

A BACKGROUND MAP-BASED INFORMATION

Altitude (m)	Slope (m/km)	Flow category (1 - 10)
Solid geology code	Drift geology code	Planform category
Distance from source (km)	Significant tributary ?	Navigation ?
Height of source (m)	Water Quality Class	

B FIELD SURVEY DETAILS

Site Number : _____ Mid-site Grid Reference : _____ River : _____

Date/...../..... Time Surveyor name

Accredited Surveyor ? No Yes If yes, state code







Adverse conditions affecting survey ? No Yes If yes, state

Bed of river visible ? No partially entirely (tick one box)

Duplicate photographs : general character ? No Yes (tick one box)

Site surveyed from : left bank right bank channel (tick as appropriate)

C PREDOMINANT VALLEY FORM (tick one box only)

	<input type="checkbox"/> shallow vee		<input type="checkbox"/> concave/bowl (If U-shaped glacial valley - add "U")
	<input type="checkbox"/> deep vee		<input type="checkbox"/> symmetrical floodplain
	<input type="checkbox"/> gorge		<input type="checkbox"/> asymmetrical floodplain

Terraced valley floor ? No Yes

D NUMBER OF RIFFLES, POOLS AND POINT BARS (indicate total number)

Riffles	Unvegetated point bars
Pools	Vegetated point bars

Spot-check 1 is at : upstream end downstream end of site (tick one box)

E PHYSICAL ATTRIBUTES (to be assessed across channel within 1m wide transect)

1 = one entry only	1	2	3	4	5	6	7	8	9	10		
LEFT BANK	Ring EC or SC if composed of sandy substrate										↑ Enter channel substrates not occurring in spot-checks but present in > 1% whole site.	
Material ¹ NV, BE, BO, CO, GS, EA, PE, CL, CC, SP, WP, GA, BR, RR, BW												
Bank modification(s) NK, NO, RS, RI, PC(B), BM, EM												
Bank feature(s) NV, NO, EC, SC, PB, VP, SB, VS												
CHANNEL	GP- ring either G or P if predominant											
Channel substrate ¹ NV, BE, BO, CO, GP, SA, SI, CL, PE, AR												
Flow type ¹ FF, CH, BW, UW, CF, RP, UP, SM, NP, NO												
Channel modification(s) NK, NO, CV, RS, RI, DA, FO												
Channel feature(s) NV, NO, RO, MB, VB, MI, TR												
RIGHT BANK	Ring EC or SC if composed of sandy substrate											
Material ¹ NV, BE, BO, CO, GS, EA, PE, CL, CC, SP, WP, GA, BR, RR, BW												
Bank modification(s) NK, NO, RS, RI, PC(B), BM, EM												
Bank feature(s) NV, NO, EC, SC, PB, VP, SB, VS												

F BANKTOP LAND USE AND VEGETATION STRUCTURE (to be assessed over a 10m wide transect)

Land use : choose one from BL, CP, OR, MH, SC, TH, RP, IG, TL, WL, OW, SU, RS											
LAND USE WITHIN 5m OF LEFT BANKTOP											
LEFT BANKTOP (structure within 1m) B/U/S/C											
LEFT BANK FACE (structure) B/U/S/C											
RIGHT BANK FACE (structure) B/U/S/C											
RIGHT BANKTOP (structure within 1m) B/U/S/C											
LAND USE WITHIN 5m OF RIGHT BANKTOP											

G CHANNEL VEGETATION TYPES (to be assessed over a 10m wide transect : use E (> 33% area) or ✓(present)





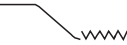




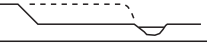


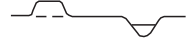
	1	2	3	4	5	6	7	8	9	10	
NONE											
Liverworts/mosses/lichens											
Emergent broad-leaved herbs											
Emergent reeds/sedges/rushes											
Floating-leaved (rooted)											
Free-floating											
Amphibious											
Submerged broad-leaved											
Submerged linear-leaved											
Submerged fine-leaved											
Filamentous algae											

