IDAS form 1—Application details

(Sustainable Planning Act 2009 version 3.0 effective 1 July 2013)

This form must be used for **ALL** development applications.

You **MUST** complete **ALL** questions that are stated to be a mandatory requirement unless otherwise identified on this form.

For all development applications, you must:

- complete this form (IDAS form 1—Application details)
- complete any other forms relevant to your application
- provide any mandatory supporting information identified on the forms as being required to accompany your application.

Attach extra pages if there is insufficient space on this form.

All terms used on this form have the meaning given in the *Sustainable Planning Act 2009* (SPA) or the Sustainable Planning Regulation 2009.

This form and any other IDAS form relevant to your application must be used for development applications relating to strategic port land and Brisbane core port land under the *Transport Infrastructure Act 1994* and airport land under the *Airport Assets (Restructuring and Disposal) Act 2008*. Whenever a planning scheme is mentioned, take it to mean land use plan for the strategic port land, Brisbane core port land or airport land.

PLEASE NOTE: This form is not required to accompany requests for compliance assessment.

This form can also be completed online using MyDAS at www.dsdip.gld.gov.au/MyDAS

Applicant details (Note: the applicant is the person responsible for making the application and need not be the owner of the land. The applicant is responsible for ensuring the information provided on all IDAS application forms is correct.

Applicant details (Note: the applicant is the person responsible for making the application and need not be the owner of the land. The applicant is responsible for ensuring the information provided on all IDAS application forms is correct. Any development permit or preliminary approval that may be issued as a consequence of this application will be issued to the applicant.)

Name/s (individual or company name in full)			
For companies, contact name			
Postal address			
	Suburb		
	State	Postcode	
	Country		
Contact phone number			
Mobile number (non-mandatory requirement)			
wobile number (non-mandatory requirement)			
Fax number (non-mandatory requirement)			



Mandatory requirements

Email address (non-mandatory requirement)		@			
	olicant's reference number (non-mandatory uirement)				
1.	What is the nature of the development p	roposed and v	vhat t	ype of approval is	being sought?
Tab	le A—Aspect 1 of the application (If there are	additional aspe	ects to	the application ple	ease list in Table B—Aspect 2.)
a)	What is the nature of the development? (Plea	ase only tick or	ne box	(.)	
	☐ Material change of use ☐ Reconfigu	ıring a lot		Building work	Operational work
b)	What is the approval type? (Please only tick	one box.)			
		ry approval 41 and s242		Development perm	nit
c)	Provide a brief description of the proposal, in applicable (e.g. six unit apartment building de				
d)	What is the level of assessment? (Please only	y tick one box.)			
	☐ Impact assessment ☐ Code ass	essment			
	Itional aspects of the application (If there are	additional aspe	ects to	the application ple	ease list in Table C—
a)	What is the nature of development? (Please	only tick one b	ox.)		
	Material change of use Reconfigu	ıring a lot		Building work	Operational work
b)	What is the approval type? (Please only tick	one box.)			
		ry approval 41 and s242		Development permit	
c)	Provide a brief description of the proposal, in applicable (e.g. six unit apartment building de				
d)	What is the level of assessment?				
	☐ Impact assessment ☐ Code ass	essment			
	le C—Additional aspects of the application (If arate table on an extra page and attach to this		ional	aspects to the appli	ication please list in a
sep	Refer attached schedule Not requir	<u> </u>			

2.	2. Location of the premises (Complete Table D and/or Table E as applicable. Identify each lot in a separate row.)										
adjace	Table D —Street address and lot on plan for the premises or street address and lot on plan for the land adjoining or adjacent to the premises (Note: this table is to be used for applications involving taking or interfering with water). (Attach a separate schedule if there is insufficient space in this table.)										
	Stree	et address a	nd l	ot on plan (All	lots mus	st be listed)				
				ot on plan for r but adjoining							propriate for ust be listed.)
Street	Street address Lot on plan description Local government area (e.g. Logan, Cairns)										
Lot	Unit no.	Street no.		eet name and c ourb/ locality na		Post- code	Lot no.	Plan and			
i)											
ii)											
iii)											
				he premises i e. Non-manda		multiple zo	nes, clearly	/ iden	ntify	the relevar	nt zone/s for each lot in a
Lot	Applica	able zone / pr	ecino	ot	Applicab	le local plar	n / precinct			Applicable	overlay/s
i)											
ii)											
iii)											
adjoini		djacent to la									lot or in water not lule if there is insufficient
Coord (Note:		ach set of c	oord	inates in a se	parate ro	w)	Zone reference		Dat	um	Local government area (if applicable)
Easting	9	Northing		Latitude	Lon	gitude					
										GDA94	
										WGS84	
										other	
3. Total area of the premises on which the development is proposed (indicate square metres)											
4. Curi	4. Current use/s of the premises (e.g. vacant land, house, apartment building, cane farm etc.)										

5. Are there any current approvals (e.g. a parameter)							
☐ No ☐ Yes—provide details below							
List of approval reference/s	Date approved (dd/mm/yy)	Date approval lapses (dd/mm/yy)					
6. Is owner's consent required for this app	plication? (Refer to notes at the er	d of this form for more information.)					
No Yes—complete either Table F, Table G or Table H as applicable							
Table F							
Name of owner/s of the land							
I/We, the above-mentioned owner/s of the land, o	consent to the making of this applic	ation.					
Signature of owner/s of the land							
Date							
Table G							
Name of owner/s of the land							
The owner's written consent is attached or w	ill be provided separately to the as	sessment manager.					
Table H							
Name of owner/s of the land							
By making this application, I, the applicant, declar	re that the owner has given written cor	nsent to the making of the application.					
7. Identify if any of the following apply to t	he premises (Tick applicable box/	es.)					
Adjacent to a water body, watercourse or a On strategic port land under the <i>Transport</i>		,					
In a tidal water area—complete Table K							
On Brisbane core port land under the <i>Trans</i>	sport Infrastructure Act 1994 (No ta	able requires completion.)					
On airport land under the <i>Airport Assets (Restructuring and Disposal) Act 2008</i> (no table requires completion)							
Table I							
Name of water body, watercourse or aquifer							
Table J							
Lot on plan description for strategic port land	Port authority for	the lot					
	-						

