8. Appendix E: Coastal Swamp Oak TEC documentation

8.1 Condition 6bi): assess and document the quality and extent of Coastal Swamp Oak TEC to be retained within 30 m of clearing and/or construction, prior to the commencement of clearing and/or construction within 30 m of Coastal Swamp Oak TEC.

Provided below.

COASTAL SWAMP OAK TEC CONDITION MONITORING FEBRUARY 2023

COOMERA CONNECTOR – STAGE 1

Prepared for
Department of Transport and Main Roads

Biodiversity Assessment and Management Pty Ltd
PO Box 1376
CLEVELAND 4163

BAAM ECOLOGICAL CONSULTANTS

Specialised ecological knowledge that reduces your risk

Document Control Sheet

File Number: 0101-030d

Project Manager/s: Paulette Jones

Client: Department of Transport and Main Roads

Project Title: Coastal Swamp Oak TEC Condition Monitoring - Coomera Connector Stage 1 February 2023

Project Author/s: Conor O'Brien

Project Summary: Results of BioCondtion surveys undertaken in February 2023 in patches of Coastal Swamp Oak (*Casuarina glauca*) Forest of New South Wales and South East Queensland threatened ecological community (TEC) adjacent to the Coomera Connector Stage 1 Project boundary.

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Biodiversity Assessment and Management Pty Ltd has produced this report in its capacity as {consultants} for and on the request of Department of Transport and Main Roads (the "Client") for the sole purpose of providing the results of ecological condition monitoring within patches of the Coastal Swamp Oak (*Casuarina glauca*) Forest of New South Wales and South East Queensland threatened ecological community (TEC) adjacent to the Coomera Connector Stage 1 Project boundary (the "Specified Purpose"). This information and any recommendations in this report are particular to the Specified Purpose and are based on facts, matters and circumstances particular to the subject matter of the report and the Specified Purpose at the time of production. This report is not to be used, nor is it suitable, for any purpose other than the Specified Purpose. Biodiversity Assessment and Management Pty Ltd disclaims all liability for any loss and/or damage whatsoever arising either directly or indirectly as a result of any application, use or reliance upon the report for any purpose other than the Specified Purpose.

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Biodiversity Assessment and Management Pty Ltd

Date: 29 February 2024

Managing Director

COASTAL SWAMP OAK TEC CONDITION MONITORING – COOMERA CONNECTOR STAGE 1

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Table of Abbreviations

BAAM	Biodiversity Assessment and Management
et al.	and others
GDA	Geocentric Datum of Australia
m	metres
MGA	Metric Rectangular Grid System
TEC	Threatened Ecological Community
RE	Queensland Regional Ecosystem
WoNS	Weed of National Significance

1.0 INTRODUCTION

Biodiversity Assessment and Management Pty Ltd (BAAM) has prepared this report for Department of Transport and Main Roads with the purpose of documenting the results of ecological condition monitoring within patches of the Coastal Swamp Oak (*Casuarina glauca*) Forest of New South Wales and South East Queensland threatened ecological community (TEC) that are present adjacent to the Coomera Connector Stage 1 Project boundary.

1.1 STUDY AREA

The study area is defined by previously mapped Coastal Swamp Oak TEC reported by Planit (2022) for the Coomera Connector Stage 1 Public Environment Report as present within 30 metres outside the Project boundary (see **Figure 1.1**).

1.2 STUDY AIMS

The aims of the monitoring survey were to obtain baseline data for the ecological condition of Coastal Swamp Oak TEC adjacent to the Project boundary prior to the commencement of construction activities and establish monitoring sites for measuring change in condition over time.

2.0 METHODS

2.1 DESKTOP PLANNING

To record ecosystem condition, it was determined that the surveys would be undertaken applying the site-based attribute methods of the Queensland BioCondition Assessment Framework (Eyre, *et. al.* 2015). BioCondition assessment provides a measure of how well a terrestrial ecosystem is functioning for biodiversity values. It is a site-based, quantitative method allowing repeatable assessment that is summarised in a condition rating.

A 30 m buffer was drawn around the Stage 1 footprint and overlaid with the Planit (2022) Coastal Swamp Oak TEC mapping and Queensland Regional Ecosystem (RE) mapping to identify representative survey sites and mark co-ordinates for field investigation.

Ten potential survey sites were identified for establishment of survey transects.

2.2 FIELD SURVEYS

Selection of transection locations was determined in the field considering available access, and the presence of the correct vegetation types as mapped by Planit (2022).

The TEC mapping at the pre-determined locations was found to be accurate and access to all sites was available. Ten permanent survey sites were established.

Each BioCondition transect was positioned with the principal objectives of avoiding the influence of adjacent vegetation types and achieving appropriate assessment unit replication within the limits of the area under investigation. Where a full 100 x 50 m transect could not be laid out due to the size of the TEC polygon available for survey, or for safety reasons (i.e. inundation), a 50 x 50 m transect was instead used at two sites, with values adjusted accordingly.

The measurements taken within each transect were recorded by entry into Queensland Government BioCondition Site Assessment Datasheets.

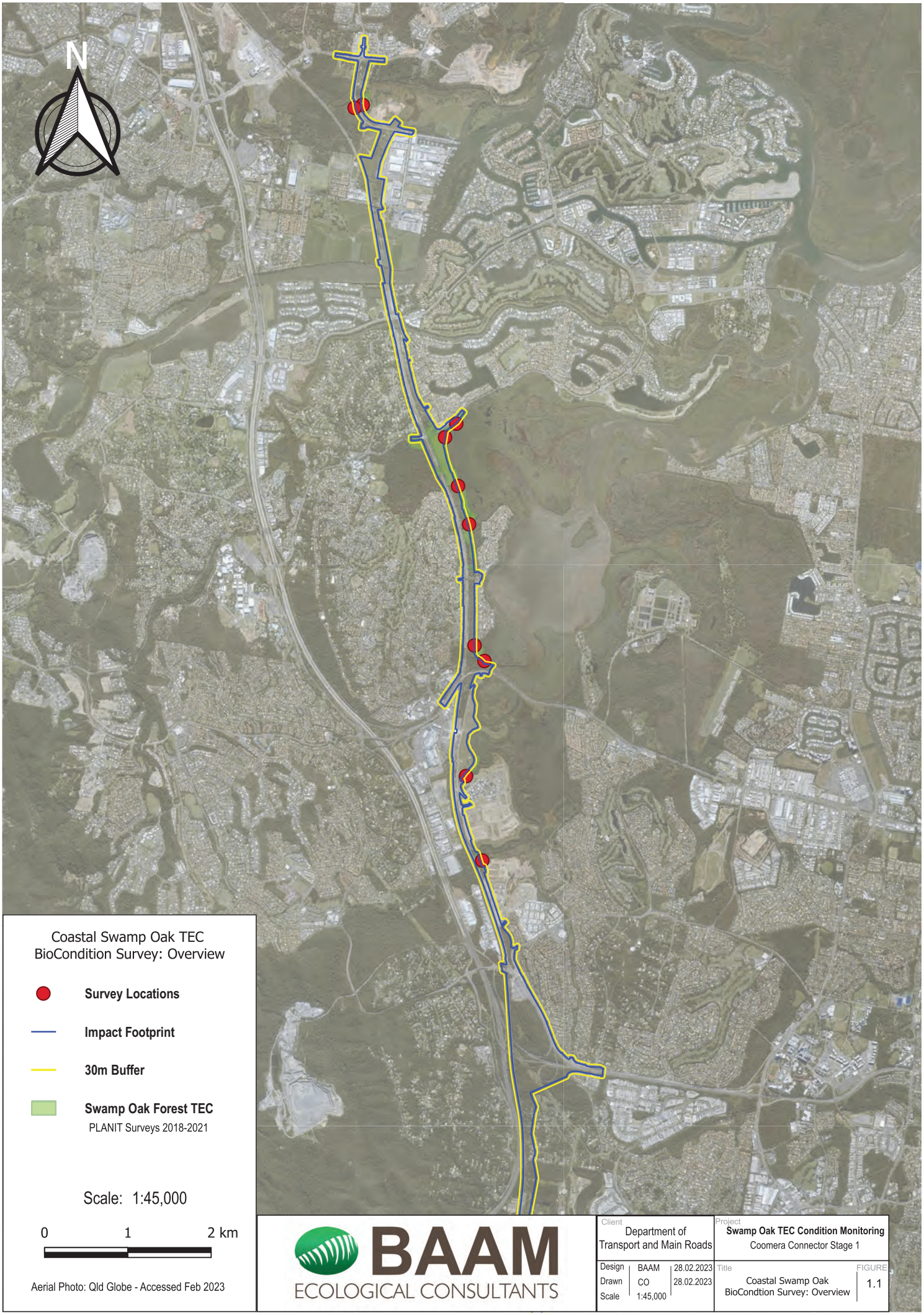
Transects were marked within the study area using a Trimble GPS unit capable of sub-metre accuracy. Co-ordinates were recorded at the start, mid and end points of each transect, and marked physically using copper tags (either attached to a peg in the ground or fixed to a tree), engraved with the site number, date, and location along the transect.

