

Monthly Quality Update September 2019



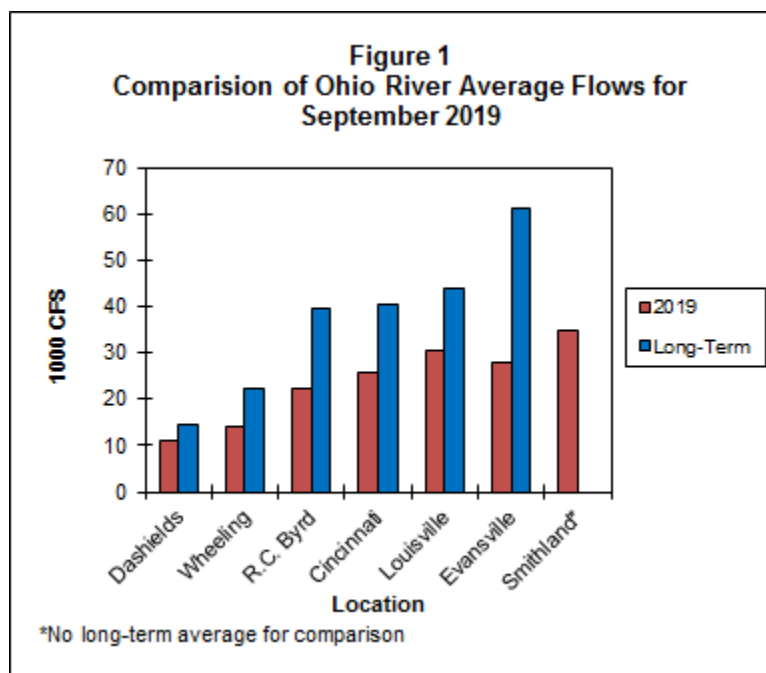
**OHIO RIVER VALLEY
WATER SANITATION COMMISSION**

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Flows

Average flows at seven Ohio River locations are displayed below. At each location the September 2019 average flow (black bar) is contrasted with the long-term average monthly flow (gray bar). Flows were significantly higher at all locations during the month of September.



Bacteria

The bacteria monitoring results from six Ohio River locations in September 2019 are in the attached