

For Immediate Release

July 23, 2019

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### A Low, Slow, and Warm Mad River

Sampling results from the fourth round of Friends of the Mad River's 2019 Mad River Watch water quality monitoring once again show **no sites with unfavorable *E. coli* levels as of Monday morning**. Saturday evening thunderstorms broke up a streak of hot and humid weather, washing most pollutants off the landscape, into the water, and downstream prior to sampling on Monday morning. Coincidentally, Friends' Monday sampling this summer has not yet fallen on mornings after rain and therefore has not yet captured data that would show pollutant loading from stormwater runoff.

Due to a week of very high air temperatures, Mad River water temperatures have increased dramatically since Friends' sampling on July 8, ranging from 64F in the headwaters (up from 55F) to 71F (up from 67F) along the Moretown Main Stem, with a high of 77F at Blueberry Lake (up from 73F). Despite the fact that water temperatures were higher, the Mad River Valley took to their favorite swimhole in droves this past week to get a break from the ever present heat. Thankfully, our river waters have not suffered from toxic algae blooms in the same way as lake water in several other Vermont locales, and remain swimmable. While this may be fortunate for us, the pollutants we send to Lake Champlain (when it rains) do contribute to its sometimes-poor water quality in other Vermonters' favorite swimholes.

At the time of sampling on Monday morning, the river's discharge (volume per second) was 87.4 cubic feet per second (cfs) at the US Geological Service flow gage in Moretown (only 6 cfs higher than the lowest yet this summer), having dropped from a high of 149 cfs overnight Saturday after the thunderstorms passed through. The flow condition of the Mad River at the time of sampling Monday morning was Low and Steady (LS), but began to rise just after sampling due to soaking rain later Monday morning. The mean flow for this date over the last 90 years is 100 cfs; the water was only slightly lower than usual at this time of year.

Remember that rains can cause *E. coli* levels to fluctuate, even on a daily basis, as water carrying pathogens moves down the



*Participants discuss dynamic river changes through time at Lareau Farm's river frontage as part of Friends of the Mad River and The Nature Conservancy's "River Walk and Dunk" on July 13. Photo by Corrie Miller.*

watershed. Monday's rain most definitely washed pollutants into the water – Friends' *E. coli* sampling results are only a snapshot in time intended to give you a sense of the conditions that lead to high pathogen levels in the water so you can be informed. **You** are your best protector - use common sense and don't swim for several days after a rain. It is estimated that at the level of 235 colonies *E.coli* per 100 mL water, approximately 8 out of every 1,000 swimmers are likely to contract a water borne illness related to fecal contamination.

### **Mad River Watch**

As part of the Mad River Watch program, community volunteers collect samples of water on six occasions throughout the summer from about three dozen river and tributary sites. Then, Friends' lab and Vermont's Agriculture and Environmental Laboratory (VAEL) analyze the samples' bacteria and nutrient levels. Friends posts *E. coli* data in the Valley Reporter, on its Facebook and web sites, and on signs at ten popular swimholes across the Valley so that people have information to make their own recreational health decisions. In addition to *E. coli* data, Friends posts total phosphorus and nitrogen data on its website at summer's end when received back from the state lab. Over the decades, Friends has used Mad River Watch data to guide many successful clean-up efforts.

This week's volunteers include: Charlie Baldwin, Sally Boudreau, Suze Edwards, Annie & Jula Fender, Rick Hungerford, Susanne & George Schaefer, Michael Ware, and Julie & Ingrid Westervelt.

For more information about *E. coli* and the Mad River Watch program visit [www.FriendsoftheMadRiver.org](http://www.FriendsoftheMadRiver.org). Throughout the summer, Mad River Watch results will be available in the Valley Reporter, on Facebook ("Friends of the Mad River"), and on sign posts at swimholes across the Valley. Friends of the Mad River is a community-supported organization committed to healthy land, clean water, and a vibrant community. Mad River Watch and other important programs depend on the generosity of community members; learn how to become a member and donate securely online at Friends' website.

### **Data Follows**

July 22, 2019

SITE LOCATION	SITE #	Water Temp. °F	<i>E.coli</i> per 100ml *
Blueberry Lake	BBL	77	5.2
Warren Falls (Mad River)	1	65	14.8
Warren Store (Freeman Brook)	4	64	101.7
Warren Riverside Park (Mad River)	7	67	37.9
Lareau Swimhole (Mad River)	19	65	115.3
Couples Club Field (Mad River)	19.2	65	50.4
Waitsfield Covered Bridge (Mad River)	20	68	59.4
Meadow Road Bridge (Mad River)	23	68	15.3
Moretown Village Swim Access (Mad River)	27	70	98.5
Ward Swimhole (Mad River)	29	71	65.7

\* > 235 *E.coli* /100ml = Not suitable for recreation, according VT Department of Health and EPA

### **Data, Weather, and Flow Analysis**

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### **River Flow**

**LS - low and steady:** It has not rained in several days and the water is low.

### **Thanks to this week's volunteers!**

Samplers - Suze Edwards, Annie & Julia Fender, Rick Hungerford, Michael Ware, Julie & Ingrid Westervelt.

*E. coli* Lab Coordinator - Paula Baldwin

Posting Results - Sally Boudreau

Transporting Samples - Susanne & George Schaefer

Training and Support - Charlie Baldwin