



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

**Station Information**

<b>Station Number:</b>	<b>S-30</b>	River Basin:	Kennebec
Waterbody:	Bond Brook - Station 30	HUC8 Name:	Lower Kennebec
Town:	Augusta	Latitude:	44 20 15.03 N
Directions:	24 M ABOVE I-95 OVERPASS	Longitude:	69 48 27.49 W
		Stream Order:	2

**Sample Information**

<b>Log Number:</b>	<b>2572</b>	Type of Sample:	ROCK BAG	Date Deployed:	7/18/2017
Subsample Factor:	X4	Replicates:	3	Date Retrieved:	8/15/2017

**Classification Attainment**

<b>Statutory Class:</b>	<b>B</b>	<b>Final Determination:</b>	<b>B</b>	Date:	3/16/2018
Model Result with $P \geq 0.6$ :	B	<b>Reason for Determination:</b>	<b>Model</b>		
Date Last Calculated:	3/15/2018	Comments:			

**Model Probabilities**

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A	0.06	Class A, B, or C	1.00
Class B	0.58	Non-Attainment	0.00
<u>B or Better Model</u>		<u>A Model</u>	
Class A or B	0.87	Class A	0.10
Class C or Non-Attainment	0.13	Class B or C or Non-Attainment	0.90

**Model Variables**

01 Total Mean Abundance	1789.33	18 Relative Abundance Ephemeroptera	0.08
02 Generic Richness	51.00	19 EPT Generic Richness	21.00
03 Plecoptera Mean Abundance	1.33	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	0.00
04 Ephemeroptera Mean Abundance	134.67	23 Relative Generic Richness- Plecoptera	0.02
05 Shannon-Wiener Generic Diversity	4.03	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	427.05
06 Hilsenhoff Biotic Index	5.41	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	49.33
07 Relative Abundance - Chironomidae	0.34	28 EP Generic Richness/14	0.93
08 Relative Generic Richness Diptera	0.39	30 Presence of Class A Indicator Taxa/7	0.29
09 <i>Hydropsyche</i> Abundance	219.62		
11 <i>Cheumatopsyche</i> Abundance	292.38		
12 EPT Generic Richness/ Diptera Generic Richness	1.05		
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance (Family Functional Group)	0.00		
16 Tanypodinae Mean Abundance (Family Functional Group)	69.33		
17 Chironomini Abundance (Family Functional Group)	376.00		

<b>Five Most Dominant Taxa</b>		
Rank	Taxon Name	Percent
1	<i>Microtendipes</i>	16.77
2	<i>Cheumatopsyche</i>	16.34
3	<i>Hydropsyche</i>	12.27
4	<i>Oecetis</i>	7.75
5	<i>Polycentropus</i>	7.67



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**Station Number: S-30**

Town: Augusta

Date Deployed: 7/18/2017

**Log Number: 2572**

Waterbody: Bond Brook - Station 30

Date Retrieved: 8/15/2017

**Sample Collection and Processing Information**

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL COLE

**Waterbody Information - Deployment**

Temperature:	20.9 deg C
Dissolved Oxygen:	9.08 mg/l
Dissolved Oxygen Saturation:	100 %
Specific Conductance:	254.7 uS/cm
Velocity:	6.1 cm/s
pH:	7.92
Wetted Width:	10.9 m
Bankfull Width:	13.3 m
Depth:	33 cm

**Waterbody Information - Retrieval**

Temperature:	19.8 deg C
Dissolved Oxygen:	11.03 mg/l
Dissolved Oxygen Saturation:	119.9 %
Specific Conductance:	213.5 uS/cm
Velocity:	12.2 cm/s
pH:	7.9
Wetted Width:	10.7 m
Bankfull Width:	13.3 m
Depth:	34 cm

