

## 2018 Mississippi River Bacteria Sampling

### Summary of 2018 Data

Portions of MWMO's reach of the Mississippi River are listed on the MPCA's list of impaired waters for fecal coliform pollution. In 2008, the MPCA changed the bacteria water quality standard from fecal coliform to *E. coli* for bacteria monitoring in Minnesota. The standard for *E. coli* in 2B and 2Bd waters is 126 CFU/100 mL for a monthly geomean of at least five samples. The MPCA *E. coli* standard also states that *E. coli* cannot exceed 1,260 CFU/100mL in more than 10% of the samples taken in one month. In 2018, none of the river sites exceeded this standard, as shown in Table 1. Samples were collected on the second and fourth Thursday of each month between April through November. Therefore, the small number of samples collected each month greatly affect these results and a monthly geomean is not calculated. Most samples were taken during baseflow conditions with the exception of one sampling date in September in which samples were collected during a rain event and one sampling date in April during a snowmelt event. Figures 1-7 show the *E. coli* sample results compared to the MPCA standard and Figure 8 shows all sampling sites together. The *E. coli* data and other sampling parameters are presented in more detail in Tables 2-8.

Table 1. Sites that exceeded 1,260 MPN/100mL in >10% of samples for the Mississippi River in 2018.

<b>Month</b>	<b>Sites that exceed 1,260 MPN/100 mL in &gt; 10% of samples</b>
April	None
May	None
June	None
July	None
August	None
September	None
October	None
November	None

### MR859.1W (Camden)

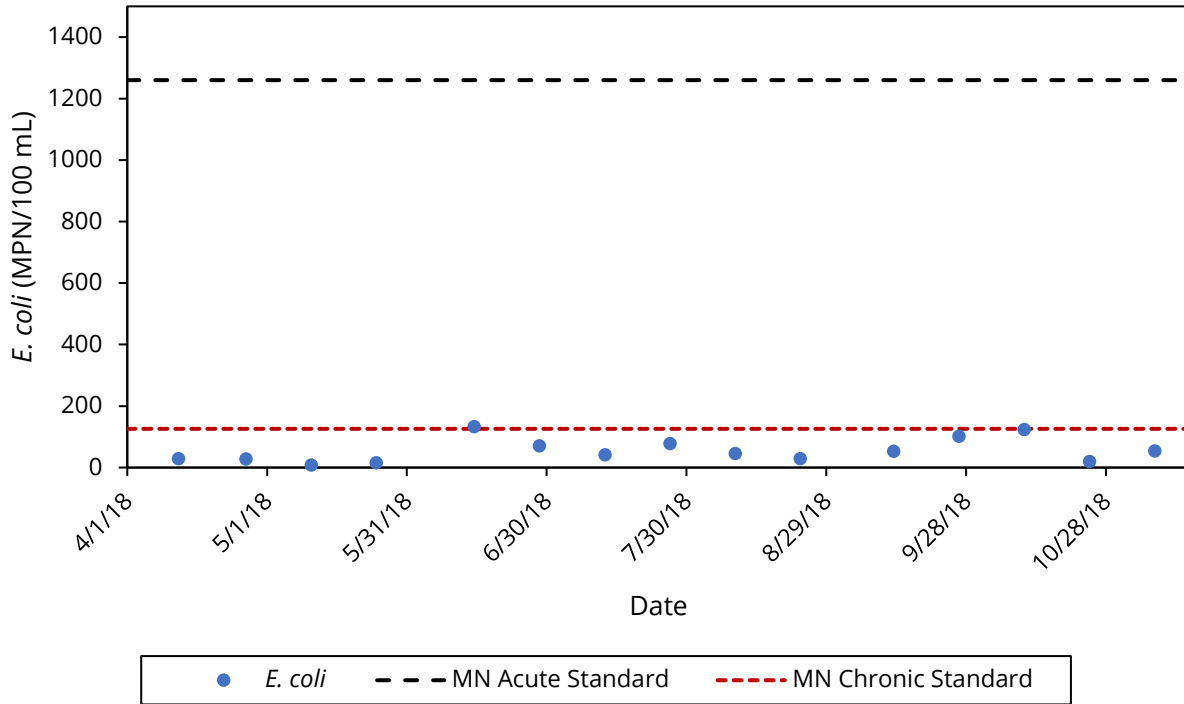


Figure 1. 2018 *E. coli* values at MR859.1W.

