

Soil & Water Conservation Society of Metro Halifax (SWCSMH)

310-4 Lakefront Road, Dartmouth, NS, Canada B2Y 3C4

Email: limnes@chebucto.ns.ca Tel: (902) 463-7777

Master Homepage: <http://lakes.chebucto.org>

S. M. Mandaville B.E., Post-Grad Dips.

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"High concentrations of cyanobacterial (i.e., bluegreen) toxins may present risks to wildlife and humans from exposure to airborne cyanotoxins. Aerosols may be a more direct route of exposure to public health for those recreating or living by a contaminated body of water. There is also concern if these can be transferred to crops growing near blooms of cyanobacteria."

Our Threshold/LCC TP (Total Phosphorus) values are based on the federal CCME (2004) policy. HRM/Halifax appears to be basing their standards on the `recent field data' and not on the **pre-cultural hindcast data**, although the latter is recommended in numerous scientific literature dating back decades inclusive of the CCME (Canadian Council of Ministers of the Environment). Further, paleolimnological literature suggests instead a compromise of selecting the diatom inference (DI) values of the pre-industrial era. In the HRM/Nova Scotia domain, it would be approximately pre-1850. These inference values can be also be used to set the acceptable TP values as well. Our modelled pre-cultural TP, the DI (Diatom Inference) TP, suggestions on proper LCC's, as well as Halifax's high threshold values are in the tables below.

The resultant increase in the fertility of affected lakes, reservoirs, slow-flowing rivers and certain coastal waters causes symptoms such as algal blooms (with potential toxicity in cases), heavy growth of rooted aquatic plants (macrophytes), algal mats, deoxygenation and, in some cases, unpleasant odour, which often affects most of the vital uses of the water.

Below, all of the two thousand (2,000) lakes/ponds that we have researched within four (4) Nova Scotia counties are not included but only representative lakes within Halifax.

1	Albro Big (Dartmouth)	2.8	4		3.2	4.90	-	6.7 (2.5-13.5)	<2.0	7.3 (4-11)	10 (2-16)	6 (4-8)	23.7 (10-48)	8.7 (3-12)
2	Albro Little (Dartmouth)	-				3.80	-	5.7 (3-8)	2.0	5.7 (2-8)	21.7 (6-36)	9 (3-15)	25.3 (15-44)	9.3 (4-14)
3	Anderson (Bedford)	-			5.5	6.03	-	8.3 (2-15)	-	-	-	-	-	-
4	Banook (Dartmouth)	-		<20 - 15		5.75	-	8.1 (5-10)	2.5 (2-3)	5.3 (3-8)	15.7 (8-30)	12 (12-12)	19.3 (2-44)	10.5 (8-13)
5	Barrett (Beaverbank)	4.6	7	<20 - 15		-	-	15.0	3.0	13.5 (12-15)	15.7 (14-18)	8 (6-10)	17 (11-25)	10.7 (8-13)
6	Bayers (Halifax)	5.6	8			4.47	-	8.0 (3-14)	-	-	-	-	-	-
7	Beaverbank	5.7	9					?	-	-	-	-	-	-
8	Bell (Dartmouth)	2.2	4		5.3	4.79	-	5.7 (2-9)	7.0	10.3 (3-17)	33.7 (3-70)	8.0	22.7 (20-25)	8 (6-10)
9	Bissett (Cole Harbour)	3.7	4 or 6			5.13	-	14.0 (3-24.1)	8.0	13.7 (11-15)	27.7 (11-40)	17.7 (15-20)	27.3 (12-49)	62.3 (17-145)
10	Black Duck Pd. (Lakeside)	4.3	6			-	-	-	-	5 (3-7)	14 (10-20)	11.7 (5-16)	34.0 (12-48)	11.7 (7-15)
11	Black Point Lake (high colour; Hubley)	5.3	high colour			-	-	13.9 (8.1-28.7)	-	11 (10-12)	12.3 (11-14)	27 (11-45)	19.3 (11-31)	11.5 (9-14)
12	Charles (Dartmouth)	4.7	7	<20 - 15		4.79	9.9 (6-36)	12.8 (6-44.4)	<2.5 (<2-3)	10.7 (8-14)	9.3 (5-14)	12.3 (8-20)	19.3 (3-39)	6.5 (4-9)
13	Chocolate (Halifax)	-				20.42	-	6.6 (2-25)	-	3.5 (2-5)	7.0	14.3 (5-27)	12.3 (8-15)	6 (2-10)
14	Cranberry (Dartmouth)	3.3	4 or 5	<20 - 20	6.0	9.33	34 (13.1-48)	15.9 (1-45.5)	-	9 (8-10)	25.3 (19-32)	17.7 (11-22)	28.3 (20-44)	28.7 (8-50)
15	Dent's Punch Bowl (Cowie Hill)	-				-	-	-	-	15.7 (7-26)	16.3 (13-22)	23.7 (12-30)	24.7 (20-28)	14.3 (9-19)
16	Desaid (Dartmouth)	-			-	-	-	-	-	12 (8-23)	42.5 (25-60)	15 (9-19)	14.7 (7-28)	8 (6-10)
17	Drain (Middle Sackville)	4.8	7			-	-	29.6 (15-55)	-	41.5 (25-58)	108.7 (71-180)	108.3 (55-210)	70.7 (52-96)	33 (30-37)
18	Duck (coloured; Beaverbank)		high colour			-	-	?	21 (20-22)	100.5 (21-180)	28.3 (25-30)	29.7 (19-45)	53 (41-72)	35.7 (30-39)
19	Echo (very high colour; Lake Echo)	4.3	6			-	-	6.4 (6.4-35.1)	11 (8-14)	9.3 (9-10)	12 (4-17)	15 (12-20)	27 (13-48)	13.7 (11-18)

