

send the data to: Streamkeepers Database, Department of Fisheries and Oceans,
 Suite 400, 555 W. Hastings Street, Station 321, Vancouver, B.C. V6B 5G3
 fax to (604) 666-0292

Stream Location and Conditions

(use a new data sheet for each stream segment surveyed)
 (see Module 1 for additional information)

Module 3

Stream Name/Nearest Town <i>Paul Creek / Clearwater</i>	Date <i>Feb. 17/01</i>
Organization Name <i>Paul creek Streamkeepers</i>	Watershed code <i>349-956-400</i>
Contact Name <i>Bonnie Brooke</i>	Stream Segment # <i>1</i>
	Stream Section # <i>1</i>
	Phone # <i>555-1414</i>

Survey Location

Mapsheet number <i>p 28</i>	Type <i>municipal</i>	Scale <i>1:2500</i>
Location (distance from known stream landmark) <i>@ Bm from mod 2 Feb 17, 2001</i> <i>1591 Hope Rd</i> <i>Behind Hope's Grocery</i>		
Time: <i>3:30</i>	Weather	<input checked="" type="checkbox"/> clear <input type="checkbox"/> shower (1-2.5 cm in 24 hr) <input type="checkbox"/> snow
		<input type="checkbox"/> overcast <input type="checkbox"/> storm (<2.5 cm in 24 hr) <input type="checkbox"/> rain on snow
Water turbidity (cm visibility) <i>80 cm</i>	air <i>7</i>	water <i>8</i>
Bankfull Channel width <i>3</i> (m)	depth <i>.19</i> (m)	
Wetted Channel width <i>3.45</i> (m)	depth <i>.12</i> (m)	

First and Last Measurements taken .1 m from streambank edge

Left Bank	.1	.5	1	1.5	2	2.5	3	3.5	4	4.5	5	Right Bank
Wetted Depth	X	X	X	1	4	12	17	16	20	23	6	Wetted Depth
Bankfull Depth	4	12	8	8	12	21	28	28	33	39	25	Bankfull Depth

Take measurements every 0.5m in streams less than 5m. wide, every 1m in streams 5 to 15m.

Water Quality Survey Field Data Sheet

(use a new data sheet for each reference site surveyed)

Module 3

Stream Name Paul Creek	Date Feb. 17 2001
Organization Name Paul Creek Streamkeepers	Stream Segment # 1 Section # 1 Map Sheet # P28

A) Temperature: Keep thermometer in water 2 min. and take the reading while it is still in the water

Use this section if you are concerned about daily temperature changes.

Time of day	air (°C)	water (°C)
11 a.m.	7	8
3:30 p.m.	7	8
Difference in water temp.		0

Use this section if you are concerned about temperature differences between sites.

Site	air (°C)	water (°C)
upstream		
downstream		
Difference in water temp.		

B) Dissolved oxygen: Take samples with a Hach kit when you take the late afternoon temperature reading. Determine % saturation from figure 2

Concentration (mg/l)	11 mg/l
% saturation	91%
Equipment (if not Hach kit)	Hach

C) pH: Take samples when you take the late afternoon reading

pH reading	7.1
equipment	La Motte

D) Turbidity: Measure turbidity in a deep quiet area. Be careful not to disturb sediment. Use a turbidity meter or tape measure.

Turbidity (JTU, NTU, or cm)	80 cm
Background turbidity (if known)	/
Turbidity increase over background	/
equipment	metre stick

send the data to the Streamkeepers Database

Water Quality Survey Interpretation Sheet Module 3

(use a new interpretation sheet for each site)

Stream Name <i>Paul Creek</i>	Date <i>Feb. 17/01</i>
Organization Name <i>Paul Creek Streamkeepers</i>	Stream Segment # <i>1</i>
	Map Sheet # <i>P 28</i>

Q-VALUES: Calculate Q-values using these charts. Find the water quality result on the horizontal axis, follow up to the curve, then read the Q-value off the vertical axis. Q-values less than 50 may be cause for concern and merit further investigation.

E) Water quality index:

Fill in the table below with data and Q-values. Multiply the Q-value by the weighting factor to get the partial index value for each characteristic. Add up all four values to get the Water Quality Index. Rate water quality at your site using the chart at the bottom.

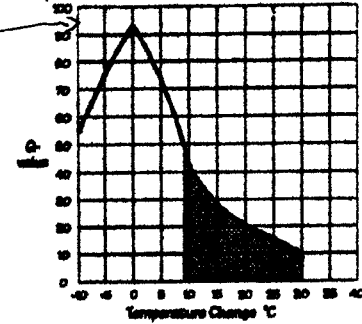
Chemical Test	Result	Q-value	Weighting Factor	Index Value
temperature change	<i>0</i>	<i>93</i>	$\times 0.10 =$	<i>9.3</i>
oxygen saturation	<i>91%</i>	<i>95</i>	$\times 0.17 =$	<i>16.15</i>
pH (units)	<i>7.1</i>	<i>91</i>	$\times 0.11 =$	<i>10.01</i>
Turbidity (JTU, NTU, or cm D)	<i>80</i>	<i>72</i>	$\times 0.08 =$	<i>5.76</i>
Total = Water Quality Index				<i>41.22</i>

⊙ amount above background, if available

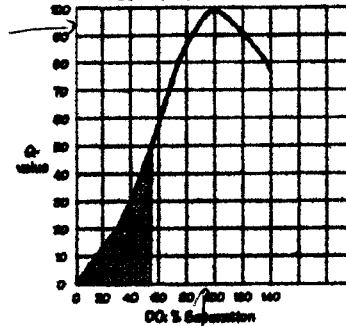
Good	40-45
Acceptable	30-40
Marginal	20-30
Poor	<20

■ = Q-value less than 50

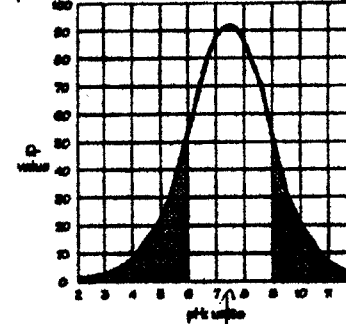
Temperature Test Results



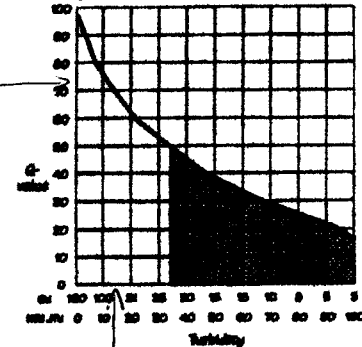
Dissolved Oxygen (DO) Test Results



pH Test Results



Turbidity Test Results



adapted from Mitchell and Stapp, 1991

Figure 1 pH Scale

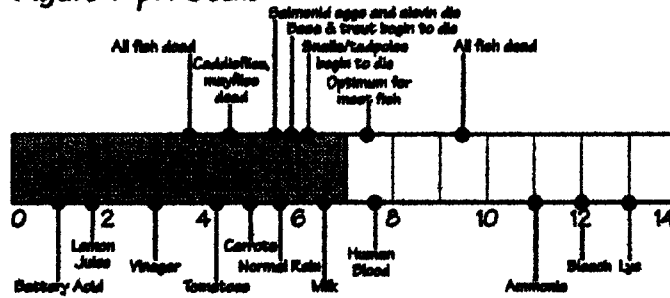


Figure 2
Oxygen Saturation Chart

from Field Manual for Water Quality Monitoring,
M.K. Mitchell and W.D. Stepp, page 28

