



KIT 3B
RAPID ASSESSMENT
POPLAR BOX ON ALLUVIAL



Queensland
Government



Acknowledgments

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Date: _____

Site: _____

Paddock: _____

Location (GPS or description): _____



Land type: **POPLAR BOX ON ALLUVIAL PLAINS** Regional ecosystem: 11.3.2

SITE-BASED FEATURES: Circle the relevant score and sum at base of the page.

Tree species richness Number of different native tree species. A tree is a woody plant with a single-stem, more than 2m tall.	SCORE	0	2.5	5		
	VALUE	0 species	1 species	≥2 species		
Tree canopy cover The percentage of the assessment area that would be under shadow cast by tree foliage if the sun were directly above. (See the Shrub Canopy Cover Guide)	SCORE	0	3	5		
	VALUE	<5%	5–29 or 65%	30–65%		
Shrub species richness Number of different native shrub species. A shrub is a woody plant that is multi-stemmed from the base, or single stemmed and less than 2m.	SCORE	0	2.5	5		
	VALUE	0 species	1 species	≥2 species		
Shrub canopy cover The percentage of the assessment area that would be under shadow cast by shrub foliage if the sun were directly above, regardless of trees. (See the Shrub Canopy Cover Guide)	SCORE	0	6	10		
	VALUE	<1%	>10%	2–10%		
Large live trees The number of all trees larger than 30cm diameter at breast height (DBH) or 90cm circumference, within a 50 x 50m area.	SCORE	0	5	10	15	20
	VALUE	0 trees	1–3 trees	4–6 trees	7–10 trees	≥11 trees
Woody debris The number of logs or branches on the ground that are >10cm diameter and >0.5m in length within a 10m radius from the site marker.	SCORE	0	6	10		
	VALUE	0	1 or >12	2–12		
Preferred and intermediate grass cover The percentage of the assessment area that is covered by preferred and intermediate native grass species. (See the Land Type Information Sheets and the Cover Guide)	SCORE	0	2	6	10	
	VALUE	<5% cover	5–15% native cover or >10% non-native cover	16–29% native cover	≥30% native cover	
Litter cover The percentage of the assessment areas that is covered by fine and coarse organic material such as fallen leaves, twigs and branches <10cm diameter. (See the Cover Guide)	SCORE	0	3	5		
	VALUE	<5% cover	5–14% cover	≥15% cover		
Non-native plant cover The percentage of the assessment area that is covered by non-native plant species.	SCORE	0	3	5	10	
	VALUE	<5%	≥5–25%	≥25–50%	>50%	

SITE FEATURES TOTAL SCORE

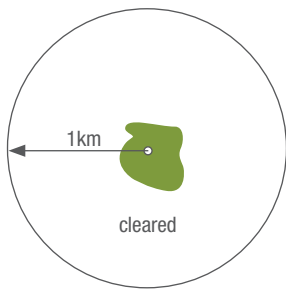
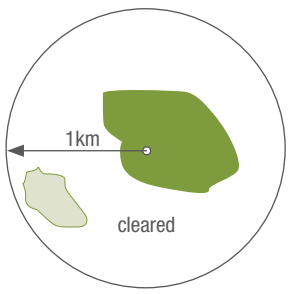
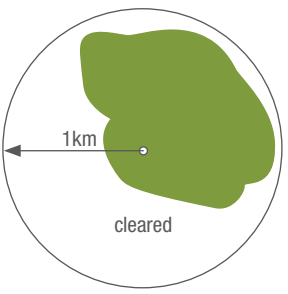
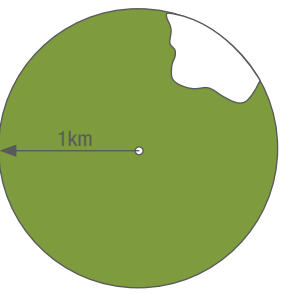
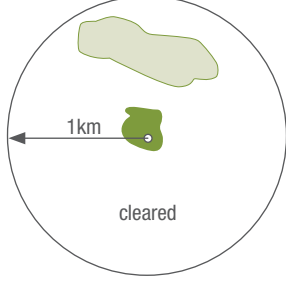
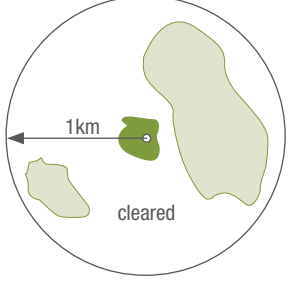
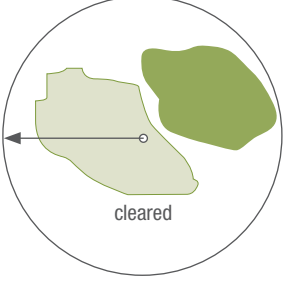
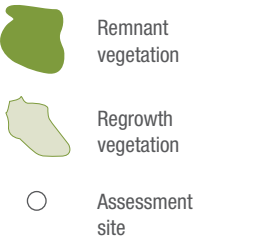
LANDSCAPE SCALE FEATURES

Circle the relevant score and sum at base of the next page.

