0	4	0	0
Aug 30-Sep 13	0	3	0	Aug 31-Sep 14	0	0	0	3	0	0
Sep 14 - 28	11	3	11	Sep 15 – 29	0	0	0	3	0	0
Sep 29-Oct 13	48	2	19	Sep 30-Oct 14	30	1	0	2	0	0
Oct 14 - 29	88	2	21	Oct 15 – 30	67	2	0	2	0	0
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Total	798		215		583	296	193		63	130

All values are derived from data as published in Appendix B.
All quantities in cubic decametres. Totals may not add or subtract exactly as a result of rounding.

Table 10 (continued): NATURAL FLOW OF LODGE CREEK AT THE INTERNATIONAL BOUNDARY FOR THE YEAR 2016

	37	38	39	40	41	42	43		44
Period Altawan Reservoir Area	Altawan Reservoir Depletion	Spangler Ditch	Return Flow From Spangler Ditch -Squaw Coulee	Return Flow From Bedford -Walburger Coulee	Minor Diversions	Gross Depletion	Channel Loss to International Boundary 2.42 dam^3/day +% of remainder		Net Depletion Altawan
	Observed	Observed	Observed	Observed	Reported	37+38-39-40+41			42 - 43
Feb 28-Mar 13	1 035	0	0	0	83	1 118	2	58	1 060
Mar 14 - 29	105	0	0	0	11	116	2	40	76
Mar 30-Apr 13	-38	0	0	0	0	-38	3	-36	-2
Apr 14 - 28	140	0	0	0	7	147	3	40	107
Apr 29-May 13	-83	218	0	0	5	140	5	41	99
May 14 - 29	-1 300	1227	92	0	10	-156	5	-45	-111
May 30-Jun 13	-609	66	40	0	0	-583	8	-80	-503
Jun 14 - 28	14	0	0	0	0	14	8	14	0
Jun 29-Jul 13	13	0	0	0	0	13	8	13	0
Jul 14 - 29	71	0	0	0	0	71	8	41	30
Jul 30-Aug 13	366	0	0	0	0	366	8	63	303
Aug 14 - 29	155	0	0	0	0	155	8	48	107
Aug 30-Sep 13	-11	0	0	0	0	-11	5	-11	0
Sep 14 - 28	22	0	0	0	0	22	5	22	0
Sep 29-Oct 13	31	0	0	0	0	31	3	31	0
Oct 14 - 29	368	0	0	0	0	368	3	49	319
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Total	279	1 511	133	0	116	1 773		288	1 485

All values are derived from data as published in Appendix B.
All quantities in cubic decametres. Totals may not add or subtract exactly as a result of rounding.
Flows at Squaw Coulee considered “natural” are entered as zero.

Table 10 (continued): NATURAL FLOW OF LODGE CREEK AT THE INTERNATIONAL BOUNDARY FOR THE YEAR 2016

	45	46	47	48	49	50
Period At International Boundary	Net Depletion In Canada	Lodge Creek At International Boundary	Natural Flow Of Lodge Creek	U.S.A. Share Of Natural Flow	Excess Flow To U.S.A.	Deficit(-) To Date
	7 + 10 + 13 + 18 +21 + 29 + 36 + 44	Observed	45+ 46	50% of 47	46 - 48	Sum of 49
Mar 1 - 15	1 474	10	1484	742	-732	-732
Mar 16 - 31	98	1	99	49	-48	-780
Apr 1 - 15	-2	0	0	0	0	-780
Apr 16 - 30	128	0	128	64	-64	-844
May 1 - 15	119	0	119	60	-60	-904
May 16 - 31	81	155	237	118	37	-867
Jun 1 - 15	-630	754	124	62	692	-175
Jun 16 - 30	-6	138	132	66	72	-102
Jul 1 - 15	0	1	1	1	0	-102
Jul 16 - 31	30	0	30	15	-15	-117
Aug 1 - 15	303	0	303	152	-152	-269
Aug 16 - 31	107	0	107	53	-53	-322
Sep 1 - 15	0	0	0	0	0	-322
Sep 16 - 30	0	0	0	0	0	-322
Oct 1 - 15	0	1	1	0	1	-322
Oct 16 - 31	319	5	325	162	-157	-478
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Total	2 023	1 066	3 090	1 544	-478	-478

All values are derived from data as published in Appendix B.
All quantities in cubic decametres.
Totals may not add or subtract exactly as a result of rounding.

Approved by: _____For Canada

_____For the United States

Table 11: HISTORICAL SUMMARY OF MARCH TO OCTOBER COMPUTED NATURAL AND RECORDED FLOW
LODGE CREEK AT THE INTERNATIONAL BOUNDARY
(VALUES IN CUBIC DECAMETRES)

YEAR	COMPUTED NATURAL FLOW	CANADIAN & U.S.A. SHARES	RECORDED FLOW	YEAR	COMPUTED NATURAL FLOW	CANADIAN & U.S.A. SHARES	RECORDED FLOW
1950	17,900	8,950	14,410				
1951	62,950	31,475	48,760	1986	93,870	46,935	75,060
1952	161,600	80,800	147,200	1987	31,280	15,640	20,670
1953	38,240	19,120	27,240	1988	2,990	1,495	1,370
1954	13,050	6,525	7,620	1989	4,160	2,080	1,920
1955	97,070	48,535	75,390	1990	29,750	14,875	16,030
1956	21,180	10,590	15,770	1991	13,870	6,935	7,670
1957	32,770	16,385	24,500	1992	398	199	0
1958	48,180	24,090	42,090	1993	46,180	23,090	26,690
1959	21,220	10,610	14,300	1994	28,150	14,075	18,190
1960	39,590	19,795	29,510	1995	3,760	1,880	2,360
1961	2,200	1,100	1,030	1996	68,440	34,220	53,370
1962	25,640	12,820	18,840	1997	45,860	22,930	33,500
1963	14,080	7,040	7,500	1998	3,390	1,695	1,620
1964	9,790	4,895	5,130	1999	6,910	3,455	3,720
1965	95,340	47,670	68,060	2000	174	87	0
1966	44,230	22,115	30,180	2001	139	70	0
1967	90,360	45,180	73,260	2002	12,590	6,295	6,100
1968	4,910	2,455	2,650	2003	21,330	10,665	12,660
1969	36,900	18,450	20,850	2004	9,630	4,815	5,440
1970	29,050	14,525	16,160	2005	6,860	3,430	3,310
1971	26,290	13,145	13,080	2006	11,010	5,505	5,140
1972	27,380	13,690	13,580	2007	6,930	3,465	3,930
1973	2,080	1,040	1,060	2008	2,230	1,115	1,100
1974	26,980	13,490	14,560	2009	4,640	2,320	2,210
1975	48,000	24,000	34,540	2010	41,620	20,810	22,980
1976	29,480	14,740	22,320	2011	89,490	44,745	79,850
1977	1,240	620	891	2012	4,000	2,000	1,930
1978	37,240	18,620	22,350	2013	17,050	8,525	9,750
1979	47,020	23,510	30,390	2014	15,150	7,575	9,980
1980	2,140	1,070	712	2015	14,710	7,360	11,890
				2016	3,090	1,545	1,070
1981	1,260	630	407				
1982	38,800	19,400	22,420				
1983	4,660	2,330	2,480	AVERAGE			
1984	937	469	600	1950-2015	28,150	14,070	19,970
1985	21,270	10,635	9,960				

Table 12: NATURAL FLOW OF BATTLE CREEK AT THE INTERNATIONAL BOUNDARY FOR THE YEAR 2016

	1	2	3	4	5		6	7	8	9	10	11
Period Reesor Lake Area	Reesor Lake Depletion	Reesor Lake Minor use	Gross Depletion Reesor Lake	Channel Loss To International Boundary	Net Depletion Upper Battle Creek	Period Gaff Ditch Area	Gaff Ditch	Return Flow	Gaff Ditch Area Minor Use	Gross Depletion Gaff Ditch	Channel Loss To International Boundary	Net Depletion Gaff Ditch
	Observed	Reported	1 + 2	14.7 dam^3/day	3 - 4		Measured	35% of 6	Reported	(6 - 7) + 8	9.76 dam^3/day	9 - 10
Feb 24-Mar 19	5	13	18	18	0	Feb 25-Mar 21	30	11	0	20	20	0
Mar 20-Apr 3	1	2	3	3	0	Mar 22-Apr5	130	46	87	172	146	26
Apr 4 - 18	24	6	30	30	0	Apr 6 - 20	292	102	421	611	146	465
Apr 19-May 3	6	2	8	8	0	Apr 21-May 5	288	101	281	468	146	322
May 4 - 19	31	6	37	37	0	May 6 - 21	449	157	328	620	156	463
May 20-Jun 3	56	6	62	62	0	May 22-Jun 5	11	4	313	320	146	174
Jun 4 - 18	39	-10	29	29	0	Jun 6 - 20	7	2	29	33	33	0
Jun 19-Jul 3	65	19	84	84	0	Jun 21-Jul 5	7	2	0	5	5	0
Jul 4 -19	-13	12	-1	-1	0	Jul 6 - 21	8	3	0	5	5	0
Jul 20-Aug 3	32	-5	27	27	0	Jul 22-Aug 5	8	3	0	6	6	0
Aug 4 - 19	10	17	27	27	0	Aug 6 - 21	8	3	0	5	5	0
Aug 20-Sep 3	22	5	27	27	0	Aug 22-Sep 5	8	3	0	5	5	0
Sep 4 – 18	15	6	21	21	0	Sep 6 - 20	7	2	0	4	4	0
Sep 19-Oct 3	16	6	22	22	0	Sep 21-Oct 5	6	2	1	5	5	0
Oct 4-Oct 19	17	18	35	35	0	Oct 6 - 21	7	2	3	8	8	0
Oct 20 - 25	0	-2	-2	-2	0	Oct 22-27	3	1	1	3	3	0
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Total	326	101	427	427	0		1 269	444	1 465	2 290	841	1 450

All values are derived from data as published in Appendix B.
All quantities in cubic decametres. Totals may not add or subtract exactly as a result of rounding.

Table 12 (continued): NATURAL FLOW OF BATTLE CREEK AT THE INTERNATIONAL BOUNDARY FOR THE YEAR 2016

	12	13	14	15	16	17	18	19	20	21	22	23
Period Cypress Lake Area	West Inflow Canal	West Outflow Canal	West Inflow Canal Drain	Cypress Lake Area Release	Net Diversion To Cypress Lake Area	Vidora Ditch	Return Flow 25% of 17	Total Cypress Lake Diversion	Cypress Area Minor Use	Gross Depletion Cypress Lake	Channel Loss To Inter-National Boundary	Net Depletion Cypress Lake
	Measured	Measured	Measured	13 + 14	12-15	Measured	(4 day lag)	16+17-18	Reported	19+20	7.34 dam^3/day	21 - 22
Feb 27-Mar 22	416	0	1	1	415	0	0	415	0	415	184	231
Mar 23-Apr 6	0	0	0	0	0	0	0	0	0	0	0	0
Apr 7- 21	0	0	0	0	0	0	0	0	0	0	0	0
Apr 22-May 6	104	6	1	7	97	0	0	97	0	97	97	0
May 7 - 22	94	6 160	1	6162	-6 067	1 979	495	-4 584	26	-4 558	-117	-4 440
May 23-Jun 6	890	1 279	0	1279	-389	1 123	281	453	32	486	110	376
Jun 7 -21	521	35	0	35	486	0	0	486	0	486	110	376
Jun 22-Jul 6	942	45	1	47	895	0	0	895	0	895	110	785
Jul 7 - 22	787	23	3	26	762	0	0	762	0	762	117	644
Jul 23-Aug 6	424	0	2	2	422	0	0	422	0	422	110	312
Aug 7 - 22	933	0	2	2	931	0	0	931	0	931	117	814
Aug 23-Sep 6	32	0	0	0	31	0	0	31	0	31	31	0
Sep 7 - 21	0	0	0	0	0	0	0	0	0	0	0	0
Sep 22-Oct 6	489	0	0	0	489	0	0	489	0	489	110	379
Oct 7 - 22	873	0	0	0	872	0	0	872	0	872	117	755
Oct 23 - 28	248	0	0	0	248	0	0	248	0	248	44	204
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Total	6 752	7 549	12	7 561	- 809	3 102	775	1 517	58	1 576	1 141	436

All values are derived from data as published in Appendix B.
All quantities in cubic decametres. Totals may not add or subtract exactly as a result of rounding.

Table 12 (continued): NATURAL FLOW OF BATTLE CREEK AT THE INTERNATIONAL BOUNDARY FOR THE YEAR 2016

	24	25	26	27	28	29	30	31
Period Consul Area	Richardson Ditch	McKinnon Ditch	Return Flow 25% of 24 & 25	Gross Canal Diversion	Consul Area Minor Use	Gross Depletion at Consul	Channel Loss To International Boundary	Net Depletion At Consul
	Measured	Measured	(2 day lag)	24+25-26	Reported	27+28	4.92 dam^3/day	29-30
Feb 28-Mar 23	0	0	0	0	0	0	0	0
Mar 24-Apr 7	0	0	0	0	0	0	0	0
Apr 8 – 22	0	0	0	0	21	21	21	0
Apr 23-May 7	0	0	0	0	0	0	0	0
May 8 – 23	2 160	1 719	970	2 910	0	2 910	79	2 831
May 24-Jun 7	0	222	56	167	0	167	74	93
Jun 8 – 22	0	0	0	0	0	0	0	0
Jun 23-Jul 7	0	0	0	0	0	0	0	0
Jul 8 – 23	0	0	0	0	0	0	0	0
Jul 24-Aug 7	0	0	0	0	0	0	0	0
Aug 8 – 23	0	0	0	0	0	0	0	0
Aug 24-Sep 7	0	0	0	0	0	0	0	0
Sep 8 – 22	0	0	0	0	0	0	0	0
Sep 23-Oct 7	0	0	0	0	0	0	0	0
Oct 8 – 23	0	0	0	0	0	0	0	0
Oct 24-29	0	0	0	0	0	0	0	0
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Total	2 160	1 941	1 025	3 076	21	3 097	173	2 924

All values are derived from data as published in Appendix B.
All quantities in cubic decametres. Totals may not add or subtract exactly as a result of rounding.

Table 12 (continued): NATURAL FLOW OF BATTLE CREEK AT THE INTERNATIONAL BOUNDARY FOR THE YEAR 2016

	32	33	34	35	36	37	38	39	40
Period Nashlyn Area	Battle Creek Near Consul	Battle Creek Below Nashlyn Project	Nashlyn Canal	Return Flow	Gross Canal Diversion	Nashlyn Area Minor Use	Gross Depletion At Nashlyn	Channel Loss To International Boundary	Net Depletion At Nashlyn
	Measured	Measured	Measured	33-(32-34)	34-35	Reported	36+37	2.42 dam^3/day	38-39
Feb 28-Mar 24	1 452	552	1115	279	836	25	861	61	800
Mar 25-Apr 8	371	263	337	84	253	0	253	36	216
Apr 9 – 23	153	104	118	30	89	0	89	36	52
Apr 24-May 8	629	59	522	130	391	0	391	36	355
May 9 - 24	1 935	1 564	648	162	486	0	486	39	447
May 25-Jun 8	890	1 158	6	2	5	0	5	5	0
Jun 9 – 23	324	619	0	0	0	0	0	0	0
Jun 24-Jul 8	368	370	0	0	0	0	0	0	0
Jul 9 – 24	245	254	0	0	0	0	0	0	0
Jul 25-Aug 8	230	231	0	0	0	0	0	0	0
Aug 9 – 24	480	504	0	0	0	0	0	0	0
Aug 25-Sep 8	702	481	0	0	0	0	0	0	0
Sep 9 - 23	782	630	0	0	0	0	0	0	0
Sep 24-Oct 8	629	495	0	0	0	0	0	0	0
Oct 9 - 24	1 832	1 512	0	0	0	0	0	0	0
Oct 25 - 30	673	695	0	0	0	0	0	0	0
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Total	11 693	9 489	2 746	686	2 059	25	2 084	213	1 870

A factor of 25% was used to estimate Nashlyn Canal return flow.

All values are derived from data as published in Appendix B.
All quantities in cubic decametres. Totals may not add or subtract exactly as a result of rounding.

Table 12 (continued): NATURAL FLOW OF BATTLE CREEK AT THE INTERNATIONAL BOUNDARY FOR THE YEAR 2016

	41	42	43	44	45	46
Period At International Boundary	Net Depletion In Canada	Battle Creek At International Boundary	Natural Flow Of Battle Creek	U.S.A. Share Of Natural Flow	Excess Flow To The U.S.A.	Deficit(-) To Date
	5+11+23+31+40	Measured	41+42	50% of 43	42-44	Sum of 45
Mar 1 - 25	1 031	419	1 450	725	-306	-306
Mar 26-Apr 9	242	230	472	236	-6	-312
Apr 10 - 24	517	147	664	332	-185	-497
Apr 25-May 9	677	55	732	366	-311	-808
May 10 - 25	-699	1 184	485	242	942	0
May 26-Jun 9	643	1 244	1887	944	300	0
Jun 10 - 24	376	414	790	395	19	0
Jun 25-Jul 9	785	297	1 082	541	-244	-244
Jul 10 - 25	644	241	885	443	-202	-446
Jul 26-Aug 9	312	124	436	218	-94	-540
Aug 10 - 25	814	528	1342	671	-143	-683
Aug 26-Sep 9	0	457	457	229	228	-455
Sep 10 - 24	0	600	600	300	300	-156
Sep 25-Oct 9	379	526	905	453	73	-82
Oct 10 - 25	755	1 408	2 163	1 082	326	0
Oct 26 - 31	204	715	919	460	255	0
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Total	6 680	8 589	15 269	7 637	952	0

All values are derived from data as published in Appendix B.
All quantities in cubic decametres.
Totals may not add or subtract exactly as a result of rounding.

Approved by: _____For Canada

JOHN KILPATRICK
2020.08.24 12:50:26 -06'00'

_____For the United States

Table 13: HISTORICAL SUMMARY OF MARCH TO OCTOBER COMPUTED NATURAL AND RECORDED FLOW
BATTLE CREEK AT INTERNATIONAL BOUNDARY
(VALUES IN CUBIC DECAMETRES)

YEAR	COMPUTED NATURAL FLOW	CANADIAN & U.S.A. SHARES	RECORDED FLOW		YEAR	COMPUTED NATURAL FLOW	CANADIAN & U.S.A. SHARES	RECORDED FLOW
1940	45,030	22,515	32,100		1980	9,960	4,980	5,860
1941	31,280	15,640	20,860		1981	8,900	4,450	5,610
1942	27,500	13,750	13,490		1982	36,120	18,060	21,940
1943	40,710	20,355	27,960		1983	18,560	9,280	9,660
1944	12,990	6,495	9,470		1984	5,490	2,745	2,820
1945	11,010	5,505	9,970		1985	20,790	10,395	10,530
1946	12,820	6,410	8,590		1986	75,180	37,590	49,540
1947	13,900	6,950	8,540		1987	36,420	18,210	18,460
1948	23,100	11,550	9,670		1988	9,940	4,970	4,650
1949	1,650	825	2,160		1989	8,590	4,295	5,080
1950	23,800	11,900	12,730		1990	19,360	9,680	10,720
1951	35,910	17,955	20,440		1991	19,380 *	9,690	9,930
1952	138,400	69,200	127,800	**	1992	7,490	3,745	4,820
1953	46,580	23,290	34,760	**	1993	34,490	17,245	17,840
1954	40,930	20,465	31,520	**	1994	34,430	17,215	18,260
1955	110,700	55,350	117,600		1995	17,730	8,865	9,310
1956	31,590	15,795	24,890		1996	79,430	39,715	38,140
1957	33,910	16,955	22,990		1997	62,990	31,495	43,580
1958	34,290	17,145	25,040		1998	12,110	6,055	6,300
1959	22,340	11,170	14,680		1999	11,380	5,690	6,890
1960	34,520	17,260	19,350	***	2000	5,670	2,835	2,950
1961	6,970	3,485	5,510		2001	4,480	2,240	1,720
1962	9,090	4,545	6,010		2002	23,660	11,830	12,620
1963	9,920	4,960	5,790		2003	27,280	13,640	15,640
1964	13,100	6,550	6,670		2004	25,790	12,895	17,180
1965	67,350	33,675	33,950	**	2005	17,800	8,900	9,480
1966	45,850	22,925	24,860		2006	11,710	5,855	4,980
1967	80,440	40,220	67,670		2007	15,830	7,915	9,640
1968	20,090	10,045	12,830		2008	14,400	7,200	7,820
1969	35,440	17,720	21,590		2009	11,720	5,860	5,840
1970	38,260	19,130	22,570	**	2010	66,300	33,150	27,320
1971	23,770	11,885	15,420		2011	103,000	51,500	85,700
1972	27,440	13,720	17,210		2012	19,320	9,660	13,630
1973	11,810	5,905	6,170		2013	25,430	12,715	23,050
1974	23,720	11,860	15,300		2014	21,240	10,620	12,760
					2015	17,740	8,870	22,100
1975	54,440	27,220	32,440		2016	15,270	7,635	8,590
1976	34,520	17,260	21,210					
1977	5,840	2,920	3,330					
1978	28,520	14,260	16,690		AVERAGE			
1979	47,520	23,760	27,640		1940-2015	30,230	15,110	20,130

* Revised.
** For comparison purposes, totals for Mar 1 to Oct 31 are shown. Additional periods are not included.
*** Between 2000 and 2002, the values for 2000 were reported as 5 700, 2 850, and 2 990 and in 2003 the values were erroneously reported as 5 670, 2 830, and 2 950. The values for the year 2000 currently shown in the above table are correct.

Table 14: NATURAL FLOW OF FRENCHMAN RIVER AT THE INTERNATIONAL BOUNDARY FOR THE YEAR 2016

Period For Cypress Lake Area	1 Belanger Creek Diversion Measured	2 Cypress Lake East Outflow Canal Measured	3 Cypress Area Minor Use Reported	4 Gross Depletion At Cypress Lake 1 - 2 + 3	5 Channel Loss To Inter - National Boundary Computed	6 Net Depletion At Cypress Lake 4 - 5
Feb 21-Mar 6	395	360	130	166	166	0
Mar 7 - 22	866	99	143	910	316	594
Mar 23-Apr 6	471	82	91	479	257	223
Apr 7 - 21	534	82	46	498	270	228
Apr 22-May 6	643	171	108	579	285	294
May 7 - 22	42	471	153	-276	-247	-29
May 23-Jun 6	791	266	73	598	356	241
Jun 7 -21	0	217	65	-152	-152	0
Jun 22-Jul 6	0	168	39	-129	-129	0
Jul 7 - 22	0	304	0	-304	-268	-36
Jul 23-Aug 6	0	121	0	-121	-121	0
Aug 7 - 22	0	211	0	-211	-211	0
Aug 23-Sep 6	0	27	0	-27	-27	0
Sep 7 - 21	0	37	0	-37	-37	0
Sep 22-Oct 6	0	246	0	-246	-227	-19
Oct 7 - 22	1275	201	0	1074	386	688
Total	5 017	3 064	848	2 800	616	2 184

All values are derived from data as published in Appendix B.
All quantities in cubic decametres.

Table 14 (continued): NATURAL FLOW OF FRENCHMAN RIVER AT THE INTERNATIONAL BOUNDARY FOR THE YEAR 2016

Period For Eastend Area	7 Eastend Reservoir Depletion Observed	8 Eastend Canal Measured	9 Return Flow Computed	10 Eastend Area Minor Use Reported	11 Gross Depletion At Eastend 7+8-9+10	12 Channel Loss At Inter - National Boundary Computed	13 Net Depletion At Eastend 11-12
Feb 23-Mar 8	2 484	0	0	17	2 501	416	2 085
Mar 9 - 24	-127	0	0	23	-104	-104	0
Mar 25-Apr 8	-66	0	0	0	-66	-66	0
Apr 9 - 23	311	0	0	5	316	204	112
Apr 24-May 8	-340	712	178	11	205	188	17
May 9 - 24	9	3 546	887	55	2 723	828	1 895
May 25-Jun 8	393	321	80	5	639	321	318
Jun 9 - 23	87	0	0	5	92	92	0
Jun 24-Jul 8	-44	0	0	11	-33	-33	0
Jul 9 - 24	25	0	0	12	37	37	0
Jul 25-Aug 8	-192	0	0	11	-181	-181	0
Aug 9 - 24	176	0	0	12	188	188	0
Aug 25-Sep 8	12	0	0	0	12	12	0
Sep 9 - 23	323	0	0	0	323	219	104
Sep 24-Oct 8	-340	0	0	0	-340	-219	-121
Oct 9 - 24	-918	0	0	0	-918	-305	-613
Total	1 793	4 579	1 145	167	5 394	1 598	3 796

All values are derived from data as published in Appendix B.
All quantities in cubic decametres.

Table 14 (continued): NATURAL FLOW OF FRENCHMAN RIVER AT THE INTERNATIONAL BOUNDARY FOR THE YEAR 2016

	14	15	16	17	18	19	20	21	22	23	24	25
Period For Val Marie Area	Huff Lake Net Depletion	Newton Lake Net Depletion	Total Change In Reservoir Contents	Huff Lake Gravity Canal	Huff Lake Pumping Canal	Newton Lake Main Canal	Total Canal Diversion	Return Flow	Val Marie Minor Use	Gross Depletion At Val Marie	Channel Loss To Boundary	Net Depletion At Val Marie
	Observed	Observed	14+15	Measured	Measured	Measured	17+18+19	Computed	Reported	16+20-21+22	Computed	23 - 24
Feb 27-Mar 12	6	630	636	0	0	0	0	0	23	659	97	562
Mar 13 - 28	-53	-78	-130	0	0	0	0	0	128	-2	-2	0
Mar 29-Apr 12	85	209	294	0	0	0	0	0	11	305	88	217
Apr 13 - 27	60	292	352	0	0	0	0	0	0	352	90	261
Apr 28-May 12	211	850	1 061	0	0	0	0	0	0	1 061	173	888
May 13 - 28	-295	-1 024	-1 319	452	191	1 178	1 822	455	332	380	109	271
May 29-Jun 12	-7	-1023	-1030	998	562	2 930	4 491	1 123	0	2 338	436	1 902
Jun 13 - 27	192	1 172	1 364	85	71	150	306	76	0	1 594	317	1 277
Jun 28-Jul 12	-85	606	522	0	0	0	0	0	0	522	145	376
Jul 13 - 28	139	-159	-20	0	0	0	0	0	0	-20	-20	0
Jul 29-Aug 12	214	-116	98	0	0	0	0	0	0	98	78	21
Aug 13 - 28	156	-1 544	-1 388	0	0	0	0	0	193	-1 195	-257	-938
Aug 29-Sep 12	-3247	3117	-129	0	0	0	0	0	0	-129	-79	-50
Sep 13 - 27	-2	-386	-388	0	0	0	0	0	0	-388	-105	-283
Sep 28-Oct 12	2002	-869	1 133	0	0	0	0	0	0	1 133	137	995
Oct 13 - 28	194	-1 317	-1 123	0	0	0	0	0	0	-1 123	-141	-982
	---	---	---	---	---	---	---	---	---	---	---	---
Total	-428	360	-68	1 535	825	4 259	6 618	1 654	687	5 584	1 064	4 519

All values are derived from data as published in Appendix B.
All quantities in cubic decametres.

