

APPENDIX A – SURFACE WATER NUTRIENT, *E. COLI*, AND METAL DATA FOR THE MADISON TMDL PLANNING AREA

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This appendix contains five tables of data used in development of the Madison nutrient, *E. coli*, and metal TMDLs. The tables are included to aid readers in finding data more easily. All data contained in the tables are available in the National Water Quality Portal at <https://www.waterqualitydata.us/>.

Table Descriptions

Table A-1 contains the data DEQ used to assess waterbodies in the Madison TMDL Planning Area for attainment of the nutrient water quality standards. This table includes surface water flow and water column nutrient concentration data for all the nutrient stream sampling locations discussed in the Madison Nutrient, *E. coli*, and Metal TMDLs and Water Quality Improvement Plan. **Tables A-2 through A-3** contain algae and macroinvertebrate data that aided in the impairment determinations of those streams in Section 5.0, Nutrient TMDL Components, in the main body of the TMDL document.

Table A-4 contains the data DEQ used to assess waterbodies in the Madison TMDL Planning Area for attainment of the *E. coli* water quality standards. This table includes surface water flow and water column *E. coli* concentration data for all the stream sampling locations discussed in Section 6.0, Escherichia coli TMDL Components, in the main body of the document.

Table A-5 contains the data DEQ used to assess waterbodies in the Madison TMDL Planning Area for attainment of the metals water quality standards. This table includes surface water flow and water column metals concentration data for all metals stream sampling locations discussed in Section 7.0, Metals TMDL Components, in the main body of the document.

Table Symbols and Notations

Blank cell	Where no value is given, no data was collected
<	Non-detect samples where the detection limit is populated as the value
C	Calculated hardness value (Total Hardness as CaCO ₃). The calculated hardness values presented in this table are computed from the results of separate determinations of calcium and magnesium. Hardness values that are not prefaced with a “C” are direct measurements of hardness using a different analytical procedure.
E	Estimated flow measurement
MDEQ_WQ_WQX	Organization ID: Montana Department of Environmental Quality
MTVOLWQM_WQX	Organization ID: Montana Volunteer Water Quality Monitoring

Table A.1. Madison TMDL Planning Area Nutrient Data

Organization ID (Data Collection Entity)	Station (Site) Name	Site ID	Activity Date	Latitude	Longitude	Flow (cfs)	Total Nitrogen (mg/L)	Total Phosphorus (mg/L)	NO ₂ + NO ₃ as N (mg/L)	NO ₂ + NO ₃ as N (Dissolved) (mg/L)
MDEQ_WQ_WQ X	Blaine Spring Creek inside spring box building	M06BLNSC07	7/23/2012	45.2222	-111.7942	13.23	1.38	0.007	0.31	
MDEQ_WQ_WQ X	Blaine Spring Creek inside spring box building	M06BLNSC07	8/26/2012	45.2222	-111.7942	13.83	0.35	0.008	0.33	
MDEQ_WQ_WQ X	Blaine Spring Creek inside spring box building	M06BLNSC07	7/11/2013	45.2222	-111.7942	10.68	0.348	0.013		0.321
MDEQ_WQ_WQ X	Blaine Spring Creek inside spring box building	M06BLNSC07	9/18/2013	45.2222	-111.7942	13.91	0.265	0.006		0.333
MDEQ_WQ_WQ X	Blaine Spring Creek at USGS gage below fish hatchery	M06BLNSC03	7/23/2012	45.21528	-111.7917	15.51	0.38	0.024	0.3	
MDEQ_WQ_WQ X	Blaine Spring Creek at USGS gage below fish hatchery	M06BLNSC03	8/26/2012	45.21528	-111.7917	15.41	0.4	0.018	0.31	
MDEQ_WQ_WQ X	Blaine Spring Creek at USGS gage below fish hatchery	M06BLNSC03	7/11/2013	45.21528	-111.7917	11.57	0.353	0.024		0.31

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MDEQ_WQ_WQX	Blaine Spring Creek at USGS gage below fish hatchery	M06BLNSC03	8/16/2013	45.21528	-111.7917	8.59	0.344	0.012		0.336
MDEQ_WQ_WQX	Blaine Spring Creek at USGS gage below fish hatchery	M06BLNSC03	9/18/2013	45.21528	-111.7917		0.346	0.015		0.334
MTVOLWQM_WQX	Blaine Spring Creek, hatchery weir	BS-HW	7/9/2014	45.21515	-111.7915	13.48	0.28	0.01	0.28	
MTVOLWQM_WQX	Blaine Spring Creek, hatchery weir	BS-HW	8/6/2014	45.21515	-111.7915	13.8024	0.39	0.024	0.3	
MTVOLWQM_WQX	Blaine Spring Creek, hatchery weir	BS-HW	9/5/2014	45.21515	-111.7915	19.03	0.43	0.014	0.32	
MDEQ_WQ_WQX	Blaine Spring Creek	M06BLNSC08	7/31/2012	45.2153	-111.7784	18.21	0.42	0.014	0.29	
MDEQ_WQ_WQX	Blaine Spring Creek	M06BLNSC08	8/26/2012	45.2153	-111.7784	17.44	0.35	0.015	0.31	
MDEQ_WQ_WQX	Blaine Spring Creek upstream intersection with Shewmaker Ditch	M06BLNSC11	9/5/2014	45.22057	-111.7644	28.48	0.66	0.017	0.31	

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MDEQ_WQ_WQ X	Blaine Spring Creek downstream intersection with Shewmaker Ditch	M06BLNSC10	9/5/2014	45.22065	-111.7641	26.17	0.35	0.018	0.25	
MDEQ_WQ_WQ X	Blaine Spring Creek	M06BLNSC06	7/23/2012	45.2454	-111.7615	18.9	0.26	0.006	0.16	
MTVOLWQM_ WQX	Blaine Spring Creek, Alton Ranch	BS-AR	7/30/2013	45.24539	-111.7615	17.86	0.15	0.003	0.11	
MTVOLWQM_ WQX	Blaine Spring Creek, Alton Ranch	BS-AR	8/27/2013	45.24539	-111.7615	20.61	0.37	0.066	0.3	
MTVOLWQM_ WQX	Blaine Spring Creek, Alton Ranch	BS-AR	7/9/2014	45.24539	-111.7615	15.71	0.16	< 0.003	0.09	
MTVOLWQM_ WQX	Blaine Spring Creek, Alton Ranch	BS-AR	8/6/2014	45.24539	-111.7615	20.501	0.29	0.008	0.16	
MTVOLWQM_ WQX	Blaine Spring Creek, Alton Ranch	BS-AR	9/5/2014	45.24539	-111.7615	27.55	0.2	0.008	0.2	
MDEQ_WQ_WQ X	Elk Creek near mouth (Madison River)	M06ELKC04	7/25/2012	45.65448	-111.5187	0.47	0.59	0.114	< 0.01	
MDEQ_WQ_WQ X	Elk Creek near mouth (Madison River)	M06ELKC04	8/28/2012	45.65448	-111.5187	0.05	0.66	0.052	< 0.01	