3.0 RESULTS

A summary of results for each site is provided in **Tables 3.1-3.10**, including photographs facing north, south, east and west from the midpoint of each transect and notes on the main threats to the condition of the TEC in each area. Additional site and species data are provided in **Appendices 1** & **2**.

The threats recorded were primarily associated with the presence of invasive plant species.

Scoring of the site-based BioCondition attributes was in accordance with the scoring process of Eyre *et al*. (2015), with reference to the relevant BioCondition benchmarks (Version 3.3).



BAAM ECOLOGICAL CONSULTANTS

Client	Department of Transport and Main Roads	
Project	Swamp Oak TEC Condition Monitoring	Coomera Connector Stage 1
Design	BAAM	28.02.2023
Drawn	CO	28.02.2023
Scale	1:45,000	
Title	Coastal Swamp Oak BioCondtion Survey: Overview	FIGURE 1.1

Table 3.1. Site BC01 Summary

Site ID:	BC01 (see **Figure 3.1**)	
Bioregion:	South-East Queensland	
RE	**12.1.1**: *Casuarina glauca* woodland on margins of marine clay plains	
Date:	21/02/2023	
Observer/s:	Simon Danielsen, Conor O'Brien	
Datum:	WGS 84	
Zone:		
50x100m transect:		
Location	**Latitude**	**Longitude**
Start	-27.8580	153.3268
Mid/photo	-27.8583	153.3270
End	-27.8588	153.3271
Transect bearing: 160.775854°E		

BC01 North

BC01 East

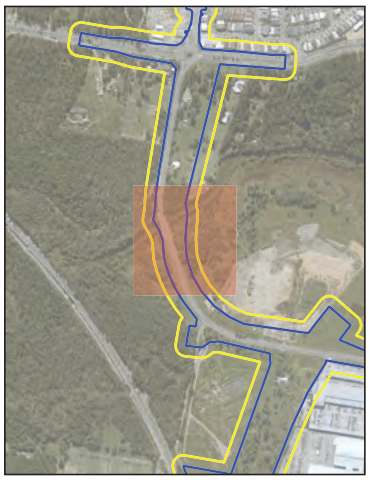
BC01 South

BC01 West

General description: Semi-open woodland of *Casuarina glauca* regrowth, with sparse grassy understorey.

Main threats: Incursion and spread of invasive plant species from roadside boundary.

BIOCONDITION SITE-BASED ATTRIBUTES SCORE OUT OF 10: (58/80)x10 = 7.3



Coastal Swamp Oak TEC
BioCondition Survey: North

- BioCondition transects
- Transect GPS points
- Impact Footprint
- 30m Buffer
- Swamp Oak Forest TEC
  PLANIT Surveys 2018-2021

Aerial Photo: Qld Globe - Accessed Feb 2023

Scale: 1:1,200

0 50 100 m

BAAM ECOLOGICAL CONSULTANTS

Client	Project
Department of Transport and Main Roads	**Swamp Oak TEC Condition Monitoring** Coomera Connector Stage 1
Design BAAM 28.02.2023 Drawn CO 28.02.2023 Scale 1:1200	Title: Coastal Swamp Oak BioCondtion Survey: North FIGURE: 3.1

Table 3.2. Site BC02 Summary

Site ID:	BC02 (see **Figure 3.1**)	
Bioregion:	South-East Queensland	
RE	**12.1.1**: *Casuarina glauca* woodland on margins of marine clay plains	
Date:	21/02/2023	
Observer/s:	Simon Danielsen, Conor O'Brien	
Datum:	WGS 84	
Zone:		
50x100m transect:		
Location	**Latitude**	**Longitude**
Start	-27.8576	153.3279
Mid/photo	-27.8580	153.3280
End	-27.8584	153.3282

BC02 North

BC02 East

BC02 South

BC02 West

General description: Open *Casuarina glauca* woodland with grassy understorey.

Main threats: Incursion and spread of invasive plant species from roadside boundary.

BIOCONDITION SITE-BASED ATTRIBUTES SCORE OUT OF 10: (64/80)x10 = 8.0

Table 3.3. Site BC03 Summary

Site ID:	BC03 (see **Figure 3.2**)
Bioregion:	South-East Queensland
RE	**12.1.1**: *Casuarina glauca* woodland on margins of marine clay plains
Date:	21/02/2023
Observer/s:	Simon Danielsen, Conor O'Brien
Datum:	WGS 84
Zone:	

50x100m transect:

Location	Latitude	Longitude
Start	-27.8921	153.3396
Mid/photo	-27.8924	153.3392
End	-27.8927	153.3390

BC03 North

BC03 East

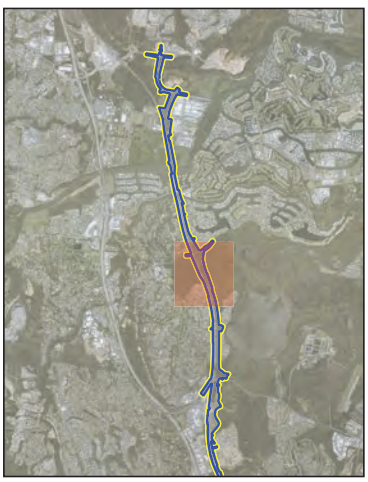
BC03 South

BC03 West

General description: Semi-open *Casuarina glauca* woodland in floodplain, bordering on mangroves, inundated with brackish water. Grassy/mangrove fern understorey

Main threats: Incursion and spread of invasive plant species, particularly *Salvinia molesta* (WoNS) growing in inundated areas, under little/no canopy cover.