### MR857.6W (MPRB Boat Launch)

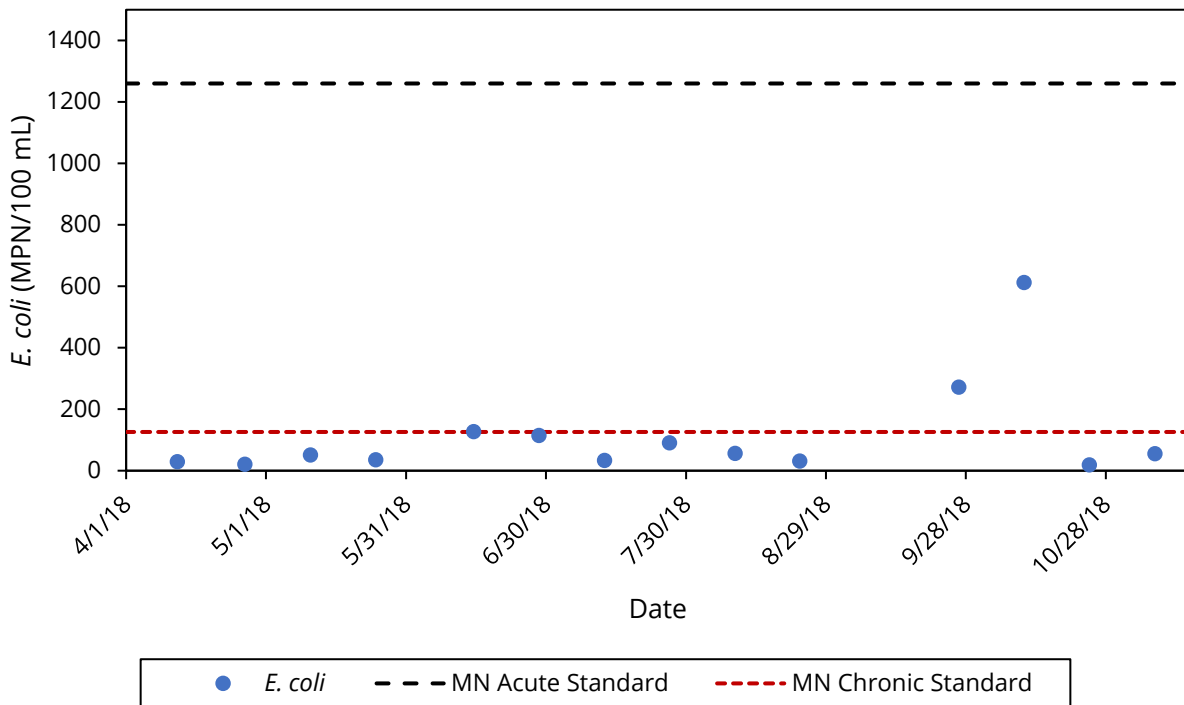


Figure 2. 2018 *E. coli* values at MR857.6W.