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MDEQ_WQ_WQ X	Elk Creek downstream Norris Road crossing	M06ELKC03	7/25/2012	45.64416	-111.4574	0.46	0.95	0.147	0.38	
MDEQ_WQ_WQ X	Elk Creek downstream Norris Road crossing	M06ELKC03	8/28/2012	45.64416	-111.4574	0.11	1.28	0.086	0.67	
MDEQ_WQ_WQ X	Elk Creek downstream Norris Road crossing	M06ELKC03	8/15/2013	45.64416	-111.4574	0.05	0.759	0.111		0.23
MDEQ_WQ_WQ X	Elk Creek downstream Norris Road crossing	M06ELKC03	9/16/2013	45.64416	-111.4574	E 0.001	0.984	0.06		0.484
MDEQ_WQ_WQ X	Elk Creek	M06ELKC02	7/25/2007	45.6267	-111.4139		0.52	0.1899		0.0058
MDEQ_WQ_WQ X	Elk Creek	M06ELKC02	8/27/2009	45.6267	-111.4139		0.298	0.107	0.004	
MDEQ_WQ_WQ X	Elk Creek	M06ELKC02	9/26/2009	45.6267	-111.4139		0.198	0.101	0.004	
MDEQ_WQ_WQ X	Elk Creek	M06ELKC02	7/28/2010	45.6267	-111.4139		0.36	0.11		< 0.01
MDEQ_WQ_WQ X	Elk Creek	M06ELKC02	8/16/2013	45.6267	-111.4139		0.134	0.056		0.025
MDEQ_WQ_WQ X	Elk Creek	M06ELKC02	9/16/2013	45.6267	-111.4139	0.23	0.179	0.07		< 0.005
MDEQ_WQ_WQ X	Elk Creek	M06ELKC07	8/17/2013	45.58689	-111.3666	0.01	0.214	0.082		< 0.005
MDEQ_WQ_WQ X	Elk Creek near headwaters	M06ELKC05	9/16/2013	45.58734	-111.3695	0.21	0.224	0.092		< 0.005

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MDEQ_WQ_WQ X	Hot Springs Creek near mouth	M06HTSPC01	8/1/2012	45.58614	-111.5944	2.56	0.42	0.154	0.05	
MDEQ_WQ_WQ X	Hot Springs Creek near mouth	M06HTSPC01	8/24/2012	45.58614	-111.5944	3.17	0.26	0.105	< 0.01	
MDEQ_WQ_WQ X	Hot Springs Creek near mouth	M06HTSPC01	7/9/2013	45.58614	-111.5944	4.88	0.58	0.219		0.06
MDEQ_WQ_WQ X	Hot Springs Creek near mouth	M06HTSPC01	8/15/2013	45.58614	-111.5944	1.15	0.377	0.195		0.01
MDEQ_WQ_WQ X	Hot Springs Creek near mouth	M06HTSPC01	9/19/2013	45.58614	-111.5944	4.95	0.637	0.426		0.098
MDEQ_WQ_WQ X	Hot Springs Creek downstream Bradley Creek Rd crossing	M06HTSPC02	8/1/2012	45.58679	-111.6486	2.06	0.48	0.093	0.15	
MDEQ_WQ_WQ X	Hot Springs Creek downstream Bradley Creek Rd crossing	M06HTSPC02	8/27/2012	45.58679	-111.6486	3.59	0.28	0.09	0.03	
MDEQ_WQ_WQ X	Hot Springs Creek upstream Sterling Rd crossing	M06HTSPC03	7/25/2012	45.57358	-111.7251	0.27	0.63	0.178	0.25	

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MDEQ_WQ_WQ X	Hot Springs Creek upstream Sterling Rd crossing	M06HTSPC03	7/9/2013	45.57358	-111.7251	2.46	0.499	0.112		0.297
MDEQ_WQ_WQ X	Hot Springs Creek upstream Sterling Rd crossing	M06HTSPC03	8/16/2013	45.57358	-111.7251	0.63	0.598	0.112		0.494
MDEQ_WQ_WQ X	Hot Springs Creek upstream Sterling Rd crossing	M06HTSPC03	9/19/2013	45.57358	-111.7251	1.1	0.394	0.069		0.298
MDEQ_WQ_WQ X	Hot Springs Creek	M06HTSPC04	8/1/2012	45.56488	-111.754		0.58	0.033	0.42	
MDEQ_WQ_WQ X	Hot Springs Creek	M06HTSPC04	7/9/2013	45.56488	-111.754		0.453	0.05		0.288
MTVOLWQM_ WQX	Moore Creek lower	MC-CNF	7/11/2012	45.40683	-111.71	E 5.34	0.3	0.023	0.05	
MTVOLWQM_ WQX	Moore Creek lower	MC-CNF	8/14/2012	45.40683	-111.71	E 5.69	0.25	0.018	0.03	
MTVOLWQM_ WQX	Moore Creek lower	MC-CNF	7/19/2013	45.40683	-111.71	7.32	0.28	0.024	< 0.01	
MTVOLWQM_ WQX	Moore Creek lower	MC-CNF	8/28/2013	45.40683	-111.71	8.83	0.36	0.028	0.1	
MTVOLWQM_ WQX	Moore Creek lower	MC-CNF	9/27/2013	45.40683	-111.71	10.98	0.46	0.025	0.16	
MTVOLWQM_ WQX	Moore Creek lower	MC-CNF	7/17/2014	45.40683	-111.71	8.2915	0.25	0.024	0.08	
MTVOLWQM_ WQX	Moore Creek lower	MC-CNF	8/13/2014	45.40683	-111.71	5.485	0.6	0.02	0.25	
MTVOLWQM_ WQX	Moore Creek lower	MC-CNF	9/9/2014	45.40683	-111.71	7.293	0.37	0.016	0.23	