BIOCONDITION SITE-BASED ATTRIBUTES SCORE OUT OF 10: (58/80)x10 = 7.3



Coastal Swamp Oak TEC
BioCondition Survey: Central

BioCondition transects

Transect GPS points

Impact Footprint

30m Buffer

Swamp Oak Forest TEC

PLANIT Surveys 2018-2021

Aerial Photo: Qld Globe - Accessed Feb 2023

Scale: 1:5,500

0 100 200 m

BAAM ECOLOGICAL CONSULTANTS

Client: Department of Transport and Main Roads			Project: **Swamp Oak TEC Condition Monitoring** Coomera Connector Stage 1	
Design	BAAM	28.02.2023	Title: Coastal Swamp Oak BioCondtion Survey: Central	FIGURE 3.2
Drawn	CO	28.02.2023		
Scale	**1:5,500**			

Table 3.4. Site BC04 Summary

Site ID:	BC04 (see **Figure 3.2**)
Bioregion:	South-East Queensland
RE	**12.1.1***: Casuarina glauca* woodland on margins of marine clay plains
Date:	21/02/2023
Observer/s:	Simon Danielsen, Conor O'Brien
Datum:	WGS 84
Zone:	

50x100m transect:

Location	Latitude	Longitude
Start	-27.8934	153.3381
Mid/photo	-27.8938	153.3379
End	-27.8942	153.3380

BC04 North

BC04 East

BC04 South

BC04 West

General description: Semi-open *Casuarina glauca* woodland in floodplain, bordering on mangroves, inundated with brackish water. Grassy/mangrove fern understorey.

Main threats: Incursion and spread of invasive species, particularly *Salvinia molesta* (WoNS) growing in inundated areas, under little/no canopy cover.

BIOCONDITION SITE-BASED ATTRIBUTES SCORE: (51.5/80)x10 = 6.4

Table 3.5. Site BC05 Summary

Site ID:	BC05 (see **Figure 3.2**)	
Bioregion:	South-East Queensland	
RE	**12.3.20:** *Melaleuca quinquenervia, Casuarina glauca* +/- *Eucalyptus tereticornis, E. siderophloia, M. styphelioides* open forest on low coastal alluvial plains	
Date:	21/02/2023	
Observer/s:	Simon Danielsen, Conor O'Brien	
Datum:	WGS 84	
Zone:		
50x100m transect:		
Location	**Latitude**	**Longitude**
Start	-27.9026	153.3409
Mid/photo	-27.9030	153.3409
End	-27.9035	153.3410

BC05 North

BC05 East

BC05 South

BC05 West

General description: Semi-open *Casuarina glauca* woodland, bordering on RE 12.1.1. Non-native shrubs predominant in understorey, with grassy groundcover.

Main threats: Incursion and spread of invasive plant species, with *Salvinia molesta* (WoNS) growing in inundated areas and large stands of *Lantana camara* (WoNS).

BIOCONDITION SITE-BASED ATTRIBUTES SCORE: (40/80)x10 = 5.0

Table 3.6. Site BC06 Summary

Site ID:	BC06 (see **Figure 3.2**)	
Bioregion:	South-East Queensland	
RE	**12.1.1**: *Casuarina glauca* woodland on margins of marine clay plains	
Date:	21/02/2023	
Observer/s:	Simon Danielsen, Conor O'Brien	
Datum:	WGS 84	
Zone:		
50x100m transect:		
Location	**Latitude**	**Longitude**
Start	-27.8986	153.3394
Mid/photo	-27.8991	153.3396
End	-27.8995	153.3398

BC06 North

BC06 East

BC07 South

BC06 West

General description: Semi-open *Casuarina glauca* woodland, with sparse shrub understorey. Inundated patches supporting mangrove ferns, exotic *Asparagus* ground cover.

Main threats: Incursion and spread of invasive plant species, with large stands of *Lantana camara* (WoNS), Singapore Daisy *Schinus terebinthifolius* and extensive mats of *Asparagus aethiopicus* (WoNS).

BIOCONDITION SITE-BASED ATTRIBUTES SCORE: (45/80)x2 = 5.6

Table 3.7. Site BC07 Summary

Site ID:	BC07 (see **Figure 3.3**)	
Bioregion:	South-East Queensland	
RE	**12.3.20:** *Melaleuca quinquenervia, Casuarina glauca* +/- *Eucalyptus tereticornis, E. siderophloia, M. styphelioides* open forest on low coastal alluvial plains	
Date:	21/02/2023	
Observer/s:	Simon Danielsen, Conor O'Brien	
Datum:	WGS 84	
Zone:		
25 x 50m transect:		
Location	**Latitude**	**Longitude**
Start	-27.9161	153.3417
Mid/photo	-27.9162	153.3416
End	-27.9164	153.3417

BC07 North

BC07 East

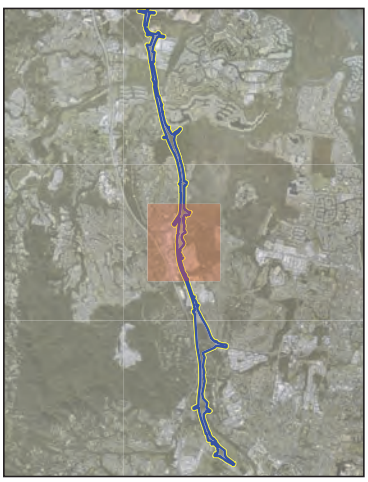
BC07 South

BC07 West

General description: *Casuarina glauca* woodland on floodplain, with dense shrub/mangrove fern understorey. Inundated with brackish water, transitioning into open wetland vegetation.

Main threats: Incursion and spread of invasive plant species.

BIOCONDITION SITE-BASED ATTRIBUTES SCORE: (49.5/80)x10 = 6.2



Coastal Swamp Oak TEC
BioCondition Survey: South

BioCondition transects

Transect GPS points

Impact Footprint

30m Buffer

Swamp Oak Forest TEC

PLANIT Surveys 2018-2021

Aerial Photo: Qld Globe - Accessed Feb 2023

Scale: 1:10,800

0 200 400 m

BAAM ECOLOGICAL CONSULTANTS

Client	Project
Department of Transport and Main Roads	**Swamp Oak TEC Condition Monitoring** Coomera Connector Stage 1

			Title	FIGURE
Design	BAAM	28.02.2023	Coastal Swamp Oak BioCondtion Survey: South	3.3
Drawn	CO	28.02.2023		
Scale	1:10,800			

Table 3.8. Site BC08 Summary

Site ID:	BC08 (see **Figure 3.3**)	
Bioregion:	South-East Queensland	
RE	**12.1.1**: *Casuarina glauca* woodland on margins of marine clay plains	
Date:	21/02/2023	
Observer/s:	Simon Danielsen, Conor O'Brien	
Datum:	WGS 84	
Zone:		
50x100m transect:		
Location	**Latitude**	**Longitude**
Start	-27.9177	153.3424
Mid/photo	-27.9179	153.3428
End	-27.9181	153.3432

BC08 North

BC08 East

BC08 South

BC08 West

General description: *Casuarina glauca* woodland on floodplain, with dense shrub/mangrove fern understorey. Patches inundated with brackish water, heavily infested with Singapore Daisy *Sphagneticola trilobata.*

Main threats: Degradation of ground layer, due particularly to extensive spread of Singapore Daisy.

