

SITE NAME/LOCATION \_\_\_\_\_  
 \_\_\_\_\_ SITE NUMBER \_\_\_\_\_ RIVER BASIN \_\_\_\_\_ DRAINAGE AREA (mi<sup>2</sup>) \_\_\_\_\_  
 LENGTH OF STREAM REACH (ft) \_\_\_\_\_ LAT. \_\_\_\_\_ LONG. \_\_\_\_\_ RIVER CODE \_\_\_\_\_ RIVER MILE \_\_\_\_\_  
 DATE \_\_\_\_\_ SCORER \_\_\_\_\_ COMMENTS \_\_\_\_\_

**NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PWH Streams" for Instructions**

**STREAM CHANNEL MODIFICATIONS:**     NONE / NATURAL CHANNEL     RECOVERED     RECOVERING     RECENT OR NO RECOVERY

**1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B.)**

| TYPE  | PERCENT | TYPE   | PERCENT |
|---|---------|--|---------|
| <input type="checkbox"/> <input type="checkbox"/> BLDR SLABS [16 pts]         | _____   | <input type="checkbox"/> <input type="checkbox"/> SILT [3 pt]                    | _____   |
| <input type="checkbox"/> <input type="checkbox"/> BOULDER (>256 mm) [16 pts]  | _____   | <input type="checkbox"/> <input type="checkbox"/> LEAF PACK/WOODY DEBRIS [3 pts] | _____   |
| <input type="checkbox"/> <input type="checkbox"/> BEDROCK [16 pt]             | _____   | <input type="checkbox"/> <input type="checkbox"/> FINE DETRITUS [3 pts]          | _____   |
| <input type="checkbox"/> <input type="checkbox"/> COBBLE (65-256 mm) [12 pts] | _____   | <input type="checkbox"/> <input type="checkbox"/> CLAY or HARDPAN [0 pt]         | _____   |
| <input type="checkbox"/> <input type="checkbox"/> GRAVEL (2-64 mm) [9 pts]    | _____   | <input type="checkbox"/> <input type="checkbox"/> MUCK [0 pts]                   | _____   |
| <input type="checkbox"/> <input type="checkbox"/> SAND (<2 mm) [6 pts]        | _____   | <input type="checkbox"/> <input type="checkbox"/> ARTIFICIAL [3 pts]             | _____   |

Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock (A) Substrate Percentage Check (B)

**SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES:**     **TOTAL NUMBER OF SUBSTRATE TYPES:**

---

**2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):**

|  |  |
|--|--|
| <input type="checkbox"/> > 30 centimeters [20 pts] | <input type="checkbox"/> > 5 cm - 10 cm [15 pts]           |
| <input type="checkbox"/> > 22.5 - 30 cm [30 pts]   | <input type="checkbox"/> < 5 cm [5 pts]                    |
| <input type="checkbox"/> > 10 - 22.5 cm [25 pts]   | <input type="checkbox"/> NO WATER OR MOIST CHANNEL [0 pts] |

**COMMENTS** \_\_\_\_\_    **MAXIMUM POOL DEPTH (centimeters):**

---

**3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):**

|   |   |
|---|---|
| <input type="checkbox"/> > 4.0 meters (> 13') [30 pts]              | <input type="checkbox"/> > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] |
| <input type="checkbox"/> > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]   | <input type="checkbox"/> ≤ 1.0 m (≤ 3' 3") [5 pts]                  |
| <input type="checkbox"/> > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] |   |

