



Maine Department of Environmental Protection
Biological Monitoring Program
Aquatic Life Classification Attainment Report

Station Information

Station Number: S-414
Waterbody: Long Creek - Station 414
Town: South Portland
Directions: (RIGHT BRANCH FACING UPSTREAM) 40 M
UPSTREAM OF CONFLUENCE WITH VTEC LEFT
BRANCH

DEP Drainage: Piscataqua - Presumpscot - Saco
HUC8: 01060001
HUC8 Name: Presumpscot
Latitude: 43 38 7.5 N
Longitude: 70 19 34.54 W
Stream Order: 1

Sample Information

Log Number: 1933 Type of Sample: ROCK BAG Date Deployed: 7/19/2010
Subsample Factor: X1 Replicates: 3 Date Retrieved: 8/16/2010

Classification Attainment

Statutory Class: C **Final Determination: NA** Date: 6/10/2011
Model Result with P>.6: I **Reason for Determination: Best Professional Judgement**
Date Last Calculated: 6/7/2011 Comments: Low Numbers. Urban toxics and altered hydrology.

Model Probabilities

First Stage Model		C or Better Model	
Class A	0.00	Class A, B, or C	0.00
Class B	0.00	Non-Attainment	1.00
B or Better Model		A Model	
Class A or B	0.00	Class A	0.00
Class C or Non-Attainment	1.00	Class B or C or Non-Attainment	1.00

Model Variables

01 Total Mean Abundance	30.33	18 Relative Abundance Ephemeroptera	0.00
02 Generic Richness	29.00	19 EPT Generic Richness	3.00
03 Plecoptera Mean Abundance	0.00	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	1.06
04 Ephemeroptera Mean Abundance	0.00	23 Relative Generic Richness- Plecoptera	0.00
05 Shannon-Wiener Generic Diversity	4.19	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	5.29
06 Hilsenhoff Biotic Index	5.95	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	0.00
07 Relative Abundance - Chironomidae	0.60	28 EP Generic Richness/14	0.00
08 Relative Generic Richness Diptera	0.62	30 Presence of Class A Indicator Taxa/7	0.00
09 <i>Hydropsyche</i> Abundance	0.00		
11 <i>Cheumatopsyche</i> Abundance	0.00		
12 EPT Generic Richness/ Diptera	0.17		
Generic Richness			
13 Relative Abundance - Oligochaeta	0.01		
15 Perlidae Mean Abundance	0.00		
(Family Functional Group)			
16 Tanypodinae Mean Abundance	2.12		
(Family Functional Group)			
17 Chironomini Abundance (Family	7.40		
Functional Group)			

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Tanytarsus</i>	16.27
2	<i>Polypedilum</i>	16.27
3	<i>Dicranota</i>	8.79
4	<i>Crangonyx</i>	6.59
5	<i>Paratendipes</i>	5.81



**Maine Department of Environmental Protection
Biological Monitoring Program
Aquatic Life Classification Attainment Report**

Station Number: S-414

Town: South Portland

Date Deployed: 7/19/2010

Log Number: 1933

Waterbody: Long Creek - Station 414

Date Retrieved: 8/16/2010

Sample Collection and Processing Information

Sampling Organization: DEP DWM

Taxonomist: MICHAEL WINNELL

Waterbody Information - Deployment

Temperature: 21.9 deg C
Dissolved Oxygen: 7.91 mg/l
Specific Conductance: 1245 uS/cm
Velocity: 3.1 cm/s
pH: 7.37
Wetted Width: 2 m
Bankfull Width: 3.35 m
Depth: 12 cm

Waterbody Information - Retrieval

Temperature: 19.4 deg C
Dissolved Oxygen: 6.86 mg/l
Specific Conductance: 725 uS/cm
Velocity: 2 cm/s
pH: 7.49
Wetted Width: 2.2 m
Bankfull Width: 3.35 m
Depth: 14 cm

Water Chemistry

Summary of Habitat Characteristics

Landuse Name

Upland Hardwood
Urban

Canopy Cover

Dense

Terrain

Flat

Potential Stressor

Altered Habitat
Altered Hydrology
Nps Pollution
Urban Runoff

Location

Below Urban NPS

Substrate

Gravel 5 %
Rubble/Cobble 10 %
Sand 85 %

Landcover Summary - 2004 Data

Total Area (ac)	356	High Int. Dev. %	44.7	Water %	0.0	Non-vegetated %	0.0
		Med Int. Dev. %	8.5	Wetland %	2.7	Tilled Agriculture %	0.0
		Low Int. Dev. %	8.4	Upland Woody %	1.0	Grassland %	0.0
		Development %	61.6	Natural %	3.7	Human Altered %	96.3
						Impervious %	44.9