Tab	le K					
Nam	ne of local government for the tidal area (i	if applicable)	Port author	prity for the tidal area (if applicable)		
8.	Are there any existing easements or water etc)	n the premises?	(e.g. for vehic	cular access, electricity, overland flow,		
	No Yes—ensure the type, loca	tion and dimension	on of each ea	sement is included in the plans submitted		
9.	Does the proposal include new build services)	ding work or ope	erational wor	k on the premises? (Including any		
	No Yes—ensure the nature, lo	cation and dimen	sion of propos	sed works are included in plans submitted		
10.	Is the payment of a portable long se end of this form for more information.)	rvice leave levy	applicable to	this application? (Refer to notes at the		
	No—go to question 12 Yes					
11.	Has the portable long service leave information.)	levy been paid?	(Refer to note	es at the end of this form for more		
	No					
	Yes—complete Table L and submit with receipted QLeave form	this application t	he yellow loca	al government/private certifier's copy of the		
Tab	le L					
Amo	ount paid		Date paid (dd/mm/yy)	QLeave project number (6 digit number starting with A, B, E, L or P)		
12.	12. Has the local government agreed to apply a superseded planning scheme to this application under section 96 of the Sustainable Planning Act 2009?					
	□ No					
	Yes—please provide details below					
Nam	Name of local government Date of written notice given by local government (if applicable) (dd/mm/yy) Reference number of written notice given by local government (if applicable)					

13.	13. List below all of the forms and supporting information that accompany this application (Include all IDAS forms, checklists, mandatory supporting information etc. that will be submitted as part of this application. Note: this question does not apply for applications made online using MyDAS)						
Desc	Description of attachment or title of attachment Method of lodgement to assessment manager						
14. Applicant's declaration							
Пв	By making this application. I declare that all information in this application is true and correct (Note: it is unlawful to						

Notes for completing this form

provide false or misleading information)

• Section 261 of the Sustainable Planning Act 2009 prescribes when an application is a properly-made application. Note, the assessment manager has discretion to accept an application as properly made despite any non-compliance with the requirement to provide mandatory supporting information under section 260(1)(c) of the Sustainable Planning Act 2009

Applicant details

Where the applicant is not a natural person, ensure the applicant entity is a real legal entity.

Question 1

• Schedule 3 of the Sustainable Planning Regulation 2009 identifies assessable development and the type of assessment. Where schedule 3 identifies assessable development as "various aspects of development" the applicant must identify each aspect of the development on Tables A, B and C respectively and as required.

Question 6

• Section 263 of the Sustainable Planning Act 2009 sets out when the consent of the owner of the land is required for an application. Section 260(1)(e) of the Sustainable Planning Act 2009 provides that if the owner's consent is required under section 263, then an application must contain, or be accompanied by, the written consent of the owner, or include a declaration by the applicant that the owner has given written consent to the making of the application. If a development application relates to a state resource, the application is not required to be supported by evidence of an allocation or entitlement to a state resource. However, where the state is the owner of the subject land, the written consent of the state, as landowner, may be required. Allocation or entitlement to the state resource is a separate process and will need to be obtained before development commences.

Question 11

- The Building and Construction Industry (Portable Long Service Leave) Act 1991 prescribes when the portable long service leave levy is payable.
- The portable long service leave levy amount and other prescribed percentages and rates for calculating the levy are prescribed in the Building and Construction Industry (Portable Long Service Leave) Regulation 2002.

Question 12

- The portable long service leave levy need not be paid when the application is made, but the *Building and Construction Industry (Portable Long Service Leave) Act 1991* requires the levy to be paid before a development permit is issued.
- Building and construction industry notification and payment forms are available from any Queensland post office or agency, on request from QLeave, or can be completed on the QLeave website at www.qleave.qld.gov.au. For further information contact QLeave on 1800 803 481 or visit www.qleave.qld.gov.au.

Privacy—The information collected in this form will be used by the Department of State Development, Infrastructure and Planning (DSDIP), assessment manager, referral agency and/or building certifier in accordance with the processing and assessment of your application. Your personal details should not be disclosed for a purpose outside of the IDAS process or the provisions about public access to planning and development information in the *Sustainable Planning Act 2009*, except where required by legislation (including the *Right to Information Act 2009*) or as required by Parliament. This information may be stored in relevant databases. The information collected will be retained as required by the *Public Records Act 2002*.

OFFICE USE ONLY							
Date received	Reference nu	Reference numbers					
NOTIFICATION OF ENGAGEMENT OF A PRIVATE CERTIFIER							
To Council. I have been engaged as the private certifier for the building work referred to in this application							
Date of engagement Name				BSA Certification license number		Building classification/s	
QLEAVE NOTIFICATION AND PAYMENT (For completion by assessment manager or private certifier if applicable.)							
		QLeave project number	Amount paid (\$)	Date p	aid	Date receipted form sighted by assessment manager	Name of officer who sighted the form

The Sustainable Planning Act 2009 is administered by the Department of State Development, Infrastructure and Planning. This form and all other required application materials should be sent to your assessment manager and any referral agency.



