

# Monthly Quality Update October 2018



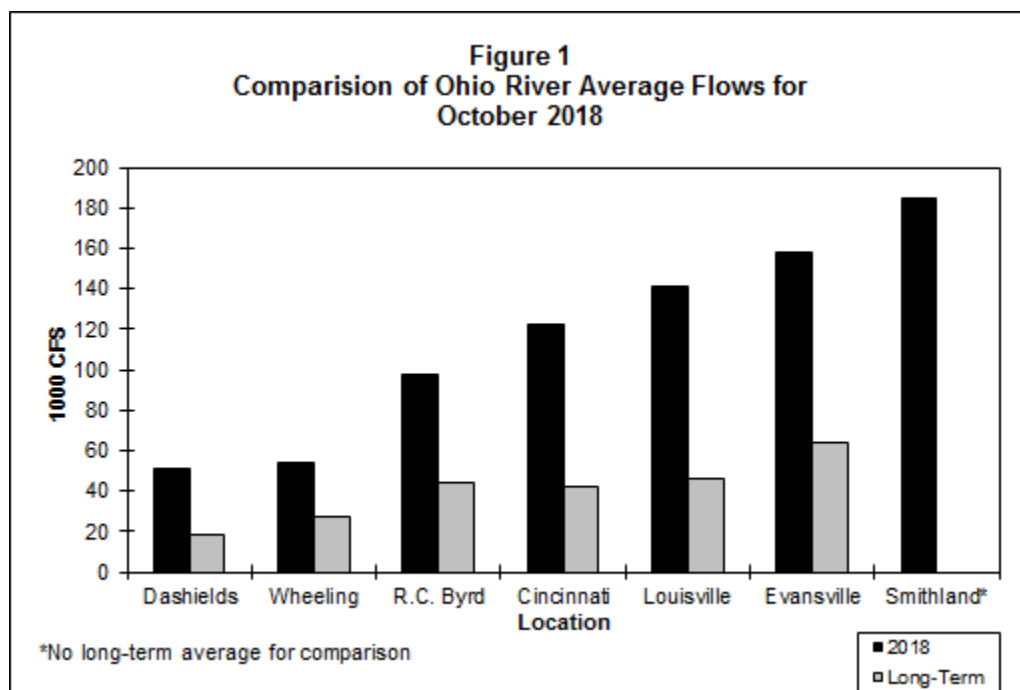
## OHIO RIVER VALLEY WATER SANITATION COMMISSION

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# Flows

Average flows at seven Ohio River locations are displayed below. At each location the October 2018 average flow (black bar) is contrasted with the long-term average monthly flow (gray bar). All monthly average flows were well above the long-term average flows at every station.



# Bacteria

The bacteria monitoring results from six Ohio River locations in October 2018 are in the attached graphs. Beginning with the 2018 Contact Recreation season (April through October), 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:

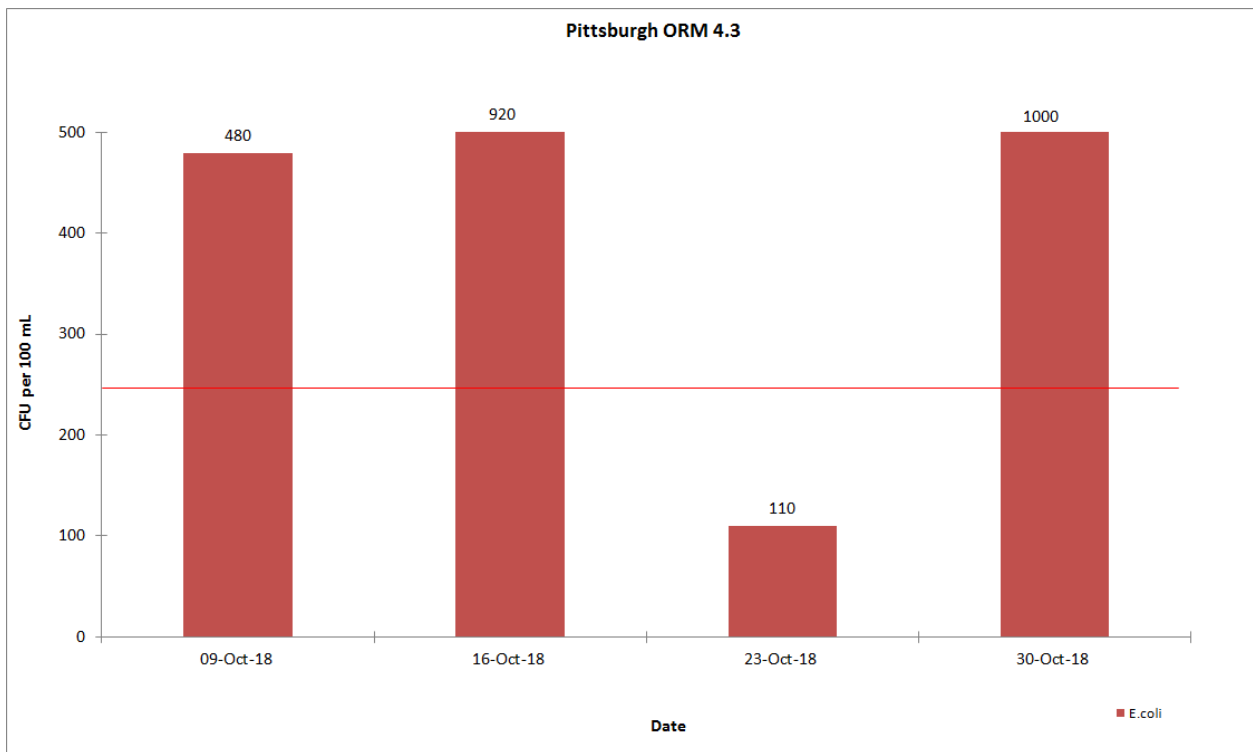
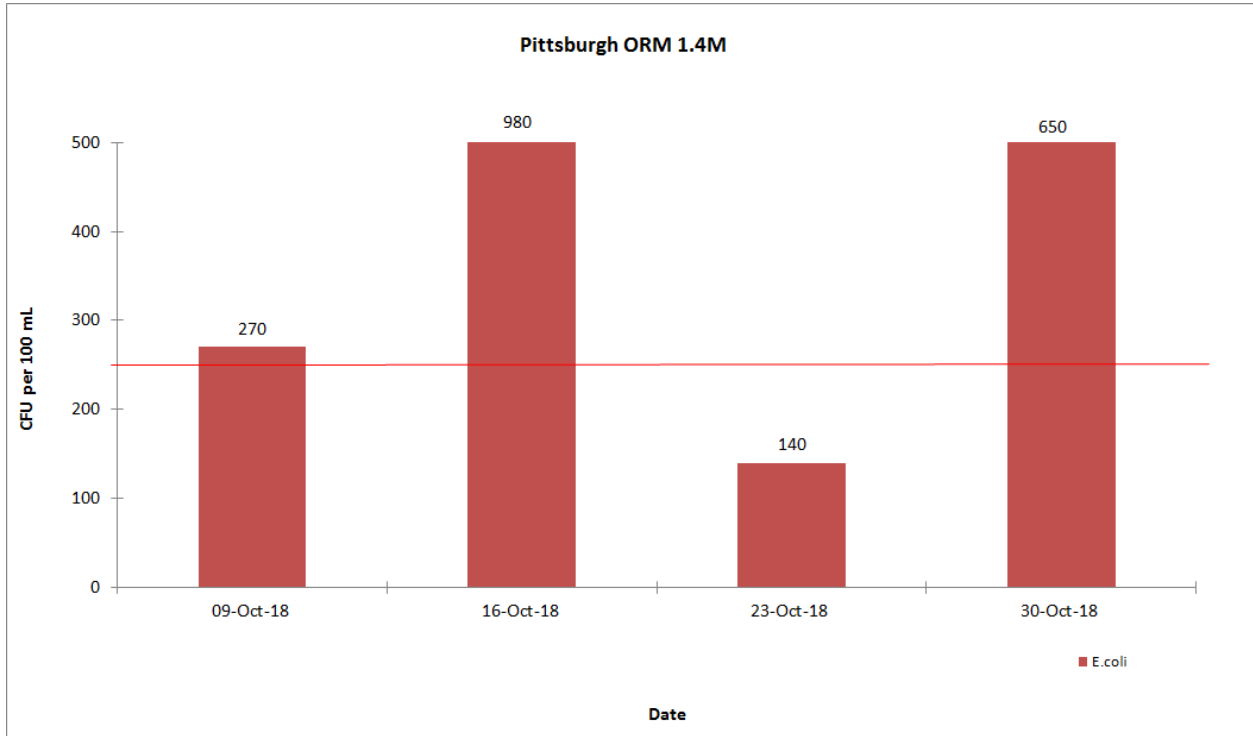
- *E. coli* count is not to exceed 240 CFU/100mL in more than 25 percent of samples. (*E.coli* is shown with a red line on the graph.)
- *E. coli* shall not exceed 130 CFU/100mL as a 90-day geometric mean, based on not less than five samples per month.

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.

