



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

Station Information

**Station Number: S-572**  
Waterbody: Sandy River - Station 572  
Town: Farmington  
Directions: DWNSTRM OF TREATMENT FACILITY BY POWER LINES

DEP Drainage:  
HUC8: 01030003  
HUC8 Name: Lower Kennebec  
Latitude: 44 38 55.79 N  
Longitude: 70 7 54.49 W  
Stream Order: 4

Sample Information

**Log Number: 2110** Type of Sample: ROCK BAG Date Deployed: 7/17/2012  
Subsample Factor: X4 Replicates: 3 Date Retrieved: 8/15/2012

Classification Attainment

**Statutory Class: B** **Final Determination: A** Date: 1/16/2013  
Model Result with P>.6: A **Reason for Determination: Model**  
Date Last Calculated: 1/15/2013 Comments:

Model Probabilities

| First Stage Model         |      | C or Better Model              |      |
|---------------------------|------|--------------------------------|------|
| Class A                   | 0.66 | Class A, B, or C               | 1.00 |
| Class B                   | 0.34 | Non-Attainment                 | 0.00 |
| B or Better Model         |      | A Model                        |      |
| Class A or B              | 1.00 | Class A                        | 1.00 |
| Class C or Non-Attainment | 0.00 | Class B or C or Non-Attainment | 0.00 |

Model Variables

|  |        |   |        |
|--|--------|---|--------|
| 01 Total Mean Abundance                                    | 704.00 | 18 Relative Abundance Ephemeroptera   | 0.43   |
| 02 Generic Richness  | 47.00  | 19 EPT Generic Richness   | 24.00  |
| 03 Plecoptera Mean Abundance                               | 10.67  | 21 Sum of Abundances: <i>Dicrotendipes</i> ,<br><i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i> | 0.00   |
| 04 Ephemeroptera Mean Abundance                            | 305.33 | 23 Relative Generic Richness- Plecoptera  | 0.04   |
| 05 Shannon-Wiener Generic Diversity                        | 4.02   | 25 Sum of Abundances: <i>Cheumatopsyche</i> ,<br><i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>     | 51.10  |
| 06 Hilsenhoff Biotic Index                                 | 3.95   | 26 Sum of Abundances: <i>Acroneuria</i> ,<br><i>Maccaffertium</i> , <i>Stenonema</i>                            | 138.38 |
| 07 Relative Abundance - Chironomidae                       | 0.16   | 28 EP Generic Richness/14   | 1.14   |
| 08 Relative Generic Richness Diptera                       | 0.34   | 30 Presence of Class A Indicator Taxa/7   | 0.57   |
| 09 <i>Hydropsyche</i> Abundance                            | 35.82  |   |        |
| 11 <i>Cheumatopsyche</i> Abundance                         | 46.84  |   |        |
| 12 EPT Generic Richness/ Diptera<br>Generic Richness       | 1.50   |   |        |
| 13 Relative Abundance - Oligochaeta                        | 0.00   |   |        |
| 15 Perlidae Mean Abundance (Family<br>Functional Group)    | 10.67  |   |        |
| 16 Tanypodinae Mean Abundance<br>(Family Functional Group) | 5.68   |   |        |
| 17 Chironomini Abundance (Family<br>Functional Group)      | 17.03  |   |        |

| Five Most Dominant Taxa |                       |         |
|-------------------------|-----------------------|---------|
| Rank                    | Taxon Name            | Percent |
| 1                       | <i>Maccaffertium</i>  | 19.09   |
| 2                       | <i>Simulium</i>       | 18.18   |
| 3                       | <i>Rheotanytarsus</i> | 10.48   |
| 4                       | <i>Leucrocuta</i>     | 9.43    |
| 5                       | <i>Cheumatopsyche</i> | 6.65    |



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Waterbody: Sandy River - Station 572