**Water Chemistry**

**Summary of Habitat Characteristics**

Landuse Name

Canopy Cover

Terrain

Upland Conifer

Partly Open

Rolling

Upland Hardwood

Urban

Potential Stressor

Location

Substrate

Urban Runoff

Below Urban NPS

Boulder	10 %
Rubble/Cobble	75 %
Sand	10 %
Silt	5 %

**Landcover Summary - 2004 Data**

Total Area (ac)	8554	High Int. Dev. %	1.5	Water %	0.1	Non-vegetated %	2.7
		Med Int. Dev. %	1.7	Wetland %	3.2	Tilled Agriculture %	5.2
		Low Int. Dev. %	4.5	Upland Woody %	62.8	Grassland %	8.9
		Development %	7.7	Natural %	66.0	Human Altered %	33.9
						Impervious %	5.9

**Sample Comments**

7/18/17: FISH OBSERVED (ONE DEAD/DYING). SUBSTRATE SILTED AND ALGAE COVERED. WATER HAS MILKY APPEARANCE.

8/15/17: FISH PRESENT. SILTY AND MILKY. HORSEHAIR WORM FOUND IN BAG 1.



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<b>Station Number: S-30</b>	Waterbody: Bond Brook - Station 30	Town: Augusta
<b>Log Number: 2572</b>	Subsample Factor: X4	Replicates: 3
		Calculated: 3/15/2018

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		Actual	Adjusted			Actual	Adjusted
<i>Hydra</i>	02010101001	24.00	24.00		PR	1.3	1.3
<i>Girardia</i>	03010102002	17.33	17.33		--	1.0	1.0
<i>Hyaella</i>	09010203006	2.67	2.67	8	CG	0.1	0.1
<i>Isoperla</i>	09020207026	1.33	1.33	2	PR	0.1	0.1
<i>Acerpenna</i>	09020401007		17.33	5	CG		1.0
<i>Acerpenna macdunnoughi</i>	09020401007001	17.33			--	1.0	
<i>Procloeon</i>	09020401010	2.67	2.67		CG	0.1	0.1
<i>Iswaeon</i>	09020401015		5.33		--		0.3
<i>Iswaeon anoka</i>	09020401015001	5.33			--	0.3	
<i>Stenacron</i>	09020402014	1.33	1.33	7	SC	0.1	0.1
<i>Maccaffertium</i>	09020402015	10.67	49.33	4	SC	0.6	2.8
<i>Maccaffertium modestum</i>	09020402015051	2.67			--	0.1	
<i>Maccaffertium vicarium</i>	09020402015055	36.00			--	2.0	
Leptophlebiidae	09020406	1.33	1.33		--	0.1	0.1
<i>Ephemera</i>	09020407027	1.33	1.33	1	CG	0.1	0.1
<i>Ephemerella</i>	09020410035	13.33	13.33	1	CG	0.7	0.7
<i>Eurylophella</i>	09020410036	1.33	1.33	3	CG	0.1	0.1
<i>Serratella</i>	09020410037		2.67	2	CG		0.1
<i>Serratella serratoides</i>	09020410037124	2.67			--	0.1	
<i>Tricorythodes</i>	09020411038	5.33	5.33	4	CG	0.3	0.3
<i>Caenis</i>	09020412040	33.33	33.33	7	CG	1.9	1.9
Polycentropodidae	09020603	6.67			--	0.4	
<i>Neureclipsis</i>	09020603008	98.67	101.50	7	CF	5.5	5.7
<i>Polycentropus</i>	09020603010	133.33	137.16	6	PR	7.5	7.7
Hydropsychidae	09020604	5.33			--	0.3	
<i>Cheumatopsyche</i>	09020604015	289.33	292.38	5	CF	16.2	16.3
<i>Hydropsyche</i>	09020604016		219.62	4	CF		12.3
<i>Hydropsyche bronta</i>	09020604016029	216.00			--	12.1	
<i>Hydropsyche sparna</i>	09020604016032	1.33			--	0.1	
<i>Hydroptila</i>	09020607026	22.67	22.67	6	P	1.3	1.3
<i>Helicopsyche</i>	09020616070	46.67	46.67	3	SC	2.6	2.6
Leptoceridae	09020618				--		
<i>Mystacides</i>	09020618075		2.67	4	CG		0.1
<i>Mystacides sepulchralis</i>	09020618075147	2.67			--	0.1	
<i>Oecetis</i>	09020618078	90.67	138.67	8	PR	5.1	7.7
<i>Oecetis avara</i>	09020618078153	10.67			--	0.6	
<i>Oecetis persimilis</i>	09020618078157	37.33			--	2.1	