CONTEXT

The percentage of a 1km circular area, centred on the assessment site, which is covered by remnant and/or high value regrowth native vegetation. Wetlands, lakes and rivers can be included as 'native vegetation'.

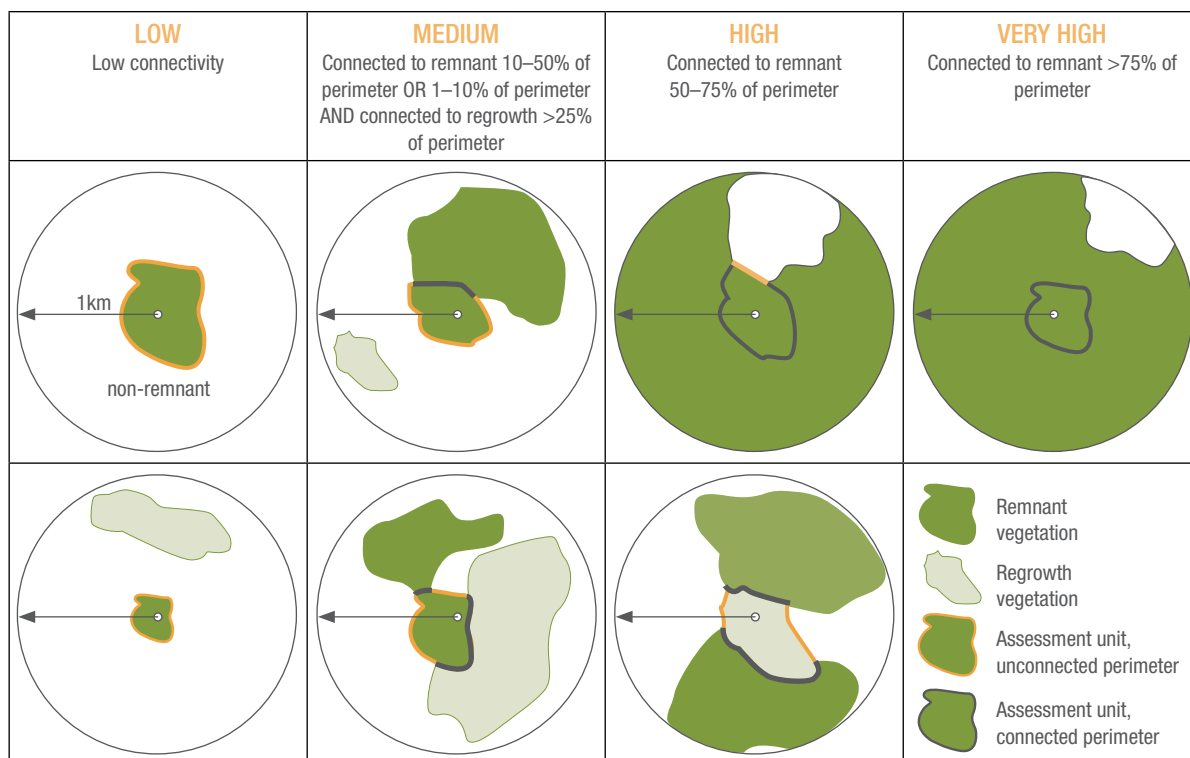
SCORE	0	2	5	10
VALUE	Low	Medium	High	Very high

LOW <10% remnant and <30% regrowth	MEDIUM 10–30% remnant and <30% regrowth OR <10% remnant and >30% regrowth	HIGH 30–75% remnant OR 10–30% remnant and >30% regrowth	VERY HIGH >75% remnant
			
			 <ul style="list-style-type: none"> Remnant vegetation Regrowth vegetation Assessment site

CONNECTIVITY

The degree to which the landscape facilitates or impedes species movement among patches of habitat. It is based on how much the perimeter of the assessment patch adjoins a remnant or high value regrowth patch.