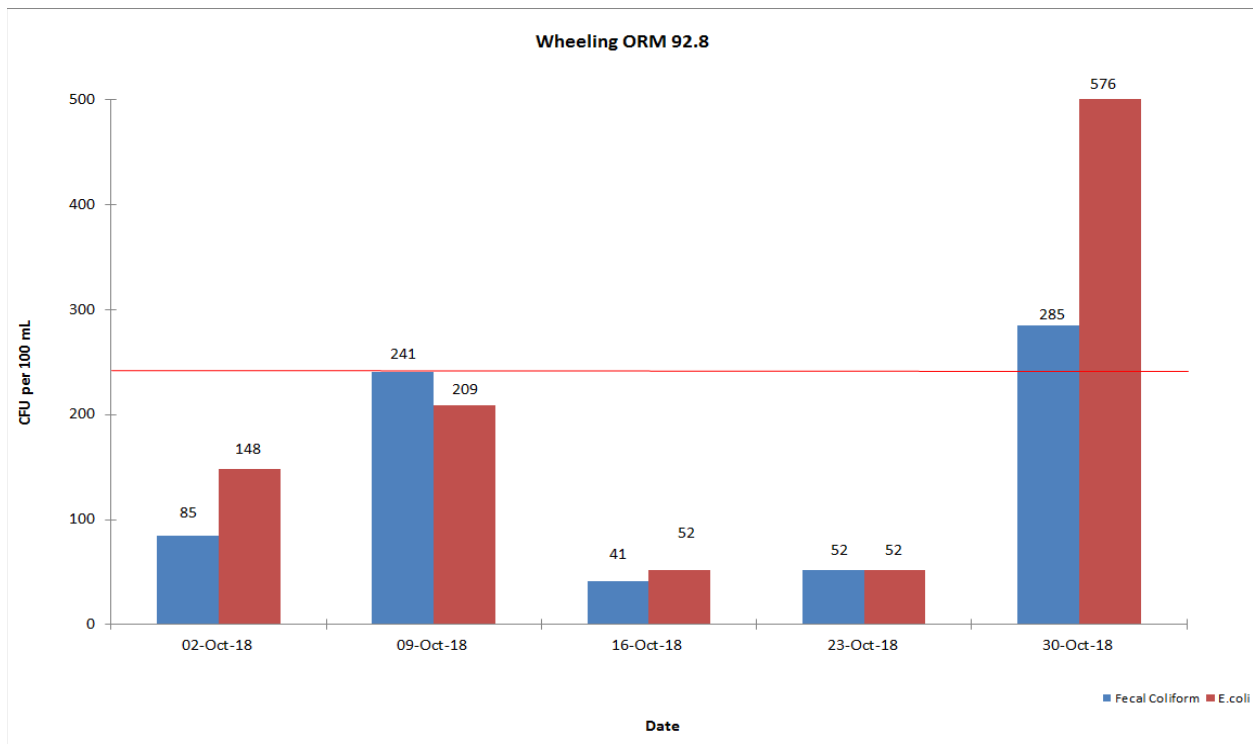
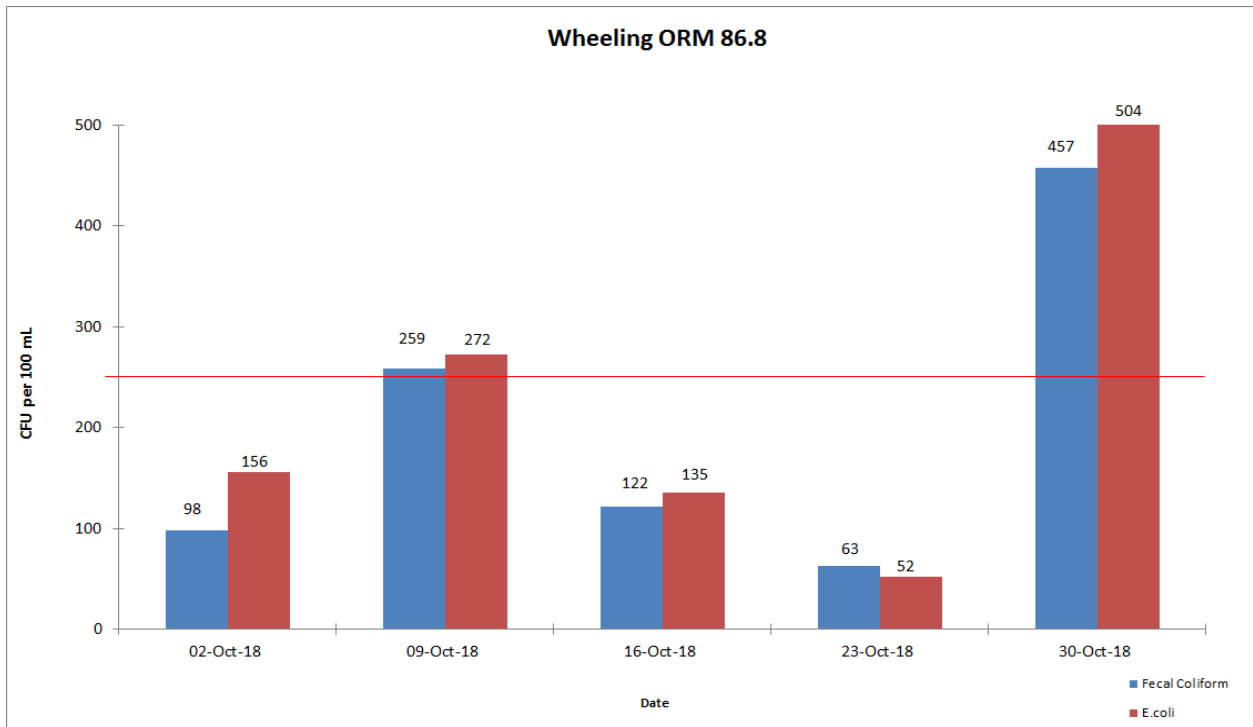
## Pittsburgh

In Pittsburgh, ORM 1.4M and ORM 4.3 both had three individual exceedances for *E.coli*. Only four samples were taken due to high water.