**COMMENTS** \_\_\_\_\_    **AVERAGE BANKFULL WIDTH (meters):**

**HHEI Metric Points**

Substrate Max = 40

A + B

---

Pool Depth Max = 30

---

Bankfull Width Max=30

**This information must also be completed**

**RIPARIAN ZONE AND FLOODPLAIN QUALITY**    ☆NOTE: River Left (L) and Right (R) as looking downstream ☆

| <u>RIPARIAN WIDTH</u>                             |                         | <u>FLOODPLAIN QUALITY</u>                         |   |   |                        |
|---|-------------------------|---|---|---|------------------------|
| L   | R                       | L   | R   | L   | R                      |
| <input type="checkbox"/> <input type="checkbox"/> | (Per Bank)<br>Wide >10m | <input type="checkbox"/> <input type="checkbox"/> | (Most Predominant per Bank)<br>Mature Forest, Wetland | <input type="checkbox"/> <input type="checkbox"/> | Conservation Tillage   |
| <input type="checkbox"/> <input type="checkbox"/> | Moderate 5-10m          | <input type="checkbox"/> <input type="checkbox"/> | Immature Forest, Shrub or Old Field                   | <input type="checkbox"/> <input type="checkbox"/> | Urban or Industrial    |
| <input type="checkbox"/> <input type="checkbox"/> | Narrow <5m              | <input type="checkbox"/> <input type="checkbox"/> | Residential, Park, New Field                          | <input type="checkbox"/> <input type="checkbox"/> | Open Pasture, Row Crop |
| <input type="checkbox"/> <input type="checkbox"/> | None                    | <input type="checkbox"/> <input type="checkbox"/> | Fenced Pasture  | <input type="checkbox"/> <input type="checkbox"/> | Mining or Construction |

COMMENTS \_\_\_\_\_

**FLOW REGIME (At Time of Evaluation) (Check ONLY one box):**

|   |  |
|---|--|
| <input type="checkbox"/> Stream Flowing                                     | <input type="checkbox"/> Moist Channel, isolated pools, no flow (Intermittent) |
| <input type="checkbox"/> Subsurface flow with isolated pools (Interstitial) | <input type="checkbox"/> Dry channel, no water (Ephemeral)                     |

COMMENTS \_\_\_\_\_

**SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):**

|                               |                              |                              |                              |
|-------------------------------|------------------------------|------------------------------|------------------------------|
| <input type="checkbox"/> None | <input type="checkbox"/> 1.0 | <input type="checkbox"/> 2.0 | <input type="checkbox"/> 3.0 |
| <input type="checkbox"/> 0.5  | <input type="checkbox"/> 1.5 | <input type="checkbox"/> 2.5 | <input type="checkbox"/> >3  |

**STREAM GRADIENT ESTIMATE**

Flat (0.5 ft/100 ft)   
  Flat to Moderate   
  Moderate (2 ft/100 ft)   
  Moderate to Severe   
  Severe (10 ft/100 ft)

**ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):**

**QHEI PERFORMED?** -  Yes  No QHEI Score \_\_\_\_\_ (If Yes, Attach Completed QHEI Form)

**DOWNSTREAM DESIGNATED USE(S)**

- WWH Name: \_\_\_\_\_ Distance from Evaluated Stream \_\_\_\_\_
- CWH Name: \_\_\_\_\_ Distance from Evaluated Stream \_\_\_\_\_
- EWH Name: \_\_\_\_\_ Distance from Evaluated Stream \_\_\_\_\_

**MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION**

USGS Quadrangle Name: \_\_\_\_\_ NRCS Soil Map Page: \_\_\_\_\_ NRCS Soil Map Stream Order \_\_\_\_\_

County: \_\_\_\_\_ Township / City: \_\_\_\_\_

**MISCELLANEOUS**

Base Flow Conditions? (Y/N): \_\_\_\_\_ Date of last precipitation: \_\_\_\_\_ Quantity: \_\_\_\_\_

Photograph Information: \_\_\_\_\_

Elevated Turbidity? (Y/N): \_\_\_\_\_ Canopy (% open): \_\_\_\_\_

Were samples collected for water chemistry? (Y/N): \_\_\_\_\_ (Note lab sample no. or id. and attach results) Lab Number: \_\_\_\_\_

Field Measures: Temp (°C) \_\_\_\_\_ Dissolved Oxygen (mg/l) \_\_\_\_\_ pH (S.U.) \_\_\_\_\_ Conductivity (µmhos/cm) \_\_\_\_\_

Is the sampling reach representative of the stream (Y/N) \_\_\_\_\_ If not, please explain: \_\_\_\_\_

\_\_\_\_\_

Additional comments/description of pollution impacts: \_\_\_\_\_

\_\_\_\_\_

**BIOTIC EVALUATION**

Performed? (Y/N): \_\_\_\_\_ (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the site ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)

Fish Observed? (Y/N) \_\_\_\_\_ Voucher? (Y/N) \_\_\_\_\_ Salamanders Observed? (Y/N) \_\_\_\_\_ Voucher? (Y/N) \_\_\_\_\_

Frogs or Tadpoles Observed? (Y/N) \_\_\_\_\_ Voucher? (Y/N) \_\_\_\_\_ Aquatic Macroinvertebrates Observed? (Y/N) \_\_\_\_\_ Voucher? (Y/N) \_\_\_\_\_

Comments Regarding Biology: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This must be completed):**

Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location

FLOW 