graphs. There are thirteen sites being sampled and West Virginia is the only state that has both Fecal Coliform and *E.coli* results. ORSANCO's water quality criteria for the protection of human health during the contact recreation season are:

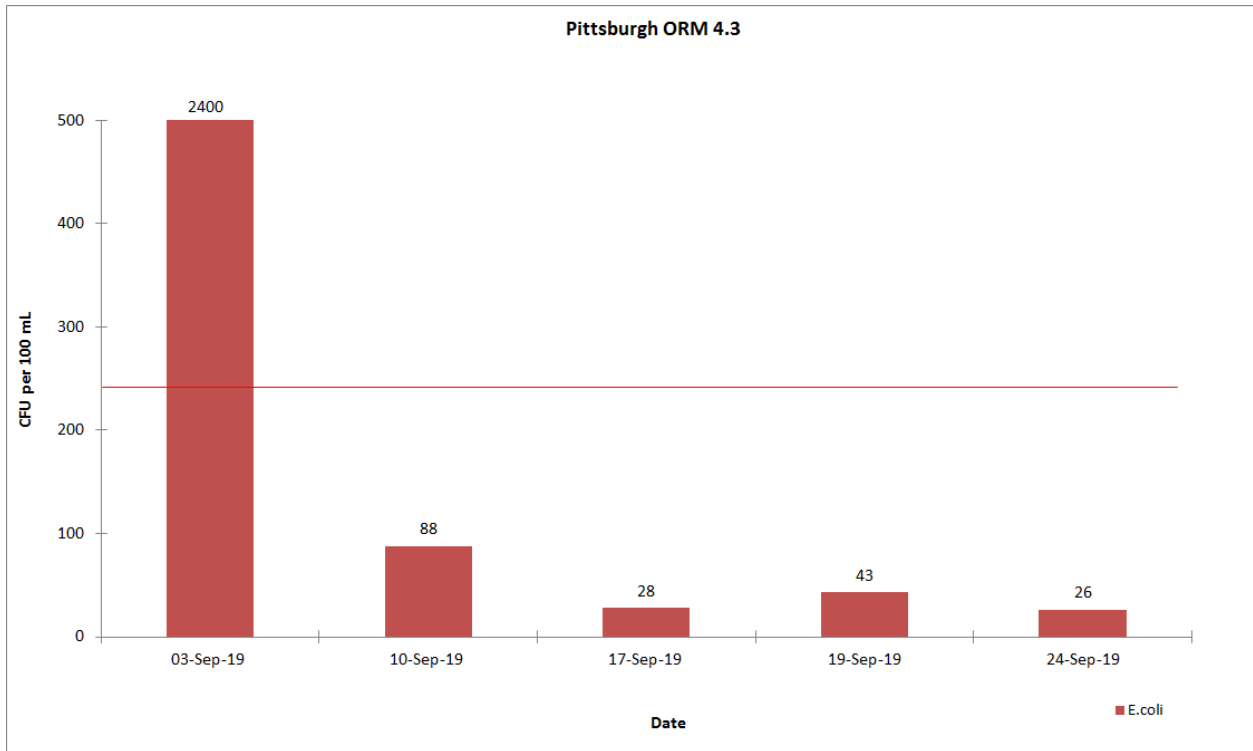
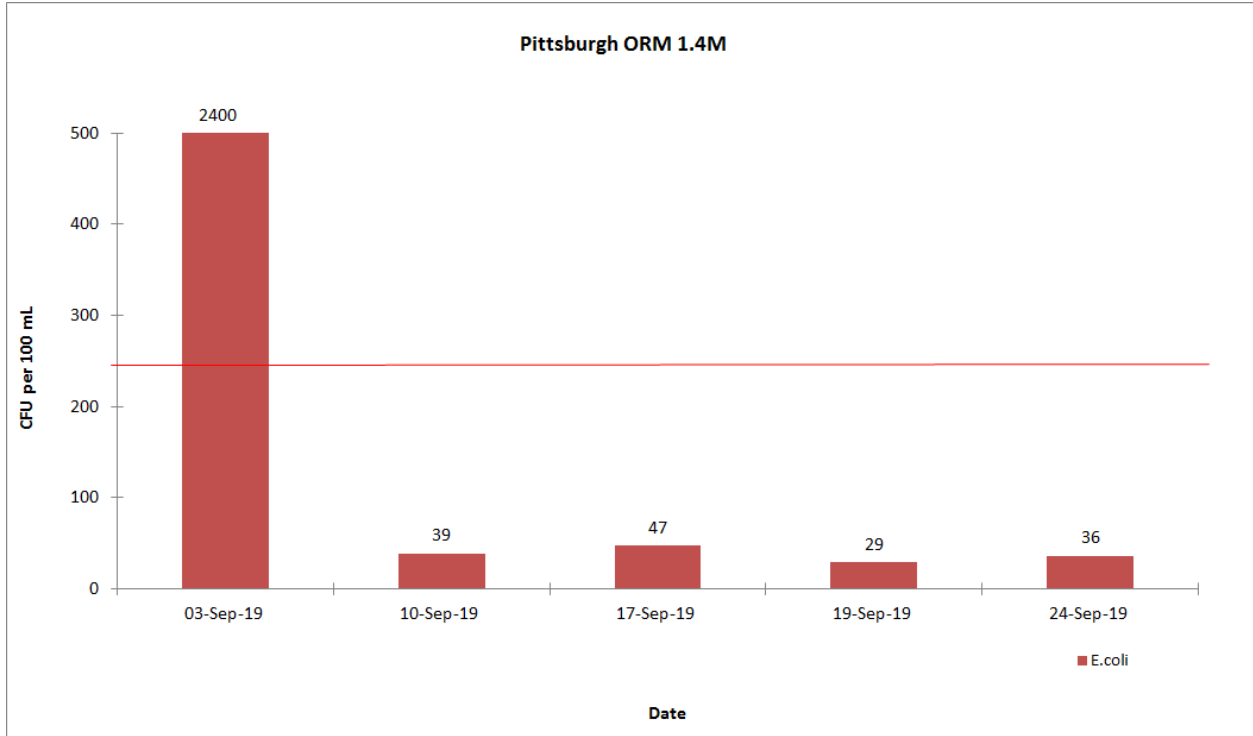
- *E. coli* count is not to exceed 240 CFU/100mL in more than 25 percent of samples. (*E.coli* is shown with a red line on the graph.)
- *E. coli* shall not exceed 130 CFU/100mL as a 90-day geometric mean, based on not less than five samples per month.

