

Citizens' Qualitative Habitat Evaluation Index

cQHEI Score:

Date:	Length of Reach evaluated:	<input type="checkbox"/>	160 m	<input type="checkbox"/>	200 m	<input type="checkbox"/>	500 m	<input type="checkbox"/>	Other: _____
River Code:		River Mile:			River Site:				

I. Substance (Bottom Type)

Score:

a) Size				b) "Smothering"				c) "Siltting"			
<input type="checkbox"/>	Mostly Large <i>(fist size or bigger)</i>	<input type="checkbox"/>	Mostly Medium <i>(smaller than fist size, bigger than a fingernail)</i>	<input type="checkbox"/>	Mostly Small <i>(smaller than a fingernail, but still coarse)</i>	<input type="checkbox"/>	Mostly Very Fine <i>(not coarse, sometimes greasy or mucky)</i>				
14 pts		10 pts		6 pts		0 pts					
<input type="checkbox"/>	<input type="checkbox"/>	Are Fist Size and Larger Pieces Smothered by Sands / Silts?		Symptoms: Hard to Move Large Pieces, Often Black on Bottom with Few Insects		<input type="checkbox"/>	<input type="checkbox"/>	Are Silts and Clays Distributed Throughout the Stream?		Symptoms: Light Kicking of Bottom Results in Substantial Clouding of Stream for More than a Minute or Two	
Yes 0 pts	No 5 pts					Yes 0 pts	No 5 pts				





II. Fish Cover (Hiding Places) – 2 Points for Each One Present

Score:

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

III. Stream Shape and Human Alterations

Score:

a) "Curviness" or "Sinuosity of Channel"						b) How Natural is the Site?						
<input type="checkbox"/>	0 pts	Very Straight	<input type="checkbox"/>	3 pts	Mostly Straight Some "Wiggle"	<input type="checkbox"/>	Mostly Natural			<input type="checkbox"/>	Many Man-Made Changes, but still some natural conditions left (e.g., trees, meanders)	
					12 pts	6 pts						
<input type="checkbox"/>	6 pts	One or Two Good Bends	<input type="checkbox"/>	8 pts	Two or More Good Bends	<input type="checkbox"/>	A Few Minor Manmade Changes (e.g., bridge, some streambank changes)			<input type="checkbox"/>	Heavy, Man-made Changes (e.g., channelized, leveed)	
					9 pts	0 pts						

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

Score:

a) Width - Mostly			b) Land Use - Mostly:				c) Bank Erosion - Typically			d) How much of the stream is shaded?	
<input type="checkbox"/>	Wide (can't throw a rock through it)	<input type="checkbox"/>	Forest / Wetland	<input type="checkbox"/>	Fenced Pasture	<input type="checkbox"/>	Suburban	<input type="checkbox"/>	Stable Hard or Well-Vegetated Banks	<input type="checkbox"/>	Mostly
8 pts		5 pts		2 pts		2 pts		4 pts		3 pts	
<input type="checkbox"/>	Narrow (can throw a rock through it)	<input type="checkbox"/>	Shrubs	<input type="checkbox"/>	Park (Grass)	<input type="checkbox"/>	Row crop	<input type="checkbox"/>	Combination of Stable and Eroding Banks	<input checked="" type="checkbox"/>	Partly
5 pts		4 pts		2 pts		2 pts		2 pts		2 pts	
<input type="checkbox"/>	None	<input type="checkbox"/>	Overgrown Fields	<input type="checkbox"/>	Conservation Tillage	<input type="checkbox"/>	Open Pasture	<input type="checkbox"/>	Raw, Collapsing Banks	<input type="checkbox"/>	None
0 pts		3 pts		2 pts		2 pts		0 pts		0 pts	
			<input type="checkbox"/>	Urban / Industrial							
			2 pts								

V. Depth & Current Velocity

Score:

a) Deepest Pool Is At Least:						b) Check ALL The Flow Types That You See					
<input type="checkbox"/>	Chest Deep	<input type="checkbox"/>	Waist Deep	<input type="checkbox"/>	Knee Deep	<input type="checkbox"/>	Very Fast (hard to stand in the current)	<input type="checkbox"/>	Fast (quickly takes objects downstream)	<input type="checkbox"/>	Moderate
8 pts		6 pts		4 pts		2 pts		3 pts		1 pts	
<input type="checkbox"/>	Ankle Deep					<input type="checkbox"/>	Slow (flow nearly absent)			<input type="checkbox"/>	None Flow
0 pts						1 pts				0 pts	

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

Score:

a) Riffles/Runs Are:							b) Riffle/Run Substrates Are:							
<input type="checkbox"/>	Knee Deep or Deeper & Fast	<input type="checkbox"/>	Ankle/Calf Deep & Fast	<input type="checkbox"/>	Ankle Deep or Less & Slow	<input type="checkbox"/>	Do not exist		<input type="checkbox"/>	Fist Size or Larger	<input type="checkbox"/>	Smaller than Fist Size, but Larger than a Fingernail	<input type="checkbox"/>	Smaller than a Fingernail
8 pts		6 pts		4 pts		0 pts			7 pts		4 pts		0 pts	

Note: For most metrics, intermediate conditions can be denoted by checking two boxes and averaging the scores

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Score Guidelines

(Scores Adopted from DEPA 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/ivers 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/ivers 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/ivers scoring in this range can support "Exceptional Warm Water Habitat" biological communities (e.g., good flow, good riffles and pools, good substrates, and good riparian quality).