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MTVOLWQM_ WQX	Moore Creek middle	MC-GOG	7/19/2013	45.3787	-111.7219	2.35	0.58	0.033	0.31	
MTVOLWQM_ WQX	Moore Creek middle	MC-GOG	8/28/2013	45.3787	-111.7219	2.02	0.81	0.032	0.53	
MTVOLWQM_ WQX	Moore Creek middle	MC-GOG	9/27/2013	45.3787	-111.7219	3.86	0.58	0.03	0.33	
MTVOLWQM_ WQX	Moore Creek middle	MC-GOG	7/17/2014	45.3787	-111.7219	1.8918	0.7	0.09	0.46	
MTVOLWQM_ WQX	Moore Creek middle	MC-GOG	8/13/2014	45.3787	-111.7219	2.497	1.17	0.037	0.65	
MTVOLWQM_ WQX	Moore Creek middle	MC-GOG	9/9/2014	45.3787	-111.7219	3.504	0.58	0.022	0.44	
MDEQ_WQ_WQ X	Moore Creek north of Ennis	M06MORECO 1	7/20/2012	45.37192	-111.7229	2.06	0.33	0.056	0.08	
MDEQ_WQ_WQ X	Moore Creek north of Ennis	M06MORECO 1	8/22/2012	45.37192	-111.7229	0.38	0.29	0.029	< 0.01	
MDEQ_WQ_WQ X	Moore Creek at Feeds-N-Needs	M06MORECO 5	7/20/2012	45.3595	-111.7307	1.78	0.88	0.069	0.19	
MTVOLWQM_ WQX	Moore Creek upper	MC-BRK	7/19/2013	45.33858	-111.7377	1.51	0.31	0.051	0.14	
MTVOLWQM_ WQX	Moore Creek upper	MC-BRK	8/28/2013	45.33858	-111.7377	0.93	0.23	0.035	0.12	
MTVOLWQM_ WQX	Moore Creek upper	MC-BRK	9/27/2013	45.33858	-111.7377	1.49	0.72	0.049	0.37	
MTVOLWQM_ WQX	Moore Creek upper	MC-BRK	7/17/2014	45.33858	-111.7377	0.5481	0.63	0.085	0.33	
MTVOLWQM_ WQX	Moore Creek upper	MC-BRK	8/13/2014	45.33858	-111.7377	0.225	0.5	0.078	0.25	
MTVOLWQM_ WQX	Moore Creek upper	MC-BRK	9/9/2014	45.33858	-111.7377	1.966	0.26	0.04	0.18	

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MDEQ_WQ_WQ X	Moore Creek at Hwy 287 crossing	M06MORECO 2	7/19/2012	45.3369	-111.7412	0.9	0.65	0.062	0.45	
MDEQ_WQ_WQ X	Moore Creek at Hwy 287 crossing	M06MORECO 2	8/22/2012	45.3369	-111.7412	0.84	0.55	0.048	0.38	
MDEQ_WQ_WQ X	Moore Creek about 30 ft downstream intersection with West Madison Canal	M06MORECO 8	9/5/2014	45.33414	-111.7459	2.89	-	0.068	0.22	
MDEQ_WQ_WQ X	Moore Creek above the intersection with West Madison Canal	M06MORECO 7	9/5/2014	45.33419	-111.7462	2.5	-	0.064	0.24	
MDEQ_WQ_WQ X	Moore Creek upper site	M06MORECO 3	7/19/2012	45.33542	-111.768	0.85	0.99	0.09	0.53	
MDEQ_WQ_WQ X	Moore Creek upper site	M06MORECO 3	8/22/2012	45.33542	-111.768	0.77	0.53	0.029	0.33	
MDEQ_WQ_WQ X	O'Dell Spring Creek near mouth	M06ODLSC01	7/25/2012	45.36399	-111.707	108.74	0.37	0.006	0.17	
MDEQ_WQ_WQ X	O'Dell Spring Creek near mouth	M06ODLSC01	8/27/2012	45.36399	-111.707	117.83	0.32	0.006	0.21	
MDEQ_WQ_WQ X	O'Dell Spring Creek near mouth	M06ODLSC01	9/17/2013	45.36399	-111.707		0.333	0.005		0.262
MTVOLWQM_ WQX	O'Dell Creek lower	OD-VGR	9/23/2012	45.3639	-111.707	109	0.3	0.005	0.23	

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MTVOLWQM_ WQX	O'Dell Creek lower	OD-VGR	7/14/2013	45.3639	-111.707	111.73	0.29	0.006	0.17	
MTVOLWQM_ WQX	O'Dell Creek lower	OD-VGR	8/23/2013	45.3639	-111.707	107.96	0.28	0.007	0.19	
MTVOLWQM_ WQX	O'Dell Creek lower	OD-VGR	7/25/2014	45.3639	-111.707	98.813	0.3	0.01	0.19	
MTVOLWQM_ WQX	O'Dell Creek lower	OD-VGR	8/15/2014	45.3639	-111.707	114.57 4	0.45	0.008	0.19	
MTVOLWQM_ WQX	O'Dell Creek lower	OD-VGR	9/19/2014	45.3639	-111.707	130.58	0.35	0.007	0.26	
MTVOLWQM_ WQX	O'Dell Creek near Rainbow Valley Lodge	OD-RVL	7/25/2014	45.34141	-111.7166	106.86	0.3	0.008	0.21	
MDEQ_WQ_WQ X	O'Dell Spring Creek just south of Ennis	M06ODLSC02	7/25/2012	45.33365	-111.7251	67.15	0.35	0.005	0.25	
MDEQ_WQ_WQ X	O'Dell Spring Creek just south of Ennis	M06ODLSC02	8/27/2012	45.33365	-111.7251	69.46	0.35	0.005	0.25	
MTVOLWQM_ WQX	O'Dell Creek middle	OD-GNGR	8/26/2012	45.33178	-111.7269	65.96	0.32	0.004	0.23	
MTVOLWQM_ WQX	O'Dell Creek middle	OD-GNGR	9/23/2012	45.33178	-111.7269		0.3	0.006	0.26	
MTVOLWQM_ WQX	O'Dell Creek middle	OD-GNGR	7/14/2013	45.33178	-111.7269	71.93	0.29	0.006	0.19	
MTVOLWQM_ WQX	O'Dell Creek middle	OD-GNGR	8/23/2013	45.33178	-111.7269	62.88	0.3	0.005	0.22	
MTVOLWQM_ WQX	O'Dell Creek middle	OD-GNGR	9/22/2013	45.33178	-111.7269	80.28	0.38	0.005	0.26	
MTVOLWQM_ WQX	O'Dell Creek middle	OD-GNGR	8/15/2014	45.33178	-111.7269	55.885	0.4	0.008	0.22	

