



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

Station Information

Station Number: S-415	DEP Drainage: Saco
Waterbody: Long Creek - Station 415	HUC8 Name: Presumpscot
Town: South Portland	Latitude: 43 38 5.85 N
Directions: (LEFT BRANCH FACING UPSTREAM) 40 M UPSTREAM OF CONFLUENCE WITH VTEC RIGHT BRANCH	Longitude: 70 19 36.67 W Stream Order: 2

Sample Information

Log Number: 2243	Type of Sample: ROCK BAG	Date Deployed: 8/13/2013
Subsample Factor: X1	Replicates: 3	Date Retrieved: 9/9/2013

Classification Attainment

Statutory Class: C	Final Determination: NA	Date: 3/11/2014
Model Result with P>.6: NA	Reason for Determination: Model	
Date Last Calculated: 3/10/2014	Comments:	

Model Probabilities

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A	0.00	Class A, B, or C	0.00
Class B	0.00	Non-Attainment	1.00
<u>B or Better Model</u>		<u>A Model</u>	
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	257.67	18 Relative Abundance Ephemeroptera	0.00
02 Generic Richness	27.00	19 EPT Generic Richness	3.00
03 Plecoptera Mean Abundance	0.00	21 Sum of Abundances: <i>Dicrotendipes,</i> <i>Micropsectra, Parachironomus, Helobdella</i>	0.00
04 Ephemeroptera Mean Abundance	0.00	23 Relative Generic Richness- Plecoptera	0.00
05 Shannon-Wiener Generic Diversity	3.37	25 Sum of Abundances: <i>Cheumatopsyche,</i> <i>Cricotopus, Tanytarsus, Ablabesmyia</i>	82.86
06 Hilsenhoff Biotic Index	4.65	26 Sum of Abundances: <i>Acroneuria,</i> <i>Maccaffertium, Stenonema</i>	0.00
07 Relative Abundance - Chironomidae	0.21	28 EP Generic Richness/14	0.00
08 Relative Generic Richness Diptera	0.44	30 Presence of Class A Indicator Taxa/7	0.00
09 <i>Hydropsyche</i> Abundance	42.81		
11 <i>Cheumatopsyche</i> Abundance	78.19		
12 EPT Generic Richness/ Diptera Generic Richness	0.25		
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance (Family Functional Group)	0.00		
16 Tanypodinae Mean Abundance (Family Functional Group)	2.67		
17 Chironomini Abundance (Family Functional Group)	5.33		

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Cheumatopsyche</i>	30.35
2	<i>Hydropsyche</i>	16.61
3	<i>Rheotanytarsus</i>	8.80
4	<i>Simulium</i>	8.54
5	<i>Chimarra</i>	7.24



**Maine Department of Environmental Protection
Biological Monitoring Program
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Station Number: S-415 Town: South Portland Date Deployed: 8/13/2013
Log Number: 2243 Waterbody: Long Creek - Station 415 Date Retrieved: 9/9/2013

Sample Collection and Processing Information

Sampling Organization: STANTEC
 Taxonomist: LOTIC INC.

Waterbody Information - Deployment	
Temperature:	18.5 deg C
Dissolved Oxygen:	5.68 mg/l
Specific Conductance:	830 uS/cm
Velocity:	15 cm/s
pH:	7.05
Wetted Width:	4 m
Bankfull Width:	8.2 m
Depth:	10 cm

Waterbody Information - Retrieval	
Temperature:	14 deg C
Dissolved Oxygen:	7.08 mg/l
Specific Conductance:	877 uS/cm
Velocity:	15 cm/s
pH:	7.09
Wetted Width:	3 m
Bankfull Width:	8.2 m
Depth:	8 cm

Water Chemistry

Summary of Habitat Characteristics

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Terrain</u>
Urban	Partly Open	Flat
<u>Potential Stressor</u>	<u>Location</u>	<u>Substrate</u>
Chlorine	Below Urban NPS	Boulder 5 %
Low Gradient		Gravel 45 %
Nutrients		Rubble/Cobble 40 %
Urban Runoff		Sand 10 %

