

Reference tables for “Calibrate Your Disgust”

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E. coli benchmarks from France

Type of water	E. coli/100mL	Data Source
Raw sewage going into Parisian wastewater treatment plants	6,200,000 to 11,000,000 (data from 2012-2015)	Mouchel et al. 2020
Treated effluent leaving Parisian wastewater treatment plants	5,200 to 12,000 (data from 2012-2015)	
Seine at Ivry (Paris suburb), in 1985, before sewage treatment	500,000 (annual geomean)	
Seine at Ivry, since 2000	3,000 to 5,000 (annual geomeans)	
Combined sewer overflow in Paris, large storm in 2008	1,500,000	Passerat et al. 2011
Seine directly downstream of CSO, large storm in 2008	290,000	
Seine in Paris on July 29, before triathlon	1,356 to 2,176 (planktonic <i>E. coli</i>)	Fluidion Water Intelligence
Seine in Paris on July 31, during triathlon	516 to 867 (planktonic <i>E. coli</i>)	
Seine in Paris July 31, during women’s marathon swim	139 to 496 (planktonic <i>E. coli</i>)	
Seine tributaries, watershed mostly pasture	250 (median)	Mouchel et al. 2020
Seine tributaries, watershed forest or cropland	42 (median)	

Randomized control trial of disease risk from bathing in fresh recreational waters

[\(Wiedenmann et al. 2005\)](#)

Water quality (<i>E. coli</i> /100mL), by quartile	Incidence rate of gastroenteritis
Control group	2.8%
0 to 72	1.9%
72 to 181	5.2%
181 to 379	6.6%
379 to 4,600	8.2%

E. coli at popular Iowa beaches, 2024 recreational season

Source: Iowa DNR

Water body	Best day	Median	Geomean	Worst Day
Pikes Point State Park (W. Lake Okoboji)	<10	<10	15	74
Honey Creek State Park (Lake Rathbun)	<10	<10	19	180
Gray's Lake (Des Moines)	<10	<10	21	3,000
Lake MacBride (Iowa City)	<10	58	63	5,740
Big Creek State Park	<10	110	116	3,400
Clear Lake State Park	<10	130	146	7,700
Lake Darling State Park	20	330	305	6,100

E. coli at selected Iowa water trails, 2024 recreational season

Water body	Best day	Median	Geomean	Worst Day
Little Sioux River near Larabee (not tested during floods)	<10	31	37	120
Maquoketa River below Backbone (above Manchester)	<10	63	89	5,200
Cedar River near Midway (below Charles City)	<10	81	63	340
Boone River near Stratford	<10	100	97	1,700
Upper Iowa River near Dorchester	<10	123	133	2,400
S. Raccoon River near Redfield	52	280	317	4,100
Maquoketa River near Spragueville	170	930	1,621	>24,000

E. coli in selected Story County water bodies, 2024 recreational season.

Source: Story County water monitoring program

Water body	Best day	Median	Geomean	Worst Day
Peterson Park Beach	<10	<10	19	98
Hickory Grove Lake	<10	110	126	>24,000
South Skunk River in Story City	<10	280	324	4,352
Ioway Creek in Ames	31	743	1299	8164
W. Indian Creek below Nevada	41	1205	1547	>24,000

E. coli results from Story County water monitoring program

2024 Recreational Season (March 15-November 15)

The state standard for primary contact recreation or children’s recreation has two components.

- The geometric mean for *E. coli* during the recreational season (March 15-November 15) should not exceed 126 MPN/100mL. To meet data quality requirements, at least seven samples are needed, spaced at least a week apart.
- Individual *E. coli* samples collected during the season should not exceed 235 MPN/100mL. If more than 9 samples are collected, no more than 10% of the samples can exceed this threshold.

For secondary contact recreation, the standards are 630 MPN/100mL (geomean) and 2,880 MPN/100mL (for a single sample).

Site	Geometric mean (MPN/100ml)	Samples Exceeding 235	Samples Exceeding 2,880
Peterson Park Beach	19	0 of 15	0 of 15
Hickory Grove Beach	126	4 of 15	2 of 15
Exceeds primary contact standard (126 MPN/100 mL)			
Grant Creek @ 280th St	201	5 of 8	1 of 8
S Skunk River @ N River Valley Park (Ames)	281	4 of 7	1 of 7
S Skunk River @ Broad St (Story City)	324	4 of 8	1 of 8
S Skunk River @ W Riverside Rd (Ames)	339	3 of 8	2 of 8
S Skunk River @ 280th St	355	4 of 8	2 of 8
Bear Creek @ Pleasant Valley Rd	362	6 of 8	2 of 8
Long Dick Creek @ 567th Ave	541	7 of 8	1 of 8
Keigley Branch @ 170th St	626	5 of 7	1 of 7
Exceeds secondary contact standard (630 MPN/100mL)			
E Indian Creek @ 650th Ave	685	6 of 8	1 of 8
W Indian Creek @ Lincoln Hwy (Nevada)	886	7 of 8	2 of 8
W Indian Creek @ 280th St	1547	7 of 8	2 of 8
Not enough samples to evaluate seasonal geometric mean			
Ballard Creek @ 4th St (Cambridge)		5 of 6	1 of 6
Clear Creek @ Lee Park (Ames)		4 of 4	1 of 4
College Creek near Sheldon Ave (Ames)		4 of 4	2 of 4
Ioway Creek @ 6th St (Ames)		5 of 6	1 of 6
Worrell Creek @ S 16th St (Ames)		3 of 4	1 of 4