20	Fenerty (Beaverbank)	4.7	7	22 - 22		-	10 (5-20)	15.4 (13-19)	13.5 (5-22)	11.5 (9-14)	27 (15-36)	24 (17-30)	30 (26-35)	18 (15-20)	
21	First (Lower Sackville)	2.6	4	<20 - 15		4.3	5.89	10 (5-20)	7.8 (3-18.1)	<2.0	5.3 (4-6)	14 (9-21)	10.7 (5-19)	21.3 (9-46)	7.8 (6-11)
22	First Chain (Halifax)	-				4.07	-	9.7 (2-23)	-	4.0	7.3 (5-9)	11.7 (4-21)	8.7 (6-13)	7.0	
23	Fish	5.0	8						-	-	-	-	-	-	
24	Fletchers (Fall River)	3.6	4 or 5	<20 - 15		2.09	11.4 (5-20)	8.4 (3-11)	<2.0	8.7 (5-12)	8 (5-12)	11.7 (9-16)	16 (7-30)	9.0	
25	Fraser (Timberlea)	5.7	9			7.94	-	8.5 (3-16)	-	-	-	-	-	-	
26	Frenchman (Dartmouth)	-			5.1	4.37	-	18.7 (2-42)	-	10 (6-16)	38 (20-70)	22.7 (9-45)	25.3 (14-42)	11.7 (5-17)	
27	Frog Pd. (Jollimore)	-				4.90	-	9.0 (2-22)	-	11.3 (8-16)	14.7 (10-17)	19 (11-23)	29.7 (17-45)	10.5 (10-11)	
28	Governor (Timberlea)	5.0	8			11.48	-	20.42 (5-32)	6.5 (2-11)	7.7 (5-10)	15.3 (13-18)	14.3 (11-19)	31.3 (17-56)	15.3 (4-28)	
29	Half Mile (high colour; Timberlea)		high colour			-	-	-	-	17 (17-17)	24 (18-30)	25.7 (20-37)	23.3 (15-28)	30 (17-47)	
30	Horseshoe (Beaverbank)	2.7	4												
31	Hubley Big (high colour; Hubley)		high colour			-	-	10.7 (6-13.7)	25 (24-26)	11.5 (11-12)	13.7 (8-18)	14.3 (11-16)	15.3 (12-19)	15.3 (13-19)	
32	Kearney (Halifax)	4.1	6	10	3.7	5.25	-	6.8 (1-16)	6.0	7 (5-9)	9.3 (8-11)	5.5 (4-7)	7 (5-9)	10.5 (8-13)	
33	Kidston (high colour; Spryfield)	4.9	7			-	-	5.0	-	12.7 (11-16)	13 (10-18)	17 (10-24)	29 (10-62)	10.7 (7-13)	
34	Kinsac (Windsor Jnctn.)	1.3	2	<20 - 15		2.63	8.3 (5-20)	10.7 (3-21)	3.0	10 (8-12)	14 (10-19)	14.7 (12-20)	21.3 (10-40)	8.7 (7-11)	
35	Lewis (East Hants)	4.0	6	<10 - 9											
36	Lamont (Dartmouth)	2.9	4			4.6	7.76	-	7.0 (1-14)	-	-	-	-	-	
37	Little Springfield (Middle Sackville)	5.0	8			4.57	-	7.6 (2-14)							
38	Lisle (Middle Sackville)	?	?	50		-	-	-	52 (37-67)	57 (22-92)	38.5 (31-46)	-	-	53.5 (29-78)	