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		Actual	Adjusted			Actual	Adjusted
<i>Tipula</i>	09021001002	1.33	1.33	4	SH	0.1	0.1
<i>Bezzia/palpomyia</i>	09021010043	4.00	4.00	6	PR	0.2	0.2
Chironomidae	09021011				--		
<i>Ablabesmyia</i>	09021011001	4.00	4.00	8	PR	0.2	0.2
<i>Nilotanytus</i>	09021011012		9.33	6	PR		0.5
<i>Nilotanytus fimbriatus</i>	09021011012027	9.33			--	0.5	
<i>Paramerina</i>	09021011013	1.33	1.33		--	0.1	0.1
<i>Pentaneura</i>	09021011014	4.00	4.00	6	PR	0.2	0.2
<i>Thienemannimyia</i>	09021011020		50.67	3	PR		2.8
<i>Thienemannimyia group</i>	09021011020041	50.67			--	2.8	
<i>Corynoneura</i>	09021011036	1.33	1.33	7	CG	0.1	0.1
<i>Cricotopus</i>	09021011037		9.33	7	SH		0.5
<i>Cricotopus bicinctus</i>	09021011037057	9.33			--	0.5	
<i>Thienemanniella</i>	09021011062	1.33	1.33	6	CG	0.1	0.1
<i>Paratanytarsus</i>	09021011071	1.33	1.33	6	--	0.1	0.1
<i>Rheotanytarsus</i>	09021011072		9.33	6	CF		0.5
<i>Rheotanytarsus exiguus group</i>	09021011072127	9.33			CF	0.5	
<i>Stempellinella</i>	09021011074	17.33	17.33	2	--	1.0	1.0
<i>Tanytarsus</i>	09021011076	121.33	121.33	6	CF	6.8	6.8
<i>Pseudochironomus</i>	09021011078	2.67	2.67	5	CG	0.1	0.1
<i>Microtendipes</i>	09021011094		300.00	6	CF		16.8
<i>Microtendipes pedellus group</i>	09021011094166	82.67			--	4.6	
<i>Microtendipes rydalensis group</i>	09021011094168	217.33			--	12.1	
<i>Nilothauma</i>	09021011095	22.67	22.67	2	--	1.3	1.3
<i>Phaenopsectra</i>	09021011101	10.67	10.67	7	SC	0.6	0.6
<i>Polypedilum</i>	09021011102		40.00	6	SH		2.2
<i>Polypedilum aviceps</i>	09021011102181	28.00			--	1.6	
<i>Polypedilum flavum</i>	09021011102182	12.00			--	0.7	
<i>Hemerodromia</i>	09021016057	2.67	2.67	3	PR	0.1	0.1
<i>Psephenus</i>	09021108058		13.33	4	SC		0.7
<i>Psephenus herricki</i>	09021108058028	13.33			--	0.7	
<i>Dubiraphia</i>	09021113064	5.33	5.33	6	--	0.3	0.3
<i>Macronychus</i>	09021113065		2.67	4	--		0.1
<i>Macronychus glabratus</i>	09021113065040	2.67			--	0.1	
<i>Optioservus</i>	09021113067		1.33	3	SC		0.1
<i>Optioservus ovalis</i>	09021113067046	1.33			--	0.1	
<i>Promoresia</i>	09021113069		1.33		--		0.1
<i>Promoresia tardella</i>	09021113069052	1.33			--	0.1	



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		Actual	Adjusted			Actual	Adjusted
<i>Stenelmis</i>	09021113070	6.67	6.67	5	SC	0.4	0.4
<i>Helisoma</i>	10010203030		2.67		SC		0.1
<i>Helisoma anceps</i>	10010203030058	2.67			--	0.1	