Use end "catch-all" column for types not occurring in spot checks as well as overall assessment over 500m (use E or ✓) ↑

H LAND USE WITHIN 50m OF BANKTOP Use E (> 33% banklength) or ✓ (present)

	L	R		L	R
Broadleaf/mixed woodland (BL)			Rough pasture (RP)		
Coniferous plantation (CP)			Improved/semi-improved grass (IG)		
Orchard (OR)			Tilled land (TL)		
Moorland/heath (MH)			Wetland (eg bog, marsh, fen) (WL)		
Scrub (SC)			Open water (OW)		
Tall herbs /rank vegetation (TH)			Suburban/urban development (SU)		
			Rock and scree (RS)		

I BANK PROFILES Use E (> 33% banklength) or ✓ (present)

Natural/unmodified	L	R	Artificial/modified	L	R
Vertical/undercut 			Resectioned 		
Vertical + toe 			Reinforced - whole bank 		
Steep (>45°) 			Reinforced - top only 		
Gentle 			Reinforced - toe only 		
Composite 			Artificial two-stage 		
			Poached 		
			Embanked 		
			Set-back embankments 		

J EXTENT OF TREES AND ASSOCIATED FEATURES

TREES (tick one box per bank)			ASSOCIATED FEATURES (tick one box per feature)		
	Left	Right	None	Present	E (>33%)
None	<input type="checkbox"/>	<input type="checkbox"/>	Shading of channel	<input type="checkbox"/>	<input type="checkbox"/>
Isolated/scattered	<input type="checkbox"/>	<input type="checkbox"/>	Overhanging boughs	<input type="checkbox"/>	<input type="checkbox"/>
Regularly spaced, single	<input type="checkbox"/>	<input type="checkbox"/>	Exposed bankside roots	<input type="checkbox"/>	<input type="checkbox"/>
Occasional clumps	<input type="checkbox"/>	<input type="checkbox"/>	Underwater tree roots	<input type="checkbox"/>	<input type="checkbox"/>
Semi-continuous	<input type="checkbox"/>	<input type="checkbox"/>	Fallen trees	<input type="checkbox"/>	<input type="checkbox"/>
Continuous	<input type="checkbox"/>	<input type="checkbox"/>	Coarse woody debris	<input type="checkbox"/>	<input type="checkbox"/>

K EXTENT OF CHANNEL FEATURES (tick one box per feature)

	None	Present	E(>33%)		None	Present	E(>33%)
Waterfall(s)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Marginal deadwater	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cascade(s)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Exposed bedrock	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rapid(s)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Exposed boulders	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Riffle(s)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Unvegetated mid-channel bar(s)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Run(s)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Vegetated mid-channel bar(s)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Boil(s)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Mature island(s)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Glide(s)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Unvegetated side bar(s)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pool(s)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Vegetated side bar(s)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ponded Reach(es)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Discrete silt deposit(s)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
				Discrete sand deposit(s)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

L CHANNEL DIMENSIONS (to be measured at one location on a straight uniform section, preferably across a riffle)

LEFT BANK		CHANNEL		RIGHT BANK	
Banktop height (m)		Bankfull width (m)		Banktop height (m)	
Is banktop height also bankfull height? (Y or N)		Water width (m)		Is banktop height also bankfull height? (Y or N)	
Embanked height (m)		Water depth (m)		Embanked height (m)	
If trashline is lower than banktop break in slope, indicate: height above water (m) =					
Bed material at site is: consolidated (compact) <input type="checkbox"/> unconsolidated (loose) <input type="checkbox"/> unknown <input type="checkbox"/>					
Location of measurement is: riffle <input type="checkbox"/> run or glide <input type="checkbox"/> other <input type="checkbox"/>					

M ARTIFICIAL FEATURES (indicate total number or tick appropriate box)

None	Major	Intermediate	Minor	Major	Intermediate	Minor
<input type="checkbox"/>	Weirs			Revetments		
	Sluices			Outfalls		
	Culverts			Fords		
	Bridges			Deflectors		
				Other (state)		

Is water impounded by weir/dam? No Yes, <33% of site >33% of site

N EVIDENCE OF RECENT MANAGEMENT (tick appropriate box(es))

None Dredging Mowing Weed-cutting
 Enhancement Other (state).....

