



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

**Station Information**

<b>Station Number:</b> S-1064	River Basin:	Saco
Waterbody: Mare Brook - Station 1064	HUC8 Name:	Presumpscot
Town: Brunswick	Latitude:	43 54 1.37 N
Directions: 80M BELOW BARROWS STREET CROSSING. PARK ON RICHARDS DRIVE.	Longitude:	69 58 18.7 W
	Stream Order:	1

**Sample Information**

<b>Log Number:</b> 2347	Type of Sample: ROCK BAG	Date Deployed: 7/8/2015
Subsample Factor: X4	Replicates: 2	Date Retrieved: 8/5/2015

**Classification Attainment**

<b>Statutory Class:</b> B	<b>Final Determination:</b> NA	Date: 12/9/2015
Model Result with $P \geq 0.6$ : NA	<b>Reason for Determination:</b> Model	
Date Last Calculated: 12/8/2015	Comments:	

**Model Probabilities**

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A	0.00	Class A, B, or C	0.23
Class B	0.00	Non-Attainment	0.77
<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	1540.00	18 Relative Abundance Ephemeroptera	0.00
02 Generic Richness	31.00	19 EPT Generic Richness	4.00
03 Plecoptera Mean Abundance	0.00	21 Sum of Abundances: <i>Dicrotendipes, Micropsectra, Parachironomus, Helobdella</i>	334.69
04 Ephemeroptera Mean Abundance	6.00	23 Relative Generic Richness- Plecoptera	0.00
05 Shannon-Wiener Generic Diversity	3.17	25 Sum of Abundances: <i>Cheumatopsyche, Cricotopus, Tanytarsus, Ablabesmyia</i>	4.04
06 Hilsenhoff Biotic Index	6.68	26 Sum of Abundances: <i>Acroneuria, Maccaffertium, Stenonema</i>	0.00
07 Relative Abundance - Chironomidae	0.44	28 EP Generic Richness/14	0.07
08 Relative Generic Richness Diptera	0.48	30 Presence of Class A Indicator Taxa/7	0.00
09 <i>Hydropsyche</i> Abundance	2.00		
11 <i>Cheumatopsyche</i> Abundance	0.00		
12 EPT Generic Richness/ Diptera Generic Richness	0.27		
13 Relative Abundance - Oligochaeta	0.06		
15 Perlidae Mean Abundance (Family Functional Group)	0.00		
16 Tanypodinae Mean Abundance (Family Functional Group)	12.11		
17 Chironomini Abundance (Family Functional Group)	98.88		

**Five Most Dominant Taxa**

Rank	Taxon Name	Percent
1	<i>Caecidotea</i>	31.30
2	<i>Micropsectra</i>	19.65
3	<i>Synurella</i>	11.95
4	<i>Prodiamesa</i>	10.61
5	<i>Stictochironomus</i>	5.37



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**Sample Collection and Processing Information**

Sampling Organization: BIOMONITORING UNIT      Taxonomist: MICHAEL WINNELL

**Waterbody Information - Deployment**

Temperature: 15.1 deg C  
Dissolved Oxygen: 8.53 mg/l  
Dissolved Oxygen Saturation:  
Specific Conductance: 272 uS/cm  
Velocity: 15.2 cm/s  
pH: 6.79  
Wetted Width: 3.75 m  
Bankfull Width: 4.6 m  
Depth: 17 cm

**Waterbody Information - Retrieval**

Temperature: 15.9 deg C  
Dissolved Oxygen: 8.51 mg/l  
Dissolved Oxygen Saturation:  
Specific Conductance: 271.9 uS/cm  
Velocity:  
pH: 7.27  
Wetted Width: 3.85 m  
Bankfull Width: 4.6 m  
Depth: 21 cm

**Water Chemistry - 8/5/2015**

Nitrate+nitrite As N	0.45 mg/l	Total Phosphorus	21 ug/l
Total Kjeldahl Nitrogen	0.3 mg/l	Total Suspended Solids	<2 mg/l
Dissolved Organic Carbon	1.1 mg/l	Total Dissolved Solids	180 mg/l
Orthophosphate As Phosphorus	5 ug/l		

**Summary of Habitat Characteristics**

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Terrain</u>	
Upland Conifer	Dense	Flat	
Upland Hardwood			
Urban			
<u>Potential Stressor</u>	<u>Location</u>	<u>Substrate</u>	
	Above In-place Contamination	Detritus	10 %
	Below Road Crossing	Gravel	5 %
		Sand	85 %

**Landcover Summary - 2004 Data**

**Sample Comments**

8/3/2015 - 1 BURIED.  
7/8/2015 - 85.1 % DO.



