RIVER HABITAT SU	RVEY 2003 VERS	SION: SITE HEALTH AND SAFETY A	ASSESSMENT
Site Number ¹ :	Site Ref:	River Name:	Date:
Grid References/Co-ordinates:	Spot 1 ² :	Mid-site:	End of site ² :
Surveyor Name:		Accredited Surveyor Code	e:
¹ Leave blank if new site.		² Optional	
Weather Conditions:			
Flow Conditions:			
Site details: (enter comments	or circle if applica	able and give details)	Risk Level (Low/Mod/High)
Access and Parking: (entry & exit)			
Conditions: comment on groui	nd stability, footi	ng, exposure/remoteness	
Obstacles/Hazards: fencing, stil	es, dense vegeta	ation, steep bank	
Occupied/Unoccupied: people,	livestock, anima	als	
Activities/Land-use: agriculture,	woodland, reside	ential, industrial, construction, recreat	ional
Risk if lone-working			
IF THERE ARE A	NY HIGH RISKS	OR MORE THAN THREE MODERA	ATE RISKS

DO NOT CONTINUE WITH THE SURVEY.

Weil's Disease (Leptospirosis)

Instructions to card holders

- 1. As infection may enter through breaks in the skin, ensure that any cut, scratch or abrasion is thoroughly cleansed and covered with a waterproof plaster.
- 2. Avoid rubbing your eyes, nose and mouth during work.
- 3. Clean protective clothing, footwear and equipment etc. after use
- 4. After work, and particularly before taking food or drink, wash hands thoroughly.
- 5. Report all accidents and/or injuries, however slight.
- 6. Keep your card with you at all times.

Lyme Disease

- 1. Dress appropriately with skin covered up.
- 2. Regularly inspect for ticks when in the field.
- 3. Check for, and remove, any ticks as soon as possible after leaving the site.
- 4. Seek medical attention if bitten by a tick.

RIVER HABITAT SURVEY 2003 VERSION: SPOT-CHECK KEY Page 1 of 2

PHYSICAL ATTRIBUTES (SECTION E)

BAN	IKS	CHANNEL				
Predominant bank	Bank modifications	Predominant substrate	Channel modifications			
Predominant bank material NV = not visible BE = bedrock BO = boulder CO = cobble GS = gravel/sand EA = earth (crumbly) PE = peat CL = sticky clay CC = concrete SP = sheet piling WP = wood piling GA = gabion BR = brick/laid stone RR = rip-rap TD = tipped debris FA = fabric BI = bio-engineering materials	Bank modifications NK = not known NO = none RS = resectioned (reprofiled) RI = reinforced PC = poached PC(B) = poached (bare) BM = artificial berm EM = embanked Marginal and bank features NV = not visible (e.g. far bank) NO = none EC = eroding cliff (EC) if sandy substrate) SC = stable cliff (SC) if sandy substrate) PB = unvegetated point bar VP = vegetated point bar VS = vegetated side bar VS = vegetated side bar	Predominant substrate NV = not visible BE = bedrock BO = boulder CO = cobble GP = gravel/pebble	Channel modifications NK = not known NO = none CV = culverted RS = resectioned RI = reinforced DA = dam/weir/sluice FO = ford (man-made) Channel features NV = not visible NO = none EB = exposed bedrock RO = exposed boulders VR = vegetated rock MB = unvegetated midchannel bar VB = vegetated midchannel bar MI = mature island TR = Trash (urban debris)			
	NB = natural berm	SM = smooth NP = no perceptible flow DR = no flow (dry)				

FLOW-TYPES DESCRIPTION

FF: Free fall clearly separates from back-wall of vertical feature ~ associated with waterfalls

CH: Chute low curving fall in contact with substrate ~ often associated with cascades

BW: Broken standing waves white-water tumbling waves must be present ~ mostly associated with rapids

UW: Unbroken standing waves upstream facing wavelets which are not broken ~ mostly associated with riffles