ORSANCO's water quality criteria for the protection of public water supply year round are:

- Fecal Coliform shall not exceed 2,000/100mL as a monthly geometric mean based on not less than five samples per month.

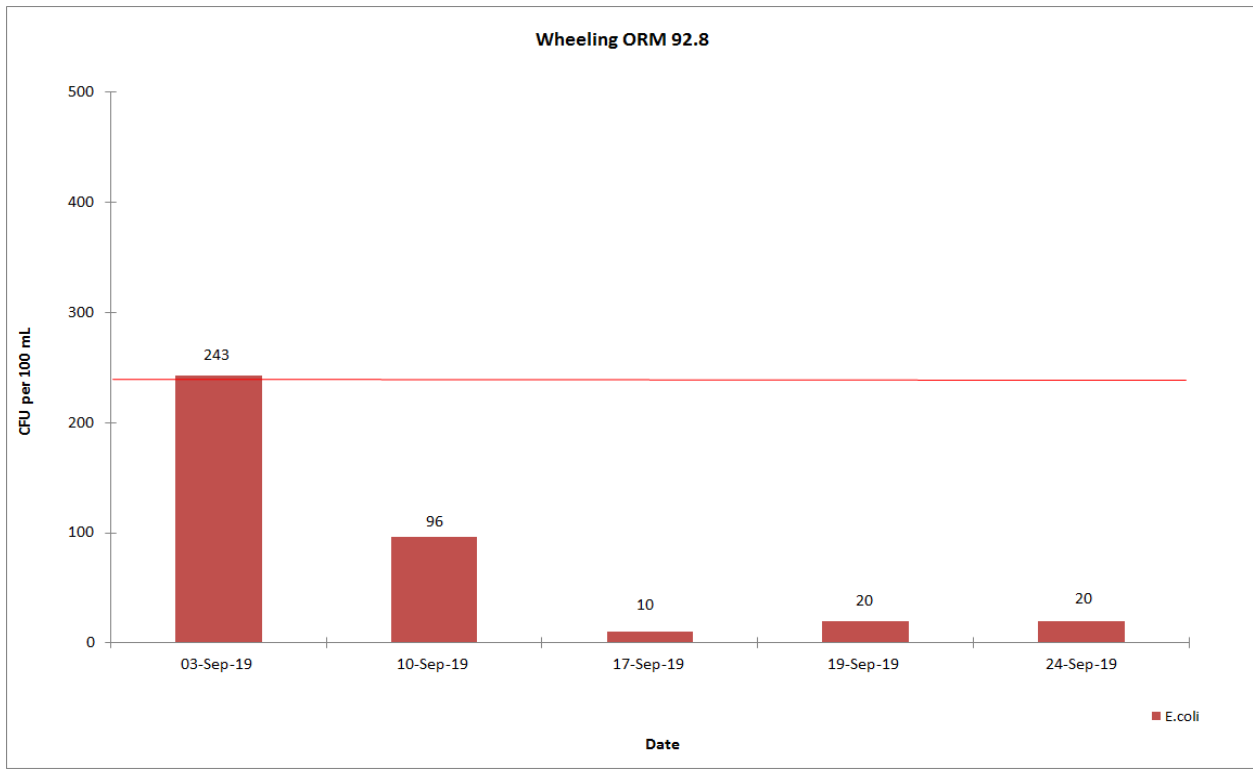
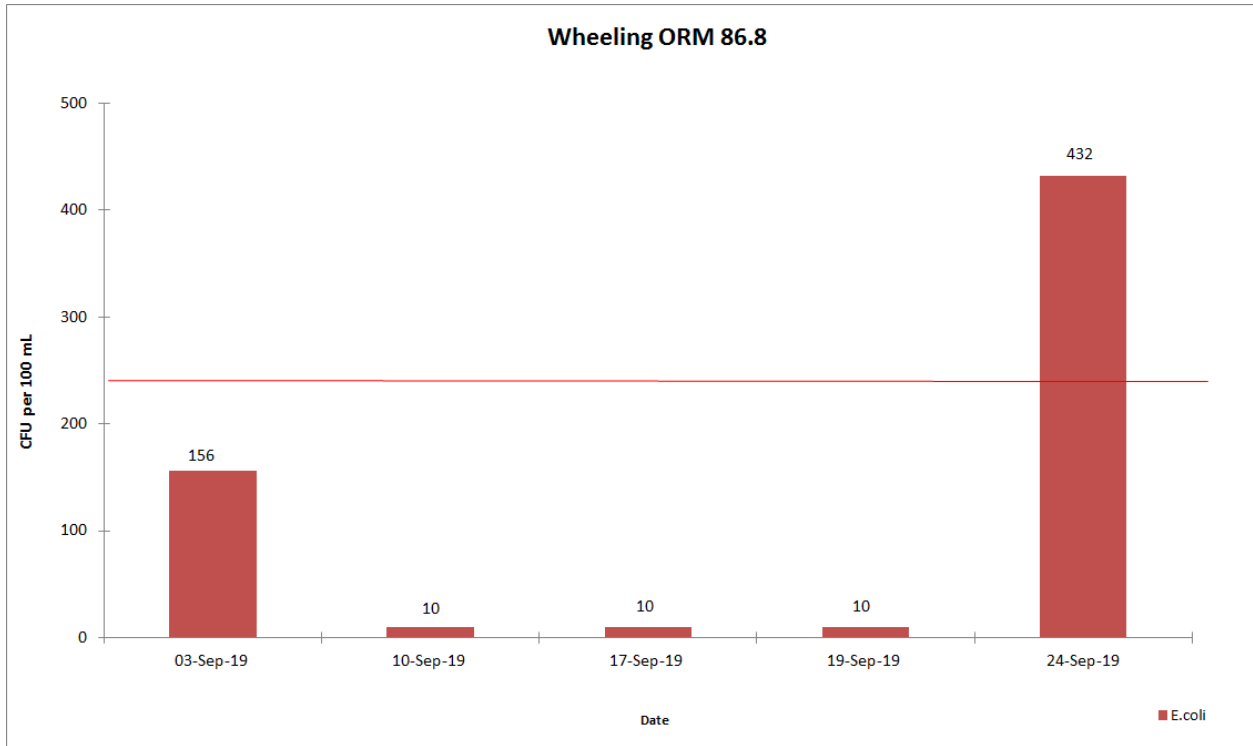
Pittsburgh

In Pittsburgh, ORM 1.4M and ORM 4.3 both had one individual exceedance for *E.coli*.



