

Keefront Association Water Sampling 2005

| 4/05 | May 18/05 | June 1/05 | June 16/05 | June 29/05 | July 13/05 | July 27/05 | Aug. 10/05 | Aug 24/05 | Sept 7/05 | Sept 22/05 | Oct 5/05 | Oct 19/05 | Nov 2/05 | Nov16/05 |
|--------|-----------|-----------|------------|------------|------------|------------|------------|-----------|-----------|------------|-----------|-----------|-----------|-----------|
| 20 | 10 | 70 | No sample | No sample | No sample | No sample | No sample | No sample | No sample | No sample | No sample | No sample | No sample | No sample |
| 20 | No sample | 30 | 350 | 290 | 30 | 7700 | 400 | 320 | 2100 | 430 | 150 | 60 | 90 | 3200 |
| 30 | 290 | 300 | 1000 | 20 | 80 | 50 | 10 | 110 | 70 | <10 | 700 | 10 | 13000 | 7500 |
| 20 | 50 | 280 | 1800 | 69 | 3600 | 900 | 200 | 80 | 12000 | 720 | 140 | 20 | 370 | 460 |
| 160 | 1100 | 390 | 2800 | 6100 | 290 | 6000 | 300 | 10 | 40 | 30 | 480 | 170 | 4800 | 4100 |
| <10 | 50 | 1400 | 640 | 180 | 190 | 3800 | >20000 | 2000 | 270 | 240 | 570 | 210 | 270 | 5000 |
| 20 | 560 | 1200 | 3400 | 120 | 120 | 190 | 3000 | 490 | 1600 | 120 | 5500 | 290 | 290 | 2700 |
| <10 | 20 | 50 | 190 | 120 | 230 | 160 | 400 | 220 | 230 | 180 | 100 | 80 | 100 | 600 |
| 100 | 10 | 40 | 560 | 510 | 60 | 560 | 370 | 380 | 90 | 20 | 160 | 80 | 90 | 11000 |
| 10 | 30 | 70 | 740 | 110 | <10 | 790 | 2000 | 10 | 50 | 40 | 210 | 20 | 140 | 960 |
| sample | 120 | 100 | 720 | 250 | 330 | 480 | 5000 | 30 | 130 | 160 | 210 | 50 | 130 | 5000 |
| sample | <10 | 30 | 170 | 20 | 130 | 100 | 150 | 50 | 50 | 100 | 70 | 80 | <10 | 750 |

| Percentage of samples | |
|----------------------------------|------|
| Recreation Limit (100 cfu/100ml) | 1000 |
| 25% | |
| 60% | |
| 50% | |
| 69% | |
| 75% | |
| 88% | |
| 94% | |
| 56% | |
| 50% | |
| 50% | |
| 80% | |
| 27% | |

Exceeds recreation limit (100 cfu/100ml) but less than 1000
 Exceeds limit for recreation by 10x
 Microbiologists often consider an order of magnitude (10 fold) as a significant difference

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|------|-----------|-----------|------------|------------|------------|------------|-----------|-----------|-----------|------------|-----------|-----------|-----------|-----------|
| 6.1 | 3.9 | 2.1 | No sample | No sample | No sample | No sample | No sample | No sample | No sample | No sample | No sample | No sample | No sample | No sample |
| 4.1 | No sample | 2.6 | 3.4 | 0.7 | 1.1 | <.2 | <.2 | 1.70 | <.2 | 0.50 | 8.70 | 3.70 | 1.70 | 6.40 |
| 4.0 | 0.5 | <0.1 | 8.5 | 0.1 | <.2 | <.2 | <.2 | <.2 | <.2 | 0.30 | 0.40 | <.2 | 2.90 | 10.00 |
| 5.1 | 4.1 | 3.3 | 6.2 | 1.4 | 1.9 | 1.4 | 0.60 | 2.70 | 1.00 | 0.90 | 3.30 | 1.60 | 2.80 | 7.10 |
| 6.1 | 3.9 | 0.7 | 6.6 | <0.1 | <.2 | 0.5 | <.2 | <.2 | <.2 | <.2 | 3.1 | 0.7 | 5.50 | 11.00 |
| 5.9 | <0.1 | 0.8 | 1.6 | 0.5 | <.2 | <.2 | <.2 | 1.70 | <.2 | <.2 | 0.60 | <.2 | <.1 | 9.40 |
| 5.7 | 2.1 | <0.1 | 6.7 | 0.7 | <.2 | <.2 | <.2 | <.2 | <.2 | <.2 | 2.70 | <.2 | 0.20 | 12.00 |
| 5.6 | 1.5 | 1.4 | 1.7 | 1.0 | 1.8 | 1.2 | 0.70 | 2.40 | 1.00 | 1.00 | 0.90 | 1.20 | 1.40 | 3.30 |
| 3.7 | 2.7 | 2.8 | 2.2 | 0.9 | 1.0 | 0.3 | <.2 | 1.80 | 0.30 | <.2 | 3.30 | <.2 | 0.30 | 13.00 |
| 4.3 | 2.5 | 0.6 | 1.8 | 0.2 | <.2 | 0.8 | <.2 | 1.70 | <.2 | 0.20 | 4.30 | 0.30 | 0.50 | 10.00 |
| 1.8 | 4.7 | 4.7 | 5.0 | 3.3 | 3.6 | 3.4 | 2.80 | 4.30 | 3.10 | 3.10 | 6.40 | 4.30 | 3.70 | 12.00 |
| 4.7 | 4.1 | 2.2 | 1.0 | 0.9 | 1.0 | 0.9 | <.2 | 4.50 | <.2 | 0.20 | 4.80 | 2.00 | 2.10 | 6.50 |