### MR854.9W (North Loop)

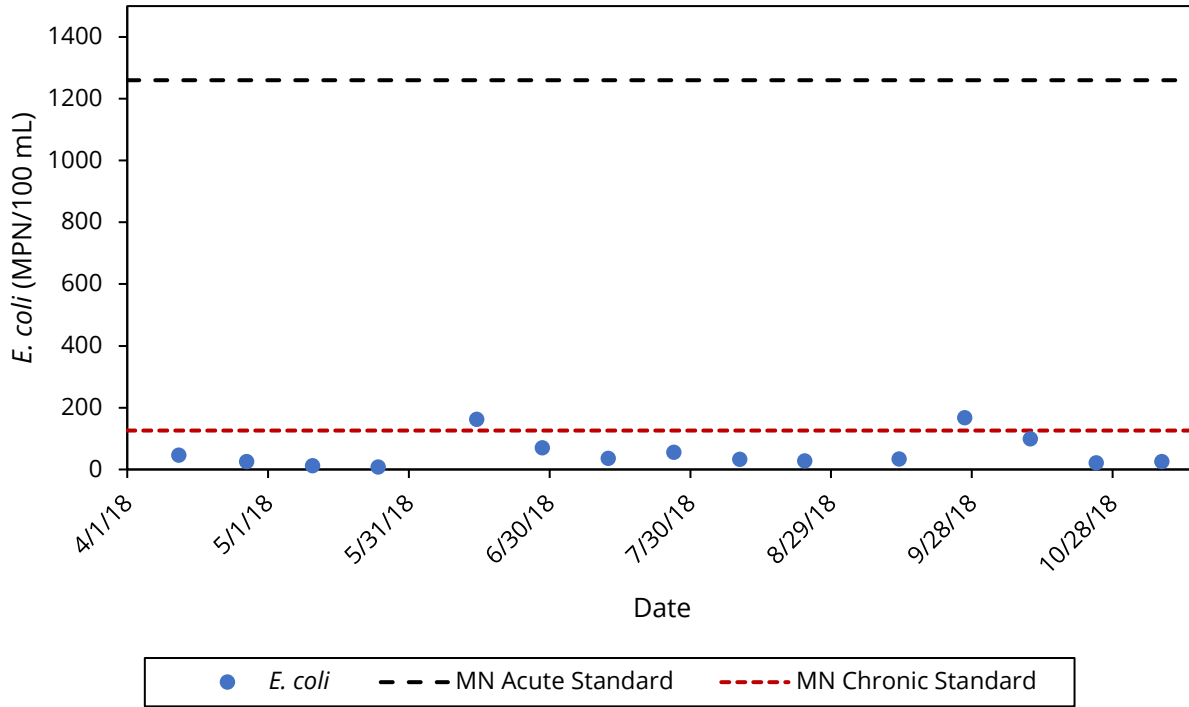


Figure 3. 2018 *E. coli* values at MR854.9W.

### MR853.5E (SAFL)

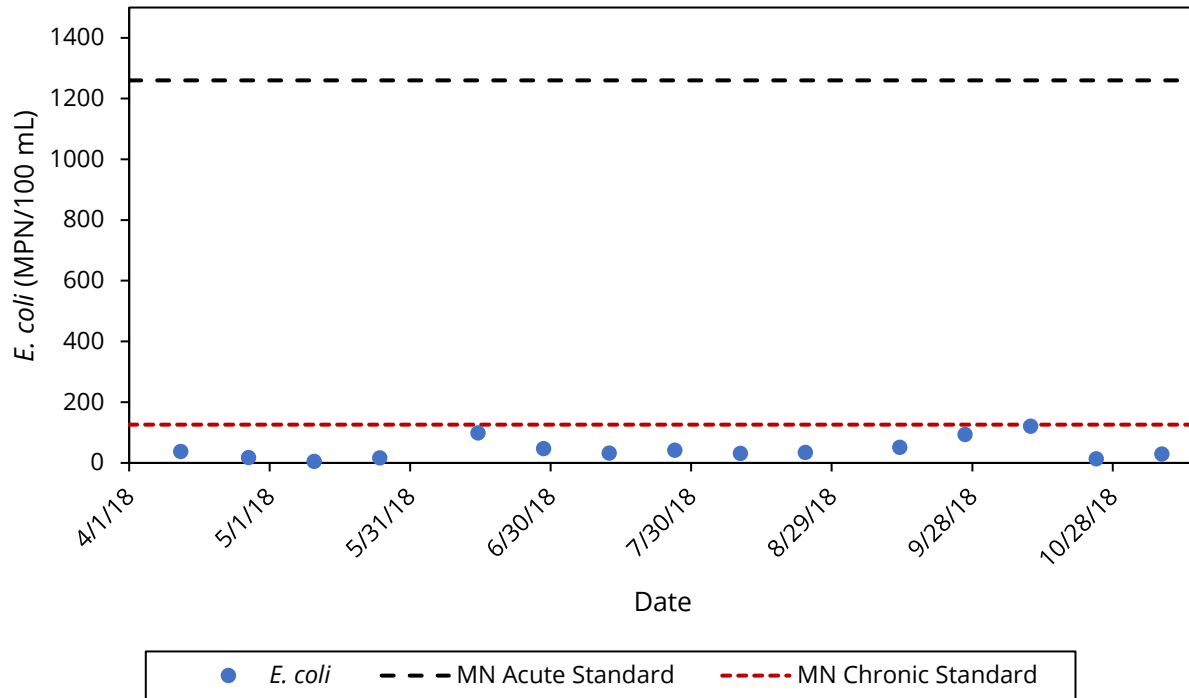


Figure 4. 2018 *E. coli* values at MR853.5E.