Table 14 (continued): NATURAL FLOW OF FRENCHMAN RIVER AT THE INTERNATIONAL BOUNDARY FOR THE YEAR 2016

Period At International Boundary	26 Near International Boundary Minor Use Reported	27 Net Depletion In Canada 6+13+25+26	28 Frenchman River at International Boundary Measured	29 Natural Flow Of Frenchman River 27+28	30 U.S.A. Share Of Natural Flow 50% of 29	31 Excess Flow To The U.S.A. 28-30	32 Deficit(-) To Date Sum of 31
Mar 1 – 15	0	2647	3942	6590	3295	647	0
Mar 16 – 31	0	594	3109	3703	1851	1258	0
Apr 1 - 15	0	439	1368	1808	904	464	0
Apr 16 - 30	0	601	1573	2174	1087	486	0
May 1 - 15	0	1200	3487	4687	2344	1143	0
May 16 - 31	0	2137	2165	4303	2151	14	0
Jun 1 - 15	0	2461	1808	4269	2135	-327	-327
Jun 16 - 30	0	1277	464	1741	870	-406	-733
Jul 1 - 15	0	376	3661	4038	2019	1642	0
Jul 16 - 31	0	-36	2957	2922	1461	1496	0
Aug 1 - 15	0	21	1043	1063	532	511	0
Aug 16 - 31	0	-938	1844	906	453	1391	0
Sep 1 - 15	0	-50	779	730	365	414	0
Sep 16 - 30	0	-179	1085	907	453	632	0
Oct 1 - 15	0	855	13340	14196	7098	6242	0
Oct 16 - 31	0	-907	7263	6356	3178	4085	0
	---	---	---	---	---	---	---
Total	0	10499	49890	60389	30196	19694	0

All values are derived from data as published in Appendix B.
All quantities in cubic decameters

Approved by: _____For Canada

John M. Kilpatrick JOHN KILPATRICK 2020.08.24 13:05:35 -06'00'

_____For the United States

Table 15: HISTORICAL SUMMARY OF MARCH TO OCTOBER COMPUTED NATURAL AND RECORDED FLOW
FRENCHMAN RIVER AT INTERNATIONAL BOUNDARY
(VALUES IN CUBIC DECAMETRES)

YEAR	COMPUTED NATURAL FLOW	CANADIAN & U.S.A. SHARES	RECORDED FLOW		YEAR	COMPUTED NATURAL FLOW	CANADIAN & U.S.A. SHARES	RECORDED FLOW
1940	101,400	50,700	84,120		1980	33,440	16,720	17,780
1941	71,120	35,560	57,560		1981	18,140	9,070	8,310
1942	72,190	36,095	52,210		1982	114,700	57,350	82,530
1943	164,700	82,350	147,000		1983	44,230	22,115	22,990
1944	69,630	34,815	50,560		1984	11,920	5,960	5,640
1945	42,630	21,315	28,440		1985	42,500	21,250	22,180
1946	39,800	19,900	26,460		1986	107,000	53,500	74,060
1947	65,090	32,545	43,190		1987	79,590	39,795	59,520
1948	48,950	24,475	31,000		1988	13,510	6,755	6,050
1949	17,680	8,840	8,000		1989	22,760	11,380	12,020
1950	93,280	46,640	73,590		1990	34,430	17,215	19,950
1951	137,500	68,750	110,900		1991	101,500	50,750	72,100
1952	445,200	222,600	433,500		1992	11,100	5,550	5,980
1953	92,360	46,180	71,990		1993	77,310	38,655	49,220
1954	109,700	54,850	92,480		1994	97,860	48,930	76,410
1955	230,300	115,150	210,300		1995	25,130	12,565	12,340
1956	59,650	29,825	41,950		1996	168,900	84,450	134,200
1957	48,050	24,025	32,710		1997	192,000	96,000	166,700
1958	79,380	39,690	64,280		1998	19,530	9,765	9,500
1959	64,040	32,020	41,230		1999	83,560	41,780	59,260
1960	94,050	47,025	75,440		2000	29,260	14,630	14,950
1961	23,060	11,530	11,490		2001	11,810	5,905	6,380
1962	78,090	39,045	48,240		2002	59,740	29,870	37,940
1963	57,730	28,865	41,790	*	2003	65,540	32,770	56,210
1964	25,050	12,525	13,300		2004	71,660	35,830	48,180
1965	132,100	66,050	95,070	*	2005	38,840	19,420	27,790
1966	91,180	45,590	66,470		2006	40,040	20,020	25,080
1967	130,900	65,450	107,600		2007	58,470	29,235	32,280
1968	49,720	24,860	27,010	*	2008	26,050	13,025	12,660
1969	97,920	48,960	71,540		2009	33,850	16,925	17,140
1970	133,400	66,700	102,500	**	2010	71,020	35,510	37,460
1971	57,120	28,560	39,360		2011	241,800	120,900	223,000
1972	45,900	22,950	24,990		2012	47,800	23,900	36,180
1973	27,470	13,735	14,720		2013	96,990	48,495	83,560
1974	104,100	52,050	75,610		2014	133,900	66,950	117,200
					2015	63,490	31,740	52,920
1975	92,000	46,000	60,720		2016	60,390	30,195	49,890
1976	90,690	45,345	73,980					
1977	12,730	6,365	8,270					
1978	67,920	33,960	41,310		AVERAGE			
1979	108,500	54,250	77,360		1940-2015	78,440	39,220	59,530

* Period 16 extended to include Nov. 1-5 data.
** For comparison purposes, totals for Mar 1 to Oct 31 are shown. Additional periods are not included.

APPENDIX B

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TABLE OF CONTENTS (continued)

International Gauging Stations
Joint Review and Approval of Records

Pursuant to Article V of the International Joint Commission Order of October 4, 1921, the International Gauging Stations listed below have been operated and maintained by the Water Survey of Canada and the United States Geological Survey on a joint basis.

It is hereby certified that the annexed records have been computed in accordance with standard procedures of each country and jointly reviewed and approved on this 14th day of May,2020.

St. Mary River at International Boundary	05AE027
Lake Sherburne at Sherburne, Montana	05AE036
St. Mary Canal at St. Mary Crossing	05AE029
Milk River at Eastern Crossing of International Boundary	11AA031
Milk River at Western Crossing of International Boundary	11AA025
North Fork Milk River above St. Mary Canal, near Browning, Montana	11AA032
North Milk River near International Boundary	11AA001
Milk River at Milk River, Alberta	11AA005

_____ _____

Field Representative for the United States Field Representative for Canada

UNITED STATES DEPARTMENT OF THE INTERIOR - GEOLOGICAL SURVEY – WATER RESOURCES DIVISION

05020500 ST MARY RIVER AT INTERNATIONAL BOUNDARY 05AE027

DISCHARGE IN CUBIC METERS PER SECOND, CALENDAR YEAR JANUARY TO DECEMBER 2016

DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	e6.51	e3.82	5.49	8.81	25.3	44.2	28.2	15.2	7.76	12.9	31.7	19.4
2	e6.23	e3.82	5.41	7.96	22.4	43.6	28.3	14.4	7.59	12.4	31.2	17.1
3	e5.95	e3.68	5.38	8.38	20.6	45.9	28.6	14.4	7.39	11.8	30.0	15.2
4	e5.66	e3.68	5.24	8.13	20.6	51.2	27.8	14.0	7.08	11.4	28.9	13.9
5	e5.38	e3.82	5.07	7.62	23.1	56.4	27.1	13.4	7.02	10.8	27.2	12.9
6	e5.24	e3.82	5.04	7.16	27.3	61.5	26.0	12.7	6.91	10.5	26.0	e11.3
7	e5.10	e3.68	5.1	7.08	30.6	63.7	24.5	13.0	8.98	10.2	24.5	e9.91
8	e4.81	e3.82	4.98	8.86	34.0	66.5	22.3	13.4	9.63	9.91	23.6	e8.49
9	e4.67	3.94	5.01	11.0	42.5	71.6	20.6	12.9	9.71	10.6	22.3	e7.65
10	e4.53	4.02	5.44	13.4	46.7	73.3	19.1	13.4	10.2	13.8	21.6	e6.51
11	e4.39	4.11	5.75	16.0	45.6	70.8	20.0	13.5	11.3	17.9	21.1	e5.66
12	e4.25	4.02	5.86	18.2	43.3	64.8	19.2	13.2	10.9	20.3	20.8	e5.80
13	e4.11	4.25	6.48	20.5	42.8	56.9	19.3	13.3	10.4	21.6	20.6	e5.95
14	e4.25	4.16	6.94	21.6	39.6	48.1	18.8	12.9	9.80	23.1	21.0	e5.95
15	e4.11	4.13	7.22	24.2	35.4	41.3	18.9	12.4	9.51	26.9	21.1	e5.95
16	e3.96	3.79	7.50	25.0	32.0	35.7	18.4	12.2	9.37	29.2	22.6	e5.95
17	e3.96	3.60	7.84	24.4	29.5	31.4	17.7	12.4	9.23	31.2	23.9	e5.66
18	e3.82	3.77	8.16	24.0	28.3	26.7	17.1	13.6	9.51	32.3	26.8	e5.95
19	e3.68	4.56	7.99	23.9	33.1	24.8	16.9	13.8	11.5	32.9	28.3	e6.09
20	e3.68	5.21	8.04	24.4	37.4	22.2	16.9	13.1	14.0	31.7	29.2	e6.23
21	e3.68	5.52	7.93	27.2	42.5	21.9	16.7	12.0	15.7	30.9	28.9	e6.09
22	e3.82	5.95	7.87	29.2	44.5	22.9	17.0	11.3	17.5	29.5	29.2	e5.95
23	e3.68	5.52	7.02	33.1	45.9	24.5	17.5	10.6	18.2	28.1	28.6	e5.66
24	e3.68	5.61	6.85	37.1	48.7	25.7	16.9	10.3	17.8	27.2	28.3	e5.52
25	e3.68	5.61	6.85	39.4	49.0	27.2	16.2	10.5	17.2	26.2	28.2	e5.38
26	e3.68	5.89	7.39	39.1	48.7	27.3	16.5	10.0	16.5	25.3	26.4	e5.24
27	e3.68	6.00	7.65	37.9	49.3	27.4	16.6	9.91	15.6	25.1	25.1	e5.10
28	e3.96	5.86	7.73	34.8	49.6	27.1	16.6	8.86	14.7	25.9	24.3	e4.81
29	e4.11	5.83	7.70	31.7	47.6	27.6	16.2	8.41	14.0	28.6	23.5	e4.81
30	e3.96	---	7.16	28.9	46.4	27.9	16.1	8.13	13.5	30.6	22.0	e4.81
31	e3.82	---	8.61	---	45.9	---	15.3	7.90	---	31.7	---	e4.53
TOTAL	136.06	131.50	206.71	649.04	1178.03	1260.43	616.93	374.71	348.69	690.05	766.73	239.44
MEAN	4.39	4.53	6.65	21.6	38.0	42.0	19.9	12.1	11.6	22.3	25.6	7.73
MAX	6.51	6.00	8.61	39.4	49.6	73.3	28.6	15.2	18.2	32.9	31.7	19.4
MIN	3.68	3.60	4.98	7.08	20.64	21.9	15.3	7.90	6.91	9.91	20.6	4.53
DAM3	11760	11360	17860	56080	101780	108900	53300	32380	30130	59620	66250	20690

FOR THE SEASON, MARCH TO OCTOBER:
TOTAL DISCHARGE: 460 000 DAM3

FOR THE YEAR 2016:
TOTAL DISCHARGE 570 100 DAM3

e–Estimated

MAX INST DISCHARGE: 76.2 M3/S AT 0725 HRS ON JUNE 10 (G.H. 1.954 M)
MIN DAILY DISCHARGE: 3.60 M3/S ON FEB 17

APPROVED BY FIELD REPRESENTATIVES OF THE UNITED STATES AND CANADA

UNITED STATES DEPARTMENT OF THE INTERIOR - GEOLOGICAL SURVEY - WRD

05015500 LAKE SHERBURNE AT SHERBURNE, MT 05AE036

Month-end gage heights and contents at 2400 hours

Date	Gage height (metres)	Contents (cubic decametres)	Change in Contents (cubic decametres)
Sept. 30, 2015	1447.535	19 810	
Oct. 31, 2015	1448.455	23 290	+3 480
Nov. 30, 2015	1450.574	31 970	+8 680
Dec. 31, 2015	1452.549	41 120	+9 150
		Total 2015 calendar year	*-24 490*
Jan. 31, 2016	1453.183	44 200	+3 080
Feb. 29, 2016	1453.930	49 950	+5 750
Mar. 31, 2016	1454.509	51 020	+1 070
Apr. 30, 2016	1453.225	44 410	-6 610
May 31, 2016	1457.197	67 000	+22 590
June 30, 2016	1458.322	74 350	+7 350
July 31, 2016	1455.143	54 560	-19 790
Aug. 31, 2016	1449.089	25 810	-28 750
Sept. 30, 2016	1449.854	28 970	+3 160
		Total 2016 water year	*+9 160*
Oct. 31, 2016	1454.682	51 970	+23 000
Nov. 30, 2016	1455.566	57 010	+5 040
Dec. 31, 2016	1455.862	58 760	+1 750
		Total 2016 calendar year	*+17 640*

Maximum total contents: 78 810 dam3 at 1245 hrs on June 15 (gage height 1458.980 m).

Minimum total contents: 22 190 dam3 at 1500 hrs on Sept. 8 (gage height 1448.169 m).

APPROVED BY FIELD REPRESENTATIVES OF THE UNITED STATES AND CANADA

WATER SURVEY CANADA
Daily Mean Discharge Report for 2016

ST. MARY CANAL AT ST. MARY CROSSING
Station Number: 05AE029

Discharge Units: Cubic Metres Per Second
Total Units: Cubic Decametres

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Day
1	---	---	0	6.71	13.8	5.34	17.0	16.6	8.16	0	0 A	---	1
2	---	---	0	8.04	13.9	5.33	17.0	16.5	8.11	0	---	---	2
3	---	---	0	8.09	13.9	5.32	17.0	16.6	8.06	0	---	---	3
4	---	---	0	8.77	14.0	5.33	17.0	16.6	8.07	0	---	---	4
5	---	---	0	10.4	14.0	5.31	17.0	16.5	8.07	0	---	---	5
6	---	---	0	13.3	14.1	5.95	17.0	16.5	7.62	0	---	---	6
7	---	---	0	14.5	14.3	9.00	16.9	16.6	4.80	0	---	---	7
8	---	---	0	14.2	14.3	12.2	16.8	16.8	3.02	0	---	---	8
9	---	---	0	14.3	14.1 A	13.1	16.8	16.8	2.26	0	---	---	9
10	---	---	0	14.4	12.2	13.1	16.7	16.8 A	1.49	0	---	---	10
11	---	---	0	14.3	11.6	13.2	16.8	16.8	0	0	---	---	11
12	---	---	0	14.1	10.9	13.2	16.7	16.8	0	0	---	---	12
13	---	---	0	14.1	9.11 A	13.5	16.7	16.8	0	0	---	---	13
14	---	---	0	14.2	7.80	14.7	16.7	16.7	0	0	---	---	14
15	---	---	0	14.3	7.72	15.5	16.7	16.7	0	0	---	---	15
16	---	---	0	14.2	7.65	16.5	16.7	16.6	0	0	---	---	16
17	---	---	0	14.2	7.84	16.9	16.7	15.8	0	0	---	---	17
18	---	---	0	14.1	8.21	17.0	16.7	14.9	0	0	---	---	18
19	---	---	0	14.1	8.24	17.3	16.7	14.8	0	0	---	---	19
20	---	---	0	14.1	8.33	17.0	16.7	14.3	0	0	---	---	20
21	---	---	0	14.1	8.45	17.1	16.7	14.0	0	0	---	---	21
22	---	---	.036	14.1	8.48	17.0	16.7	13.9	0	0	---	---	22
23	---	---	1.77	14.3	8.27	17.1	16.7	12.2	0	0	---	---	23
24	---	---	2.36	14.3	6.71	17.4	16.7	11.0	0	0	---	---	24
25	---	---	3.09	14.2	5.60	17.4	16.7	9.82	0	0	---	---	25
26	---	---	3.11	14.2	5.56	17.4	16.7	9.40	0	0	---	---	26
27	---	---	3.12	14.2	5.51	17.4	16.7	8.37	0	0	---	---	27
28	---	---	3.52	14.1	5.43	17.4	16.7	8.29	0	0	---	---	28
29	---	0 A	4.91	14.0	5.38	17.1	16.7	8.27	0	0 A	---	---	29
30	---		5.96	13.9	5.42	17.0	16.6	8.25	0	0	---	---	30
31	---		6.00		5.38		16.6	8.23		0		---	31
Mean	---	---	1.09	13.2	9.56	13.6	16.8	14.1	1.99	0	---	---	
Total	---	---	2930	34200	25600	35200	44900	37900	5150	0	---	---	
Max	---	0	6.04	14.7	14.6	17.8	17.2	17.4	8.26	0	0	---	
(day)		29|16:15	31|01:30	7|06:45	9|04:20	19|01:40	3|10:50	7|19:25	1|01:50	1|00:00	1|00:00		
Min	---	0	0	5.97	5.33	5.17	16.5	8.19	0	0	0	---	
(day)		29|16:15	1|00:00	1|01:15	29|23:25	6|11:00	30|18:20	31|16:50	11|00:00	1|00:00	1|00:00		

A - Manual Gauge B - Ice Conditions E - Estimated D - Dry

Note: Report data from Aquarius displayed in a modified format.

APPROVED BY FIELD REPRESENTATIVES OF THE UNITED STATES AND CANADA

UNITED STATES DEPARTMENT OF THE INTERIOR - GEOLOGICAL SURVEY – WATER RESOURCES DIVISION

06135000 EASTERN CROSSING MILK RIVER AT INTERNATIONAL BOUNDARY 11AA031

DISCHARGE IN CUBIC METERS PER SECOND, CALENDAR YEAR JANUARY TO DECEMBER 2016

DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	---	---	e1.84	3.26	16.6	9.94	21.4	16.6	8.27	1.13	---	---
2	---	---	e1.98	3.99	15.9	9.32	15.7	15.8	7.76	1.15	---	---
3	---	---	e2.27	4.22	15.4	9.03	15.7	15.0	7.42	1.08	---	---
4	---	---	e2.55	5.30	15.0	8.41	15.8	16.2	7.33	1.35	---	---
5	---	---	e2.83	6.54	14.6	7.82	15.3	14.8	7.48	1.82	---	---
6	---	---	e2.69	7.56	13.9	7.48	15.2	14.4	7.62	1.78	---	---
7	---	---	e2.55	9.06	13.6	7.05	15.1	14.7	7.73	1.32	---	---
8	---	---	e2.83	9.17	13.5	6.65	15.4	15.0	7.65	1.14	---	---
9	---	---	3.06	8.98	13.6	7.02	15.6	23.3	7.42	0.983	---	---
10	---	---	2.77	10.3	13.8	6.00	15.6	23.0	7.53	1.20	---	---
11	---	---	2.62	13.3	14.9	6.57	16.3	20.2	7.50	1.33	---	---
12	---	---	2.49	13.9	15.3	6.37	18.4	20.3	6.65	1.59	---	---
13	---	---	2.29	13.5	16.1	9.80	16.2	18.3	5.61	1.39	---	---
14	---	---	2.13	14.1	15.4	11.6	15.3	17.4	4.56	1.40	---	---
15	---	---	2.08	23.0	13.4	11.4	16.5	16.9	3.94	3.31	---	---
16	---	---	2.02	17.9	13.8	11.3	16.2	17.7	3.43	2.76	---	---
17	---	---	1.91	14.1	12.7	11.2	16.3	17.4	3.06	1.64	---	---
18	---	---	1.86	12.7	10.9	12.1	18.9	17.2	2.64	1.27	---	---
19	---	---	1.86	12.9	9.88	13.6	18.4	17.2	2.11	1.13	---	---
20	---	---	1.73	13.3	10.2	14.1	17.0	17.6	1.89	1.08	---	---
21	---	---	1.96	13.1	12.4	14.9	16.5	17.3	1.68	1.14	---	---
22	---	---	1.85	13.8	12.7	15.6	15.7	15.9	2.02	1.25	---	---
23	---	---	1.84	14.8	13.0	16.7	14.6	14.9	3.31	1.29	---	---
24	---	---	1.90	15.0	15.4	16.3	14.5	14.6	3.43	1.46	---	---
25	---	---	1.84	15.0	15.0	16.0	14.2	14.2	2.55	1.51	---	---
26	---	---	1.81	16.2	15.0	16.1	14.6	14.2	1.74	1.42	---	---
27	---	---	1.87	15.9	15.4	15.6	15.5	13.9	1.48	1.38	---	---
28	---	---	1.91	16.8	15.5	15.7	17.2	12.5	1.36	1.33	---	---
29	---	---	2.03	17.0	13.4	15.9	17.5	11.2	1.25	1.25	---	---
30	---	---	2.02	16.9	10.7	15.7	16.5	10.0	1.16	1.22	---	---
31	---	---	1.94	---	10.0	---	16.4	9.40	---	1.78	---	---
TOTAL	---	---	67.33	371.56	427.03	345.48	503.4	497.2	137.58	44.883	---	---
MEAN	---	---	2.17	12.4	13.8	11.5	16.2	16.0	4.586	1.447	---	---
MAX	---	---	3.06	23.0	16.6	16.7	21.4	23.3	8.27	3.31	---	---
MIN	---	---	1.73	3.26	9.88	6.00	14.2	9.40	1.16	0.983	---	---
DAM3			5820	32100	36900	29850	43490	42950	11890	3880		

FOR THE SEASON, MARCH TO OCTOBER:

TOTAL DISCHARGE: 206 900 DAM3

MAX INST DISCHARGE: 30.3 M3/S AT 0945 HRS ON APR 15 (G.H. 1.433 M)

MIN DAILY DISCHARGE: 0.983 M3/S ON OCT 9

e--Estimated

APPROVED BY FIELD REPRESENTATIVES OF THE UNITED STATES AND CANADA

WATER SURVEY CANADA
Daily Mean Discharge Report for 2016

MILK RIVER AT WESTERN CROSSING OF INTERNATIONAL BOUNDARY
Station Number: 11AA025
Discharge Units: Cubic Metres Per Second
Total Units: Cubic Decametres

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Day
1	---	---	.751 B	1.48	.987	1.16	.039	.011	0	.111	---	---	1
2	---	---	.463 B	1.95	.969	1.16	.025	.010	0	.090	---	---	2
3	---	---	.543 B	1.82	.906	1.05	.018	.012	0	.064	---	---	3
4	---	---	.667 B	1.59	.760	.907	.016	.011	0	.052	---	---	4
5	---	---	.940	1.67	.677	.804	.013	.008	0	.057	---	---	5
6	---	---	.880	1.67	.647	.678	.010	.007	0	.072	---	---	6
7	---	---	.928	1.54	.589	.584	.007	.013	0	.113	---	---	7
8	---	---	.935	1.38	.543	.509	.012	.021	0	.103	---	---	8
9	---	---	.884	1.25	.649	.575	.007	.012	0	.101	---	---	9
10	---	---	.844	1.15	.642	.402	.002	.011	0	.164	---	---	10
11	---	---	.816	1.08	.771	.412	.005	.006	0	.223	---	---	11
12	---	---	.804	1.02	1.47	.429	.004	.004	0	.254	---	---	12
13	---	---	.870	.972	1.72	.433	.014	.013	0	.527	---	---	13
14	---	---	.976	.952	1.66	.445	.094	.024	0	.642	---	---	14
15	---	---	.962	1.24	1.96	.453	.083	.021	0	.558	---	---	15
16	---	---	.847	1.34	1.95	.382	.090	.011	0	.730	---	---	16
17	---	---	.929	1.62	1.55	.292	.180	.005	0	1.21	---	---	17
18	---	---	.882	1.88	1.22	.262	.164	.006	0	1.12	---	---	18
19	---	---	.843	1.77	1.04	.244	.100	.008	0	.886	---	---	19
20	---	---	.842	1.56	1.15	.207	.060	.004	0	.718	---	---	20
21	---	---	.805	1.34	1.26	.224	.032	.001	0	.619	---	---	21
22	---	---	.814	1.10	1.28	.217	.019	0	0	.542	---	---	22
23	---	---	.855	.956	2.13	.135	.024	0	0	.470	---	---	23
24	---	---	.885	.950	2.38	.102	.013	0	.029	.416	---	---	24
25	---	---	.958	.958	2.51	.083	.011	0	.026	.379	---	---	25
26	---	---	.920	1.02	2.26	.058	.007	0	.015	.369	---	---	26
27	---	---	.863	1.04	1.87	.050	.100	0	.035	.367	---	---	27
28	---	---	.897	1.01	1.65	.039	.124	0	.242	.341	---	---	28
29	---	---	.921	.962	1.69	.035	.081	0	.178	.329	---	---	29
30	---		.920	.961	1.46	.063	.040	0	.139	.331	---	---	30
31	---		1.13		1.24		.021	0		.549		---	31
Mean	---	---	.857	1.31	1.34	.413	.046	.007	.022	.404	---	---	
Total	---	---	2300	3390	3590	1070	122	18.7	57.4	1080	---	---	
Max	---	---	1.67	2.02	2.57	1.21	.500	.029	.270	1.27	---	---	
(day)			16|15:55	2|08:45	25|09:40	2|10:00	27|18:35	15|03:10	28|01:30	17|13:05			
Min	---	---	.126	.891	.433	.024	0	0	0	.046	---	---	
(day)			16|08:05	14|11:10	8|09:00	29|14:15	10|10:40	21|08:00	1|00:00	6|05:15			

A - Manual Gauge B - Ice Conditions E - Estimated D - Dry

Note: Report data from Aquarius displayed in a modified format.

APPROVED BY FIELD REPRESENTATIVES OF THE UNITED STATES AND CANADA

UNITED STATES DEPARTMENT OF THE INTERIOR - GEOLOGICAL SURVEY – WATER RESOURCES DIVISION

06133500 NORTH FORK MILK RIVER ABOVE ST MARY CANAL NEAR BROWNING, MT 11AA032

DISCHARGE, IN CUBIC METERS PER SECOND, CALENDAR YEAR JANUARY TO DECEMBER 2016

DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	---	---	0.464	0.711	0.507	0.456	0.371	0.306	0.337	0.314	---	---
2	---	---	0.419	0.626	0.479	0.425	0.337	0.303	0.320	0.320	---	---
3	---	---	0.450	0.606	0.481	0.413	0.328	0.294	0.317	0.317	---	---
4	---	---	0.445	0.595	0.470	0.391	0.317	0.297	0.317	0.328	---	---
5	---	---	0.439	0.595	0.464	0.377	0.311	0.297	0.314	0.351	---	---
6	---	---	0.450	0.569	0.467	0.371	0.323	0.292	0.309	0.357	---	---
7	---	---	0.479	0.552	0.464	0.365	0.348	0.309	0.317	0.343	---	---
8	---	---	0.447	0.544	0.453	0.368	0.331	0.447	0.311	0.345	---	---
9	---	---	0.419	0.530	0.476	0.379	0.334	0.382	0.326	0.340	---	---
10	---	---	0.439	0.544	0.555	0.374	0.326	0.362	0.311	0.416	---	---
11	---	---	0.450	0.532	0.572	0.416	0.436	0.379	0.326	0.382	---	---
12	---	---	0.442	0.530	0.518	0.382	0.425	0.422	0.459	0.365	---	---
13	---	---	0.447	0.527	0.544	0.365	0.447	0.433	0.371	0.377	---	---
14	---	---	0.447	0.530	0.583	0.374	0.351	0.388	0.328	0.450	---	---
15	---	---	0.430	0.665	0.518	0.377	0.343	0.405	0.317	0.396	---	---
16	---	---	0.453	0.697	0.476	0.385	0.388	0.379	0.297	0.348	---	---
17	---	---	0.507	0.657	0.462	0.385	0.348	0.357	0.297	0.334	---	---
18	---	---	0.538	0.569	0.445	0.374	0.337	0.374	0.294	0.309	---	---
19	---	---	0.558	0.538	0.433	0.362	0.328	0.445	0.286	0.317	---	---
20	---	---	0.566	0.535	0.439	0.348	0.306	0.391	0.289	0.309	---	---
21	---	---	0.575	0.507	0.479	0.343	0.292	0.357	0.297	0.300	---	---
22	---	---	0.563	0.521	0.572	0.343	0.292	0.334	0.402	0.294	---	---
23	---	---	0.555	0.515	0.665	0.337	0.294	0.328	0.487	0.289	---	---
24	---	---	0.549	0.527	0.736	0.334	0.294	0.351	0.320	0.289	---	---
25	---	---	0.575	0.538	0.535	0.388	0.297	0.354	0.292	0.283	---	---
26	---	---	0.583	0.544	0.575	0.354	0.303	0.357	0.294	0.282	---	---
27	---	---	0.586	0.521	0.623	0.337	0.340	0.354	0.289	0.289	---	---
28	---	---	0.597	0.532	0.479	0.326	0.328	0.343	0.286	0.297	---	---
29	---	---	0.648	0.530	0.433	0.394	0.320	0.348	0.289	0.300	---	---
30	---	---	0.668	0.515	0.521	0.433	0.317	0.337	0.286	0.292	---	---
31	---	---	0.799	---	0.518	---	0.300	0.337	---	e0.328	---	---
TOTAL	---	---	15.962	16.902	15.942	11.276	10.412	11.062	9.685	10.261	---	---
MEAN	---	---	0.515	0.563	0.514	0.376	0.336	0.357	0.323	0.331	---	---
MAX	---	---	0.799	0.711	0.736	0.456	0.447	0.447	0.487	0.450	---	---
MIN	---	---	0.419	0.507	0.433	0.326	0.292	0.292	0.286	0.282	---	---
DAM3			1380	1460	1380	974	900	956	837	887		