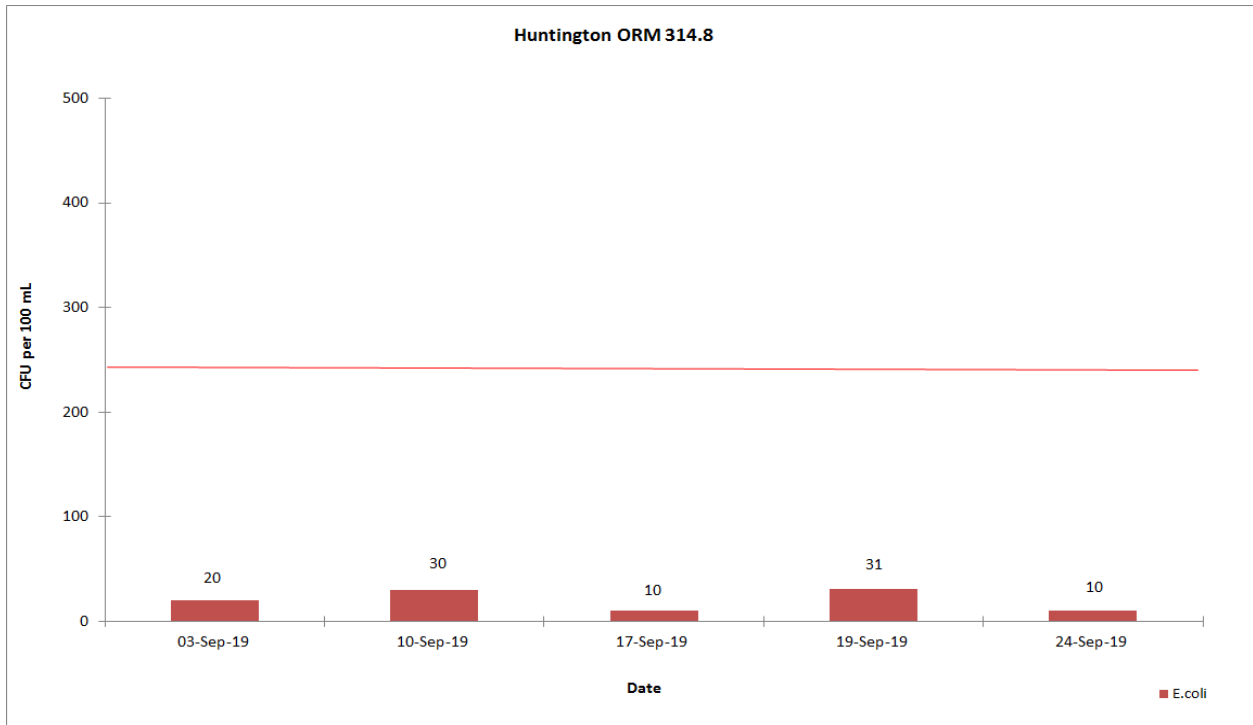
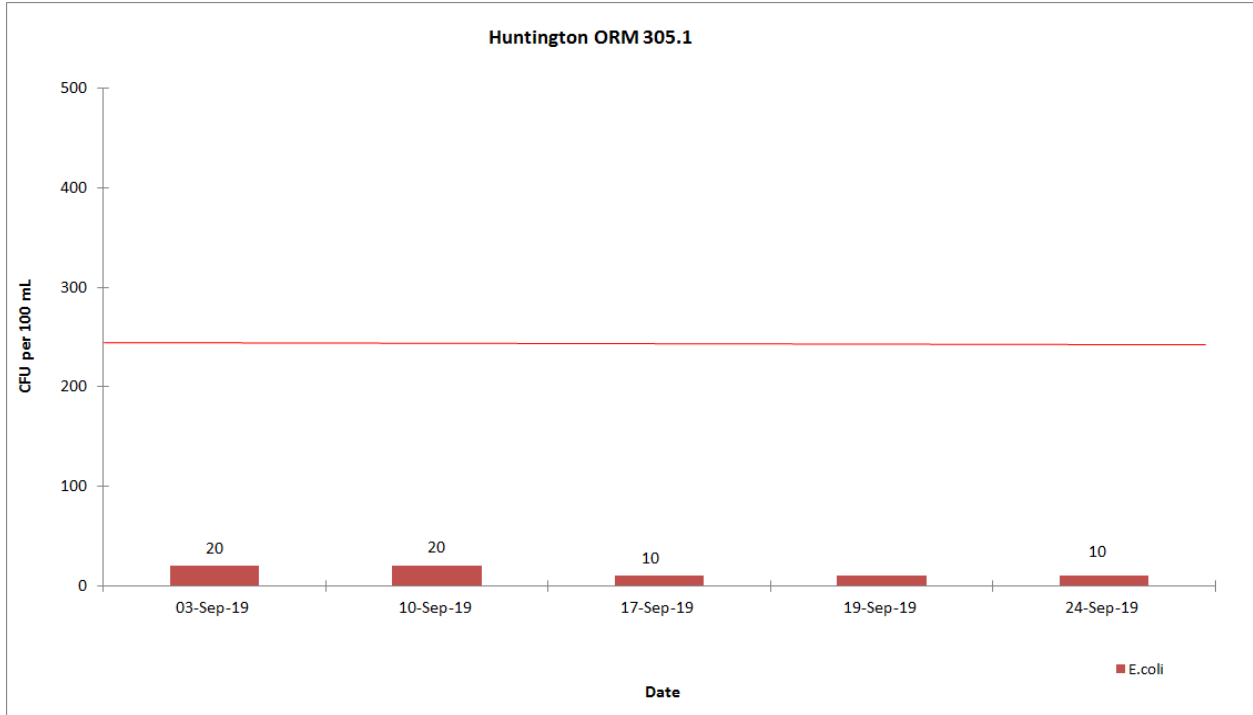
Wheeling

In Wheeling, ORM 86.8 and 92.8 both had one individual exceedance for *E.coli*.



