Central Valley Water Board
SWAMP DATA SUMMARY

Recreational Beneficial Use Assessment – 2017

Mokelumne 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.

Mokelumne River at Van Assen County Park

Study Area:

In **2017**, SWAMP focused rotational monitoring efforts on the **Mokelumne River Watershed,** both in the lower watershed below Camanche Reservoir, near Lodi, and in the upper watershed above Pardee Reservoir. Located in the northeastern portion of the San Joaquin River Basin, the Mokelumne River is a popular destination for water recreational activities such as swimming, fishing and rafting. Samples were collected weekly from 8 sites throughout the watershed from June – October 2017.

Sampling Results:

E. coli results confirm that fecal contamination levels are consistently low in the Mokelumne River Watershed. All of the sample results during this monitoring period were below EPA's water quality criteria. The average geomean concentration across the watershed during this period was 28 MPN/100 mL. Table 1 on Page 2 provides a summary of the results by site and the map in Figure 2 displays the site locations.

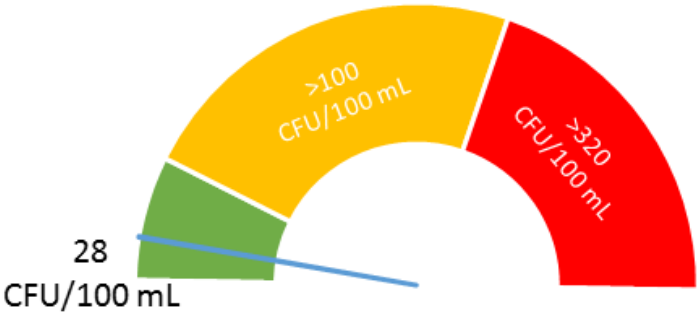

Figure 1. Average geomean concentration

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

Map #	Station Name	# of Samples Taken	Sample Minimum (MPN/100mL)	Sample Maximum (MPN/100mL)	# 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	Mokelumne River at Lodi Lake	15	13.4	275.5	0	11	57	0
2	Mokelumne River at Stillman Magee Park	12	14.6	104.6	0	5	53	0
3	Mokelumne River at Van Assen Co. Park	15	5.2	153.9	0	11	19	0
4	Mokelumne River at Hwy 49	15	6.3	64.4	0	11	16	0
5	Main Stem Mokelumne River downstream of Box Beach	15	4.1	33.1	0	11	12	0
6	South Fork Mokelumne River at Railroad Flat Bridge	15	16.9	126.6	0	11	35	0
7	Middle Fork Mokelumne River at Highway 26	15	13.2	172.2	0	11	37	0
8	N. Fork Mokelumne River at Highway 26	15	1	114.3	0	11	11	0
	Watershed Totals	**117**	**1**	**275.5**	**0**	**82**	**28**	**0**
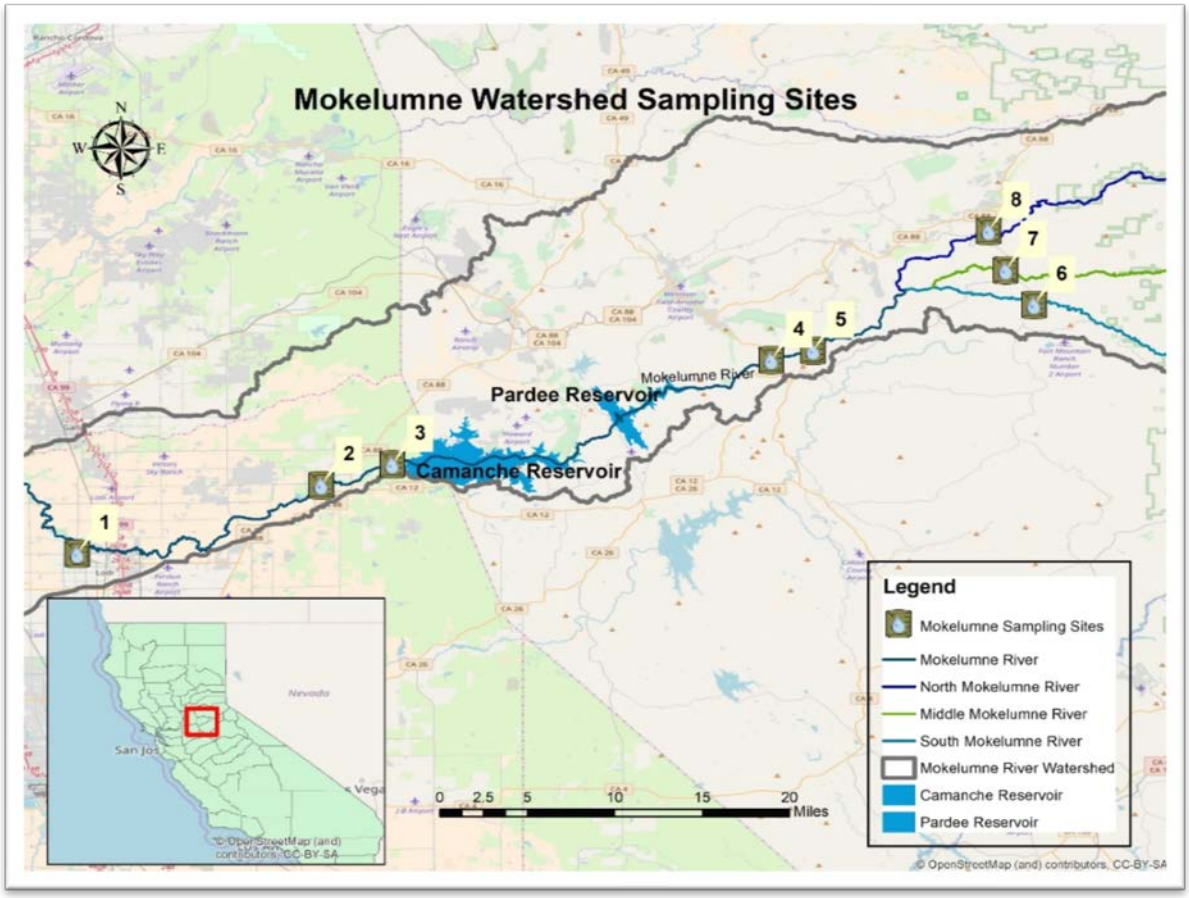
Figure 2. Map of 2017 Sampling Sites in the Mokelumne River Watershed