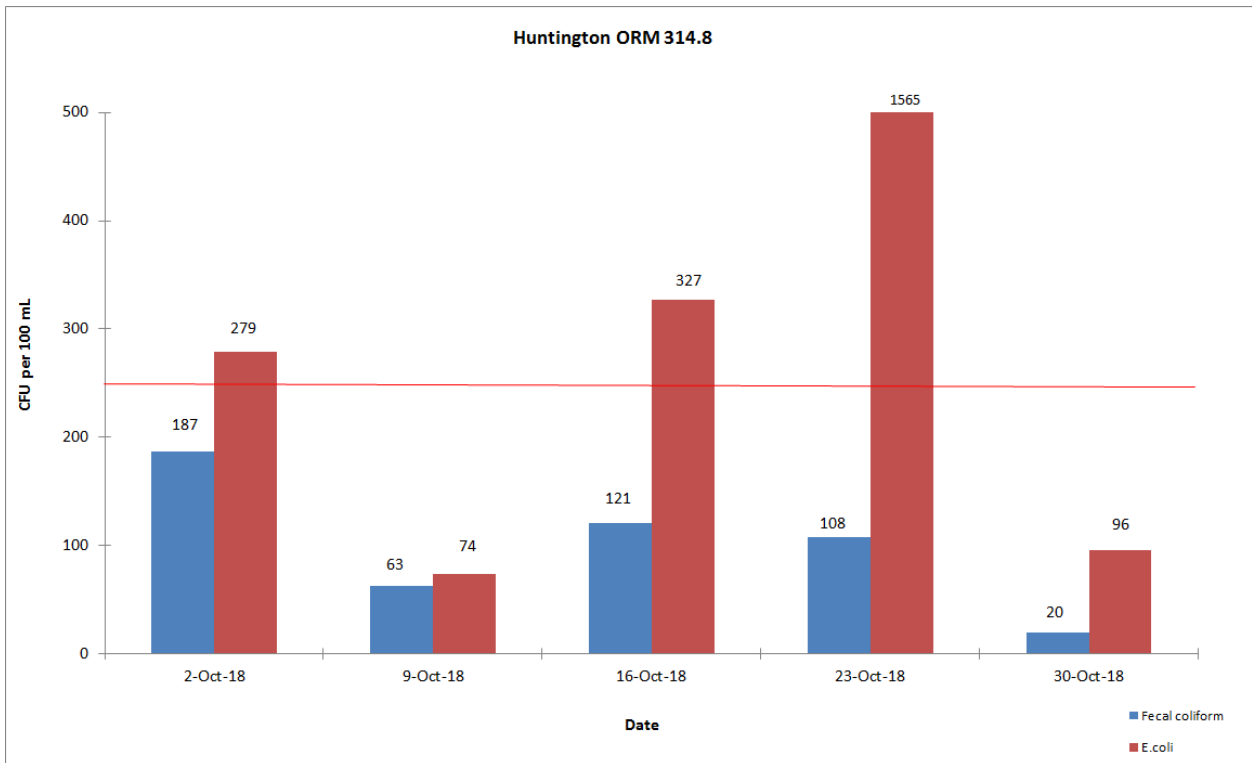
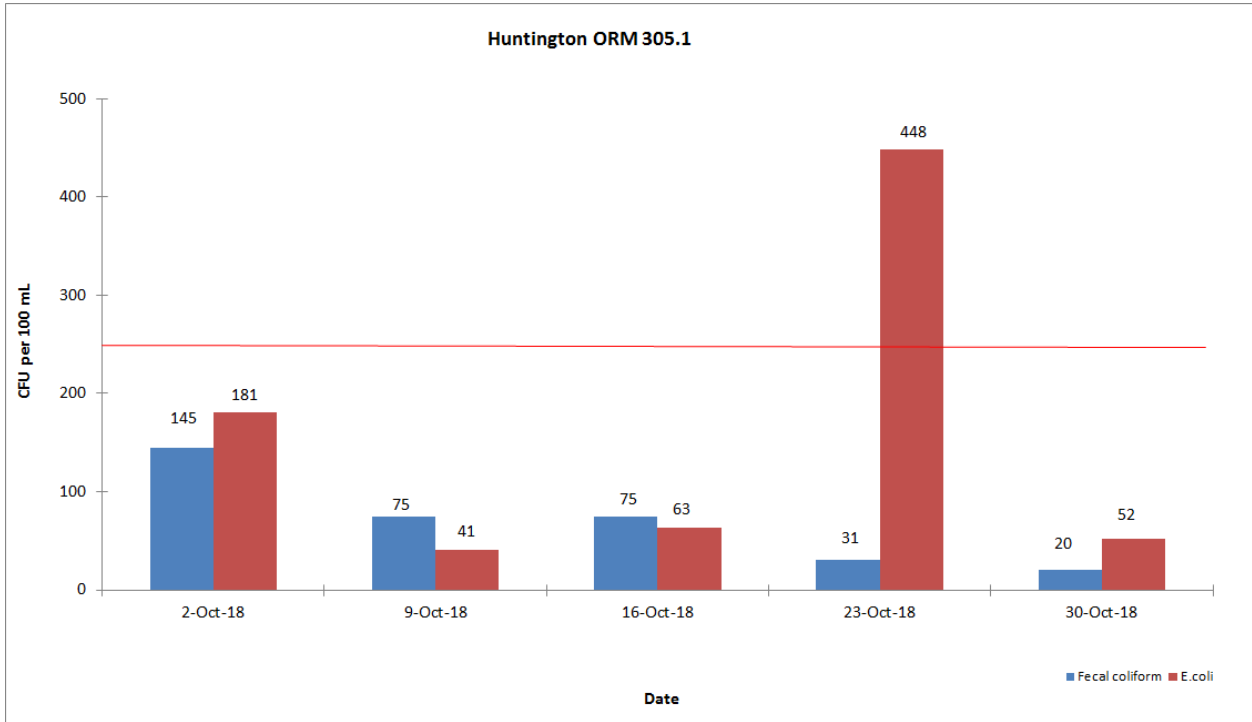
## Wheeling

In Wheeling, ORM 86.8 had two individual exceedances for *E.coli* criteria. ORM 92.8 had one individual exceedance for *E.coli*.