CF: Chaotic flow a chaotic mixture of three or more of the four fast flow-types with no predominant

one obvious

RP: Rippled no waves, but general flow direction is downstream with disturbed rippled surface ~

mostly associated with runs

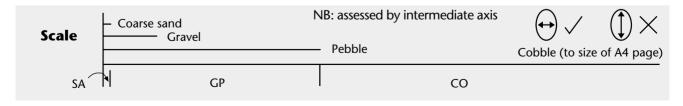
UP: Upwellingheaving water as upwellings break the surface ~ associated with boils.SM: Smoothperceptible downstream movement is smooth (no eddies) ~ mostly

associated with glides

NP: No perceptible flow no net downstream flow ~ associated with pools, ponded reaches and marginal

deadwater

DR: No flow (dry) dry river bed



TL = Tilled land

NV = Not visible

IL = Irrigated land

PG = Parkland or gardens

Banks are determined by looking downstream **RIGHT LEFT**

CHANNEL MODIFICATION INDICATORS

One or more of the following may be indicative of resectioning:

- 1. Uniform bank profile
- 2. Straightened planform
- 3. Bankfull width/bankfull height ratio <4:1
- 4. Uniform/low energy flow-types
- 5. No trees/uniformly-aged trees along bank
- Intensive/urban land-use

LAND-USE WITHIN 5m OF BANKTOP (SECTION F)

Broadleaf/mixed woodland (semi-natural) **AW** = OW =

BP = Broadleaf/mixed plantation

CW = Coniferous woodland (semi-natural)

CP = Coniferous plantation

SH = Scrub & shrubs

OR = Orchard **WL** = Wetland (e.g. bog, marsh, fen)

MH = Moorland/heath

Artificial open water

Natural open water RP = Rough unimproved

grassland/pasture

IG = Improved/semi-improved grassland

TH = Tall herb/rank vegetation RD =Rock, scree or sand dunes

SU = Suburban/urban development

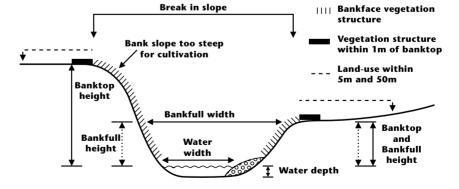
BANKTOP AND BANKFACE VEGETATION STRUCTURE To be assessed within a 10m wide transect (SECTION F)

bare		В	bare earth/rock etc.	vegetation types	
uniform		U	predominantly one type (no scrub or trees)	<u> 1111111-</u>	bryophytes
<u>vylyy</u> <u> </u>				<u> </u>	short/creeping herbs or grasses
simple	***	S	two or three vegetation types	Ш	tall herbs/ grasses
complex	³ am	С	four or more types		saplings and trees

Channel dimensions guidance (Section L)

- Select location on uniform section.
- If riffle is present, measure there. If not, measure at straightest and shallowest point.
- **Banktop** = first major break in slope abové which cultivation or development is possible.
- Bankfull = point where river first spills on to floodplain.

Cross-section of channel showing definitions used to define where spot-check recording and channel dimensions measured





EMERGENCY HOTLINE 0800 80 70 60

24 hour free emergency telephone line for reporting all environmental incidents relating to air, land and water.

