

Water Quality Assessment 2018 Integrated Report: Methodology Updates Summary

Water Quality Assessment Program

April 26, 2019
DEQ Headquarters

Methodology Updates: Estuary Breaks

- Bacteria use codes
- Separate arms

Methodology Updates: Fresh Water

Category 5:

Any 90-day geometric mean greater than 126 *E. coli* organisms per 100 mL **OR** more than 10% of all samples within any 90-day period exceed 406 *E. coli* organisms per 100 mL, based on a minimum of 10 samples. If only 5 to 9 samples are available for a given 90-day period, a waterbody shall be placed in Category 5 if any of the samples are greater than 406 organisms per 100 mL.



Category 5:

Any 90-day geometric mean greater than 126 *E. coli* organisms per 100 mL **OR** **more than 10% of all samples within the IR data window exceed 406 *E. coli* organisms per 100 mL according to the exact binomial test, based on a minimum of 5 samples.**

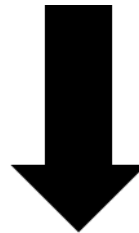
Methodology Updates: Coastal Water

A 90-day geometric mean greater than 35 Enterococci organisms per 100 mL based on a minimum of five samples; OR more than 10% of all samples within any 90-day period exceed 130 Enterococci organisms per 100 mL, based on a minimum of 10 samples. If only five to nine samples are available for a given 90-day period, a waterbody shall be placed in Category 5 if **2 or more** of the samples are greater than 130 Enterococci organisms per 100 mL.

Methodology Updates: Chlorophyll

Category 5:

The average Chlorophyll *a* value over three consecutive months exceeds the value referenced in the rule. The average must be calculated with at least one sample in each month.



Category 5:

The average Chlorophyll *a* value over three consecutive months exceeds the value referenced in the rule. The average must be calculated with at least one sample in each month **OR > 10% of monthly averages within the IR data window exceed the referenced values according to the exact binomial test.**

Methodology Updates: DO Instantaneous

Category 5:

At least 10 samples within the IR data window collected on separate days for the time period of interest (spawning or year round critical period), where greater than 10% of the samples are less than the appropriate criterion according to the exact binomial test **AND** are also less than the percent saturation allowance.



Category 5:

At least 5 samples where greater than 10% of the samples **within the IR data window collected on separate days for the time-period of interest (spawning or year-round)** are less than the appropriate criterion according to the exact binomial test **AND** are also less than the percent saturation allowance.

Methodology Updates: DO Spawning Continuous

Category 5:

Added:

If the year round 7-D metric is attained, two or more of the daily minimum concentration of dissolved oxygen is less than the Min. alternate minimum criteria (Min) (Table 15).

DEQ can provide documents in an alternate format or in a language other than English upon request. Call DEQ at 800-452-4011 or email deqinfo@deq.state.or.us.