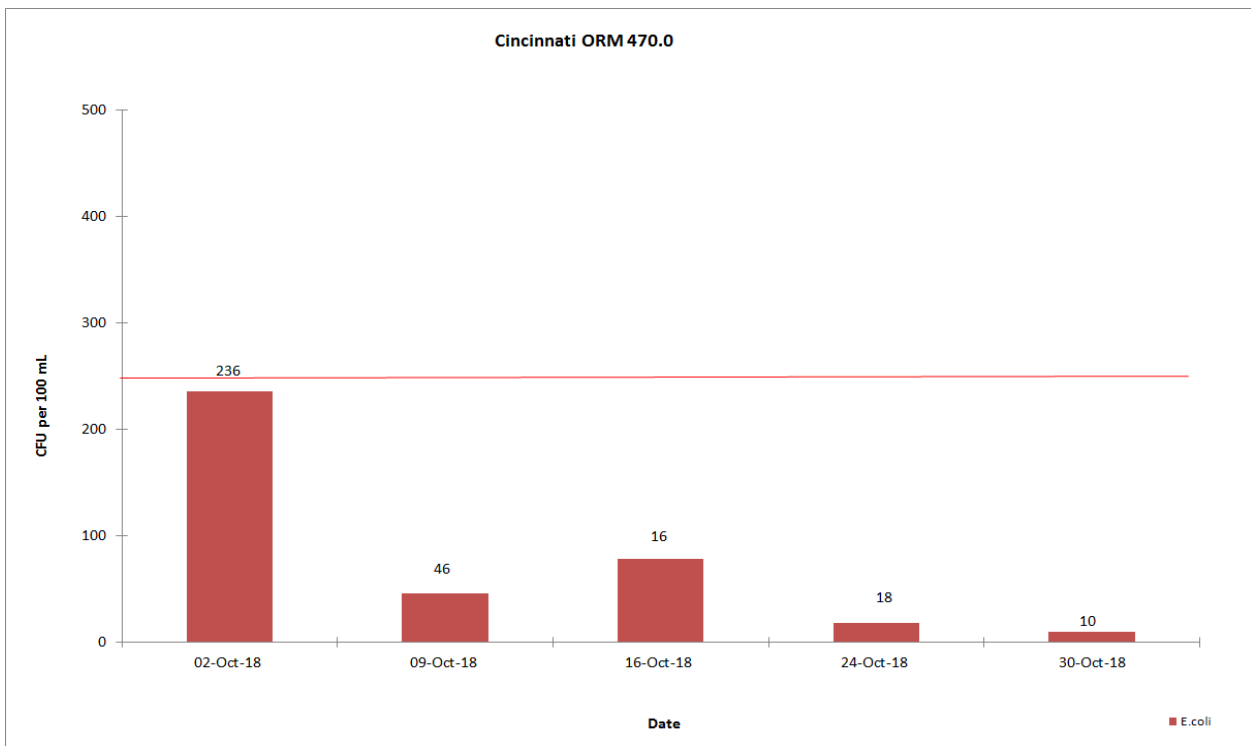
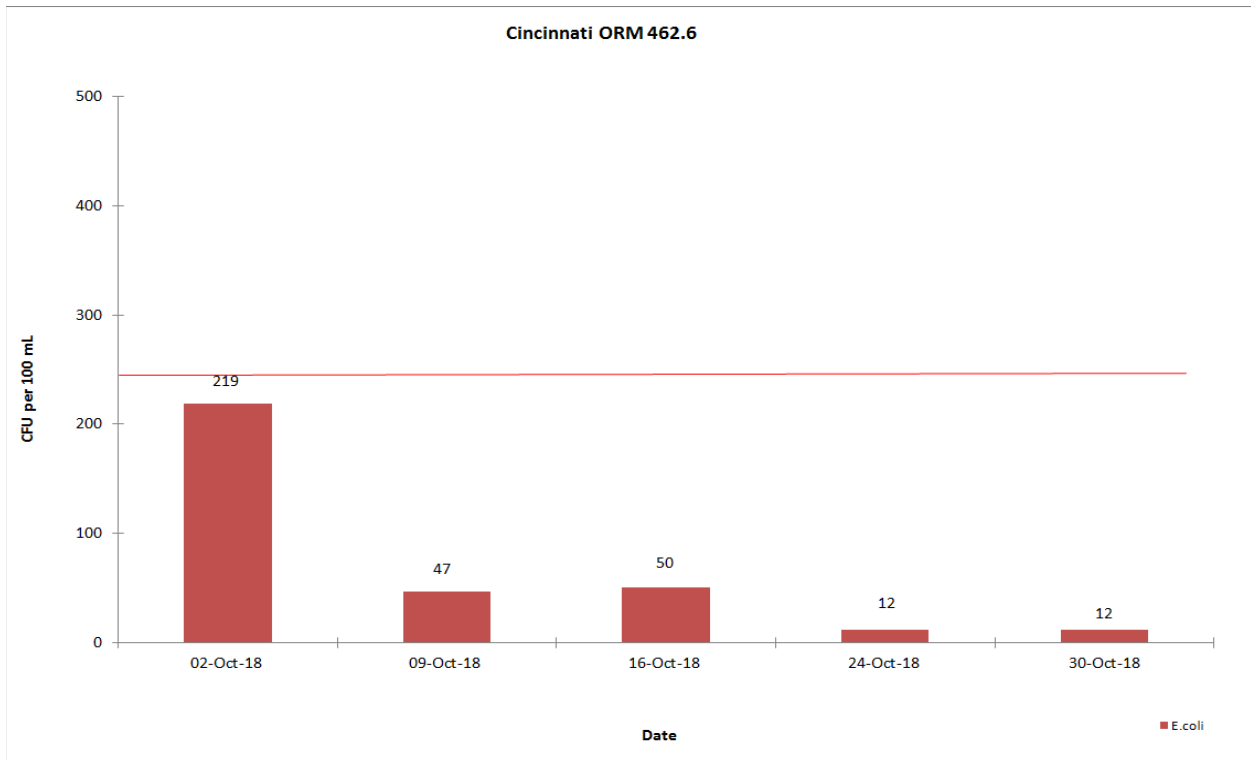
## Huntington