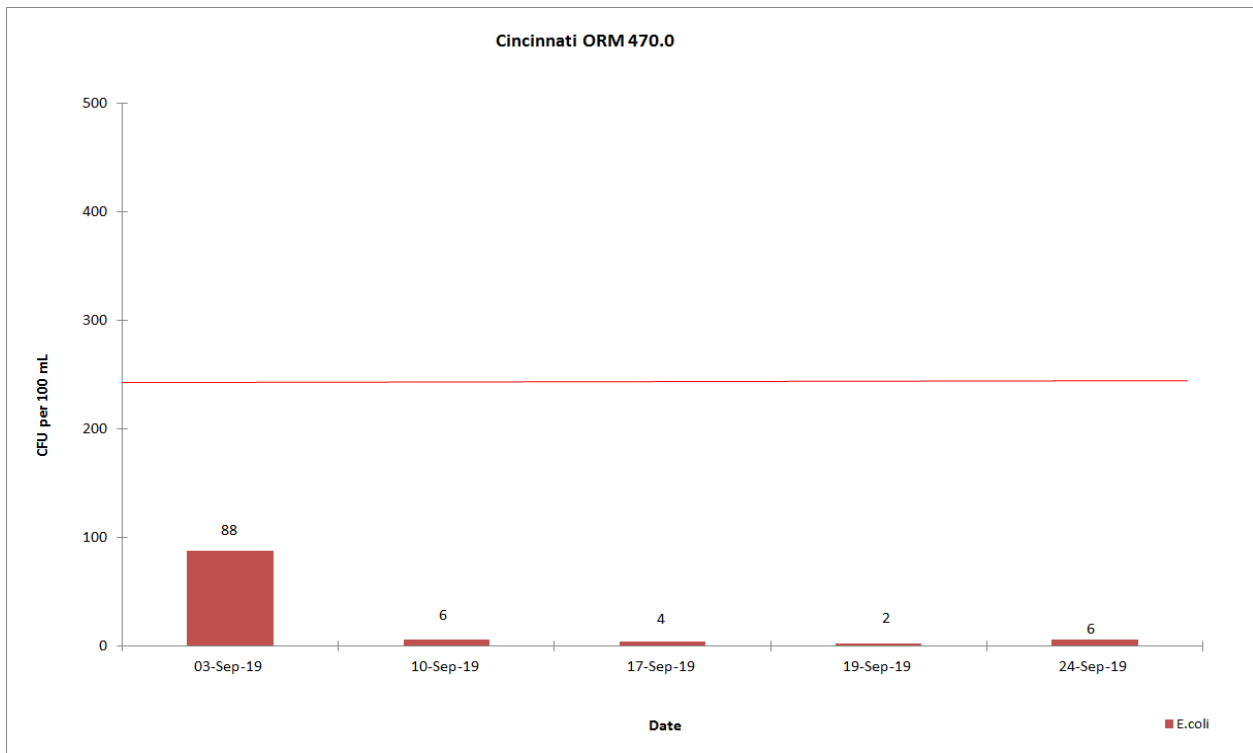
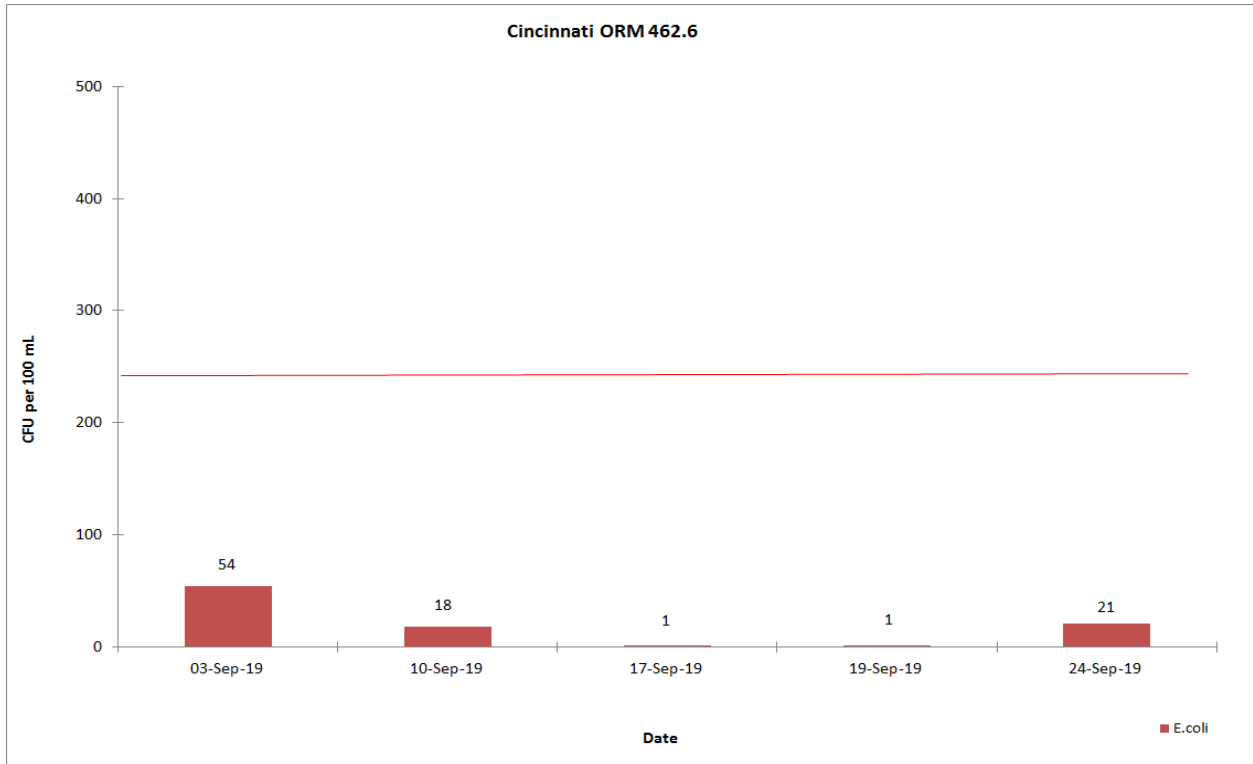
Huntington