Date Retrieved: 8/15/2012

**Sample Collection and Processing Information**

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL WINNELL

**Waterbody Information - Deployment**

Temperature: 24.8 deg C  
Dissolved Oxygen: 7.6 mg/l  
Specific Conductance: 74 uS/cm  
Velocity: 49 cm/s  
pH: 6.97  
Wetted Width: 40 m  
Bankfull Width: 40 m  
Depth: 85 cm

**Waterbody Information - Retrieval**

Temperature: 22.6 deg C  
Dissolved Oxygen: 7.9 mg/l  
Specific Conductance: 76 uS/cm  
Velocity: 54.8 cm/s  
pH: 6.76  
Wetted Width: 40 m  
Bankfull Width: 40 m  
Depth: 85 cm

**Water Chemistry**

**Summary of Habitat Characteristics**

Landuse Name

Canopy Cover

Terrain

Cultivated

Open

Rolling

Upland Hardwood

Potential Stressor

Location

Substrate

Nutrients

Below POTW

Bedrock 5 %

Main Stem

Gravel 10 %

Rubble/Cobble 20 %

Sand 65 %

**Landcover Summary - 2004 Data**

|                 |       |                  |     |                |      |                      |     |
|-----------------|-------|------------------|-----|----------------|------|----------------------|-----|
| Total Area (ac) | 53157 | High Int. Dev. % | 0.4 | Water %        | 0.7  | Non-vegetated %      | 0.2 |
|                 |       | Med Int. Dev. %  | 0.4 | Wetland %      | 2.4  | Tilled Agriculture % | 2.0 |
|                 |       | Low Int. Dev. %  | 1.1 | Upland Woody % | 88.7 | Grassland %          | 3.5 |
|                 |       | Development %    | 1.9 | Natural %      | 91.3 | Human Altered %      | 8.0 |
|                 |       |                  |     |                |      | Impervious %         | 2.8 |

**Sample Comments**

RAINING DURING RETRIEVAL.