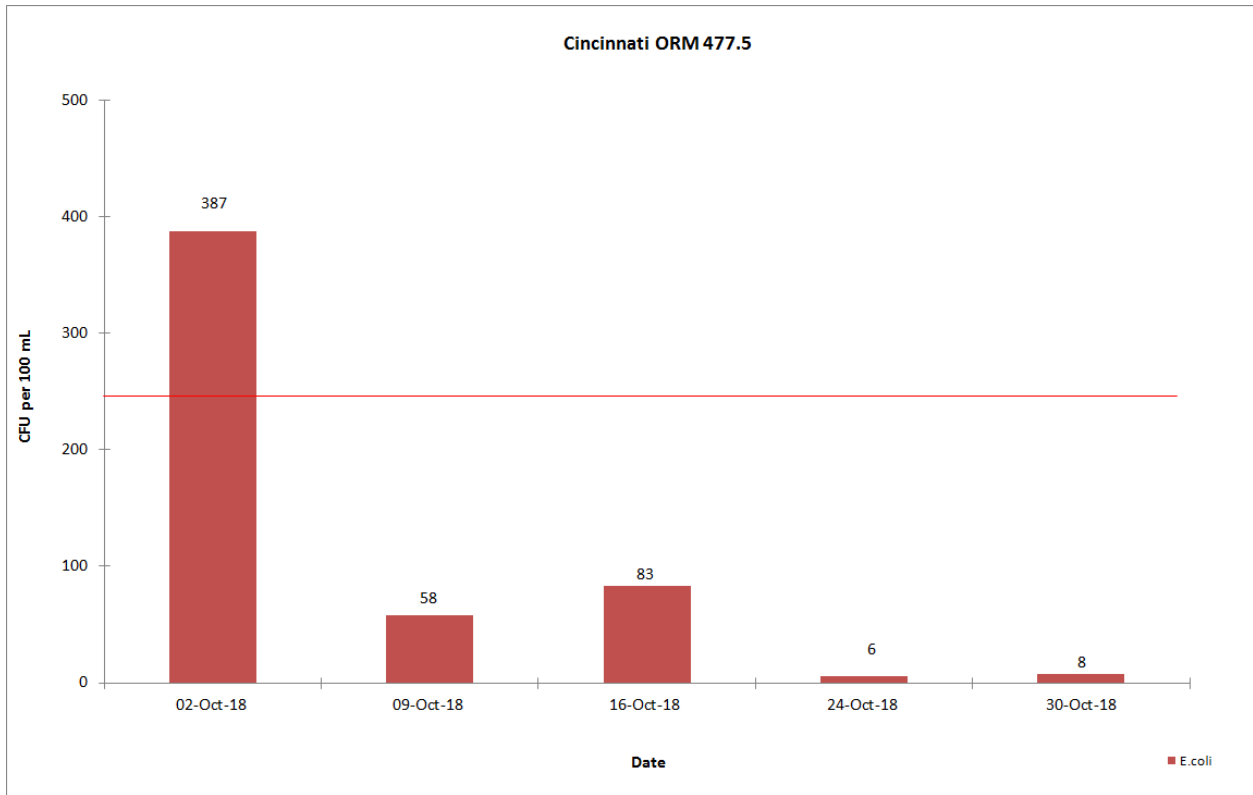
In Huntington, ORM 305.1 had one individual exceedance for *E.coli*. ORM 314.8 had three individual exceedances for *E.coli*.



## Cincinnati

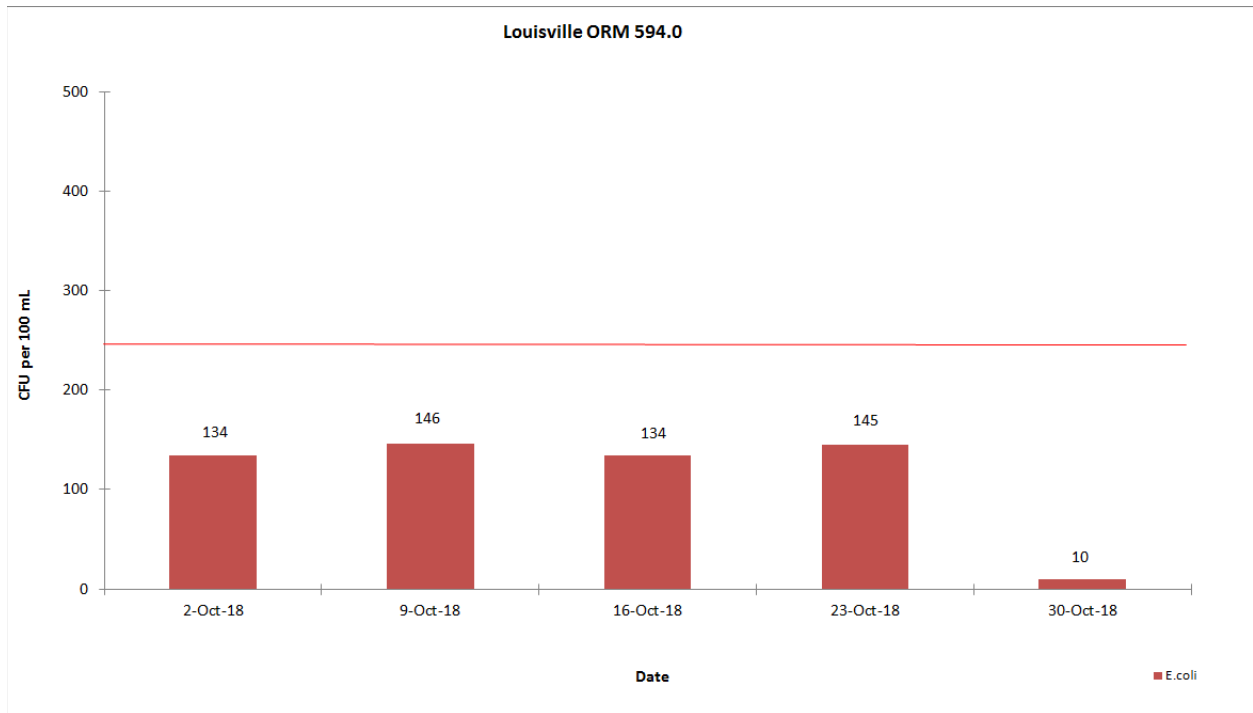
In Cincinnati, ORM 462.6 and ORM 470.0 did not exceed the *E.coli* criteria. ORM 477.5 had one individual exceedance for *E.coli*.

