

# Citizen's Qualitative Habitat Evaluation Index

**CQHEI Score**

Date:

Length of Reach Evaluated:  150 m  200 m  500 m  Other: \_\_\_\_\_

River Code:

River Mile:

River/ Site:

Score:

## I. Substrate (Bottom Type)

### a.) Size

Mostly Large (Fist Size or Bigger) 14 pts

Mostly Medium (Smaller Than Fist Bigger Than Fingernail) 10 pts

Mostly Small (Smaller Than Fingernail, But Still Coarse) 6 pts

Mostly Very Fine (Not Coarse, Sometimes Greasy or Mucky) 0 pts

### b.) "Smothering"

Yes 0 pts  No 5 pts  
Are Fist Size and Larger Pieces Smothered By Sands/Silts?

Symptoms: Hard to Move Large Pieces, Often Black on Bottom w/Few Insects

### c.) "Siltting"

Yes 0 pts  No 5 pts  
Are Silts and Clays Distributed Throughout Stream?

Symptoms: Light Kicking of Bottom Results in Substantial Clouding of Stream for More than a Minute or Two

## II. Fish Cover (Hiding Places) - 2 Points For Each One Present

Underwater Tree Roots (Large) 2 pts

Boulders 2 pts

Downed Trees, Logs, Branches 2 pts

Water Plants 2 pts

Deep Areas (Chest Deep) 2 pts

Undercut Banks 2 pts

Underwater Tree Rootlets (Fine) 2 pts

Backwaters, Oxbows or Side Channels 2 pts

Shallow, Slow Areas for Small Fish 2 pts

Shrubs, Small Trees That Hang Close Over the Bank 2 pts

## III. Stream Shape and Human Alterations

### a.) "Curviness" or "Sinuosity" of Channel

Very Straight 0 pts

Mostly Straight Some "Wiggle" 3 pts

1 or 2 Good Bends 6 pts

2 or More Good Bends 8 pts

### a.) How Natural Is The Site?

Mostly Natural 12 pts

Many Man-made Changes, but still some natural conditions left (e.g., trees, meanders) 6 pts

A Few Minor Man-made Changes (e.g., bridge, some streambank changes) 9 pts

Heavy, Man-made Changes (e.g., channelized, leveed,) 0 pts

## IV. Stream Forests & Wetlands ("Riparian Area") & Erosion

### a.) Width - Mostly:

Wide (Can't Throw A Rock Through It) 8 pts

Narrow (Can Throw A Rock Through It) 5 pts

None 0 pts

### b.) Land Use - Mostly:

Forest/Wetland 5 pts

Shrubs 4 pts

Overgrown Fields 3 pts

Fenced Pasture 2 pts

Park (Grass) 2 pts

Conservation Tillage 2 pts

Suburban 1 pts

Rowcrop 1 pts

Open Pasture 0 pts

Urban/Industrial 0 pts

### c.) Bank Erosion - Typically:

Raw, Collapsing Banks 0 pts

Combination of Stable and Eroding Banks 2 pts

Stable Hard or Well Vegetated Banks 4 pts

d.) How Much of Stream is Shaded?  3 pts - Mostly  2 pts - Partly  0 pts - None

## V. Depth & Current Velocity:

### a.) Deepest Pool Is At Least:

8 pts - Chest Deep

4 pts - Knee Deep

2 pts - Very Fast: Hard to Stand in the Current

1 pts - Moderate: Slowly Takes Objects Downstream

6 pts - Waist Deep

0 pts - Ankle Deep

3 pts - Fast: Quickly Takes Objects Downstream

1 pt - Slow: Flow Nearly Absent

0 pts - No Flow

## VI. Riffles/Runs (Areas Where Current is Fast/Turbulent, Surface May Be Broken)

### a.) Riffles/Runs Are:

8 pts - Knee Deep or Deeper & Fast

6 pts - Ankle/Calf Deep & Fast

4 pts - Ankle Deep or Less & Slow

0 pts - Do Not Exist

### b.) Riffle/Run Substrates Are:

7 pts - Fist Size or Larger

4 pts - Smaller Than Fist Size, but Larger Than Fingernail

0 pts - Smaller Than Your Fingernails

For Most Metrics Intermediate Conditions Can Be Denoted By Checking Two Boxes and Averaging The Scores

**Citizen's Qualitative Habitat Evaluation Index (CQHEI)**  
**Score Guideline**  
(Scores Adopted from OEPA QHEI Form)

CQHEI Scores:

- 0 – 49      Moderate to extensive man-made modifications to stream/river. These water bodies would generally be classified as "Modified Warm Water Habitats". Channelized treeless ditches with very little depth and a poor flow rate could have a CQHEI score of 30 or 40. Silt and muck included in the same stream scores could range in the 20's.
- 50 – 60      Streams/rivers with this score range generally can attain Warm Water Habitat biological communities. Although, depending on which features (e.g, flow, depth) are missing the biological communities may fall short of Warm Water Habitat classification.
- 61 – 69      Streams/rivers scoring in this range have enough positive habitat features available to attain Warm Water Habitat (e.g., depth, flow, forest canopy over stream/river).
- 70 – 100      Stream/rivers scores in this range are capable of supporting "Exceptional Warm Water Habitat" biological communities (e.g., good flow, good riffles and pools, good substrates, and good riparian quality).