O FEATURES OF SPECIAL INTEREST use ✓ or E (> 33% length)

None

Waterfalls > 5m high <input type="checkbox"/>	Artificial open water <input type="checkbox"/>	Bog <input type="checkbox"/>	Fringing reed-bank <input type="checkbox"/>
Braided/side channels <input type="checkbox"/>	Natural open water <input type="checkbox"/>	Carr <input type="checkbox"/>	Floating mat <input type="checkbox"/>
Debris dams <input type="checkbox"/>	Water meadow <input type="checkbox"/>	Marsh <input type="checkbox"/>	Other (state).....
Leafy debris <input type="checkbox"/>	Fen <input type="checkbox"/>	Flush <input type="checkbox"/>	

P CHOKED CHANNEL (tick one box)

Is 33% or more of the channel choked with vegetation? No Yes

Q NOTABLE NUISANCE PLANT SPECIES Use ✓ or E (> 33% length)

None Giant Hogweed Himalayan Balsam Japanese Knotweed Other (state).....

R OVERALL CHARACTERISTICS (Circle appropriate words, add others as necessary)

Major impacts: landfill - tipping - litter - sewage - pollution - drought - abstraction - mill - dam - road - rail - industry - housing - mining - quarrying - overdeepening - afforestation - fisheries management - silting

Land Management: set-aside - buffer strip - headland - abandoned land - parkland - MoD

Animals: otter - mink - water vole - kingfisher - dipper - grey wagtail - sand martin - heron - dragonflies/damselflies

Other significant observations:

S ALDERS (tick appropriate box(es))

Alders? None Present Extensive Diseased Alders? None Present Extensive

PHYSICAL ATTRIBUTES (SECTION E)

BANKS		CHANNEL	
<p>Predominant bank material</p> <p>NV = not visible</p> <p>BE = bedrock BO = boulder CO = cobble GS = gravel/sand EA = earth (crumbly) CL = sticky clay</p> <p>CC = concrete SP = sheet piling WP = wood piling GA = gabion BR = brick/laid stone RR = rip-rap BW = builders' waste</p>	<p>Bank modifications</p> <p>NK = not known NO = none</p> <p>RS = resectioned RI = reinforced PC = poached PC(B) = poached (bare) BM = berm EM = embanked</p> <p>Bank features</p> <p>NV = not visible (eg far bank) NO = none</p> <p>EC = eroding cliff (ring if sandy substrate) SC = stable cliff (ring if sandy substrate)</p> <p>PB = unvegetated point bar VP = vegetated point bar</p> <p>SB = unvegetated side bar VS = vegetated side bar</p>	<p>Predominant substrate</p> <p>NV = not visible</p> <p>BE = bedrock BO = boulder CO = cobble GP = gravel/pebble (ring G or P if predominant) SA = sand SI = silt/mud CL = clay PE = peat AR = artificial</p> <p>Predominant flow (see below)</p> <p>FF = freefall CH = chute BW = broken standing waves (white-water) UW = unbroken standing wave CF = chaotic flow RP = rippled UP = upwelling SM = smooth NP = no perceptible flow NO = no flow (dry)</p>	<p>Channel modifications</p> <p>NK = not known NO = none</p> <p>CV = culverted RS = resectioned RI = reinforced DA = dam/weir FO = ford (man-made)</p> <p>Channel features</p> <p>NV = not visible NO = none</p> <p>RO = exposed bedrock/boulders MB = unvegetated mid channel bar VB = vegetated mid-channel bar MI = mature island TR = urban debris (trash)</p>

