

Instructions: Bold fields must be completed.

201910246901

**Station Summary**

|                                |                             |                                                                 |
|--------------------------------|-----------------------------|-----------------------------------------------------------------|
| Waterbody Name<br>EMMONS CREEK | Waterbody ID Code<br>261300 | Sample ID (YYYYMMDD-CY-FD)<br>Macroinvertebrate<br>201910246901 |
|--------------------------------|-----------------------------|-----------------------------------------------------------------|

**Sampling Location**

|                    |                                     |
|--------------------|-------------------------------------|
| 5M NE of Rural Rd. | Database Key<br>210950243 287759333 |
|--------------------|-------------------------------------|

SWIMS Station ID  
10022372

SWIMS Station Name  
EMMONS CREEK UPSTREAM OF RURAL RD

|                       |                         |                                                          |                                           |
|-----------------------|-------------------------|----------------------------------------------------------|-------------------------------------------|
| Latitude<br>44.315388 | Longitude<br>-89.193085 | Lat/Long Determination Method (circle)<br>SWIMS SWDV GPS | Datum Used if using GPS<br>WGS84 or NAD83 |
|-----------------------|-------------------------|----------------------------------------------------------|-------------------------------------------|

|                           |                                 |                   |
|---------------------------|---------------------------------|-------------------|
| Basin (WMU)<br>WOLF RIVER | Watershed Name<br>WAUPACA RIVER | County<br>WAUPACA |
|---------------------------|---------------------------------|-------------------|

**Sample and Site Descriptors**

|                                                       |                                                                  |
|-------------------------------------------------------|------------------------------------------------------------------|
| Sample Collector (Last Name, First)<br>MICHAEL MILLER | Project Name<br>CENTRAL SANDS INFLUENCE OF PESTICIDES ON MACROIN |
|-------------------------------------------------------|------------------------------------------------------------------|

**Sampling Device**

|                                                      |                                               |                                                                             |
|------------------------------------------------------|-----------------------------------------------|-----------------------------------------------------------------------------|
| <input checked="" type="checkbox"/> D-Frame Kick Net | <input type="checkbox"/> Surber Sampler       | <input type="checkbox"/> Eckman                                             |
| <input type="checkbox"/> Ponar                       | <input type="checkbox"/> Artificial Substrate | <input type="checkbox"/> Hess Sampler <input type="checkbox"/> Other: _____ |

**Habitat Sampled**

|                                        |                                              |                                                         |
|----------------------------------------|----------------------------------------------|---------------------------------------------------------|
| <input type="checkbox"/> Riffle        | <input checked="" type="checkbox"/> Run      | <input type="checkbox"/> Pool                           |
| <input type="checkbox"/> Other         | <input type="checkbox"/> Shoreline Composite | <input type="checkbox"/> Proportionally-Sampled Habitat |
| <input type="checkbox"/> Littoral Zone | <input type="checkbox"/> Profundal Zone      | <input type="checkbox"/> Wetland                        |

|                                |                                               |                                     |                              |
|--------------------------------|-----------------------------------------------|-------------------------------------|------------------------------|
| Total Sampling Time (min)<br>5 | Estimated Area Sampled (m <sup>2</sup> )<br>1 | Number of Samples in Composite<br>1 | Replicate No. _____ of _____ |
|--------------------------------|-----------------------------------------------|-------------------------------------|------------------------------|

**Reason For Sampling**

|                                                   |                                   |                                                             |
|---------------------------------------------------|-----------------------------------|-------------------------------------------------------------|
| <input type="checkbox"/> Least Impacted Reference | <input type="checkbox"/> Baseline | <input checked="" type="checkbox"/> Impact / Treatment Site |
| <input type="checkbox"/> Control Site             | <input type="checkbox"/> Trend    | <input type="checkbox"/> Other: _____                       |

|                        |                      |                       |                 |                                  |                            |
|------------------------|----------------------|-----------------------|-----------------|----------------------------------|----------------------------|
| Water Temp. (C)<br>7.7 | D.O. (mg/l)<br>11.91 | D.O. (% sat.)<br>99.6 | pH (su)<br>8.21 | Conductivity (umhos/cm)<br>223.9 | Transparency (cm)<br>122 + |
|------------------------|----------------------|-----------------------|-----------------|----------------------------------|----------------------------|

|                                                                                                                           |                                                                                                                                                                                           |
|---------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Water Color<br><input checked="" type="checkbox"/> Clear <input type="checkbox"/> Turbid <input type="checkbox"/> Stained | Estimated Stream Velocity (m/s)<br><input type="checkbox"/> Slow (< 0.15 m/s) <input checked="" type="checkbox"/> Moderate (0.15 m/s - 0.5 m/s) <input type="checkbox"/> Fast (> 0.5 m/s) |
|---------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                                                 |                                          |                                        |
|-------------------------------------------------|------------------------------------------|----------------------------------------|
| Measured Velocity<br>circle units<br>m/s or f/s | Average Stream Depth of reach (m)<br>0.6 | Average Stream Width of reach (m)<br>4 |
|-------------------------------------------------|------------------------------------------|----------------------------------------|