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MTVOLWQM_ WQX	O'Dell Creek middle	OD-GNGR	9/19/2014	45.33178	-111.7269	142.73	0.4	0.007	0.27	
MTVOLWQM_ WQX	O'Dell Creek middle	OD-GNGR	7/28/2012	45.33178	-111.7269	64.11	0.33			
MTVOLWQM_ WQX	O'Dell Creek middle	OD-GNGR	9/23/2012	45.33178	-111.7269	65.72	0.3	0.006	0.26	
MTVOLWQM_ WQX	O'Dell Creek middle	OD-GNGR	7/14/2013	45.33178	-111.7269	71.93	0.29	0.006	0.19	
MTVOLWQM_ WQX	O'Dell Creek middle	OD-GNGR	8/23/2013	45.33178	-111.7269	62.88	0.3	0.005	0.22	
MTVOLWQM_ WQX	O'Dell Creek middle	OD-GNGR	9/22/2013	45.33178	-111.7269	80.28	0.38	0.005	0.26	
MTVOLWQM_ WQX	O'Dell Creek middle	OD-GNGR	8/15/2014	45.33178	-111.7269	55.885	0.4	0.008	0.22	
MTVOLWQM_ WQX	O'Dell Creek middle	OD-GNGR	9/19/2014	45.33178	-111.7269	142.73	0.4	0.007	0.27	
MTVOLWQM_ WQX	O'Dell Creek upper	OD-RST	7/28/2012	45.26057	-111.7324	45.72	0.28	0.01	0.18	
MTVOLWQM_ WQX	O'Dell Creek upper	OD-RST	8/26/2012	45.26057	-111.7324	44.02	0.24	0.008	0.17	
MTVOLWQM_ WQX	O'Dell Creek upper	OD-RST	9/23/2012	45.26057	-111.7324	45.18	0.22	0.009	0.19	
MTVOLWQM_ WQX	O'Dell Creek upper	OD-RST	7/14/2013	45.26057	-111.7324	39.39	0.25	0.011	0.17	
MTVOLWQM_ WQX	O'Dell Creek upper	OD-RST	8/23/2013	45.26057	-111.7324	38.12	0.25	0.01	0.16	
MTVOLWQM_ WQX	O'Dell Creek upper	OD-RST	9/22/2013	45.26057	-111.7324	40.04	0.29	0.011	0.18	
MTVOLWQM_ WQX	O'Dell Creek upper	OD-RST	8/15/2014	45.26057	-111.7324	40.451 4	0.25	0.013	0.14	
MTVOLWQM_ WQX	O'Dell Creek upper	OD-RST	9/19/2014	45.26057	-111.7324	53.53	0.2	0.012	0.16	

Table A.1. Madison TMDL Planning Area Nutrient Data

Organization ID (Data Collection Entity)	Station (Site) Name	Site ID	Activity Date	Latitude	Longitude	Flow (cfs)	Total Nitrogen (mg/L)	Total Phosphorus (mg/L)	NO ₂ + NO ₃ as N (mg/L)	NO ₂ + NO ₃ as N (Dissolved) (mg/L)
MDEQ_WQ_WQ X	South Meadow Creek about 1/4 mile upstream from mouth	M06SMDWC 01	7/24/2012	45.44377	-111.7184	4.75	0.49	0.024	0.29	
MDEQ_WQ_WQ X	South Meadow Creek about 1/4 mile upstream from mouth	M06SMDWC 01	8/24/2012	45.44377	-111.7184	4	0.46	0.021	0.28	
MTVOLWQM_ WQX	South Meadow Creek lower	SM-LKRD	7/2/2012	45.44352	-111.7186	5.51	0.41	0.023	0.21	
MTVOLWQM_ WQX	South Meadow Creek lower	SM-LKRD	9/19/2012	45.44352	-111.7186	4.2	0.39	0.017	0.27	
MTVOLWQM_ WQX	South Meadow Creek lower	SM-LKRD	8/8/2013	45.44352	-111.7186	3.763	0.49	0.028	0.3	
MTVOLWQM_ WQX	South Meadow Creek lower	SM-LKRD	9/18/2013	45.44352	-111.7186	4.69	0.46	0.031	0.28	
MTVOLWQM_ WQX	South Meadow Creek upstream N Ennis Lake Road crossing	SM-CR	7/7/2014	45.44402	-111.719	24.43	0.29	0.038	0.08	
MTVOLWQM_ WQX	South Meadow Creek upstream N Ennis Lake Road crossing	SM-CR	8/5/2014	45.44402	-111.719	5.68	0.53	0.047	0.31	
MTVOLWQM_ WQX	South Meadow Creek upstream N Ennis Lake Road crossing	SM-CR	9/10/2014	45.44402	-111.719	6.46	0.31	0.029	0.23	
MDEQ_WQ_WQ X	South Meadow Creek	M06SMDWC 02	7/24/2012	45.45101	-111.7472	0.61	0.29	0.013 B	0.04	

Table A.1. Madison TMDL Planning Area Nutrient Data

Organization ID (Data Collection Entity)	Station (Site) Name	Site ID	Activity Date	Latitude	Longitude	Flow (cfs)	Total Nitrogen (mg/L)	Total Phosphorus (mg/L)	NO ₂ + NO ₃ as N (mg/L)	NO ₂ + NO ₃ as N (Dissolved) (mg/L)
MDEQ_WQ_WQ X	South Meadow Creek	M06SMDWC 02	8/24/2012	45.45101	-111.7472	0.01	0.14	0.006	< 0.01	
MTVOLWQM_ WQX	South Meadow Creek middle	SM-EDC	7/2/2012	45.45097	-111.7472	3.55	0.27	0.037	0.02	
MTVOLWQM_ WQX	South Meadow Creek middle	SM-EDC	9/19/2012	45.45097	-111.7472	0.106	0.13	0.004	< 0.01	
MTVOLWQM_ WQX	South Meadow Creek middle	SM-EDC	7/12/2013	45.45097	-111.7472	1.38	0.15	0.012	0.02	
MTVOLWQM_ WQX	South Meadow Creek middle	SM-EDC	8/8/2013	45.45097	-111.7472	0.215	0.27	0.032	0.05	
MTVOLWQM_ WQX	South Meadow Creek middle	SM-EDC	9/18/2013	45.45097	-111.7472		0.26	0.017	0.1	
MTVOLWQM_ WQX	South Meadow Creek middle	SM-EDC	7/7/2014	45.45097	-111.7472	19.27	0.19	0.024	0.04	
MTVOLWQM_ WQX	South Meadow Creek middle	SM-EDC	8/5/2014	45.45097	-111.7472	0.028	0.14	0.01	0.03	
MTVOLWQM_ WQX	South Meadow Creek middle	SM-EDC	9/10/2014	45.45097	-111.7472	2.48	0.12	0.008	0.09	
MDEQ_WQ_WQ X	South Meadow Creek downstream Leonard Creek	M06SMDWC 03	7/24/2012	45.44785	-111.7752	4.7	0.35	0.01	0.07	
MDEQ_WQ_WQ X	South Meadow Creek downstream Leonard Creek	M06SMDWC 03	8/24/2012	45.44785	-111.7752	2.7	0.51	0.032	0.12	
MDEQ_WQ_WQ X	South Meadow Creek upper site	M06SMDWC 04	7/24/2012	45.45484	-111.8555	9.01	0.07	< 0.003	0.01	
MDEQ_WQ_WQ X	South Meadow Creek upper site	M06SMDWC 04	8/24/2012	45.45484	-111.8555	8.42	< 0.05	< 0.005	0.01	

