

Friends of the Chicago River



ADOPT A RIVER SCHOOL

WATER CHEMISTRY DATA SHEET

School Name: _____

Site Location: _____

Date: _____ Time: _____

Test	Expected Range	Equipment	Test Value	Q Value	Weighting Factor	Sub-Total
pH	6 - 8.5				0.11	
Phosphate (ppm or mg/l)	0.1 - 2.5 ppm				0.10	
Nitrate (ppm or mg/l)	0.2 - 8.0 ppm				0.10	
Dissolved Oxygen (ppm or mg/l) (% saturation)	1 - 12 ppm		Temperature: Concentration: % Saturation:		0.17	
Biological Oxygen Demand (ppm or mg/l)	0.05 - 19 ppm				0.11	
Change in Temperature (°C)	$\Delta < 3^{\circ}\text{C}$		Site 1: Site 2: Δ :		0.10	
Turbidity (cm)	1 - 140 cm				0.08	
Total Dissolved Solids (mg/l)	200 - 2800 mg/l				0.07	
Fecal Coliform (E.coli)	50 - 100,000 colonies/100ml				0.16	

Q Value x Weighing Factor = Sub-Total

$\sum \text{Sub-Totals} \div \sum \text{Weighing Factors} \times 100 = \text{Water Quality Score}$

Totals:

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Water Quality Index (WQI)

Excellent	90-100
Good	70-89
Medium	50-69
Bad	25-49
Very Bad	0-24

Water Quality Score:

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Water Quality Index (WQI):

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WQI is more accurate when more tests are performed.