Sample Comments

8/16/2010 ONE BAG PARTIALLY BURIED OTHER TWO OKAY. D.O. METER: HACH OPTICAL CALIBRATED IN THE OFFICE (DOES NOT NEED TO BE CALIBRATED DAILY), PH METER: YSI 85, CALIBRATED BEFORE EACH DAY OF SAMPLING

7/19/2010 CONDUCTIVITY HIGHER UPSTREAM ABOVE THE STORMWATER OUTFALL, 1300µS/CM; D.O. METER: HACH OPTICAL CALIBRATED IN THE OFFICE (DOES NOT NEED TO BE CALIBRATED DAILY), PH METER: YSI 85, CALIBRATED BEFORE EACH DAY OF SAMPLING



**Maine Department of Environmental Protection
Biological Monitoring Program
Aquatic Life Taxonomic Inventory Report**

Station Number: S-414

Waterbody: Long Creek - Station 414

Town: South Portland

Log Number: 1933

Subsample Factor: X1

Replicates: 3

Calculated: 6/7/2011

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
Naididae	08020202	0.33	0.33		--	1.1	1.1
<i>Erpobdella</i>	08030203002		1.33		--		4.4
<i>Erpobdella punctata</i>	08030203002001	1.33			--	4.4	
<i>Crangonyx</i>	09010202004	2.00	2.00	8	--	6.6	6.6
<i>Hyaella</i>	09010203006		0.33	8	CG		1.1
<i>Hyaella azteca</i>	09010203006011	0.33			--	1.1	
<i>Aeshna</i>	09020301001		1.00	5	PR		3.3
<i>Aeshna umbrosa</i>	09020301001006	1.00			--	3.3	
Hydropsychidae	09020604	0.33	0.33		--	1.1	1.1
<i>Limnephilus</i>	09020610055	0.33	0.33	3	SH	1.1	1.1
<i>Mystacides</i>	09020618075		0.67	4	CG		2.2
<i>Mystacides sepulchralis</i>	09020618075147	0.67			--	2.2	
<i>Nigronia</i>	09020701003		0.33	0	PR		1.1
<i>Nigronia serricornis</i>	09020701003003	0.33			--	1.1	
<i>Tipula</i>	09021001002	0.33	0.33	4	SH	1.1	1.1
<i>Dicranota</i>	09021001005	2.67	2.67	3	PR	8.8	8.8
Chironomidae	09021011	1.00			--	3.3	
<i>Ablabesmyia</i>	09021011001		0.35	8	PR		1.2
<i>Ablabesmyia mallochii</i>	09021011001004	0.33			--	1.1	
<i>Meropelopia</i>	09021011010	1.00	1.06		--	3.3	3.5
<i>Paramerina</i>	09021011013	0.33	0.35		--	1.1	1.2
<i>Zavrelimyia</i>	09021011022	0.33	0.35	8	PR	1.1	1.2
<i>Chaetocladius</i>	09021011035	0.67	0.71	6	CG	2.2	2.3
<i>Limnophyes</i>	09021011047	0.33	0.35	8	CG	1.1	1.2
<i>Parakiefferiella</i>	09021011052	0.33	0.35		CG	1.1	1.2
<i>Tvetenia</i>	09021011065		0.35	5	CG		1.2
<i>Tvetenia paucunca</i>	09021011065114	0.33			--	1.1	
<i>Micropsectra</i>	09021011070	0.67	0.71	7	CG	2.2	2.3
<i>Paratanytarsus</i>	09021011071	1.33	1.41	6	--	4.4	4.6
<i>Tanytarsus</i>	09021011076	4.67	4.94	6	CF	15.4	16.3
<i>Chironomus</i>	09021011080	0.33	0.35	10	CG	1.1	1.2
<i>Dicrotendipes</i>	09021011085		0.35	8	CG		1.2
<i>Dicrotendipes neomodestus</i>	09021011085152	0.33			--	1.1	
<i>Paratendipes</i>	09021011100		1.76	8	CG		5.8
<i>Paratendipes albimanus group</i>	09021011100176	1.67			--	5.5	
<i>Polypedilum</i>	09021011102		4.94	6	SH		16.3
<i>Polypedilum illinoense group</i>	09021011102185	0.33			--	1.1	
<i>Polypedilum scalaenum group</i>	09021011102189	3.33			--	11.0	



Maine Department of Environmental Protection
Biological Monitoring Program
Aquatic Life Taxonomic Inventory Report

Station Number: S-414	Waterbody: Long Creek - Station 414	Town: South Portland
Log Number: 1933	Subsample Factor: X1	Replicates: 3
		Calculated: 6/7/2011

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
<i>Polypedilum tritum</i>	09021011102191	1.00			--	3.3	
<i>Chrysops</i>	09021014052	0.33	0.33	6	CG	1.1	1.1
<i>Dubiraphia</i>	09021113064	1.00	1.00	6	--	3.3	3.3
<i>Physa</i>	10010202026	1.00	1.00		SC	3.3	3.3