SCORE	0	2	5	10
VALUE	Low	Medium	High	Very high



BIODIVERSITY SCORE Obtained by adding the site and landscape features scores together to get a score out of 100. Scores can then be categorised as a rating of '1' (for very high condition) to '4' (for low condition).	Condition class	Score range
	1	>80
	2	60–80
	3	40–59
	4	<40

LANDSCAPE FEATURES TOTAL SCORE

Sum of scores for context and connectivity

TOTAL BIODIVERSITY SCORE

Site and landscape scores added

AT A GLANCE

POPLAR BOX ON ALLUVIAL PLAINS

Land type: **POPLAR BOX ON ALLUVIAL PLAINS**

Regional ecosystem: 11.3.2

RATING 1: Very high



- One or more tree species and canopy cover more than 30% .
- More than one shrub species and cover (more than 2%).

- More than 11 trees larger than 40cm DBH* (or 125cm circum.)#.
- More than three logs in a 10m radius from a given point.
- More than 30% of the ground covered by native intermediate and preferred grass species.
- More than 15% of the ground covered by litter.
- Less than 5% of the site covered by non-native plant species.
- Is well connected with other remnant vegetation.
- More than 75% of the surrounding landscape contains remnant and/or regrowth vegetation.

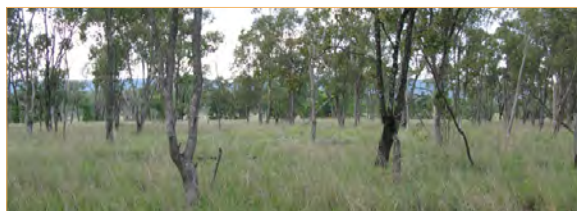
RATING 2: High



- One tree species with medium canopy cover 15–30%.
- One shrub species with sparse cover.

- 6–10 trees larger than 40cm DBH (or 125cm circumference).
- Two logs in a 10m radius from a given point.
- 16–29% of the ground covered by native intermediate and preferred grass species.
- 10–15% of the ground covered by litter ≥5–25% of the site covered by non-native plant species.
- Well connected with other remnant and/or regrowth vegetation.
- More than 30% of the surrounding landscape contains remnant and/or regrowth vegetation.

RATING 3: Moderate



- One tree species and low tree canopy cover (5–15%).
- Absence of shrubs.

- 1–5 trees larger than 40cm DBH (or 125cm circumference).
- One log in a 10m radius from a given point.
- 5–10% of the ground covered by native or >10% non-native intermediate and preferred grass species.
- 5–10% of the ground covered by litter.
- ≥25–50% of the site covered by non-native plant species.
- Not well connected with other remnant vegetation.
- 10–30% of the surrounding landscape contains remnant and/or re-growth vegetation.

RATING 4: Low



- None to very few trees with cover less than 5%.
- Absence of shrubs.

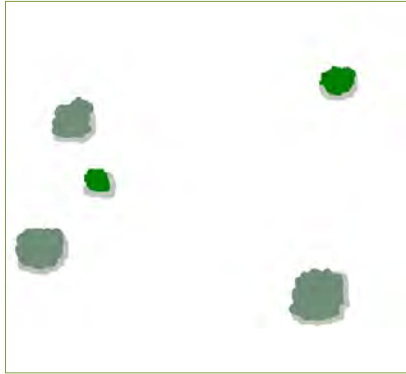
- No logs on the ground.
- Less than 5% of the ground covered by native intermediate and preferred grass species.
- Less than 5% of the ground covered by litter.
- More than 50% of the site covered by non-native plant species.
- Less than 10% of the surrounding landscape contains remnant Or less than 30% of the surrounding landscape contains remnant and regrowth vegetation.

Note: The site should have at least five features as described in a category to achieve the rating
*DBH – Diameter at breast height (measured at 1.3m above the ground) # Count within a 50 x 50m area

TREE CANOPY COVER GUIDE

Land type: **POPLAR BOX ON ALLUVIAL PLAINS** – Aerial perspective of site cover
(Shrubs shown in dark green, trees in grey green)