FOR THE SEASON, MARCH TO OCTOBER:
TOTAL DISCHARGE: 8 770 DAM3
MAX INST DISCHARGE: 0.963 M3/S AT 0930 HRS ON MAR 16 (G.H. 0.613 M)
MIN DAILY DISCHARGE: 0.282 M3/S ON OCT 26,

e--Estimated

APPROVED BY FIELD REPRESENTATIVES OF THE UNITED STATES AND CANADA

WATER SURVEY CANADA
Daily Mean Discharge Report for 2016

NORTH MILK RIVER NEAR INTERNATIONAL BOUNDARY
Station Number: 11AA001

Discharge Units: Cubic Metres Per Second
Total Units: Cubic Decametres

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Day
1	---	---	.550 B	7.91 A	14.9	6.17	18.0	17.2	8.34	.327	---	---	1
2	---	---	.637 B	8.66	14.8	6.11	17.9	17.2	8.30	.326	---	---	2
3	---	---	.646 B	9.43	14.8	5.98	18.0	17.1	8.12	.324	---	---	3
4	---	---	.642 B	9.75	14.9	5.97	17.7	17.1	8.08	.331	---	---	4
5	---	---	.622 B	10.7	14.9	5.99	17.6	17.1	8.20	.337	---	---	5
6	---	---	.546 B	12.3	15.0	5.94	17.9	17.1	8.24	.343	---	---	6
7	---	---	.547 B	14.4	15.1	6.89	18.0	17.3	7.46	.335	---	---	7
8	---	---	.556 B	15.5	15.3	9.80	17.6	18.3	5.22	.338	---	---	8
9	---	---	.495 B	15.3	15.8	12.3	17.4	17.7	3.48	.340	---	---	9
10	---	---	.502 B	15.4	14.9	13.0	17.2	17.7	2.66	.435	---	---	10
11	---	---	.522	15.6	13.0	13.2	18.1	17.4	2.09	.432	---	---	11
12	---	---	.527	15.5	12.4	13.2	17.6	17.7	1.24	.394	---	---	12
13	---	---	.525	15.2	11.6	13.1	17.7	17.8	.769	.411	---	---	13
14	---	---	.522	15.2	9.68	14.0	17.3	17.5	.665	.470	---	---	14
15	---	---	.494	15.7	8.48	15.2	17.5	17.5	.626	.455	---	---	15
16	---	---	.475	15.7	8.27	16.4	17.6	17.4	.413	.399	---	---	16
17	---	---	.493	15.4	8.19	17.2	17.3	17.1	.306	.375	---	---	17
18	---	---	.504 A	15.2	8.41	17.7	17.4	16.1	.291	.359	---	---	18
19	---	---	.479 E	15.2	8.69	18.7	17.4	15.4	.283	.358	---	---	19
20	---	---	.497 E	15.2	8.96	17.9	17.2	14.9	.285	.347	---	---	20
21	---	---	.499 E	15.1	9.40	18.2	17.2	14.3	.312	.346	---	---	21
22	---	---	.501 A	15.1	9.50	17.7	17.2	14.0	.515	.346	---	---	22
23	---	---	.496	15.3	9.57	18.0	17.3	13.2	.686	.344	---	---	23
24	---	---	.481	15.4	9.36	18.6	17.3	12.0	.427	.352	---	---	24
25	---	---	2.43	15.4	7.45	19.3	17.3	11.0	.346	.356	---	---	25
26	---	---	4.35	15.4	6.58	18.6	17.3	10.1	.325	.352 A	---	---	26
27	---	---	4.42	15.3	6.68	18.8	17.4	9.42	.309	.350 E	---	---	27
28	---	---	4.51 A	15.3	6.30	19.0	17.4	8.53	.305	.351 E	---	---	28
29	---	---	5.19 A	15.2	6.12	19.4	17.4	8.44	.316	.350 E	---	---	29
30	---		7.67 A	15.1	6.29	18.4	17.4	8.45	.324	.348 E	---	---	30
31	---		8.00 A		6.30		17.2	8.38		.357 E		---	31
Mean	---	---	1.59	14.2	10.7	14.0	17.5	14.8	2.63	.364	---	---	
Total	---	---	4260	36800	28700	36300	46900	39800	6820	976	---	---	
Max	---	---	8.14	15.9	16.2	20.2	18.8	19.1	8.43	.532	---	---	
(day)			31|08:50	16|06:05	9|15:20	24|22:45	11|17:35	12|14:00	1|04:25	14|20:30			
Min	---	---	.169	7.81	6.03	5.87	17.1	8.30	.270	.286	---	---	
(day)			16|08:30	1|21:25	29|16:10	6|19:50	15|13:20	31|17:15	19|17:45	12|08:40			

A - Manual Gauge B - Ice Conditions E - Estimated D - Dry

Note: Report data from Aquarius displayed in a modified format.

APPROVED BY FIELD REPRESENTATIVES OF THE UNITED STATES AND CANADA

WATER SURVEY CANADA
Daily Mean Discharge Report for 2016

MILK RIVER AT MILK RIVER
Station Number: 11AA005

Discharge Units: Cubic Metres Per Second
Total Units: Cubic Decametres

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Day
1	.761 B	3.17 B	2.03 B	7.56	15.2	7.36	16.6	16.7	8.37	.553	1.19	.195 B	1
2	.688 B	2.51 B	2.27 B	7.96	15.1	7.04	16.5	16.6	8.30	.499	1.31	.214 B	2
3	.709 B	2.25 B	2.25 B	8.89	14.9	6.79	16.2	16.6	8.22	.498	1.12	.247 B	3
4	.757 B	2.66 B	2.29 B	9.72	14.7	6.55	16.1	16.6	8.20	.495	1.05	.276 B	4
5	.802 B	2.07 B	2.28	10.4	14.7	6.33	16.1	16.5	8.36	.489	1.04	.264 B	5
6	.831 B	1.67 B	2.14	11.0	14.6	5.97	16.2	16.5	8.44	.484	1.05	.231 B	6
7	.826 B	1.48 B	1.88	12.4	14.5	5.75	16.4	16.9	8.40	.483	1.04	.220 B	7
8	.797 B	1.38 B	1.80 B	14.9	14.5	5.98	16.3	17.9	7.92	.506	1.03	.213 B	8
9	.757 B	1.35 B	1.65 B	15.6	15.0	8.86	16.2	17.6	6.43	.542	.981	.203 B	9
10	.670 B	1.38 B	1.66 B	15.3	15.5	11.9	16.1	17.3	4.57	.675	.913	.189 B	10
11	.670 B	1.47 B	1.63 B	15.3	14.5	13.0	16.3	17.3	3.61	.756	.902	.174 B	11
12	.729 B	1.62 B	1.55	15.5	13.4	12.8	17.1	17.1	3.13	.745	.871	.158 B	12
13	.801 B	1.82 B	1.52	15.3	14.2	12.8	17.1	17.3	2.58	.829	.842	.142 B	13
14	.799 B	1.99 B	1.53	15.4	13.1	12.7	17.0	17.2	1.93	.855	.833	.126 B	14
15	.801 B	1.96 B	1.59	16.8	11.3	13.4	16.9	17.1	1.42	1.00	.803	.110 B	15
16	.787 B	1.64 B	1.61 B	16.6	10.3	14.5	18.2	17.1	1.15	1.08	.810	.098 B	16
17	.747 B	1.28 B	1.43 B	16.4	9.93	15.4	17.5	17.0	.986	1.05	.855	.081 B	17
18	.701 B	1.18 B	1.63 B	16.4	9.39	16.3	17.0	16.8	.889	1.42	.903	.095 B	18
19	.684 B	2.94 B	1.35 B	16.4	9.15	16.6	17.2	16.1	.762	1.67	.309 B	.100 B	19
20	.718 B	2.64 B	1.51	16.2	9.89	16.8	16.9	15.4	.646	1.47	.238 B	.108 B	20
21	.770 B	2.43 B	1.54	15.8	10.9	16.6	16.8 A	14.9	.589	1.33	.876 B	.112 B	21
22	.796 B	2.77 B	1.49	15.6	11.3	16.5	16.9	14.1	.731	1.18	.525 B	.168 B	22
23	.815 B	2.65 B	1.46 A	15.4	11.7	16.3	16.7	13.9	.766	1.08	.374 B	.222 B	23
24	.835 B	2.25 B	1.59 A	16.0	12.1	16.3	16.5	13.5	.773	1.03	.610 B	.217 B	24
25	.820 B	2.57 B	1.69	15.9	12.0	16.9	16.5	12.2	.802	.990	.761 B	.178 B	25
26	.894 B	2.18 B	1.68	15.7	10.3	16.9	17.2	11.2	.837	.935	.781 B	.151 B	26
27	1.13 B	2.42 B	3.04	15.5	8.80	16.7	17.2	10.2	.678	.904	.731 B	.163 B	27
28	1.48 B	2.22 B	4.23	15.8	8.29	16.7	17.0	9.60	.563	.891	.556 B	.188 B	28
29	2.48 B	1.99 B	4.58	15.5	7.71	16.8	17.3	8.72	.533	.865	.296 B	.201 B	29
30	2.55 B		4.80	15.4	7.81	16.9	16.9	8.51	.522	.848	.192 B	.199 B	30
31	2.42 B		6.09		7.68		16.8	8.45		1.08		.183 B	31
Mean	.968	2.07	2.19	14.4	12.0	12.8	16.8	14.9	3.37	.878	.793	.175	
Total	2590	5180	5860	37200	32200	33100	44900	40000	8740	2350	2060	468	
Max	3.15	4.94	7.11	17.1	15.7	17.4	19.5	19.7	8.64	1.82	1.52	.280	
(day)	31|23:55	19|07:50	31|23:20	15|02:40	10|06:05	25|21:15	16|08:55	8|12:50	5|07:00	19|06:45	2|08:30	4|16:10	
Min	.651	.811	.556	7.06	7.41	5.51	15.7	8.26	.490	.457	.106	.068	
(day)	10|17:20	22|21:10	1|11:45	1|00:55	31|19:40	7|21:15	4|01:35	31|20:10	30|21:15	7|08:40	19|20:45	17|10:50	

A - Manual Gauge B - Ice Conditions E - Estimated D - Dry

Note: Report data from Aquarius displayed in a modified format.

APPROVED BY FIELD REPRESENTATIVES OF THE UNITED STATES AND CANADA

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International Gauging Stations
Joint Review and Approval of Records

Pursuant to Article V of the International Joint Commission Order of October 4, 1921, the International Gauging Stations listed below have been operated and maintained by the Water Survey of Canada and the United States Geological Survey on a joint basis.

It is hereby certified that the annexed records have been computed in accordance with standard procedures of each country and jointly reviewed and approved on this 14th day of May,2020

Lodge Creek Below McRae Creek at International Boundary	11AB083
Middle Creek near Saskatchewan Boundary	11AB009
Middle Creek below Middle Creek Reservoir	11AB001
Middle Creek above Lodge Creek	11AB008
Middle Creek near Govenlock	11AB108
Altawan Reservoir near Govenlock	11AB089
Spangler Ditch near Govenlock	11AB060
Battle Creek at International Boundary	11AB027
Gaff Ditch near Merryflat	11AB102
Cypress Lake West Inflow Canal	11AB078
Cypress Lake West Inflow Canal Drain	11AB085
Cypress Lake West Outflow Canal	11AB077
Vidora Ditch near Consul	11AB084
Richardson Ditch near Consul	11AB058
McKinnon Ditch near Consul	11AB044
Nashlyn Canal near Consul	11AB018
Frenchman River at International Boundary	11AC041
Belanger Creek Diversion to Cypress Lake	11AC064
Cypress Lake	11AC037
Cypress Lake East Outflow Canal	11AC060
Eastend Reservoir	11AC055
Eastend Canal near Eastend	11AC052
Huff Lake	11AC063
Huff Lake Gravity Canal	11AC065
Huff Lake Pumping Canal	11AC066
Newton Lake	11AC056
Newton Lake Main Canal	11AC054

_____ _____

Field Representative for the United States Field Representative for Canada

WATER SURVEY CANADA
Daily Mean Discharge Report for 2016

LODGE CREEK BELOW MCRAE CREEK AT INTERNATIONAL BOUNDARY
Station Number: 11AB083
Discharge Units: Cubic Metres Per Second
Total Units: Cubic Decametres

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Day
1	---	---	.020	.000	.000	.578	.005	0	0	0	.148	---	1
2	---	---	.017	.000	0	.505 A	.003	0	0	0	.964	---	2
3	---	---	.016	.000	0	.326	.002	0	0	0	.445	---	3
4	---	---	.015	.000	0	.234	.001	0	0	0 A	.196	---	4
5	---	---	.013	.000	0	.580	.001	0	0	0	.112	---	5
6	---	---	.012	.000	0	.540	.001	0	0	0	.073	---	6
7	---	---	.007	.000	0	.516	.000	0	0	0	.049	---	7
8	---	---	.003	0	0	.491	.000	0	0	0	.034	---	8
9	---	---	.006	.000	0	.645	0	0 A	0	0	.026	---	9
10	---	---	.003	.000	0	.731	0	0	0	0	.018	---	10
11	---	---	.002	0	0	.736	0	0	0	0	.014	---	11
12	---	---	.002	0	0	.772	0	0	0	0	.012	---	12
13	---	---	.002	.000	0	.706	0	0 A	0	0	.009	---	13
14	---	---	.002	.000	0	.689	0	0	0	0	.007	---	14
15	---	---	.001	.001	0	.680	0	0	0	.009	.006	---	15
16	---	---	.001	.001	0	.625	0	0	0	.015	---	---	16
17	---	---	.001	.001	0	.322	0	0	0	.004	---	---	17
18	---	---	.001	.001	0	.172	0	0	0	.002	---	---	18
19	---	---	.001	.000	0	.118	0	0	0	.001	---	---	19
20	---	---	.001	.000	0 A	.083	0	0	0	.001	---	---	20
21	---	---	.001	.000	0	.072	0	0	0	.000	---	---	21
22	---	---	.000	0	0	.059	0	0	0	.000	---	---	22
23	---	---	.000	0	0	.041	0	0	0	.001	---	---	23
24	---	---	.000	0	0	.028	0	0	0	.002	---	---	24
25	---	---	.000	.000	.125	.020	0	0	0	.003	---	---	25
26	---	---	.000	.000	.271	.013	0	0	0	.003	---	---	26
27	---	---	.000	.000	.224	.013	0	0	0	.004	---	---	27
28	---	.013 A	.000	.001	.242	.013	0	0	0	.005	---	---	28
29	---	.021	.000	.000	.338	.010	0	0	0	.005	---	---	29
30	---		.000	.000	.312	.006	0	0	0	.004	---	---	30
31	---		.000		.281		0	0		.011		---	31
Mean	---	---	.004	.000	.058	.344	.000	0	0	.002	---	---	
Total	---	---	11.1	.584	155	892	1.10	0	0	6.00	---	---	
Max	---	.023	.028	.001	.352	.794	.005	0	0	.041	1.50	---	
(day)		29|15:25	9|13:05	5|15:00	29|11:14	12|10:09	1|00:00	1|00:00	1|00:00	31|23:59	2|06:24		
Min	---	.012	0	0	0	.004	0	0	0	0	.005	---	
(day)		28|18:15	21|07:55	1|00:00	1|00:00	30|21:59	6|08:39	1|00:00	1|00:00	1|00:00	15|12:49		

A - Manual Gauge B - Ice Conditions E - Estimated D - Dry

Note: Report data from Aquarius displayed in a modified format.

APPROVED BY THE FIELD REPRESENTATIVES OF CANADA AND THE UNITED STATES

STORAGE FACTORS AND EVAPORATION LOSSES
2016

MICHEL RESERVOIR 11AB091

PERIOD	ELEVATION At End of Period (m)	MEAN RESERVOIR SURFACE AREA (dam^2)	EVAPORATION		STORAGE AT		TOTAL CHANGE IN STORAGE (dam^3)
			Penman Evap. Adjusted for Elevation (m)	Reservoir (dam^3)	Beginning of Period (dam^3)	End of Period (dam^3)	
1	1100.908	1794	0.000	0	473	572	99
2	1100.955	1901	0.000	0	572	581	9
3	1100.982	1918	0.000	0	581	586	5
4	1101.051	1936	0.000	0	586	599	13
5	1101.056	1950	0.056	11	599	600	12
6	1101.129	1963	0.013	3	600	615	18
7	1101.117	1973	0.057	11	615	612	8
8	1101.069	1963	0.072	14	612	603	5
9	1101.075	1960	0.040	8	603	604	9
10	1101.154	1970	0.054	11	604	620	27
11	1101.316	2020	0.055	11	620	652	43
12	1101.274	2040	0.063	13	652	644	5
13	1101.220	2020	0.055	11	644	633	0
14	1101.198	2009	0.022	4	633	629	0
15	1101.262	2020	0.011	2	629	641	14
16	1101.311	2040	0.020	4	641	651	14

Stage-capacity curve # 2.00 and stage-area curve # 2.01 were used in 2016 computations.

STORAGE FACTORS AND EVAPORATION LOSSES
2016

GREASEWOOD RESERVOIR 11AB092

PERIOD	ELEVATION At End of Period (m)	MEAN RESERVOIR SURFACE AREA (dam^2)	EVAPORATION		STORAGE AT		TOTAL CHANGE IN STORAGE (dam^3)
			Penman Evap. Adjusted for Elevation (m)	Reservoir (dam^3)	Beginning of Period (dam^3)	End of Period (dam^3)	
1	30.176	490	0.000	0	69	141	72
2	30.179	612	0.000	0	141	142	1
3	30.166	611	0.000	0	142	140	-2
4	30.204	613	0.000	0	140	144	4
5	30.166	613	0.056	3	144	140	-1
6	30.208	614	0.013	1	140	145	6
7	30.160	613	0.057	3	145	139	-3
8	29.297	520	0.072	4	139	82	-53
9	27.757	316	0.040	1	82	33	-48
10	28.424	270	0.054	1	33	51	19
11	28.878	330	0.055	2	51	66	17
12	28.870	358	0.063	2	66	65	1
13	28.856	357	0.055	2	65	65	2
14	28.914	359	0.022	1	65	67	3
15	29.091	379	0.011	0	67	74	7
16	29.389	436	0.020	1	74	87	14

STORAGE FACTORS AND EVAPORATION LOSSES
2016

MASSY RESERVOIR 11AB104

PERIOD	ELEVATION At End of Period (m)	MEAN RESERVOIR SURFACE AREA (dam^2)	EVAPORATION		STORAGE AT		TOTAL CHANGE IN STORAGE (dam^3)
			Penman Evap. Adjusted for Elevation (m)	Reservoir (dam^3)	Beginning of Period (dam^3)	End of Period (dam^3)	
1	28.371	737	0.000	0	29	170	141
2	28.464	940	0.000	0	170	179	9
3	28.500	972	0.000	0	179	183	4
4	28.601	1005	0.000	0	183	192	9
5	28.667	1047	0.056	6	192	199	13
6	28.854	1136	0.013	1	199	218	20
7	28.835	1211	0.057	7	218	217	6
8	28.376	1033	0.072	7	217	171	-39
9	28.948	1060	0.040	4	171	228	61
10	29.075	1397	0.054	8	228	242	22
11	28.965	1407	0.055	8	242	230	-4
12	28.574	1144	0.063	7	230	189	-34
13	27.462	846	0.055	5	189	94	-90
14	27.451	766	0.022	2	94	94	2
15	27.539	771	0.011	1	94	100	7
16	27.905	806	0.020	2	100	130	32

The zero capacity WL is set on the current use table (No. 1) at 23.774 m.
Based on observations on July 11, 2001, it is estimated that the zero capacity WL is approx. 24.300 m.
All periods below 24.300 m will be treated as zero capacity.
Stage-capacity Table No. 1 was extended from 29.260 m (262 dam^3) to 29.300 m (270 dam^3).
Stage-area Table No. 1 was extended from 28.950 m (1326 dam^2) to 29.300m (1711 dam^2).

STORAGE FACTORS AND EVAPORATION LOSSES
2016

BARE CREEK RESERVOIR 11AB094

PERIOD	ELEVATION At End of Period (m)	MEAN RESERVOIR SURFACE AREA (dam^2)	EVAPORATION		STORAGE AT		TOTAL CHANGE IN STORAGE (dam^3)
			Penman Evap. Adjusted for Elevation (m)	Reservoir (dam^3)	Beginning of Period (dam^3)	End of Period (dam^3)	
1	1136.876	4335	0.000	0	1492	1825	333
2	1136.861	4675	0.000	0	1825	1819	-6
3	1136.832	4655	0.000	0	1819	1806	-13
4	1136.838	4645	0.000	0	1806	1808	2
5	1136.803	4631	0.056	26	1808	1793	11
6	1136.821	4624	0.013	6	1793	1801	14
7	1136.786	4616	0.057	26	1801	1785	10
8	1136.724	4571	0.072	33	1785	1758	6
9	1136.780	4568	0.040	18	1758	1783	43
10	1136.609	4515	0.054	24	1783	1707	-52
11	1136.698	4478	0.055	25	1707	1746	64
12	1136.641	4492	0.063	28	1746	1721	3
13	1136.585	4440	0.055	25	1721	1696	0
14	1136.571	4408	0.022	10	1696	1690	4
15	1136.578	4405	0.011	5	1690	1693	8
16	1136.614	4425	0.020	9	1693	1709	25

STORAGE FACTORS AND EVAPORATION LOSSES
2016

CRESSDAY RESERVOIR 11AB097

PERIOD	ELEVATION At End of Period (m)	MEAN RESERVOIR SURFACE AREA (dam^2)	EVAPORATION		STORAGE AT		TOTAL CHANGE IN STORAGE (dam^3)
			Penman (m)	Reservoir (dam^3)	Beginning of Period (dam^3)	End of Period (dam^3)	
1	963.530	3673	0.000	0	366	402	36
2	963.494	3744	0.000	0	402	389	-13
3	963.451	3655	0.000	0	389	373	-16
4	963.461	3622	0.007	2	373	376	5
5	963.400	3561	0.071	25	376	354	3
6	963.380	3470	0.026	9	354	347	2
7	963.332	3398	0.073	25	347	330	8
8	963.240	3246	0.086	28	330	299	-3
9	963.200	3130	0.051	16	299	287	4
10	963.147	3047	0.069	21	287	271	5
11	963.121	2974	0.065	19	271	262	10
12	963.049	2885	0.081	23	262	241	2
13	963.021	2790	0.062	17	241	233	9
14	963.002	2733	0.031	8	233	228	3
15	963.010	2722	0.012	3	228	230	5
16	963.056	2786	0.025	7	230	243	20

Stage-capacity table # 4 and stage-area table # 5 used in 2016 computations.

STORAGE FACTORS AND EVAPORATION LOSSES
2016

MITCHELL RESERVOIR 11AB099

PERIOD	ELEVATION At End of Period (m)	MEAN RESERVOIR SURFACE AREA (dam^2)	EVAPORATION		STORAGE AT		TOTAL CHANGE IN STORAGE (dam^3)
			Penman Evap. Adjusted for Elevation (m)	Reservoir (dam^3)	Beginning of Period (dam^3)	End of Period (dam^3)	
1	32.614	1272	0.000	0	109	117	8
2	32.584	1297	0.000	0	117	113	-4
3	32.556	1262	0.000	0	113	111	-2
4	32.635	1293	0.001	0	111	121	10
5	32.586	1311	0.059	8	121	114	1
6	32.604	1292	0.015	2	114	116	4
7	32.525	1256	0.058	7	116	107	-2
8	32.439	1157	0.072	8	107	97	-2
9	32.494	1139	0.037	4	97	103	10
10	32.404	1118	0.055	6	103	93	-4
11	32.350	1032	0.052	5	93	87	-1
12	32.293	966	0.069	7	87	81	1
13	32.174	896	0.052	5	81	71	-5
14	32.051	808	0.023	2	71	61	-8
15	31.928	719	0.007	1	61	52	-8
16	31.797	635	0.021	1	52	44	-7

Elevations for periods 2, 8, and 10-16 are estimated because of on-site issues including a dead battery and the orifice being out of water. Elevations were estimated based on site visits and general hydrograph trends.

STORAGE FACTORS AND EVAPORATION LOSSES
2016

JAYDOT RESERVOIR 11AB098

PERIOD	ELEVATION At End of Period (m)	MEAN RESERVOIR SURFACE AREA (dam^2)	EVAPORATION		STORAGE AT		TOTAL CHANGE IN STORAGE (dam^3)
			Penman (m)	Reservoir (dam^3)	Beginning of Period (dam^3)	End of Period (dam^3)	
1	915.920	0	0.000	0	0	0	0
2	915.920	0	0.000	0	0	0	0
3	915.920	0	0.000	0	0	0	0
4	915.920	0	0.037	0	0	0	0
5	915.920	0	0.048	0	0	0	0
6	915.920	0	0.082	0	0	0	0
7	915.920	0	0.055	0	0	0	0
8	915.920	0	0.038	0	0	0	0
9	915.920	0	0.100	0	0	0	0
10	915.920	0	0.083	0	0	0	0
11	915.920	0	0.071	0	0	0	0
12	915.920	0	0.012	0	0	0	0
13	915.920	0	0.041	0	0	0	0
14	915.920	0	0.059	0	0	0	0
15	915.920	0	0.039	0	0	0	0
16	915.920	0	0.023	0	0	0	0

In 2016, reservoir levels were estimated to be 915.920 m to reflect the near empty condition during the entire season.

WATER SURVEY CANADA
Daily Mean Discharge Report for 2016

MIDDLE CREEK NEAR THE SASKATCHEWAN BOUNDARY
Station Number: 11AB009

Discharge Units: Cubic Metres Per Second
Total Units: Cubic Decametres

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Day
1	---	---	.008	.007	.004	.005	.007	.004	.004	.004	.005	---	1
2	---	---	.008	.007	.004	.005	.005	.003	.003	.004	---	---	2
3	---	---	.011	.007	.005	.005	.004	.004	.003	.004	---	---	3
4	---	---	.011	.007	.004	.005	.004	.003	.002	.005	---	---	4
5	---	---	.009	.007	.004	.005	.003	.003	.002	.004	---	---	5
6	---	---	.009	.006	.004	.004	.004	.003	.002	.003	---	---	6
7	---	---	.010	.006	.004	.004	.007	.003	.002	.003	---	---	7
8	---	---	.008	.007	.004	.004	.006	.003	.002	.003	---	---	8
9	---	---	.009	.007	.005	.005	.005	.003	.003	.003	---	---	9
10	---	---	.011	.006	.005	.004	.004	.003	.002	.004	---	---	10
11	---	---	.013	.006	.006	.005	.004	.003	.002	.004	---	---	11
12	---	---	.012	.006	.005	.005	.005	.003	.002	.003	---	---	12
13	---	---	.010	.006	.005	.006	.004	.003	.002	.003	---	---	13
14	---	---	.008	.007	.005	.005	.004	.003	.002	.004	---	---	14
15	---	---	.008	.012	.005	.005	.004	.004	.002	.004	---	---	15
16	---	---	.009	.009	.005	.004	.003	.004	.002	.004	---	---	16
17	---	---	.009	.007	.004	.004	.003	.004	.002	.003	---	---	17
18	---	---	.008	.006	.004	.004	.003	.004	.002	.003	---	---	18
19	---	---	.008	.005	.003	.004	.003	.004	.003	.003	---	---	19
20	---	---	.008	.005	.005	.004	.003	.004	.003	.003	---	---	20
21	---	---	.009	.004	.008	.004	.003	.004	.003	.003	---	---	21
22	---	---	.009	.005	.008	.005	.003	.005	.004	.003	---	---	22
23	---	---	.008	.005	.009	.007	.003	.008	.006	.003	---	---	23
24	---	---	.008	.005	.008	.010	.003	.009	.005	.003	---	---	24
25	---	.007 A	.009	.009	.006	.006	.003	.008	.005	.003	---	---	25
26	---	.008	.008	.011	.005	.005	.003	.008	.004	.003	---	---	26
27	---	.009	.008	.011	.006	.004	.003	.007	.004	.003	---	---	27
28	---	.010	.009	.009	.009	.004	.003	.007	.004	.003	---	---	28
29	---	.009	.009	.006	.006	.004	.003	.006	.004	.003	---	---	29
30	---		.007	.005	.006	.004	.004	.005	.004	.003	---	---	30
31	---		.008		.006		.004	.006		.005		---	31
Mean	---	---	.009	.007	.005	.005	.004	.005	.003	.003	---	---	
Total	---	---	24.2	18.0	14.5	12.5	10.5	12.1	7.63	8.94	---	---	
Max	---	.011	.015	.016	.012	.013	.009	.010	.006	.008	.008	---	
(day)		27|13:30	3|15:25	26|17:40	21|08:30	23|22:50	1|03:50	23|15:55	1|00:00	31|21:00	1|00:00		
Min	---	.006	.007	.003	.002	.003	.002	.002	.001	.002	.003	---	
(day)		25|13:55	2|06:55	20|01:30	19|00:25	28|18:45	24|03:25	7|19:05	16|09:40	25|09:35	1|19:20		

A - Manual Gauge B - Ice Conditions E - Estimated D - Dry

Note: Report data from Aquarius displayed in a modified format.