RIVER HABITAT SURVEY 2003 Version Page 1 of 4							
A FIELD SURVEY DETAILS							
Site Number:	Is the site part of a river or an artificial channel? River Artificial						
Site Reference:	Are adverse conditions affecting survey? No L Yes L						
Spot-check 1 Grid Ref:	If yes, state						
Spot-check 6 Grid Ref:	Is bed of river visible? barely or not partially ±entirely						
End of site Grid Ref:	Is health and safety assessment form attached? Yes No 🔲						
Reach Reference:	Number of photographs taken:						
River name:	Photo references:						
Date / /20 Time:	Site surveyed from: left bank right bank channel						
Surveyor name:	☐ When options shown with 'shadow boxes', tick one box only						
Accredited Surveyor code:	LEFT banks determined by facing downstream RIGHT						
B PREDOMINANT VALLEY FORM	M (within the horizon limit) (tick one box only)						
(tick one box only)							
shallow vee	concave/bowl						
deep vee	asymmetrical valley U-shape valley						
gorge	no obvious valley sides						
Distinct flat valley bottom? No	Yes Natural terraces? No Yes Yes						
C NUMBER OF RIFFLES, POOLS A	AND POINT BARS (enter total number in boxes)						
Riffle(s) Pool(s)	Unvegetated point bar(s) Vegetated point bar(s)						
D ARTIFICIAL FEATURES (indicate total	number of occurrences of each category within the 500m site)						
If none, tick box	Minor Major Intermediate Minor Outfalls/ intakes Fords Deflectors/ groynes/croys						
Is channel obviously over-deepened?	No						

SITE REF.	RIVER HA	BITA	T SUI	RVEY	: TE	N SP	OT-CH	IECK	S	Pag	ge 2 o	f 4
Spot-check 1 is at: upstream er	nd 🔲 dov	wnstrea	m end		0	f site (t	ick one	box)				
E PHYSICAL ATTRIBUT	ES (to be assessed a	cross c	hannel	l withir	n 1m v	wide t	ransect)					
When boxes 'bordered', only	one entry allowed	1 GPS	2	3	4	5	6 GPS	7	8	9	10	GPS
LEFT BANK			Ring	g EC or	· SC if	comp	osed of	sandy	' substi	rate		
Material NV, BE, BO, CO, GS, EA, PE, CL, CC	, SP, WP, GA, BR, RR, TD, FA, BI											
Bank modification(s) NK, NO,	RS, RI, PC(B), BM, EM											
Marginal & bank feature(s) NV, N	IO, EC, SC, PB, VP, SB, VS, NB											
CHANNEL				GP- ri	ng eitl	her G	or P if p	redon	ninant			
Channel substrate NV, BE, BO, CO), GP, SA, SI, CL, PE, EA, AR					<u> </u>	<u> </u>					
Flow-type NV, FF, CH, BW, UW, CF	, RP, UP, SM, NP, DR					_						I
Channel modification(s) NK,	NO, CV, RS, RI, DA, FO											
Channel feature(s) NV, NO, EB,	RO, VR, MB, VB, MI, TR											nter pot-
For braided rivers only: numl	ber of sub-channels											chai chec
RIGHT BANK			Rin	g EC o	r SC if	comp	oosed o	f sandy	y subst	rate		nnel ks bu
Material NV, BE, BO, CO, GS, EA, PE, CL, CC		<u> </u>				<u> </u>						subs It pr
Bank modification(s) NK, NO,	RS, RI, PC(B), BM, EM	-										trate
Marginal & bank feature(s) NV, N	IO, EC, SC, PB, VP, SB, VS, NB											tin y
F BANKTOP LAND-USE	AND VEGETATION	ON ST	RUCT	URE (to be a	issesse	d over a	10m w	ide trai	nsect)		>1%
Land-use: choose one from	BL, BP, CW, CP, SH,	OR, WI	L, MH ,	AW, C	W, RI	P, IG, '	TH, RD,	SU, T	L, IL, P	G, NV		Enter channel substrate(s) not occurring as predominant in spot-checks but present in >1% of whole site.
LAND-USE WITHIN 5m OF LEFT	BANKTOP											ing a
LEFT BANKTOP (structure within	1m) B/U/S/C/NV											s pre site.
LEFT BANK-FACE (structure)	B/U/S/C/NV											don
RIGHT BANK-FACE (structure)	B/U/S/C/NV											ninan
RIGHT BANKTOP (structure with	in 1m) B/U/S/C/NV											in
LAND-USE WITHIN 5m OF RIGH	T BANKTOP											
G CHANNEL VEGETATION	ON TYPES (to be ass	sessed ov	er a 10r	n wide t	ransect:	: use E (≥ 33% a	rea), 🗸	(presen	t) or NV	(not vis	ible)
None (✓) or Not Visible (NV)				Π		Т	T		П			
Liverworts/mosses/lichens												
Emergent broad-leaved herbs												
Emergent reeds/sedges/rushes/g	rasses/horsetails											
Floating-leaved (rooted)												
Free-floating												
Amphibious												
Submerged broad-leaved												
Submerged linear-leaved												
Submerged fine-leaved												
Filamentous algae												
Use end column for overall assess	sment over 500m inch	IL	nes no	t occur	l ring in	spot-c	hecks (11	Se. / F	or NV)	I	

