



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

**Station Information**

<b>Station Number: W-028</b>	Trip ID: 2015-028	River Basin: Saco
Waterbody: LONG CREEK (BELOW GANNETT DR)		HUC8 Name: Presumpscot
Town: South Portland		Latitude: 43 38 29.95 N
Mitigation Monitoring Site: No		Longitude: 70 21 18.81 W

**Sample Information**

<b>Sample ID: DN-2015-028</b>	Type of Sample: DIPNET	Sampling Organization: BIOMONITORING UNIT
Date Sampled: 6/15/2015	Replicates: 3	Taxonomist: LOTIC INC.
Subsample Factor: X1		

**Classification Attainment**

<b>Statutory Class: C</b>	<b>Final Determination: C</b>	Date: 1/13/2017
Model Result with $P \geq 0.6$ : C	<b>Reason for Determination: Model</b>	
Date Last Calculated: 12/21/2018	Comments:	

**Model Probabilities**

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A: 0.00	Class C: 0.99	Class A, B, or C	1.00
Class B: 0.01	NA: 0.00	Non-Attainment	0.00
<u>B or Better Model</u>		<u>A Model</u>	
Class A or B	0.01	Class A	0.00
Class C or Non-Attainment	0.99	Class B or C or Non-Attainment	1.00

**Model Variables**

		Reference Range (10th or 90th percentile value)
Abundance of Taxa in the Order Ephemeroptera	0.000	≥ 0.000
Relative Richness of Taxa in the Orders Ephemeroptera, Odonata and Tricoptera	0.143	≥ 0.140
Shannon-Wiener Diversity Index	3.817	≥ 2.497
Relative Abundance of Collector-Gatherer Taxa	0.222	≥ 0.131
Abundance of Sensitive Taxa	10.667	≥ 3.424
Richness of Sensitive Taxa	1.000	≥ 3.000
Maine Tolerance Index Score For Wetland Macroinvertebrates	35.326	≤ 29.776
Ratio of MTI Sensitive to Eurytopic Taxa Abundance	0.162	≥ 0.334

**Other Variables**

Total Mean Abundance	183
Generic Richness:	28
Hilsenhoff Biotic Index:	7.62

**Five Most Dominant Taxa**

Rank	Taxon Name	Percent
1	<i>Microtendipes pedellus group</i>	18.91
2	<i>Caecidotea</i>	14.36
3	<i>Fossaria</i>	11.27
4	<i>Hyaella</i>	10.18
5	<i>Chironomus</i>	8.00



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**Surface Water Chemistry**

**Sample Date:** 6/15/2015 9:15:00 AM

Collection Method	Parameter	Value	Units	Qualifier
Grab Sample	Chloride	350	mg/l	
Grab Sample	Chlorophyll A	0.011	mg/l	
Grab Sample	Chlorophyll A - Pheophytin	0.011	mg/l	
Grab Sample	Dissolved Organic Carbon	5.4	mg/l	
Grab Sample	Nitrate + Nitrite As Nitrogen		mg/l	U
Grab Sample	Orthophosphate As Phosphorus	2	ug/l	
Grab Sample	Total Alkalinity	112	mg/l	
Grab Sample	Total Kjeldahl Nitrogen (organic And Nh3) As Nitrogen	0.5	mg/l	
Grab Sample	Total Phosphorus	25	ug/l	
Grab Sample	True Color	55	ptco	
In-situ	Dissolved Oxygen	3.28	mg/l	
In-situ	pH	7.24		
In-situ	Specific Conductance	1355	us/cm	
In-situ	Temperature	17.9	deg c	

**Landcover Summary - 2004 Data**

Total Area (ac)	480	High Int. Dev. %	13.6	Water %	0.0	Non-vegetated %	0.0
		Med Int. Dev. %	1.8	Wetland %	12.3	Tilled Agriculture %	0.0
		Low Int. Dev. %	6.8	Upland Woody %	25.4	Grassland %	3.9
		Development %	22.3	Natural %	37.7	Human Altered %	62.3
						Impervious %	20.0
Total Land (ac)	480	High Int. Dev. %	13.6	Water %	N/A	Non-vegetated %	N/A
		Med Int. Dev. %	1.8	Wetland %	12.3	Tilled Agriculture %	0.0
		Low Int. Dev. %	6.8	Upland Woody %	25.4	Grassland %	3.9
		Development %	22.3	Natural %	37.7	Human Altered %	62.3
						Impervious %	20.0