BIOCONDITION SITE-BASED ATTRIBUTES SCORE: (43.5/80)x10 = 0.54

Table 3.9. Site BC09 Summary

Site ID:	BC09 (see **Figure 3.3**)	
Bioregion:	South-East Queensland	
RE	**12.3.20:** *Melaleuca quinquenervia, Casuarina glauca* +/- *Eucalyptus tereticornis, E. siderophloia, M. styphelioides* open forest on low coastal alluvial plains	
Date:	21/02/2023	
Observer/s:	Simon Danielsen, Conor O'Brien	
Datum:	WGS 84	
Zone:		
50x100m transect:		
Location	**Latitude**	**Longitude**
Start	-27.9305	153.3402
Mid/photo	-27.9303	153.3406
End	-27.9300	153.3409

BC09 North

BC09 East

BC09 South

BC09 West

General description: *Casuarina glauca* woodland with dense understorey regrowth, bordering on mangrove vegetation.

Main threats: Incursion and spread of invasive plant species.

BIOCONDITION SITE-BASED ATTRIBUTES SCORE: (37.5/80)x10 = 4.7

Table 3.10. Site BC10 Summary

Site ID:	BC10 (see **Figure 3.3**)	
Bioregion:	South-East Queensland	
RE	**12.1.1**: Casuarina glauca woodland on margins of marine clay plains	
Date:	21/02/2023	
Observer/s:	Simon Danielsen, Conor O'Brien	
Datum:	WGS 84	
Zone:		
25x50m transect:		
Location	**Latitude**	**Longitude**
Start	-27.9396	153.3427
Mid/photo	-27.9394	153.3425
End	-27.9392	153.3425

BC10 North

BC10 East

BC10 South

BC10 West

General description: Semi-open *Casuarina glauca* woodland, with grassy understorey. Transitions into non-remnant/revegetated patches.

Main threats: Incursion and spread of invasive plant species.

BIOCONDITION SITE-BASED ATTRIBUTES SCORE: (52/80)x10 = 6.5

4.0 REFERENCES

Eyre, TJ, Kelly, AL, Neldner, VJ, Wilson, BA, Ferguson, DJ, Laidlaw, MJ and Franks, AJ (2015). *BioCondition: A condition Assessment Framework for Terrestrial Biodiversity in Queensland*. Assessment Manual. Version 2.2. Department of Environment and Resource Management (DERM), Biodiversity and Ecosystem Sciences, Brisbane.

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Queensland Government (2023). BioCondition Benchmarks Version 3.3. https://www.qld.gov.au/environment/plants-animals/biodiversity/benchmarks

APPENDIX 1

BioCondition Site Data

APPENDIX 1: BioCondition Site Data

Site: **BC01** Page 1 of 2
Bioregion: SEQ
Date: 21/02/2023
Observer/s: Simon Danielsen, Conor O'Brien
RE/Landtype: 12.1.1
Datum: WGS 84

Start	Lat.:	-27.8580	Long.:	153.3268
Mid-point	Lat.:	-27.8583	Long.:	153.3270
End	Lat.:	-27.8587	Long.:	153.3271

Transect bearing: 60.775854°E

100 X 50m area (EDL)

Number of large Eucalypt trees:				0
Eucalypt large tree DBH from benchmark doc.:				n/a
Number of large Non-eucalypt trees:				7
Non-eucalypt large tree DBH from benchmark doc.:				29
Total large trees recorded:				7
Large trees per/ha				14
Tree canopy height (EDL) m:				8
Subcanopy and/or Emergent height:	Subcanopy:	4	Emergent:	n/a
Proportion of dominant canopy (EDL) species with evidence of recruitment:				75%
Total Tree spp Richness (all tree species, single stemmed >2m):				5

50 X 20m area (see CWD tab)

Total length of coarse woody debris (m):	106
Total CWD per ha (m)	1060

50 x 10m area

Native shrub spp richness (single-stemmed & <2m OR if multi stemmed from base/below 20cm):	4
Native grass spp richness:	2
Native forb and other (non-grass) spp richness:	9
Non-native cover:	1%

APPENDIX 1: BioCondition Site Data

Site: **BC01** Page 2 of 2

Five 1 X 1m plots

Ground cover % (*used in scoring)	1	2	3	4	5	Mean
Native perennial ('decreaser') grass*	0	1	0	0	0	0.2
Native other grass (if relevant)*	0	0	0	0	0	0
Native forbs and other species (non-grass)	2	0	0	2	0	0.8
Native shrubs (<1m height)	0	0	0	0	0	0
Non-native grass	0	0	0	0	0	0
Non-native forbs and shrubs	2	0	3	0	0	1
Litter*	96	99	97	98	100	98
Rock	0	0	0	0	0	0
Bare ground	0	0	0	0	0	0
Cryptograms	0	0	0	0	0	0
Total	100	100	100	100	100	100

100m transect

Tree canopy cover (distance, m)

Total Canopy: 56.1
Total Emergent: n/a
Total Subcanopy: 32.1

Shrub canopy cover (distance, m. Only native used in scoring.)

Total Native: 3.1
Total Exotic: 20

APPENDIX 1: BioCondition Site Data

Site: **BC02** Page 1 of 2
Bioregion: SEQ
Date: 21/02/2023
Observer/s: Simon Danielsen, Conor O'Brien
RE/Landtype: 12.1.1
Datum: WGS 84

Start	Lat.:	-27.8576	Long.:	153.3279
Mid-point	Lat.:	-27.8580	Long.:	153.3280
End	Lat.:	-27.8584	Long.:	153.3282

Transect bearing: 165.829841°E

100 X 50m area (EDL)

Number of large Eucalypt trees:				0
Eucalypt large tree DBH from benchmark doc.:				n/a
Number of large Non-eucalypt trees:				25
Non-eucalypt large tree DBH from benchmark doc.:				29
Total large trees recorded:				25
Large trees per/ha				50
Tree canopy height (EDL) m:				16
Subcanopy and/or Emergent height:	Subcanopy:	7	Emergent:	n/a
Proportion of dominant canopy (EDL) species with evidence of recruitment:				100%
Total Tree spp Richness (all tree species, single stemmed >2m):				1

50 X 20m area

Total length of coarse woody debris (m):	20
Total CWD per ha (m)	200

50 x 10m area

Native shrub spp richness (single-stemmed & <2m OR if multi stemmed from base/below 20cm):	2
Native grass spp richness:	3
Native forb and other (non-grass) spp richness:	13
Non-native cover:	5%

APPENDIX 1: BioCondition Site Data

Site: BC02 Page 2 of 2

Five 1 X 1m plots

Ground cover % (*used in scoring)	1	2	3	4	5	Mean
Native perennial ('decreaser') grass*	100	59	25	0	5	37.8
Native other grass (if relevant)*	0	0	0	0	0	
Native forbs and other species (non-grass)	0	0	0	0	0	0
Native shrubs (<1m height)	0	0	0	0	0	0
Non-native grass	0	0	0	0	0	0
Non-native forbs and shrubs	0	1	15	0	0	3.2
Litter*	0	40	60	100	95	59
Rock	0	0	0	0	0	0
Bare ground	0	0	0	0	0	0
Cryptograms	0	0	0	0	0	0
Total	100	100	100	100	100	

100m transect

Tree canopy cover (distance, m)

Total Canopy: 74.7
Total Emergent: n/a
Total Subcanopy: 48.8

Shrub canopy cover (distance, m. Only native used in scoring.)

