

**Table I-1. Maximum 30-day Geometric Mean Concentration of Total *E. coli* Data Measured in the Heber Valley Watershed between 2001 and 2021**

Monitoring Location ID	Monitoring Location Name	Site Type	Non-Recreation Season			Recreation Season*			Sample Date Range
			Year of Maximum 30-day Geometric Mean	Count of Samples in the Year/Season of the Maximum 30-day Geometric Mean	Maximum 30-day Geometric Mean (MPN/100 mL)	Year of Maximum 30-day Geometric Mean	Count of Samples in the Year/Season of the Maximum 30-day Geometric Mean	Max 30-day geometric mean (MPN/100 mL)	
4996890	PROVO RIVER BL DEER CREEK RES CUWCD Replicate of 5913210	River/Stream	NA	NA	NA	2018	6	1.20	2011–2021
4996950	SNAKE CK AT WARM SPRINGS DRIVE	River/Stream	2019	7	12.69	2019	11	11.69	2018–2019
4997060	TRIBUTARY FROM TIMBER LAKES HEADQUARTERS AB CNFL / LAKE CK	River/Stream	2016	6	110.71	2015	10	145.41	2015–2016
4997070	LAKE CK AB CNFL / TRIBUTARY FROM TIMBER LAKES HEADQUARTERS	River/Stream	2016	6	40.55	2012	5	51.84	2010–2016
4997198	Snake Creek 75 meters bl Homestead Dr (200 N) Midway	River/Stream	2019	7	164.00	2019	11	179.18	2018–2019
4997199	Snake Creek 75 meters bl Homestead Dr (200 N) Midway REPLICATE of 4997198	River/Stream	2019	7	<b>215.52</b>	2019	11	<b>235.62</b>	2019–2019
4997250	SPRING CK AB CNFL / PROVO R NR HEBER†	River/Stream	2019	11	<b>625.62</b>	2019	15	<b>614.68</b>	2011–2021
4997251	SPRING CK AB CNFL / PROVO R NR HEBER Replicate of 4997250†	River/Stream	NA	NA	NA	2019	11	<b>500.64</b>	2019–2019
4997268	Spring Ck AB Rock Ck confluence†	River/Stream	2019	6	<b>236.87</b>	2019	11	<b>221.75</b>	2018–2019
4997280	SPRING CK AB HEBER WWTP†	River/Stream	2019	7	<b>255.65</b>	2019	11	<b>256.74</b>	2018–2019
4997283	Spring Ck AB 1200 North†	River/Stream	2019	7	<b>301.51</b>	2019	11	<b>317.61</b>	2018–2019
4997293	Rock Ck at 3000 North (Potter Ln)†	River/Stream	2019	7	13.31	2019	11	14.72	2018–2019
4997300	PROVO R AT MIDWAY CUTOFF RD XING N OF HEBER	River/Stream	NA	NA	NA	2012	5	4.46	2010–2021
4997314	Rock Ck at diversion from Provo River†‡	River/Stream	2019	7	1.81	2019	11	1.97	2018–2019
4997330	PROVO R BL JORDANELLE RES. ON OLD US40 XING	River/Stream	NA	NA	NA	2012	5	1.31	2012–2021
4997620	Jordanelle SP @ Hailstone Middle Beach	Lake	NA	NA	NA	2020	18	4.91	2010–2021
4997621	Jordanelle SP @ Hailstone Middle Beach Replicate of 4997620	Lake	NA	NA	NA	2021	12	1.42	2020–2021
4997675	Big Dutch Pete Stream bl Mayflower in Jordanelle State Park	River/Stream	NA	NA	NA	2018	6	30.32	2010–2021
4998130	Provo River ab Jordanelle Reservoir at Rock Cliff Trail Bridge	River/Stream	NA	NA	NA	2015	5	49.42	2010–2021
5910160	SNAKE CK AB CNFL/PROVO R	River/Stream	NA	NA	NA	2011	5	<b>206.33</b>	2007–2021
5910210	ROCK CK AB CNFL / SPRING CK W OF HEBER CITY WWTP†	River/Stream	2019	7	<b>212.96</b>	2019	11	<b>214.34</b>	2018–2019
5910250	PROVO R HEBER-MIDWAY RD (U-113) XING BL BERKENSHAW POND	River/Stream	NA	NA	NA	2011	5	25.11	2011–2021
5910295	Rock Ck at 1200 North Heber ab Spring Ck†	River/Stream	2019	7	81.98	2019	11	86.46	2019–2019
5910510	ROCK CK AT RIVER ROAD XING BETWEEN PROVO R US89†‡	River/Stream	2019	7	13.69	2019	11	13.82	2018–2019
5911120	NORTHWESTWARD FLOW TO PROVO R FROM MARSH N OF RR-E OF PROVOR	River/Stream	NA	NA	NA	2011	5	45.18	2010–2020
5913210	PROVO RIVER BL DEER CREEK RES	River/Stream	2018	5	1.13	2012	6	2.18	2007–2021
5913220	DEER CREEK RES AB DAM 01	Lake	NA	NA	NA	2012	10	0.87	2012–2021
5913230	DEER CREEK RES MIDLAKE 02	Lake	NA	NA	NA	2012	5	0.76	2012–2021
5913240	DEER CREEK RES UPPER END 03	Lake	NA	NA	NA	2017	5	1.66	2012–2021
5913300	DEER CREEK RES - SHORE AT STATE PARK 05B	Lake	NA	NA	NA	2017	18	0.80	2016–2018