APPROVED BY THE FIELD REPRESENTATIVES OF CANADA AND THE UNITED STATES

WATER SURVEY CANADA
Daily Mean Discharge Report for 2016

MIDDLE CREEK RESERVOIR BEDFORD OUTLET
Station Number: 11AB114

Discharge Units: Cubic Metres Per Second
Total Units: Cubic Decametres

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Day
1	0	0	0	0	0	0	0	0	0	0	0	0	1
2	0	0	0	0	0	0	0	0	0	0	0	0	2
3	0	0	0	0	0	0	0	0	0	0	0	0	3
4	0	0	0	0	0	0	0	0	0	0	0	0	4
5	0	0	0	0	0	0	0	0	0	0	0	0	5
6	0	0	0	0	0	0	0	0	0	0	0	0	6
7	0	0	0	0	0	0	0	0	0	0	0	0	7
8	0	0	0	0	0	0	0	0	0	0	0	0	8
9	0	0	0	0	0	0	0	0	0	0	0	0	9
10	0	0	0	0	0	0	0	0	0	0	0	0	10
11	0	0	0	0	0	0	0	0	0	0	0	0	11
12	0	0	0	0	0	0	0	0	0	0	0	0	12
13	0	0	0	0	0	0	0	0	0	0	0	0	13
14	0	0	0	0	0	0	0	0	0	0	0	0	14
15	0	0	0	0	0	0	0	0	0	0	0	0	15
16	0	0	0	0	0	0	0	0	0	0	0	0	16
17	0	0	0	0	0	0	0	0	0	0	0	0	17
18	0	0	0	0	0	0	0	0	0	0	0	0	18
19	0	0	0	0	0	0	0	0	0	0	0	0	19
20	0	0	0	0	0	0	0	0	0	0	0	0	20
21	0	0	0	0	0	0	0	0	0	0	0	0	21
22	0	0	0	0	0	0	0	0	0	0	0	0	22
23	0	0	0	0	0	0	0	0	0	0	0	0	23
24	0	0	0	0	0	0	0	0	0	0	0	0	24
25	0	0	0	0	0	0	0	0	0	0	0	0	25
26	0	0	0	0	0	0	0	0	0	0	0	0	26
27	0	0	0	0	0	0	0	0	0	0	0	0	27
28	0	0	0	0	0	0	0	0	0	0	0	0	28
29	0	0	0	0	0	0	0	0	0	0	0	0	29
30	0		0	0	0	0	0	0	0	0	0	0	30
31	0		0		0		0	0		0		0	31
Mean	0	0	0	0	0	0	0	0	0	0	0	0	
Total	0	0	0	0	0	0	0	0	0	0	0	0	
Max	0	0	0	0	0	0	0	0	0	0	0	0	
(day)	1|00:00	1|00:00	1|00:00	1|00:00	1|00:00	1|00:00	1|00:00	1|00:00	1|00:00	1|00:00	1|00:00	1|00:00	
Min	0	0	0	0	0	0	0	0	0	0	0	0	
(day)	1|00:00	1|00:00	1|00:00	1|00:00	1|00:00	1|00:00	1|00:00	1|00:00	1|00:00	1|00:00	1|00:00	1|00:00	

A - Manual Gauge B - Ice Conditions E - Estimated D - Dry

Note: Report data from Aquarius displayed in a modified format.

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WATER SURVEY CANADA
Daily Mean Discharge Report for 2016

MIDDLE CREEK RESERVOIR FLOOD SPILLWAY
Station Number: 11AB115

Discharge Units: Cubic Metres Per Second
Total Units: Cubic Decametres

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Day
1	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	1
2	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	2
3	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	3
4	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	4
5	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	5
6	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	6
7	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	7
8	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	8
9	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	9
10	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	10
11	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	11
12	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	12
13	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	13
14	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	14
15	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	15
16	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	16
17	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	17
18	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	18
19	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	19
20	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	20
21	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	21
22	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	22
23	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	23
24	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	24
25	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	25
26	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	26
27	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	27
28	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	28
29	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	29
30	0 A		0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	0 A	30
31	0 A		0 A		0 A		0 A	0 A		0 A		0 A	31
Mean	0	0	0	0	0	0	0	0	0	0	0	0	
Total	0	0	0	0	0	0	0	0	0	0	0	0	
Max	0	0	0	0	0	0	0	0	0	0	0	0	
(day)	1|20:30	1|20:30	1|20:30	1|20:30	1|20:30	1|20:30	1|20:30	1|20:30	1|20:30	1|20:30	1|20:30	1|20:30	
Min	0	0	0	0	0	0	0	0	0	0	0	0	
(day)	1|20:30	1|20:30	1|20:30	1|20:30	1|20:30	1|20:30	1|20:30	1|20:30	1|20:30	1|20:30	1|20:30	1|20:30	

A - Manual Gauge B - Ice Conditions E - Estimated D - Dry

Note: Report data from Aquarius displayed in a modified format.

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WATER SURVEY CANADA
Daily Mean Discharge Report for 2016

MIDDLE CREEK BELOW MIDDLE CREEK RESERVOIR
Station Number: 11AB001

Discharge Units: Cubic Metres Per Second
Total Units: Cubic Decametres

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Day
1	---	---	0	0	0	.007	0	0	0	0	0	---	1
2	---	---	0	0	0	.005	0	0	0	0	0 A	---	2
3	---	---	0	0	0	.003	0	0	0	0	---	---	3
4	---	---	0	0	0	.001	0	0	0	0	---	---	4
5	---	---	0	0	0	.000	0	0	0	0	---	---	5
6	---	---	0	0	0	0	0	0	0	0	---	---	6
7	---	---	0	0	0	0	0	0	0	0	---	---	7
8	---	---	0	0	0	.000	0	0	0	0	---	---	8
9	---	---	0	0	0	.003	0	0	0	0	---	---	9
10	---	---	0	0	0	.004	0	0	0	0	---	---	10
11	---	---	0	0	0	.008	0	0	0	0	---	---	11
12	---	---	0	0	0	.011	0	0	0	0	---	---	12
13	---	---	0	0	0	.007	0	0	0	0	---	---	13
14	---	---	0	0	0	.007	0	0	0	0	---	---	14
15	---	---	0	0	0	.007	0	0	0	0	---	---	15
16	---	---	0	0	0	.005	0	0	0	0	---	---	16
17	---	---	0	0	0	.004	0	0	0	0	---	---	17
18	---	---	0	0	0	.002	0	0	0	0	---	---	18
19	---	---	0	0	0	.001	0	0	0	0	---	---	19
20	---	---	0	0	0	.004	0	0	0	0	---	---	20
21	---	---	0	0	0	.002	0	0	0	0	---	---	21
22	---	---	0	0	.442	.000	0	0	0	0	---	---	22
23	---	---	0	0	1.53	0	0	0	0	0	---	---	23
24	---	0 A	0	0	1.33	0	0	0	0	0	---	---	24
25	---	0	0	0	.974	0	0	0	0	0	---	---	25
26	---	0	0	0	.186	0	0	0	0	0	---	---	26
27	---	0	0	0	.050	0	0	0	0	0	---	---	27
28	---	0	0	0	.059	0	0	0	0	0	---	---	28
29	---	0	0	0	.054	0	0	0	0	0	---	---	29
30	---		0	0	.039	0	0	0	0	0	---	---	30
31	---		0		.021		0	0		0		---	31
Mean	---	---	0	0	.151	.003	0	0	0	0	---	---	
Total	---	---	0	0	405	7.02	0	0	0	0	---	---	
Max	---	0	0	0	1.62	.015	0	0	0	0	0	---	
(day)		24|13:09	1|00:00	1|00:00	22|19:29	11|20:09	1|00:00	1|00:00	1|00:00	1|00:00	1|00:00		
Min	---	0	0	0	0	0	0	0	0	0	0	---	
(day)		24|13:09	1|00:00	1|00:00	1|00:00	4|20:14	1|00:00	1|00:00	1|00:00	1|00:00	1|00:00		

A - Manual Gauge B - Ice Conditions E - Estimated D - Dry

Note: Report data from Aquarius displayed in a modified format.

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WATER SURVEY CANADA
Daily Mean Discharge Report for 2016

MIDDLE CREEK ABOVE LODGE CREEK
Station Number: 11AB008

Discharge Units: Cubic Metres Per Second
Total Units: Cubic Decametres

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Day
1	---	---	0	0	0	.385	.004	0	0	0	.021	---	1
2	---	---	0	0	0	.242	.003	0	0	0	.003 A	---	2
3	---	---	0	0	0	.227	.002	0	0	0	---	---	3
4	---	---	0	0	0	.204	.002	0	0	.002	---	---	4
5	---	---	0	0	0	.170	.001	0	0	.001	---	---	5
6	---	---	0	0	0	.140	.001	0	0	0	---	---	6
7	---	---	0	0	0	.119	.016	0	0	0	---	---	7
8	---	---	0	0	0	.103	.029	0	0	0	---	---	8
9	---	---	0	0	0	.094	.013	0	0	0	---	---	9
10	---	---	0	0	0	.078	.007	0	0	0	---	---	10
11	---	---	0	0	0	.078	.007	0	0	0	---	---	11
12	---	---	0	0	0	.064	.004	0	0	0	---	---	12
13	---	---	0	0	0	.053	.003	0	0	0	---	---	13
14	---	---	0	0	0	.046	.002	0	0	.014	---	---	14
15	---	---	0	0	0	.039	.002	0	0	.017	---	---	15
16	---	---	0	0	0	.036	.002	0	0	.002	---	---	16
17	---	---	0	0	0	.028	.002	0	0	.000	---	---	17
18	---	---	0	0	0	.024	.001	0	0	0	---	---	18
19	---	---	0	0	0	.023	.000	0	0	0	---	---	19
20	---	---	0	0	0	.020	0	0	0	0	---	---	20
21	---	---	0	0	0	.019	0	0	0	0	---	---	21
22	---	---	0	0	0	.018	0	0	0	0	---	---	22
23	---	---	0	0	0	.017	0	0	0	0	---	---	23
24	---	---	0	0	0	.015	0	0	0	0	---	---	24
25	---	---	0	0	0	.012	0	0	0	0	---	---	25
26	---	---	0	.001	0	.010	0	0	0	0	---	---	26
27	---	0 A	0	.006	0	.009	0	0	0	0	---	---	27
28	---	0	0	.002	.062	.007	0	0	0	0	---	---	28
29	---	0	0	.000	.072	.006	0	0	0	0	---	---	29
30	---		0	0	.105	.005	0	0	0	0	---	---	30
31	---		0		.743		0	0		.052		---	31
Mean	---	---	0	.000	.032	.076	.003	0	0	.003	---	---	
Total	---	---	0	.762	84.9	198	8.65	0	0	7.66	---	---	
Max	---	0	0	.011	.803	.532	.033	0	0	.132	.057	---	
(day)		27|10:55	1|00:00	27|00:40	31|02:10	1|00:00	8|04:35	1|00:00	1|00:00	31|13:15	1|00:00		
Min	---	0	0	0	0	.004	0	0	0	0	.002	---	
(day)		27|10:55	1|00:00	1|00:00	1|00:00	30|10:35	18|17:35	1|00:00	1|00:00	1|00:00	2|11:00		

A - Manual Gauge B - Ice Conditions E - Estimated D - Dry

Note: Report data from Aquarius displayed in a modified format.

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WATER SURVEY CANADA
Daily Mean Discharge Report for 2016

MIDDLE CREEK NEAR GOVENLOCK
Station Number: 11AB108

Discharge Units: Cubic Metres Per Second
Total Units: Cubic Decametres

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Day
1	---	---	.016 B	.016	.061	.145	.004	0	.001	.016	.076	---	1
2	---	---	.025 B	.013	.055	.125 A	.004	0	.001	.020	.071 A	---	2
3	---	---	.026 B	.016	.051	.109	.003	0	.000	.026	---	---	3
4	---	---	.035 B	.015	.050	.093	.001	0	.000	.053	---	---	4
5	---	---	.038	.015	.052	.076	.001	0	.000	.047	---	---	5
6	---	---	.079 B	.012	.042	.061	.001	0	.000	.048	---	---	6
7	---	---	.061	.011	.036	.050	.001	0	.000	.046	---	---	7
8	---	---	.050	.016	.032	.041	.001	0	.000	.045	---	---	8
9	---	---	.042	.013	.031	.039	.001	0 A	.000	.041	---	---	9
10	---	---	.040	.014	.031	.032	.001	0	.000	.045	---	---	10
11	---	---	.046	.046	.028	.033	.001	0	.000	.043	---	---	11
12	---	---	.048	.065	.027	.031	.001	0	.000	.046	---	---	12
13	---	---	.049	.049	.026	.029	.001	0	.000	.058	---	---	13
14	---	---	.167	.033	.024	.028	.001	0 A	.000	.072	---	---	14
15	---	---	.080	.044	.023	.023	.001	0	.001	.074	---	---	15
16	---	---	.036	.047	.020	.020	.001	0	.001	.068	---	---	16
17	---	---	.030	.046	.018	.018	.001	0	.001	.066	---	---	17
18	---	---	.026	.042	.016 A	.016	.001	0	.002	.065	---	---	18
19	---	---	.028	.038	.015	.016	.000	0	.002	.061	---	---	19
20	---	---	.023	.034	.015	.012	.000	.000	.002	.058	---	---	20
21	---	---	.023	.031	.023	.011	.000	.002	.002	.056	---	---	21
22	---	---	.022	.029	.029	.010	.000	.004	.005	.060	---	---	22
23	---	---	.020	.030	.037	.008	0	.004	.010	.071	---	---	23
24	---	---	.018	.033	.036	.007	0	.004	.014	.074	---	---	24
25	---	---	.017	.045	.034	.006	0	.002	.018	.069	---	---	25
26	---	---	.016	.057	.880	.005	0	.001	.024	.065	---	---	26
27	---	---	.023	.074	.890	.004	0	.001	.024	.057	---	---	27
28	---	---	.096	.095	.588	.003	0	.001	.017	.053	---	---	28
29	---	---	.091	.088	.333	.008	0	.001	.014	.051	---	---	29
30	---		.047	.072	.225	.004	0	.001	.012	.051	---	---	30
31	---		.022		.175		0	.001		.065		---	31
Mean	---	---	.043	.038	.126	.035	.001	.001	.005	.054	---	---	
Total	---	---	116	98.3	337	91.6	1.98	1.85	13.3	144	---	---	
Max	---	---	.360	.106	1.03	.158	.004	.005	.026	.082	.172	---	
(day)			14|14:20	12|19:10	26|16:40	1|00:00	1|00:00	22|05:10	26|20:45	4|03:40	2|15:45		
Min	---	---	.014	.008	.014	.003	0	0	0	.014	.066	---	
(day)			1|10:20	9|22:25	19|12:10	27|15:30	19|09:00	1|00:00	3|05:00	1|11:45	1|00:00		

A - Manual Gauge B - Ice Conditions E - Estimated D - Dry

AQUARIUS TIME-SERIES™ SOFTWARE

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ALTAWAN EVAPORATION STATION NO. 11ABM01
Station Elevation: 925 m
2016

Date	Penman Evaporation Pe	Tipping Bucket ppt	Net Reservoir Evaporation	Net Reesor Lake Evap Elev. Adj 0.789	Net Upper Reservoir Evaporation Elev Adj 0.853	Period Evaporation Summations
March	mm	mm	Pe - TB ppt	Pe-TB ppt	Pe-TB ppt	M
1	no evap data	0	no evap data	no evap data	no evap data	Reservoirs
2	no evap data	0	no evap data	no evap data	no evap data	Remain
3	no evap data	0	no evap data	no evap data	no evap data	Frozen -
4	no evap data	0	no evap data	no evap data	no evap data	No Evaporation
5	no evap data	0	no evap data	no evap data	no evap data	Considered
6	no evap data	0	no evap data	no evap data	no evap data	March 1 to April 17
7	no evap data	0	no evap data	no evap data	no evap data	Upper Reservoirs *
8	no evap data	0	no evap data	no evap data	no evap data	Mitchell ** Cressday ***
9	no evap data	0	no evap data	no evap data	no evap data	Altawan ****
10	no evap data	0	no evap data	no evap data	no evap data	Reesor / Adams *****
11	no evap data	0	no evap data	no evap data	no evap data	0.000 *
12	no evap data	0	no evap data	no evap data	no evap data	0.000 ** 0.000 ***
13	no evap data	0	no evap data	no evap data	no evap data	0.000 ****
14	no evap data	0	no evap data	no evap data	no evap data	
15	no evap data	0	no evap data	no evap data	no evap data	
16	no evap data	0	no evap data	no evap data	no evap data	
17	no evap data	0	no evap data	no evap data	no evap data	
18	no evap data	0	no evap data	no evap data	no evap data	
19	no evap data	0	no evap data	no evap data	no evap data	0.000 *****
20	no evap data	0	no evap data	no evap data	no evap data	
21	no evap data	0	no evap data	no evap data	no evap data	
22	no evap data	0	no evap data	no evap data	no evap data	
23	no evap data	0	no evap data	no evap data	no evap data	
24	no evap data	0	no evap data	no evap data	no evap data	
25	no evap data	0	no evap data	no evap data	no evap data	
26	no evap data	0	no evap data	no evap data	no evap data	
27	no evap data	0	no evap data	no evap data	no evap data	0.000 *
28	no evap data	0	no evap data	no evap data	no evap data	0.000 ** 0.000 ***
29	no evap data	0	no evap data	no evap data	no evap data	0.000 ****
30	no evap data	0	no evap data	no evap data	no evap data	
31	no evap data	0	no evap data	no evap data	no evap data	
Total	no evap data	0	no evap data	no evap data	no evap data	

Date	Penman Evaporation Pe	Tipping Bucket ppt	Net Reservoir Evaporation	Net Reesor Lake Evap Elev. Adj 0.789	Net Upper Reservoir Evaporation Elev Adj 0.853	Period Evaporation Summations
April	mm	mm	Pe - TB ppt	Pe-TB ppt	Pe-TB ppt	M
1	no evap data	0	no evap data	no evap data	no evap data	Reservoirs
2	no evap data	0	no evap data	no evap data	no evap data	Remain
3	no evap data	0	no evap data	no evap data	no evap data	Frozen -
4	no evap data	0	no evap data	no evap data	no evap data	No Evaporation
5	no evap data	0	no evap data	no evap data	no evap data	Considered
6	no evap data	0	no evap data	no evap data	no evap data	March 1 to April 17
7	no evap data	0	no evap data	no evap data	no evap data	Upper Reservoirs *
8	no evap data	0	no evap data	no evap data	no evap data	Mitchell ** Cressday ***
9	no evap data	0	no evap data	no evap data	no evap data	Altawan ****
10	no evap data	0	no evap data	no evap data	no evap data	Reesor / Adams *****
11	no evap data	0	no evap data	no evap data	no evap data	0.000 *
12	no evap data	0	no evap data	no evap data	no evap data	0.000 ** 0.000 ***
13	no evap data	0	no evap data	no evap data	no evap data	0.000 ****
14	no evap data	0	no evap data	no evap data	no evap data	
15	no evap data	0	no evap data	no evap data	no evap data	
16	no evap data	0	no evap data	no evap data	no evap data	
17	no evap data	0	no evap data	no evap data	no evap data	
18	4.08	0	4.08	3.22	3.48	0.001 *****
19	4.87	0	4.87	3.84	4.15	
20	6.01	0	6.01	4.74	5.13	
21	5.86	0	5.86	4.63	5.00	
22	5.21	0	5.21	4.11	4.45	
23	4.00	4	0.00	-0.84	-0.58	
24	2.60	1.008	1.59	1.05	1.21	
25	1.43	21	-19.57	-19.87	-19.78	
26	1.61	4	-2.39	-2.73	-2.63	0.000 *
27	3.03	2	1.03	0.39	0.58	0.001 ** 0.007 ***
28	4.14	0	4.14	3.27	3.53	0.011 ****
29	4.24	0	4.24	3.35	3.62	
30	4.22	0	4.22	3.33	3.60	
Total	51.31	32.008	19.31	8.48	11.76	

Notes:
Division Period Evaporation Summations:

* Upper Reservoirs (Michel, Greasewood, Massy, Bare)
** Mitchell Reservoir
*** Cressday Reservoir
**** Altawan Reservoir
***** Reesor and Adams Reservoirs

Total shown for April is for a partial month.

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ALTAWAN EVAPORATION STATION NO. 11ABM01
Station Elevation: 925 m
2016

Date	Penman Evaporation Pe	Tipping Bucket ppt	Net Reservoir Evaporation	Net Reesor Lake Evap Elev. Adj 0.789	Net Upper Reservoir Evaporation Elev Adj 0.853	Period Evaporation Summations
May	mm	mm	Pe - TB ppt	Pe-TB ppt	Pe-TB ppt	M
1	4.22	0	4.22	3.33	3.60	
2	4.58	0	4.58	3.62	3.91	
3	6.51	0	6.51	5.13	5.55	0.017 *****
4	7.28	0	7.28	5.74	6.21	
5	6.94	0	6.94	5.48	5.92	Upper Reservoirs *
6	6.20	0	6.20	4.89	5.29	Mitchell ** Cressday ***
7	4.54	0	4.54	3.58	3.87	Altawan ****
8	6.51	0	6.51	5.14	5.55	Reesor / Adams *****
9	4.72	8	-3.28	-4.28	-3.98	
10	4.81	0	4.81	3.80	4.10	
11	5.84	0	5.84	4.60	4.98	0.056 *
12	3.81	0	3.81	3.01	3.25	0.059 ** 0.071 ***
13	3.85	0	3.85	3.04	3.29	0.070 ****
14	3.72	0	3.72	2.94	3.18	
15	4.54	0	4.54	3.58	3.87	
16	4.13	0	4.13	3.26	3.52	
17	5.25	0	5.25	4.15	4.48	
18	7.63	0	7.63	6.02	6.51	
19	7.16	0	7.16	5.65	6.11	0.061 *****
20	5.16	2	3.16	2.07	2.40	
21	4.73	17	-12.27	-13.27	-12.97	
22	5.71	4	1.71	0.50	0.87	
23	4.98	2.496	2.49	1.44	1.76	
24	4.36	1.008	3.36	2.43	2.71	
25	4.05	12	-7.95	-8.80	-8.54	
26	3.24	0	3.24	2.56	2.77	
27	4.42	14	-9.58	-10.51	-10.23	0.013 *
28	5.60	0	5.60	4.42	4.78	0.015 ** 0.026 ***
29	6.92	0	6.92	5.46	5.90	0.029 ****
30	4.33	0	4.33	3.42	3.70	
31	5.97	1.008	4.96	3.70	4.08	
Total	161.74	61.512	100.23	66.10	76.45	

Date	Penman Evaporation Pe	Tipping Bucket ppt	Net Reservoir Evaporation	Net Reesor Lake Evap Elev. Adj 0.789	Net Upper Reservoir Evaporation Elev Adj 0.853	Period Evaporation Summations
June	mm	mm	Pe - TB ppt	Pe-TB ppt	Pe-TB ppt	M
1	5.78	0	5.78	4.56	4.93	
2	5.47	0	5.47	4.32	4.67	
3	6.76	0	6.76	5.33	5.76	0.008 *****
4	5.78	0	5.78	4.56	4.93	
5	6.84	0	6.84	5.39	5.83	
6	8.41	0	8.41	6.64	7.18	
7	7.17	0	7.17	5.66	6.12	
8	7.96	6	1.96	0.28	0.79	
9	8.36	8	0.36	-1.40	-0.87	
10	6.68	0	6.68	5.27	5.70	
11	6.39	12	-5.61	-6.96	-6.55	0.057 *
12	7.01	0	7.01	5.53	5.98	0.058 ** 0.073 ***
13	5.25	0	5.25	4.14	4.48	0.071 ****
14	5.49	0	5.49	4.33	4.68	
15	7.08	0	7.08	5.59	6.04	
16	6.57	1.992	4.58	3.19	3.61	
17	5.94	0	5.94	4.69	5.07	
18	6.23	1	5.23	3.91	4.31	0.051 *****
19	6.90	0	6.90	5.45	5.89	
20	7.12	0	7.12	5.62	6.07	
21	6.92	7	-0.08	-1.54	-1.10	
22	5.75	0	5.75	4.54	4.90	
23	6.68	0	6.68	5.27	5.70	
24	6.95	0	6.95	5.48	5.93	
25	6.22	0	6.22	4.91	5.31	
26	6.01	0	6.01	4.74	5.13	0.072 *
27	6.87	0	6.87	5.42	5.86	0.072 ** 0.086 ***
28	7.62	0	7.62	6.01	6.50	0.088 ****
29	6.29	17	-10.71	-12.04	-11.63	
30	6.85	3	3.85	2.40	2.84	
31						
Total	199.35	55.992	143.36	101.30	114.06	

Notes:
Division Period Evaporation Summations:

* Upper Reservoirs (Michel, Greasewood, Massy, Bare)
** Mitchell Reservoir
*** Cressday Reservoir
**** Altawan Reservoir
***** Reesor and Adams Reservoirs

..... Continued

ALTAWAN EVAPORATION STATION NO. 11ABM01
Station Elevation: 925 m
2016

Date	Penman Evaporation Pe	Tipping Bucket ppt	Net Reservoir Evaporation	Net Reesor Lake Evap Elev. Adj 0.789	Net Upper Reservoir Evaporation Elev Adj 0.853	Period Evaporation Summations
July	mm	mm	Pe - TB ppt	Pe-TB ppt	Pe-TB ppt	M
1	5.44	0	5.44	4.29	4.64	
2	6.41	0	6.41	5.06	5.47	
3	7.90	0	7.90	6.23	6.74	0.052 *****
4	7.33	0	7.33	5.78	6.25	
5	4.99	0	4.99	3.94	4.26	Upper Reservoirs *
6	6.16	12	-5.84	-7.14	-6.75	Mitchell ** Cressday ***
7	5.05	0.504	4.55	3.48	3.81	Altawan ****
8	6.73	0	6.73	5.31	5.74	Reesor / Adams *****
9	7.57	0	7.57	5.97	6.46	
10	6.48	0	6.48	5.11	5.52	
11	5.38	10.008	-4.62	-5.76	-5.42	0.040 *
12	5.53	1.992	3.54	2.37	2.73	0.037 ** 0.051 ***
13	5.80	0	5.80	4.58	4.95	0.049 ****
14	5.37	0	5.37	4.24	4.58	
15	5.58	0	5.58	4.40	4.76	
16	4.78	0	4.78	3.77	4.08	
17	4.28	0	4.28	3.38	3.65	
18	6.70	0	6.70	5.29	5.71	
19	6.82	0	6.82	5.38	5.82	0.050 *****
20	6.52	0	6.52	5.15	5.56	
21	8.06	0	8.06	6.36	6.87	
22	7.40	0	7.40	5.84	6.31	
23	5.78	0	5.78	4.56	4.93	
24	6.76	0	6.76	5.34	5.77	
25	6.36	0	6.36	5.02	5.42	
26	5.95	22.992	-17.04	-18.30	-17.91	
27	3.11	2	1.11	0.45	0.65	0.054 *
28	4.38	0	4.38	3.46	3.74	0.055 ** 0.069 ***
29	7.24	0	7.24	5.71	6.17	0.070 ****
30	8.73	0	8.73	6.89	7.44	
31	6.76	0	6.76	5.33	5.77	
Total	191.38	49.496	141.89	101.50	113.75	

Date	Penman Evaporation Pe	Tipping Bucket ppt	Net Reservoir Evaporation	Net Reesor Lake Evap Elev. Adj 0.789	Net Upper Reservoir Evaporation Elev Adj 0.853	Period Evaporation Summations
August	mm	mm	Pe - TB ppt	Pe-TB ppt	Pe-TB ppt	M
1	5.71	0	5.71	4.51	4.87	
2	6.77	0	6.77	5.34	5.77	
3	5.99	10.008	-4.02	-5.28	-4.90	0.040 *****
4	3.56	0	3.56	2.81	3.03	
5	4.46	0	4.46	3.52	3.81	
6	6.43	0	6.43	5.07	5.48	
7	6.44	0	6.44	5.08	5.49	
8	5.83	0	5.83	4.60	4.98	
9	5.72	4	1.72	0.51	0.88	
10	4.62	3.504	1.11	0.14	0.44	
11	3.35	0.504	2.85	2.14	2.36	0.055 *
12	6.06	4.992	1.07	-0.21	0.18	0.052 ** 0.065 ***
13	4.88	0	4.88	3.85	4.17	0.062 ****
14	5.16	0	5.16	4.07	4.40	
15	5.92	0	5.92	4.67	5.05	
16	6.03	0	6.03	4.76	5.15	
17	6.10	0	6.10	4.81	5.20	
18	4.72	1.992	2.73	1.73	2.03	0.051 *****
19	3.87	0	3.87	3.06	3.30	
20	4.19	0	4.19	3.30	3.57	
21	5.02	0	5.02	3.96	4.29	
22	6.73	0	6.73	5.31	5.74	
23	4.89	1.992	2.90	1.87	2.18	
24	2.56	0	2.56	2.02	2.18	
25	5.20	0	5.20	4.11	4.44	
26	6.08	0	6.08	4.80	5.19	
27	7.47	0	7.47	5.90	6.38	0.063 *
28	6.39	0	6.39	5.04	5.45	0.069 ** 0.081 ***
29	6.59	0	6.59	5.20	5.62	0.083 ****
30	6.53	0	6.53	5.15	5.57	
31	7.20	0	7.20	5.68	6.14	
Total	170.49	26.992	143.50	107.53	118.44	