SITE REF. RIVER HABITAT SURVEY: 500m SWEEP-UP							
H LAND-USE WITH	IIN 50m OF BAN	NKTOP	' Use	✓ (present) or E (≥ 33% banklength)			
		L	R		L	R	
Broadleaf/mixed woodland	(semi-natural) (BL)			Natural open water (OW)			
Broadleaf/mixed plantation	(BP)			Rough/unimproved grassland/pasture (RP)			
Coniferous woodland (semi	-natural) (CW)			Improved/semi-improved grassland (IG)			
Coniferous plantation (CP)				Tall herb/rank vegetation (TH)			
Scrub & shrubs (SH)				Rock, scree or sand dunes (RD)			
Orchard (OR)				Suburban/urban development (SU)			
Wetland (e.g. bog, marsh,	fen) (WL)			Tilled land (TL)			
Moorland/heath (MH)				Irrigated land (IL)			
Artificial open water (AW)				Parkland or gardens (PG)			
				Not visible (NV)			
I BANK PROFILES	Use ✓ (presen	t) or E	(≽ 33% ba	anklength)			
Natural/unmodified		L	R	Artificial/modified	L	R	
Vertical/undercut	7 7			Resectioned (reprofiled)			
Vertical with toe	7.m			Reinforced - whole			
Steep (>45°)	\ww.			Reinforced - top only			
Gentle				Reinforced - toe only			
Composite				Artificial two-stage			
Natural berm				Poached bank			
				Embanked ————————————————————————————————————	_		
				Set-back embankment ————			
J EXTENT OF TREES		ED FEA	ATURES	*record even if <1%			
TREES (tick one	box per bank) Left F	Right		ASSOCIATED FEATURES (tick one box per feat None Prese		33%)	
None				Shading of channel	Ţ		
Isolated/scattered				*Overhanging boughs	<u>_</u>	<u> </u>	
Regularly spaced,	single 🔲			*Exposed bankside roots	ٳٙ		
Occasional clumps	; <u></u>			*Underwater tree roots	ٳ	╛	
Semi-continuous		╚		Fallen trees	Ļ	╛	
Continuous		<u> </u>		Large woody debris		<u> </u>	
K EXTENT OF CHA	NNEL AND BAN	NK FEA	TURES	(tick one box for each feature) *record even if	<1%		
	None P	resent	E(≽33%)		esent E	(≽33%) □-	
*Free fall flow	H	냈	片	Exposed beyonders	_	片	
Chute flow	H	ᆛ	ᆛ	Exposed boulders		ᆛ	
Broken standing waves	H	ᆛ	냈	Vegetated bedrock/boulders		ᆛ	
Unbroken standing waves	Ļ	닏	닏	Unvegetated mid-channel bar(s)	ᅼ	닏	
Rippled flow	Ļ	닏	닏	Vegetated mid-channel bar(s)	ᅼ	닏	
*Upwelling		닏	닏	Mature island(s)		닏	
Smooth flow	\sqsubseteq	닏		Unvegetated side bar(s)	_	_	
No perceptible flow	<u> </u>	\Box	╚	Vegetated side bar(s)	_	╚	
No flow (dry)				Unvegetated point bar(s)	<u> </u>		
Marginal deadwater				Vegetated point bar(s)			
Eroding cliff(s)				*Unvegetated silt deposit(s)			
Stable cliff(s)				*Discrete unvegetated sand deposit(s)			
	_ _	-	_	*Discrete unvegetated gravel denosit(s)	_		