Monitoring Location ID	Monitoring Location Name	Site Type	Non-Recreation Season			Recreation Season*			Sample Date Range
			Year of Maximum 30-day Geometric Mean	Count of Samples in the Year/Season of the Maximum 30-day Geometric Mean	Maximum 30-day Geometric Mean (MPN/100 mL)	Year of Maximum 30-day Geometric Mean	Count of Samples in the Year/Season of the Maximum 30-day Geometric Mean	Max 30-day geometric mean (MPN/100 mL)	
5913410	Deer Creek SP @ Island Park Marina	Lake	NA	NA	NA	2010	18	4.51	2010–2021
5913413	Deer Creek SP @ Rainbow Bay	Lake	NA	NA	NA	2017	18	2.40	2010–2021
5913417	Deer Creek SP @ Sailboat Beach	Lake	NA	NA	NA	2010	18	1.29	2010–2021
5913490	DEER CREEK RES AB DAM 01 Replicate of 5913220	Lake	NA	NA	NA	2017	5	0.63	2012–2021
5913630	PROVO RIVER AB CNFL/ SNAKE CK AT MCKELLER BRIDGE	River/Stream	NA	NA	NA	2011	6	77.70	2007–2021
5914010	JORDANELLE RES AB DAM 01	Lake	NA	NA	NA	2012	5	0.72	2012–2021
5914026	Jordanelle near Aqua Cove and Boat Rental Beach	Lake	NA	NA	NA	2020	18	6.46	2016–2021
5914029	Jordanelle Reservoir at main boat launch	Reservoir	NA	NA	NA	2017	18	1.02	2017–2021
5914030	JORDANELLE RES NORTH ARM 03	Lake	NA	NA	NA	2015	5	0.66	2012–2021
5914040	JORDANELLE RES PROVO ARM 04	Lake	NA	NA	NA	2016	6	0.98	2012–2021
4997264	Sagebrush Canal diversion water back to Spring Ck @church parking lot†	Canal Drainage	2019	5	<b>240.85</b>	2019	11	<b>238.15</b>	2019–2019
4997272	North Fields Ditch No1 at 1200 North (and about 1450 West) †	Canal Drainage	NA	NA	NA	2019	11	65.00	2019–2019
4997274	Middle Ditch at 1200 North (and about 1100 west) †	Canal Drainage	2019	7	102.22	2019	11	102.58	2019–2019
4997285	Creamery Ditch at U.S. Hwy 40 Xing†,‡	Canal Drainage	2019	7	39.07	2019	11	40.17	2019–2019
4997289	Middle Ditch at 3000 North (Potter Ln) †,‡	Canal Drainage	2019	7	47.40	2019	11	47.20	2019–2019
4997298	McDonald Ditch BI River Road†,‡	Canal Drainage	2019	7	21.84	2019	11	19.05	2019–2019
4998140	WEBER-PROVO CANAL DIVERSION AT US 189 ALT XING	Canal Transport	2017	5	22.16	2017	8	2imimumum6.50	2001–2021
5910020	LOWER CHARLESTON CANAL AB CNFL / DANIELS CK	Canal Transport	NA	NA	NA	2015	5	91.73	2003–2021
5910273	London Ditch @ 1200 North Heber†	Canal Drainage	2019	11	<b>368.78</b>	2019	15	<b>412.99</b>	2005–2021
5910300	MacDonald Ditch W of US 40 at Coyote Ln	Canal Drainage	2019	7	<b>303.35</b>	2019	9	<b>292.70</b>	2019–2019
5910302	London Ditch at US 40 Xing†	Canal Drainage	2019	10	<b>306.48</b>	2012	5	<b>358.95</b>	2009–2021