Notes:

Division Period Evaporation Summations:

* Upper Reservoirs (Michel, Greasewood, Massy, Bare)

** Mitchell Reservoir

*** Cressday Reservoir

**** Altawan Reservoir

***** Reesor and Adams Reservoirs

..... Continued

ALTAWAN EVAPORATION STATION NO. 11ABM01
Station Elevation: 925 m
2016

Date	Penman Evaporation Pe	Tipping Bucket ppt	Net Reservoir Evaporation	Net Reesor Lake Evap Elev. Adj 0.789	Net Upper Reservoir Evaporation Elev Adj 0.853	Period Evaporation Summations				Date	Penman Evaporation Pe	Tipping Bucket ppt	Net Reservoir Evaporation	Net Reesor Lake Evap Elev. Adj 0.789	Net Upper Reservoir Evaporation Elev Adj 0.853	Period Evaporation Summations			
September	mm	mm	Pe - TB ppt	Pe-TB ppt	Pe-TB ppt	M				October	mm	mm	mm	Pe-TB ppt	Pe-TB ppt	M			
1	6.80	0	6.80	5.37	5.80					1	2.97	0	2.97	2.34	2.53				
2	5.46	0	5.46	4.31	4.65					2	2.91	0	2.91	2.30	2.48				
3	5.05	0	5.05	3.98	4.31	0.066 *****				3	1.78	0	1.78	1.40	1.52	0.015 *****			
4	2.20	0	2.20	1.74	1.88					4	0.79	16	-15.21	-15.38	-15.32				
5	1.97	0	1.97	1.55	1.68	Upper Reservoirs *				5	1.27	0	1.27	1.00	1.08				
6	4.18	0	4.18	3.29	3.56	Mitchell **	Cressday ***			6	2.02	0	2.02	1.59	1.72				
7	5.09	0	5.09	4.02	4.34	Altawan ****				7	1.29	0	1.29	1.02	1.10				
8	3.28	0.48	2.80	2.11	2.32	Reesor / Adams *****				8	0.82	0	0.82	0.64	0.70				
9	4.17	1.512	2.66	1.78	2.05					9	1.79	0	1.79	1.41	1.53				
10	4.40	0	4.40	3.47	3.75					10	0.17	0	0.17	0.13	0.15				
11	1.27	3	-1.73	-1.99	-1.91	0.055 *				11	0.25	0	0.25	0.20	0.21	0.011 *			
12	2.83	0	2.83	2.23	2.41	0.052 **	0.062 ***			12	0.38	0	0.38	0.30	0.32	0.007 **	0.012 ***		
13	4.01	0	4.01	3.17	3.42	0.059 ****				13	0.72	0	0.72	0.56	0.61	0.009 ****			
14	4.12	0	4.12	3.25	3.52					14	0.85	0	0.85	0.67	0.73				
15	3.51	0	3.51	2.77	2.99					15	2.76	0	2.76	2.18	2.35				
16	4.64	0	4.64	3.66	3.95					16	2.70	0	2.70	2.13	2.30				
17	3.81	0	3.81	3.00	3.25					17	1.10	0	1.10	0.87	0.94				
18	5.01	0	5.01	3.96	4.28	0.038 *****				18	1.28	0	1.28	1.01	1.09				
19	2.79	0	2.79	2.20	2.38					19	1.34	0	1.34	1.05	1.14	-0.001 *****			
20	2.97	0	2.97	2.34	2.53					20	1.54	0	1.54	1.21	1.31				
21	2.37	0	2.37	1.87	2.02					21	2.48	0	2.48	1.96	2.12				
22	0.55	16.992	-16.44	-16.55	-16.52					22	2.11	0	2.11	1.67	1.80				
23	1.42	3	-1.58	-1.88	-1.79					23	1.50	0	1.50	1.19	1.28				
24	3.84	0	3.84	3.03	3.28					24	1.22	0	1.22	0.96	1.04				
25	3.76	0	3.76	2.96	3.20					25	1.33	0	1.33	1.05	1.14	0.008 *****			
26	3.34	0	3.34	2.64	2.85	0.022 *				26	1.44	0	1.44	1.13	1.23				
27	4.45	0	4.45	3.51	3.80	0.023 **	0.031 ***			27	0.91	0	0.91	0.72	0.77	0.020 *			
28	3.67	0	3.67	2.89	3.13	0.030 ****				28	1.40	0	1.40	1.10	1.19	0.021 **	0.025 **		
29	3.61	0	3.61	2.85	3.08					29	0.52	0	0.52	0.41	0.44	0.024 ****			
30	3.78	0	3.78	2.98	3.22					30	1.54	0	1.54	1.21	1.31				
31										31	0.60	0	0.60	0.48	0.52				
Total	108.33	24.984	83.35	60.49	67.42					Total	43.77	16	27.77	18.54	21.34				

Notes:
Division Period Evaporation Summations:

* Upper Reservoirs (Michel, Greasewood, Massy, Bare)
** Mitchell Reservoir
*** Cressday Reservoir
**** Altawan Reservoir
***** Reesor and Adams Reservoirs

STORAGE FACTORS AND EVAPORATION LOSSES
2016

ALTAWAN RESERVOIR 11AB089

PERIOD	ELEVATION At End of Period (m)	MEAN RESERVOIR SURFACE AREA (dam^2)	EVAPORATION		STORAGE AT		TOTAL CHANGE IN STORAGE (dam^3)
			Penman (m)	Reservoir (dam^3)	Beginning of Period (dam^3)	End of Period (dam^3)	
1	898.669	14928	0.000	0	3830	4865	1035
2	898.735	15764	0.000	0	4865	4970	105
3	898.711	15808	0.000	0	4970	4932	-38
4	898.789	15865	0.011	17	4932	5055	140
5	898.666	15818	0.070	111	5055	4861	-83
6	897.726	14544	0.029	42	4861	3519	-1300
7	897.118	11327	0.071	81	3519	2829	-609
8	897.044	10652	0.088	94	2829	2749	14
9	897.006	10513	0.049	52	2749	2710	13
10	897.005	10464	0.070	73	2710	2708	71
11	897.282	10787	0.062	67	2708	3007	366
12	897.338	11119	0.083	92	3007	3070	155
13	897.269	11107	0.059	66	3070	2993	-11
14	897.259	11028	0.030	33	2993	2982	22
15	897.279	11038	0.009	9	2982	3004	31
16	897.578	11338	0.024	28	3004	3344	368

WATER SURVEY CANADA
Daily Mean Discharge Report for 2016

SPANGLER DITCH NEAR GOVENLOCK
Station Number: 11AB060

Discharge Units: Cubic Metres Per Second
Total Units: Cubic Decametres

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Day
1	---	---	0	0	0	0	0	---	---	---	---	---	1
2	---	---	0	0	0	0	0	---	---	---	---	---	2
3	---	---	0	0	0	0	0	---	---	---	---	---	3
4	---	---	0	0	0	0	0	---	---	---	---	---	4
5	---	---	0	0	0	0	0	---	---	---	---	---	5
6	---	---	0	0	0	0	0 A	---	---	---	---	---	6
7	---	---	0	0	0	0	---	---	---	---	---	---	7
8	---	---	0	0	0 A	0	---	---	---	---	---	---	8
9	---	---	0	0	---	0	---	---	---	---	---	---	9
10	---	---	0	0	---	0	---	---	---	---	---	---	10
11	---	---	0	0	.753 A	0	---	---	---	---	---	---	11
12	---	---	0	0	.885	0	---	---	---	---	---	---	12
13	---	---	0	0	.881	0	---	---	---	---	---	---	13
14	---	---	0	0	.876	0	---	---	---	---	---	---	14
15	---	---	0	0	.875	0	---	---	---	---	---	---	15
16	---	---	0	0	.873	0	---	---	---	---	---	---	16
17	---	---	0	0	.872	0	---	---	---	---	---	---	17
18	---	---	0	0	.877	0	---	---	---	---	---	---	18
19	---	---	0	0	.882	0	---	---	---	---	---	---	19
20	---	---	0	0	.894	0	---	---	---	---	---	---	20
21	---	---	0	0	.902	0	---	---	---	---	---	---	21
22	---	---	0	0	.904	0	---	---	---	---	---	---	22
23	---	---	0	0	.913	0	---	---	---	---	---	---	23
24	---	---	0	0	.927	0	---	---	---	---	---	---	24
25	---	---	0	0	.937	0	---	---	---	---	---	---	25
26	---	---	0	0	.917	0	---	---	---	---	---	---	26
27	---	---	0	0	.836	0	---	---	---	---	---	---	27
28	---	---	0	0	.858	0	---	---	---	---	---	---	28
29	---	---	0	0	.848	0	---	---	---	---	---	---	29
30	---		0	0	.723	0	---	---	---	---	---	---	30
31	---		0		.042		---	---		---		---	31
Mean	---	---	0	0	---	0	---	---	---	---	---	---	
Total	---	---	0	0	---	0	---	---	---	---	---	---	
Max	---	---	0	0	.952	0	0	---	---	---	---	---	
(day)			1|00:00	1|00:00	26|11:50	1|00:00	1|00:00						
Min	---	---	0	0	0	0	0	---	---	---	---	---	
(day)			1|00:00	1|00:00	1|00:00	1|00:00	1|00:00						

A - Manual Gauge B - Ice Conditions E - Estimated D - Dry

Note: Report data from Aquarius displayed in a modified format.

APPROVED BY THE FIELD REPRESENTATIVES OF CANADA AND THE UNITED STATES

WATER SURVEY CANADA
Daily Mean Discharge Report for 2016

SQUAW COULEE NEAR WILLOW CREEK
Station Number: 11AB103

Discharge Units: Cubic Metres Per Second
Total Units: Cubic Decametres

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Day
1	---	---	0 E	0	0	.087	0	0	0	0	---	---	1
2	---	---	0 E	0	0	.054	0	0	0	0	---	---	2
3	---	---	0 E	0	0	.037	0	0	0	0	---	---	3
4	---	---	0 E	0	0	.023	0	0	0	0	---	---	4
5	---	---	0 E	0	0	.014	0	0	0	0	---	---	5
6	---	---	0 A	0	0	.008	0	0	0	0	---	---	6
7	---	---	0	0	0	.006	0	0	0	0	---	---	7
8	---	---	0	0	0	.005	0	0	0	0	---	---	8
9	---	---	0	0	0	.004	0	0	0	0	---	---	9
10	---	---	0	0	0	.003	0	0	0	0	---	---	10
11	---	---	0	0	0	.003	0	0	0	0	---	---	11
12	---	---	0	0	0	.001	0	0	0	0	---	---	12
13	---	---	0	0	0	.000	0	0	0	0	---	---	13
14	---	---	0	0	0	0	0	0	0	0	---	---	14
15	---	---	0	0	0	0	0	0	0	0	---	---	15
16	---	---	0	0	0	0	0	0	0	0	---	---	16
17	---	---	0	0	0	0	0	0	0	0	---	---	17
18	---	---	0	0	0	0	0	0	0	0	---	---	18
19	---	---	0	0	0	0	0	0	0	.040	---	---	19
20	---	---	0	0	0	0	0	0	0	.032	---	---	20
21	---	---	0	0	0	0	0	0	0	.019	---	---	21
22	---	---	0	0	0	0	0	0	0	.014	---	---	22
23	---	---	0	0	.077	0	0	0	0	.009	---	---	23
24	---	---	0	0	.188	0	0	0	0	.007	---	---	24
25	---	---	0	0	.191	0	0	0	0	.006	---	---	25
26	---	---	0	0	.168	0	0	0	0	.004	---	---	26
27	---	---	0	0	.143	0	0	0	0	.003	---	---	27
28	---	---	0	0	.151	0	0	0	0	.002	---	---	28
29	---	---	0	0	.147	0	0	0	0	.000	---	---	29
30	---		0	0	.123	0	0	0	0	.000	---	---	30
31	---		0		.099		0	0		.009		---	31
Mean	---	---	0	0	.042	.008	0	0	0	.005	---	---	
Total	---	---	0	0	111	21.2	0	0	0	12.5	---	---	
Max	---	---	0	0	.202	.094	0	0	0	.062	---	---	
(day)			1|00:05	1|00:00	24|12:10	1|00:35	1|00:00	1|00:00	1|00:00	19|08:30			
Min	---	---	0	0	0	0	0	0	0	0	---	---	
(day)			1|00:05	1|00:00	1|00:00	12|17:40	1|00:00	1|00:00	1|00:00	1|00:00			

A - Manual Gauge B - Ice Conditions E - Estimated D - Dry

Note: Report data from Aquarius displayed in a modified format.

APPROVED BY THE FIELD REPRESENTATIVES OF CANADA AND THE UNITED STATES

LODGE CREEK BASIN - SASKATCHEWAN
SURFACE WATER USE (MINOR DIVERSIONS) FOR 2016
(VOLUME IN CUBIC DECAMETERS)

Projects associated with the Middle Creek Reservoir Area

	March		April		May		June		July		August		Sept	
File Number	**1-15**	**16-31**	**1-15**	**16-30**	**1- 15**	**16- 31**	**1-15**	**15-30**	**1-15**	**16-31**	**1-15**	**16-31**	**1-15**	**Total**
205														**0**
8250						17.1	3.4							**21**
11727														**0**
11746														**0**
11768														**0**
15028														**0**

Projects Associated with the Altawan Reservoir Area

	March		April		May		June		July		August		Sept	
File Number	**1-15**	**16-31**	**1-15**	**16-30**	**1-15**	**16- 31**	**1-15**	**15-30**	**1-15**	**16-31**	**1-15**	**16-31**	**1-15**	**Total**
410														**0**
787														**0**
788														**0**
831	55.1	7.4												**63**
832														**0**
1582														**0**
1583														**0**
4446	0.4													**0**
8299														**0**
10136				7.0	5.3									**12**
10600														**0**
10663														**0**
10789														**0**
10877														**0**
12478														**0**
12479														**0**
12480														**0**
12481														**0**
12482	27.6	3.7												**31**
Total Saskatchewan Middle	**0**	**0**	**0**	**0**	**0**	**17**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**21**
Total Saskatchewan Altawan	**83**	**11**	**0**	**7**	**5**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**107**
Total Minor Diversion Saskatchewan	**83.1**	**11.1**	**0**	**7**	**5.3**	**17.1**	**3.4**	**0**	**0**	**0**	**0**	**0**	**0**	**127**

LODGE CREEK BASIN - ALBERTA
SURFACE WATER USE (MINOR DIVERSIONS) FOR 2016
(VOLUME IN CUBIC DECAMETERS)

Projects Associated with the Upper Lodge Creek Basin

	March		April		May		June		July		August		Sept	
File Number	**1-15**	**16-31**	**1-15**	**16-30**	**1-15**	**16-31**	**1-15**	**15-30**	**1-15**	**16-31**	**1-15**	**16-31**	**1-15**	**Total**
370														
397						82.6								**83**
412						7.4								**7**
415														
2935														
3787														
8097						185								**185**
9654														
12719														
13803														
14535						12.3								**12**
14562														
15617						103.6								**104**
16878														

Projects Associated with the Altawan Reservoir Area

	March		April		May		June		July		August		Sept	
File Number	**1-15**	**16-31**	**1-15**	**16-30**	**1-15**	**16-31**	**1-15**	**15-30**	**1-15**	**16-31**	**1-15**	**16-31**	**1-15**	**Total**
2130														
16378						9.9								**10**

Projects Associated with the Middle Creek Reservoir Area

	March		April		May		June		July		August		Sept	
File Number	**1-15**	**16-31**	**1–15**	**16-30**	**1-15**	**16-31**	**1-15**	**16-30**	**1-15**	**16-31**	**1-15**	**16-31**	**1-15**	**Total**
20452M														

Projects Associated with the Mitchell Reservoir Area

	March		April		May		June		July		August		Sept	
File Number	**1-15**	**16-31**	**1–15**	**16-30**	**1-15**	**16-31**	**1-15**	**16-30**	**1-15**	**16-31**	**1-15**	**16-31**	**1-15**	**Total**
303M														
365M														
920M														
1830M														
Upper Lodge Total						**391**								**391**
Mitchell Total (AB)														
Altawan Total (AB & SK)	**83**	**11**		**7**	**5**	**10**								**116**
Middle Total (AB & SK)						**17**	**3**							**21**
Total Alberta						**401**								**401**
Total Saskatchewan	**83.1**	**11.1**		**7**	**5**	**17**	**3**							**127**
Total Lodge Creek Basin	**83**	**11**		**7**	**5**	**418**	**3**							**528**

Water Rights Data supplied by Saskatchewan Water Security Agency and Alberta Environment and Sustainable Resource Development.

WATER SURVEY CANADA
Daily Mean Discharge Report for 2016

BATTLE CREEK AT INTERNATIONAL BOUNDARY
Station Number: 11AB027

Discharge Units: Cubic Metres Per Second
Total Units: Cubic Decametres

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Day
1	---	---	.338 B	.130	.054	1.11	.213	.071	.532	.235	1.46	---	1
2	---	---	.309 B	.096	.045	.919	.178	.055	.488	.350	1.16	---	2
3	---	---	.280 B	.092	.039	.735	.177	.098	.432	.338	1.09 A	---	3
4	---	---	.182 B	.077	.031	.980	.165	.141	.379	.475	---	---	4
5	---	---	.202 B	.098	.024	.679	.140	.109	.407	.532	---	---	5
6	---	---	.353 B	.245	.020	.455	.213	.088	.391	.477	---	---	6
7	---	---	.340 B	.183	.018	.389	.189	.089	.368	.436	---	---	7
8	---	---	.302 B	.130	.016	.327	.263	.093	.373	.460	---	---	8
9	---	---	.229 B	.100	.016	.277	.211	.099	.381	.521	---	---	9
10	---	---	.225 B	.262	.055	.228	.174	.142	.379	.735	---	---	10
11	---	---	.215 B	.264	.077	.272	.199	.142	.403	.656	---	---	11
12	---	---	.318 B	.170	.059	.242	.196	1.44	.395	.567	---	---	12
13	---	---	.244 B	.134	.051	.215	.174	.788	.381	.585	---	---	13
14	---	---	.179 B	.122	.040	.184	.198	.471	.388	.538	---	---	14
15	---	---	.211 B	.140	.036	.155	.171	.384	.391	.654	---	---	15
16	---	---	.138 B	.123	.050	.161	.208	.605	.417	.616	---	---	16
17	---	---	.110 B	.103	.083	.175	.277	.535	.522	.519	---	---	17
18	---	---	.093	.089	.370	.483	.290	.364	.486	.434	---	---	18
19	---	---	.080	.079	.979	.530	.209	.271	.528	.774	---	---	19
20	---	---	.083	.065	1.01	.581	.141	.220	.518	.939	---	---	20
21	---	---	.078	.050	.969	.559	.111	.163	.496	1.65	---	---	21
22	---	---	.074	.040	2.08	.412	.161	.165	.543	2.01	---	---	22
23	---	---	.074	.033	2.63	.334	.116	.161	.571	1.97	---	---	23
24	---	.773 B	.076	.029	2.62	.261	.088	.137	.521	1.89	---	---	24
25	---	.669 B	.113	.046	2.65	.349	.076	.121	.514	1.80	---	---	25
26	---	.602 B	.102	.051	1.62	.351	.065	.100	.530	1.76	---	---	26
27	---	.439 B	.100	.058	1.34	.229	.084	.113	.482	1.72	---	---	27
28	---	.296 B	.430	.078	1.31	.170	.131	.102	.338	1.29	---	---	28
29	---	.334 B	.425	.078	1.39	.292	.120	.268	.230	1.14	---	---	29
30	---		.279	.067	1.48	.302	.102	.439	.171	1.11	---	---	30
31	---		.176		1.41		.083	.514		1.26		---	31
Mean	---	---	.205	.108	.728	.412	.165	.274	.432	.917	---	---	
Total	---	---	549	279	1950	1070	443	733	1120	2460	---	---	
Max	---	.830	.476	.383	2.89	1.29	.341	1.96	.606	2.06	1.65	---	
(day)		24|13:24	6|06:14	10|12:54	23|06:59	1|00:00	8|11:54	12|10:49	1|03:04	22|08:54	1|04:49		
Min	---	.111	.068	.026	.014	.138	.049	.036	.155	.144	1.07	---	
(day)		29|11:04	21|17:39	24|12:34	9|02:34	17|16:34	26|15:59	3|08:59	30|23:59	1|09:49	2|22:39		

A - Manual Gauge B - Ice Conditions E - Estimated D - Dry

AQUARIUS TIME-SERIES™ SOFTWARE

Note: Report data from Aquarius displayed in a modified format.

APPROVED BY THE FIELD REPRESENTATIVES OF CANADA AND THE UNITED STATES

STORAGE FACTORS AND EVAPORATION LOSSES
2016

REESOR RESERVOIR 11AB090

PERIOD	ELEVATION At End of Period (m)	MEAN RESERVOIR SURFACE AREA (dam^2)	EVAPORATION		STORAGE AT		TOTAL CHANGE IN STORAGE (dam^3)
			Penman Evap. Adjusted for Elevation (m)	Reservoir (dam^3)	Beginning of Period (dam^3)	End of Period (dam^3)	
1	1226.227	5092	0.000	0	1552	1557	5
2	1226.280	5095	0.000	0	1557	1558	1
3	1226.325	5108	0.001	1	1558	1581	24
4	1226.320	5119	0.017	9	1581	1578	6
5	1226.319	5117	0.061	31	1578	1578	31
6	1226.423	5145	0.008	4	1578	1630	56
7	1226.446	5178	0.051	26	1630	1643	39
8	1226.521	5204	0.052	27	1643	1681	65
9	1226.444	5204	0.050	26	1681	1642	-13
10	1226.466	5189	0.040	21	1642	1653	32
11	1226.435	5186	0.051	26	1653	1637	10
12	1226.413	5173	0.066	34	1637	1625	22
13	1226.402	5164	0.038	20	1625	1620	15
14	1226.418	5165	0.015	8	1620	1628	16
15	1226.450	5178	-0.001	0	1628	1645	17
16	1226.443	5184	0.008	4	1645	1641	0

WATER SURVEY CANADA
Daily Mean Discharge Report for 2016

GAFF DITCH NEAR MERRYFLAT
Station Number: 11AB102

Discharge Units: Cubic Metres Per Second
Total Units: Cubic Decametres

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Day
1	---	---	.000 B	.154 B	.202	.009	.006	.006	.006	.005	---	---	1
2	---	---	0 B	.129 B	.202	.009	.006	.005	.006	.005	---	---	2
3	---	---	0 B	.110 B	.202	.008	.006	.005	.006	.005	---	---	3
4	---	---	0 B	.118	.231	.008	.006	.005	.005	.005	---	---	4
5	---	---	.000 B	.125	.319	.008	.006	.005	.006	.005	---	---	5
6	---	---	0 B	.134	.373	.007	.006	.006	.006	.005	---	---	6
7	---	---	.002 B	.143	.397	.007	.005	.006	.006	.005	---	---	7
8	---	---	.019 B	.152	.424	.007	.004	.006	.005	.005	---	---	8
9	---	---	.035 B	.161	.494	.007	.005	.006 A	.005	.005	---	---	9
10	---	---	.052 B	.168	.631	.006	.005	.006	.005	.005	---	---	10
11	---	---	.029 B	.170	.776	.006	.005	.006	.005	.005	---	---	11
12	---	---	.000 B	.175	.833	.006	.005	.006	.005	.005	---	---	12
13	---	---	0 B	.162	.805	.006	.005	.005	.005	.005	---	---	13
14	---	---	.012 B	.163	.397	.006	.006	.005	.005	.005	---	---	14
15	---	---	.019 B	.201	.011	.004	.006	.005	.005	.005	---	---	15
16	---	---	.022 B	.411	.010	.004	.006	.005	.005	.005	---	---	16
17	---	---	.016 B	.342	.011	.004	.006	.005	.005	.005	---	---	17
18	---	---	.025 B	.344	.010	.004	.007	.005	.005	.005	---	---	18
19	---	---	.031 B	.323	.010	.004	.007	.005	.005	.005	---	---	19
20	---	---	.039 B	.333	.009	.004	.007	.005	.005	.005	---	---	20
21	---	---	.048 B	.304	.009	.004	.007	.006	.005	.005	---	---	21
22	---	---	.051 B	.169	.009	.004	.007	.006	.005	.005	---	---	22
23	---	---	.063 B	.242	.009	.005	.007	.005	.005	.005	---	---	23
24	---	---	.067 B	.241	.009	.005	.007 A	.006	.005	.005	---	---	24
25	---	---	.079 B	.236	.009	.005	.007	.006	.005	.005	---	---	25
26	---	---	.067 B	.178	.009	.005	.007	.006	.005	.005	---	---	26
27	---	---	.083 B	.178	.009	.005	.007	.006	.005	.005	---	---	27
28	---	---	.098 B	.178	.009	.005	.007	.006	.005	.005	---	---	28
29	---	---	.102 B	.223	.009 A	.005	.008	.006	.005	.005	---	---	29
30	---		.114 B	.228	.008	.005	.007 A	.006	.005	.005	---	---	30
31	---		.147 B		.009		.006	.006		.005		---	31
Mean	---	---	.039	.206	.208	.006	.006	.006	.005	.005	---	---	
Total	---	---	105	535	557	14.8	16.5	14.8	13.2	13.2	---	---	
Max	---	---	.167	.442	.863	.010	.008	.008	.006	.006	---	---	
(day)			30|16:05	16|15:15	12|00:00	1|00:00	26|19:05	9|17:50	1|00:00	16|14:20			
Min	---	---	0	.095	.008	.004	.004	.004	.004	.004	---	---	
(day)			1|00:05	3|01:10	26|05:25	15|01:40	7|23:10	4|07:15	10|06:35	1|05:00			

A - Manual Gauge B - Ice Conditions E - Estimated D - Dry

AQUARIUS TIME-SERIES™ SOFTWARE

Note: Report data from Aquarius displayed in a modified format.

APPROVED BY THE FIELD REPRESENTATIVES OF CANADA AND THE UNITED STATES

WATER SURVEY CANADA
Daily Mean Discharge Report for 2016

CYPRESS LAKE WEST INFLOW CANAL
Station Number: 11AB078

Discharge Units: Cubic Metres Per Second
Total Units: Cubic Decametres

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Day
1	---	---	.006 B	0	.146	.698	.737	.372	.016	.352	.830	.007 B	1
2	---	---	.006 B	0	.150	.809	.758	.314	.009	.318	.820	---	2
3	---	---	.016 B	0	.152	1.02	.756	.237	.009	.306	.810	---	3
4	---	---	.043 B	0	.151	.770	.725	.198	.006	.408	.800	---	4
5	---	---	.022 B	0	.142	.310	.714	.217	.005	.476	.789	---	5
6	---	---	.027 B	0	.096	.388	.689	.235	.002	.644	.735	---	6
7	---	---	.042 B	0	.005	.399	.611	.205	.001	.876	.668	---	7
8	---	---	.217 B	0	.000	.417	.591	.222	.000	.882	.662	---	8
9	---	---	1.32 B	0	0	.434	.523	.288	0	.873	.653	---	9
10	---	---	1.49	0	.000	.451	.557	.344	0	.895	.645	---	10
11	---	---	.764	0	.001	.476	.559	1.24	0	1.05	.640	---	11
12	---	---	.254	0	0	.469	.512	1.32	0	1.27	.637	---	12
13	---	---	.231	0	0	.487	.505	1.83	0	1.25	.631	---	13
14	---	---	.200	0	0	.501	.552	1.13	0	1.01	.626	---	14
15	---	---	.126	0	0	.503	.692	.762	0	.703	.620	---	15
16	---	---	.004	0	0	.513	.787	.720	0	.699	.612	---	16
17	---	---	.000	0	.122	.415	.725	.644	0	.487	.607	---	17
18	---	---	0	0	.158	.166	.510	.552	0	.067	.601	---	18
19	---	---	0	0	.162	.157	.359	.417	0	.032	.594	---	19
20	---	---	0	0	.160	.225	.596	.364	0	.018	.588	---	20
21	---	---	0	0	.188	.420	.561	.375	0	.016	.509	---	21
22	---	---	0	0	.295	.441	.471	.390	.058	.014	.413 B	---	22
23	---	---	0	0	.436	.625	.322	.262	.498	.012	.412 B	---	23
24	---	0 A	0	0	.510	.810	.306	.017	.418	.202	.388 B	---	24
25	---	0	0	0	.597	1.09	.312	.004	.424	.659	.395 B	---	25
26	---	0	0	0	.870	.685	.317	.002	.389	.656	.391 B	---	26
27	---	.000	0	.001	.912	.691	.394	.001	.328	.653	.391 B	---	27
28	---	.018	0	.003	.807	.717	.502	.000	.346	.683	.262 B	---	28
29	---	.016	0	.163	.718	.727	.397	0	.345	.834	.025 B	---	29
30	---		0	.191	.729	.737	.383	.008	.348	.832	.018 B	---	30
31	---		0		.741		.402	.024		.843		---	31
Mean	---	---	.154	.012	.266	.552	.543	.409	.107	.581	.559	---	
Total	---	---	412	30.9	712	1430	1450	1100	277	1560	1450	---	
Max	---	.036	2.12	.221	1.30	1.63	.851	2.14	.542	1.30	.851	.010	
(day)		28|21:10	10|10:00	30|08:50	26|14:25	24|21:35	16|01:00	12|23:55	23|07:15	12|10:20	1|09:35	1|00:00	
Min	---	0	0	0	0	.141	.120	0	0	.011	.010	.005	
(day)		24|11:15	16|16:40	1|00:00	8|06:30	19|14:10	18|21:50	27|16:55	8|04:40	23|15:10	30|23:35	1|08:35	

A - Manual Gauge B - Ice Conditions E - Estimated D - Dry

Note: Report data from Aquarius displayed in a modified format.

