

# 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:

**I. Substrate (Bottom Type) --Check 1 or Check 2 and Average** **Score:**

**a.) Size**

<input type="checkbox"/> Mostly Large (Fist Size or Bigger) 14 pts	<input type="checkbox"/> Mostly Medium (Smaller Than Fist Bigger Than Fingernail) 10 pts	<input type="checkbox"/> Mostly Small (Smaller Than Fingernail, But Still Coarse) 6 pts	<input type="checkbox"/> Mostly Very Fine (Not Coarse, Sometimes Greasy or Mucky) 0 pts
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**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.) "Siltling"**

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 --Check All that Apply** **Score:**

<input type="checkbox"/> Underwater Tree Roots (Large) 2 pts	<input type="checkbox"/> Boulders 2 pts	<input type="checkbox"/> Downed Trees, Logs, Branches 2 pts	<input type="checkbox"/> Water Plants 2 pts	<input type="checkbox"/> Deep Areas (Chest Deep) 2 pts	<input type="checkbox"/> Undercut Banks 2 pts
<input type="checkbox"/> Underwater Tree Rootlets (Fine) 2 pts	<input type="checkbox"/> Backwaters, Oxbows or Side Channels 2 pts	<input type="checkbox"/> Shallow, Slow Areas for Small Fish 2 pts	<input type="checkbox"/> Shrubs, Small Trees That Hang Close Over the Bank 2 pts		

**III. Stream Shape and Human Alterations --Check 1 or Check 2 and Average** **Score:**

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

<input type="checkbox"/> Very Straight 0 pts 	<input type="checkbox"/> Mostly Straight Some "Wiggle" 3 pts 
<input type="checkbox"/> 1 or 2 Good Bends 6 pts 	<input type="checkbox"/> 2 or More Good Bends 8 pts 

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

<input type="checkbox"/> Mostly Natural 12 pts	<input type="checkbox"/> Many Man-made Changes, but still some natural conditions left (e.g., trees, meanders) 6 pts
<input type="checkbox"/> A Few Minor Man-made Changes (e.g., bridge, some streambank changes) 9 pts	<input type="checkbox"/> Heavy, Man-made Changes (e.g., channelized, leveed,) 0 pts

**IV. Stream Forests & Wetlands ("Riparian Area") & Erosion -Check 1 or Check 2 and Average** **Score:**

**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:**

<input type="checkbox"/> Forest/Wetland 5 pts	<input type="checkbox"/> Fenced Pasture 2 pts	<input type="checkbox"/> Suburban 1 pts
<input type="checkbox"/> Shrubs 4 pts	<input type="checkbox"/> Park (Grass) 2 pts	<input type="checkbox"/> Rowcrop 1 pts
<input type="checkbox"/> Overgrown Fields 3 pts	<input type="checkbox"/> Conservation Tillage 2 pts	<input type="checkbox"/> Open Pasture 0 pts
		<input type="checkbox"/> 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** **Score:**

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

8 pts -Chest Deep     4 pts -Knee Deep

6 pts -Waist Deep     0 pts -Ankle Deep

**b.) Check ALL The Flow Types That You See:**

2 pts - Very Fast: Hard to Stand in the Current     1 pts - Moderate: Slowly Takes Objects Downstream

3 pts - Fast: Quickly Takes Objects Downstream     1 pt - Slow: Flow Nearly Absent

0 pts - No Flow

**VII. Riffles//Runs (Areas Where Current is Fast//Turbulent, Surface May Be Broken)** **Score:**

**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

\*\*Check 1 or Check 2 and Average

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