Table A.1. Madison TMDL Planning Area Nutrient Data

Organization ID (Data Collection Entity)	Station (Site) Name	Site ID	Activity Date	Latitude	Longitude	Flow (cfs)	Total Nitrogen (mg/L)	Total Phosphorus (mg/L)	NO ₂ + NO ₃ as N (mg/L)	NO ₂ + NO ₃ as N (Dissolved) (mg/L)
MDEQ_WQ_WQ X	South Meadow Creek upper site	M06SMDWC 04	8/14/2013	45.45484	-111.8555		0.076	< 0.001		0.015
MTVOLWQM_ WQX	South Meadow Creek upper	SM-FS	7/2/2012	45.45512	-111.855	27.06	0.08	< 0.003	0.03	
MTVOLWQM_ WQX	South Meadow Creek upper	SM-FS	9/19/2012	45.45512	-111.855	4.33	0.09	< 0.003	0.04	
MTVOLWQM_ WQX	South Meadow Creek upper	SM-FS	7/12/2013	45.45512	-111.855	10.59	0.08	< 0.003	0.02	
MTVOLWQM_ WQX	South Meadow Creek upper	SM-FS	9/18/2013	45.45512	-111.855	3.92	0.14	0.004	0.06	
MTVOLWQM_ WQX	South Meadow Creek upper	SM-FS	7/7/2014	45.45512	-111.855	41.03	0.07	< 0.003	0.03	
MTVOLWQM_ WQX	South Meadow Creek upper	SM-FS	8/5/2014	45.45512	-111.855	9.37	0.11	0.003	0.05	
MTVOLWQM_ WQX	South Meadow Creek upper	SM-FS	9/10/2014	45.45512	-111.855	5.85	< 0.04	0.003	0.07	

Table A-2. Madison TMDL Planning Area Algae Data

Station ID	Station Name	Latitude	Longitude	Sample Collection Date	Parameter	Value	Units
M06BLNSC08	Blaine Spring Creek	45.2153	-111.7784	7/31/2012	Chlorophyll a	7.8	mg/m2
M06BLNSC08	Blaine Spring Creek	45.2153	-111.7784	9/18/2013	Chlorophyll a	<0.01	mg/m3
M06BLNSC03	Blaine Spring Creek at USGS gage below fish hatchery	45.2152778	-111.791667	9/18/2013	Ash Fee Dry Mass	38.37	g/m2
M06BLNSC03	Blaine Spring Creek at USGS gage below fish hatchery	45.2152778	-111.791667	7/31/2012	Ash Fee Dry Mass	6.17	g/m2
M06ELKC04	Elk Creek near mouth (Madison River)	45.65448	-111.51871	7/25/2012	Chlorophyll a	13.8	mg/m2
M06ELKC03	Elk Creek downstream Norris Road crossing	45.64416	-111.45741	8/15/2013	Chlorophyll a	19.06	mg/m2
M06ELKC02	Elk Creek	45.6267	-111.4139	8/16/2013	Chlorophyll a	38.21	mg/m2
M06ELKC07	Elk Creek	45.58689	-111.36656	8/17/2013	Chlorophyll a	47.62	mg/m2
M06ELKC04	Elk Creek near mouth (Madison River)	45.65448	-111.51871	7/25/2012	Ash Fee Dry Mass	76	g/m2
M06ELKC03	Elk Creek downstream Norris Road crossing	45.64416	-111.45741	8/15/2013	Ash Fee Dry Mass	22	g/m2
M06ELKC02	Elk Creek	45.6267	-111.4139	8/16/2013	Ash Fee Dry Mass	3.78	g/m2
M06ELKC07	Elk Creek	45.58689	-111.36656	8/17/2013	Ash Fee Dry Mass	0.93	g/m2
M06HTSPC03	Hot Springs Creek upstream Sterling Rd crossing	45.57358	-111.72514	7/25/2012	Chlorophyll a	10.9	mg/m2
M06HTSPC01	Hot Springs Creek near mouth	45.58614	-111.59436	8/1/2012	Chlorophyll a	14.7	mg/m2
M06HTSPC01	Hot Springs Creek near mouth	45.58614	-111.59436	8/15/2013	Chlorophyll a	12.51	mg/m2
M06HTSPC01	Hot Springs Creek near mouth	45.58614	-111.59436	8/1/2012	Ash Fee Dry Mass	34.3	g/m2
M06HTSPC01	Hot Springs Creek near mouth	45.58614	-111.59436	8/15/2013	Ash Fee Dry Mass	5.02	g/m2
M06MOREC01	Moore Creek north of Ennis	45.37192	-111.72287	7/20/2012	Chlorophyll a	9.2	mg/m2
M06MOREC03	Moore Creek upper site	45.33542	-111.76801	7/19/2012	Chlorophyll a	35.2	mg/m2
M06MOREC01	Moore Creek north of Ennis	45.37192	-111.72287	7/20/2012	Ash Fee Dry Mass	19.35	g/m2
M06MOREC03	Moore Creek upper site	45.33542	-111.76801	7/19/2012	Ash Fee Dry Mass	6.12	g/m2
M06ODLSC02	O'Dell Spring Creek just south of Ennis	45.33365	-111.72508	7/25/2012	Chlorophyll a	18.4	mg/m2
M06ODLSC04	O'Dell Spring Creek on private ranch	45.26415	-111.73478	9/18/2014	Chlorophyll a	33.5	mg/m2
M06ODLSC04	O'Dell Spring Creek on private ranch	45.26415	-111.73478	9/18/2014	Ash Fee Dry Mass	34.73	g/m2
M06SMDWC02	South Meadow Creek	45.45101	-111.74717	7/24/2012	Chlorophyll a	16.2	mg/m2
M06SMDWC03	South Meadow Creek downstream Leonard Creek	45.44785	-111.7752	7/24/2012	Chlorophyll a	4.4	mg/m2
M06SMDWC04	South Meadow Creek upper site	45.45484	-111.85548	8/14/2013	Chlorophyll a	29.6	mg/m2
M06SMDWC02	South Meadow Creek	45.45101	-111.74717	7/24/2012	Ash Fee Dry Mass	12.1	g/m2
M06SMDWC03	South Meadow Creek downstream Leonard Creek	45.44785	-111.7752	7/24/2012	Ash Fee Dry Mass	2.14	g/m2
M06SMDWC04	South Meadow Creek upper site	45.45484	-111.85548	8/14/2013	Ash Fee Dry Mass	55.0	g/m2