### MR852.2E (UMN Boat Launch)

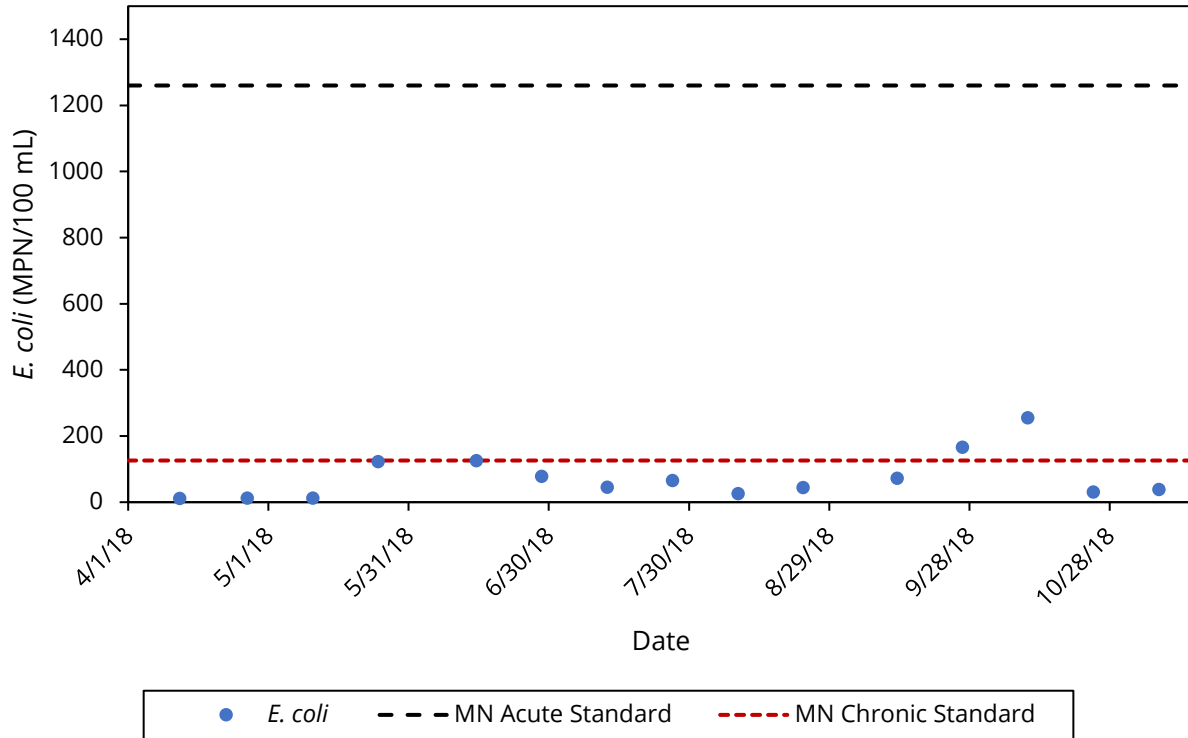


Figure 5. 2018 *E. coli* values at MR852.2E.