Note: NA indicates that there were fewer than five samples collected in any single season/year at this monitoring location, or there were too few samples within a 30-day period to calculate the geometric mean and therefore a geometric mean is not available.

Monitoring sites not included in this table had fewer than five samples collected in any single recreation season and nonrecreation season. Grayed-out columns indicate monitoring locations with a maximum geometric mean above the 206 MPN/100 mL target threshold, as defined in the Spring Creek *E. coli* TMDL for sites with more than five collection events in a recreation season.

\* Recreation season is defined as May 1 to October 31.

† Site was analyzed as part of the Spring Creek *E. coli* TMDL.

‡The Spring Creek *E. coli* TMDL assessment analysis showed that these monitoring locations were not impaired for *E. coli*.

**I-2. Maximum Concentration of *E. coli* Data Collected in the Heber Valley Watershed during any Single Recreation Season between 2001 and 2021**

MLID	Monitoring Location Name	Site Type	Sample Date Range	Year of Maximum Geometric Mean for 10 Collection Events	Count of Samples	Maximum Geometric Mean for Sites with More than 10 Collection Events in a Recreation Season*	2022 Integrated Report Assessment Results†
4996950	SNAKE CK AT WARM SPRINGS DRIVE	River/Stream	2018–2019	2019	11	3.41	NS
4997060	TRIBUTARY FROM TIMBERLAKES HEADQUARTERS AB CNFL / LAKE CK	River/Stream	2015–2016	2016	12	120.34	NS
4997070	LAKE CK AB CNFL / TRIBUTARY FROM TIMBER LAKES HEADQUARTERS	River/Stream	2010–2016	2016	12	12.19	FS
4997198	Snake Creek 75 meters bl Homestead Dr (200 N) Midway	River/Stream	2018–2019	2019	11	161.48	IDEX
4997199	Snake Creek 75 meters bl Homestead Dr (200 N) Midway REPLICATE of 4997198	River/Stream	2019–2019	2019	11	<b>390.65</b>	IDEX
4997250	SPRING CK AB CNFL / PROVO R NR HEBER‡	River/Stream	2011–2021	2019	15	<b>871.04</b>	NS
4997251	SPRING CK AB CNFL / PROVO R NR HEBER Replicate of 4997250	River/Stream	2019–2019	2019	11	<b>1069.42</b>	NS
4997268	Spring Ck AB Rock Ck confluence‡	River/Stream	2018–2019	2019	11	<b>385.53</b>	NS
4997280	SPRING CK AB HEBER WWTP‡	River/Stream	2018–2019	2019	11	<b>670.42</b>	NS
4997283	Spring Ck AB 1200 North‡	River/Stream	2018–2019	2019	11	<b>586.65</b>	NS
4997293	Rock Ck at 3000 North (Potter Ln)‡	River/Stream	2018–2019	2019	11	15.89	FS
4997314	Rock Ck at diversion from Provo River‡,§	River/Stream	2018–2019	2019	11	0.98	FS
4997620	Jordanelle SP @ Hailstone Middle Beach	Lake	2010–2021	2016	30	6.26	FS
4997621	Jordanelle SP @ Hailstone Middle Beach Replicate of 4997620	Lake	2020–2021	2020	18	1.39	FS
5910160	SNAKE CK AB CNFL/PROVO R	River/Stream	2007–2021	2018	11	167.16	IDEX
