



Appendix 3 Site description and transect forms

Site description form

Basic site description

Location description: _____

Brief site description: _____

Site ID (STATE number e.g. SA001): _____ Protocol: Ground cover monitoring

Revisit (Y/N): _____

Field operators: _____

Date (dd/mm/yyyy): _____ Time (hh:mm): _____

Zone (UTM/MGA94)(49-56): _____ Geodetic datum (WGS84/GDA94): _____

Easting: _____ Northing: _____

Landholder consent for data to be released (Y/N): _____

Slope (%): _____ Aspect (degrees): _____

Land use code (ALUMv7): _____

Cropping (Y/N): _____ Commodity: _____

Plant growth stage (establishment, immature/growing, mature, senescence/residue, none):

Management phase (abandoned, baled, burnt, cultivated, grazed, incorporated, mulched, sprayed, standing/none, other):

Photo numbers (7 natural/pasture sites; 5 cropping sites): _____

Field spectra collected (Y/N): _____ Reflectance for field spectra: _____

Field measurement of fractional ground cover

Vegetation description

Biomass estimate (kg/ha): _____ Biomass method: _____

Average non-woody vegetation height (m): _____

Fire occurrence (0 no evidence, 1 minor burn, <5% of site or >3 years, 2 recent /major burn >5% of site or <3 years): _____

Perennial vegetation (0-5%, 6-25%, 26-50%, 51-75%, 76-100%): _____

Average woody vegetation height (m): _____

Vegetation structure	Dominant species by biomass					
	Species 1	%	Species 2	%	Species 3	%
Woody vegetation >2m						
Woody vegetation <2m						
Non-woody ground cover						

Tree basal area	Prism factor	Observer	Number of live trees	Number of dead trees	Converted (prism factor × No. live trees)
1. Centre					
2. North					
3. Northeast					
4. Southeast					
5. South					
6. Southwest					
7. Northwest					
Total					

Average (live) tree basal area = total converted / 7: _____ m²/ha

Land surface

Erosion

State of erosion (N none, A active, S stabilised, P partly stabilised): _____

Wind erosion (0 none, 1 minor, 2 moderate, 3 severe, 4 very severe): _____

Scald erosion (0 none, 1 minor <5% of site, 2 moderate 5–50% of site, 3 severe >50% of site): _____

Sheet erosion (0 none, 1 minor, 2 moderate, 3 severe): _____

Rill erosion (0 none, 1 minor occasional, 2 moderate common, 3 severe corrugated): _____

Gully erosion (channels >0.3 m deep) (0 none, 1 minor isolated, 2 moderate restricted to drainage lines, 3 severe branch away from primary drainage lines): _____

Deposited materials

Deposited materials (sand <2 mm, gravel 2–60 mm, stones >60 mm): _____

Abundance (0 none, 1 very few <2%, 2 few 2–10%, 3 common 10–20%, 4 many 20–50%, 5 abundant 50–90%, 6 very abundant >90%): _____

Microrelief

Soil microrelief present in the site (0 smooth <3 mm variation, M mounds, D depressions, C crop rows):

Vertical interval between base and crest i.e. height (m):_____

Horizontal distance between crests (m):_____

Biotic microrelief – specify up to 3 agents (NH horse, NS sheep, NC cow, NG goats, NP pigs, NM macropod, NL camel, NR rabbits), H human, B bird, T termite, A ant, V vegetation, O other):_____

Soil description

Surface condition (when dry) – specify up to 3 conditions (G cracking, M self-mulching, L loose, S soft, F firm, H hard setting, C surface crust, X surface flake, Y cryptogam surface, T trampled, P poached, R recently cultivated, Z saline, O other):

Soil strength (0 loose, 1 very weak, 2 weak, 3 firm, 4 very firm, 5 strong, 6 very strong, 7 rigid):_____

Surface cracks (except self-mulching soils or loose sand) (1 fine <5 mm, 2 medium 5–10 mm, 3 coarse 10–20 mm, 4 very coarse 20–50 mm, 5 extremely coarse >50 mm):_____