### MR849.9W (Lake Street Bridge)

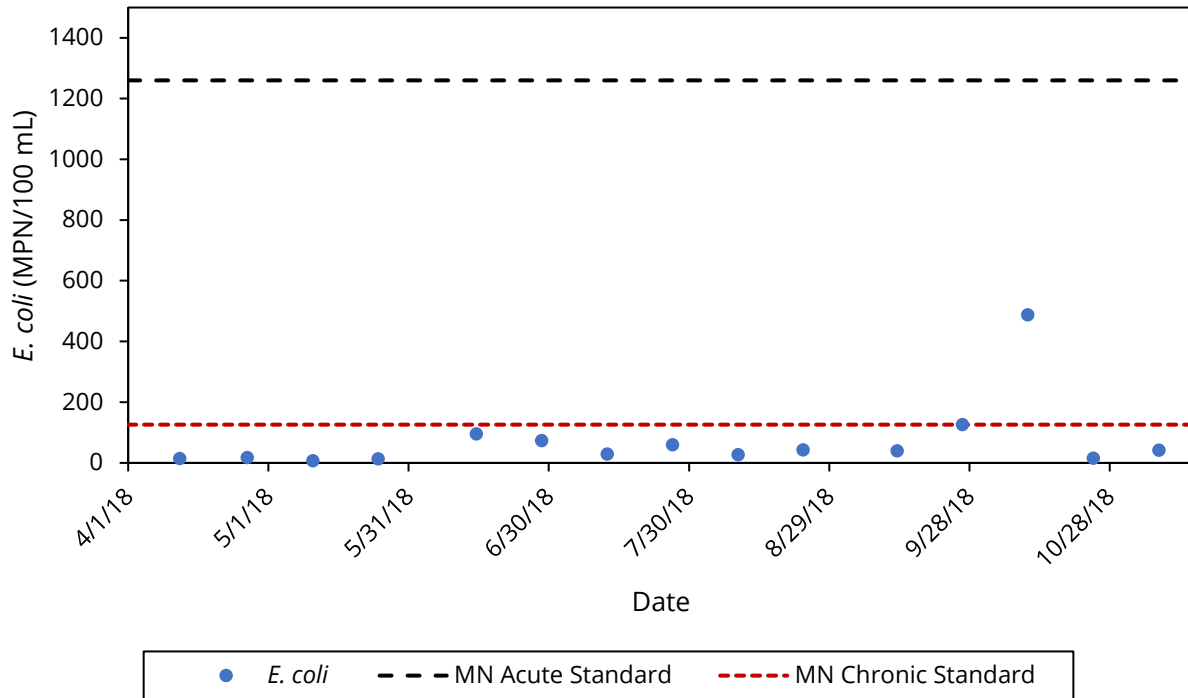


Figure 6. 2018 *E. coli* values at MR849.9W.

### MR848.1W (4300 West River Parkway)

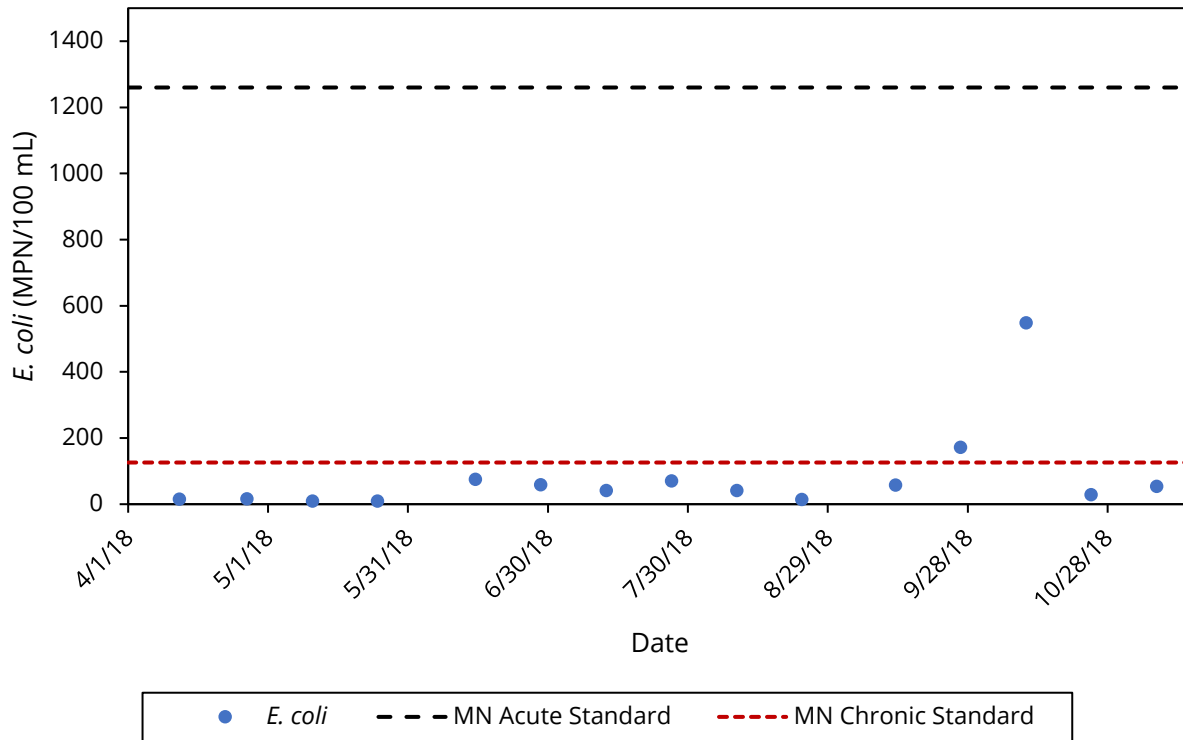


Figure 7. 2018 *E. coli* values at MR848.1W.