5910210	ROCK CK AB CNFL / SPRING CK W OF HEBER CITY WWTP‡	River/Stream	2018–2019	2019	11	<b>523.19</b>	NS
5910295	Rock Ck at 1200 North Heber ab Spring Ck‡	River/Stream	2019–2019	2019	11	46.71	NS
5910510	ROCK CK AT RIVER ROAD XING BETWEEN PROVO R US89‡,§	River/Stream	2018–2019	2019	11	16.26	FS
5913210	PROVO RIVER BL DEER CREEK RES	River/Stream	2007–2021	2017	11	1.31	IDNE
5913300	DEER CREEK RES - SHORE AT STATE PARK 05B	Lake	2016–2018	2018	12	0.65	IDNE
5913410	Deer Creek SP @ Island Park Marina	Lake	2010–2021	2010	18	4.10	FS
5913413	Deer Creek SP @ Rainbow Bay	Lake	2010–2021	2015	15	2.09	FS
5913417	Deer Creek SP @ Sailboat Beach	Lake	2010–2021	2010	18	1.27	FS
5914026	Jordanelle near Aqua Cove and Boat Rental Beach	Lake	2016–2021	2019	18	7.46	FS
5914029	Jordanelle Reservoir at main boat launch	Reservoir	2017–2021	2019	18	1.55	FS
4997264	Sagebrush Canal diversion water back to Spring Ck @church parking lot‡	Canal Drainage	2019–2019	2019	11	<b>414.19</b>	NA
4997272	North Fields Ditch No1 at 1200 North (and about 1450 West)‡	Canal Drainage	2019–2019	2019	11	75.40	NA
4997274	Middle Ditch at 1200 North (and about 1100 west)‡	Canal Drainage	2019–2019	2019	11	123.75	NA
4997285	Creamery Ditch at U.S. Hwy 40 Xing‡,§	Canal Drainage	2019–2019	2019	11	68.69	NA
4997289	Middle Ditch at 3000 North (Potter Ln)‡,§	Canal Drainage	2019–2019	2019	11	55.76	NA
4997298	McDonald Ditch Bl River Road‡,§	Canal Drainage	2019–2019	2019	11	35.58	NA

MLID	Monitoring Location Name	Site Type	Sample Date Range	Year of Maximum Geometric Mean for 10 Collection Events	Count of Samples	Maximum Geometric Mean for Sites with More than 10 Collection Events in a Recreation Season*	2022 Integrated Report Assessment Results†
5910273	London Ditch @ 1200 North Heber‡	Canal Drainage	2005–2021	2019	15	<b>673.90</b>	NA
5910302	London Ditch at US 40 Xing‡	Canal Drainage	2009–2021	2019	14	<b>387.80</b>	Not assessed

Note: FS= fully supporting, IDEX= insufficient data with exceedances, NA= not assessed, NS= not supporting. Grayed-out columns indicate monitoring locations with a maximum geometric mean above the 206 MPN/100 mL target threshold, as defined in the Spring Creek *E. coli* TMDL for sites with more than 10 collection events in the recreation season.

\* Recreation season is defined as May 1 to October 31.

† The assessment result is from the 2022 Integrated Report (UDWQ 2022b). The maximum allowable *E. coli* concentration for surface waters designated for drinking water (1C) and infrequent primary contact (2B) is 668 MPN/100 mL. The maximum allowable concentration for surface waters designated for frequent primary contact (2A) is 409 MPN/100 ml (UAC R317-2). Sites with an assessment result of “not assessed” did not have data that was evaluated during the 2022 Integrated Report data period.