IDAS Form 27

Lutra Bridge Tidal Works and Development within a Costal Management Districts

Supporting Information

For all applications

A statement addressing the relevant part(s) of the Stet Development Assessment Provisions (SDAP)

Performance outcomes	Acceptable outcomes
PO1 Development in a <u>coastal hazard</u> <u>area</u> is compatible with the level of severity of the <u>coastal hazard</u> .	AO1.1 The bridge is an essential access bridge to the residents on the northern side of the Daintree River. Once the works are completed the bridge and banks will be able to withstand temporary inundation cause by storm tide.
PO2 Development siting, layout and access in a coastal hazard area responds to a potential coastal hazard and minimises risk to personal safety and property.	AO2 The bridge is the only evacuation point during a defined storm tide event on the northern side of the Daintree River. Lutra Bridge is capable of supporting the evacuation of the entire local population within a reasonably short time frame.
PO3 Development directly, indirectly and cumulatively avoids an unacceptable increase in the severity of the <u>coastal hazard</u> , and does not significantly increase the potential for damage on the premises or to other premises.	Not applicable
PO4 Development avoids the release of hazardous materials as a result of a natural hazard event. Editor's note: Applications should: (1) assess the risk of storm tide inundation releasing or otherwise exposing hazardous materials, including appropriate emergency planning and contingency measures. (2) applications are to be supported by a report certified by a Registered Professional Engineer of Queensland (RPEQ) that demonstrates this performance outcome will be	AO4.1 No hazardous materials are being used in the project.

achieved.	_
achieved.	
PO5 Natural processes and the protective function of landforms and vegetation are maintained in coastal hazard areas. Editor's note: Applications should be supported by a report certified by an RPEQ that demonstrates this performance outcome will be achieved.	AO5 The rock revetment is to protect Lutra Bridge from erosion and maintain access for the residents. Due to the isolated location of the bridge and the tidal ebb and flow this option is the only feasible option of protection as it will eliminate further erosion around the bridge structure and protect the banks.
PO6 Erosion prone areas in a coastal management district are maintained as development free buffers, or where permanent buildings or structures exist, coastal erosion risks are avoided or mitigated.	AO6 The works are essential for community service infrastructure and coastal hazard area protection.
PO7 Development avoids or minimises adverse impacts on coastal resources and their values, to the maximum extent reasonable.	AO7 Development will enhance water quality by reducing sediment entering the water through the erosion process.
	Acid sulphate soils will not be stored on site and will be taken to an approved facility and disposed of appropriately.
PO8 Coastal protection work is undertaken only as a last resort where erosion presents an imminent threat to public safety or permanent structures. Editor's note: Applications for coastal protection work must be supported by a report certified by an RPEQ that demonstrates how the engineering solution sought by the work will be achieved.	AO8 The works will be undertaken to protect an existing permanent bridge structure that cannot be reasonably relocated or abandoned due to the isolated location and the fact that it is the only access for residents in the area. There will be no risk to private property and all works will be conducted within the road reserve.
PO9 Development avoids adverse impacts on matters of state environmental significance, or where this is not reasonably possible, impacts are minimised and residual impacts are offset.	AO9 The works will be conducted near an ecosystem of concern but will not have any impacts. Marine plant removal will be offset as outlined in the Marine Plant Permit application.
PO10 Development maintains or enhances general public access to or along the foreshore, unless this is contrary to the protection of coastal resources or public safety.	AO10 The development enhances general public access to the area and increased public safety to road users utilising the bridge and will be maintained on a regular basis.
PO11 Development avoids structures attaching to, or extending across, non-tidal state coastal land abutting tidal waters.	AO11 Not applicable



PO12 Further development of canals, AO12 dry land marinas and artificial Not applicable waterways avoids or minimises adverse impacts on coastal resources and their values, and does not contribute to: (1) degradation of water quality (2) an increase in the risk of flooding (3) degradation and loss of matters of state environmental significance (including, but not limited to, coastal wetlands, fish habitat areas and migratory species habitat). PO13 Development does not involve Not applicable. reclamation of land below the highest astronomical tide, other than for the purposes of: (1) coastal-dependent development, public marine development or community infrastructure (2) strategic ports, boat harbours or strategic airports and aviation facilities, in accordance with a statutory land use plan, where there is a demonstrated net benefit for the state or region and no feasible alternative exists (3) coastal protection work or work necessary to protect coastal resources or physical coastal processes.

Table 10.1.2: Operational work

Performance outcomes	Acceptable outcomes
PO1 Tidal works that is <u>private marine</u> development does not result in adverse impacts to tidal land.	AO1 Not applicable
Editor's note: In addressing this performance outcome, the applicant should also have regard to requirements for private marine development in the prescribed tidal works code in the Coastal Protection and Management Regulation 2003. Editor's note; Applications should be supported by a report certified by an RPEQ to demonstrate compliance with this performance outcome.	
PO2 Development does not result in the disposal of material dredged from an <u>artificial waterway</u> into <u>coastal</u> <u>waters</u> , with the exception of: (1) <u>reclamation</u> works, or (2) <u>coastal protection works</u> , or	Not applicable



(3) the maintenance of an existing artificial waterway and the at-sea disposal of material that has previously been approved for the waterway.	
PO3 Development includes and complies with a dredge management plan that demonstrates how environmental impacts will be managed and mitigated, and how the requirements of the National	AO3 Not applicable
Assessment Guidelines for Dredging,	wildlife consider functions
Within a wild river area: riparian and	
PO4 The clearing of native marine plants within a wild river area is minimised.	AO4 Not applicable
PO5 Development within a wild river area does not impact fish passage.	Not applicable
PO6 There is no net loss in marine plants beyond the extent of the works in a wild river area.	AO6 Not applicable
PO7 Works within a wild river area does not impact on fish habitat values.	AO7
·	Not applicable
Within a wild river area: hydrological	processes
PO8 Development within a wild river area does not impound natural drainage lines or flow paths, during both construction and operation.	Not applicable
Within a wild river area: geomorphic	processes
PO9 Excavation and filling for prescribed tidal work within a wild river area is carried out only to the extent necessary for the development.	Not applicable
PO10 Works in a tidal area within a wild river area are designed and constructed in a way to ensure they do not adversely affect the stability of the bed and banks of any waterway.	Not applicable
Within a wild river area: water quality	
PO11 No pollutants are released from the activity.	Not applicable

A copy of the the certificate of title for the land (including tidal land) that would abut or adjoin the proposed works

Awaiting Owners Consent which is currently lodged.