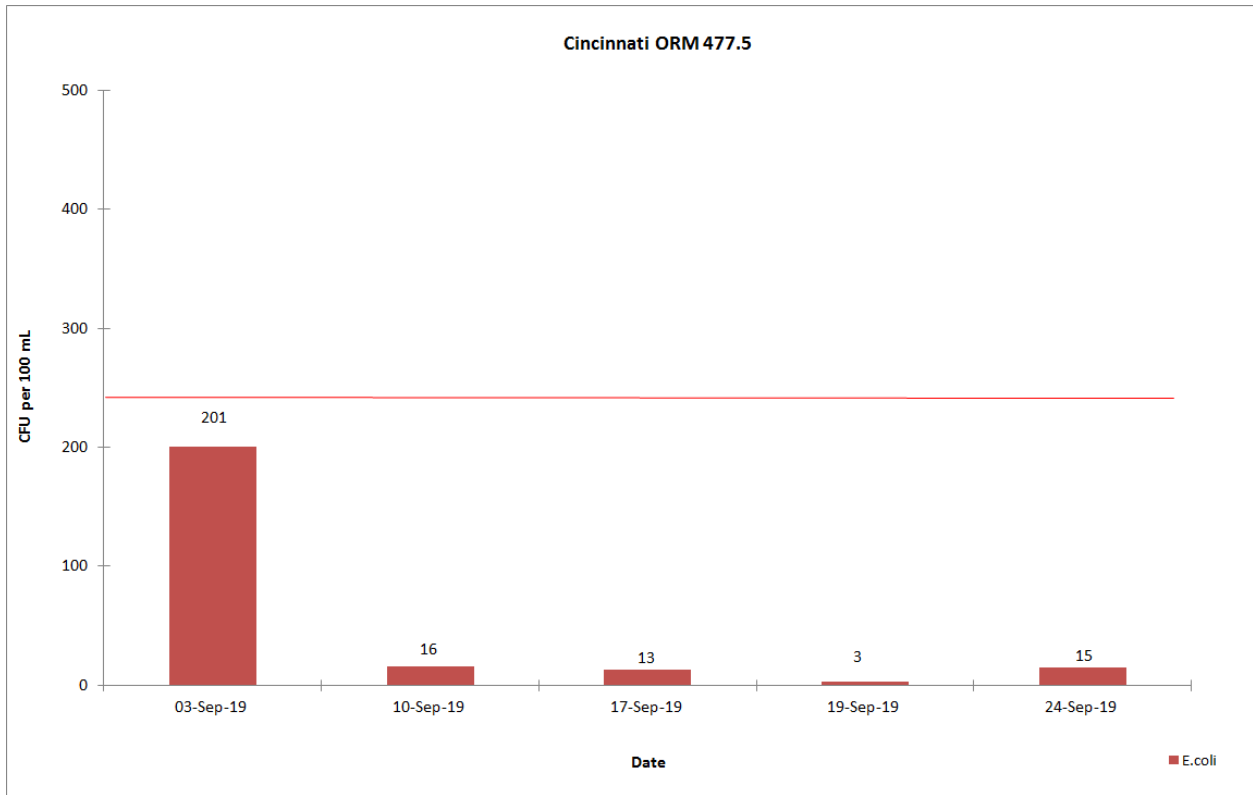
In Huntington, ORM 305 and ORM 314.8 did not exceed the *E.coli* criteria.



Cincinnati

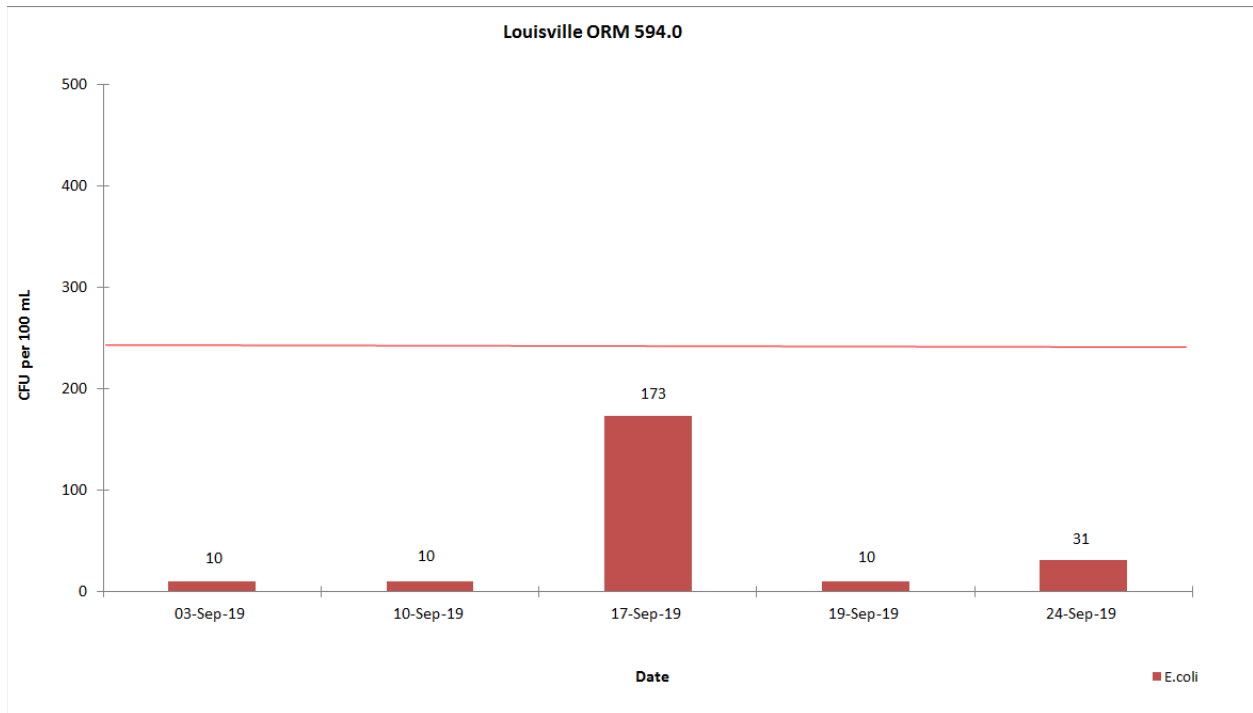
In Cincinnati, ORM 462.6, 470.0, and 477.5 did not exceed the *E.coli* criteria