APPROVED BY THE FIELD REPRESENTATIVES OF CANADA AND THE UNITED STATES

WATER SURVEY CANADA
Daily Mean Discharge Report for 2016

CYPRESS LAKE WEST OUTFLOW CANAL
Station Number: 11AB077

Discharge Units: Cubic Metres Per Second
Total Units: Cubic Decametres

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Day
1	---	---	0	0	.006	.098	.022	0	0	0	---	---	1
2	---	---	0	0	.006	.081	.022	0	0	0	---	---	2
3	---	---	0	0	.006	.074	.023	0	0	0	---	---	3
4	---	---	0	0	.006	.068	.091	0	0	.003	---	---	4
5	---	---	0	0	.006	.056	.099	0	0	.007	---	---	5
6	---	---	0	0	.005	.037	.095	0	0	.005	---	---	6
7	---	---	0	0	.006	.033	.089	.000	0	.004	---	---	7
8	---	---	0	0	.011	.036	.086	.002	0	.004	---	---	8
9	---	---	0	0	3.55	.037	.033	.002	0	.003	---	---	9
10	---	---	0	0	5.27	.035	.015	.003	0	.003	---	---	10
11	---	---	0	0	5.25	.033	.009	.003	0	.004	---	---	11
12	---	---	0	0	5.43	.032	.007	.003	0	.004	---	---	12
13	---	---	0	0	5.56	.029	.006	.002	0	.004	---	---	13
14	---	---	0	0	5.62	.027	.004	.002	0	.004	---	---	14
15	---	---	0	0	5.63	.025	.004	.002	0	.004	---	---	15
16	---	---	0	0	5.62	.024	.003	.001	0	.004	---	---	16
17	---	---	0	0	5.54	.022	.003	.000	0	.004	---	---	17
18	---	---	0	.000	5.48	.020	.002	0	0	.004	---	---	18
19	---	---	0	.001	5.37	.018	.002	0	0	.003	---	---	19
20	---	---	0	.001	5.18	.016	.002	0	0	.003	---	---	20
21	---	---	0	.001	4.53	.016	.001	0	0	.003	---	---	21
22	---	---	0	.001	3.22	.018	0	0	.001	.002	---	---	22
23	---	---	0	.001	2.19	.018	0	0	.002	.002	---	---	23
24	---	---	0	.001	2.11	.019	0	0	.002	.002	---	---	24
25	---	---	0	.002	2.04	.019	0	0	.002	.002	---	---	25
26	---	---	0	.003	2.03	.019	0	0	.001	.002	---	---	26
27	---	---	0	.008	2.02	.020	0	0	.001	.002	---	---	27
28	---	---	0	.010	1.19	.020	0	0	0	.002	---	---	28
29	---	---	0	.008	1.15	.020	0	0	0	.002	---	---	29
30	---		0	.006	1.11	.020	.000	0	0	.002	---	---	30
31	---		0		.570		.000	0		.002		---	31
Mean	---	---	0	.001	2.76	.033	.020	.001	.000	.003	---	---	
Total	---	---	0	3.75	7400	85.7	53.4	1.73	.737	7.92	---	---	
Max	---	---	0	.010	5.66	.144	.105	.003	.002	.008	---	---	
(day)			1|00:45	27|22:00	14|21:45	1|00:00	5|01:30	10|05:55	22|18:25	4|23:15			
Min	---	---	0	0	.004	.016	0	0	0	0	---	---	
(day)			1|00:45	1|00:00	6|13:10	20|13:55	21|14:35	1|00:00	1|00:00	1|00:00			

A - Manual Gauge B - Ice Conditions E - Estimated D - Dry

AQUARIUS TIME-SERIES™ SOFTWARE

Note: Report data from Aquarius displayed in a modified format.

APPROVED BY THE FIELD REPRESENTATIVES OF CANADA AND THE UNITED STATES

WATER SURVEY CANADA
Daily Mean Discharge Report for 2016

CYPRESS LAKE WEST INFLOW CANAL DRAIN
Station Number: 11AB085

Discharge Units: Cubic Metres Per Second
Total Units: Cubic Decametres

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Day
1	---	---	0 B	.000 B	.001	0	.001	.002	.000	0	.000 A	---	1
2	---	---	0 B	.000 B	.000	.000	.002	.002	0	0	---	---	2
3	---	---	0 B	.000 B	.000	.000	.002	.002	0	.000	---	---	3
4	---	---	0 B	.000 B	.000	.000	.002	.002	0	.001	---	---	4
5	---	---	0 B	.000 B	.000	.000	.002	.002	0	.001	---	---	5
6	---	---	0 B	.000 B	.001	.000	.002	.002	0	.000	---	---	6
7	---	---	0 B	.000 B	.001	.000	.002	.001	0	.001	---	---	7
8	---	---	.001 B	.000 B	.001	.000	.002	.002	0	.001	---	---	8
9	---	---	.001 B	.000 B	.001	.000	.002	.002	0	.000	---	---	9
10	---	---	.001 B	.000 B	.001	.000	.001	.002	0	.000	---	---	10
11	---	---	.001 B	.000 B	.001	.000	.002	.002	0	.000	---	---	11
12	---	---	.001 B	.000 B	.001	.000	.002	.002	0	.000	---	---	12
13	---	---	.001 B	.000 B	.001	.000	.002	.002	0	.000	---	---	13
14	---	---	.001 B	.000 B	.001	.000	.002	.002	0	.000	---	---	14
15	---	---	.001 B	.000 B	.001	.000	.002	.001	0	0	---	---	15
16	---	---	.000 B	.000 B	.001	.000	.002	.001	0	0	---	---	16
17	---	---	.000 B	.000 B	.001	.000	.002	.001	0	0	---	---	17
18	---	---	.000 B	.000 B	.001	.000	.002	.001	0	0	---	---	18
19	---	---	.000 B	.000 B	.000	.000	.001	.001	0	0	---	---	19
20	---	---	.000 B	.000 B	.001	.000	.002	.001	0	0	---	---	20
21	---	---	.000 B	.000 B	.001	.000	.002	.001	0	0	---	---	21
22	---	---	.000 B	.000 B	.001	.000	.002	.001	0	0	---	---	22
23	---	0 B	.000 B	.000 B	.001	.000	.001	.001	0	0	---	---	23
24	---	0 B	.000 B	.000 B	.001	.001	.001	.001	0	.000	---	---	24
25	---	0 B	.000 B	.000 B	.000	.001	.001	.000	0	.000	---	---	25
26	---	0 B	.000 B	.000 B	.000	.001	.002	.000	0	.000	---	---	26
27	---	0 B	.000 B	.001	.000	.000	.002	.000	0	.000	---	---	27
28	---	0 B	.000 B	.001	.000	.001	.002 A	.000	0	.000	---	---	28
29	---	0 B	.000 B	.002	.000	.001	.002 A	.000	0	.000	---	---	29
30	---		.000 B	.002	.000	.001	.002	.000	0	.000	---	---	30
31	---		.000 B		.000		.002	.000		.000		---	31
Mean	---	---	.000	.000	.001	.000	.002	.001	.000	.000	---	---	
Total	---	---	.698	.501	1.70	.876	4.68	3.02	.001	.566	---	---	
Max	---	0	.001	.002	.002	.002	.003	.003	0	.002	0	---	
(day)		23|17:09	8|09:04	29|09:09	17|16:39	23|20:14	31|13:00	7|23:10	1|00:00	4|07:30	1|00:00		
Min	---	0	0	0	0	0	.001	0	0	0	0	---	
(day)		23|17:09	1|00:00	1|00:00	2|10:24	1|00:00	1|06:59	21|14:55	1|00:00	1|00:00	1|00:00		

A - Manual Gauge B - Ice Conditions E - Estimated D - Dry

AQUARIUS TIME-SERIES™ SOFTWARE

Note: Report data from Aquarius displayed in a modified format.

APPROVED BY THE FIELD REPRESENTATIVES OF CANADA AND THE UNITED STATES

WATER SURVEY CANADA
Daily Mean Discharge Report for 2016

VIDORA DITCH NEAR CONSUL
Station Number: 11AB084

Discharge Units: Cubic Metres Per Second
Total Units: Cubic Decametres

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Day
1	---	---	0	0	0	.022	0	0	0	0	---	---	1
2	---	---	0	0	0	.018	0	0	0	0	---	---	2
3	---	---	0	0	0	.016	0	0	0	0	---	---	3
4	---	---	0	0	0	.016	0	0	0	0	---	---	4
5	---	---	0	0	0	.015	0	0	0	0	---	---	5
6	---	---	0	0	0	.012 A	0	0	0	0	---	---	6
7	---	---	0	0	0	0	0	0	0	0	---	---	7
8	---	---	0	0	0	0	0	0	0	0	---	---	8
9	---	---	0	0	.979	0	0	0	0	0	---	---	9
10	---	---	0	0	1.64	0	0	0	0	0	---	---	10
11	---	---	0	0	1.62	0	0	0	0	0	---	---	11
12	---	---	0	0	1.63	0	0	0	0	0	---	---	12
13	---	---	0	0	1.65	0	0	0	0	0	---	---	13
14	---	---	0	0	1.66	0	0	0	0	0	---	---	14
15	---	---	0	0	1.64	0	0	0	0	0	---	---	15
16	---	---	0	0	1.66	0	0	0	0	0	---	---	16
17	---	---	0	0	1.67	0	0	0	0	0	---	---	17
18	---	---	0	0	1.65	0	0	0	0	0	---	---	18
19	---	---	0	0	1.72	0	0	0	0	0	---	---	19
20	---	---	0	0	1.79	0	0	0	0	0	---	---	20
21	---	---	0	0	1.79	0	0	0	0	0	---	---	21
22	---	---	0	0	1.80	0	0	0	0	0	---	---	22
23	---	---	0	0	1.83	0	0	0	0	0	---	---	23
24	---	---	0	0	1.82	0	0	0	0	0	---	---	24
25	---	---	0	0	1.79	0	0	0	0	0	---	---	25
26	---	---	0	0	1.79	0	0	0	0	0	---	---	26
27	---	---	0	0	1.80	0	0	0	0	0	---	---	27
28	---	---	0	0	1.17	0	0	0	0	0	---	---	28
29	---	---	0	0	1.15	0	0	0	0	0	---	---	29
30	---		0	0	1.13	0	0	0	0	0	---	---	30
31	---		0		.421		0	0		0		---	31
Mean	---	---	0	0	1.15	.003	0	0	0	0	---	---	
Total	---	---	0	0	3090	8.61	0	0	0	0	---	---	
Max	---	---	0	0	1.90	.029	0	0	0	0	---	---	
(day)			1|00:00	1|00:00	22|14:35	1|00:00	1|00:00	1|00:00	1|00:00	1|00:00			
Min	---	---	0	0	0	0	0	0	0	0	---	---	
(day)			1|00:00	1|00:00	1|00:00	6|22:00	1|00:00	1|00:00	1|00:00	1|00:00			

A - Manual Gauge B - Ice Conditions E - Estimated D - Dry

Note: Report data from Aquarius displayed in a modified format.

APPROVED BY THE FIELD REPRESENTATIVES OF CANADA AND THE UNITED STATES

WATER SURVEY CANADA
Daily Mean Discharge Report for 2016

RICHARDSON DITCH NEAR CONSUL
Station Number: 11AB058

Discharge Units: Cubic Metres Per Second
Total Units: Cubic Decametres

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Day
1	---	---	0	0	0	0	0	0	0	0	---	---	1
2	---	---	0	0	0	0	0	0	0	0	---	---	2
3	---	---	0	0	0	0	0	0	0	0	---	---	3
4	---	---	0	0	0	0	0	0	0	0	---	---	4
5	---	---	0	0	0	0	0	0	0	0	---	---	5
6	---	---	0	0	0	0	0	0	0	0	---	---	6
7	---	---	0	0	0	0	0	0	0	0	---	---	7
8	---	---	0	0	0	0	0	0	0	0	---	---	8
9	---	---	0	0	0	0	0	0 A	0	0	---	---	9
10	---	---	0	0	1.20	0	0	0	0	0	---	---	10
11	---	---	0	0	1.58	0	0	0	0	0	---	---	11
12	---	---	0	0	1.61	0	0	0	0	0	---	---	12
13	---	---	0	0	1.66	0	0	0	0	0	---	---	13
14	---	---	0	0	1.85	0	0	0	0	0	---	---	14
15	---	---	0	0	2.02	0	0	0	0	0	---	---	15
16	---	---	0	0	2.08	0	0	0	0	0	---	---	16
17	---	---	0	0	2.05	0	0 A	0	0	0	---	---	17
18	---	---	0	0	2.13	0	0	0	0	0	---	---	18
19	---	---	0	0	2.16	0	0	0	0	0	---	---	19
20	---	---	0	0	2.11	0	0	0	0	0	---	---	20
21	---	---	0	0	1.56	0	0	0	0	0	---	---	21
22	---	---	0	0	2.48	0	0	0	0	0	---	---	22
23	---	---	0	0	.497	0	0	0	0	0	---	---	23
24	---	---	0	0	.002	0	0	0	0	0	---	---	24
25	---	---	0	0	.000	0	0	0	0	0	---	---	25
26	---	---	0	0	0	0	0	0	0	0	---	---	26
27	---	---	0	0	0	0	0	0	0	0	---	---	27
28	---	---	0	0	0	0	0	0	0	0	---	---	28
29	---	---	0	0	0	0	0	0	0	0	---	---	29
30	---		0	0	0	0	0	0	0	0	---	---	30
31	---		0		0		0	0		0		---	31
Mean	---	---	0	0	.806	0	0	0	0	0	---	---	
Total	---	---	0	0	2160	0	0	0	0	0	---	---	
Max	---	---	0	0	3.58	0	0	0	0	0	---	---	
(day)			1|00:15	1|00:00	22|17:50	1|00:00	1|00:00	1|00:00	1|00:00	1|00:00			
Min	---	---	0	0	0	0	0	0	0	0	---	---	
(day)			1|00:15	1|00:00	1|00:00	1|00:00	1|00:00	1|00:00	1|00:00	1|00:00			

A - Manual Gauge B - Ice Conditions E - Estimated D - Dry

AQUARIUS TIME-SERIES™ SOFTWARE

Note: Report data from Aquarius 3.1.591 displayed in a modified format.

APPROVED BY THE FIELD REPRESENTATIVES OF CANADA AND THE UNITED STATES

WATER SURVEY CANADA
Daily Mean Discharge Report for 2016

MCKINNON DITCH NEAR CONSUL
Station Number: 11AB044

Discharge Units: Cubic Metres Per Second
Total Units: Cubic Decametres

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Day
1	---	---	0	0	0	.005	0	0	0	0	---	---	1
2	---	---	0	0	0	.002	0	0	0	0	---	---	2
3	---	---	0	0	0	0	0	0	0	0	---	---	3
4	---	---	0	0	0	0	0	0	0	0	---	---	4
5	---	---	0	0	0	0	0	0	0	0	---	---	5
6	---	---	0	0	0	0	0	0	0	0	---	---	6
7	---	---	0	0	0	0	0	0	0	0	---	---	7
8	---	---	0	0	0	0	0	0	0	0	---	---	8
9	---	---	0	0	0	0	0	0	0	0	---	---	9
10	---	---	0	0	1.05	0	0	0	0	0	---	---	10
11	---	---	0	0	1.48	0	0	0	0	0	---	---	11
12	---	---	0	0	1.53	0	0	0	0	0	---	---	12
13	---	---	0	0	1.57	0	0	0	0	0	---	---	13
14	---	---	0	0	1.57	0	0	0 A	0	0	---	---	14
15	---	---	0	0	1.72	0	0	0	0	0	---	---	15
16	---	---	0	0	1.89	0	0	0	0	0	---	---	16
17	---	---	0	0	1.89	0	0	0	0	0	---	---	17
18	---	---	0	0	1.86	0	0	0	0	0	---	---	18
19	---	---	0	0	1.55	0	0	0	0	0	---	---	19
20	---	---	0	0	1.03	0	0	0	0	0	---	---	20
21	---	---	0	0	.912	0	0	0	0	0	---	---	21
22	---	---	0	0	.916	0	0	0	0	0	---	---	22
23	---	---	0	0	.879	0	0	0	0	0	---	---	23
24	---	---	0	0	.886	0	0	0	0	0	---	---	24
25	---	---	0	0	.764	0	0	0	0	0	---	---	25
26	---	---	0	0	.522	0	0	0	0	0	---	---	26
27	---	---	0	0	.275	0	0	0	0	0	---	---	27
28	---	---	0	0	.059	0	0	0	0	0	---	---	28
29	---	---	0	0	.031	0	0	0	0	0	---	---	29
30	---		0	0	.017	0	0	0	0	0	---	---	30
31	---		0		.010		0	0		0		---	31
Mean	---	---	0	0	.723	.000	0	0	0	0	---	---	
Total	---	---	0	0	1940	.552	0	0	0	0	---	---	
Max	---	---	0	0	1.93	.006	0	0	0	0	---	---	
(day)			1|00:00	1|00:00	16|12:15	1|00:00	1|00:00	1|00:00	1|00:00	1|00:00			
Min	---	---	0	0	0	0	0	0	0	0	---	---	
(day)			1|00:00	1|00:00	1|00:00	2|19:10	1|00:00	1|00:00	1|00:00	1|00:00			

A - Manual Gauge B - Ice Conditions E - Estimated D - Dry

AQUARIUS TIME-SERIES™ SOFTWARE

Note: Report data from Aquarius 3.1.591 displayed in a modified format.

APPROVED BY THE FIELD REPRESENTATIVES OF CANADA AND THE UNITED STATES

WATER SURVEY CANADA
Daily Mean Discharge Report for 2016

NASHLYN CANAL NEAR CONSUL
Station Number: 11AB018

Discharge Units: Cubic Metres Per Second
Total Units: Cubic Decametres

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Day
1	---	---	.375 B	.301	.466	.001	0	0	0	0	---	---	1
2	---	---	.347 B	.272	.328	0	0	0	0	0	---	---	2
3	---	---	.362 B	.231	.368	0	0	0	0	0	---	---	3
4	---	---	.477 B	.219	.446	0	0	0	0	0	---	---	4
5	---	---	.496 B	.184	.395	0	0	0	0	0	---	---	5
6	---	---	.537 B	.239	.354	0	0	0	0	0	---	---	6
7	---	---	.619	.224	.292	0	0	0	0	0	---	---	7
8	---	---	.681	.188	.193	0	0	0	0	0	---	---	8
9	---	---	.738	.157	.129	0	0	0 A	0	0	---	---	9
10	---	---	.624	.129	.120	0	0	0	0	0	---	---	10
11	---	---	.727	.130	.558	0	0	0	0	0	---	---	11
12	---	---	.653	.120	.601	0	0	0	0	0	---	---	12
13	---	---	.602	.093	.656	0	0	0	0	0	---	---	13
14	---	---	.739	.045	.670	0	0	0 A	0	0	---	---	14
15	---	---	.710	.030	.685	0	0	0	0	0	---	---	15
16	---	---	.610	.023	.698	0	0	0	0	0	---	---	16
17	---	---	.528	.018	.772	0	0	0	0	0	---	---	17
18	---	---	.358	.014	.884	0	0	0	0	0	---	---	18
19	---	---	.348	.040	.894	0	0	0	0	0	---	---	19
20	---	---	.283	.242	.665	0	0	0	0	0	---	---	20
21	---	---	.411	.131	.066	0	0	0	0	0	---	---	21
22	---	---	.350	.095	.035	0	0	0	0	0	---	---	22
23	---	---	.305	.102	.043	0	0	0	0	0	---	---	23
24	---	---	.301	.222	.024	0	0	0	0	0	---	---	24
25	---	---	.331	.422	.017	0	0	0	0	0	---	---	25
26	---	.321 B	.294	.488	.013	0	0	0	0	0	---	---	26
27	---	.314 B	.280	.449	.011	0	0	0	0	0	---	---	27
28	---	.346 B	.276	.473	.012	0	0	0	0	0	---	---	28
29	---	.360 B	.285	.562	.008	0	0	0	0	0	---	---	29
30	---		.282	.584	.005	0	0	0	0	0	---	---	30
31	---		.298		.004		0	0		0		---	31
Mean	---	---	.459	.214	.336	.000	0	0	0	0	---	---	
Total	---	---	1230	555	900	.126	0	0	0	0	---	---	
Max	---	.471	.818	.596	.927	.003	0	0	0	0	---	---	
(day)		29|12:55	9|11:50	29|19:40	20|07:30	1|00:00	1|00:00	1|00:00	1|00:00	1|00:00			
Min	---	.273	.233	.010	.003	0	0	0	0	0	---	---	
(day)		26|09:10	20|14:15	19|10:25	30|19:45	1|16:20	1|00:00	1|00:00	1|00:00	1|00:00			

A - Manual Gauge B - Ice Conditions E - Estimated D - Dry

Note: Report data from Aquarius 3.1.591 displayed in a modified format.

APPROVED BY THE FIELD REPRESENTATIVES OF CANADA AND THE UNITED STATES

BATTLE CREEK BASIN

SURFACE WATER USE (MINOR DIVERSIONS) FOR 2016

(VOLUME IN CUBIC DECAMETERS)

Minor Diversions Associated with Nashlyn Diversion Area

File	March		April		May		June		July		August		September		October		
Number	1-25	26-9	10-24	25-9	10-25	26-9	10-24	25-9	10-25	26-9	10-25	26-9	10-24	25-9	10-25	26-31	Total
323																	
338																	
622																	
710																	
900																	
985																	
1247																	
1499																	
2841																	
2954																	
3855																	
3930																	
3931																	
4851																	
5293																	
5442	20.6																**20.6**
5512																	
5528																	
5529																	
5784																	
5940																	
6139																	
6150																	
6714																	
6719																	**8**
6795																	
7144																	
8056																	
8225																	
8228																	
8314																	
8336																	
8559																	
8575																	
8646																	
8647																	
8648																	
8649																	
8998																	
9344																	
9679																	
10138																	
Sub-Total	**20.6**																**20.6**
Dom. Uses	**4.0**																**4.0**
Sub-Total	**25**																**25**

Continued ...

BATTLE CREEK BASIN (continued)
SURFACE WATER USE (MINOR DIVERSIONS) FOR 2016
(VOLUME IN CUBIC DECAMETERS)

Minor Diversions Associated with Richardson Diversion (Consul) Area

	March		April		May		June		July		August		September		October		
File Number	**1-23**	**24-7**	**8-22**	**23-7**	**8-23**	**24-7**	**8-22**	**23-7**	**8-23**	**24-7**	**8-23**	**24-7**	**8- 22**	**23-7**	**8-23**	**24-31**	**Total**
606																	
765																	
1753																	
1754																	
1786																	
2124																	
2159																	
2282																	
2283																	
2500																	
2655																	
2755																	
3586			13.2														**13.2**
5263																	
5292																	
5420																	
5421																	
5422																	
5453																	
5455																	
5539																	
5540																	
5557																	
5874			4.1														**4.1**
6308																	
7241																	
8107																	
8192																	
9759																	
9760																	
9811																	
11191																	
11192																	
11805																	
Sub-Total			**17.3**														**17.3**
Dom. Uses			**3.4**														**3.4**
Sub-Total			**21**														**21**

Continued

BATTLE CREEK BASIN (continued)
SURFACE WATER (MINOR DIVERSIONS) FOR 2016
(VOLUME IN CUBIC DECAMETERS)

Minor Diversions Associated with Cypress Lake Area

	March		April		May		June		July		August		September		October		
File	**1-25**	**26-9**	**10-24**	**25-9**	**10-25**	**26-9**	**10–24**	**25-9**	**10-25**	**26-9**	**10-25**	**26-9**	**10-24**	**25-9**	**10-25**	**26-31**	**Total**
86 (sprinkler)	Not included as it is accounted for with Shepherd Ditch																
181																	
219																	
237																	
358																	
5609																	
10340																	
13756																	
14422																	
15610					21.7	27.1											**48.8**
Sub-Total					**21.7**	**27.1**											**48.8**
Dom. Uses					**4.2**	**5.3**											**9.5**
Sub-Total					**26**	**32**											**58**

Minor Diversions Associated with Gaff Ditch Area

52A						18.7	18.7										**37.4**
52B						23.3											**23.3**
59			4.1	24.7	20.6												**49.4**
71																	**0**
73																	**0**
77																	**0**
190		41.2	192.4														**233.6**
5193																	**0**
5527																	**0**
9803																	**0**
9917																	**0**
14994																	**0**
Shepherd Ditch		42.2	208	281	338	293	7.3	0.5		0.4				1.0	3.6	1.5	**1176.8**
(includes 86, 110)		31.8	156	210.8	253.5	219.8	5.4	0.4		0.3				0.8	2.7	1.1	**882.6**
Sub-Total		**73.0**	**352.5**	**235.5**	**274.1**	**261.8**	**24.1**	**0.4**		**0.3**				**0.8**	**2.7**	**1.1**	**1226.3**
Dom. Uses		**14.2**	**68.7**	**45.9**	**53.4**	**51.0**	**4.7**	**0.1**		**0.1**				**0.2**	**0.5**	**0.2**	**239.1**
Sub-Total		**87**	**421**	**281**	**328**	**313**	**29**							**1**	**3**	**1**	**1465**

25% return flow factor applied to Shepherd Ditch as per Section 6.6.1 of the Procedures Manal

Continued

BATTLE CREEK BASIN (continued)
SURFACE WATER USE (MINOR DIVERSIONS) FOR 2016
(VOLUME IN CUBIC DECAMETERS)

Minor Diversions Associated with Upper Battle Creek (Reesor Lake) Area

File Number	March		April		May		June		July		August		September		October		
	1-25	26-9	10-24	25-9	10-25	26-9	10-24	25-9	10-25	26-9	10-25	26-9	10-24	25-9	10-25	26-31	Total
Adams Lake	1.0	1.0	6.0	2.0	6.0	6.0	-10.0	19.0	12.0	-5.0	17.0	5.0	6.0	6.0	18.0	-2.0	88.0
Alberta Use	10.0	1.0	-3.0														**8.0**
Sub-Total	**11.0**	**2.0**	**-3.0**	**2.0**	**6.0**	**6.0**	**-10.0**	**19.0**	**12**	**-5.0**	**17.0**	**5.0**	**6.0**	**6.0**	**18.0**	**-2.0**	**96.0**
Dom. Uses	**2.0**	**0.2**	**-0.6**														**1.6**
Sub-Total	**13.0**	**2.0**	**2.0**	**2.0**	**6.0**	**6.0**	**-10.0**	**19.0**	**12.0**	**-5.0**	**17.0**	**5.0**	**6.0**	**6.0**	**18.0**	**-2**	**98**

Total Minor Diversions from Battle Creek (Less Adams Lake)

Nashlyn Area	20.6																20.6
Consul Area			17.3														17.3
Cypress Lake																	48.8
Gaff Ditch		73.0	352.5	235.5	274.1	261.8	24.1	0.4		0.3				0.8	2.7	1.1	1226.3
Reesor Lake	10.0	1.0	-3.0														8.0
Total	**31**	**74**	**367**	**235**	**296**	**289**	**24**							**1**	**3**	**1**	**1321**