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Subsample Factor: X4

Replicates: 3

Calculated: 1/15/2013

| Taxon                               | Maine<br>Taxonomic<br>Code | Count<br>(Mean of Samplers) |          | Hilsenhoff<br>Biotic<br>Index | Functional<br>Feeding<br>Group | Relative<br>Abundance |          |
|-------------------------------------|----------------------------|-----------------------------|----------|-------------------------------|--------------------------------|-----------------------|----------|
|                                     |                            | Actual                      | Adjusted |                               |                                | Actual                | Adjusted |
| <i>Acroneuria</i>                   | 09020209042                |                             | 4.00     | 0                             | PR                             |                       | 0.6      |
| <i>Acroneuria abnormis</i>          | 09020209042121             | 1.33                        |          | 0                             | PR                             | 0.2                   |          |
| <i>Acroneuria lycorias</i>          | 09020209042125             | 2.67                        |          |                               | --                             | 0.4                   |          |
| <i>Agnetina</i>                     | 09020209050                |                             | 6.67     | 2                             | PR                             |                       | 0.9      |
| <i>Agnetina capitata</i>            | 09020209050152             | 6.67                        |          | 2                             | PR                             | 0.9                   |          |
| Gomphidae                           | 09020302                   | 5.33                        | 5.33     |                               | --                             | 0.8                   | 0.8      |
| Baetidae                            | 09020401                   | 2.67                        |          |                               | --                             | 0.4                   |          |
| <i>Baetis</i>                       | 09020401001                | 5.33                        | 17.95    | 4                             | CG                             | 0.8                   | 2.6      |
| <i>Baetis flavistriga</i>           | 09020401001004             | 1.33                        |          |                               | --                             | 0.2                   |          |
| <i>Baetis intercalaris</i>          | 09020401001008             | 10.67                       |          |                               | --                             | 1.5                   |          |
| <i>Acerpenna</i>                    | 09020401007                | 5.33                        | 17.95    | 5                             | CG                             | 0.8                   | 2.6      |
| <i>Acerpenna pygmaea</i>            | 09020401007011             | 12.00                       |          |                               | --                             | 1.7                   |          |
| <i>Plauditus</i>                    | 09020401012                | 38.67                       | 40.05    |                               | CG                             | 5.5                   | 5.7      |
| <i>Iswaeon</i>                      | 09020401015                | 1.33                        | 1.38     |                               | --                             | 0.2                   | 0.2      |
| Heptageniidae                       | 09020402                   | 36.00                       |          |                               | --                             | 5.1                   |          |
| <i>Epeorus</i>                      | 09020402009                | 1.33                        | 1.62     | 0                             | SC                             | 0.2                   | 0.2      |
| <i>Leucrocota</i>                   | 09020402011                | 54.67                       | 66.38    | 1                             | SC                             | 7.8                   | 9.4      |
| <i>Stenacron</i>                    | 09020402014                | 1.33                        | 1.62     | 7                             | SC                             | 0.2                   | 0.2      |
| <i>Maccaffertium</i>                | 09020402015                | 46.67                       | 134.38   | 4                             | SC                             | 6.6                   | 19.1     |
| <i>Maccaffertium luteum</i>         | 09020402015049             | 36.00                       |          |                               | --                             | 5.1                   |          |
| <i>Maccaffertium mediopunctatum</i> | 09020402015050             | 21.33                       |          |                               | --                             | 3.0                   |          |
| <i>Maccaffertium modestum</i>       | 09020402015051             | 6.67                        |          |                               | --                             | 0.9                   |          |
| <i>Isonychia</i>                    | 09020404018                | 5.33                        | 5.33     | 2                             | CF                             | 0.8                   | 0.8      |
| Leptophlebiidae                     | 09020406                   | 1.33                        | 1.33     |                               | --                             | 0.2                   | 0.2      |
| <i>Ephemerella</i>                  | 09020410035                | 5.33                        | 5.33     | 1                             | CG                             | 0.8                   | 0.8      |
| <i>Eurylophella</i>                 | 09020410036                | 2.67                        | 2.67     | 3                             | CG                             | 0.4                   | 0.4      |
| <i>Serratella</i>                   | 09020410037                |                             | 1.33     | 2                             | CG                             |                       | 0.2      |
| <i>Serratella serratooides</i>      | 09020410037124             | 1.33                        |          |                               | --                             | 0.2                   |          |
| <i>Tricorythodes</i>                | 09020411038                | 8.00                        | 8.00     | 4                             | CG                             | 1.1                   | 1.1      |
| <i>Chimarra</i>                     | 09020601003                |                             |          | 2                             | CF                             |                       |          |
| <i>Neureclipsis</i>                 | 09020603008                | 4.00                        | 4.00     | 7                             | CF                             | 0.6                   | 0.6      |
| Hydropsychidae                      | 09020604                   | 2.67                        |          |                               | --                             | 0.4                   |          |
| <i>Cheumatopsyche</i>               | 09020604015                | 45.33                       | 46.84    | 5                             | CF                             | 6.4                   | 6.7      |
| <i>Hydropsyche</i>                  | 09020604016                | 13.33                       | 35.82    | 4                             | CF                             | 1.9                   | 5.1      |
| <i>Hydropsyche morosa</i>           | 09020604016030             | 18.67                       |          |                               | --                             | 2.7                   |          |
| <i>Hydropsyche sparna</i>           | 09020604016032             | 1.33                        |          |                               | --                             | 0.2                   |          |
| <i>Hydropsyche placoda</i>          | 09020604016059             | 1.33                        |          |                               | --                             | 0.2                   |          |
| <i>Hydroptila</i>                   | 09020607026                | 5.33                        | 5.33     | 6                             | P                              | 0.8                   | 0.8      |