Landcover Summary - 2004 Data

Total Area (ac)	1423	High Int. Dev. %	17.1	Water %	0.0	Non-vegetated %	0.2
		Med Int. Dev. %	6.3	Wetland %	9.4	Tilled Agriculture %	0.7
		Low Int. Dev. %	6.3	Upland Woody %	26.5	Grassland %	3.1
		Development %	29.7	Natural %	36.1	Human Altered %	63.9
						Impervious %	24.3

Sample Comments

2-LINED SALAMANDER



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

Station Number: S-415

Waterbody: Long Creek - Station 415

Town: South Portland

Log Number: 2243

Subsample Factor: X1

Replicates: 3

Calculated: 3/10/2014

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
Planariidae	03010101	3.00	3.00		--	1.2	1.2
<i>Prostoma</i>	04010101001	0.67	0.67		--	0.3	0.3
<i>Glossiphonia</i>	08030101004		0.67		--		0.3
<i>Glossiphonia complanata</i>	08030101004001	0.67			--	0.3	
<i>Erpobdella</i>	08030203002	1.33	1.33		--	0.5	0.5
<i>Hyaella</i>	09010203006	0.67	0.67	8	CG	0.3	0.3
<i>Chimarra</i>	09020601003		18.67	2	CF		7.2
<i>Chimarra aterrima</i>	09020601003002	18.67			--	7.2	
Hydropsychidae	09020604	7.00			--	2.7	
<i>Cheumatopsyche</i>	09020604015	73.67	78.19	5	CF	28.6	30.3
<i>Hydropsyche</i>	09020604016		42.81	4	CF		16.6
<i>Hydropsyche sparna</i>	09020604016032	40.33			--	15.7	
<i>Thienemannimyia</i>	09021011020		2.67	3	PR		1.0
<i>Thienemannimyia/arctopelopia</i> group	09021011020041	2.67			--	1.0	
<i>Corynoneura</i>	09021011036	0.67	0.67	7	CG	0.3	0.3
<i>Eukiefferiella</i>	09021011041	2.67	2.67	8	CG	1.0	1.0
<i>Parametriocnemus</i>	09021011053	1.67	1.67	5	CG	0.6	0.6
<i>Thienemanniella</i>	09021011062	2.33	2.33	6	CG	0.9	0.9
<i>Tvetenia</i>	09021011065		11.33	5	CG		4.4
<i>Tvetenia paucunca</i>	09021011065114	11.33			--	4.4	
<i>Rheotanytarsus</i>	09021011072	22.67	22.67	6	CF	8.8	8.8
<i>Tanytarsus</i>	09021011076	4.67	4.67	6	CF	1.8	1.8
<i>Chironomus</i>	09021011080	0.33	0.33	10	CG	0.1	0.1
<i>Microtendipes</i>	09021011094		5.00	6	CF		1.9
<i>Microtendipes pedellus</i> group	09021011094166	5.00			--	1.9	
<i>Simulium</i>	09021012047	22.00	22.00	4	CF	8.5	8.5
<i>Hemerodromia</i>	09021016057	1.00	1.00	3	PR	0.4	0.4
<i>Optioservus</i>	09021113067	1.33	1.33	3	SC	0.5	0.5
<i>Stenelmis</i>	09021113070	16.00	16.00	5	SC	6.2	6.2
Curculionidae	09021115	0.33	0.33		--	0.1	0.1
<i>Sperchon</i>	09030107001	0.33	0.33		--	0.1	0.1
<i>Amnicola</i>	10010104013	4.00	4.00		SC	1.6	1.6
<i>Physella</i>	10010202027	12.33	12.33		SC	4.8	4.8
<i>Ferrissia</i>	10010204035	0.33	0.33		SC	0.1	0.1