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**Summary of Habitat Characteristics**

<u>Human Disturbance</u>	<u>Landscape-level Cowardin Classification</u>	<u>Hydrogeomorphic Setting</u>
Total Score: 20	System: PALUSTRINE	Landscape Position: LOTIC STREAM
Hydrologic Modifications: 2	Subsystem:	Lotic Gradient: LOW GRADIENT
Vegetative Modifications: 5	Class 1: EMERGENT	Flow Path: THROUGHFLOW
Chemical Pollutants: 1	Subclass 1: PERSISTENT	Land Form: FRINGE
Watershed Characterization and Non-point Sources: 12	Class 2:	Land Form Type: LOTIC STREAM FRINGE POND
	Subclass 2:	Waterbody Type: POND
	Class 3:	Waterbody Subtype:
	Subclass 3:	

Comments:

Dominant Plant Species:

Additional Plant Community Observations: SEDGES, RUSHES, UNKNOWN SUBMERGED PLANTS

Habitat Classification: EMERGENT NON-PERSISTENT VEGETATION	Substrate Classification: SILT/MUCK SUBSTRATE
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Average Depth: 48 cm    Visible Flow: No    Rain In Previous 24 Hours: Yes

Sample Comments: CATTAILS APPEAR MORE ABUNDANT/DOMINANT THAN LAST SITE VISIT, PATCHES OF DUCKWEED.

**Common Plants Observed**

Scientific Name	Common Name	Maine Taxonomic Code	Plant CoC Score	Wetland Indicator Status	Growth Form
<i>Spiraea</i>		LW-34024202026			
<i>Lemna</i>		LW-34010201002			
<i>Iris versicolor</i>	Harelquin blueflag iris	LW-34010903001006	3	OBL	FORB/HERB
<i>Typha</i>		LW-34011301002			
<i>Nuphar lutea ssp. variegata</i>	Variegated yellow pond-lily	LW-34023103002002	4	OBL	FORB/HERB



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**Additional Summary Variables**

**Station Number: W-028**                      Waterbody: LONG CREEK (BELOW GANNETT DR)    Town: South Portland  
**Log Number: DN-2015-028**              Subsample Factor: X1                      Replicates: 3                      Calculated: 12/21/2018

	<b>Abundance</b>	<b>Relative Abundance</b>	<b>Richness</b>	<b>Relative Richness</b>
EOT Taxa:	10.33	0.056	4	0.14
EPT Taxa:	2.67	0.015	1	0.04
Insects:	103.67	0.565	18	0.64
Non-Insects:	79.67	0.435	10	0.36
Leeches:	3.67	0.020	3	0.11
Oligochaetes:	0.00	0.000	0	0.00
Snails:	22.67	0.124	3	0.11
Bivalves:	8.00	0.044	1	0.04
Isopods:	26.33	0.144	1	0.04
Amphipods:	18.67	0.102	1	0.04
Mites:	0.33	0.002	1	0.04
Stoneflies:	0.00	0.000	0	0.00
Mayflies:	0.00	0.000	0	0.00
Odonates:	7.67	0.042	3	0.11
Caddisflies:	2.67	0.015	1	0.04
Diptera:	73.33	0.400	8	0.29
Hemiptera:	6.33	0.035	2	0.07
Beetles:	13.33	0.073	3	0.11
Chironomids:	73.00	0.398	7	0.25
Tanypodinae Tribe:	11.67	0.064	2	0.07
Chironomiinae Tribe:	61.33	0.335	5	0.18
Orthocloidiinae Tribe:	0.00	0.000	0	0.00
Collector-Filterers:	42.67	0.233	2	0.07
Collector-Gatherers:	40.67	0.222	4	0.14
Predators:	21.33	0.116	7	0.25
Piercers:	11.67	0.064	2	0.07
Shredders:	31.00	0.169	3	0.11
Scrapers:	2.00	0.011	2	0.07
Maine Tolerance:				
Sensitive:	10.67	0.060	1	0.04
Intermediate:	100.33	0.568	16	0.64
Eurytopic:	65.67	0.372	8	0.32
Ratio of MTI Sensitive to Eurytopic	0.16	0.162	0.13	0.13