Total Native: 4.1
Total Exotic: 4.4

APPENDIX 1: BioCondition Site Data

Site: **BC03** Page 1 of 2
Bioregion: SEQ
Date: 21/02/2023
Observer/s: Simon Danielsen, Conor O'Brien
RE/Landtype: 12.1.1
Datum: WGS 84
Zone:
Start Lat.: -27.8921 Long.: 153.3396
Mid-point Lat.: -27.8923 Long.: 153.3394
End Lat.: -27.8926 Long.: 153.3391
Transect bearing: 36.768279°W

100 X 50m area (EDL)

Number of large Eucalypt trees:				0
Eucalypt large tree DBH from benchmark doc.:				n/a
Number of large Non-eucalypt trees:				6
Non-eucalypt large tree DBH from benchmark doc.:				29
Total large trees recorded:				6
Large trees per/ha				12
Tree canopy height (EDL) m:				16
Subcanopy and/or Emergent height:	Subcanopy:	7	Emergent:	n/a
Proportion of dominant canopy (EDL) species with evidence of recruitment:				40
Total Tree spp Richness (all tree species, single stemmed >2m):				5

50 X 20m area

Total length of coarse woody debris (m):	8.5
Total CWD per ha (m)	850

50 x 10m area

Native shrub spp richness (single-stemmed & <2m OR if multi stemmed from base/below 20cm):	3
Native grass spp richness:	2
Native forb and other (non-grass) spp richness:	16
Non-native cover:	1

APPENDIX 1: BioCondition Site Data

Site: BC03 Page 2 of 2

Five 1 X 1m plots

Ground cover % (*used in scoring)	1	2	3	4	5	Mean
Native perennial ('decreaser') grass*	0	0	0	0	0	0
Native other grass (if relevant)*	0	0	0	0	0	
Native forbs and other species (non-grass)	2	10	85	80	95	54.4
Native shrubs (<1m height)	3	0	0	0	0	0.6
Non-native grass	0	0	0	0	0	0
Non-native forbs and shrubs	0	0	0	0	0	0
Litter*	0	0	5	15	0	4
Rock	0	0	0	0	0	0
Bare ground	95	90	1	5	5	39.2
Cryptograms	0	0	0	0	0	0
Total	100	100	91	100	100	

100m transect (See ShrubCanopyCover tab)

Tree canopy cover (distance, m)

Total Canopy: 67.9
Total Emergent: n/a
Total Subcanopy: 19.3

Shrub canopy cover (distance, m. Only native used in scoring.)

Total Native: 10
Total Exotic: 0

APPENDIX 1: BioCondition Site Data

Site: **BC04** Page 1 of 2
Bioregion: SEQ
Date: 21/02/2023
Observer/s: Simon Danielsen, Conor O'Brien
RE/Landtype: 12.1.1
Datum: WGS 84
Zone:

Start	Lat.:	-27.8934	Long.:	153.3381
Mid-point	Lat.:	-27.8938	Long.:	153.338
End	Lat.:	-27.8942	Long.:	153.338

Transect bearing: 171.366368°W

100 X 50m area (EDL)

Number of large Eucalypt trees:				0
Eucalypt large tree DBH from benchmark doc.:				n/a
Number of large Non-eucalypt trees:				11
Non-eucalypt large tree DBH from benchmark doc.:				29
Total large trees recorded:				11
Large trees per/ha				22
Tree canopy height (EDL) m:				18
Subcanopy and/or Emergent height:	Subcanopy:	7	Emergent:	n/a
Proportion of dominant canopy (EDL) species with evidence of recruitment:				60
Total Tree spp Richness (all tree species, single stemmed >2m):				5

50 X 20m area

Total length of coarse woody debris (m):	3
Total CWD per ha (m)	30

50 x 10m area

Native shrub spp richness (single-stemmed & <2m OR if multi stemmed from base/below 20cm):	2
Native grass spp richness:	1
Native forb and other (non-grass) spp richness:	19
Non-native cover:	2

APPENDIX 1: BioCondition Site Data

Site: BC04

Five 1 X 1m plots

Ground cover % (*used in scoring)	1	2	3	4	5	Mean
Native perennial ('decreaser') grass*	0	10	0	0	0	2
Native other grass (if relevant)*	0	0	0	0	0	0
Native forbs and other species (non-grass)	33	70	25	95	5	45.6
Native shrubs (<1m height)	0	0	0	0	0	0
Non-native grass	0	0	0	0	0	0
Non-native forbs and shrubs	2	5	0	0	0	1.4
Litter*	55	5	50	0	90	40
Rock	0	0	0	0	0	0
Bare ground	10	10	25	5	5	11
Cryptograms	0	0	0	0	0	0
Total	100	100	100	100	100	

100m transect

Tree canopy cover (distance, m)

Total Canopy: 62.2
Total Emergent: n/a
Total Subcanopy: 20.4

Shrub canopy cover (distance, m. Only native used in scoring.)

Total Native: 10.6
Total Exotic: 0

APPENDIX 1: BioCondition Site Data

Site: **BC05** Page 1 of 2
Bioregion: SEQ
Date: 21/02/2023
Observer/s: Simon Danielsen, Conor O'Brien
RE/Landtype: 12.3.20
Datum: WGS 84
Zone:

Start	Lat.:	-27.9027	Long.:	153.3408
Mid-point	Lat.:	-27.9032	Long.:	153.341
End	Lat.:	-27.9034	Long.:	153.3409

Transect bearing: 23.240385°W

100 X 50m area (EDL)

Number of large Eucalypt trees:				0
Eucalypt large tree DBH from benchmark doc.:				n/a
Number of large Non-eucalypt trees:				4
Non-eucalypt large tree DBH from benchmark doc.:				30
Total large trees recorded:				4
Large trees per/ha				8
Tree canopy height (EDL) m:				10
Subcanopy and/or Emergent height:	Subcanopy:	7	Emergent:	n/a
Proportion of dominant canopy (EDL) species with evidence of recruitment:				60
Total Tree spp Richness (all tree species, single stemmed >2m):				5

50 X 20m area (see CWD tab)

Total length of coarse woody debris (m):	3.5
Total CWD per ha (m)	35

50 x 10m area

Native shrub spp richness (single-stemmed & <2m OR if multi stemmed from base/below 20cm):	1
Native grass spp richness:	1
Native forb and other (non-grass) spp richness:	11
Non-native cover:	20

APPENDIX 1: BioCondition Site Data

Site: BC05

Five 1 X 1m plots

Ground cover % (*used in scoring)	1	2	3	4	5	Mean
Native perennial ('decreaser') grass*	0	0	0	0	0	0
Native other grass (if relevant)*	0	0	0	0	0	0
Native forbs and other species (non-grass)	0	0	2	1	0	0.6
Native shrubs (<1m height)	0	0	0	0	0	0
Non-native grass	0	0	0	0	0	0
Non-native forbs and shrubs	2	5	0	0	0	1.4
Litter*	60	100	98	54	100	82.4
Rock	0	0	0	0	0	0
Bare ground	40	0	0	45	0	17
Cryptograms	0	0	0	0	0	0
Total	102	105	100	100	100	

100m transect

Tree canopy cover (distance, m)

Total Canopy: 40.9
Total Emergent: n/a
Total Subcanopy: 26

Shrub canopy cover (distance, m. Only native used in scoring.)