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| <b>Log Number: 2110</b>      | Subsample Factor: X4                 | Replicates: 3         |
|                              |                                      | Calculated: 1/15/2013 |

| Taxon                                 | Maine<br>Taxonomic<br>Code | Count<br>(Mean of Samplers) |          | Hilsenhoff<br>Biotic<br>Index | Functional<br>Feeding<br>Group | Relative<br>Abundance |          |
|---------------------------------------|----------------------------|-----------------------------|----------|-------------------------------|--------------------------------|-----------------------|----------|
|                                       |                            | Actual                      | Adjusted |                               |                                | Actual                | Adjusted |
| <i>Brachycentrus</i>                  | 09020609043                |                             | 9.33     | 0                             | CF                             |                       | 1.3      |
| <i>Brachycentrus appalachia</i>       | 09020609043096             | 9.33                        |          |                               | --                             | 1.3                   |          |
| <i>Lepidostoma</i>                    | 09020611064                | 9.33                        | 9.33     | 1                             | SH                             | 1.3                   | 1.3      |
| Leptoceridae                          | 09020618                   |                             |          |                               | --                             |                       |          |
| <i>Setodes</i>                        | 09020618076                | 2.67                        | 2.67     | 2                             | CG                             | 0.4                   | 0.4      |
| <i>Oecetis</i>                        | 09020618078                |                             | 2.67     | 8                             | PR                             |                       | 0.4      |
| <i>Oecetis persimilis</i>             | 09020618078157             | 2.67                        |          |                               | --                             | 0.4                   |          |
| <i>Hexatoma</i>                       | 09021001008                | 1.33                        | 1.33     | 2                             | PR                             | 0.2                   | 0.2      |
| Chironomidae                          | 09021011                   | 6.67                        |          |                               | --                             | 0.9                   |          |
| <i>Ablabesmyia</i>                    | 09021011001                |                             |          | 8                             | PR                             |                       |          |
| <i>Pentaneura</i>                     | 09021011014                |                             | 2.84     | 6                             | PR                             |                       | 0.4      |
| <i>Pentaneura inconspicua</i>         | 09021011014028             | 2.67                        |          |                               | --                             | 0.4                   |          |
| <i>Rheopelopia</i>                    | 09021011017                |                             | 2.84     |                               | PR                             |                       | 0.4      |
| <i>Rheopelopia acra group</i>         | 09021011017036             | 2.67                        |          |                               | --                             | 0.4                   |          |
| <i>Rheocricotopus</i>                 | 09021011057                |                             | 1.42     | 6                             | CG                             |                       | 0.2      |
| <i>Rheocricotopus robacki</i>         | 09021011057105             | 1.33                        |          |                               | --                             | 0.2                   |          |
| <i>Tvetenia</i>                       | 09021011065                |                             | 5.68     | 5                             | CG                             |                       | 0.8      |
| <i>Tvetenia vitracies</i>             | 09021011065113             | 4.00                        |          |                               | --                             | 0.6                   |          |
| <i>Tvetenia paucunca</i>              | 09021011065114             | 1.33                        |          |                               | --                             | 0.2                   |          |
| <i>Rheotanytarsus</i>                 | 09021011072                | 69.33                       | 73.78    | 6                             | CF                             | 9.8                   | 10.5     |
| <i>Stempellinella</i>                 | 09021011074                |                             | 1.42     | 2                             | --                             |                       | 0.2      |
| <i>Stempellinella fimbriata</i>       | 09021011074002             | 1.33                        |          |                               | --                             | 0.2                   |          |
| <i>Tanytarsus</i>                     | 09021011076                | 4.00                        | 4.26     | 6                             | CF                             | 0.6                   | 0.6      |
| <i>Pseudochironomus</i>               | 09021011078                | 1.33                        | 1.42     | 5                             | CG                             | 0.2                   | 0.2      |
| <i>Microtendipes</i>                  | 09021011094                |                             | 4.26     | 6                             | CF                             |                       | 0.6      |
| <i>Microtendipes rydalensis group</i> | 09021011094168             | 4.00                        |          |                               | --                             | 0.6                   |          |
| <i>Nilothauma</i>                     | 09021011095                | 1.33                        | 1.42     | 2                             | --                             | 0.2                   | 0.2      |
| <i>Phaenopsectra</i>                  | 09021011101                |                             | 4.26     | 7                             | SC                             |                       | 0.6      |
| <i>Phaenopsectra obediens</i>         | 09021011101182             | 4.00                        |          |                               | SC                             | 0.6                   |          |
| <i>Polypedilum</i>                    | 09021011102                |                             | 5.68     | 6                             | SH                             |                       | 0.8      |
| <i>Polypedilum flavum</i>             | 09021011102182             | 2.67                        |          |                               | --                             | 0.4                   |          |
| <i>Polypedilum illinoense group</i>   | 09021011102185             | 1.33                        |          |                               | --                             | 0.2                   |          |
| <i>Polypedilum scalaenum group</i>    | 09021011102189             | 1.33                        |          |                               | --                             | 0.2                   |          |
| <i>Hayesomyia</i>                     | 09021011112                |                             | 1.42     |                               | --                             |                       | 0.2      |
| <i>Hayesomyia senata</i>              | 09021011112001             | 1.33                        |          |                               | --                             | 0.2                   |          |
| <i>Simulium</i>                       | 09021012047                |                             | 128.00   | 4                             | CF                             |                       | 18.2     |
| <i>Simulium fibrinflatum</i>          | 09021012047059             | 30.67                       |          |                               | --                             | 4.4                   |          |
| <i>Simulium jenningsi</i>             | 09021012047060             | 6.67                        |          |                               | --                             | 0.9                   |          |