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**Aquatic Life Taxonomic Inventory Report**

**Station Number: W-028**      Waterbody: LONG CREEK (BELOW GANNETT DR)      Town: South Portland  
**Log Number: DN-2015-028**      Subsample Factor: X1      Replicates: 3      Calculated: 12/21/2018

Taxon	Maine Taxonomic Code	Count (Mean of Samples)		Hilsen-hoff Biotic Index	Functional Feeding Group	Maine Tolerance Index	Tribe	Taxa Group
		Actual	Adjusted					
Glossiphonia	08030101004	0.33	0.33	--	--	55.3-E	--	Leech
Helobdella	08030101005	0.00	2.00	--	--	43-E	--	Leech
<i>Helobdella modesta</i>	08030101005004	2.00	0.00	--	--	--	--	Leech
Erpobdella	08030203002	1.33	1.33	--	--	36.4-I	--	Leech
Caecidotea	09010101001	26.33	26.33	8	SH	51.9-E	--	Isopod
Hyalella	09010203006	18.67	18.67	8	CG	24.5-I	--	Amphipod
Sminthuridae	09020104	0.33	0.33	--	--	--	--	Collembola
Sympetrum	09020306041	4.67	4.67	10	PR	37-I	--	Dragonfly/damselfly
Lestes	09020308045	0.67	0.67	9	PR	32.6-I	--	Dragonfly/damselfly
Enallagma	09020309051	2.33	2.33	9	PR	26.2-I	--	Dragonfly/damselfly
Corixidae	09020501	6.00	6.00	--	--	--	--	True Bug
Belostoma	09020502009	0.33	0.33	--	PR	41.7-I	--	True Bug
Limnephilus	09020610055	2.67	2.67	3	SH	24.6-I	--	Caddisfly
Tanytus	09021011018	1.00	1.00	10	PR	33.5-I	T	Fly: Midge
Zavrelimyia	09021011022	10.67	10.67	8	PR	6.4-S	T	Fly: Midge
Paratanytarsus	09021011071	3.00	3.00	6	--	43-E	Y	Fly: Midge
Chironomus	09021011080	14.67	14.67	10	CG	27.4-I	C	Fly: Midge
Dicrotendipes	09021011085	7.00	7.00	8	CG	28.8-I	C	Fly: Midge
Microtendipes	09021011094	0.00	34.67	6	CF	22.3-I	C	Fly: Midge
<i>Microtendipes pedellus group</i>	09021011094166	34.67	0.00	--	--	--	C	Fly: Midge
Polypedilum	09021011102	0.33	2.00	6	SH	24.2-I	C	Fly: Midge
<i>Polypedilum halterale group</i>	09021011102193	1.67	0.00	--	--	--	C	Fly: Midge
Stratiomys	09021013049	0.33	0.33	--	CG	--	--	Fly: Aquatic Soldier
Haliphus	09021101001	7.33	7.33	--	P	67.1-E	--	Beetle
Peltodytes	09021101002	4.33	4.33	--	P	56.2-E	--	Beetle
Tropisternus	09021105038	1.67	1.67	--	PR	61.8-E	--	Beetle
Eylais	09030117001	0.33	0.33	--	--	23-I	--	Mite
Fossaria	10010201021	20.67	20.67	--	--	56.1-E	--	Snail
Physa	10010202027	1.67	1.67	--	SC	34-I	--	Snail
Gyraulus	10010203029	0.33	0.33	--	SC	37.2-I	--	Snail
Sphaerium	10020201003	8.00	8.00	--	CF	24.8-I	--	Clam