ACCESS SKETCH

SITE NAME

SITE CODE

Indicate any features that assist locating exact sample site on subsequent trips.

SITE DESCRIPTION

Basin		River			ary		
Disturbance Impacts							
	Little		Pastoralism	••	Industrial disch	arge	
••	Moderate	••	Mining	••	Impoundments		
••	High	••	Urban	••	Agri/horticultu		
Land	lholders and o	contact d	etails				
Site	history and co	omments					
Map	name						
Map	scale			Maj	p datum		
Altit	ude		(m)	Cat	chment area	(km ²)	
Dista	nce from sou	rce	(m)	Stre	eam order		

WATER QUALITY						
Date	Site Code		Field Team			
Time		Horiba Se	rial No.			
pH		units	E.C.	µScm ⁻¹		
D.O.		mg/L	Turbidity	NTUs		
Water Te	mp	о <u>С</u>	Air Temp	oC		
GPS Ea	asting	No	orthing			

MACROINVERTEBRATE SAMPLING

EDGE	Length	sampl	ed	m	Subst	rate 100	%	<u>%</u> Be	edrock
	Sampli	ing dep	th	_cm				_%Bo	oulders (>256mm)
	Collect	ted by					_	%Co	obbles (64-256m)
	Contai	ners us	ed					%Pe	ebbles (16-64mm)
Fine organics,	mud, n	nuck		<u>%</u> *				_%G1	ravel (4-16mm)
Coarse organic	es, stick	s, leav	es	_%*				_%Sa	and (1-4mm)
		*Does no	ot have to to	tal 100%				_%Si	lt/Clay (<1mm)
Percentage cover	rage	<10	10-35	35-65	65-90	>90			
Algal cover	-	0	1	2	3	4		Edg	e description
Adjacent macropl	hytes	0	1	2	3	4		1	Vertical 90°
Overhanging vegi	n	0	1	2	3	4		A	Angled 45-90°
Trailing root vegr	1	0	1	2	3	4			Jndercut

SAND/SILT BED	Length sampled	m		Subst	rate 10	0%
	Sampling depth	_cm			_%Bed	rock
	Collected by				_%Bou	lders (>256mm)
	Containers used				_%Cob	bles (64-256m)
Fine organics, mud,	muck <u>%</u> *				_%Peb	bles (16-4mm)
Coarse organics, sticks, leaves%*				<u> </u>		
	*Does not have to total 100%			%Sand (1-4mm)		
Sand sweep descrip	tion				_%Silt/	Clay (<1mm)
" Horizontal						
" Angled 0-45 °	Percentage coverage	<10	10-35	35-65	65-90	>90
" Angled 45-90 ^o	Algal cover	0	1	2	3	4
" Shallow <20cm	Adjacent macrophytes	0	1	2	3	4
Deep 20-50cm	Overhanging vegn	0	1	2	3	4

PHYSICAL CHARACTERISTICS

Habitat velocities & depths

Flow meter serial no. ____ Fan set no. ____

	Meter Readings (Revolutions per 40s)				Habi	tat depths	(cm)
Habitat	1	2	3	Fan details	1	2	3
Edge							
Sand/silt bed							

Channel Transects (m)

Indicate: Estimated/Measured

Transects	Widths	Depth 1/4 way LH bank facing downstream	Depth 1/2 way	Depth 3/4 way LH bank facing downstream
1				
furthest upstream	E/M	E/M	E/M	E/M
2				
	E/M	E/M	E/M	E/M
3				
furthest downstream	E/M	E/M	E/M	E/M

Habitats within 100m reach (Estimate % habitat components looking from above)

HABITAT	% TOTAL AREA	HABITAT	% TOTAL AREA
Sand/Silt bed		Macrophytes	
Gravel/Rock bed		Snags	
Riffle		Pool/Edge/ unknown substrate	

Width between top of levee banks	<u> </u>
Width between immediate stream banks (if different to above	<u> </u>
Height of levee bank from water surface	<u> </u>
Riparian zone width -left bank (facing downstream)	<u> </u>
- right bank	<u> </u>

Flow Level

Relative to normal dry season flow, if known. Normal inundation level marked by limit of terrestrial grasses or by eroded area, or boundary in bank sediment types. (Note: These markers may not be relevant to Top End rivers.)

	<watermark< th=""><th>= watermark 2 flow</th><th>>watermark 3 unknown</th><th></th></watermark<>	= watermark 2 flow	>watermark 3 unknown	
1 low 2 moderate 3 high 4 flood	<watermark< td=""><td>2 moderate = watermark</td><td>3 high >watermark</td><td>4 flood</td></watermark<>	2 moderate = watermark	3 high >watermark	4 flood

RIPARIAN VEGETATION (within 100m reach)

Vegetation cover of river (Estimation of shade on river at midday)

··· <5% ··· 6-25% ··· 26-50% ··· 51-75% ··· >76%

% Cover Vegetation type Description trees (>10m) trees (<10m) shrubs / vines grasses / ferns / sedges Native vegetation % **Exotic vegetation** % Weed types: **Erosion in Riparian Zone Right Bank** Left Bank (facing downstream) Bare ground above water mark 1 yes 2 no 3 yes 4 no (due to erosion/disturbance) Tree roots exposed 1 yes 2 no 3 yes 4 no (due to erosion/disturbance) Gully erosion 1 yes 2 no 3 yes 4 no Slumping banks 2 no 3 yes 4 no 1 yes Excessive fallen trees/wood debris 3 yes 1 yes **2 no** 4 no (due to erosion/disturbance) Local Catchment Erosion 1 none 2 little 3 moderate 4 heavy Landuse (left bank) facing downstream Landuse (right bank) " Native Woodland" Forestry " Native Woodland" Forestry " Recreational " Grazing " Recreational " Grazing " Cropped " Residential " Cropped " Residential " Commercial " Industrial " Commercial " Industrial " Other..... " Other.....

OBSERVATIONS						
_					Score	
Water	1 clear	2 good	3 fair	4 poor		

C:/jsuggit/99/AUSRIVAS/fieldshts.doc

Clarity	>1.5m	0.3-1.5m	0.1-0.3m	zero vis.		
Water Odour	1 normal	2 sewage	3 petrol/chems	4 other		
Water Oils	1 none	2 sheen	3 slick	4 globs	5 other	
Foam/ Scum	1 none	2 pollen/leaves	3 algal scum	4 foam	5 other	
Plume	1 little	2 some	3 lots			
Sediment Oils	1 absent 2 light 3 moderate 4 profuse					
Sediment Odours	1 normal 5 other	2 sewage	3 petrol/chems	4 anaerobic		

Fish: "no "yes

Birds:

Other wildlife: (eg feral and pastoral animals, native reptiles and mammals - comment on scats, diggings, footprints, slide marks etc)

Evidence of fire	Riparian Zone	" no	" yes				
Comments (eg height of tree burn sc	Beyond Levee Banks	" no	" yes				
Evidence of human impact	(eg litter, pipes, drains, concrete structure campfires, boat & vehicle access)	es, damaged vegetation,					
Site accessed by:	" vehicle	" helicopter					
SKETCH OF 100M REACH							

Indicate:	n water quality measurements • water sample collection Δ direction of photographs	macroinvertebrate habitats 10m sweeps ← direction of flow	cross section location transect measurements location of vehicle access	

SKETCH OF CHANNEL CROSS SECTION

Indicate: bank heights, vegetation heights and channel width & depths