Percent Domestic Use (From Table) 0.195

Total Diversions (minor and domestic) from Battle Creek including Adams Lake

Nashlyn Area	24.6																24.6
Consul Area			20.7														20.7
Cypress Lake					25.9	32.4											58.3
Gaff Ditch		87.2	421.2	281.4	327.5	312.8	28.9	0.4		0.4				0.9	3.3	1.3	1465.4
Reesor Lake	13.0	2.2	2.4	2.0	6.0	6.0	-10.0	19.0	12.0	-5.0	17.0	5.0	6.0	6.0	18.0	-2.0	97.6
Total	**38**	**89**	**444**	**283**	**359**	**351**	**19**	**19**	**12**	**-5**	**17**	**5**	**6**	**7**	**21**	**-1**	**1667**

Water Rights Data supplied by Saskatchewan Water Security Agency and Alberta Environment and Sustainable Resource Development .
Totals of columns and rows may not add exactly due to rounding.
A 25 percent return flow factor is applied to Shepherd Ditch.
See Upper Battle Creek Depletion computations for Adams Lake

WATER SURVEY CANADA
Daily Mean Discharge Report for 2016

FRENCHMAN RIVER AT INTERNATIONAL BOUNDARY
Station Number: 11AC041

Discharge Units: Cubic Metres Per Second
Total Units: Cubic Decametres

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Day
1	.670	.340	2.04	.787	1.11	2.68	.692	1.34	.459	.778	7.74	2.01	1
2	.722	.316	1.21	.780	.883	2.59	1.10	.804	.491	.806	6.79	3.34	2
3	.758	.310	.959	.775	.862	2.26	1.08	.465	.429	3.06	5.70	2.80	3
4	.622	.359	.820	.772	.967	1.81	.926	.397	.425	13.8	5.45	2.49	4
5	.792	.388	.786	.868	.972	1.64	.907	.394	.511	24.5	5.43	2.22	5
6	.886	.352	.873	.923	.964	1.59	.910	.350	.544	20.7	5.46	2.20	6
7	.672	.350	1.35	.860	.967	1.54	.942	.320	.597	16.7	5.39	3.60	7
8	.656	.330	1.91	.780	.949	1.25	1.05	.305	.483	16.1	5.29	3.13	8
9	.692	.302	2.82	.771	.768	.946	1.37	.272 A	.442	11.2	4.70	2.75	9
10	.554	.277	6.39	.788	1.00	.965	1.42	.329	.411	8.95	3.92	2.97	10
11	.484	.230	8.73	.793	2.53	.851	5.26	.296	.361	7.87	3.53	3.18	11
12	.425	.202	4.18	.796	8.90	1.19	7.86	.272	.591	7.69	3.49	2.74	12
13	.394	.189	2.08	.839	5.13	.603	7.66	1.04	.899	8.98	3.48	2.75	13
14	.391	.202	3.07	.761	4.77	.482	4.25	1.56	.904	9.13	3.45	2.75	14
15	.344	.248	6.12	.868	5.00	.456	3.30	1.60	.915	8.15	3.43	2.72	15
16	.333	.246	6.38	.985	3.97	.816	2.69	1.59	.871	7.51	3.44	2.59	16
17	.471	.240	4.42	.819	3.32	.555	3.29	1.58	.820	7.34	3.13	2.63	17
18	.472	.490	4.08	.750	2.86	.426	3.72	1.56	.809	7.03	2.64	2.73	18
19	.357	1.52	2.96	.761	1.79	.450	2.56	1.56	.807	6.68	2.59	2.64	19
20	.344	.891	1.74	.740	1.01	.289	2.22	1.59	.818	6.47	2.59	2.50	20
21	.289	.688	1.10	.741	.687	.172	1.41	1.61	.840	6.37	2.63	2.49	21
22	.278	.822	1.36	.712	.570	.154	.996	1.61	.892	6.32	2.69	2.37	22
23	.382	1.30	1.21	.701	.469	.083	1.01	1.60	1.16	6.42	2.68	2.35	23
24	.397	1.35	1.06	.725	.372	.054	1.59	1.60	1.10	6.36	2.53	2.15	24
25	.410	.887	1.14	.912	.447	.055	1.63	1.65	.760	6.05	2.03	1.74	25
26	.306	.789	.893	1.53	.648	.048	1.57	1.71	.551	4.39	2.35	1.25	26
27	.290	.753	.824	1.48	.557	.040	2.64	1.59	1.01	4.69	2.67	1.87	27
28	.313	.743	.812	1.80	1.22	.216	2.21	.738	1.09	4.79	2.44	2.18	28
29	.336	.957	.799	1.73	2.30	.571	1.69	.337	1.10	5.02	1.76	2.09	29
30	.350		.826	1.35	2.09	.523	1.81 A	.165	.924	5.12	1.39	2.13	30
31	.387		.807		2.49		2.10	.099		6.16		2.45	31
Mean	.477	.554	2.38	.930	1.95	.844	2.32	.979	.734	8.23	3.69	2.51	
Total	1280	1390	6370	2410	5230	2190	6210	2620	1900	22000	9570	6720	
Max	1.05	2.12	10.6	1.86	11.3	2.86	10.8	1.74	1.37	27.0	8.41	4.43	
(day)	6|14:55	19|13:15	11|15:00	28|02:15	12|11:45	1|10:50	12|22:25	27|03:25	23|17:55	5|18:15	1|16:45	7|14:25	
Min	.139	.182	.740	.683	.329	.036	.465	.075	.094	.519	.884	1.00	
(day)	22|00:30	14|14:25	5|08:15	23|01:10	24|14:10	27|18:00	1|00:15	31|22:45	1|00:00	1|20:55	30|06:35	26|22:05	

A - Manual Gauge B - Ice Conditions E - Estimated D - Dry

Note: Report data from Aquarius displayed in a modified format.

APPROVED BY THE FIELD REPRESENTATIVES OF CANADA AND THE UNITED STATES

WATER SURVEY CANADA
Daily Mean Discharge Report for 2016

BELANGER CREEK DIVERSION TO CYPRESS LAKE
Station Number: 11AC064

Discharge Units: Cubic Metres Per Second
Total Units: Cubic Decametres

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Day
1	---	---	.057	.434	.843	1.42	0 E	0	0	0 E	.824	0 A	1
2	---	---	.261	.413	.557	1.43	0 E	0	0	0 E	.806	---	2
3	---	---	.524	.375	.346	1.09	0 E	0	0	0 E	.753	---	3
4	---	---	1.13	.381	.070	.912	0 E	0	0	0 E	.704	---	4
5	---	---	1.30	.390	.035	.783	0 E	0	0	0 E	.498	---	5
6	---	---	1.30	.390	.019	.296	0 E	0	0	0 E	.599	---	6
7	---	---	1.21	.383	.011	0	0 E	0	0	.326 E	.579	---	7
8	---	---	.754	.375	.007	0	0	0	0	.746 E	.422	---	8
9	---	---	.661	.369	.045	0	0	0	0	.783 E	0	---	9
10	---	---	.819	.355	0	0	0	0	0	.820 E	0	---	10
11	---	---	.903	.353	.275	0	0	0	0	.857 E	0	---	11
12	---	---	.824	.362	.142	0	0	0	0	.877 E	0	---	12
13	---	---	.956	.397	.004	0	0	0	0	.789	0	---	13
14	---	---	.756	.386	0	0	0	0	0	.766	0	---	14
15	---	---	.606	.421	0	0	0	0	0	.896	0	---	15
16	---	---	.393	.514	0	0	0	0	0	1.35	0	---	16
17	---	---	.379	.607	0	0	0	0	0	1.56	0	---	17
18	---	---	.385	.510	0	0	0	0	0	1.35	0	---	18
19	---	---	.316	.427	0	0	0	0	0	1.12	0	---	19
20	---	---	.394	.376	0	0	0	0	0	.954	0	---	20
21	---	---	.312	.349	0	0	0	0	0	.825	0	---	21
22	---	---	.354	.363	0	0	0	0	0	.735	0	---	22
23	---	0	.334	.299	0	0 E	0	0	0	.661	0	---	23
24	---	0	.402	.198	0	0 E	0	0	0	.645	0	---	24
25	---	0	.325	.284	.137	0 E	0	0	0 E	.631	0	---	25
26	---	0	.322	.326	.283	0 E	0	0	0 E	.609	0	---	26
27	---	0	.296	.630	.140	0 E	0	0	0 E	.603	0	---	27
28	---	0	.303	1.01	.439	0 E	0	0	0 E	.606	0	---	28
29	---	0	.344	1.25	.786	0 E	0	0	0 E	.607	0	---	29
30	---		.338	1.21	.663	0 E	0	0	0 E	.627	0	---	30
31	---		.400		.774		0	0		.712		---	31
Mean	---	---	.570	.471	.180	.198	0	0	0	.660	.173	---	
Total	---	---	1530	1220	482	513	0	0	0	1770	448	---	
Max	---	0	1.69	1.37	1.04	1.64	0	0	0	1.66	.841	0	
(day)		23|00:00	6|06:50	29|22:05	1|00:00	1|19:30	1|00:00	1|00:00	1|00:00	17|00:20	1|19:00	1|00:00	
Min	---	0	0	.176	0	0	0	0	0	0	0	0	
(day)		23|00:00	1|00:00	24|04:50	9|17:55	6|15:20	1|00:00	1|00:00	1|00:00	1|00:00	5|19:25	1|00:00	

A - Manual Gauge B - Ice Conditions E - Estimated D - Dry

Note: Report data from Aquarius displayed in a modified format.

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WATER SURVEY CANADA
Daily Mean Stage Report for 2016

CYPRESS LAKE
Station Number: 11AC037

Stage Units: Metres
Total Units: Cubic Decametres

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Day
1	---	---	974.635	974.734	974.761	974.468 E	974.456	974.417	974.385	974.342	974.469 A	---	1
2	---	---	974.635	974.732	974.749	974.468 E	974.460	974.415	974.384	974.347	---	---	2
3	---	---	974.638	974.737	974.735	974.469 E	974.456	974.406	974.368	974.342	---	---	3
4	---	---	974.659	974.732	974.720	974.469 E	974.447	974.403	974.362	974.337	---	---	4
5	---	---	974.669	974.763	974.717	974.469 E	974.438	974.402	974.351	974.346	---	---	5
6	---	---	974.672	974.753	974.720	974.470 E	974.435	974.402	974.345	974.339	---	---	6
7	---	---	974.689	974.739	974.716	974.474 E	974.434	974.400	974.343	974.340	---	---	7
8	---	---	974.691	974.742	974.713	974.481	974.432	974.400	974.340	974.346	---	---	8
9	---	---	974.691	974.756	974.744	974.482	974.431	974.400	974.341	974.353	---	---	9
10	---	---	974.704	974.734	974.714	974.483	974.431	974.421	974.337	974.359	---	---	10
11	---	---	974.711	974.722	974.688	974.482	974.432	974.419	974.335	974.367	---	---	11
12	---	---	974.719	974.718	974.667	974.473	974.435	974.419	974.332	974.371	---	---	12
13	---	---	974.726	974.722	974.642	974.473	974.436	974.421	974.327	974.379	---	---	13
14	---	---	974.713	974.731	974.618	974.469	974.437	974.422	974.325	974.384	---	---	14
15	---	---	974.729	974.781	974.593	974.459	974.439	974.422	974.326	974.387	---	---	15
16	---	---	974.726	974.742	974.568	974.452	974.440	974.422	974.328	974.389	---	---	16
17	---	---	974.726	974.741	974.541	974.443	974.437	974.424	974.322	974.398	---	---	17
18	---	---	974.718	974.734	974.525 E	974.443	974.439	974.425	974.319	974.408	---	---	18
19	---	---	974.725	974.726	974.506 E	974.426	974.439	974.420	974.321	974.408	---	---	19
20	---	---	974.725	974.725	974.486 E	974.430	974.437	974.416	974.318	974.411	---	---	20
21	---	---	974.722	974.716	974.467 E	974.434	974.430	974.414	974.315	974.414	---	---	21
22	---	---	974.723	974.716	974.464 E	974.442	974.428	974.408	974.325	974.420	---	---	22
23	---	974.634 A	974.722	974.716	974.465 E	974.442	974.419	974.401	974.339	974.421	---	---	23
24	---	974.634	974.724	974.692	974.465 E	974.439	974.416	974.412	974.341	974.420	---	---	24
25	---	974.633	974.725	974.709	974.465 E	974.435	974.421	974.406	974.336	974.421	---	---	25
26	---	974.633	974.724	974.721	974.466 E	974.439	974.436	974.403	974.331	974.428	---	---	26
27	---	974.633	974.733	974.714	974.466 E	974.437	974.450	974.399	974.351	974.435	---	---	27
28	---	974.632	974.730	974.715	974.466 E	974.436	974.453	974.400	974.351	974.443	---	---	28
29	---	974.635	974.733	974.714	974.467 E	974.446	974.451	974.394	974.340	974.449	---	---	29
30	---		974.729	974.716	974.467 E	974.446	974.446	974.391	974.335	974.449	---	---	30
31	---		974.736		974.467 E		974.429	974.381		974.464		---	31
Mean	---	---	974.706	974.730	974.589	974.456	974.438	974.409	974.339	974.391	---	---	
Max	---	974.640	974.788	975.213	974.850	974.521	974.477	974.439	974.559	974.475	974.477	---	
(day)		24|07:15	31|02:30	15|02:10	2|10:25	7|20:10	2|17:55	3|03:55	27|17:30	31|18:45	1|10:20		
Min	---	974.628	974.629	974.686	974.464	974.390	974.395	974.363	974.298	974.318	974.463	---	
(day)		28|21:40	2|18:30	24|12:45	21|12:20	19|09:20	26|19:40	23|12:55	17|14:25	3|22:15	1|00:25		

A - Manual Gauge B - Ice Conditions E - Estimated D - Dry

AQUARIUS TIME-SERIES™ SOFTWARE

Note: Report data from Aquarius 3.1.591 displayed in a modified format.

APPROVED BY THE FIELD REPRESENTATIVES OF CANADA AND THE UNITED STATES

WATER SURVEY CANADA
Daily Mean Discharge Report for 2016

CYPRESS LAKE EAST OUTFLOW CANAL
Station Number: 11AC060

Discharge Units: Cubic Metres Per Second
Total Units: Cubic Decametres

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Day
1	---	---	.691 B	.054	.161	.269	.128	.069	.013	.042	.149	---	1
2	---	---	.254 B	.060	.162	.191	.107	.050	.009	.044	.124	---	2
3	---	---	.418	.048	.141	.116	.083	.050	.011	.050	.112 A	---	3
4	---	---	.249	.051	.138	.099	.050	.112	.005	.128	---	---	4
5	---	---	.098	.045	.156	.140	.051	.169	.014	.517	---	---	5
6	---	---	.141	.040	.320	.307	.061	.189	.015	1.22	---	---	6
7	---	---	.137	.038	.228	.611	.074	.205	.015	.806	---	---	7
8	---	---	.068	.038	.217	.347	.045	.204	.017	.117	---	---	8
9	---	---	.066	.037	.247	.209	.047	.173	.024	.091	---	---	9
10	---	---	.074	.033	.285	.142	.052	.502	.021	.094	---	---	10
11	---	---	.081	.034	.316	.162	.073	.425	.021	.093	---	---	11
12	---	---	.078	.038	.345	.149	.233	.264	.024	.096	---	---	12
13	---	---	.072	.067	.434	.133	.268	.190	.026	.094	---	---	13
14	---	---	.067	.058	.457	.130	.295	.122	.025	.101	---	---	14
15	---	---	.065	.075	.420	.116	.359	.080	.022	.104	---	---	15
16	---	---	.075	.079	.467	.098	.249	.056	.025	.103	---	---	16
17	---	---	.056	.085	.515	.090	.310	.044	.030	.098	---	---	17
18	---	---	.053	.099	.437	.082	.471	.044	.035	.103	---	---	18
19	---	---	.058	.094	.415	.093	.478	.038	.054	.104	---	---	19
20	---	---	.061	.088	.349	.075	.312	.035	.046	.107	---	---	20
21	---	.074 B	.067	.089	.176	.070	.162	.033	.044	.108	---	---	21
22	---	.074 B	.063	.077	.143	.088	.089	.026	.098	.113	---	---	22
23	---	.074 B	.067	.078	.139	.186	.057	.021	.229	.110	---	---	23
24	---	.069 B	.070	.089	.162	.423	.038	.031	.167	.111	---	---	24
25	---	.068 B	.075	.100	.151	.170	.029	.039	.161	.110	---	---	25
26	---	.084 B	.081	.110	.144	.144	.048	.036	.044	.110	---	---	26
27	---	.295 B	.081	.126	.123	.121	.086	.036	.034	.110	---	---	27
28	---	.652 B	.082	.131	.243	.101	.123	.028	.037	.109	---	---	28
29	---	.923 B	.082	.100	.336	.142	.159	.023	.039	.108	---	---	29
30	---		.064	.094	.332	.094	.127	.018	.042	.108	---	---	30
31	---		.053		.331		.097	.015		.128		---	31
Mean	---	---	.118	.072	.274	.170	.154	.107	.045	.172	---	---	
Total	---	---	315	186	733	441	411	287	116	461	---	---	
Max	---	.976	1.08	.155	.637	.804	.522	.605	.250	1.33	.162	---	
(day)		29|18:10	3|21:25	27|23:45	19|21:45	7|02:15	19|11:50	10|16:25	23|08:40	6|12:25	1|00:00		
Min	---	.063	.034	.027	.084	.043	.025	.012	.004	.034	.099	---	
(day)		25|15:30	18|01:55	9|18:05	27|16:00	22|22:45	25|14:00	31|18:50	4|11:40	1|19:10	3|15:15		

A - Manual Gauge B - Ice Conditions E - Estimated D - Dry

Note: Report data from Aquarius displayed in a modified format.

APPROVED BY THE FIELD REPRESENTATIVES OF CANADA AND THE UNITED STATES

STORAGE FACTORS AND EVAPORATION LOSSES
2016

EASTEND RESERVOIR 11AC055

PERIOD	ELEVATION At End of Period (m)	MEAN RESERVOIR SURFACE AREA (dam^2)	EVAPORATION		STORAGE AT		TOTAL CHANGE IN STORAGE (dam^3)
			Penman (m)	Reservoir (dam^3)	Beginning of Period (dam^3)	End of Period (dam^3)	
1	918.649	12705	0.000	0	604	3088	2484
2	918.585	19561	0.000	0	3088	2961	-127
3	918.550	19058	0.000	0	2961	2895	-66
4	918.664	19466	0.045	88	2895	3118	311
5	918.438	18876	0.048	90	3118	2688	-340
6	918.421	17574	0.023	40	2688	2658	9
7	918.580	18341	0.054	98	2658	2952	393
8	918.572	19143	0.053	102	2952	2937	87
9	918.517	18812	0.032	60	2937	2832	-44
10	918.480	18319	0.051	93	2832	2764	25
11	918.293	17123	0.072	123	2764	2449	-192
12	918.337	16417	0.064	105	2449	2519	176
13	918.326	16584	0.018	30	2519	2502	12
14	918.521	17509	-0.009	-15	2502	2840	323
15	918.370	17747	-0.041	-72	2840	2572	-340
16	917.744	14492	-0.002	-3	2572	1657	-918

WATER SURVEY CANADA
Daily Mean Discharge Report for 2016

EASTEND CANAL NEAR EASTEND
Station Number: 11AC052

Discharge Units: Cubic Metres Per Second
Total Units: Cubic Decametres

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Day
1	---	---	0	0	0	0	0	0	0	0	---	---	1
2	---	---	0	0	0	0	0	0	0	0	---	---	2
3	---	---	0	0	0	0	0	0	0	0	---	---	3
4	---	---	0	0	.758	0	0	0	0	0	---	---	4
5	---	---	0	0	1.32	0	0	0	0	0	---	---	5
6	---	---	0	0	1.57	0	0	0	0	0	---	---	6
7	---	---	0	0	2.18	0	0	0	0	0	---	---	7
8	---	---	0	0	2.42	0	0	0	0	0	---	---	8
9	---	---	0	0	2.44	0	0	0	0	0	---	---	9
10	---	---	0	0	2.43	0	0	0	0	0	---	---	10
11	---	---	0	0	2.43	0	0	0	0	0	---	---	11
12	---	---	0	0	2.46	0	0	0	0	0	---	---	12
13	---	---	0	0	2.52	0	0	0	0	0	---	---	13
14	---	---	0	0	2.56	0	0	0	0	0	---	---	14
15	---	---	0	0	2.61	0	0	0	0	0	---	---	15
16	---	---	0	0	2.65	0	0	0	0	0	---	---	16
17	---	---	0	0	2.70	0	0	0	0	0	---	---	17
18	---	---	0	0	2.72	0	0	0	0	0	---	---	18
19	---	---	0	0	2.57	0	0	0	0	0	---	---	19
20	---	---	0	0	2.49	0	0	0	0	0	---	---	20
21	---	---	0	0	2.63	0	0	0	0	0	---	---	21
22	---	---	0	0	2.71	0	0	0	0	0	---	---	22
23	---	---	0	0	2.61	0	0	0	0	0	---	---	23
24	---	---	0	0	2.52	0	0	0	0	0	---	---	24
25	---	---	0	0	1.57	0	0	0	0	0	---	---	25
26	---	---	0	0	1.44	0	0	0	0	0	---	---	26
27	---	---	0	0	.700	0	0	0	0	0	---	---	27
28	---	---	0	0	0	0	0	0	0	0	---	---	28
29	---	---	0	0	0	0	0	0	0	0	---	---	29
30	---		0	0	0	0	0	0	0	0	---	---	30
31	---		0		0		0	0		0		---	31
Mean	---	---	0	0	1.71	0	0	0	0	0	---	---	
Total	---	---	0	0	4580	0	0	0	0	0	---	---	
Max	---	---	0	0	2.73	0	0	0	0	0	---	---	
(day)			1|00:00	1|00:00	17|16:20	1|00:00	1|00:00	1|00:00	1|00:00	1|00:00			
Min	---	---	0	0	0	0	0	0	0	0	---	---	
(day)			1|00:00	1|00:00	1|00:00	1|00:00	1|00:00	1|00:00	1|00:00	1|00:00			

A - Manual Gauge B - Ice Conditions E - Estimated D - Dry

Note: Report data from Aquarius displayed in a modified format.

APPROVED BY THE FIELD REPRESENTATIVES OF CANADA AND THE UNITED STATES

VAL MARIE EVAPORATION STATION NO. 11ACM01
Station Elevation: 600 m
2016

Date March	Penman Evaporation Pe mm	Tipping Bucket ppt mm	Net Reservoir Evaporation Pe - TB ppt	Period Evaporation Summations M	Date April	Penman Evaporation Pe mm	Tipping Bucket ppt mm	Net Reservoir Evaporation Pe - TB ppt	Period Evaporation Summations M	Date May	Penman Evaporation Pe mm	Tipping Bucket ppt mm	Net Reservoir Evaporation Pe - TB ppt	Period Evaporation Summations M	Date June	Penman Evaporation Pe mm	Tipping Bucket ppt mm	Net Reservoir Evaporation Pe - TB ppt	Period Evaporation Summations M
1	1.29	0	1.29	Eastend *	1	2.92	0	2.92		1	4.67	0	4.67		1	5.49	0	5.49	
2	0.25	0	0.25	Huff / Newton **	2	3.94	0	3.94		2	5.61	0	5.61		2	5.03	1	4.03	
3	1.12	0	1.12		3	3.86	0	3.86		3	5.53	0	5.53		3	7.60	0	7.60	
4	2.41	0	2.41		4	3.61	0	3.61		4	5.78	0	5.78		4	6.84	0	6.84	
5	2.39	0	2.39		5	0.59	0	0.59		5	6.38	0	6.38		5	6.09	0	6.09	
6	2.51	0	2.51		6	4.00	0	4.00		6	5.69	0	5.69		6	6.14	0	6.14	
7	0.88	0	0.88		7	4.95	0	4.95		7	5.23	0	5.23		7	7.22	0	7.22	
8	1.51	0	1.51	0.000 *	8	3.64	0	3.64	0.000 *	8	6.98	0	6.98	0.048 *	8	6.99	0	6.99	0.054 *
9	2.35	0	2.35		9	5.39	0	5.39		9	2.17	4	-1.83		9	5.64	1	4.64	
10	2.87	0	2.87		10	3.71	0	3.71		10	1.00	17	-16.00		10	6.87	0	6.87	
11	3.78	0	3.78		11	3.59	0	3.59		11	3.19	7	-3.81		11	2.35	2	0.35	
12	2.93	0	2.93	0.000 **	12	4.79	0	4.79	0.000 **	12	1.73	0	1.73	0.037 **	12	7.15	2	5.15	0.066 **
13	3.47	0	3.47		13	1.63	0	1.63		13	4.24	0	4.24		13	6.50	2	4.50	
14	1.58	0	1.58		14	2.77	0	2.77		14	4.29	0	4.29		14	6.12	6	0.12	
15	1.55	0	1.55		15	0.90	8	-7.10		15	4.43	0	4.43		15	4.64	0	4.64	
16	1.11	0	1.11		16	3.32	0	3.32		16	4.90	0	4.90		16	6.24	10	-3.76	
17	1.22	0	1.22		17	3.41	0	3.41		17	6.52	0	6.52		17	6.88	1	5.88	
18	0.65	0	0.65		18	4.01	0	4.01		18	4.84	0	4.84		18	3.70	1	2.70	
19	1.79	0	1.79		19	3.87	0	3.87		19	5.66	0	5.66		19	5.53	0	5.53	
20	2.41	0	2.41		20	3.89	0	3.89		20	3.75	0	3.75		20	6.10	0	6.10	
21	2.15	0	2.15		21	4.07	0	4.07		21	3.30	3	0.30		21	4.02	6	-1.98	
22	0.51	0	0.51		22	3.99	0	3.99		22	5.36	0	5.36		22	5.59	0	5.59	
23	2.05	0	2.05		23	3.81	0	3.81	0.045 *	23	2.77	2	0.77		23	7.08	0	7.08	0.053 *
24	1.24	0	1.24	0.000 *	24	0.43	2	-1.57		24	2.42	5	-2.58	0.023 *	24	4.56	8	-3.44	
25	2.21	0	2.21		25	0.32	9	-8.68		25	3.38	0	3.38		25	3.90	0	3.90	
26	1.80	0	1.80		26	0.90	0	0.90		26	2.15	1	1.15		26	4.91	0	4.91	
27	2.23	0	2.23		27	1.25	1	0.25	0.019 **	27	5.07	0	5.07		27	5.50	0	5.50	0.047 **
28	1.67	0	1.67	0.000 **	28	3.71	0	3.71		28	3.87	9	-5.13	0.047 **	28	5.05	0	5.05	
29	2.68	0	2.68		29	3.54	0	3.54		29	5.78	0	5.78		29	5.21	0	5.21	
30	1.01	0	1.01		30	3.60	0	3.60		30	2.21	6	-3.79		30	5.60	5	0.60	
31	2.50	0	2.50							31	3.79	7	-3.21						
Total	58.10	0	58.10		Total	94.40	20	74.40		Total	132.68	61	71.68		Total	170.54	45	125.54	

Notes:
Division Period Evaporation Summations
* Eastend Reservoir
** Huff and Newton Reservoirs