FLOW TYPES

FF: Free fall
CH: Chute
BW: Broken standing waves
UW: Unbroken standing waves
CF: Chaotic flow
RP: Rippled
UP: Upwelling
SM: Smooth
NP: No perceptible flow
NO: No flow

ASSOCIATED CHANNEL FEATURES

clearly separates from back-wall of vertical feature ~ associated with waterfalls

low curving fall in contact with substrate

white-water tumbling wave must be present ~ associated with rapids

upstream facing wavelets which are not broken ~ associated with riffles

a mixture of 3 or more 'rough' flow types on no organised pattern

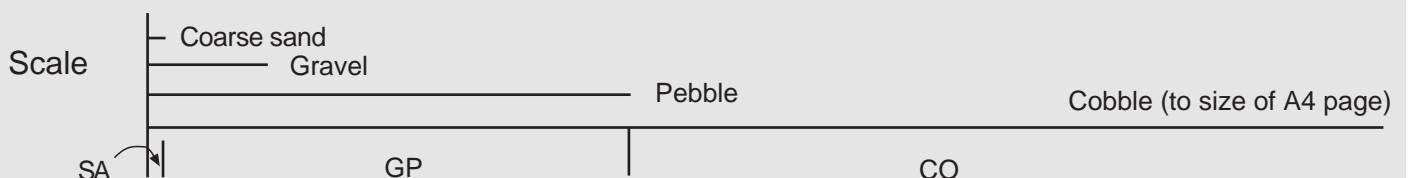
no waves, but general flow direction is downstream with disturbed rippled surface ~ associated with runs

heaving water as upwellings break the surface ~ associated with boils.

preceptible downstream movement is smooth (no eddies) ~ associated with glides

no net downstream flow ~ associated with pools, ponded reaches and marginal deadwater

dry



LAND USE WITHIN 5m OF BANKTOP (SECTION F)

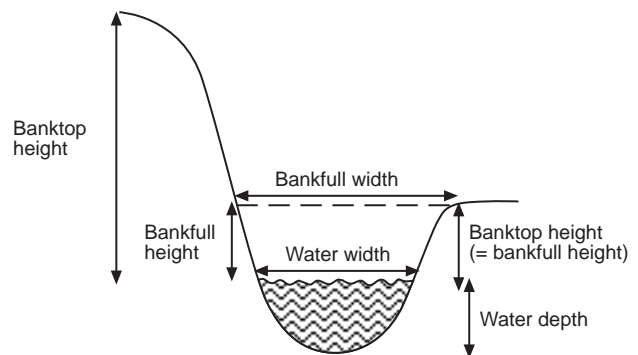
BL = Broadleaf/mixed woodland	SC = Scrub	TL = Tilled land
CP = Coniferous/plantation	TH = Tall herbs	WL = Wetland
OR = Orchard	RP = Rough pasture	OW = Open water
MH = Moorland/heath	IG = Improved grass	SU = Suburban/urban
		RS = Rock & scree

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

bare	B	bare earth/rock etc.	vegetation types
uniform 	U	predominantly one type (no scrub or trees)	bryophytes short herbs/ creeping grasses
simple 	S	two or three vegetation types	tall herbs/ grasses scrub/brambles etc.
complex 	C	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 above which cultivation or development is possible.
- Bankfull = point where river first spills onto flood plain.



WORKING ALONE: CHECKLIST

- | | |
|------------------------------------|---------------------------------|
| • PREPARATION | • NEVER ENTER CONFINED SPACES |
| • IMPLEMENT REPORTING-IN PROCEDURE | • OBSERVE HYGIENE RULES |
| • WEAR PROTECTIVE CLOTHING | • WATCH FOR CHANGING CONDITIONS |
| • DO NOT RUSH | |

WEIL'S DISEASE

INSTRUCTION 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.
5. Report all accidents and/or injuries however slight.
6. Keep your card with you at all times.



EMERGENCY HOTLINE 0800 80 70 60

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