39	Long (high colour; Halifax)	4.7	7			5.37	-	7.3 (2-20)	2.5 (<2-3)	5.3 (5-6)	10 (5-13)	14 (6-22)	14.7 (11-21)	9.3 (5-15)	
40	Long Pd. (very high colour; Herring Cove)					-			-	12.7 (9-15)	15.7 (6-25)	27 (10-39)	20 (14-30)	17 (13-23)	
41	Loon (Westphal)	2.5	4	<20 - 18		4.0	7.94	12.5 (5-16)	7.3 (2-15)	-	16 (4-38)	12.7 (6-17)	12.3 (6-20)	21.7 (10-43)	13 (11-15)
42	Lovett (Lakeside)	4.1	5			-		-	-	10 (9-11)	12.3 (8-18)	11.7 (8-14)	29 (13-60)	11 (5-18)	
43	Major (Preston)	-				4.79	-	8.2 (3-16)	-	-	-	-	-	-	
44	Maynard (Dartmouth)	-				4.4	3.72	-	7.8 (5-12)	12.0	6 (6-6)	12 (6-21)	8.7 (7-12)	32.3 (22-46)	8.3 (4-13)
45	McCabe (very high colour; Lucasville)	6.3	high colour			6.03	-	4.0	-	-	18.3 (5-41)	24 (10-50)	17.5 (17-18)	11.5 (6-17)	
46	McIntosh Run @Mouth (very high colour; Herring Cove)	-				-	-	-	6 (2-10)	11 (10-13)	13 (4-18)	22 (12-32)	19 (7-39)	14.3 (12-17)	
47	McIntosh Run @Roaches Pd. (very high colour; Herring Cove)	-				-	-	-	-	10 (10-10)	17.7 (13-21)	30.0	15.3 (11-21)	18 (14-25)	
48	MicMac (Dartmouth)	-		<20 - 15		2.29	-	8.4 (4-12.7)	<2.0 (<2-2)	6.7 (6-8)	11.5 (8-15)	12.5 (12-13)	32 (12-52)	13 (8-18)	
49	Miller (Fall River)	4.2	6			7.94	<10 (5-10)	6.7 (3-12)	-	-	-	-	-	10.7 (7-13)	
50	Morris (mean of north & south basins; Dartmouth)	3.4	4 or 5			7.0	3.89	-	16.4 (7-100)	<5.0 (<2-8)	10.3 (10-11)	13.2 (7.5-18.5)	15.8 (4-37)	14.8 (7.5-28.5)	22 (11-33)
51	Nine Mile River @Hwy 103 (very high colour; Timberlea)	-				-	-	-	28.5 (28-29)	34 (19-53)	71 (20-130)	69.3 (42-104)	59 (30-88)	50.3 (42-64)	
52	Nine Mile River @Mouth (very high colour; Shad Bay)	-				-	-	-	-	17.3 (15-22)	21.7 (19-25)	25.3 (18-31)	23.3 (10-37)	18.7 (16-22)	
53	Oathill (Dartmouth)	3.6	4 or 5			11.22	-	9.6 (2-18.9)	3 (3-3)	14.7 (8-23)	18.3 (16-20)	20.3 (10-36)	40 (23-51)	20 (10-27)	
54	Papermill (Bedford)	4.6	7	10	4.0		4.37	-	8.5 (3.9-16)	6.5 (6-7)	4.3 (4-5)	8.7 (7-10)	7.5 (6-9)	10 (2-18)	8 (7-9)