Soil colour	Example	Crust dry	Disturbed dry	Crust moist	Disturbed moist
Soil hue	5YR				
Soil value	5				
Soil chroma	3				

Cryptogam

Cryptogam cover (none, <2%, 2–10%, 10–20%, 20–50%, 50–90%, >90%):_____

Cryptogam colour: _____ Cryptogam wet/dry:_____

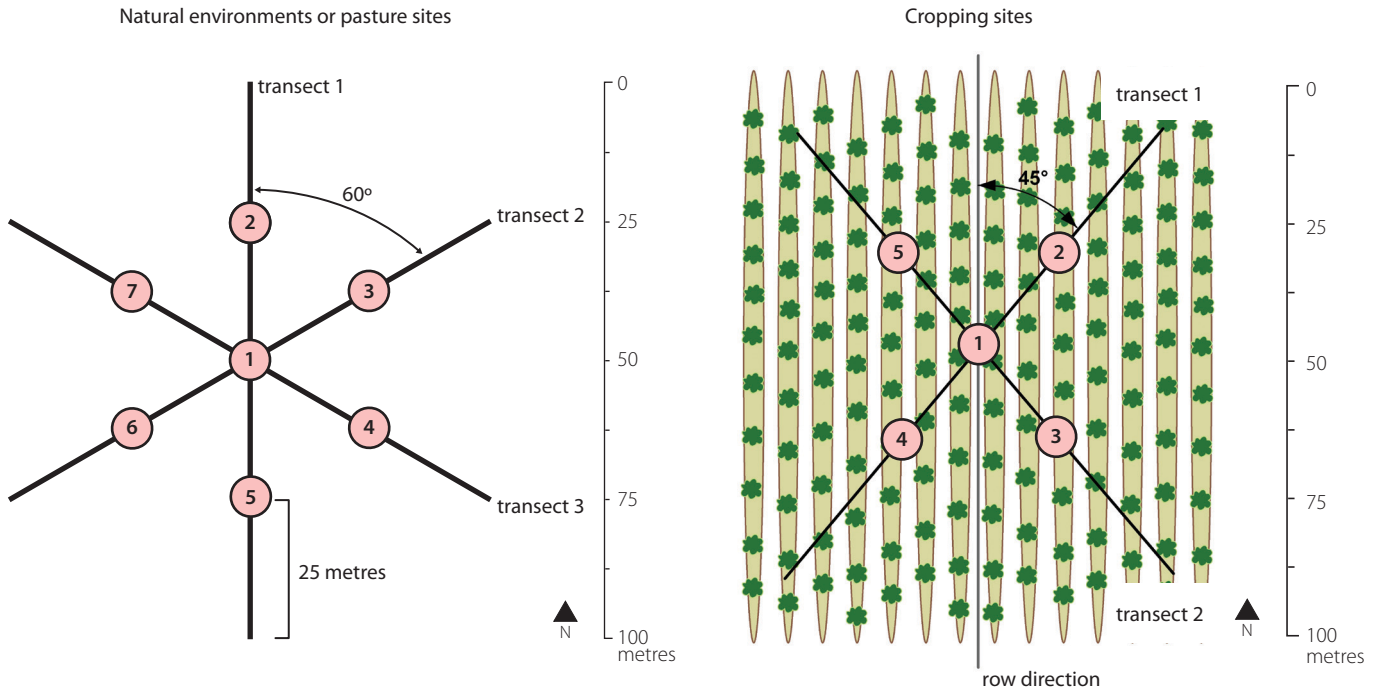
Rock/lag

Rock/lag abundance (0 none, 1 very few <2%, 2 few 2–10%, 3 common 10–20%, 4 many 20–50%, 5 abundant 50–90%, 6 very abundant >90%):_____

Average fragment size (1 fine gravelly 2–6 mm, 2 medium gravelly 6–20 mm, 3 coarse gravelly 20–60 mm, 4 cobbly 60–200 mm, 5 stony 200–600 mm, 6 bouldery 600–2000 mm, 7 large boulders >2000 mm):_____

Rock/lag colour	1st dominant	2nd dominant	3rd dominant
Rock/lag hue			
Rock/lag value			
Rock/lag chroma			

Field transect layout



The pink dots indicate the 7 positions to take tree basal area measurements in natural environments or pasture sites.