Plans

I have attached a map and a survey plan (Attachment 1) showing the information that we have available. Approximately 200 mm of existing vegetation over 15 m will be removed. This will not affect the tidal planes.

For tidal work that will occupy a navigable waterway provide a water allocation area plan providing evidence that the proposed work will not prejudice the access rights of adjoin property owners

Not applicable

Details of the largest vessel, if any, to be moored at the structure

Not applicable

For prescribed tidal works, details of how the proposed work addresses the IDAS code for prescribed tidal work in the Coastal Protection and Management Regulation 2003, schedule 4A

The rock revetment works it to reinstate the structural integrity of Lutra Bridge and improve the stability of the surrounding banks. The works will not impede the flow of tidal water or access to the creek. Water quality within the creek will improve due to sediment not entering the watercourse through erosion.

If applicable, certification that the design of tidal works is suitable for intended use, signed by a Registered Professional Engineer of Queensland (or equivilant)

Not applicable

For applications involving material change of use

Not applicable

For applications involving reconfiguration of a lot

Not applicable

For applications involving building works seaward of a coastal building line

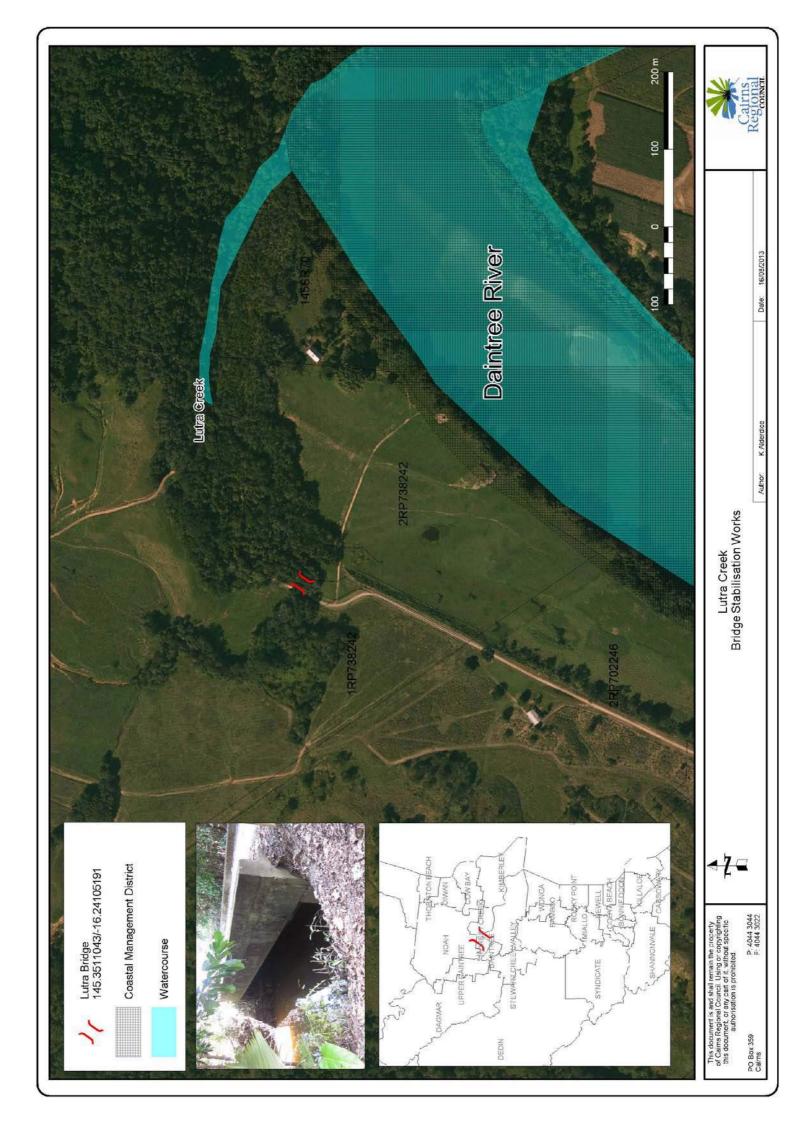
Not applicable

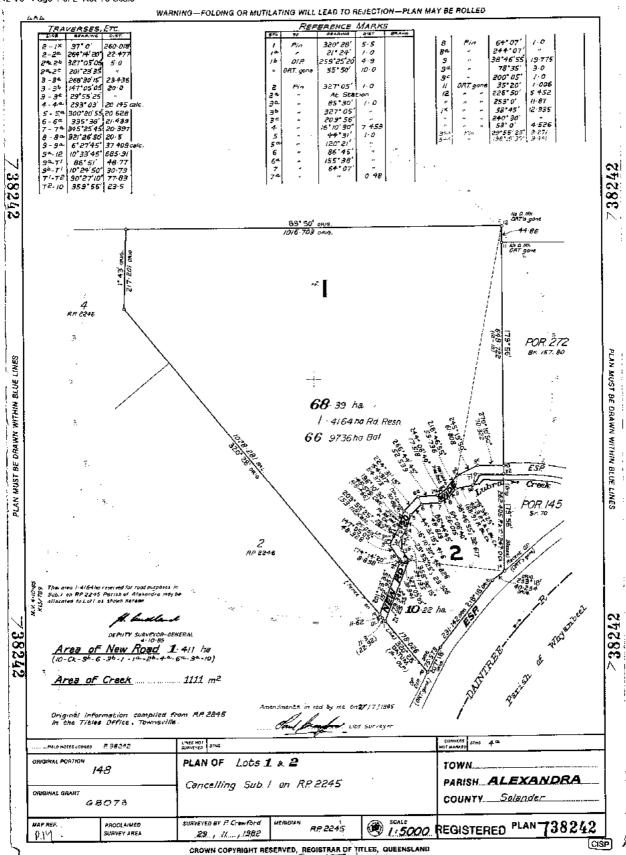


Adachmenta

Location Map







Copyright protects the plants being ordered by you. Unauthorised reproduction or amendments are not permitted.



