	***	C 12"		
-				
ALC: NO				
		7		
		A ARREST		
			1	

EPA 4520

Qualitative Habitat Evaluation Index

GIREFA	Field Sheet	WIE Score.
Stream & Location: Warrage	Boston Milb B	RM: 20,5 Date: 8/2/14
STORET #: FOIASA	Scorer Name & Affiliation:	13
	.at./ Long.: NAD 83 - decimal °)	Office verified location
1] SUBSTRATE Check ONLY Two substrate estimate % or note every ty	TYPE BOXES:	eck ONE (Or 2 & average)
BEST TYPES POOL RIFFLE	THER TYPES POOL RIFFLE ORIGIN	QUALITY
BLDR/SLABS [10]	HARDPAN [4] LIMESTONE [1] DETRITUS [3] COUTWASH [1]	
COBBLE [8]	MUCK [2] WETLANDS [0	NORMAL [0]
	] SILT [2] HARDPAN [0]  ARTIFICIAL [0] SANDSTONE	
DED DEDDOCK IEI	(Cooperatural substrates: ignore RIP/RAP [0]	EMBEDDED MODERATE [-1]
1 I S OF IASS	re [2] sludge from point-sources) LACUSTRINE s [0] SHALE [-1]	NONE,[1]
comments uzel De busine	COAL FINES [	-2] normal-tar @ bestrack Zonk
21 INSTREAM COVER Indicate presence (	to 3: 0-Absent; 1-Very small amounts or if more con	nmon of marginal AMOUNT
quality: 3-Highest quality in moderate or greater	amounts, but not of nighest quality of in small amounts (e.g., very large boulders in deep or fast w	ater, large Check ONE (Or 2 & average)
diameter log that is stable, well developed rootw	vad in deep / fast water, or deep, well-defined, function POOLS > 70cm [2] OXBOWS, BACKWA	onal pools.
OVERHANGING VEGETATION [1]	ROOTWADS [1] Q AQUATIC MACROP	PHYTES [1] SPARSE 5-<25% [3]
SHALLOWS (IN SLOW WATER) [1] 3	DOOLDE!!!	Cover
Comments		Maximum 1
	bstroke + pols	20
3] CHANNEL MORPHOLOGY Check ONI SINUOSITY DEVELOPMENT	CHANNELIZATION STABILITY	
☐ HIGH [4] ■ EXCELLENT [7] ☑	NONE [6] HIGH [3]	
	RECOVERED [4]   MODERATE   RECOVERING [3]   LOW [1]	[2]
□ NONE [1] □ POOR [1] □	RECENT OR NO RECOVERY [1]	Channel Maximum 12
Comments	asimaly stabilities upst RR	20 17
4] BANK EROSION AND RIPARIAN ZO	ONE Check ONE in each category for EACH BANK	(Or 2 per bank & average)
River right looking downstream RIPARIAN		
EROSION		☐ ☐ URBAN OR INDUSTRIAL [0]
☐ MODERATE [2] ☑ ☑ NARROW 5-1	0m [2] RESIDENTIAL, PARK, NEW FIE	LD [1] U MINING / CONSTRUCTION [0]
☐   HEAVY / SEVERE [1]   ☐   VERY NARRO   ☐   NONE [0]	DW < 5m [1] ☐ ☐ FENCED PASTURE [1] ☐ ☐ OPEN PASTURE, ROWCROP	Indicate predominant land use(s) past 100m riparian. Riparian
Comments		Maximum t, b
5] POOL / GLIDE AND RIFFLE / RUN G	NIALITY	The same of
MAXIMUM DEPTH CHANNEL	_ WIDTH CURRENT VELOCIT	<u>ry</u>
Check ONE (ONLY!) Check ONE (Or		111
□ 0.7-<1m [4] □ POOL WIDTH = RII	FFLE WIDTH [1] VERY FAST [1] INTERS	STITIAL [-1]
	FFLE WIDTH [0] A FAST [1] INTERN  MODERATE [1] EDDIES	MITTENT [-2] S [1] Pool / Pool
☐ 0.2-<0.4m [1] ☐ < 0.2m [0]	Indicate for reach - pools and	d riffles. Current
Comments		Maximum 12
	t areas must be large enough to suppo	rt a population NO RIFFLE [metric=0]
of riffle-obligate species:  RIFFLE DEPTH RUN DEPT	Check ONE (Or 2 & average).  H RIFFLE / RUN SUBSTRATE RI	IFFLE / RUN EMBEDDEDNESS
BEST AREAS > 10cm [2] MAXIMUM > 50c	cm [2] STABLE (e.g., Cobble, Boulder) [2]	□ NONE [2]
BEST AREAS 5-10cm [1] ☐ MAXIMUM < 50c	cm [1] MOD. STABLE (e.g., Large Gravel) [1] UNSTABLE (e.g., Fine Gravel, Sand) [0]	► LOW [1]  → MODERATE [0] Riffle
[metric=0]	latter in slaves	EXTENSIVE [-1] Run (4.5)
Comments	Various II flow	8 The car of street and the street a
G GRADIENT (S & ft/mi) DRAINAG	E AREA (mi²) %POOL:	%GLIDE: Gradient 10
	%RIIN.	%RIFFLE: Maximum

06/15/11

Stream Drawing:	DBOAT WADE U WADE U LINE OTHER 0.5 Km 0.15 Km 0.15 Km 0.12 Km 0.12 Km meters	METHON
drawing:	1st cm ss 2nd cm CANOPY   > 85%- OPEN   55%-<85%   30%-<55%   10%-<30%   <10%- CLOSED	SECOLI DEBTU
	This will though Mounts of Long to aide understanding of overall QHEI score.	
	Acops directions, etc.	