**Composition of Substrate Sampled (Percent):**

|                |                                        |                                          |                                       |
|----------------|----------------------------------------|------------------------------------------|---------------------------------------|
| Bedrock: _____ | Boulders (basketball or larger): _____ | Rubble (tennisball to basketball): _____ | Gravel (ladybug to tennisball): _____ |
|----------------|----------------------------------------|------------------------------------------|---------------------------------------|

|             |             |                  |                              |
|-------------|-------------|------------------|------------------------------|
| Sand: _____ | Clay: _____ | Silt/Muck: _____ | Overhanging Vegetation: 907. |
|-------------|-------------|------------------|------------------------------|

|                          |                   |                            |                     |
|--------------------------|-------------------|----------------------------|---------------------|
| Aquatic Macrophytes: 10% | Leaf Snags: _____ | Coarse Woody Debris: _____ | Other (____): _____ |
|--------------------------|-------------------|----------------------------|---------------------|

|                                              |                                 |
|----------------------------------------------|---------------------------------|
| Embeddedness of Substrate at Sample Site (%) | Canopy Cover at Sample Site (%) |
|----------------------------------------------|---------------------------------|

### Stream and Watershed Descriptors

N = Not a problem  
U = Uncertain

PL = Present, Low Impact  
PH = Present, High Impact

| Factors that may be influencing Water Resource Integrity | Local | Watershed | Factors that may be influencing Water Resource Integrity | Local | Watershed |
|----------------------------------------------------------|-------|-----------|----------------------------------------------------------|-------|-----------|
| <b>Biological</b>                                        |       |           | <b>Chemical</b>                                          |       |           |
| Algae: - Diatoms / Periphyton                            |       |           | Chlorine                                                 |       |           |
| - Filamentous Algae                                      |       |           | Dissolved Oxygen                                         |       |           |
| - Planktonic Algae                                       |       |           | Nutrients (P, N...)                                      |       |           |
| Iron Bacteria                                            |       |           | Toxics: - Inorganic (Metals)                             |       |           |
| Macrophytes                                              |       |           | - Organic (PCBs, pesticides...)                          |       |           |
| Slimes                                                   |       |           | Other - Specify:                                         |       |           |
| Other - Specify:                                         |       |           | <b>Sources of Stream Impacts</b>                         |       |           |
|                                                          |       |           | Bank Erosion                                             |       |           |
|                                                          |       |           | Point Source - Specify:                                  |       |           |
| <b>Physical</b>                                          |       |           | Pasturing of Livestock                                   |       |           |
| Bank Erosion                                             |       |           | Runoff: - Barnyard                                       |       |           |
| Channelization: - Upstream                               |       |           | - Construction                                           |       |           |
| - Downstream                                             |       |           | - Cropland                                               |       |           |
| Hydraulic Scour / Channel Incision                       |       |           | - Urban                                                  | P     |           |
| Impoundment: - Upstream                                  |       |           | Septic Systems                                           |       |           |
| - Downstream                                             |       |           | Tile Drainage - Organic Soils                            |       |           |
| Low Flow                                                 |       |           | - Mineral Soils                                          |       |           |
| Sedimentation                                            |       |           | Springs                                                  |       |           |
| Sludge                                                   |       |           | Tributary(s)                                             |       |           |
| Thermal                                                  |       |           | Wetland                                                  |       |           |
| Turbidity                                                |       |           | Other - Specify:                                         |       |           |
| Other - Specify:                                         |       |           |                                                          |       |           |

Comments Sand dominated substrate  
coarse woody debris

Special Instructions for Laboratory

### For Lab Use Only

|                              |                               |                                             |
|------------------------------|-------------------------------|---------------------------------------------|
| Sample Sorter<br>Reed, Kayla | Taxonomist<br>Dimick, Jeffery | Estimated Percent of Sample Sorted<br>21.9% |
| Date Processed<br>3-9-23     | Specimens Saved<br>131        | Subsample archived in BSL until Apr 2024    |

D3Q1-14 B1Q3-7  
Q2-20 Q4-8  
Q3-11 Q2-16  
Q4-17 Q1-14  
107  
A1Q4-0  
Q2-5  
Q3-1  
Q1-3  
B2Q2-4  
Q4-11  
Q3-  
Q1-

**Taxonomist:** Dimick, Jeffrey

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$$23 \text{ taxa, } TVAL \leq 20$$

$$387 (0.1 \times 93)$$