‡ Site was analyzed as part of the Spring Creek *E. coli* TMDL.

§ The Spring Creek *E. coli* TMDL assessment analysis showed that these monitoring locations were not impaired for *E. coli*.

**Table I-3. List of Locations Not Included in Table I-1 Because the Geometric Mean Could Not Be Calculated (fewer than five samples per season, or too few samples in any 30-day period)**

MLID	Monitoring Location Name	Site Type
4997670	MCHENRY CK BL MAYFLOWER/CUNNINGHAM CANAL	River/Stream
4998115	PROVO R @ U 32 XING	River/Stream
4998117	PROVO R @ U 32 XING Replicate of 4998115	River/Stream
5910162	SNAKE CK AB CNFL/PROVO R Replicate of 5910160	River/Stream
5910450	SNAKE CK AB WMSP GOLF COURSE NEAR RANGER S HOUSE	River/Stream
5910617	Main Ck Location 11 at Deer Ck Res high water line	River/Stream
5913520	DANIELS CREEK AB DEER CREEK RES	River/Stream
5913550	DANIELS CK AT WHISKEY SPRINGS	River/Stream

**Table I-4. List of Locations Not Included in Table I-2 Because the Geometric Mean Could Not Be Calculated (fewer than 10 samples per recreation season)**

MLID	Monitoring Location Name	Site Type
4996890	PROVO RIVER BL DEER CREEK RES CUWCD Replicate of 5913210	River/Stream
4997300	PROVO R AT MIDWAY CUTOFF RD XING N OF HEBER	River/Stream
4997330	PROVO R BL JORDANELLE RES. ON OLD US40 XING	River/Stream
4997670	MCHENRY CK BL MAYFLOWER/CUNNINGHAM CANAL	River/Stream
4997675	Big Dutch Pete Stream bl Mayflower in Jordanelle State Park	River/Stream
4998115	PROVO R @ U 32 XING	River/Stream
4998117	PROVO R @ U 32 XING Replicate of 4998115	River/Stream
4998130	Provo River ab Jordanelle Reservoir at Rock Cliff Trail Bridge	River/Stream
5910162	SNAKE CK AB CNFL/PROVO R Replicate of 5910160	River/Stream
5910250	PROVO R HEBER-MIDWAY RD (U-113) XING BL BERKENSHAW POND	River/Stream
5910450	SNAKE CK AB WMSP GOLF COURSE NEAR RANGER S HOUSE	River/Stream
5910617	Main Ck Location 11 at Deer Ck Res high water line	River/Stream
5911120	NORTHWESTWARD FLOW TO PROVO R FROM MARSH N OF RR-E OF PROVOR	River/Stream
5913220	DEER CREEK RES AB DAM 01	Lake
5913230	DEER CREEK RES MIDLAKE 02	Lake
5913240	DEER CREEK RES UPPER END 03	Lake
5913490	DEER CREEK RES AB DAM 01 Replicate of 5913220	Lake
5913520	DANIELS CREEK AB DEER CREEK RES	River/Stream
5913550	DANIELS CK AT WHISKEY SPRINGS	River/Stream
5913630	PROVO RIVER AB CNFL/ SNAKE CK AT MCKELLER BRIDGE	River/Stream
5914010	JORDANELLE RES AB DAM 01	Lake
5914030	JORDANELLE RES NORTH ARM 03	Lake
5914040	JORDANELLE RES PROVO ARM 04	Lake
4998140	WEBER-PROVO CANAL DIVERSION AT US 189 ALT XING	Canal Transport
5910020	LOWER CHARLESTON CANAL AB CNFL / DANIELS CK	Canal Transport

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MLID	Monitoring Location Name	Site Type
5910300	MacDonald Ditch W of US 40 at Coyote Ln	Canal Drainage