IDAS form 23—Tidal works and development within coastal management districts

(Sustainable Planning Act 2009 version 3.0 effective 1 July 2013)

This form must be used for development applications for:

- operational work that is tidal works (including prescribed tidal works) or operational work within a coastal management district (mentioned in the Sustainable Planning Regulation 2009, schedule 7, table 2, item 13)
- material change of use that requires referral under the Sustainable Planning Regulation 2009, schedule 7, table 3, item 5 because it involves:
 - operational work carried out completely or partly in a coastal management district; or
 - building work carried out completely or partly in a coastal management district that is the construction of a new premises with a gross floor area (GFA) of at least 1000m² or the enlargement of the GFA of an existing premises by more than 1000m²
- reconfiguring a lot that requires referral under the Sustainable Planning Regulation 2009, schedule 7, table 2, item 14 because the land is situated completely or partly in a coastal management district or the reconfiguration is in connection with the construction of a canal
- building work that requires referral under the Sustainable Planning Regulation 2009, schedule 7, table 1, item 11 because it is on land completely or partly seaward of a coastal building line.

You **MUST** complete **ALL** questions that are stated to be a mandatory requirement unless otherwise identified on this form.

Notes for completing this form

For all development applications you must:

- complete IDAS form 1—Application details
- complete any other forms relevant to your application
- provide any mandatory supporting information identified on the forms as being required to accompany your application.

Attach extra pages if there is insufficient space on this form.

All terms used on this form have the meaning given in the *Coastal Management and Protection Act 1995*, the Coastal Protection and Management Regulation 2003, the *Sustainable Planning Act 2009* (SPA) or the Sustainable Planning Regulation 2009.

This	This form can also be completed online using MyDAS at www.dsdip.qld.gov.au/MyDAS						
Mano	Mandatory requirements						
1.	1. Confirm the following mandatory requirements accompany this application Confirmation of lodgement Method of lodgement						
	Written description of the proposal, including a report that addresses any relevant policies.						
2.	2. What is the nature of the work or development proposed by the application? (Tick all applicable boxes.)						
	 □ Operational work—complete table A □ Reconfiguring a Lot—complete table C □ Building Work—complete table D 						



Table A—Operational Work
Does the operational work involve the following? (Tick all applicable boxes.)
a) Tidal works as defined under the Coastal Protection and Management Act 1995 (e.g. basins, breakwater, bridges, boat ramps, decks and boardwalks, docks, dockyards, groynes, jetties, marinas, pipelines, pontoons, powerlines, seawalls, slips, training walls, wharves and the reclamation of land under tidal water)?
□ No □ Yes
If yes, what is the purpose?
Private purpose (e.g. private pontoon)
Another purpose (e.g. commercial marina)
Does the tidal works also require resource allocation under the <i>Coastal Protection and Management Act 1995</i> ? No Yes
If applicable what is the estimated value of the proposed works?
b) Interfering with grown metarial as defined under the Coastel Protection and Management Act 1005 (a.g.
b) Interfering with quarry material as defined under the <i>Coastal Protection and Management Act 1995</i> (e.g. excavating or moving sand, gravel or any other earth material on state coastal land such as roads, esplanades, parks or unallocated state land) on state coastal land above high-water mark.
∐ No ☐ Yes
If yes, which of the following?
Works for coastal management purpose involving beach nourishment, dune fencing, revegetation of dunal areas with endemic native plants, or stinger net enclosures.
For purposes directly related to the provision of lifesaving or rescue services by a volunteer community organisation.
For other purposes (please state below).
If applicable what is the estimated value of the proposed works?
Displayed and the day and it as able to a lide weeks and to did to tidal weeks (0)
c) Disposing of dredge spoil or other solid waste material in tidal water?
□ No □ Yes
If applicable what is the estimated value of the proposed works?
d) Constructing an artificial waterway?
□ No □ Yes
If applicable what is the length of the waterway?
e) Removing or interfering with coastal dunes on land, other than state coastal land, that is in an erosion prone area as defined in the <i>Coastal Protection and Management Act 1995</i> and above high water mark (e.g. lowering dune vegetation on freehold and leasehold land)?
☐ No ☐ Yes
If applicable what is the estimated value of the proposed works?