55	Penhorn (Dartmouth)	2.3	3			5.37	-	5.8 (1-14)	2.0	9.7 (4-18)	13 (6-21)	11.7 (5-19)	22 (20- 25)	11.3 (6-19)	
56	Pockwock (Hammonds Plains)	3.2	4			2.29	-	4 (2-7)	-	-	-	-	-	-	
57	Porters-Upper (very high colour)	5.6	high colour			-	-	-	5.5 (3-8)	6 (5-7)	10.3 (7-15)	14 (8-26)	25.7 (10- 56)	12.3 (9-17)	
58	Porters-Lower	4.6	7			-	10.2 (7.6-17.4)								
59	Powder Mill (Waverley)	2.3	3	<20 - 15		5.4	6.61	10 (<5-35)	7.3 (5-13)	<2.0	10.7 (9-14)	9.7 (8-12)	9 (7-11)	21.7 (7-50)	8 (4-11)
60	Powers Pd. (Herring Cove)	5.5	8			5.89	-	7.8 (3-12)	-	-	-	-	-	-	
61	Red Bridge Pd. (Dartmouth)	-				-	-	-	-	39 (21- 67)	28.3 (17-43)	53.7 (20-84)	26.3 (6-39)	29.3 (8-61)	
62	Rocky (Bedford)	2.9	4	<20 - 18		6.4	6.76	8.2 (5-10)	6.1 (2-8.7)	3.0	12 (8-17)	20.3 (18-25)	22 (12-30)	26 (11- 50)	10.3 (8-15)
63	Russell (Dartmouth)	4.7	7	15		23.44		55.5 (0-144)	20.9 (7-39)	<6.5 (<2-11)	13.3 (12- 14)	9.5 (7-12)	12 (3-20)	6.5 (5-8)	18 (17- 19)
64	Sackville River @Mouth, below Fish Hatchery (high colour; Bedford)	-				-	-	-	-	8 (4-12)	9.7 (7-11)	16.7 (12-23)	11 (9-13)	34.3 (4-70)	12.7 (13- 15)
65	Sandy (Bedford)	6.3	9			8.91	-	10.5 (5-18)	9.0	13 (6-20)	14.7 (11-21)	15 (8-25)	24 (10- 43)	8 (6-17)	
66	Sandy (Glen Arbour)	3.2	4 or 5			-	Pre- developm ent (1996):- 4.3 (3.8-4.7)	11.24 (3.6-21.3)	5 (2-8)	17 (3-42)	21.3 (15-32)	8.3 (4-14)	9 (5-14)	9.7 (5-16)	
67	Second (Sackville/Win dsor Jnct.)	4.3	6			4.6	7.24	9.1 (0.5-11.5)	9.4 (2-14)	<2.0	5.5 (3-8)	10.3 (7-13)	12 (7-16)	26.7 (8-60)	8.7 (4-14)
68	Second Chain (Halifax)	-				4.37	-	11 (2-27)	-	-	-	-	-	-	
69	Settle (Dartmouth)	3.2	4 or 5			7.94	-	15.0 (3-34)	22.5 (20-25)	14.3 (9-24)	24 (15-38)	30 (22-39)	45.7 (21- 82)	33 (17- 45)	
70	Sheldrake (very high colour; Hubley)					4.68	-	20.2 (12-27)	21 (12-30)	18.3 (14- 23)	22.7 (16-28)	25.7 (17-33)	29.3 (14- 37)	27 (20- 33)	