For all site photos stand at pink dot #1. Take photo of site centre looking down, then the remaining photos along the transect lines in the order numbered.

Transect 1 bearing: _____

Transect 1 bearing: _____

Transect 2 bearing: _____

Transect 2 bearing: _____

Transect 3 bearing: _____

Photo 1: _____

Photo 1: _____

Photo 2: _____

Photo 2: _____

Photo 3: _____

Photo 3: _____

Photo 4: _____

Photo 4: _____

Photo 5: _____

Photo 5: _____

Photo 6: _____

Photo 7: _____

Transect form

Field measurement of fractional ground cover

Site number: _____ Sheet number: 1 Date: _____

	crust	disturbed	rock	green leaf	dry leaf	litter	cryptogam	<2m green leaf	<2m dry leaf	<2m branch	in crown	>2m green leaf	>2m dry leaf	>2m branch	crust	disturbed	rock	green leaf	dry leaf	litter	cryptogam	<2m green leaf	<2m dry leaf	<2m branch	in crown	>2m green leaf	>2m dry leaf	>2m branch		
1														51																
2														52																
3														53																
4														54																
5														55																
6														56																
7														57																
8														58																
9														59																
10														60																
11														61																
12														62																
13														63																
14														64																
15														65																
16														66																
17														67																
18														68																
19														69																
20														70																
21														71																
22														72																
23														73																
24														74																
25														75																
26														76																
27														77																
28														78																
29														79																
30														80																
31														81																
32														82																
33														83																
34														84																
35														85																
36														86																
37														87																
38														88																
39														89																
40														90																
41														91																
42														92																
43														93																
44														94																
45														95																
46														96																
47														97																
48														98																
49														99																
50														100																
SUB																														
TTL																														

Field measurement of fractional ground cover

Site number: _____ Sheet number: 2 Date: _____

	crust	disturbed	rock	green leaf	dry leaf	litter	cryptogam	<2m green leaf	<2m dry leaf	<2m branch	in crown	>2m green leaf	>2m dry leaf	>2m branch		crust	disturbed	rock	green leaf	dry leaf	litter	cryptogam	<2m green leaf	<2m dry leaf	<2m branch	in crown	>2m green leaf	>2m dry leaf	>2m branch
1														51															
2														52															
3														53															
4														54															
5														55															
6														56															
7														57															
8														58															
9														59															
10														60															
11														61															
12														62															
13														63															
14														64															
15														65															
16														66															
17														67															
18														68															
19														69															
20														70															
21														71															
22														72															
23														73															
24														74															
25														75															
26														76															
27														77															
28														78															
29														79															
30														80															
31														81															
32														82															
33														83															
34														84															
35														85															
36														86															
37														87															
38														88															
39														89															
40														90															
41														91															
42														92															
43														93															
44														94															
45														95															
46														96															
47														97															
48														98															
49														99															
50														100															
SUB																													
TTL																													

Field measurement of fractional ground cover

Site number: _____ Sheet number: 3 Date: _____

	>2m branch	>2m dry leaf	>2m green leaf	in crown	<2m branch	<2m dry leaf	<2m green leaf	cryptogam	litter	dry leaf	green leaf	rock	disturbed	crust	>2m branch	>2m dry leaf	>2m green leaf	in crown	<2m branch	<2m dry leaf	<2m green leaf	cryptogam	litter	dry leaf	green leaf	rock	disturbed	crust	
1																													
2																													
3																													
4																													
5																													
6																													
7																													
8																													
9																													
10																													
11																													
12																													
13																													
14																													
15																													
16																													
17																													
18																													
19																													
20																													
21																													
22																													
23																													
24																													
25																													
26																													
27																													
28																													
29																													
30																													
31																													
32																													
33																													
34																													
35																													
36																													
37																													
38																													
39																													
40																													
41																													
42																													
43																													
44																													
45																													
46																													
47																													
48																													
49																													
50																													
SUB																													
TTL																													