Table D. Metaviel shange of use				
Table B—Material change of use				
a) Does the material change of use involve the following? (Tick all applic	,			
Operational work carried out completely or partly in a coastal manager				
b) Does the material change of use involve building work carried out completely or partly in a coastal management district that is:				
\square the construction of new premises with a gross floor area of at least 100	00 m^2			
$\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ $	han 1000 m²			
Table C—Reconfiguring a lot				
a) Does the reconfiguring a lot involve the following? (Tick all applicable	boxes.)			
Land situated completely or partly in a coastal management district				
The construction of a canal				
b) How many lots will be created?				
Table D—Building work				
a) Is the building work on land completely or partly seaward of the coast and Management Act 1995?	al building line under th	e Coastal Protection		
☐ No ☐ Yes				
3. Is the tidal works located within a local government tidal area?	(Tick all applicable box	es)		
No Yes—provide details below				
Local government:				
Mandatory supporting information				
4. Please provide the following information	Confirmation of	Method of		
4. Please provide the following information	lodgement	lodgement		
For all applications				
A statement addressing the relevant part(s) of the State Development	O a refirmed and			
Assessment Provisions (SDAP).	Confirmed Not applicable			
` '	INOT applicable			
For applications involving operational work that is tidal works				
A copy of the certificate of title for the land (including tidal land) that	Confirmed			
would abut or adjoin the proposed works.				
Plans showing:	Confirmed			
the real property description and boundaries of the land (including)	Not applicable			
tidal land) that would abut or adjoin the proposed works				
the proposed works (including existing works to be removed) in relation to relevant tidal planes (e.g. mean high water springs)				
the slope angles of the beds and banks of the tidal area and the				
finished levels of the proposed works.				
For tidal work that will occupy a navigable waterway provide a water	Confirmed			
allocation area plan providing evidence that the proposed work will not prejudice the access rights of adjoining property owners.	Not applicable			

Details of the largest vessel, if any, to be moored at the structure.	Confirmed Not applicable			
For prescribed tidal works, details of how the proposed work addresses the IDAS code for prescribed tidal work in the Coastal Protection and Management Regulation 2003, schedule 4A.	Confirmed Not applicable			
If applicable, certification that the design of tidal works is suitable for intended use, signed by a Registered Professional Engineer of Queensland (or equivalent).	Confirmed Not applicable			
For applications involving material change of use				
Plans certified by a registered professional engineer of Queensland (RPEQ) or a registered surveyor showing:	Confirmed Not applicable			
 the real property description and boundaries of the land the proposed works in relation to the location of the coastal management district and coastal hazards. 				
For applications involving reconfiguring a lot				
Plans certified by a registered surveyor showing:	Confirmed			
 the real property description and boundaries of the land The location of the coastal management district and coastal hazards in relation to the land being reconfigured Any land being surrendered as a separate lot on the plan of subdivision. 	Not applicable			
For applications involving building works seaward of a coastal buildi	ng line			
Plans certified by a registered professional engineer of Queensland (RPEQ): the real property description and boundaries of the land the proposed works in relation to the location of the coastal building line.	Confirmed Not applicable			
 Notes for completing this form Please ensure all applicable fees are paid, noting that referral agency fees are to be paid to the Department of Environment and Heritage Protection. For an application requiring referral to the Department of Transport and Main Roads (DTMR), it is recommended that the applicant contact DTMR to ensure that required information for assessment of the application is provided. Privacy—Please refer to your assessment manager, referral agency and/or building certifier for further details on the use of information recorded in this form. 				
OFFICE USE ONLY				
Date received Reference numbers				
The Sustainable Planning Act 2009 is administered by the Department of S		structure and		

Planning. This form and all other required application materials should be sent to your assessment manager and any referral agency.

IDAS form 26—Marine plants and declared fish habitat

areas

(Sustainable Planning Act 2009 version 3.0 effective 1 July 2013)

This form must be used for development applications for:

- operational work that is the removal, destruction or damage of a marine plant
- a material change of use of premises if the material change of use involves operational work that is the removal, destruction or damage of marine plants, and there is no development permit for the operational work
- reconfiguring a lot if the reconfiguration involves operational work that is the removal, destruction or damage of marine plants, and there is no development permit for the operational work
- building work in a declared fish habitat area
- operational work completely or partly within a declared fish habitat area.

You **MUST** complete **ALL** questions that are stated to be a mandatory requirement unless otherwise identified on this form.

For all development applications you must:

- complete IDAS form 1—Application details
- complete any other forms relevant to your application
- provide any mandatory supporting information identified on the forms as being required to accompany your application.

Attach extra pages if there is insufficient space on this form.

All terms used on this form have the meaning given in the *Sustainable Planning Act 2009* (SPA) or the Sustainable Planning Regulation 2009.

This form can also be completed online using MyDAS at www.dsdip.qld.gov.au/MyDAS				
Mandatory requirements				
1.	What is the nature of the proposed work? (Tick all applicable boxes	.)		
	Operational work that is the removal, destruction or damage of marine plants as defined in the Fisheries Act 1994, section 8			
	Operational work that is completely or partly within a declared fish habitat area as defined in the Fisheries Regulation 2008, Schedule 3			
	Building work in a declared fish habitat area			
Mandatory supporting information				
2. Confirm that the following mandatory supporting information accompanies this application				
Man	datory supporting information	Confirmation of lodgement	Method of lodgement	
	caled site plan of the proposed work showing the location, areas of islation to:	mpact and adjacent	area including or	
а	ctual area of disturbance to marine plants and/or declared fish habitat rea in square metres. Identify proportion (m²) of permanent and/or emporary disturbance	Confirmed		



