



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

Station Information

Station Number: S-414	River Basin: Saco
Waterbody: Long Creek - Station 414	HUC8 Name: Presumpscot
Town: South Portland	Latitude: 43 38 7.5 N
Directions: (RIGHT BRANCH FACING UPSTREAM) 40 M UPSTREAM OF CONFLUENCE WITH VTEC LEFT BRANCH	Longitude: 70 19 34.54 W Stream Order: 1

Sample Information

Log Number: 2399	Type of Sample: ROCK BAG	Date Deployed: 7/30/2015
Subsample Factor: X1	Replicates: 3	Date Retrieved: 8/27/2015

Classification Attainment

Statutory Class: C	Final Determination: NA	Date: 6/15/2016
Model Result with $P \geq 0.6$: NA	Reason for Determination: Model	
Date Last Calculated: 6/14/2016	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	230.00	18 Relative Abundance Ephemeroptera	0.00
02 Generic Richness	30.00	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>	4.67
04 Ephemeroptera Mean Abundance	0.00	23 Relative Generic Richness- Plecoptera	0.00
05 Shannon-Wiener Generic Diversity	2.57	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	39.67
06 Hilsenhoff Biotic Index	5.94	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	0.00
07 Relative Abundance - Chironomidae	0.49	28 EP Generic Richness/14	0.00
08 Relative Generic Richness Diptera	0.53	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 Generic Richness	0.19		
13 Relative Abundance - Oligochaeta	0.05		
15 Perlidae Mean Abundance (Family Functional Group)	0.00		
16 Tanypodinae Mean Abundance (Family Functional Group)	1.67		
17 Chironomini Abundance (Family Functional Group)	63.00		

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Gammarus</i>	39.28
2	<i>Stictochironomus</i>	26.09
3	<i>Tanytarsus</i>	17.25
4	Tubificida	4.64
5	<i>Dubiraphia</i>	2.46



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Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT

Taxonomist: ECOANALYSTS IDAHO

Waterbody Information - Deployment

Temperature: 16.9 deg C
Dissolved Oxygen: 9.08 mg/l
Dissolved Oxygen Saturation:
Specific Conductance: 592 uS/cm
Velocity:
pH: 7.57
Wetted Width: 3.7 m
Bankfull Width: 4.5 m
Depth: 25 cm

Waterbody Information - Retrieval

Temperature: 16.6 deg C
Dissolved Oxygen: 9.2 mg/l
Dissolved Oxygen Saturation:
Specific Conductance: 709 uS/cm
Velocity:
pH: 7.78
Wetted Width: 3.8 m
Bankfull Width: 4.5 m
Depth: 24 cm

Water Chemistry

Summary of Habitat Characteristics

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Terrain</u>
Upland Hardwood	Partly Open	Flat
Urban		
<u>Potential Stressor</u>	<u>Location</u>	<u>Substrate</u>
Altered Habitat	Below Urban NPS	Boulder 5 %
Altered Hydrology		Gravel 10 %
Nps Pollution		Rubble/Cobble 5 %
Urban Runoff		Sand 65 %
		Silt 15 %

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

7/30/2015: 94.7% DO.
8/27/2015: THREE SPINED STICKLEBACK PRESENT. 94.2% DO.



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Aquatic Life Taxonomic Inventory Report**

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Waterbody: Long Creek - Station 414

Town: South Portland

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Subsample Factor: X1

Replicates: 3

Calculated: 6/14/2016

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		Actual	Adjusted			Actual	Adjusted
Tubificida	080202	10.67	10.67		--	4.6	4.6
<i>Limnodrilus</i>	08020202022		1.00		CG		0.4
<i>Limnodrilus hoffmeisteri</i>	08020202022003	1.00			--	0.4	
<i>Glossiphonia</i>	08030101004		0.67		--		0.3
<i>Glossiphonia elegans</i>	08030101004001	0.67			--	0.3	
<i>Helobdella</i>	08030101005		0.33		--		0.1
<i>Helobdella modesta</i>	08030101005004	0.33			--	0.1	
<i>Gammarus</i>	09010201003	90.33	90.33	4	--	39.3	39.3
<i>Crangonyx</i>	09010202004	0.33	0.33	8	--	0.1	0.1
<i>Aeshna</i>	09020301001	0.33	0.33	5	PR	0.1	0.1
<i>Boyeria</i>	09020301004	0.33	0.33	2	PR	0.1	0.1
<i>Ptilostomis</i>	09020608041	0.33	0.33	5	SH	0.1	0.1
<i>Hydatophylax</i>	09020610048	0.33	0.33	2	SH	0.1	0.1
<i>Mystacides</i>	09020618075		2.33	4	CG		1.0
<i>Mystacides sepulchralis</i>	09020618075147	2.33			--	1.0	
<i>Nigronia</i>	09020701003		0.33	0	PR		0.1
<i>Nigronia serricornis</i>	09020701003003	0.33			--	0.1	
<i>Thienemannimyia</i>	09021011020		1.67	3	PR		0.7
<i>Thienemannimyia group</i>	09021011020041	1.67			--	0.7	
<i>Prodiamesa</i>	09021011031	1.33	1.33	3	CG	0.6	0.6
<i>Chaetocladius</i>	09021011035	0.33	0.33	6	CG	0.1	0.1
<i>Parakiefferiella</i>	09021011052	0.67	0.67		CG	0.3	0.3
<i>Micropsectra</i>	09021011070	3.67	3.67	7	CG	1.6	1.6
<i>Paratanytarsus</i>	09021011071	2.00	2.00	6	--	0.9	0.9
<i>Stempellinella</i>	09021011074	0.33	0.33	2	--	0.1	0.1
<i>Tanytarsus</i>	09021011076	39.67	39.67	6	CF	17.2	17.2
<i>Chironomus</i>	09021011080	0.33	0.33	10	CG	0.1	0.1
<i>Cryptochironomus</i>	09021011082	0.67	0.67	8	PR	0.3	0.3
<i>Dicrotendipes</i>	09021011085	0.67	0.67	8	CG	0.3	0.3
<i>Microtendipes</i>	09021011094		0.33	6	CF		0.1
<i>Microtendipes pedellus group</i>	09021011094166	0.33			--	0.1	
<i>Paratendipes</i>	09021011100	0.33	0.33	8	CG	0.1	0.1
<i>Polypedilum</i>	09021011102		0.67	6	SH		0.3
<i>Polypedilum scalaenum group</i>	09021011102189	0.67			--	0.3	
<i>Stictochironomus</i>	09021011106	60.00	60.00	9	CG	26.1	26.1
Tabanidae	09021014	0.33	0.33		--	0.1	0.1
<i>Dubiraphia</i>	09021113064	5.67	5.67	6	--	2.5	2.5



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<i>Physa</i>	10010202027	3.67	3.67		SC	1.6	1.6
Sphaeriidae	10020201	0.33	0.33		CF	0.1	0.1