



Recreational Beneficial Use Assessment – 2017 Yuba River Watershed

Monitoring Program Overview:

Each summer since 2007, SWAMP has monitored *Escherichia coli* (*E. coli*) in swimming holes to evaluate whether water-contact beneficial uses are being protected in the watershed. SWAMP uses the [EPA 2012 Recreational Water Quality Criteria](#) to assess water quality conditions. EPA’s water quality criteria were developed to protect swimmers and other recreators from exposure to water that contains organisms that indicate the presence of fecal contamination. To date, SWAMP and its partners have collected over 3,000 samples from 172 sites.



South Yuba River at Bridgeport

Study Area:
In 2017, SWAMP focused rotational monitoring efforts on the **Yuba River Watershed**, above Englebright Reservoir. Originating from the western slope of the Sierra Nevada in the Sacramento River Basin, the Yuba River has three forks: North, Middle, and South Yuba. The Yuba River Watershed is a popular destination for water recreational activities such as swimming, fishing and rafting. Samples were collected weekly from 7 sites throughout the watershed from June – October 2017.

Sampling Results:

E. coli results confirm that fecal contamination levels are low in the Yuba River Watershed. The average concentrations during this sample period were well below EPA’s water quality criteria. Only two samples out of 83 collected were higher than the 2012 EPA statistical threshold value (STV) of 320 MPN/100 mL. These two elevated samples were collected on the same day (September 21, 2017) in adjacent sampling sites, both in the Middle Yuba River Watershed. The average geomean concentration during this period was 15 MPN/100 mL (See Figure 1). Table 1 on Page 2 provides a summary of the results by site and the map in Figure 2 displays the site locations.

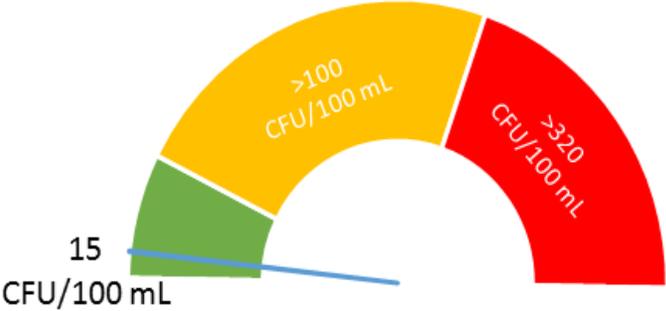


Figure 1. Average geomean concentration

Table 1. Summary of *E. coli* results by site in the Yuba River Watershed (June-October 2017).

| Map # | Station Name | # of Samples Taken | Sample Minimum (MPN/100 mL) | Sample Maximum (MPN/100 mL) | # of samples > STV Criteria (>320 MPN/100 mL) | # of Geometric Means Calculated | Average Geometric Mean (MPN/100mL) | # of Geometric Means > Criteria (>100 MPN/100 mL) |
|-------------------------|--|--------------------|-----------------------------|-----------------------------|---|---------------------------------|------------------------------------|---|
| 1 | South Yuba River at Hwy 49 | 12 | <1.0 | 14.6 | 0 | 8 | 6 | 0 |
| 2 | Yuba River- South Fork at Purdon Crossing | 12 | <1.0 | 48 | 0 | 8 | 9 | 0 |
| 3 | Oregon Creek above Middle Fork Yuba River | 12 | 18.5 | >2419.6 | 1 | 8 | 55 | 0 |
| 4 | Yuba River- Middle Fork above Hwy 49 | 12 | 1 | 1203.3 | 1 | 8 | 21 | 0 |
| 5 | Bullards Bar Reservoir at Dark Day Canyon | 12 | <1.0 | 2 | 0 | 8 | 1 | 0 |
| 6 | North Fork Yuba River at Carlton Flat Campground | 12 | <1.0 | 86 | 0 | 8 | 8 | 0 |
| 7 | Yuba River- South Fork at Bridgeport | 11 | <1.0 | 88 | 0 | 8 | 6 | 0 |
| Watershed Totals | | 83 | <1.0 | >2419.6 | 0 | 56 | 15 | 0 |

Figure 2. Map of 2017 Sampling Sites in the Yuba River Watershed