	dimensions and GPS coordinates and zone references (GDA94 preferred)	Confirme	ed	
	easily identifiable site features (e.g. roads, road intersections, waterway names, bends in the waterway, etc.)	Confirme	ed	
	real property boundaries adjacent to and in the vicinity of the proposed work	Confirme	ed	
•	boundary of the declared fish habitat area	Confirme Not appli		
	location, extent, nature and dimensions of the area for proposed work, including access paths, construction areas, moorings and dredging required to undertake the work	Confirme	ed	
	location and extent of highest astronomical tide, mean high water springs and mean low water springs levels, by reference to easily identifiable fixed points	Confirme	ed	
	location of all waterway features within the development area, including creeks, drainage lines, lagoons and marshes	Confirme	ed	
	location and extent of all marine plants (e.g. saltmarsh, mangrove, seagrass) within and adjacent to the proposed work	Confirme Not appli		
	location and extent of all marine plants proposed to be removed, destroyed or damaged	Confirme Not appli		
	location and extent of any existing disturbances, structures, improvements or fill within, adjacent to, or associated with the proposed work.	Confirme Not appli		
Wr	itten documentation			
De	itten documentation tails of the purpose of the proposed work (e.g. public jetty, private jetty, at ramp, pontoon, revetment, board walk, etc.).	Confirme	ed	
De boa	tails of the purpose of the proposed work (e.g. public jetty, private jetty,	Confirme Confirme Not appli	ed	
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A description of off-site actions proposed to offset re permanent loss of or damage to marine plants or the area, as applicable (e.g. any proposed rehabilitation plants, land exchange options, fish habitat research	declared fish habitat or restoration of marine	Confirmed		
The extent of any future maintenance works required operation of the proposed structure or facility (e.g. tri marine plants, maintenance dredging).	Confirmed Not applicable			
For an application involving assessable developed	ment in a wild river area	ı		
Documentation that: describes how the development to which the appropriate development and demonstrates how the proposed development will requirements set out in the relevant wild river decapplicable code mentioned in the relevant wild river the Wild Rivers Act 2005.	I meet the laration and any	Confirmed Not applicable		
A map showing the proposed location of the develop nominated waterways under the <i>Wild Rivers Act 200</i> management areas. (a map may be produced digital www.ehp.qld.gov.au/wildrivers/wildrivers-map.php). Wild river management area means any of the follow <i>Wild Rivers Act 2005</i> : • special floodplain management area • preservation area • high preservation area • floodplain management area • subartesian management area • designated urban area. Editor's note: A floodplain management area, subartarea or designated urban area may be over all or parea or preservation area. A subartesian management area may be over all or parea or parea may be over all or parea or part of a special floodplain area may be over all	Confirmed Not applicable			
Privacy—Please refer to your assessment manager, referral agency and/or building certifier for further details on the use of information recorded in this form. OFFICE USE ONLY				
Date received	Reference numbers			

The Sustainable Planning Act 2009 is administered by the Department of State Development, Infrastructure and Planning. This form and all other required application materials should be sent to your assessment manager and any referral agency.



IDAS Form 27 Lutra Bridge Marine plants and declared fish habitats

Supporting Information

A scaled site plan of the proposed work showing he location, areas of impact and adjacent area

Map attached (Attachment 1) showing:

- GPS coordinates (GDA94, zone 55)
- Easily identifiable site features
- Real property boundaries
- Location and extent, nature and dimensions of the area for proposed work
- Location of all waterway features within the development area

Actual area of disturbance to marine plants and/or declared fish habitat in square metres. Identify proportion (M²) of permanent and/or temporary disturbance

Due to the small nature of the works a legible map was unable to be completed. None of the works are located in or near a declared fish habitat. An approximate marine plant area of 64m² (both banks and abutments) will be disturbed for the construction of the rock revetment to reinstate Lutra Bridge's structural integrity.

Location and extent of highest astronomical tide, mean high water springs and mean low water spring

No available data

Location and extent of all marine plants within and adjacent to the proposed work

The banks on both sides of the creek have marine plants present. Species are identified in the attached vegetation survey (Attachment 2). Removal of marine plants, on both banks, 5 m up and downstream of the structure require removal for the stabilisation work.

Written documentation

Details of the purpose of the proposed work

The structural integrity of Lutra Bridge is being compromised due to erosion around the abutments. To reinstate the bridges stability Cairns Regional Council will remove approximately 200 mm of existing soil and vegetation and replace with 300 mm armour rock. The reinforcing will include 5 m up and downstream of the structure to prevent further erosion and undermining allowing traffic to pass over the bridge safely.

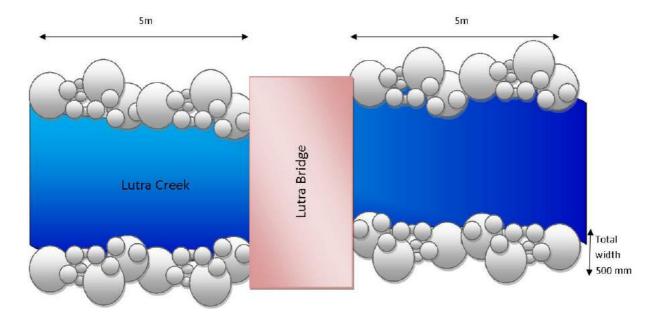
A description of the habitats within the declared fish habitat area proposed to be impacted Not applicable

A description of the marine plants proposed to be removed, destroyed or damaged

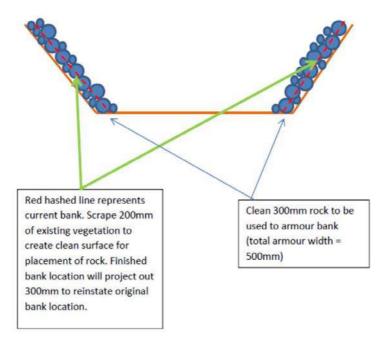
A vegetation survey compiled by Bob Jago is attached (Attachment 2).

A description of the method or works

Council will use a small 5 tonne digger to remove existing vegetation from around the abutments and 5 m up and downstream to a depth of 200 mm. It will then be replaced with clean 300 mm rock which will be reinforced using concrete to fill the voids in the rocks preventing any undermining or erosion. The total width of the new structure will be 500 mm decreasing the creek by 300 mm on both banks as shown on the pictures below.







A description of the past uses and/or disturbances of the development area

The bridge has been in place for an unidentified amount of time. No information on an installation date exists.