Table A-3. Madison TMDL Planning Area Macroinvertebrate Data

Station ID	Waterbody Name	Latitude	Longitude	HUC	Collection Date	HBI
M06BLNSC08	Blaine Spring Creek	45.2153	-111.7784	10020007	7/31/2012	5.44
M06BLNSC03	Blaine Spring Creek	45.215278	-111.79167	10020007	9/18/2013	4.93
M06ELKC02	Elk Creek	45.6267	-111.413	10020007	8/19/2013	6.15
M06ELKC03	Elk Creek downstream Norris Road crossing	45.6442	-111.4574	10020007	8/15/2013	6.60
M06ELKC05	Elk Creek near headwaters	45.5873	-111.3695	10020007	8/22/2013	5.15
M06ELKC04	Elk Creek near mouth (Madison River)	45.65448	-111.51871	10020007	7/25/2012	3.88
M06ELKC07	Elk Creek	45.58689	-111.36656	10020007	8/17/2013	5.45
M06HTSPC05	Hot Springs Creek Middle Fork upstream confluence	45.5553	-111.8085	10020007	8/21/2013	4.96
M06HTSPC01	Hot Springs Creek near mouth	45.58614	-111.59436	10020007	8/1/2012	5.61
M06HTSPC01	Hot Springs Creek near mouth	45.58614	-111.59436	10020007	8/15/2013	5.11
M06HTSPC01	Hot Springs Creek near mouth	45.58614	-111.59436	10020007	7/9/2013	4.97
M06HTSPC03	Hot Springs Creek upstream Sterling Rd crossing	45.57358	-111.72514	10020007	7/25/2012	6.04
M06MOREC01	Moore Creek north of Ennis	45.37192	-111.72287	10020007	7/20/2012	6.05
M06MOREC03	Moore Creek upper site	45.33542	-111.76801	10020007	7/19/2012	6.63
M06ODLSC02	O'Dell Spring Creek just south of Ennis	45.33365	-111.72508	10020007	7/25/2012	5.69
M06SMDWC02	South Meadow Creek	45.45101	-111.74717	10020007	7/24/2012	4.21
M06SMDWC03	South Meadow Creek downstream Leonard Creek	45.44785	-111.7752	10020007	7/24/2012	4.41
M06SMDWC04	South Meadow Creek upper site	45.45484	-111.85548	10020007	8/14/2013	4.09

Table A-4. Madison TMDL Planning Area Escherichia Coli Data

Organization ID (Data Collection Entity)	Station ID	Station Name	Latitude	Longitude	Collection Date	Parameter	Value	Units
MDEQ_WQ_WQX	M06MOREC05	Moore Creek at Feeds-N-Needs	45.3595	-111.7307	7/18/2012	Escherichia coli	547.5	cfu/100mL
MDEQ_WQ_WQX	M06MOREC05	Moore Creek at Feeds-N-Needs	45.3595	-111.7307	7/19/2012	Escherichia coli	517.2	cfu/100mL
MDEQ_WQ_WQX	M06MOREC05	Moore Creek at Feeds-N-Needs	45.3595	-111.7307	7/20/2012	Escherichia coli	1553.1	cfu/100mL
MDEQ_WQ_WQX	M06MOREC05	Moore Creek at Feeds-N-Needs	45.3595	-111.7307	7/21/2012	Escherichia coli	2419.6	cfu/100mL

Table A-4. Madison TMDL Planning Area Escherichia Coli Data

Organization ID (Data Collection Entity)	Station ID	Station Name	Latitude	Longitude	Collection Date	Parameter	Value	Units
MDEQ_WQ_WQX	M06MOREC05	Moore Creek at Feeds-N-Needs	45.3595	-111.7307	7/22/2012	Escherichia coli	920.8	cfu/100mL
MDEQ_WQ_WQX	M06MOREC02	Moore Creek at Hwy 287 crossing	45.3369	-111.74122	7/18/2012	Escherichia coli	228.2	cfu/100mL
MDEQ_WQ_WQX	M06MOREC02	Moore Creek at Hwy 287 crossing	45.3369	-111.74122	7/19/2012	Escherichia coli	167	cfu/100mL
MDEQ_WQ_WQX	M06MOREC02	Moore Creek at Hwy 287 crossing	45.3369	-111.74122	7/20/2012	Escherichia coli	325.5	cfu/100mL
MDEQ_WQ_WQX	M06MOREC02	Moore Creek at Hwy 287 crossing	45.3369	-111.74122	7/21/2012	Escherichia coli	378.4	cfu/100mL
MDEQ_WQ_WQX	M06MOREC02	Moore Creek at Hwy 287 crossing	45.3369	-111.74122	7/22/2012	Escherichia coli	410.6	cfu/100mL
MDEQ_WQ_WQX	M06MOREC04	Moore Creek just north of Ennis	45.35381	-111.72965	7/18/2012	Escherichia coli	435.2	cfu/100mL
MDEQ_WQ_WQX	M06MOREC04	Moore Creek just north of Ennis	45.35381	-111.72965	7/19/2012	Escherichia coli	193.5	cfu/100mL
MDEQ_WQ_WQX	M06MOREC01	Moore Creek north of Ennis	45.37192	-111.72287	7/18/2012	Escherichia coli	866.4	cfu/100mL
MDEQ_WQ_WQX	M06MOREC01	Moore Creek north of Ennis	45.37192	-111.72287	7/19/2012	Escherichia coli	980.4	cfu/100mL
MDEQ_WQ_WQX	M06MOREC01	Moore Creek north of Ennis	45.37192	-111.72287	7/20/2012	Escherichia coli	1553. 1	cfu/100mL
MDEQ_WQ_WQX	M06MOREC01	Moore Creek north of Ennis	45.37192	-111.72287	7/21/2012	Escherichia coli	1299. 7	cfu/100mL
MDEQ_WQ_WQX	M06MOREC01	Moore Creek north of Ennis	45.37192	-111.72287	7/22/2012	Escherichia coli	1299. 7	cfu/100mL
MDEQ_WQ_WQX	M06MOREC03	Moore Creek upper site	45.33542	-111.76801	7/18/2012	Escherichia coli	21.5	cfu/100mL
MDEQ_WQ_WQX	M06MOREC03	Moore Creek upper site	45.33542	-111.76801	7/19/2012	Escherichia coli	12	cfu/100mL
MDEQ_WQ_WQX	M06MOREC03	Moore Creek upper site	45.33542	-111.76801	7/20/2012	Escherichia coli	18.3	cfu/100mL