SITE REF.	RIVER HAB	ITAT SURVEY : DIN	MENSIONS AND I	NFLUENCES	Page 4 of 4					
L CHANNEL DIME	NSIONS (to be i	measured at one location	on a straight uniform	section, preferal	oly across a riffle)					
LEFT BANK		CHANNEL	RIGHT BA	ank						
Banktop height (m)		Bankfull width (m)	Banktop	height (m)						
Is banktop height also be height? (Y or N)	ankfull	Water width (m)	ls bankto height? (pp height also ba Y or N)	ınkfull					
Embanked height (m)		Water depth (m)	Embanke	ed height (m)						
If trashline lower than ba	anktop, indicate:	height above water (m)	= width from	bank to bank (m	1) =					
Bed material at site is:	со	nsolidated 🖵 unc	onsolidated (loose)		unknown 📮					
Location of measurements is: riffle 🔲 other 🖵 (state)										
m features of s	PECIAL INTERE	ST Use √ or E (≥ 33°	% length) *record eve	n if <1%						
None	Very la	rge boulders (>1m)	Backwater(s)	Mai	rsh(es)					
Braided channels	*Debri	s dam(s)	Floodplain boulder dep	osits Flus	sh(es)					
Side channel(s)	*Leafy	debris	Water meadow(s)		tural					
*Natural waterfall(s) > 5m	high Fringir	ng reed-bank(s)	Fen(s)		en water ners (state)					
*Natural waterfall(s) < 5m	high Quakiı	ng bank(s)	Bog(s)							
Natural cascade(s)	*Sink I	nole(s)	Wet woodland(s)							
N CHOKED CHAN	NEL (tick one k	oox)								
Is 33% or more of the ch	nannel choked wit	h vegetation?	No 🔲	Yes						
O NOTABLE NUISA	ance plant s	PECIES Use √ or E	(≽ 33% length) *re	ecord even if <1%						
_	bankface	banktop to 50m		bankface ban	ktop to 50m					
None *Giant ho	, <u> </u>		nalayan balsam							
*Japanese	knotweed	*Ot	ner (state)							
P OVERALL CHAR	ACTERISTICS	(Circle appropriate	e words, add othe	rs as necessar	у)					
Major impacts: landfill - mining - quarrying - overc		vage - pollution - drought ation - fisheries managem								
Evidence of recent m gravel extraction - other	-	edging - bank mowing -	weed cutting - enhan	cement - river re	ehabilitation -					
Animals: otter - mink -		isher - dipper - grey wagta	ail - sand martin - heror	า - dragonflies/da	amselflies					
	•	ecessary use separate she		•						
observations		, ,								
Q ALDERS (tick on	e box in each	of the two categories	S) *record even if <	1%						
*Alders? None 🔲 Pre	sent 🔲 Exter	sive 🔲 *Diseased	Alders? None	Present 🔲	Extensive					
	<u>* </u>	ROL (\checkmark boxes to co	<u> </u>							
Have you taken at least two and major/intermediate str			the site and additional	photos of any wei	rs/ sluices					
	•	nade entries in all boxes in								
Have you completed column 11 of section G (and E if appropriate) on page 2? Have you recorded in section C the number of riffles, pools and point bars (even if 0) on page 1?										
Have you given an accurate (alphanumeric) grid reference for spot-checks 1, 6 and end of site (page 1)?										
·	•	e upstream or downstream		_						
Have you cross-checked you		sweep-up responses with th	e channel modification	ndicators						