



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

Station Information

Station Number: W-262	Trip ID: 2015-262	River Basin: Saco
Waterbody: MEADOW BROOK (NEW GLOUCESTER)		HUC8 Name: Presumpscot
Town: New Gloucester		Latitude: 43 58 18.42 N
Mitigation Monitoring Site: No		Longitude: 70 14 46.21 W

Sample Information

Sample ID: DN-2015-262	Type of Sample: DIPNET	Sampling Organization: BIOMONITORING UNIT
Date Sampled: 6/9/2015	Replicates: 3	Taxonomist: LOTIC INC.
Subsample Factor: X1		

Classification Attainment

Statutory Class: B	Final Determination: B	Date: 7/23/2019
Model Result with $P \geq 0.6$: B	Reason for Determination: Model	
Date Last Calculated: 12/21/2018	Comments:	

Model Probabilities

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A: 0.19	Class C: 0.01	Class A, B, or C	1.00
Class B: 0.80	NA: 0.00	Non-Attainment	0.00
<u>B or Better Model</u>		<u>A Model</u>	
Class A or B	0.99	Class A	0.19
Class C or Non-Attainment	0.01	Class B or C or Non-Attainment	0.81

Model Variables

		Reference Range (10th or 90th percentile value)
Abundance of Taxa in the Order Ephemeroptera	28.000	≥ 0.000
Relative Richness of Taxa in the Orders Ephemeroptera, Odonata and Tricoptera	0.256	≥ 0.140
Shannon-Wiener Diversity Index	3.338	≥ 2.497
Relative Abundance of Collector-Gatherer Taxa	0.360	≥ 0.131
Abundance of Sensitive Taxa	130.667	≥ 3.424
Richness of Sensitive Taxa	7.000	≥ 3.000
Maine Tolerance Index Score For Wetland Macroinvertebrates	26.549	≤ 29.776
Ratio of MTI Sensitive to Eurytopic Taxa Abundance	3.630	≥ 0.334

Other Variables

Total Mean Abundance	315
Generic Richness:	43
Hilsenhoff Biotic Index:	7.77

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Amnicola</i>	29.92
2	<i>Hyaella</i>	25.48
3	<i>Corixidae</i>	8.46
4	<i>Proclleon</i>	7.61
5	<i>Caecidotea</i>	6.13



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Surface Water Chemistry

Sample Date: 6/9/2015 12:00:00 PM

Collection Method	Parameter	Value	Units	Qualifier
Grab Sample	Chloride	15	mg/l	
Grab Sample	Chlorophyll A	0.0052	mg/l	
Grab Sample	Chlorophyll A - Phaeophytin	0.0047	mg/l	
Grab Sample	Dissolved Organic Carbon	4.1	mg/l	
Grab Sample	Nitrate + Nitrite As Nitrogen	0.01	mg/l	
Grab Sample	Orthophosphate As Phosphorus	2	ug/l	
Grab Sample	Total Alkalinity	17	mg/l	
Grab Sample	Total Kjeldahl Nitrogen (organic And Nh3) As Nitrogen	0.4	mg/l	
Grab Sample	Total Phosphorus	31	ug/l	
Grab Sample	True Color	60	ptco	
In-situ	Dissolved Oxygen	5.98	mg/l	
In-situ	pH	7		
In-situ	Specific Conductance	95.4	us/cm	
In-situ	Temperature	16.4	deg c	

Landcover Summary - 2004 Data

Total Area (ac)	3439	High Int. Dev. %	0.1	Water %	0.1	Non-vegetated %	0.0
		Med Int. Dev. %	0.1	Wetland %	7.8	Tilled Agriculture %	2.4
		Low Int. Dev. %	3.6	Upland Woody %	81.3	Grassland %	4.4
		Development %	3.8	Natural %	89.2	Human Altered %	10.7
						Impervious %	3.2
Total Land (ac)	3437	High Int. Dev. %	0.1	Water %	N/A	Non-vegetated %	N/A
		Med Int. Dev. %	0.1	Wetland %	7.8	Tilled Agriculture %	2.4
		Low Int. Dev. %	3.6	Upland Woody %	81.3	Grassland %	4.4
		Development %	3.8	Natural %	89.3	Human Altered %	10.7
						Impervious %	3.2



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Summary of Habitat Characteristics