Table A-4. Madison TMDL Planning Area Escherichia Coli Data

Organization ID (Data Collection Entity)	Station ID	Station Name	Latitude	Longitude	Collection Date	Parameter	Value	Units
MDEQ_WQ_WQX	M06MOREC03	Moore Creek upper site	45.33542	-111.76801	7/21/2012	Escherichia coli	52.9	cfu/100mL
MDEQ_WQ_WQX	M06MOREC03	Moore Creek upper site	45.33542	-111.76801	7/22/2012	Escherichia coli	35.9	cfu/100mL

Table A-5. Madison River TMDL Project Area Metals Data

Organization ID (Data Collection Entity)	Station Name	Site ID	Activity Date	Latitude	Longitude	Hardness (mg/L)	Flow (cfs)	Copper (µg/L)	Lead (µg/L)	Iron (µg/L)	Selenium (µg/L)
MDEQ_WQ_WQ X	Elk Creek	M06ELKC07	8/17/2013	45.58689	-111.36656	C 131	0.01	< 1	< 0.3	190	< 0.9
MDEQ_WQ_WQ X	Elk Creek near headwaters	M06ELKC05	9/16/2013	45.58734	-111.36948	C 122	0.21	< 1	< 0.3	330	< 0.9
MDEQ_WQ_WQ X	Elk Creek	M06ELKC02	8/16/2013	45.6267	-111.4139	C 146	E 1	1	< 0.3	30	< 0.9
MDEQ_WQ_WQ X	Elk Creek	M06ELKC02	9/16/2013	45.6267	-111.4139	C 134	0.23	< 1	< 0.3	60	< 0.9
MDEQ_WQ_WQ X	Elk Creek downstream Norris Road crossing	M06ELKC03	6/19/2012	45.64416	-111.45741	C 205	2.03	4	1.5	2060	3
MDEQ_WQ_WQ X	Elk Creek downstream Norris Road crossing	M06ELKC03	7/25/2012	45.64416	-111.45741	C 242	0.46	3	0.7	1140	3
MDEQ_WQ_WQ X	Elk Creek downstream Norris Road crossing	M06ELKC03	8/28/2012	45.64416	-111.45741	C 290	0.11	2	0.5	860	4

Table A-5. Madison River TMDL Project Area Metals Data

Organization ID (Data Collection Entity)	Station Name	Site ID	Activity Date	Latitude	Longitude	Hardness (mg/L)	Flow (cfs)	Copper (µg/L)	Lead (µg/L)	Iron (µg/L)	Selenium (µg/L)
MDEQ_WQ_WQ X	Elk Creek downstream Norris Road crossing	M06ELKC03	6/12/2013	45.64416	-111.45741	C 178	2.71	5	1	1550	3
MDEQ_WQ_WQ X	Elk Creek downstream Norris Road crossing	M06ELKC03	8/15/2013	45.64416	-111.45741	C 252	0.05	2	< 0.3	340	8.1
MDEQ_WQ_WQ X	Elk Creek downstream Norris Road crossing	M06ELKC03	9/16/2013	45.64416	-111.45741	C 270	0.001	2	< 0.3	190	8
MDEQ_WQ_WQ X	Elk Creek near mouth (Madison River)	M06ELKC04	6/19/2012	45.65448	-111.51871	C 176	2.97	2	< 0.5	680	2
MDEQ_WQ_WQ X	Elk Creek near mouth (Madison River)	M06ELKC04	7/25/2012	45.65448	-111.51871	C 232	0.47	3	0.7	1170	2
MDEQ_WQ_WQ X	Elk Creek near mouth (Madison River)	M06ELKC04	8/28/2012	45.65448	-111.51871	C 262	0.05	3	0.6	1000	2
MDEQ_WQ_WQ X	Hot Springs Creek	M06HTSPC04	6/13/2012	45.56488	-111.75402	48	2.69	2	1.8	540	< 1
MDEQ_WQ_WQ X	Hot Springs Creek	M06HTSPC04	8/1/2012	45.56488	-111.75402	56	1.84	< 1	< 0.5	190	< 1
MDEQ_WQ_WQ X	Hot Springs Creek	M06HTSPC04	7/9/2013	45.56488	-111.75402	47.4	2.4	< 1	0.7	290	< 1

Table A-5. Madison River TMDL Project Area Metals Data

Organization ID (Data Collection Entity)	Station Name	Site ID	Activity Date	Latitude	Longitude	Hardness (mg/L)	Flow (cfs)	Copper (µg/L)	Lead (µg/L)	Iron (µg/L)	Selenium (µg/L)
MDEQ_WQ_WQ X	Hot Springs Creek upstream Sterling Rd crossing	M06HTSPC03	6/13/2012	45.57358	-111.72514	92	0.94	1	< 0.5	600	< 1
MDEQ_WQ_WQ X	Hot Springs Creek upstream Sterling Rd crossing	M06HTSPC03	7/25/2012	45.57358	-111.72514	103	0.27	1	0.6	900	< 1
MDEQ_WQ_WQ X	Hot Springs Creek upstream Sterling Rd crossing	M06HTSPC03	6/12/2013	45.57358	-111.72514	68.8	2.98	2	1	850	< 1
MDEQ_WQ_WQ X	Hot Springs Creek upstream Sterling Rd crossing	M06HTSPC03	7/9/2013	45.57358	-111.72514	71.7	2.46	< 1	0.7	660	< 1
MDEQ_WQ_WQ X	Hot Springs Creek upstream Sterling Rd crossing	M06HTSPC03	8/16/2013	45.57358	-111.72514	104	0.63	< 1	< 0.3	300	< 0.9
MDEQ_WQ_WQ X	Hot Springs Creek downstream Bradley Creek Rd crossing	M06HTSPC02	6/13/2012	45.58679	-111.64858	183	3.19	1	1.1	720	< 1