| Percentage of samples | |
|---|--------------------------|
| Aquatic Protection Limit (2.93 mg/L as N) | Drinking Water (10 mg/L) |
| 75% | |
| 40% | |
| 19% | |
| 44% | |
| 44% | |
| 19% | |
| 19% | |
| 13% | |
| 25% | |
| 19% | |
| 88% | |
| 38% | |

Exceeds MVCA target for healthy fish and amphibian eggs 2.9 mg/L of nitrate as N (Proposed Canadian Aquatic Objective is 2.9 mg/L of nitrate as N)

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|-------|-----------|-----------|------------|------------|------------|------------|-----------|-----------|-----------|------------|-----------|-----------|-----------|-----------|
| 0.013 | 0.011 | 0.011 | No sample | No sample | No sample | No sample | No sample | No sample | No sample | No sample | No sample | No sample | No sample | No sample |
| 0.018 | No sample | 0.005 | 0.042 | 0.028 | 0.025 | 0.070 | 0.022 | 0.018 | 0.044 | <.02 | 0.051 | 0.015 | 0.029 | 0.105 |
| 0.021 | 0.028 | 0.032 | 0.057 | 0.040 | 0.179 | 0.315 | 0.225 | 0.303 | 0.330 | 0.300 | 0.091 | 0.048 | 0.174 | 0.176 |
| 0.019 | 0.008 | 0.027 | 0.031 | 0.028 | 0.026 | 0.042 | 0.033 | 0.017 | 0.360 | <.02 | 0.031 | 0.009 | 0.025 | 0.095 |
| 0.021 | 0.014 | 0.026 | 0.109 | 0.101 | 0.131 | 0.320 | 0.166 | 0.062 | 0.144 | 0.150 | 0.048 | 0.034 | 0.051 | 0.124 |
| 0.028 | 0.012 | 0.016 | 0.109 | 0.090 | 0.230 | 0.172 | 0.188 | 0.147 | 0.327 | 0.380 | 0.106 | 0.080 | 0.039 | 0.179 |
| 0.019 | 0.015 | 0.032 | 0.032 | 0.040 | 0.301 | 0.124 | 0.134 | 0.360 | 0.721 | 0.720 | 0.257 | 0.156 | 0.167 | 0.234 |
| 0.017 | 0.014 | 0.013 | 0.024 | 0.024 | 0.014 | 0.182 | 0.031 | 0.024 | 0.038 | <.02 | 0.013 | 0.005 | 0.014 | 0.073 |
| 0.012 | 0.016 | 0.014 | 0.091 | 0.177 | 0.064 | 0.110 | 0.035 | 0.074 | 0.066 | 0.120 | 0.043 | 0.033 | 0.027 | 0.344 |
| 0.010 | 0.126 | 0.020 | 0.040 | 0.106 | 0.083 | 0.130 | 0.046 | 0.041 | 0.055 | 0.030 | 0.050 | 0.025 | 0.016 | 0.144 |
| 0.019 | 0.049 | 0.006 | 0.042 | 0.031 | 0.028 | 0.073 | 0.029 | 0.026 | 0.030 | 0.020 | 0.034 | 0.003 | 0.016 | 0.181 |
| 0.004 | 0.015 | 0.012 | 0.021 | 0.018 | 0.034 | 0.041 | 0.014 | 0.028 | 0.038 | <.02 | 0.014 | 0.011 | 0.015 | 0.115 |

| Percentage of samples | |
|--|--|
| Provincial Water Quality Objective (0.03 mg/L) | |
| 0% | |
| 33% | |
| 88% | |
| 44% | |
| 81% | |
| 81% | |
| 81% | |
| 25% | |
| 69% | |
| 63% | |
| 44% | |
| 25% | |

Exceeds MVCA target to avoid excessive algae growth of 0.03 mg/L Total Phosphorus as P (Interim Prov. Water Quality Objective for streams and rivers is 0.03 mg/L)