<u>Human Disturbance</u>	<u>Landscape-level Cowardin Classification</u>	<u>Hydrogeomorphic Setting</u>
Total Score: 8	System:	Landscape Position:
Hydrologic Modifications: 1	Subsystem:	Lotic Gradient:
Vegetative Modifications: 0	Class 1:	Flow Path:
Chemical Pollutants: 0	Subclass 1:	Land Form:
Watershed: 7	Class 2:	Land Form Type:
Characterization and	Subclass 2:	Waterbody Type:
Non-point Sources:	Class 3:	Waterbody Subtype:
	Subclass 3:	
		Comments:

Dominant Plant Species:

Additional Plant Community Observations: GRASSES, SEDGES, CLUMPS OF ALGAE COMMONLY OBSERVED

Habitat Classification: EMERGENT NON-PERSISTENT VEGETATION	Substrate Classification: SILT/MUCK SUBSTRATE
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Average Depth: 34 cm Visible Flow: No Rain In Previous 24 Hours: No

Sample Comments: PH READ 7.0, THEN WENT TO "OVER"

Common Plants Observed

Scientific Name	Common Name	Maine Taxonomic Code	Plant CoC Score	Wetland Indicator Status	Growth Form
<i>Pontederia cordata</i>	Pickerelweed	LW-34010906002002	4	OBL	FORB/HERB
<i>Equisetum</i>		LW-32010101001			
<i>Nuphar lutea ssp. variegata</i>	Variegated yellow pond-lily	LW-34023103002002	4	OBL	FORB/HERB



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Additional Summary Variables

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	Abundance	Relative Abundance	Richness	Relative Richness
EOT Taxa:	46.00	0.146	11	0.26
EPT Taxa:	35.00	0.111	7	0.16
Insects:	106.67	0.338	34	0.79
Non-Insects:	208.67	0.662	9	0.21
Leeches:	0.00	0.000	0	0.00
Oligochaetes:	0.00	0.000	0	0.00
Snails:	108.33	0.344	5	0.12
Bivalves:	0.00	0.000	0	0.00
Isopods:	19.33	0.061	1	0.02
Amphipods:	80.33	0.255	1	0.02
Mites:	0.33	0.001	1	0.02
Stoneflies:	0.00	0.000	0	0.00
Mayflies:	28.00	0.089	4	0.09
Odonates:	11.00	0.035	4	0.09
Caddisflies:	7.00	0.022	3	0.07
Diptera:	14.67	0.047	11	0.26
Hemiptera:	29.67	0.094	4	0.09
Beetles:	16.00	0.051	7	0.16
Chironomids:	14.00	0.044	9	0.21
Tanypodinae Tribe:	2.67	0.008	1	0.02
Chironomiinae Tribe:	2.33	0.007	4	0.09
Orthocloidiinae Tribe:	9.00	0.029	4	0.09
Collector-Filterers:	0.00	0.000	0	0.00
Collector-Gatherers:	113.67	0.360	10	0.23
Predators:	20.00	0.063	10	0.23
Piercers:	1.67	0.005	2	0.05
Shredders:	29.00	0.092	5	0.12
Scrapers:	107.00	0.339	4	0.09
Maine Tolerance:				
Sensitive:	130.67	0.465	7	0.22
Intermediate:	114.33	0.407	18	0.56
Eurytopic:	36.00	0.128	7	0.22
Ratio of MTI Sensitive to Eurytopic	3.63	3.630	1.00	1.00



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Aquatic Life Taxonomic Inventory Report

Station Number: W-262 Waterbody: MEADOW BROOK (NEW GLOUCESTER) Town: New Gloucester
Log Number: DN-2015-262 Subsample Factor: X1 Replicates: 3 Calculated: 12/21/2018

