High-Resolution Meteorological Forcing Data for Hydrological Modeling and Climate Change Impact Analysis in Mackenzie River Basin

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Table S1: List of observation stations located over the Mackenzie River Basin. The start and end dates for data availability as well the percentage of missing data during the period 2005 – 2016 are indicated.

Station_name	Station_id	Province	Lat	Lon	Elevation	Start	End	Percent_missing
FORT SIMPSON CLIMATE	41944	NT	61.76	-121.24	168	2003	2018	0.456308465
HAY RIVER CLIMATE	41885	NT	60.84	-115.78	164	2003	2018	0.661647274
LAC LA BICHE CLIMATE	30726	AB	54.77	-112.02	567	2001	2018	1.186402008
BARRHEAD CS	30641	AB	54.09	-114.45	648	2000	2018	1.893680128
FORT SMITH CLIMATE	41884	NT	60.03	-111.93	203	2003	2018	3.194159252
NORMAN WELLS CLIMATE	43004	NT	65.29	-126.75	93.6	2004	2018	3.445128907
INUVIK CLIMATE	41883	NT	68.32	-133.52	103	2003	2018	4.905315994
BEAVERLODGE RCS	30669	AB	55.2	-119.4	745	2001	2018	6.137348848
FORT VERMILION	30495	AB	58.38	-116.04	289	2000	2018	7.14122747
YELLOWKNIFE-HENDERSON	45467	NT	62.45	-114.38	200	2006	2018	12.52566735
ATMORE AGDM	32231	AB	54.78	-112.83	574	2002	2018	15.78827287
DAPP AGDM	31414	AB	54.32	-113.95	614.2	2001	2018	17.04312115
HIGH PRAIRIE AGDM	32274	AB	55.4	-116.48	601.7	2002	2017	18.00136893
CLEARDALE AGDM	32255	AB	56.31	-119.75	630	2003	2018	19.82660278
WATSON LAKE (AUT)	32293	YT	60.12	-128.83	683.3	2002	2018	21.26397445
VIOLET GROVE CS	30643	AB	53.14	-115.13	914	2000	2018	22.56445357
FAIRVIEW AGDM	31469	AB	56.08	-118.44	654.6	2002	2018	23.0892083
PEORIA AGDM	31468	AB	55.62	-118.29	621.2	2002	2018	26.44307552
SLAVE LAKE AWOS A	31528	AB	55.29	-114.78	582.8	2006	2014	29.5687885
VALLEYVIEW AGDM	32460	AB	55.1	-117.2	698	2002	2018	29.66005019
LA CRETE AGCM	47147	AB	58.17	-116.34	323	2008	2018	37.21195528
ATHABASCA AGCM	47047	AB	54.63	-113.38	635	2008	2018	38.14738763
HAWK HILLS AGCM	47075	AB	57.26	-117.3	455	2008	2018	38.23864933
EAGLESHAM AGCM	47071	AB	55.81	-117.89	563	2008	2018	38.99155829
FORT ASSINIBOINE AGCM	47128	AB	54.41	-114.77	676	2008	2018	41.09057723
HINTON VALLEY	29926	AB	53.4	-117.54	1010.8	2000	2018	41.95756331
SAVANNA AGCM	47107	AB	56.08	-119.34	703	2008	2018	42.34542551
JEAN COTE AGCM	47077	AB	55.91	-117.12	638	2008	2018	42.71047228
BROWNALE AGCM	47067	AB	56.12	-117.89	748	2008	2018	43.32648871
TEEPEE CREEK AGCM	47109	AB	55.35	-118.41	670	2008	2018	43.48619667
DAWSON CREEK A	48208	BC	55.74	-120.18	654.7	2009	2018	44.3988136
TAWATINAW AGCM	47108	AB	54.3	-113.52	611	2008	2018	45.10609172
MANNING AGDM	32394	AB	56.97	-117.45	457	2002	2018	45.51676934
RYCROFT AGCM	47090	AB	55.78	-118.67	575	2008	2018	45.92744695
EVANSBURG AGCM	47072	AB	53.57	-115.12	819	2008	2016	46.36094
DEBOLT GOODWIN	31207	AB	55.26	-118.18	639.3	2001	2013	47.68423454
STONY RAPIDS	48548	SK	59.25	-105.84	244.2	2010	2018	47.82112708
GAMETI AIRPORT	27798	NT	64.12	-117.31	220.4	2000	2014	49.28131417
MACKENZIE	48870	BC	55.3	-123.13	690.1	2010	2018	49.39539128
EDSON	48948	AB	53.58	-116.47	926.9	2010	2018	52.17887292
DEAD MEN VALLEY	31187	NT	61.26	-124.47	283	2001	2018	53.89002966
FORT CHIPEWYAN AWOS A	31608	AB	58.77	-111.12	238	2006	2011	56.44535706