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**Log Number: 2347**      Subsample Factor: X4      Replicates: 2      Calculated: 12/8/2015

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
<i>Hydra</i>	02010101001	2.00	2.00		PR	0.1	0.1
Rhabditophora	0301	4.00	4.00		--	0.3	0.3
<i>Stylodrilus</i>	08020101004		20.00		--		1.3
<i>Stylodrilus heringianus</i>	08020101004001	20.00			--	1.3	
Naididae	08020202	70.00	70.00		--	4.5	4.5
<i>Ilyodrilus</i>	08020202020		10.00		--		0.6
<i>Ilyodrilus templetoni</i>	08020202020001	10.00			--	0.6	
<i>Helobdella</i>	08030101005		32.00		--		2.1
<i>Helobdella modesta</i>	08030101005004	32.00			--	2.1	
<i>Caecidotea</i>	09010101001	354.00	482.00	8	SH	23.0	31.3
<i>Caecidotea racovitzai racovitzai</i>	09010101001002	128.00			--	8.3	
<i>Synurella</i>	09010202006		184.00		--		11.9
<i>Synurella chamberlaini</i>	09010202006001	184.00			--	11.9	
<i>Baetis</i>	09020401001	6.00	6.00	4	CG	0.4	0.4
<i>Hydropsyche</i>	09020604016		2.00	4	CF		0.1
<i>Hydropsyche bronta</i>	09020604016029	2.00			--	0.1	
Limnephilidae	09020610	2.00			--	0.1	
<i>Frenesia</i>	09020610058		5.33	0	SH		0.3
<i>Frenesia difficilis</i>	09020610058117	4.00			--	0.3	
<i>Psychoglypha</i>	09020610060		2.67	0	SH		0.2
<i>Psychoglypha subborealis</i>	09020610060120	2.00			--	0.1	
<i>Chauliodes</i>	09020701001		2.00	4	PR		0.1
<i>Chauliodes rastricornis</i>	09020701001002	2.00			--	0.1	
<i>Dicranota</i>	09021001005	32.00	32.00	3	PR	2.1	2.1
Chironomidae	09021011	6.00			--	0.4	
<i>Meropelopia</i>	09021011010	10.00	10.09		--	0.6	0.7
<i>Rheopelopia</i>	09021011017		2.02		PR		0.1
<i>Rheopelopia acra group</i>	09021011017036	2.00			--	0.1	
<i>Prodiamesa</i>	09021011031		163.45	3	CG		10.6
<i>Prodiamesa olivacea</i>	09021011031048	162.00			--	10.5	
<i>Brillia</i>	09021011033		64.57	5	SH		4.2
<i>Brillia parva</i>	09021011033050	64.00			--	4.2	
<i>Corynoneura</i>	09021011036	22.00	22.20	7	CG	1.4	1.4
<i>Parametriocnemus</i>	09021011053	2.00	2.02	5	CG	0.1	0.1
<i>Thienemanniella</i>	09021011062		2.02	6	CG		0.1
<i>Thienemanniella boltoni</i>	09021011062113	2.00			--	0.1	
<i>Micropsectra</i>	09021011070	300.00	302.69	7	CG	19.5	19.7
<i>Tanytarsus</i>	09021011076	2.00	4.04	6	CF	0.1	0.3



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		Actual	Adjusted			Actual	Adjusted
<i>Tanytarsus sepp</i>	09021011076141	2.00			--	0.1	
<i>Paratendipes</i>	090210111100		4.04	8	CG		0.3
<i>Paratendipes albimanus group</i>	09021011100176	4.00			--	0.3	
<i>Polypedilum</i>	090210111102		12.11	6	SH		0.8
<i>Polypedilum scalaenum group</i>	09021011102189	12.00			--	0.8	
<i>Stictochironomus</i>	090210111106	82.00	82.73	9	CG	5.3	5.4
<i>Odontomesa</i>	09021011121		4.04	4	--		0.3
<i>Odontomesa fulva</i>	09021011121001	4.00			--	0.3	
<i>Simulium tuberosum</i>	09021012047067				--		
<i>Neoplasta</i>	09021016064	2.00	2.00		PR	0.1	0.1
<i>Neoporus</i>	09021103033		2.00		--		0.1
<i>Neoporus shermani</i>	09021103033001	2.00			--	0.1	
Basommatophora	100102	2.00	2.00		--	0.1	0.1
Lymnaeidae	10010201	2.00	2.00		--	0.1	0.1
<i>Physa</i>	10010202027	2.00	2.00		SC	0.1	0.1