Table A-5. Madison River TMDL Project Area Metals Data

Organization ID (Data Collection Entity)	Station Name	Site ID	Activity Date	Latitude	Longitude	Hardness (mg/L)	Flow (cfs)	Copper (µg/L)	Lead (µg/L)	Iron (µg/L)	Selenium (µg/L)
MDEQ_WQ_WQ X	Hot Springs Creek downstream Bradley Creek Rd crossing	M06HTSPC02	8/1/2012	45.58679	-111.64858	177	2.06	2	1.8	850	< 1
MDEQ_WQ_WQ X	Hot Springs Creek downstream Bradley Creek Rd crossing	M06HTSPC02	8/27/2012	45.58679	-111.64858	164	3.59	1	1	480	< 1
MDEQ_WQ_WQ X	Hot Springs Creek near mouth	M06HTSPC01	6/13/2012	45.58614	-111.59436	196	4.11	3	5.3	1480	< 1
MDEQ_WQ_WQ X	Hot Springs Creek near mouth	M06HTSPC01	8/1/2012	45.58614	-111.59436	176	2.56	3	4.9	1190	< 1
MDEQ_WQ_WQ X	Hot Springs Creek near mouth	M06HTSPC01	8/24/2012	45.58614	-111.59436	171	3.17	3	5.2	1380	< 1
MDEQ_WQ_WQ X	Hot Springs Creek near mouth	M06HTSPC01	6/12/2013	45.58614	-111.59436	141	9.28	3	4.3	1450	< 1
MDEQ_WQ_WQ X	Hot Springs Creek near mouth	M06HTSPC01	7/9/2013	45.58614	-111.59436	156	4.88	4	6.2	2000	< 1
MDEQ_WQ_WQ X	Hot Springs Creek near mouth	M06HTSPC01	8/15/2013	45.58614	-111.59436	172	1.15	3	3.1	1010	1.5

Table A-5. Madison River TMDL Project Area Metals Data

Organization ID (Data Collection Entity)	Station Name	Site ID	Activity Date	Latitude	Longitude	Hardness (mg/L)	Flow (cfs)	Copper (µg/L)	Lead (µg/L)	Iron (µg/L)	Selenium (µg/L)
MDEQ_WQ_WQ X	South Meadow Creek upper site	M06SMDWC04	6/18/2012	45.45484	-111.85548	C 25	36.37	< 1	< 0.5	60	< 1
MDEQ_WQ_WQ X	South Meadow Creek upper site	M06SMDWC04	7/24/2012	45.45484	-111.85548	C 25	9.01	< 1	< 0.5	< 50	< 1
MDEQ_WQ_WQ X	South Meadow Creek upper site	M06SMDWC04	8/24/2012	45.45484	-111.85548	C 25	8.42	8	< 0.5	< 50	< 1
MTVOLWQM_W QX	South Meadow Creek upper	SM-FS	10/25/201 1	45.45511	-111.855	C 41		< 1	< 0.5	< 30	
MTVOLWQM_W QX	South Meadow Creek upper	SM-FS	7/2/2012	45.45511	-111.855	C 25		< 1	< 0.5	30	< 1
MTVOLWQM_W QX	South Meadow Creek upper	SM-FS	8/6/2012	45.45511	-111.855	C 25		< 1	< 0.5	< 30	< 1
MTVOLWQM_W QX	South Meadow Creek upper	SM-FS	9/19/2012	45.45511	-111.855	C 29		< 1	< 0.5	< 30	< 1
MDEQ_WQ_WQ X	South Meadow Creek downstream Leonard Creek	M06SMDWC03	6/18/2012	45.44785	-111.7752	C 29	15.78	2	1.8	550	< 1

Table A-5. Madison River TMDL Project Area Metals Data

Organization ID (Data Collection Entity)	Station Name	Site ID	Activity Date	Latitude	Longitude	Hardness (mg/L)	Flow (cfs)	Copper (µg/L)	Lead (µg/L)	Iron (µg/L)	Selenium (µg/L)
MDEQ_WQ_WQ X	South Meadow Creek downstream Leonard Creek	M06SMDWC03	7/24/2012	45.44785	-111.7752	C 49	4.7	< 1	0.5	330	< 1
MDEQ_WQ_WQ X	South Meadow Creek downstream Leonard Creek	M06SMDWC03	8/24/2012	45.44785	-111.7752	C 54		2	0.8	560	< 1
MDEQ_WQ_WQ X	South Meadow Creek	M06SMDWC02	6/18/2012	45.45101	-111.74717	C 35	7.52	2	2.8	1120	< 1
MDEQ_WQ_WQ X	South Meadow Creek	M06SMDWC02	7/24/2012	45.45101	-111.74717	C 63	0.61	1	< 0.5	160	< 1
MDEQ_WQ_WQ X	South Meadow Creek	M06SMDWC02	8/24/2012	45.45101	-111.74717	C 57	0.01	< 1	< 0.5	60	< 1
MTVOLWQM_W QX	South Meadow Creek middle	SM-EDC	10/25/201 1	45.45096	-111.747217	C 65		1	0.5	430	
MTVOLWQM_W QX	South Meadow Creek middle	SM-EDC	7/2/2012	45.45096	-111.747217	C 47		1	0.8	410	< 1
MTVOLWQM_W QX	South Meadow Creek middle	SM-EDC	8/6/2012	45.45096	-111.747217	C 49		< 1	< 0.5	50	< 1
MTVOLWQM_W QX	South Meadow Creek middle	SM-EDC	9/19/2012	45.45096	-111.747217	C 61		< 1	< 0.5	50	< 1

Table A-5. Madison River TMDL Project Area Metals Data

Organization ID (Data Collection Entity)	Station Name	Site ID	Activity Date	Latitude	Longitude	Hardness (mg/L)	Flow (cfs)	Copper (µg/L)	Lead (µg/L)	Iron (µg/L)	Selenium (µg/L)
MDEQ_WQ_WQ X	South Meadow Creek about 1/4 mile upstream from mouth	M06SMDWC01	6/18/2012	45.44377	-111.7184	C 115	6.73	< 1	< 0.5	250	< 1
MDEQ_WQ_WQ X	South Meadow Creek about 1/4 mile upstream from mouth	M06SMDWC01	7/24/2012	45.44377	-111.7184	C 123	4.75	< 1	< 0.5	440	< 1
MDEQ_WQ_WQ X	South Meadow Creek about 1/4 mile upstream from mouth	M06SMDWC01	8/24/2012	45.44377	-111.7184	C 130	4	< 1	< 0.5	350	< 1
MTVOLWQM_W QX	South Meadow Creek lower	SM-LKRD	10/25/201 1	45.44351	-111.718617	C 88		< 1	< 0.5	190	
MTVOLWQM_W QX	South Meadow Creek lower	SM-LKRD	7/2/2012	45.44351	-111.718617	C 112		< 1	< 0.5	270	< 1
MTVOLWQM_W QX	South Meadow Creek lower	SM-LKRD	8/6/2012	45.44351	-111.718617	C 127		< 1	< 0.5	340	< 1
MTVOLWQM_W QX	South Meadow Creek lower	SM-LKRD	9/19/2012	45.44351	-111.718617	C 125		< 1	< 0.5	290	< 1