HIGH PRAIRIE NORTH	44266	AB	55.49	-116.46	591	2005	2011	57.51768195
SLAVE LAKE	49369	AB	55.29	-114.78	582.8	2011	2018	57.67738992
FORT CHIPEWYAN	48975	AB	58.77	-111.12	238	2011	2018	58.70408396
FORT MCMURRAY A	49490	AB	56.65	-111.22	369.1	2011	2018	60.02737851
LA GLACE AGCM	47087	AB	55.42	-119.25	760	2008	2018	60.4152407
GLENEVIS AGCM	47074	AB	53.83	-114.54	670	2008	2018	61.05407255
EDSON AWOS A	31588	AB	53.58	-116.47	926.9	2006	2010	63.56376911
LUTSELK'E CS	29451	NT	62.42	-110.69	178.9	2000	2017	64.22541638
HIGH LEVEL	49928	AB	58.62	-117.16	338	2011	2018	65.16084873
SLAVE LAKE RCS	50777	AB	55.29	-114.78	582.8	2012	2018	66.34725074
NORMAN WELLS A	50717	NT	65.28	-126.8	72.5	2012	2018	66.96326717
FORT NELSON A	50819	BC	58.84	-122.6	381.9	2012	2018	67.16860598
FORT ST. JOHN A	50837	BC	56.24	-120.74	694.9	2012	2018	67.5792836
YELLOWKNIFE A	51058	NT	62.46	-114.44	205.7	2013	2018	68.4690851
DEASE LAKE A	49628	BC	58.42	-130.03	802.8	2011	2018	69.90645676
MACKENZIE AIRPORT AUTO	51517	BC	55.31	-123.14	694	2013	2018	71.75450605
GRANDE PRAIRIE A	51422	AB	55.18	-118.88	669	2013	2018	72.75838467
FORT CHIPEWYAN RCS	50757	AB	58.77	-111.12	238	2012	2018	73.23750856
FORT MCMURRAY AWOS A	31288	AB	56.65	-111.22	369.1	2008	2011	73.30595483
CAMPBIE AUTO	51899	AB	54.13	-114.68	647	2013	2018	74.58361853
PEACE RIVER A	52258	AB	56.23	-117.45	570.9	2014	2018	78.46224047
GRANDE CACHE S.T.P.	43783	AB	53.87	-119.16	1200	2005	2008	79.60301164
HAY RIVER A	52600	NT	60.84	-115.78	164.9	2014	2018	80.85785991
SUNWAPTA	30310	AB	52.45	-117.44	1554.5	2001	2007	81.17727584
FORT SIMPSON A	52780	NT	61.76	-121.24	169.5	2014	2018	81.47387634
FORT SMITH A	53119	NT	60.02	-111.96	205.1	2014	2018	82.45493954
ISLAND LAKE SOUTH	53358	AB	54.82	-113.54	618.7	2015	2018	84.14328086
INUVIK AWOS A	31470	NT	68.3	-133.48	67.7	2006	2013	86.12822268
KEG RIVER LARSEN	41757	AB	57.73	-117.01	402	2003	2006	88.1131645
FORT NELSON	54098	BC	58.84	-122.57	380.2	2015	2018	90.21218344
COLLINS BAY SK	53218	SK	58.23	-103.68	412.6	2016	2018	91.74081679
EVANSBURG2 AGCM	54358	AB	53.61	-115.06	785	2016	2018	92.2427561
MAYERTHORPE 2	8888	AB	53.85	-115.35	731.5	2004	2005	96.55487109
EGG ISLAND	31027	AB	58.98	-110.44	214.9	2001	2018	97.21651837
CHRISTINA LAKE	46927	AB	55.63	-110.83	370	2007	2007	99.20146019
GRANDE CACHE AUTO	29573	AB	53.92	-118.87	1255	2000	2007	99.3155373
FORT ST JOHN- HWOS CLIMATE	50997	BC	56.24	-120.74	694.9	2012	2014	99.95436915
DAWSON CREEK LWIS	44789	BC	55.74	-120.18	654.7	2006	2009	100
WHITECOURT A	51444	AB	54.14	-115.79	782.4	2014	2018	100