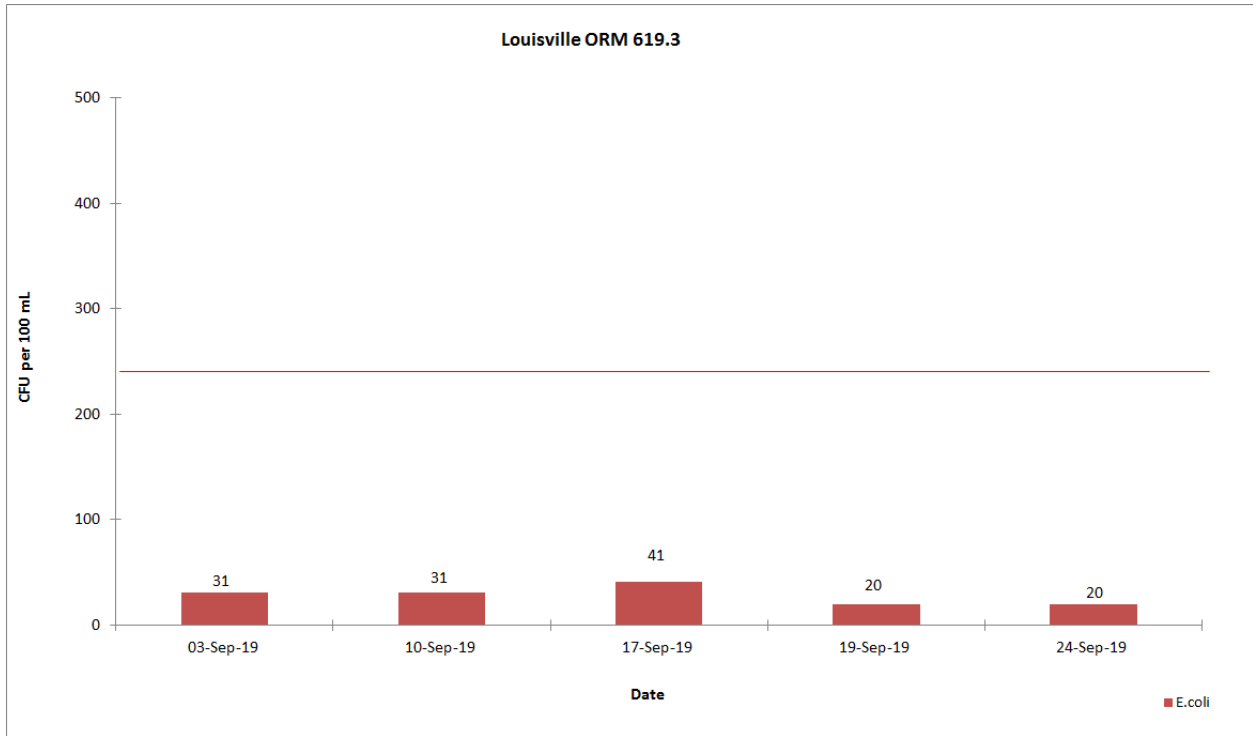




Louisville

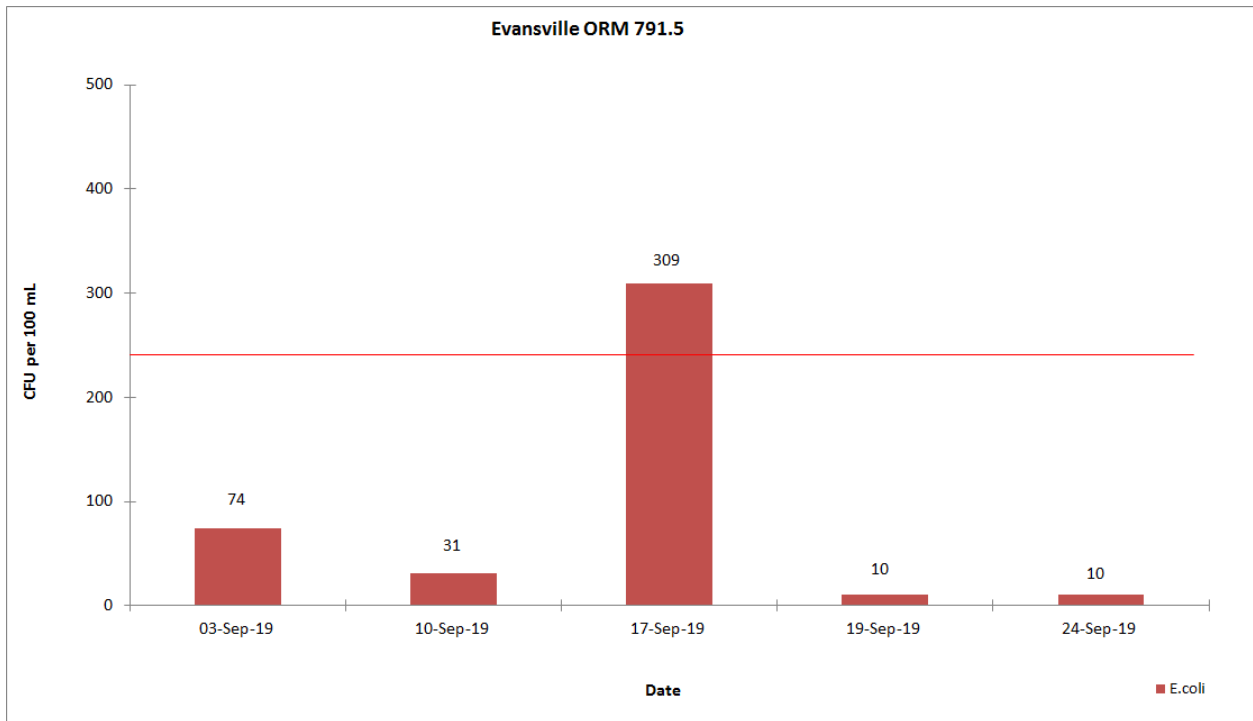
In Louisville, ORM 594.0 and 619.3 did not exceed the *E.coli* criteria.