<10%



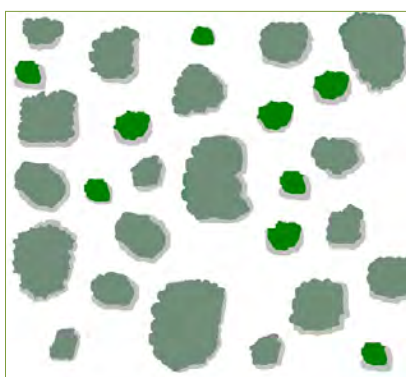
10–20%



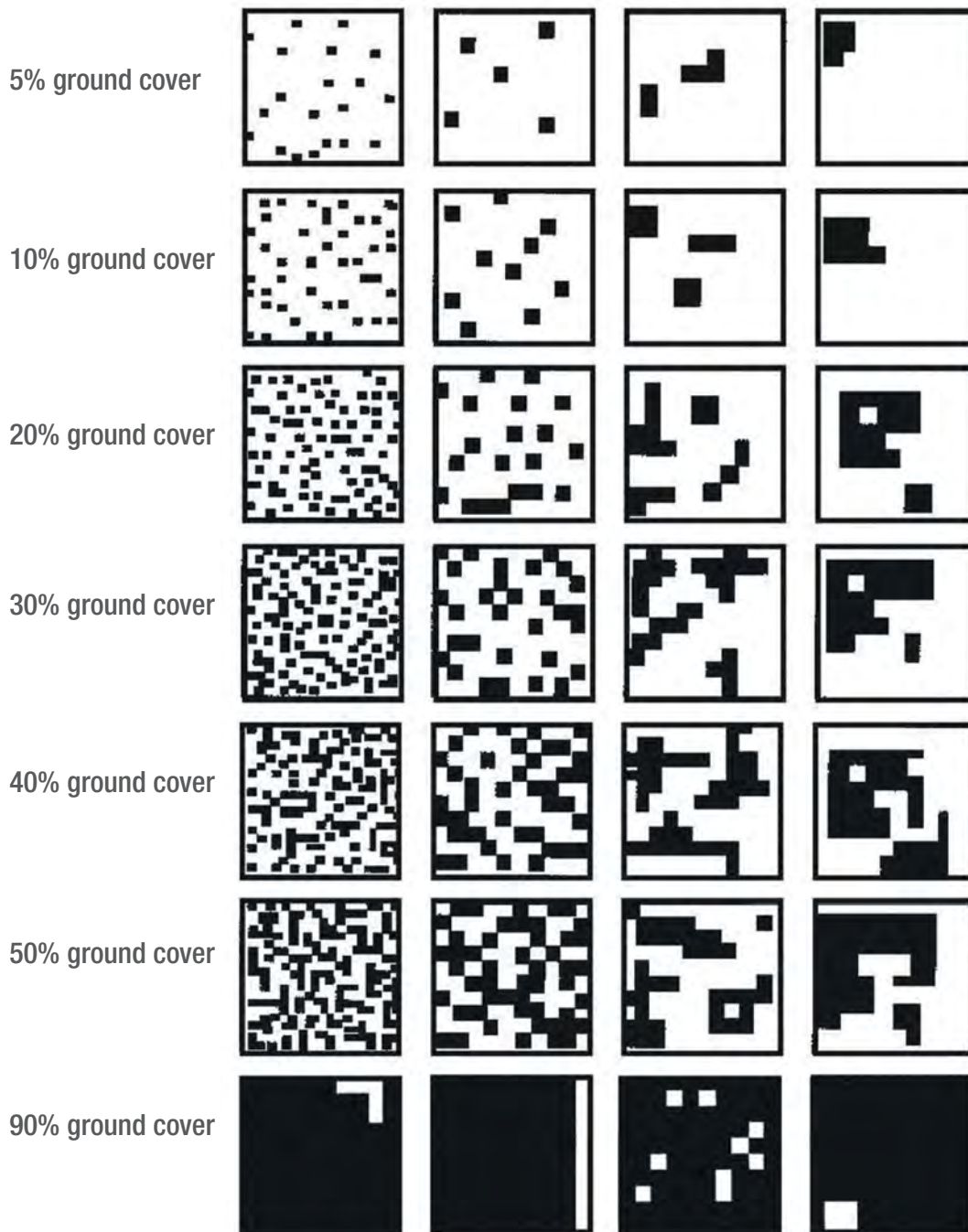
20–35%



>35%



COVER GUIDE



The symbols above represent cover of an area. The box sizes reflect an area within which the average cover can be determined. Typically the box area represents a 1ha (100m x 100m) site however it may be easier to assess an average of 10m² or 1m² quadrats. The black shapes (pixels) represent cover (thus the white areas represent bare ground). Various cover amounts (as a %) may be evenly spread across the site or distributed in patches (as shown from left to right).

Stylised examples of cover proportions.

