Computing the Water Quality Index with Missing Parameters

Sometimes it’s not practical or possible to collect or read a sample for the Fecal Coliform or Biochemical Oxygen Demand tests. In these cases, WQI results are skewed because the “Total” does not account for missing data. It is possible to adjust this score so that students can make an educated guess at what the WQI description should have been. Each parameter result has a maximum potential contribution to the overall stream score, and so one can adjust the total based on that potential.

Fecal Coliform accounts for 16% of the total result. Biochemical Oxygen Demand accounts for 11% of the total result.

If you are computing the WQI without a Fecal Coliform result, follow this: Divide your raw “Total” by 84 to get your adjusted “Total.”

If you are computing the WQI without a Biochemical Oxygen Demand result, follow this: Divide your raw “Total” by 89 to get your adjusted “Total.”

If you are computing the WQI without either the Fecal Coliform OR the Biochemical Oxygen Demand results, follow this: Divide your raw “Total” by 73 to get your adjusted “Total.”

To check for correct math, the adjusted Total should be a greater number than the raw Total.