### Waterbody Name

**Sampling Location**

Lat: 44°29'59"N
Long: -89°15'39"W

**SWIMS Station ID**

10049350

**Latitude**

44.29605

**Long/Long Determination Method (circle)**

SWIMS SWDV GPS

**Datum Used if using GPS**

WGS84 or NAD83

**Basin (WMU)**

WOLF RIVER

**Watershed Name**

WAUPACA RIVER

**County**

PORTAGE

---

### Sample Collector (Last Name, First)

DAVID A BOLHA, MICHAEL P SHUPRYT

**SWIMS Station Name**

EMMONS CREEK - CONTROL REACH NEAR STRATTON LAKE RD

---

### Sample and Site Descriptors

**Sample Collector (Last Name, First)**

DAVID A BOLHA, MICHAEL P SHUPRYT

**Project Name**

EMMONS CREEK DISCHARGE REDUCTION MI FY18

---

### Sampling Device

- [ ] D-Frame Kick Net
- [ ] Surber Sampler
- [ ] Artificial Substrate
- [ ] Eckman
- [ ] Hess Sampler
- [ ] Other: Core

---

### Habitat Sampled

- [ ] Run
- [ ] Shoreline Composite
- [ ] Proportionally-Sampled Habitat
- [ ] Pool
- [ ] Wetland

---

### Total Sampling Time (min)

Estimated Area Sampled (m²)

Number of Samples in Composite

Replicate No. of

---

### Reason For Sampling

- [ ] Least Impacted Reference
- [ ] Baseline
- [ ] Control Site
- [ ] Trend
- [ ] Impact / Treatment Site
- [ ] Special Project

---

### Water Temp. (°C)

D.O. (mg/l)

D.O. (% sat.)

pH (su)

Conductivity (umhos/cm)

Transparency (cm)

---

### Water Color

- [ ] Clear
- [ ] Turbid
- [ ] Stained

Estimated Stream Velocity (m/s)

- [ ] Slow (< 0.15 m/s)
- [ ] Moderate (0.15 m/s - 0.5 m/s)
- [ ] Fast (> 0.5 m/s)

---

### Measured Velocity circle units

m/s or f/s

Average Stream Depth of reach (m)

Average Stream Width of reach (m)

---

### Composition of Substrate Sampled (Percent):

- [ ] Bedrock:
- [ ] Boulders (basketball or larger):
- [ ] Rubble (tennisball to basketball):
- [ ] Gravel (ladybug to tennisball):
- [ ] Sand:
- [ ] Clay:
- [ ] Silt/Muck:
- [ ] Overhanging Vegetation:
- [ ] Aquatic Macrophytes:
- [ ] Leaf Snags:
- [ ] Coarse Woody Debris:
- [ ] Other (_____):

---

### Embeddedness of Substrate at Sample Site (%) Canopy Cover at Sample Site (%)
### Stream and Watershed Descriptors

<table>
<thead>
<tr>
<th>Biological</th>
<th>Chemical</th>
</tr>
</thead>
<tbody>
<tr>
<td>N = Not a problem</td>
<td>PL = Present, Low Impact</td>
</tr>
<tr>
<td>U = Uncertain</td>
<td>PH = Present, High Impact</td>
</tr>
<tr>
<td>Factors that may be influencing Water Resource Integrity</td>
<td>Factors that may be influencing Water Resource Integrity</td>
</tr>
<tr>
<td>Local</td>
<td>Watershed</td>
</tr>
<tr>
<td>Local</td>
<td>Watershed</td>
</tr>
</tbody>
</table>

#### Biological Factors
- **Algae:**
  - Diatoms / Periphyton
  - Filamentous Algae
  - Planktonic Algae
- **Iron Bacteria**
- **Macrophytes**
- **Slimes**
- **Other - Specify:**

#### Chemical Sources of Stream Impacts
- **Chlorine**
- **Dissolved Oxygen**
- **Nutrients (P, N...)**
- **Toxics:**
  - Inorganic (Metals)
  - Organic (PCBs, pesticides...)
- **Other - Specify:**

### Sources of Stream Impacts
- **Bank Erosion**
- **Point Source - Specify:**
- **Pasturing of Livestock**
- **Runoff:**
  - Barnyard
  - Construction
  - Cropland
  - Urban
- **Hydraulic Scour / Channel Incision**
- **Impoundment:**
  - Upstream
  - Downstream
- **Low Flow**
- **Sedimentation**
- **Sludge**
- **Thermal**
- **Turbidity**
- **Other - Specify:**

### Special Instructions for Laboratory
- **Comments**

---

**For Lab Use Only**

<table>
<thead>
<tr>
<th>Sample Sorter</th>
<th>Taxonomist</th>
<th>Estimated Percent of Sample Sorted</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Dimick, Jeffrey</td>
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</table>

**Date Processed**
- Specimens Saved
- Sample archived in ASL until Sept 2022
<table>
<thead>
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<th>Life Stage</th>
<th>Bench Tally</th>
<th>Count</th>
<th>Taxonomic Reference</th>
<th>Condition</th>
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