



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

Station Information

Station Number: S-415	River Basin: 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: 2708	Type of Sample: ROCK BAG	Date Deployed: 7/9/2018
Subsample Factor: X4	Replicates: 3	Date Retrieved: 8/7/2018

Classification Attainment

Statutory Class: C	Final Determination: NA	Date: 11/14/2018
Model Result with P \geq 0.6: NA	Reason for Determination: Model	
Date Last Calculated: 11/13/2018	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	0.01	Non-Attainment	1.00
		<u>A Model</u>	
<u>B or Better Model</u>		Class A	0.00
Class A or B	0.00	Class B or C or Non-Attainment	1.00
Class C or Non-Attainment	1.00		

Model Variables

01 Total Mean Abundance	484.00	18 Relative Abundance Ephemeroptera	0.00
02 Generic Richness	41.00	19 EPT Generic Richness	8.00
03 Plecoptera Mean Abundance	0.00	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	26.99
04 Ephemeroptera Mean Abundance	1.33	23 Relative Generic Richness- Plecoptera	0.00
05 Shannon-Wiener Generic Diversity	3.52	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	48.58
06 Hilsenhoff Biotic Index	4.82	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	0.00
07 Relative Abundance - Chironomidae	0.22	28 EP Generic Richness/14	0.07
08 Relative Generic Richness Diptera	0.34	30 Presence of Class A Indicator Taxa/7	0.00
09 <i>Hydropsyche</i> Abundance	2.67		
11 <i>Cheumatopsyche</i> Abundance	2.67		
12 EPT Generic Richness/ Diptera Generic Richness	0.57		
13 Relative Abundance - Oligochaeta	0.01		
15 Perlidae Mean Abundance (Family Functional Group)	0.00		
16 Tanypodinae Mean Abundance (Family Functional Group)	1.35		
17 Chironomini Abundance (Family Functional Group)	28.36		

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Gammarus</i>	37.74
2	Hydrobiidae	14.60
3	<i>Tanytarsus</i>	9.49
4	<i>Dicrotendipes</i>	5.30
5	<i>Physa</i>	4.68



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Sample Collection and Processing Information

Sampling Organization: GZA GEOENVIRONMENTAL, INC. Taxonomist: AQUATIC RESOURCES CENTER, INC. - NASHVILLE, TN

Waterbody Information - Deployment

Temperature: 23.5 deg C
Dissolved Oxygen: 5.51 mg/l
Dissolved Oxygen Saturation: 65.3 %
Specific Conductance: 2785 uS/cm
Velocity:
pH:
Wetted Width: 4.17 m
Bankfull Width: 7.32 m
Depth: 30.23 cm

Waterbody Information - Retrieval

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>	
		Bedrock	5 %
		Boulder	10 %
		Gravel	20 %
		Rubble/Cobble	55 %
		Sand	7 %
		Silt	3 %

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

YSI PRO 2030 USED FOR ALL HABITAT CHARACTERISTICS.



**Maine Department of Environmental Protection
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Aquatic Life Taxonomic Inventory Report**

Station Number: S-415

Waterbody: Long Creek - Station 415

Town: South Portland

Log Number: 2708

Subsample Factor: X4

Replicates: 3

Calculated: 11/13/2018

Taxon	Maine Taxonomic Code	Count		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		(Mean of Samplers)				Actual	Adjusted
		Actual	Adjusted				
Tricladida	030101	10.67	10.67		--	2.2	2.2
Enchytraeidae	08020201	1.33	1.33		--	0.3	0.3
<i>Nais</i>	08020202009	2.67	2.67		CG	0.6	0.6
<i>Helobdella</i>	08030101005	1.33	1.33		--	0.3	0.3
<i>Placobdella</i>	08030101006	1.33	1.33		--	0.3	0.3
<i>Gammarus</i>	09010201003	182.67	182.67	4	--	37.7	37.7
Baetidae	09020401	1.33	1.33		--	0.3	0.3
<i>Nyctiophylax</i>	09020603009	1.33	1.33	5	PR	0.3	0.3
<i>Cheumatopsyche</i>	09020604015	2.67	2.67	5	CF	0.6	0.6
<i>Hydropsyche</i>	09020604016	2.67	2.67	4	CF	0.6	0.6
<i>Hydroptila</i>	09020607026	1.33	1.33	6	P	0.3	0.3
<i>Lepidostoma</i>	09020611064	2.67	2.67	1	SH	0.6	0.6
Leptoceridae	09020618				--		
<i>Mystacides</i>	09020618075	6.67	6.67	4	CG	1.4	1.4
<i>Oecetis</i>	09020618078	1.33	1.33	8	PR	0.3	0.3
Chironomidae	09021011	1.33			--	0.3	
<i>Conchapelopia</i>	09021011004	1.33	1.35	6	PR	0.3	0.3
<i>Potthastia</i>	09021011026	1.33	1.35	2	CG	0.3	0.3
<i>Corynoneura</i>	09021011036	2.67	2.70	7	CG	0.6	0.6
<i>Nanocladius</i>	09021011049	1.33	1.35	3	CG	0.3	0.3
<i>Parakiefferiella</i>	09021011052	6.67	6.75		CG	1.4	1.4
<i>Parametriocnemus</i>	09021011053	1.33	1.35	5	CG	0.3	0.3
<i>Rheocricotopus</i>	09021011057	1.33	1.35	6	CG	0.3	0.3
<i>Tvetenia</i>	09021011065	1.33	1.35	5	CG	0.3	0.3
<i>Paratanytarsus</i>	09021011071	9.33	9.45	6	--	1.9	2.0
<i>Rheotanytarsus</i>	09021011072	4.00	4.05	6	CF	0.8	0.8
<i>Stempellinella</i>	09021011074			2	--		
<i>Tanytarsus</i>	09021011076	45.33	45.91	6	CF	9.4	9.5
<i>Dicrotendipes</i>	09021011085	25.33	25.66	8	CG	5.2	5.3
<i>Microtendipes</i>	09021011094	1.33	1.35	6	CF	0.3	0.3
<i>Polypedilum</i>	09021011102	1.33	1.35	6	SH	0.3	0.3
<i>Ancyronyx</i>	09021113063	2.67	2.67	6	--	0.6	0.6
<i>Dubiraphia</i>	09021113064	8.00	8.00	6	--	1.7	1.7
<i>Macronychus</i>	09021113065	2.67	2.67	4	--	0.6	0.6
<i>Optioservus</i>	09021113067	4.00	4.00	3	SC	0.8	0.8
<i>Promoresia</i>	09021113069	1.33	1.33		--	0.3	0.3
<i>Stenelmis</i>	09021113070	4.00	4.00	5	SC	0.8	0.8



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		Actual	Adjusted			Actual	Adjusted
		<i>Atractides</i>	09030102002			1.33	1.33
Hydrobiidae	10010104	70.67	70.67		--	14.6	14.6
<i>Amnicola</i>	10010104013	10.67	10.67		SC	2.2	2.2
Physidae	10010202	10.67	10.67		SC	2.2	2.2
<i>Physa</i>	10010202027	22.67	22.67		SC	4.7	4.7
<i>Helisoma</i>	10010203030	6.67	6.67		SC	1.4	1.4
<i>Ferrissia</i>	10010204035	13.33	13.33		SC	2.8	2.8