Total Native: 0
Total Exotic: 6.4

APPENDIX 1: BioCondition Site Data

Site: **BC06** Page 1 of 2
Bioregion: SEQ
Date: 21/02/2023
Observer/s: Simon Danielsen, Conor O'Brien
RE/Landtype: 12.1.1
Datum: WGS 84
Zone:

Start	Lat.:	-27.8995	Long.:	153.3398
Mid-point	Lat.:	-27.899	Long.:	153.3396
End	Lat.:	-27.8986	Long.:	153.3394

Transect bearing: 173.696202°E

100 X 50m area (EDL)

Number of large Eucalypt trees:				0
Eucalypt large tree DBH from benchmark doc.:				n/a
Number of large Non-eucalypt trees:				17
Non-eucalypt large tree DBH from benchmark doc.:				29
Total large trees recorded:				6
Large trees per/ha				12
Tree canopy height (EDL) m:				18
Subcanopy and/or Emergent height:	Subcanopy:	9	Emergent:	n/a
Proportion of dominant canopy (EDL) species with evidence of recruitment:				100
Total Tree spp Richness (all tree species, single stemmed >2m):				4

50 X 20m area

Total length of coarse woody debris (m):	3
Total CWD per ha (m)	30

50 x 10m area

Native shrub spp richness (single-stemmed & <2m OR if multi stemmed from base/below 20cm):	1
Native grass spp richness:	4
Native forb and other (non-grass) spp richness:	13
Non-native cover:	60

APPENDIX 1: BioCondition Site Data

Site: BC06

Five 1 X 1m plots

Ground cover % (*used in scoring)	1	2	3	4	5	Mean
Native perennial ('decreaser') grass*	0	0	0	0	5	1
Native other grass (if relevant)*	0	0	0	0	0	0
Native forbs and other species (non-grass)	0	0	35	10	70	23
Native shrubs (<1m height)	0	0	0	0	0	0
Non-native grass	35	0	0	0	0	7
Non-native forbs and shrubs	0	0	0	0	0	0
Litter*	65	100	65	90	5	65
Rock	0	0	0	0	0	0
Bare ground	0	0	0	0	20	4
Cryptograms	0	0	0	0	0	0
Total	100	100	100	100	100	

100m transect

Tree canopy cover (distance, m)

Total Canopy: 93.9
Total Emergent: n/a
Total Subcanopy: 12.8

Shrub canopy cover (distance, m. Only native used in scoring.)

Total Native: 1.9
Total Exotic: 7

APPENDIX 1: BioCondition Site Data

Site: **BC07** **Page 1 of 2**

Note: 50m transect captured due to lack of safe access further into site (soft sediment in water >1m in height)

Bioregion: SEQ
Date: 22/02/2023
Observer/s: Simon Danielsen, Conor O'Brien
RE/Landtype: 12.3.20
Datum: **WGS 84**

Start	Lat.:	-27.9161	Long.:	153.3417
Mid-point	Lat.:	-27.9162	Long.:	153.3416
End	Lat.:	-27.9164	Long.:	153.3417

Transect bearing: 173.332908°E

50 X 25m area (EDL)

Number of large Eucalypt trees:				0
Eucalypt large tree DBH from benchmark doc.:				n/a
Number of large Non-eucalypt trees:				9
Non-eucalypt large tree DBH from benchmark doc.:				30
Total large trees recorded:				9
Large trees per/ha				72
Tree canopy height (EDL) m:				16
Subcanopy and/or Emergent height:	Subcanopy:	7	Emergent:	n/a
Proportion of dominant canopy (EDL) species with evidence of recruitment:				100
Total Tree spp Richness (all tree species, single stemmed >2m):				3

50 X 20m area

Number of coarse woody debris:	20
Total length of coarse woody debris (m):	200

50 x 10m area

Native shrub spp richness (single-stemmed & <2m OR if multi stemmed from base/below 20cm):	5
Native grass spp richness:	2
Native forb and other (non-grass) spp richness:	14
Non-native cover:	5

APPENDIX 1: BioCondition Site Data

Site: BC07

Five 1 X 1m plots

Ground cover % (*used in scoring)	1	2	3	4	5	Mean
Native perennial ('decreaser') grass*	0	0	0	0	95	19
Native other grass (if relevant)*	0	0	0	0	0	0
Native forbs and other species (non-grass)	15	65	95	0	0	35
Native shrubs (<1m height)	0	0	0	0	0	0
Non-native grass	0	0	0	95	0	19
Non-native forbs and shrubs	0	0	0	0	0	0
Litter*	85	30	5	5	5	26
Rock	0	0	0	0	0	0
Bare ground	0	5	0	0	0	1
Cryptograms	0	0	0	0	0	0
Total	100	100	100	100	100	

100m transect

Tree canopy cover (distance, m)
Total Canopy: 86.2 (43.1)
Total Emergent: n/a
Total Subcanopy: 16 (8)

Shrub canopy cover (distance, m. Only native used in scoring.)
Total Native: 0
Total Exotic: 11 (5.5)

Note: canopy, subcanopy, shrub cover recorded over 50m transect, value multiplied by 2 (original value in brackets)

APPENDIX 1: BioCondition Site Data

Site: **BC08** Page 1 of 2
Bioregion: SEQ
Date: 22/02/2023
Observer/s: Simon Danielsen, Conor O'Brien
RE/Landtype: 12.1.1
Datum: WGS 84

Start	Lat.:	-27.9181	Long.:	153.3432
Mid-point	Lat.:	-27.9179	Long.:	153.3428
End	Lat.:	-27.9177	Long.:	153.3424

Transect bearing: 57.708584°W

100 X 50m area (EDL)

Number of large Eucalypt trees:				0
Eucalypt large tree DBH from benchmark doc.:				n/a
Number of large Non-eucalypt trees:				14
Non-eucalypt large tree DBH from benchmark doc.:				29
Total large trees recorded:				14
Large trees per/ha				28
Tree canopy height (EDL) m:				17
Subcanopy and/or Emergent height:	Subcanopy:	10	Emergent:	n/a
Proportion of dominant canopy (EDL) species with evidence of recruitment:				60
Total Tree spp Richness (all tree species, single stemmed >2m):				5

50 X 20m area

Number of coarse woody debris:	4
Total length of coarse woody debris (m):	40

50 x 10m area

Native shrub spp richness (single-stemmed & <2m OR if multi stemmed from base/below 20cm):	1
Native grass spp richness:	1
Native forb and other (non-grass) spp richness:	4
Non-native cover:	55

APPENDIX 1: BioCondition Site Data

Site: BC08

Five 1 X 1m plots

Ground cover % (*used in scoring)	1	2	3	4	5	Mean
Native perennial ('decreaser') grass*	0	0	0	0	0	0
Native other grass (if relevant)*	0	0	0	0	0	0
Native forbs and other species (non-grass)	0	0	0	0	0	0
Native shrubs (<1m height)	0	0	0	0	0	0
Non-native grass	0	2	0	0	0	0.4
Non-native forbs and shrubs	95	98	95	95	95	95.6
Litter*	5	0	5	0	0	2
Rock	0	0	0	0	0	0
Bare ground	0	0	0	5	5	2
Cryptograms	0	0	0	0	0	0
Total	100	100	100	100	100	

100m transect

Tree canopy cover (distance, m)

Total Canopy: 94.6
Total Emergent: n/a
Total Subcanopy: 10

Shrub canopy cover (distance, m. Only native used in scoring.)