71	Shubie Grand (Wellington)	3.1	4 or 5	<10 - 9		5.50	7.7 (2.3-12.3)	7.7 (4.3-18.5)	-	4 (3-5)	7.0	10.3 (7-13)	23.3 (4-60)	4.5 (3-6)
72	Soldier (Wellington)	4.2	6			6.61	5 (<5-25)	10 (3-16.3)	-	-	-	-	-	-
73	Smelt Brook (very high colour; Dartmouth)	-				-	-	-	13.0	8.7 (7-14)	51.5 (23-80)	17 (11-21)	33.3 (12-72)	14.3 (8-23)
74	Springfield (Middle Sackville)	3.1	4 or 5	<20 - 18		5.01	14.0 (5-25.5)	7.0 (2-12.4)	6.5 (4-9)	9 (9-9)	20.7 (17-23)	15.7 (6-30)	20.3 (10-41)	7.3 (4-10)
75	Stillwater (Hubley)	4.9	7			-	-	8.0	14.5 (10-19)	11 (6-15)	11 (9-13)	11.7 (7-15)	17.7 (15-22)	12 (8-17)
76	Third (Windsor Jnctn.)	3.0	4 or 5	<20 - 15	4.0	12.02	5.6 (2.5-13.1)	6.2 (3.5-10.0)	<2.0	7 (6-8)	11.7 (8-15)	6.5 (3-10)	22.3 (8-50)	6.7 (4-9)
77	Thomas (mean of north & south basins; Waverley)	3.9	4 or 6	<20 - 15		3.39	10.4 (5-20)	7.4 (3-12.6)	<2.0	10.3 (8-13)	8 (3-11)	13.5 (8-20)	24 (10-51)	7.3 (5-10)
78	The Mill (Three Mile Pd.; very high colour; Timberlea)	-				-	-	-	-	14.3 (8-24)	12.3 (10-16)	12 (8-16)	15.3 (14-18)	13.3 (11-15)
79	Three Mill	2.4	4											
80	Topsail (Dartmouth)	2.5	4		3.5	4.79	-	9 (3-14)	-	-	-	-	-	-
81	Tucker (Beaverbank)	4.0	4 or 6	<20 - 15		-	-	6.4 (3-12.8)	4.0	8 (7-9)	10.3 (3-14)	9.3 (6-12)	18 (10-32)	9.3 (8-11)
82	Whimsical (Halifax)	-				13.80	-	9.3 (3-16)	3 (2-4)	12.3 (10-16)	16.3 (14-18)	14.3 (11-20)	21 (15-24)	12 (6-16)
83	William (Waverley)	3.5	4 or 5	<20 - 18		8.51	10.6 (5-11.2)	7.4 (4-12)	<2.0	6.7 (6-7)	10.7 (8-13)	9 (7-11)	21.3 (12-32)	6 (4-7)
84	Williams (Jollimore)	3.9	4 or 6			4.07	10.0	8.3 (2-12)	3.0	7.3 (5-11)	8.5 (7-10)	17 (10-24)	15.3 (13-17)	10 (8-12)
85	Winder (North Preston)	?	?			-	-	1002.5 (300-1630)	400 (360-440)	130 (100-180)	116 (88-150)	99 (59-152)	81.3 (53-130)	77.3 (42-128)