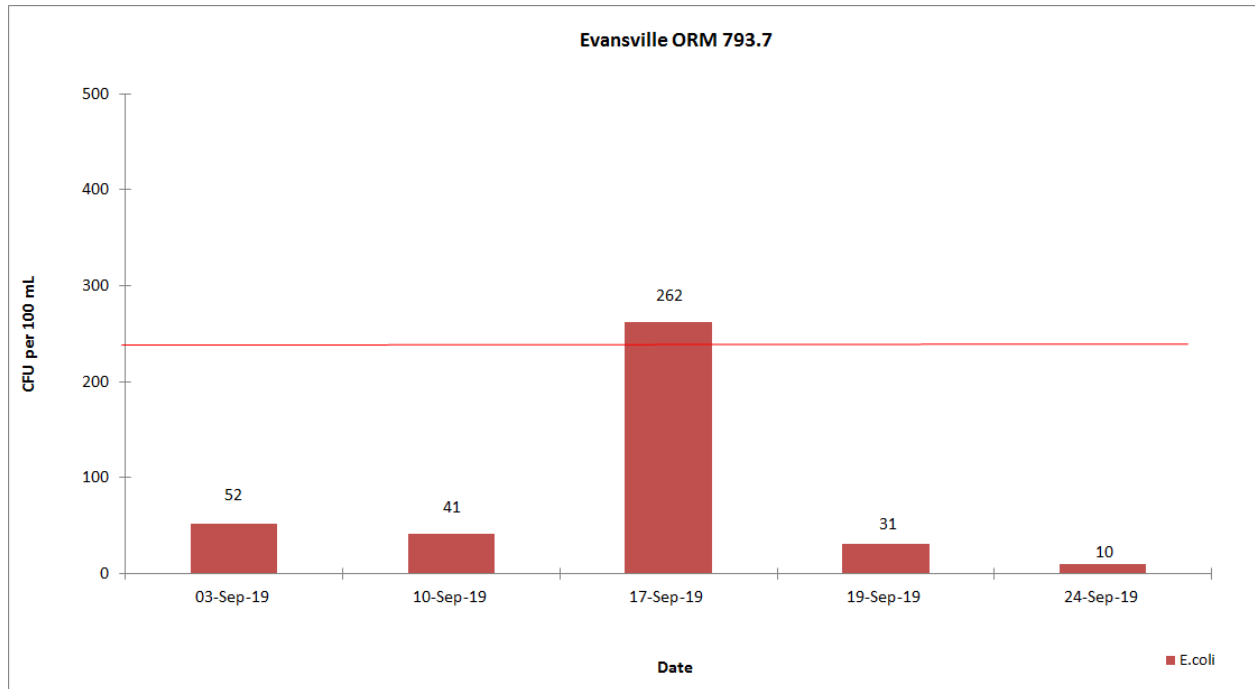




Evansville

In Evansville, ORM 791.5 and ORM 793.7 both had one individual exceedance for *E.coli*.





Dissolved Oxygen and Temperature

A summary of the dissolved oxygen and temperature readings collected in September 2019 are displayed in the attached tables. During the months of May through October, ORSANCO interrogates eleven stations for dissolved oxygen (D.O.) and temperature data once per day, Monday through Friday, for the previous 24-hour period. This data is compiled in-house to produce a report showing the minimum, maximum and average of the acquired D.O. and temperature readings. This year Olmstead was added and the results are instantaneous data. ORSANCO's water quality criteria for the protection of warm water aquatic life habitat are:

- The minimum D.O. concentration shall not be less than 4.0 mg/L at any time.
- Average D.O. concentration shall be at least 5.0 mg/L for each calendar day.
- During the April 15 – June 15 spawning season, a minimum D.O. concentration of 5.0 mg/L shall be maintained at all times.
- The monthly average of the daily maximum for September 1-15 is:
 - 87.0 °F at MP 0 to MP 341.
 - 87.0 °F at MP 341.1 to MP 606.8.
 - 87.0 °F at MP 606.9 to MP 981
- The monthly average of the daily maximum for September 16-30 is:
 - 81.0 °F at MP 0 to MP 341.

- 84.7 °F at MP 341.1 to MP 606.8.
- 82.6 °F at MP 606.9 to MP 981.

Kyger, Greenup, Markland and Olmsted all saw D.O. levels drop below the average of 5.0 mg/L. There were no temperature violations.

Please click on the link below to be directed to the DO/Temperature tables for August 2019:
<http://www.orsanco.org/dissolved-oxygen-and-temperature>

Atrazine

Evansville drinking water utility samples the Ohio River at their intake and analyzes for atrazine by immunoassay technique. Results for September 2019 are presented below. Evansville had no criteria violations of the Maximum Contaminant Level (MCL) of 3.0 ug/L set by the Safe Drinking Water Act for finished drinking water.

