

## SITE GEOMORPHOLOGY BASELINE SURVEY

### 1. BACKGROUND MAP BASED INFORMATION

Recorder		River			
Site no.		Altitude (m)		Lat.	
Date				Long.	

***Channel gradient***

***Delete one***

(measured from topographic map scale: 1: 50 000/1:10 000)

**River Zone:**

### 1. PHOTOGRAPHIC RECORD

	Film No	Shot No
Overhead		
Upstream		
Downstream		

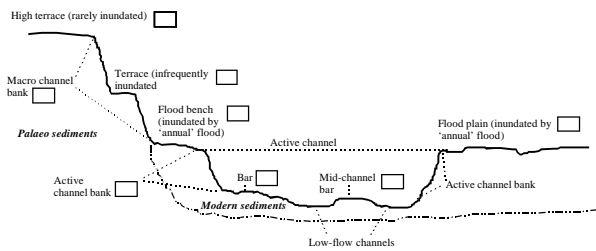
### 3. CONDITION OF LOCAL CATCHMENT

**Rate: none -0; limited - 1; moderate - 3; extensive - 4; extreme - 5**

IMPACT OF:	Rating	Comments
Upstream impoundments		
Interbasin transfer		
Farm dams		
Erosion/gullying		
Land use change		
Water abstraction		
Other		

**4a. CHANNEL PLAN:**

4b) Template for channel cross-section morphology: tick box if present



4c Channel dimensions

	bank height (m) RHB	bank height (m) LHB	width over hydrat
macro-channel			
active channel			

**4d. CHANNEL CROSS SECTIONS:**

(indicate shape of channel and banks, position and type of vegetation, bank composition, benches, bars, flood levels present)

Left hand bank

**Hydraulic control** (specify \_\_\_\_\_)

***Pool***



## 5. RIPARIAN AND IN-CHANNEL VEGETATION

Rate: none - 0; sparse - 1; patchy - 2; continuous - 3; dense (impenetrable) - 4

DENSITY	Reeds	Grasses	Shrubs	Trees
macro-channel banks				
top of active channel bank (flood zone)				
active channel banks				
bank toe				
lateral/point bars				
mid-channel bars				

### Alien Vegetation

Rate: none - 0; sparse - 1; patchy - 2; continuous - 3; dense (impenetrable) - 4  
impact

IS THERE INVASIVE ALIEN VEGETATION PRESENT ?	
COMMENTS (note species and specific impacts)	

## 6a. SITE GEOMORPHOLOGY

Indicate: dominant or widespread - **T**; localised - *x*

VALLEY FORM (reach)		MORPHOLOGICAL UNITS (site)		BAR TYPES (site)		
<b>confined</b> by valley sides - no flood plain		waterfall		lateral (formed along side of channel)		
		rock steps				
<b>moderately confined</b> - a) narrow flood plain, often on one side of channel only		bedrock pavement		point bar (on meander)		
		rapid	bedrock	tributary junction bar (formed at a tributary)		
b) narrow terrace, entrenched channel			boulder	lee bar (formed behind an obstruction)		
<b>unconfined</b> - a) flood plain		bedrock or plunge pool		mid-channel bar (no or sparse vegetation)		
b) river terraces, entrenched channel		step (cobble or boulder)		braid bar (unstable, no vegetation)		
<b>CHANNEL PATTERN (reach)</b>		plain-bed		island (stable, often vegetated)		
A. single thread	A.	A. riffle	A.	A.		
OR anabranching /divided		sandwaves (mobile waves of sand)		bedrock core bar (sand or gravel over bedrock, vegetated)		
B straight/ low sinuosity		shallow pool		<b>CHANNEL TYPE (site)</b>		
OR stable sinuous		deep pool - (alluvial)		bedrock		
OR meandering - mod. sinuosity		run		fixed boulder bed		
OR tortuous - v. high sinuosity		backwater		alluvial		
OR wandering				mixed		
OR braided				<b>REACH TYPE (reach)</b>		
<b>PERIMETER MATERIAL (site)</b>	<b>Bank</b>		<b>Bed</b>		bedrock fall	
	<b>LHB</b>	<b>RHB</b>	<b>riffle etc</b>	<b>pool</b>	cascade	
bedrock					planar bedrock	
boulder					bedrock rib	
cobble					pool-rapid	
mixed (cobble with gravel/sand matrix)					step-pool	
					plain-bed	
gravel					pool-riffle	
sand					pool	
silt/clay					regime	

## 6b. BED MATERIAL SIZE DISTRIBUTION

Tally occurrences for a sample of 100 randomly selected clasts for each morphological unit

*N.B. class limits for clast sizes adapted from Gordon et al. (1992) after Brakensiek et al. (1979)*

	<i>Hydraulic control</i>		<i>Pool</i>		<i>Bar 1</i>		<i>Bar 2</i>	
<b>MORPHOLOGICAL UNIT</b>								
<i>Clast size (mm)</i>	<i>Tally</i>	<i>F</i>	<i>Tally</i>	<i>F</i>	<i>Tally</i>	<i>F</i>	<i>Tally</i>	<i>F</i>
<i>v. fine sand/silt &lt;0.125</i>								
<i>fine / medium sand 0.125-0.0.5</i>								
<i>coarse/v. coarse sand 0.5 - 2.0</i>								
<i>v.fine / fine gravel 2 - 8</i>								
<i>medium gravel 8 - 16</i>								
<i>coarse/ v.coarse gravel 16 - 64</i>								
<i>small cobble 64 - 128</i>								
<i>large cobble 128 - 250</i>								
<i>small boulder 250 - 500</i>								
<i>medium boulder 500 - 1000</i>								
<i>large / very large boulder 1000 - 4000</i>								
<i>bedrock</i>								
<b><i>Bed packing (T)</i></b>								
<i>loosely packed</i>								
<i>moderately packed</i>								
<i>tightly packed</i>								