### All River Sites

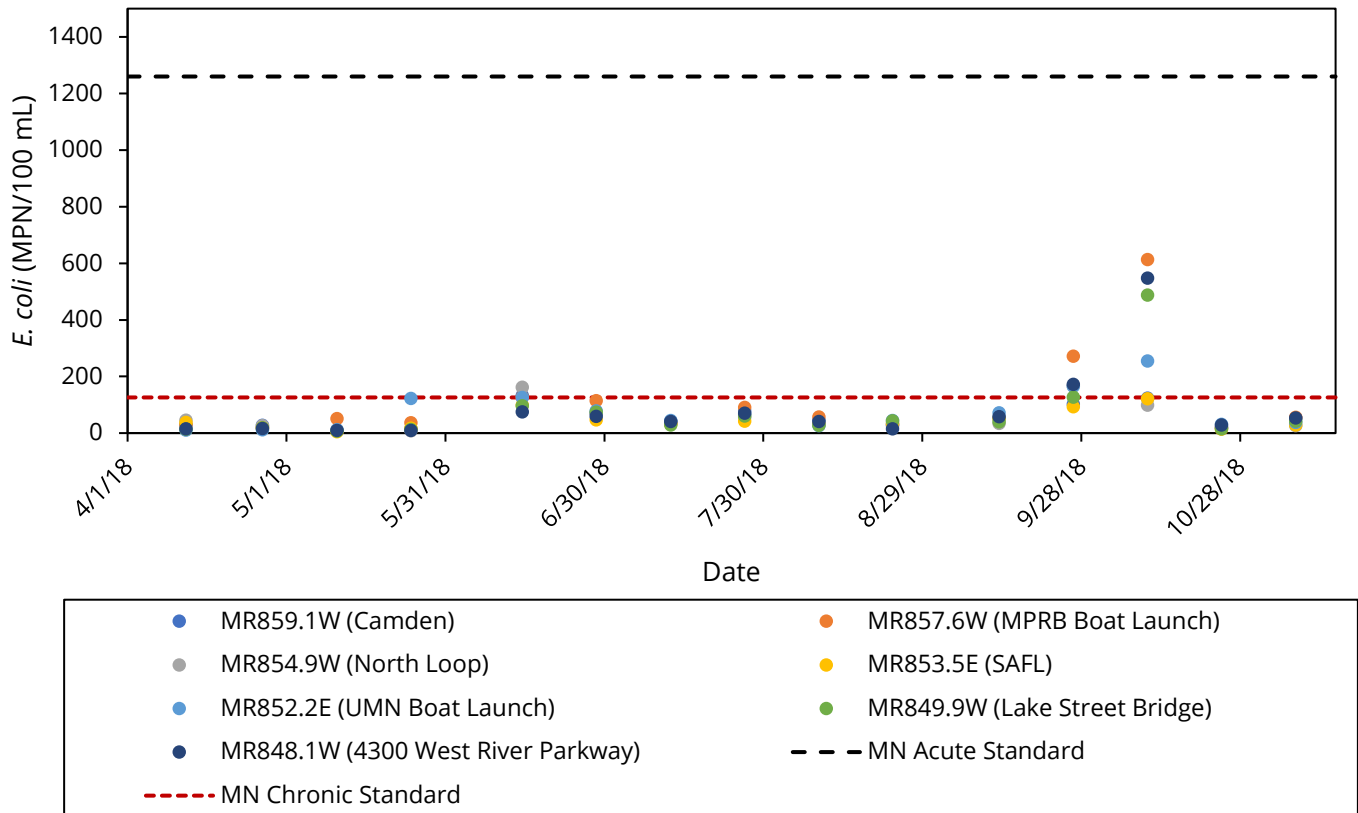


Figure 8. 2018 *E. coli* values at all sites.