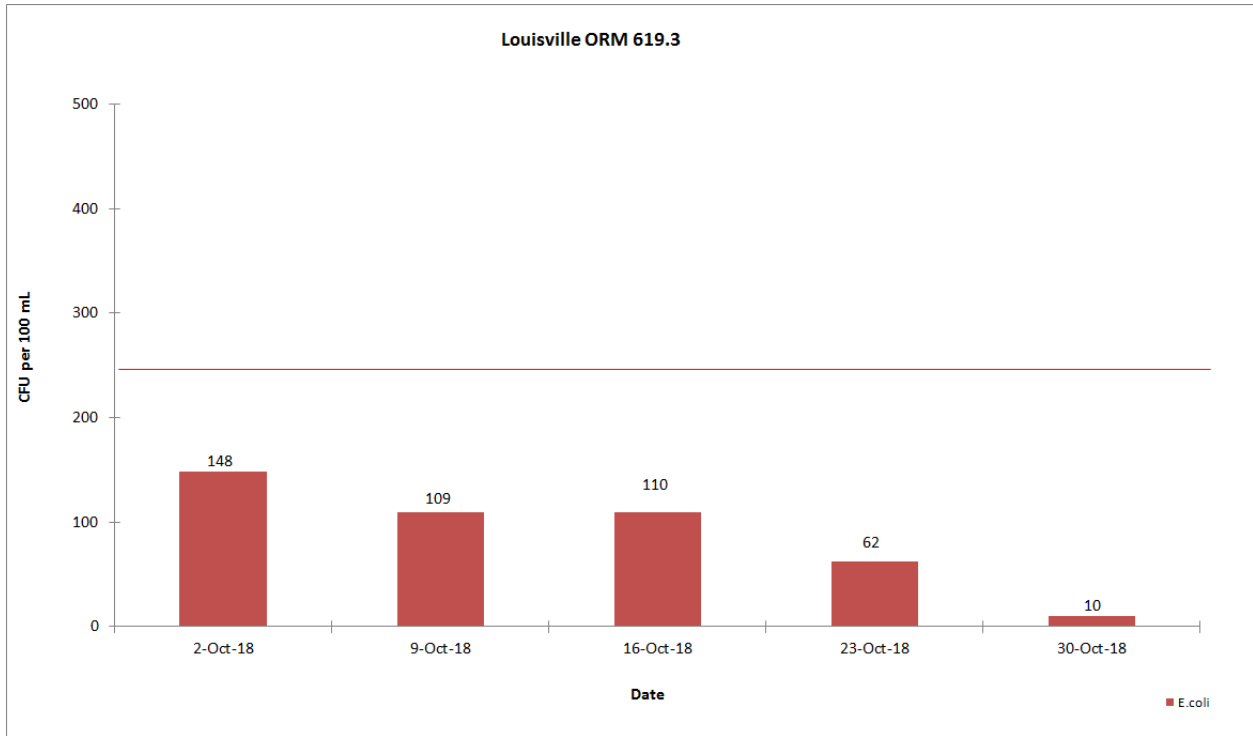




## Louisville

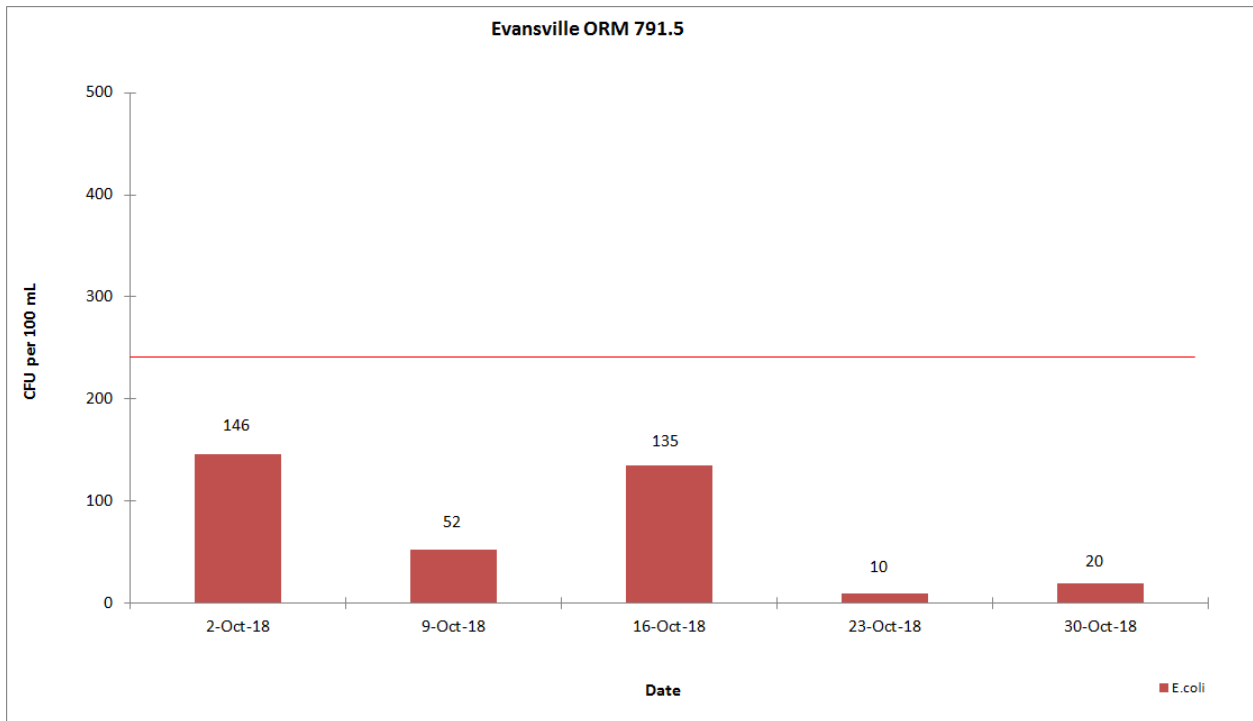
In Louisville, ORM 594.0 and ORM 619.3 did not exceed the *E.coli* criteria.



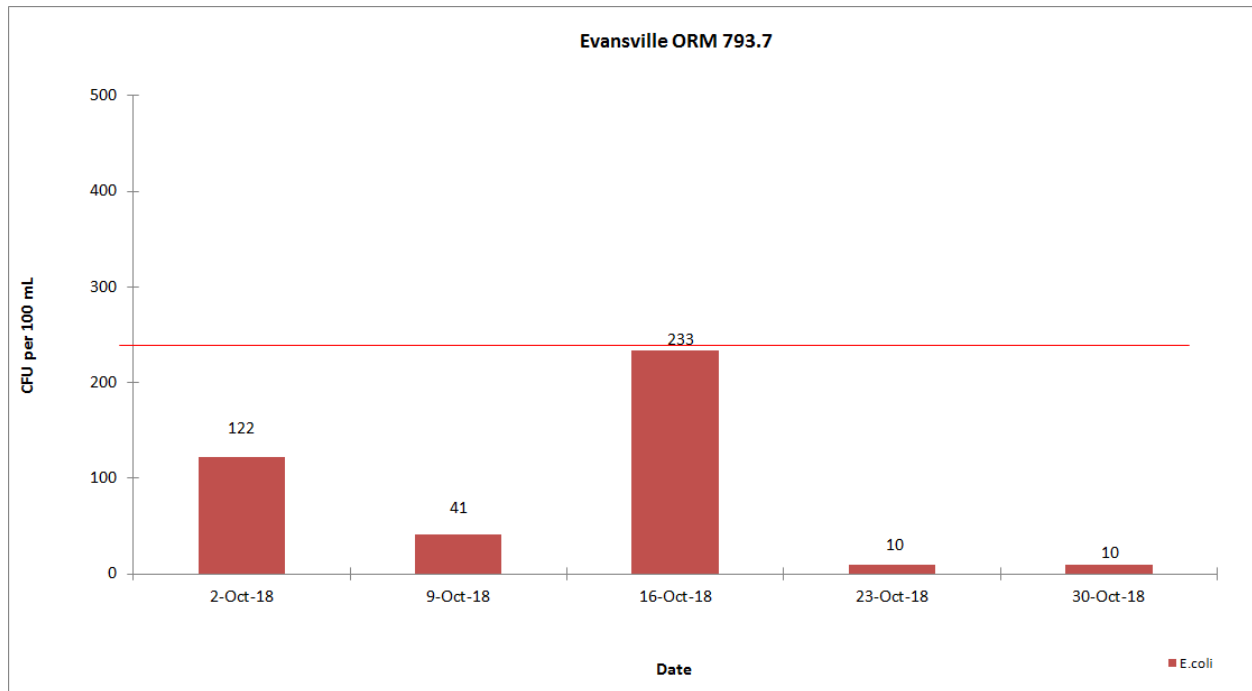


### Evansville

In Evansville, ORM 791.5 and ORM 793.7 did not exceed the *E.coli* criteria.







## **Dissolved Oxygen and Temperature**

A summary of the dissolved oxygen and temperature readings collected in September 2018 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 October 1-31 is:
  - 74.1 °F at MP 0 to MP 341.
  - 76.7 °F at MP 341.1 to MP 606.8.
  - 75.5 °F at MP 606.9 to MP 981

There were no D.O. or Temperature violations for the month of October. Kyger and McAlpine did have some instrumentation issues during the month of October.

Please click on this link to be directed to the DO/Temperature tables for October 2018:  
<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. 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.