..... Continued

VAL MARIE EVAPORATION STATION NO. 11ACM01
Station Elevation: 600 m
2016

Date	Penman Evaporation Pe	Tipping Bucket ppt	Net Reservoir Evaporation	Period Evaporation Summations	Date	Penman Evaporation Pe	Tipping Bucket ppt	Net Reservoir Evaporation	Period Evaporation Summations	Date	Penman Evaporation Pe	Tipping Bucket ppt	Net Reservoir Evaporation	Period Evaporation Summations	Date	Penman Evaporation Pe	Tipping Bucket ppt	Net Reservoir Evaporation	Period Evaporation Summations
July	mm	mm	Pe-TB ppt	M	Aug.	mm	mm	Pe - TB ppt	M	Sept.	mm	mm	Pe-TB ppt	M	Oct.	mm	mm	Pe - TB ppt	M
1	5.98	10	-4.02	Eastend *	1	5.42	0	5.42		1	2.72	0	2.72		1	2.73	4	-1.27	
2	5.13	0	5.13	Huff / Newton **	2	5.70	0	5.70		2	4.41	0	4.41		2	2.65	0	2.65	
3	7.30	0	7.30		3	4.98	1	3.98		3	4.07	0	4.07		3	0.52	31	-30.48	
4	5.68	0	5.68		4	5.23	0	5.23		4	2.05	2	0.05		4	0.40	25	-24.60	
5	5.31	5	0.31		5	5.33	0	5.33		5	0.86	12	-11.14		5	0.60	5	-4.40	
6	3.16	15	-11.84		6	2.77	0	2.77		6	3.80	0	3.80		6	1.07	0	1.07	
7	5.35	1	4.35		7	5.73	0	5.73		7	3.18	8	-4.82		7	0.89	0	0.89	
8	3.49	0	3.49	0.032 *	8	5.64	0	5.64	0.072 *	8	2.28	7	-4.72	0.018 *	8	0.60	5	-4.40	-0.041 *
9	6.20	1	5.20		9	3.39	0	3.39		9	3.56	1	2.56		9	1.23	0	1.23	
10	2.23	0	2.23		10	3.25	1	2.25		10	3.19	0	3.19		10	0.15	2	-1.85	
11	2.08	20	-17.92		11	3.54	0	3.54		11	0.98	1	-0.02		11	0.27	0	0.27	
12	3.29	1	2.29	0.013 **	12	4.81	0	4.81	0.068 **	12	3.10	0	3.10	0.015 **	12	0.32	0	0.32	-0.051 **
13	5.32	0	5.32		13	5.02	0	5.02		13	3.19	0	3.19		13	0.98	0	0.98	
14	2.37	2	0.37		14	4.80	0	4.80		14	3.01	0	3.01		14	0.57	0	0.57	
15	5.00	0	5.00		15	5.04	0	5.04		15	3.46	0	3.46		15	1.65	0	1.65	
16	3.05	1	2.05		16	4.52	0	4.52		16	3.72	0	3.72		16	1.14	4	-2.87	
17	5.97	0	5.97		17	5.33	0	5.33		17	2.99	0	2.99		17	1.35	0	1.35	
18	6.18	0	6.18		18	4.23	0	4.23		18	3.56	0	3.56		18	0.38	2	-1.13	
19	7.01	0	7.01		19	2.97	0	2.97		19	3.05	0	3.05		19	0.28	0	0.28	
20	6.37	5	1.37		20	4.41	0	4.41		20	2.23	0	2.23		20	1.22	0	1.22	
21	6.71	0	6.71		21	4.90	0	4.90		21	1.67	0	1.67		21	1.94	0	1.94	
22	6.79	0	6.79		22	4.35	0	4.35		22	0.23	28	-27.77		22	0.49	9	-8.51	
23	5.97	0	5.97		23	3.70	0	3.70		23	0.37	17	-16.63	-0.009 *	23	1.04	0	1.04	
24	6.28	0	6.28	0.051 *	24	1.93	1	0.93	0.064 *	24	1.08	0	1.08		24	1.15	0	1.15	-0.002 *
25	6.29	0	6.29		25	1.86	3	-1.14		25	2.92	0	2.92		25	0.79	0	0.79	
26	3.30	0	3.30		26	2.75	0	2.75		26	2.70	0	2.70		26	0.97	0	0.97	
27	3.52	1	2.52		27	4.77	0	4.77		27	3.66	0	3.66	-0.007 **	27	0.53	0	0.53	
28	5.92	0	5.92	0.077 **	28	4.86	0	4.86	0.061 **	28	3.18	0	3.18		28	0.32	1	-0.69	-0.001 **
29	4.45	0	4.45		29	4.19	0	4.19		29	3.11	0	3.11		29	0.49	0	0.49	
30	4.50	0	4.50		30	4.26	0	4.26		30	3.34	0	3.34		30	1.02	0	1.02	
31	5.23	0	5.23		31	3.81	0	3.81							31	0.19	8	-7.80	
Total	155.40	62	93.40		Total	133.47	6	127.47		Total	81.65	76	5.65		Total	27.93	95.52	-67.59	

Notes:
Division Period Evaporation Summations
* Eastend Reservoir
** Huff and Newton Reservoirs

STORAGE FACTORS AND EVAPORATION LOSSES
2016

HUFF LAKE 11AC063

PERIOD	ELEVATION At End of Period (m)	MEAN RESERVOIR SURFACE AREA (dam^2)	EVAPORATION		STORAGE AT		TOTAL CHANGE IN STORAGE (dam^3)
			Penman (m)	Reservoir (dam^3)	Beginning of Period (dam^3)	End of Period (dam^3)	
1	815.800	20195	0.000	0	3734	3740	6
2	815.775	20140	0.000	0	3740	3687	-53
3	815.816	20180	0.000	0	3687	3772	85
4	815.827	20288	0.019	38	3772	3794	60
5	815.895	20444	0.037	75	3794	3930	211
6	815.705	20200	0.047	95	3930	3540	-295
7	815.637	19555	0.066	129	3540	3404	-7
8	815.687	19510	0.047	92	3404	3504	192
9	815.632	19500	0.013	25	3504	3394	-85
10	815.627	19350	0.077	149	3394	3384	139
11	815.668	19440	0.068	132	3384	3466	214
12	815.686	19585	0.061	120	3466	3502	156
13	815.674	10236	0.015	16	3502	240	-3247
14	812.674	3217	-0.007	-2	240	240	-2
15	812.001	7808	-0.051	-40	240	2282	2002
16	815.125	16710	-0.001	-1	2282	2477	194

STORAGE FACTORS AND EVAPORATION LOSSES
2016

NEWTON LAKE 11AC056

PERIOD	ELEVATION At End of Period (m)	MEAN RESERVOIR SURFACE AREA (dam^2)	EVAPORATION		STORAGE AT		TOTAL CHANGE IN STORAGE (dam^3)
			Penman (m)	Reservoir (dam^3)	Beginning of Period (dam^3)	End of Period (dam^3)	
1	803.338	58232	0.000	0	11990	12620	630
2	803.325	59432	0.000	0	12620	12542	-78
3	803.360	59718	0.000	0	12542	12751	209
4	803.390	60550	0.019	112	12751	12931	292
5	803.490	62120	0.037	229	12931	13552	850
6	803.274	60732	0.047	285	13552	12243	-1024
7	803.023	55280	0.066	366	12243	10854	-1023
8	803.191	54440	0.047	257	10854	11768	1172
9	803.284	57174	0.013	75	11768	12300	606
10	803.179	57036	0.077	439	12300	11702	-159
11	803.090	55000	0.068	374	11702	11212	-116
12	802.725	50744	0.061	312	11212	9356	-1544
13	803.300	52647	0.015	81	9356	12392	3117
14	803.240	57910	-0.007	-42	12392	12048	-386
15	803.136	56060	-0.051	-285	12048	11464	-869
16	802.887	52628	-0.001	-4	11464	10151	-1317

WATER SURVEY CANADA
Daily Mean Discharge Report for 2016

HUFF LAKE GRAVITY CANAL
Station Number: 11AC065

Discharge Units: Cubic Metres Per Second
Total Units: Cubic Decametres

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Day
1	---	---	0	0	0	.818	0	0	0	0	---	---	1
2	---	---	0	0	0	.832 E	0	0	0	0	---	---	2
3	---	---	0	0	0	.814 E	0	0	0	0	---	---	3
4	---	---	0	0	0	.883 E	0	0	0	0	---	---	4
5	---	---	0	0	0	.934 E	0	0	0	0	---	---	5
6	---	---	0	0	0	.928 E	0	0	0	0	---	---	6
7	---	---	0	0	0	.870 E	0	0	0	0	---	---	7
8	---	---	0	0	0	.875 E	0	0	0	0	---	---	8
9	---	---	0	0	0	.730 E	0	0	0	0	---	---	9
10	---	---	0	0	0	.503 E	0	0	0	0	---	---	10
11	---	---	0	0	0	.378 E	0	0	0	0	---	---	11
12	---	---	0	0	0	.403 E	0	0	0	0	---	---	12
13	---	---	0	0	0	.401 E	0	0	0	0	---	---	13
14	---	---	0	0	0	.409 E	0	0	0	0	---	---	14
15	---	---	0	0	0	.171 E	0	0	0	0	---	---	15
16	---	---	0	0	0	0	0	0	0	0	---	---	16
17	---	---	0	0	0	0	0	0	0	0	---	---	17
18	---	---	0	0	0	.000	0	0	0	0	---	---	18
19	---	---	0	0	0	.000	0	0	0	0	---	---	19
20	---	---	0	0	0	.000	0	0	0	0	---	---	20
21	---	---	0	0	0	.000	0	0	0	0	---	---	21
22	---	---	0	0	.009	.000	0	0	0	0	---	---	22
23	---	---	0	0	.669	.000	0	0	0	0	---	---	23
24	---	---	0	0	.915 A	.000	0	0	0	0	---	---	24
25	---	---	0	0	.954 E	.000	0	0	0	0	---	---	25
26	---	---	0	0	.852 E	.000	0	0	0	0	---	---	26
27	---	---	0	0	.869 E	0	0	0	0	0	---	---	27
28	---	---	0	0	.968 E	0	0	0	0	0	---	---	28
29	---	---	0	0	.944 E	0	0	0	0	0	---	---	29
30	---		0	0	.828 E	0	0	0	0	0	---	---	30
31	---		0		.810 E		0	0		0		---	31
Mean	---	---	0	0	.252	.332	0	0	0	0	---	---	
Total	---	---	0	0	675	860	0	0	0	0	---	---	
Max	---	---	0	0	1.05	.995	0	0	0	0	---	---	
(day)			1|00:00	1|00:00	24|18:00	5|04:45	1|00:00	1|00:00	1|00:00	1|00:00			
Min	---	---	0	0	0	0	0	0	0	0	---	---	
(day)			1|00:00	1|00:00	1|00:00	15|16:45	1|00:00	1|00:00	1|00:00	1|00:00			

A - Manual Gauge B - Ice Conditions E - Estimated D - Dry

Note: Report data computed manually and displayed in a modified format.

APPROVED BY THE FIELD REPRESENTATIVES OF CANADA AND THE UNITED STATES

WATER SURVEY CANADA
Daily Mean Discharge Report for 2016

HUFF LAKE PUMPING CANAL
Station Number: 11AC066

Discharge Units: Cubic Metres Per Second
Total Units: Cubic Decametres

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Day
1	---	---	0	0	0	.454	0	0	0	0	---	---	1
2	---	---	0	0	0	.460	0	0	0	0	---	---	2
3	---	---	0	0	0	.454	0	0	0	0	---	---	3
4	---	---	0	0	0	.452	0	0	0	0	---	---	4
5	---	---	0	0	0	.448	0	0	0	0	---	---	5
6	---	---	0	0	0	.445	0	0	0	0	---	---	6
7	---	---	0	0	0	.404	0	0	0	0	---	---	7
8	---	---	0	0	0	.406	0	0	0	0	---	---	8
9	---	---	0	0	0	.423	0	0	0	0	---	---	9
10	---	---	0	0	0	.415	0	0	0	0	---	---	10
11	---	---	0	0	0	.398	0	0	0	0	---	---	11
12	---	---	0	0	0	.381	0	0	0	0	---	---	12
13	---	---	0	0	0	.363	0	0	0	0	---	---	13
14	---	---	0	0	0	.350	0	0	0	0	---	---	14
15	---	---	0	0	0	.109	0	0	0	0	---	---	15
16	---	---	0	0	0	0	0	0	0	0	---	---	16
17	---	---	0	0	0	0	0	0	0	0	---	---	17
18	---	---	0	0	0	0	0	0	0	0	---	---	18
19	---	---	0	0	0	0	0	0	0	0	---	---	19
20	---	---	0	0	0	0	0	0	0	0	---	---	20
21	---	---	0	0	0	0	0	0	0	0	---	---	21
22	---	---	0	0	0	0	0	0	0	0	---	---	22
23	---	---	0	0	.035	0	0	0	0	0	---	---	23
24	---	---	0	0	.398	0	0	0	0	0	---	---	24
25	---	---	0	0	.429	0	0	0	0	0	---	---	25
26	---	---	0	0	.441	0	0	0	0	0	---	---	26
27	---	---	0	0	.453	0	0	0	0	0	---	---	27
28	---	---	0	0	.455	0	0	0	0	0	---	---	28
29	---	---	0	0	.458	0	0	0	0	0	---	---	29
30	---		0	0	.457	0	0	0	0	0	---	---	30
31	---		0		.455		0	0		0		---	31
Mean	---	---	0	0	.115	.199	0	0	0	0	---	---	
Total	---	---	0	0	309	515	0	0	0	0	---	---	
Max	---	---	0	0	.517	.503	0	0	0	0	---	---	
(day)			1|00:00	1|00:00	29|05:44	2|03:59	1|00:00	1|00:00	1|00:00	1|00:00			
Min	---	---	0	0	0	0	0	0	0	0	---	---	
(day)			1|00:00	1|00:00	1|00:00	15|08:15	1|00:00	1|00:00	1|00:00	1|00:00			

A - Manual Gauge B - Ice Conditions E - Estimated D - Dry

AQUARIUS TIME-SERIES™ SOFTWARE

Note: Report data computed manually and displayed in a modified format.

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WATER SURVEY CANADA
Daily Mean Discharge Report for 2016

NEWTON LAKE MAIN CANAL
Station Number: 11AC054

Discharge Units: Cubic Metres Per Second
Total Units: Cubic Decametres

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Day
1	0	0	0	0	0	3.01	0	0	---	---	---	---	1
2	0	0	0	0	0	2.99	0	0	---	---	---	---	2
3	0	0	0	0	0	2.99	0	0	---	---	---	---	3
4	0	0	0	0	0	2.94	0	0	---	---	---	---	4
5	0	0	0	0	0	2.00	0	0	---	---	---	---	5
6	0	0	0	0	0	2.04	0	0	---	---	---	---	6
7	0	0	0	0	0	2.32	0	0	---	---	---	---	7
8	0	0	0	0	0	1.80	0	0	---	---	---	---	8
9	0	0	0	0	0	1.47	0	0	---	---	---	---	9
10	0	0	0	0	0	1.09	0	0	---	---	---	---	10
11	0	0	0	0	0	1.12	0	0	---	---	---	---	11
12	0	0	0	0	0	1.04	0	0	---	---	---	---	12
13	0	0	0	0	0	.641	0	0	---	---	---	---	13
14	0	0	0	0	0	.506	0	0	---	---	---	---	14
15	0	0	0	0	0	.481	0	0	---	---	---	---	15
16	0	0	0	0	0	.109	0	0	---	---	---	---	16
17	0	0	0	0	0	0	0	0	---	---	---	---	17
18	0	0	0	0	0	0	0	0	---	---	---	---	18
19	0	0	0	0	.002	0	0	0	---	---	---	---	19
20	0	0	0	0	.119	0	0	0	---	---	---	---	20
21	0	0	0	0	.093	0	0	0	---	---	---	---	21
22	0	0	0	0	.077	0	0	0	---	---	---	---	22
23	0	0	0	0	.071	0	0	0	---	---	---	---	23
24	0	0	0	0	.061	0	0	0 A	---	---	---	---	24
25	0	0	0	0	3.28	0	0	---	---	---	---	---	25
26	0	0	0	0	3.34	0	0	---	---	---	---	---	26
27	0	0	0	0	3.45	0	0	---	---	---	---	---	27
28	0	0	0	0	3.14	0	0	---	---	---	---	---	28
29	0	0	0	0	3.06	0	0	---	---	---	---	---	29
30	0		0	0	3.04	0	0	---	---	---	---	---	30
31	0		0		3.00		0	---		---		---	31
Mean	0	0	0	0	.734	.885	0	---	---	---	---	---	
Total	0	0	0	0	1960	2290	0	---	---	---	---	---	
Max	0	0	0	0	3.57	3.15	0	0	---	---	---	---	
(day)	1|00:00	1|00:00	1|00:00	1|00:00	25|01:44	3|13:14	1|00:00	1|00:00					
Min	0	0	0	0	0	0	0	0	---	---	---	---	
(day)	1|00:00	1|00:00	1|00:00	1|00:00	1|00:00	16|07:44	1|00:00	1|00:00					

A - Manual Gauge B - Ice Conditions E - Estimated D - Dry

AQUARIUS TIME-SERIES™ SOFTWARE

Note: Report data computed manually and displayed in a modified format.

APPROVED BY THE FIELD REPRESENTATIVES OF CANADA AND THE UNITED STATES

FRENCHMAN RIVER BASIN

SURFACE WATER USE (MINOR DIVERSIONS) FOR 2016

(VOLUME IN CUBIC DECAMETERS)

File Number	March		April		May		June		July		August		September		
	1-15	16-31	1-15	16-30	1-15	16-31	1-15	16-30	1-15	16-31	1-15	16-31	1-15	16-30	Total
	Minor Diversions Associated with Cypress Area														
65						38.6	44.5	44.5	26.7						**154.3**
70A															
70B				0.7	11.1	6.7									**18.5**
80	10.8	11.5	6.5												**28.8**
93	10.8	11.5	6.5												**28.8**
121				4.1	7.7	4.6									**16.4**
122															
123				2.6	4.8	2.9									**10.3**
124				23	42	25									**90**
129					8	12									**21**
334	18	19	11												**47**
335	3	4	2												**9**
369															
379															
411	16	17	10												**44**
989															
1014			2												**2**
1589															
2235															
2236															
2851															
3635															
3964															
5525															
5729															
6339															
7331															
8201															
9138															
9139															
9140															
9450		2.7	5.7	1.5											**9.9**
9951															
10156			0.8												**0.8**
10411															
10804															
10805															
10836															
10864															
11974	19.9	21.2	11.9												**53.0**
11975	11.0	11.8	6.6												**29.4**
12232						15.1	5.5								**20.6**
14420															
15596															
15760			0.4												**0.4**
Sub-Total	**89.9**	**98.6**	**62.9**	**31.5**	**74.2**	**105.6**	**50.0**	**44.5**	**26.7**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**584**
Domestic Uses	40.5	44.4	28.3	14.2	33.4	47.5	22.5	20.0	12.0						263
Total	**130**	**143**	**91**	**46**	**108**	**153**	**73**	**65**	**39**	**0**	**0**	**0**	**0**	**0**	**847**

Domestic uses: 45% of Sub-Total

Continued ...

FRENCHMAN RIVER BASIN (continued)

SURFACE WATER USE (MINOR DIVERSIONS) FOR 2016

(VOLUME IN CUBIC DECAMETERS)

File Number	March		April		May		June		July		August		September		
	1-15	16-31	1-15	16-30	1-15	16-31	1-15	16-30	1-15	16-31	1-15	16-31	1-15	16-30	Total
	Minor Diversions Associated with Eastend														
55								3.5	7.6	8.1	7.6	8.1			**34.9**
60															
74															
118															
154															
461															
1289															
2305															
4579															
4665															
4848				3.7	7.4										**11.1**
4912	3.3	3.3													**6.6**
5235															
5250															
5278															
5298															
5493															
6064															
6432						9.9									**9.9**
7312															
7682						1.6									**1.6**
8131															
8632						19.9									**19.9**
8756															
8901															
9137															
9490															
9552															
9592															
9691		4.1													**4.1**
9957															
10425															
11409															
11455															
11864															
12082															
12207															
12213															
12400	8.2	8.2													**16.4**
12591															
13524															
15341															
15342															
15343															
15535															
15604															
16625															
16447															
16666						4.9									**4.9**
16667						1.6	3.2								**4.8**
Sub-Total	**11.5**	**15.6**	**0.0**	**3.7**	**7.4**	**37.9**	**3.2**	**3.5**	**7.6**	**8.1**	**7.6**	**8.1**	**0**	**0**	**114**
Domestic Uses	**5.2**	**7.0**	**0.0**	**1.7**	**3.3**	**17.1**	**1.4**	**1.6**	**3.4**	**3.6**	**3.4**	**3.6**	**0.0**	**0.0**	**51**
Total	**17**	**23**	**0.0**	**5**	**11**	**55**	**5**	**5**	**11**	**12**	**11**	**12**	**0**	**0**	**167**

Domestic uses: 45% of Sub-Total

Continued ...

FRENCHMAN RIVER BASIN (continued)

SURFACE WATER USE (MINOR DIVERSIONS) FOR 2016

(VOLUME IN CUBIC DECAMETERS)

File Number	March		April		May		June		July		August		September		
	1-15	16-31	1-15	16-30	1-15	16-31	1-15	16-30	1-15	16-31	1-15	16-31	1-15	16-30	Total
	Minor Diversions Associated with Val Marie Area														
479															**0**
507															**0**
657															**0**
992															**0**
1603															**0**
3929															**0**
4865															**0**
5002															**0**
5084															**0**
5085															**0**
5086															**0**
5871															**0**
7332															**0**
7645															**0**
7754															**0**
7778															**0**
7935															**0**
8322															**0**
8345															**0**
9481															**0**
9571															**0**
9596															**0**
10064															**0**
10962															**0**
11617															**0**
11618															**0**
15061															**0**
15388															**0**
15399															**0**
15400	11.9	63.5	7.9												**83.3**
15408															**0**
15413						10									**10**
15450	4.1														**4.1**
15487															**0**
15639		24.7													**24.7**
15706															**0**
15714															**0**
16545															**0**
V.M. Pump 1	**0**	**0**	**0**	**0**	**0**	**219.0**	**0**	**0**	**0**	**0**	**0**	**104.0**	**0**	**0**	**323**
V.M. Pump 2	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**29**	**0**	**0**	**29**
Sub-Total	**16.0**	**88.2**	**7.9**	**0**	**0**	**229.0**	**0**	**0**	**0**	**0**	**0**	**133.0**	**0**	**0**	**474**
Domestic Uses	**7.2**	**39.7**	**3.6**	**0.0**	**0.0**	**103.1**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**59.9**	**0.0**	**0.0**	**213.0**
Total	**23**	**128**	**11**	**0**	**0**	**332**	**0**	**0**	**0**	**0**	**0**	**193**	**0**	**0**	**687**

Domestic uses: 45% of Sub-Total

Continued ...

FRENCHMAN RIVER BASIN (continued)

SURFACE WATER USE (MINOR DIVERSIONS) FOR 2016

(VOLUME IN CUBIC DECAMETRES)

Minor Diversions Associated with International Boundary Area

File	March		April		May		June		July		August		September		
Number	1-15	16-31	1-15	16-30	1-15	16-31	1-15	16-30	1-15	16-31	1-15	16-31	1-15	16-30	Total
3694															**0**
4992															**0**
8855															**0**
8856															**0**
11447															**0**
11448															**0**
11449															**0**
11450															**0**
11451															**0**
11452															**0**
12253															**0**
12545															**0**
12546															**0**
12547															**0**
12599															**0**
12600															**0**
12670															**0**
Sub-Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Domestic Uses	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Domestic uses: 45% of Sub-Total

Minor Diversions Associated with Cypress Area															
	130	**143**	**91**	**46**	**108**	**153**	**73**	**65**	**39**	**0**	**0**	**0**	**0**	**0**	**847**
Minor Diversions Associated with Eastend Area															
	17	**23**	**0**	**5**	**11**	**55**	**5**	**5**	**11**	**12**	**11**	**12**	**0**	**0**	**167**
Minor Diversions Associated with Val Marie Area															
	23	**128**	**11**	**0**	**0**	**332**	**0**	**0**	**0**	**0**	**0**	**193**	**0**	**0**	**687**
Minor Diversions Associated with International Boundary Area															
	0	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Total	**170**	**294**	**102**	**51**	**119**	**540**	**78**	**70**	**50**	**12**	**11**	**205**	**0**	**0**	**1701**

Water Rights Data supplied by Saskatchewan Water Security Agency.
There was no usage reported for periods 13 to 16 (September – October).
A 25 percent return flow factor was applied to Val Marie Pumps 1 and 2.

In 2005, the following licences in the Frenchman River basin were determined to be either abandoned, never active, located in Grasslands National Park, or located on non-contributing or back flood operation areas: 690, 943, 1691, 1992, 2154, 3057, 3284, 8696, 9076, 9219, 10659, 10853, 11142, 11237, 11372, 11431, 11608, 11835, 12647, 15402, 15406, 15416, and 15587.

TABLE 16

MONTH-END CONTENTS OF MAJOR RESERVOIRS IN LODGE CREEK, BATTLE CREEK AND FRENCHMAN RIVER BASINS FOR 2016

(QUANTITIES IN CUBIC DECAMETRES)

	Altawan Reservoir	Cypress Lake	Eastend Reservoir	Huff Lake	Newton Lake	(a) Combined Usable Storage	Percent of Live Storage (a/b*100)
FEBRUARY	3,861	97,793	1,083	3,738	12,208	88,627	72
MARCH	4,964	99,863	2,931	3,782	12,548	94,032	77
APRIL	5,066	99,863	3,142	3,906	12,835	94,756	77
MAY	3,506	93,990	2,941	3,648	11,702	85,731	70
JUNE	2,740	93,810	2,914	3,528	12,071	85,007	69
JULY	2,698	92,983	2,618	3,386	11,674	83,303	68
AUGUST	3,057	92,205	2,495	3,466	9,308	80,475	66
SEPTEMBER	2,979	91,025	3,112	220	11,892	79,172	64
OCTOBER	3,430	93,923	774	2,448	10,186	80,705	66
Full Supply Level (FSL)	6,710	128,100	2,096	3,700	12,269		
Dead Storage	0	30,031	0	25	0		
Percentage of FSL on October 31	51	73	37	66	83		

Total storage at FSL: 153,969

Total dead storage: 30,056

Total available live storage with Cypress Lake included: 122,819 (b)

Total available live storage without Cypress Lake included: 24.750

Note: Due to its relative size, when Cypress Lake is above dead storage elevations, 122,819 dam3 is used as Total Available Live Storage in Percent of Live Storage calculation. When Cypress Lake is below dead storage elevations, 24,750 dam3 is used as Total Available Live Storage in Percent of Live Stor ypress Lake was above the dead storage elevation and total lake contents were included in the calculations

WATER SURVEY CANADA
Daily Mean Discharge Report for 2016

LYONS CREEK AT INTERNATIONAL BOUNDARY
Station Number: 11AB075

Discharge Units: Cubic Metres Per Second
Total Units: Cubic Decametres

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Day
1	---	---	0	0	.003	.000	0	0	0	0	---	---	1
2	---	---	0	0	.002	0	0	0	0	0	---	---	2
3	---	---	0	0	.001	0	0	0	0	0	---	---	3
4	---	---	0	0	.001	0	0	0	0	0	---	---	4
5	---	---	0	0	.000	0	0	0	0	0	---	---	5
6	---	---	0	0	0	0	0	0	0	0	---	---	6
7	---	---	0	0	0	0	0	0	0	0	---	---	7
8	---	---	0	0	0	0	0	0	0	0	---	---	8
9	---	---	0	0	.000	0	0	0	0	0	---	---	9
10	---	---	0	0	.003	0	0	0	0	0	---	---	10
11	---	---	0	0	.004	0	0	0	0	0	---	---	11
12	---	---	0	0	.004	0	0	0	0	0	---	---	12
13	---	---	0	0	.003	0	0	0	0	0	---	---	13
14	---	---	0	0	.003	0	0	0	0	0	---	---	14
15	---	---	0	.000	.002	0	0	0	0	0	---	---	15
16	---	---	0	.000	.001	0	0	0	0	0	---	---	16
17	---	---	0	.000	.000	0	0	0	0	0	---	---	17
18	---	---	0	.000	0	0	0	0	0	0	---	---	18
19	---	---	0	.000	0	0	0	0	0	0	---	---	19
20	---	---	0	.000	0	0	0	0	0	0	---	---	20
21	---	---	0	0	.000	0	0	0	0	0	---	---	21
22	---	---	0	0	.000	0	0	0	0	0	---	---	22
23	---	---	0	0	0	0	0	0	0	0	---	---	23
24	---	---	0	0	.001	0	0	0	0	0	---	---	24
25	---	---	0	.001	.002	0	0	0	0	0	---	---	25
26	---	---	0	.005	.002	0	0	0	0	0	---	---	26
27	---	---	0	.006	.001	0	0	0	0	0	---	---	27
28	---	---	0	.005	.002	0	0	0	0	0	---	---	28
29	---	---	0	.004	.001	0	0	0	0	0	---	---	29
30	---		0	.003	.001	0	0	0	0	0	---	---	30
31	---		0		.000		0	0		0		---	31
Mean	---	---	0	.001	.001	.000	0	0	0	0	---	---	
Total	---	---	0	2.15	3.25	.000	0	0	0	0	---	---	
Max	---	---	0	.006	.005	0	0	0	0	0	---	---	
(day)			1|00:00	26|15:05	10|15:35	1|00:00	1|00:00	1|00:00	1|00:00	1|00:00			
Min	---	---	0	0	0	0	0	0	0	0	---	---	
(day)			1|00:00	1|00:00	5|03:15	1|00:00	1|00:00	1|00:00	1|00:00	1|00:00			

A - Manual Gauge B - Ice Conditions E - Estimated D - Dry

AQUARIUS TIME-SERIES™ SOFTWARE

Note: Report data from Aquarius 3.1.591 displayed in a modified format.

APPROVED BY THE FIELD REPRESENTATIVES OF CANADA AND THE UNITED STATES