Total Native: 0

Total Exotic: 22.8

APPENDIX 1: BioCondition Site Data

Site: **BC09** Page 1 of 2
Bioregion: SEQ
Date: 22/02/2023
Observer/s: Simon Danielsen, Conor O'Brien
RE/Landtype: 12.3.20
Datum: WGS 84

Start	Lat.:	-27.9305	Long.:	153.3402
Mid-point	Lat.:	-27.9303	Long.:	153.3406
End	Lat.:	-27.93	Long.:	153.3409

Transect bearing: 50.739118°E

100 X 50m area (EDL)

Number of large Eucalypt trees:				0
Eucalypt large tree DBH from benchmark doc.:				n/a
Number of large Non-eucalypt trees:				7
Non-eucalypt large tree DBH from benchmark doc.:				30
Total large trees recorded:				7
Large trees per/ha				14
Tree canopy height (EDL) m:				12
Subcanopy and/or Emergent height:	Subcanopy:	6	Emergent:	n/a
Proportion of dominant canopy (EDL) species with evidence of recruitment:				90
Total Tree spp Richness (all tree species, single stemmed >2m):				9

50 X 20m area

Number of coarse woody debris:	0
Total length of coarse woody debris (m):	0

50 x 10m area

Native shrub spp richness (single-stemmed & <2m OR if multi stemmed from base/below 20cm):	4
Native grass spp richness:	0
Native forb and other (non-grass) spp richness:	4
Non-native cover:	70

APPENDIX 1: BioCondition Site Data

Site: BC09

Five 1 X 1m plots

Ground cover % (*used in scoring)	1	2	3	4	5	Mean
Native perennial ('decreaser') grass*	0	0	0	0	0	0
Native other grass (if relevant)*	0	0	0	0	0	0
Native forbs and other species (non-grass)	0	1	2	0	0	0.6
Native shrubs (<1m height)	0	0	0	0	0	0
Non-native grass	0	0	0	0	0	0
Non-native forbs and shrubs	60	5	50	85	90	58
Litter*	40	94	48	15	10	41.4
Rock	0	0	0	0	0	0
Bare ground	0	0	0	0	0	0
Cryptograms	0	0	0	0	0	0
Total	100	100	100	100	100	

100m transect

Tree canopy cover (distance, m)
Total Canopy: 95.9
Total Emergent: n/a
Total Subcanopy: 41.1

Shrub canopy cover (distance, m. Only native used in scoring.)
Total Native: 0
Total Exotic: 4.1

APPENDIX 1: BioCondition Site Data

Site: **BC10** Page 1 of 2 Note: 50m transect captured due to site fragmentation (not enough length in target RE polygon)
Bioregion: SEQ
Date: 22/02/2023
Observer/s: Simon Danielsen, Conor O'Brien
RE/Landtype: 12.1.1
Datum: WGS 84
Start Lat.: -27.9396 Long.: 153.3426
Mid-point Lat.: -27.9394 Long.: 153.3426
End Lat.: -27.9392 Long.: 153.3425
Transect bearing: 19.29757°W

50 X 25m area (EDL)

Number of large Eucalypt trees:				0
Eucalypt large tree DBH from benchmark doc.:				n/a
Number of large Non-eucalypt trees:				1
Non-eucalypt large tree DBH from benchmark doc.:				29
Total large trees recorded:				1
Large trees per/ha				8
Tree canopy height (EDL) m:				10
Subcanopy and/or Emergent height:	Subcanopy:	7	Emergent:	n/a
Proportion of dominant canopy (EDL) species with evidence of recruitment:				100
Total Tree spp Richness (all tree species, single stemmed >2m):				5

50 X 20m area

Number of coarse woody debris:	1
Total length of coarse woody debris (m):	10

50 x 10m area

Native shrub spp richness (single-stemmed & <2m OR if multi stemmed from base/below 20cm):	13
Native grass spp richness:	3
Native forb and other (non-grass) spp richness:	13
Non-native cover:	5

APPENDIX 1: BioCondition Site Data

Site: BC10

Five 1 X 1m plots

Ground cover % (*used in scoring)	1	2	3	4	5	Mean
Native perennial ('decreaser') grass*	0	0	10	97	15	24.4
Native other grass (if relevant)*	0	0	0	0	0	0
Native forbs and other species (non-grass)	5	10	0	0	0	3
Native shrubs (<1m height)	1	0	5	0	5	2.2
Non-native grass	0	0	0	0	0	0
Non-native forbs and shrubs	0	1	0	0	0	0.2
Litter*	94	89	85	3	80	70.2
Rock	0	0	0	0	0	0
Bare ground	0	0	0	0	0	0
Cryptograms	0	0	0	0	0	0
Total	100	100	100	100	100	

100m transect

Tree canopy cover (distance, m)
Total Canopy: 81.8 (40.9)
Total Emergent: n/a

Shrub canopy cover (distance, m. Only native used in scoring.)
Total Native: 20 (10)
Total Exotic: 0

Total Subcanopy: 52 (26)

Note: canopy, subcanopy, shrub cover recorded over 50m transect, value multiplied by 2 (original value in brackets)

APPENDIX 2

Site Species Data

APPENDIX 2: Site Species Data

		BC01	BC02	BC03	BC04
50x10m	**Grasses**	- *Paspalidium distans* - *Sporobolus virginicus*	- *Eriochloa procera* - *Paspalidium distans* - *Sporobolus virginicus*	- *Phragmites australis* - *Sporobolus virginicus*	- *Phragmites australis*
	Forbs	- *Alternanthera denticulata* - *Cyperus sp.* - *Dianella caerulea* - *Eclipta platyglossa* - *Einadia hastata* - *Eustrephus latifolius* - *Marsdenia viridiflora* - *Parsonsia straminea* - *Tetragonia tetragonoides*	- *Alternanthera denticulata* - *Bacopa monnieri* - *Cyperus polystachyos* - *Dianella caerulea* - *Eclipta platyglossa* - *Eclipta prostrata* - *Einadia hastata* - *Eustrephus latifolius* - *Juncus kraussii* - *Marsdenia viridiflora* - *Parsonsia straminea* - *Phyla nodiflora var. nodiflora*	- *Acrostichum speciosum* - *Bacopa monnieri* - *Centella asiatica* - *Cyclosorus interruptus* - *Cynanchum sp.* - *Cyperus sp.* - *Enydra fluctuans* - *Juncus kraussii* - *Marsdenia viridiflora* - *Parsonsia straminea* - *Platycerium bifurcatum*	- *Acrostichum speciosum* - *Bacopa monnieri* - *Cynanchum bowmanii* - *Enydra fluctuans* - *Gahnia sieberiana* - *Gleichenia sp.* - *Juncus kraussii* - *Parsonsia straminea* - *Platycerium bifurcatum*
	Shrubs	- *Casuarina glauca* - *Cupaniopsis anacardiodes* - *Ficus rubiginosa* *Lauraceae sp.*	- *Casuarina glauca* - *Cupaniopsis anacardiodes*	- *Casuarina glauca* - *Cupaniopsis anacardiodes* - *Cyathea cooperi* - *Livistona australis*	- *Casuarina glauca* - *Excoecaria agallocha*
50x100m	**Native trees**	- *Acacia leiocarpa* - *Alphitonia excelsa* - *Casuarina glauca* - *Ficus rubiginosa* - *Melaleuca quinquenervia*	- *Casuarina glauca*	- *Avicennia marina* - *Casuarina glauca* - *Excoecaria agallocha* - *Jagera pseudorhus* - *Melaleuca quinquenervia*	- *Avicennia marina* - *Melaleuca quinquenervia* - *Excoecaria agallocha* - *Bruguiera gymnorhiza* - *Casuarina glauca*
	Non-native species	- *Ageratum houstonianum* - *Asparagus aethiopicus* - *Baccharis halimifolia* - *Lantana camara* - *Passiflora foetida* - *Rivina humilis* - *Schinus terebinthifolius* - *Senna pendula var. glabrata* - *Solanum mauritianum* - *Solanum nigrum* - *Solanum seaforthianum*	- *Asparagus aethiopicus* - *Cynodon dactylon var. dactylon* - *Emilia sonchifolia* - *Lantana camara* - *Paspalum sp.* - *Passiflora foetida* - *Schinus terebinthifolius* - *Senna pendula var. glabrata* - *Solanum nigrum* - *Solanum seaforthianum* - *Solanum torvum*	- *Ardisia crenata* - *Physalis sp.* - *Solanum nigrum* - *Schinus terebinthifolius* - *Ludwigia sp.*	- *Salvinia molesta* - *Solanum mauritianum*