(Adapted from Grass Check, Queensland Department of Primary Industries, 1994)

POPLAR BOX ON ALLUVIAL PLAINS

LAND TYPE INFORMATION SHEET

LANDFORM	Back plains, levees and terraces generally not flooded, slopes <1%.
WOODY VEGETATION	Poplar box, belah, bulloak, boonaree, bauhinia, false sandalwood, wilga.
EXPECTED PASTURE COMPOSITION	* Denotes on-native “Expected Pasture Composition” species.
PREFERRED	Forest bluegrass, desert bluegrass, Queensland bluegrass, buffel grass*.
INTERMEDIATE	Mitchell grasses (hoop, curly), pitted bluegrass, tall chloris, curly windmill grass, purple lovegrass, box grass.
NON-PREFERRED	Five-minute grass, wiregrasses (purple, Jericho).
LEGUMES	Grey rattlepod, glycine pea, native sensitive plant.
SUITABLE SOWN PASTURES	Rhodes grass, creeping bluegrass (bisset, hatch), panic (Gatton), bambatsi (flooded areas only), Angleton bluegrass (flore), (flooded areas only), stylo (caatinga), medic (barrel).
INTRODUCED WEEDS	Noogoora burr, lippia, mother-of-millions.
SOILS	Soils are deep, texture contrast (sodosol).
DESCRIPTION	Surface: firm to hard-setting; Surface texture: clay loam, loam or sandy clay loam; Sub-soil texture: medium clay to medium heavy clay.
WATER AVAILABILITY	Low.
ROOTING DEPTH	Shallow due to sodicity and salinity.
FERTILITY	Low to moderate total nitrogen; low to high phosphorus.
SALINITY	Medium in subsoil, becoming very high to extreme in deep subsoil.
SODICITY	Subsoils strongly sodic.
pH	Sodicity.
UTILISATION	25%.
ENTERPRISE	Growing and finishing.
LAND USE AND MANAGEMENT RECOMMENDATIONS	<ul style="list-style-type: none"> • Suitable for grazing native and sown pastures. • Fodder crops are grown while developing and renovating land.

POPLAR BOX ON ALLUVIAL PLAINS

LAND TYPE INFORMATION SHEET

LAND USE LIMITATIONS

- Shallow effective rooting depth due to relatively impermeable subsoils which are strongly sodic and very saline.
- Low plant water availability.
- High erosion risk as subsoils are highly dispersible.
- Poplar box regrowth problem.
- Management of woody weed control is difficult as control methods usually not cost effective.
- Maybe subject to seasonal flooding on valley floors.
- Dense stands of pigweed may limit pasture growth, productivity and be toxic to stock.

CONSERVATION FEATURES AND RELATED MANAGEMENT

- These alluvial poplar box woodlands provide habitat for rare and threatened flora species (eg *Homopholis belsonii*), and fauna (eg greater long-eared bat, little pied bat and squatter pigeon).
- This land type can have support a high diversity of fauna including birds (eg brown treecreeper, kingfishers, honeyeaters and thornbills); brushtail possums, sugar gliders and many insectivorous bats that use mature trees with hollows; a variety of geckos, dragons and litter skins that use logs and fallen woody material; echidnas, and sometimes koalas. Rufous bettongs are present where there are few (or no) foxes and a good ground cover of tussock grasses.
- Poplar box woodlands have been extensively cleared and modified.
- Invasion and regrowth can cause high understorey shrub densities (eg currant bush, Ellangowan poison bush).
- Careful management of grazing pressure and maintenance of ground cover is important to minimise risk of sheet and gully erosion, reduce runoff and protect the wildlife habitat.
- Use of fire could assist in controlling woody weeds and enhance productivity and habitat potential of the land type.
- Control of feral animals such as pigs and foxes can help to protect native wildlife in this habitat.

REGIONAL ECOSYSTEMS

6.3.18, 6.3.24a, 11.3.2, 11.3.2a, 11.3.2b

LAND UNITS; MAP UNITS; LAND RESOURCE AREAS, SOIL ASSOCIATIONS

Land units (Galloway *et al* 1974) 62, 64, 68; Map units (DPI 1984) 23, 24; LRA, Soil associations (DPI 1996) Clay Alluvial Plains, Bogandilla 1b, 1c; LRA (DPI 1987) 4 – Coogoon, 5 – Tartulla (minor).

*Whish G (ed.) (2010). Land types of Queensland. Version 1.3. Prepared by the Grazing Land Management Workshop Team, Department of Employment, Economic Development and Innovation, Brisbane. PR07-3212.



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