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| Taxon                             | Maine<br>Taxonomic<br>Code | Count<br>(Mean of Samplers) |          | Hilsenhoff<br>Biotic<br>Index | Functional<br>Feeding<br>Group | Relative<br>Abundance |          |
|-----------------------------------|----------------------------|-----------------------------|----------|-------------------------------|--------------------------------|-----------------------|----------|
|                                   |                            | Actual                      | Adjusted |                               |                                | Actual                | Adjusted |
| <i>Simulium jenningsi complex</i> | 09021012047070             | 90.67                       |          |                               | CF                             | 12.9                  |          |
| <i>Atherix</i>                    | 09021015055                | 2.67                        | 2.67     | 2                             | PR                             | 0.4                   | 0.4      |
| <i>Dineutus</i>                   | 09021104032                | 1.33                        | 1.33     | 2                             | --                             | 0.2                   | 0.2      |
| <i>Psephenus</i>                  | 09021108058                |                             | 5.33     | 4                             | SC                             |                       | 0.8      |
| <i>Psephenus herricki</i>         | 09021108058028             | 5.33                        |          |                               | --                             | 0.8                   |          |
| <i>Dubiraphia</i>                 | 09021113064                |                             | 1.33     | 6                             | --                             |                       | 0.2      |
| <i>Dubiraphia minima</i>          | 09021113064036             | 1.33                        |          |                               | --                             | 0.2                   |          |
| <i>Promoresia</i>                 | 09021113069                |                             | 2.67     |                               | --                             |                       | 0.4      |
| <i>Promoresia tardella</i>        | 09021113069052             | 2.67                        |          |                               | --                             | 0.4                   |          |
| <i>Stenelmis</i>                  | 09021113070                | 8.00                        | 12.00    | 5                             | SC                             | 1.1                   | 1.7      |
| <i>Stenelmis crenata</i>          | 09021113070055             | 4.00                        |          |                               | --                             | 0.6                   |          |
| <i>Ferrissia</i>                  | 10010204035                |                             | 1.33     |                               | SC                             |                       | 0.2      |
| <i>Ferrissia rivularis</i>        | 10010204035066             | 1.33                        |          |                               | --                             | 0.2                   |          |