APPENDIX 2: Site Species Data

		BC05	BC06	BC07
50x10m	Grasses	- *Phragmites australis*	- *Ottochloa gracillima* - *Paspalidium sp.* - *Phragmites australis* - *Sporobolus virginicus*	- *Ottochloa gracillima* - *Phragmites australis*
	Forbs	- *Acrostichum speciosum* - *Alternanthera denticulata* - *Bacopa monnieri* - *Cynanchum bowmanii* - *Eclipta prostrata* - *Enydra fluctuans* - *Juncus kraussii* - *Lomandra longifolia* - *Marsdenia viridiflora* - *Parsonsia straminea*	- *Acrostichum speciosum* - *Bacopa monnieri* - *Centella asiatica* - *Cynanchum bowmanii* - *Cyperus sp.* - *Enydra fluctuans* - *Fimbristylis dichotoma* - *Juncus kraussii* - *Lobelia sp.* - *Marsdenia viridiflora* - *Parsonsia straminea* - *Platycerium bifurcatum*	- *Acrostichum speciosum* - *Asplenium australasicum* - *Bacopa monnieri* - *Centella asiatica* - *Cyprus sp.* - *Enydra fluctuans* - *Fern sp. 1* - *Fern sp. 2* - *Ludwigia sp.* - *Marsdenia viridiflora* - *Murdannia graminea* - *Parsonsia straminea* - *Platycerium bifurcatum*
	Shrubs	- *Casuarina glauca*	- *Casuarina glauca*	- *Casuarina glauca* - *Cupaniopsis anacardioides* - *Cyathea cooperi* - *Glochidion sumatranum*
50x100m	Native trees	- *Acacia disparrima* - *Casuarina glauca* - *Ficus coronata* - *Ficus rubiginosa* - *Melaleuca quinquenervia*	- *Acacia disparrima* - *Casuarina glauca* - *Eucalyptus siderophloia* - *Melaleuca quinquenervia*	- *Aegiceras corniculatum* - *Casuarina glauca* - *Melaleuca quinquenervia*
	Non-native species	- *Ipomoea cairica* - *Lantana camara* - *Megathyrsus maximus* - *Salvinia molesta* - *Schinus terebinthifolius* - *Solanum mauritianum* - *Solanum seaforthianum*	- *Asparagus aethiopicus* - *Lantana camara* - *Passiflora suberosa* - *Schinus terebinthifolius*	- *Asparagus aethiopicus* - *Ipomoea cairica* - *Megathyrsus maximus* - *Schinus terebinthifolius* - *Senna pendula var. glabrata* - *Syagrus romanzoffiana*

APPENDIX 2: Site Species Data

		BC08	BC09	BC10
50x10m	Grasses	- *Ottochloa gracillima*		- *Ottochloa gracillima* - *Paspalidium distans* - *Sporobolus virginicus*
	Forbs	- *Acrostichum speciosum* - *Bacopa monnieri* - *Parsonsia straminea*	- *Eustrephus latifolius* - *Geitonoplesium cymosum* - *Murdannia graminea* - *Parsonsia straminea*	- *Acrostichum speciosum* - *Bacopa monnieri* - *Centella asiatica* - *Dianella caerulea* - *Eclipta sp.* - *Fimbristylis dichotoma* - *Lobelia sp.* - *Lomandra longifolia* - *Marsdenia viridiflora* - *Parsonsia straminea* - *Sphaeromorphaea australis* - *Stephania japonica var. discolor*
	Shrubs	- *Casuarina glauca*	- *Aegiceras corniculatum* - *Casuarina glauca* - *Cupaniopsis anacardiodes* - *Melaleuca quinquenervia*	- *Acacia fimbriata* - *Acacia leiocarpa* - *Allocasuarina littoralis* - *Alphitonia excelsa* - *Avicennia marina* - *Breynia oblongifolia* - *Casuarina glauca* - *Cupaniopsis anacardiodes* - *Eucalyptus tereticornis* - *Excoecaria agallocha* - *Glochidion sumatranum* - *Maclura cochinchinensis* - *Melaleuca quinquenervia*
50x100m	Native trees	- *Acacia disparrima* - *Aegiceras corniculatum* - *Casuarina glauca* - *Glochidion sumatranum* - *Melaleuca quinquenervia*	- *Acacia disparrima* - *Aegiceras corniculatum* - *Alphitonia excelsa* - *Casuarina glauca* - *Cryptocarya triplinervis var. pubens* - *Eucalyptus siderophloia* - *Eucalyptus tereticornis* - *Melaleuca quinquenervia*	- *Acacia concurrens* - *Avicennia marina* - *Casuarina glauca* - *Eucalyptus tereticornis* - *Melaleuca quinquenervia*

APPENDIX 2: Site Species Data

		BC08	BC09	BC10
	Non-native species	*- Euphorbia sp.* *- Ipomoea cairica* *- Lantana camara* *- Megathyrsus maximus* *- Passiflora suberosa* *- Schinus terebinthifolius* *- Senna pendula var. glabrata* *- Solanum mauritianum* *- Solanum seaforthianum* *- Solanum torvum* *- Sphagneticola trilobata* *- Verbena sp.*	*- Acalypha sp.* *- Ageratum houstonianum* *- Asparagus aethiopicus* *- Lantana camara* *- Schinus terebinthifolius* *- Senna pendula var. glabrata* *- Solanum seaforthianum* *- Sphagneticola trilobata* *- Syagrus romanzoffiana*	*- Ageratum houstonianum* *- Baccharis halimifolia* *- Bryophyllum delagoense* *- Ipomoea cairica* *- Lantana camara* *- Schinus terebinthifolius* *- Scoparia dulcis* *- Senna pendula var. glabrata* *- Sida rhombifolia* *- Solanum torvum* *- Sphagneticola trilobata*