Taxon	Maine Taxonomic Code	Count (Mean of Samples)		Hilsenhoff Biotic Index	Functional Feeding Group	Maine Tolerance Index	Tribe	Taxa Group
		Actual	Adjusted					
Tricladida	030101	0.33	0.33	--	--	--	--	Planaria
Caecidotea	09010101001	19.33	19.33	8	SH	51.9-E	--	Isopod
Hyalella	09010203006	80.33	80.33	8	CG	24.5-I	--	Amphipod
Sminthuridae	09020104	0.33	0.33	--	--	--	--	Collembola
Aeshnidae	09020301	1.67	1.67	--	--	--	--	Dragonfly/damselfly
Libellulidae	09020306	1.67	1.67	--	--	--	--	Dragonfly/damselfly
Lestes	09020308045	5.33	5.33	9	PR	32.6-I	--	Dragonfly/damselfly
Enallagma	09020309051	2.33	2.33	9	PR	26.2-I	--	Dragonfly/damselfly
Proclleon	09020401010	24.00	24.00	--	CG	21-S	--	Mayfly
Paraleptophlebia	09020406026	0.33	0.33	1	CG	--	--	Mayfly
Eurylophella	09020410036	2.67	2.67	3	CG	23.2-I	--	Mayfly
Caenis	09020412040	1.00	1.00	7	CG	22.1-I	--	Mayfly
Corixidae	09020501	26.67	26.67	--	--	--	--	True Bug
Hesperocorixa	09020501004	0.33	0.33	--	P	--	--	True Bug
Belostoma	09020502009	0.67	0.67	--	PR	41.7-I	--	True Bug
Notonectidae	09020505	2.00	2.00	--	--	--	--	True Bug
Polycentropus	09020603010	0.33	0.33	6	PR	15.4-S	--	Caddisfly
Triaenodes	09020618077	0.00	3.67	6	SH	19.3-S	--	Caddisfly
<i>Triaenodes nox</i>	09020618077154	3.67	0.00	--	--	--	--	Caddisfly
Oecetis	09020618078	0.00	3.00	8	PR	16.3-S	--	Caddisfly
<i>Oecetis inconspicua complex</i>	09020618078156	3.00	0.00	--	--	--	--	Caddisfly
Mansonia	09021008033	0.33	0.33	--	CG	42.2-I	--	Fly: Mosquito
Bezzia/palpomyia	09021010043	0.33	0.33	6	PR	26.9-I	--	Fly: Biting Midge
Ablabesmyia	09021011001	0.00	2.67	8	PR	23.6-I	T	Fly: Midge
<i>Ablabesmyia peleensis</i>	09021011001006	2.67	0.00	--	--	--	T	Fly: Midge
Brillia	09021011033	0.33	0.33	5	SH	--	--	Fly: Midge
Corynoneura	09021011036	0.67	0.67	7	CG	40.1-I	--	Fly: Midge
Cricotopus	09021011037	5.00	5.00	7	SH	43-E	--	Fly: Midge
Psectrocladius	09021011056	3.00	3.00	8	CG	22-S	--	Fly: Midge
Paratanytarsus	09021011071	0.33	0.33	6	--	43-E	Y	Fly: Midge
Chironomus	09021011080	0.67	0.67	10	CG	27.4-I	C	Fly: Midge
Dicrotendipes	09021011085	0.67	0.67	8	CG	28.8-I	C	Fly: Midge
Polypedilum	09021011102	0.67	0.67	6	SH	24.2-I	C	Fly: Midge
Halipilus	09021101001	1.33	1.33	--	P	67.1-E	--	Beetle



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		Actual	Adjusted						
Laccophilus	09021103006	8.00	8.00	--	--	63.7-E	--	Beetle	
Hygrotus	09021103014	2.33	2.33	--	PR	17.6-S	--	Beetle	
Coptotomus	09021103023	2.33	2.33	--	PR	32-I	--	Beetle	
Dineutus	09021104032	1.00	1.00	2	--	23.2-I	--	Beetle	
Tropisternus	09021105038	0.67	0.67	--	PR	61.8-E	--	Beetle	
Curculionidae	09021115	0.33	0.33	--	--	--	--	Beetle	
Unionicola	09030108001	0.33	0.33	--	--	24.8-I	--	Mite	
Campeloma	10010102004	0.00	0.33	--	SC	--	--	Snail	
<i>Campeloma decisum</i>	10010102004009	0.33	0.00	--	--	--	--	Snail	
Amnicola	10010104013	94.33	94.33	--	SC	18.7-S	--	Snail	
Fossaria	10010201021	1.33	1.33	--	--	56.1-E	--	Snail	
Physa	10010202027	11.67	11.67	--	SC	34-I	--	Snail	
Helisoma	10010203030	0.67	0.67	--	SC	42.8-I	--	Snail	