A statement addressing the relevant part(s) of the State Development Assessment Provisions (SDAP)

Table 8.1.6: Public safety and infrastructure

Performance outcomes	Acceptable outcomes	
Limits to clearing for public safety and infrastructure		
PO1 To regulate the clearing of vegetation in a way that conserves remnant vegetation that are regional ecosystems, does not cause land degradation, prevents the loss of biodiversity and maintains ecological processes, subject to the limitations required to meet PO2–PO10, clearing is limited to the extent that is necessary: (1) for establishing a necessary fence, firebreak, road or vehicular track, or for constructing necessary built infrastructure, if there is no suitable alternative site for the fence, firebreak, road, track or infrastructure, or (2) as a natural and ordinary consequence of other assessable development for which a development approval as defined under the repealed Integrated Planning Act 1997 was given, or a development application as defined under that Act was made, before 16 May 2003, or (3) to ensure public safety. Wetlands	No works will be conducted in a regional ecosystem.	
PO2 To regulate the clearing of vegetation in a way that prevents the loss of biodiversity and	Not applicable	



maintains ecological processes, assessable vegetation associated with any natural significant wetland or natural wetland is protected to maintain:

- (1) water quality by filtering sediments, nutrients and other pollutants
- (2) aquatic habitat
- (3) terrestrial habitat.

Watercourses

PO3 To regulate the clearing of vegetation in a way that does not cause land degradation, prevents the loss of biodiversity and maintains ecological processes, assessable vegetation associated with any watercourse is protected to maintain:

- (1) bank stability by protecting against bank erosion
- (2) water quality by filtering sediments, nutrients and other pollutants
- (3) aquatic habitat
- (4) terrestrial habitat.

Connectivity

PO4 To regulate the clearing of vegetation in a way that prevents the loss of biodiversity and maintains ecological processes, areas of mapped remnant vegetation are retained that are:

- (9) of sufficient size and configured in a way to maintain ecosystem functioning
- (10) of sufficient size and configured in a way to remain in the landscape in spite of any threatening processes
- (11) located on the lot(s) that are the subject of the application to maintain connectivity to mapped remnant vegetation on adjacent properties.

AO3

Clearing of mangroves will occur on the banks of Lutra Creek and replaced with a rock revetment to protect the bridge structure and the banks from erosion and structural instability. No removal will occur from the bed of the creek.

The rock revetment will protect the banks from further erosion and will enhance water quality by reducing the amount of sediment entering the watercourse through erosion.

AO4

The clearing will occur in a mapped remnant regrowth area that is listed as "Of Concern". The clearing will be less than 100 m wide and will not reduce the area or connectivity of the mapped remnant vegetation.

Soil erosion

PO5 To regulate the clearing of vegetation in a way that does not cause land degradation and maintains ecological processes, the effect of clearing does not result in:

- (1) mass movement, gully erosion, rill erosion, sheet erosion, tunnel erosion, stream bank erosion, wind erosion, or scalding
- (2) any associated loss of chemical, physical or biological fertility, including, but not limited to water holding capacity, soil structure, organic matter, soil biology and nutrients within or outside the lot(s) that are the subject of the application

AO5

Due to the bank and bridge stabilisation works there will be an improvement to the current bank stability once the works are completed. The existing vegetated banks have minimal slope and stable soil structure and during the process of removing the vegetation erosion is highly unlikely to occur.

Salinity

PO6 To regulate the clearing of vegetation in a way that does not cause land degradation and maintains ecological processes, clearing does not contribute to:

- (1) waterlogging, or
- (2) the salinisation of groundwater, surface water

A06

Clearing does not occur in any discharge area.



or soil.				
Conserving remnant vegetation that are endangered regional ecosystems and of concern				
regional ecosystems				
PO7 To regulate the clearing of vegetation in a way that conserves remnant vegetation that are endangered regional ecosystems and of concern regional ecosystems, maintain the current extent of endangered regional ecosystems and of concern regional ecosystems.	The clearing is less than 10 m wide, 0.5 hectares and not listed in Table 1.			
Essential habitat				
PO8 To regulate the clearing of vegetation in a way that prevents the loss of biodiversity, maintain the current extent of essential habitat.	Not applicable			
Conservation status thresholds				
PO9 To regulate the clearing of vegetation in a way that conserves remnant vegetation that are regional ecosystems and prevents the loss of biodiversity, maintain the current extent of regional ecosystems listed in Table 2.	Not applicable			
Acid sulphate soils				
PO10 To regulate the clearing of vegetation in a	AO10			
way that does not cause land degradation and maintains ecological processes, clearing activities do not result in disturbance of acid sulfate soils or changes to the hydrology of the location that will either: (1) aerate horizons containing iron sulfides, or (2) mobilise acid or metals.	There will be no stockpiling of soil on site. All soil removed will be taken to an approve facility and be treated accordingly. All works with follow the management principles in the Queensland Acid Sulfate Soil Technical Manual: Soil Maintenance Guidelines.			

Justification

A detailed description of the alternative considered to reduce impacts on marine plants or the declared fish habitat area

The option chosen had the least impact to the waterway and surrounding vegetation and will only decrease the existing fish passage by 300 mm either side of the stream whilst providing structural safety and integrity to the bridge and creek banks. Armour rock is quick to construct and only a sediment curtain will need to be placed in Lutra Creek during the construction phase.

Details of on-site mitigation actions proposed to prevent the proposed work contributing to the degradation of the declared fish habitat area, in and adjacent to the development area, during the development

Not applicable

Detains of on-site mitigation proposed to prevent the proposed work contributing the degradation of the declared fish habitat area, in and adjacent to the development area, during and after the development

Not applicable



A description of off-site actions proposed to offset residual impacts from any permanent loss of or damage to marine plants or the declared fish habitat area, as applicable

There is no planned offset site due to the fact that the works will be conducted within the allowable footprint a bridge structure under the MP02 self-assessable code.

The extent of any future maintenance works required for the continued safe operation of the proposed structure or facility

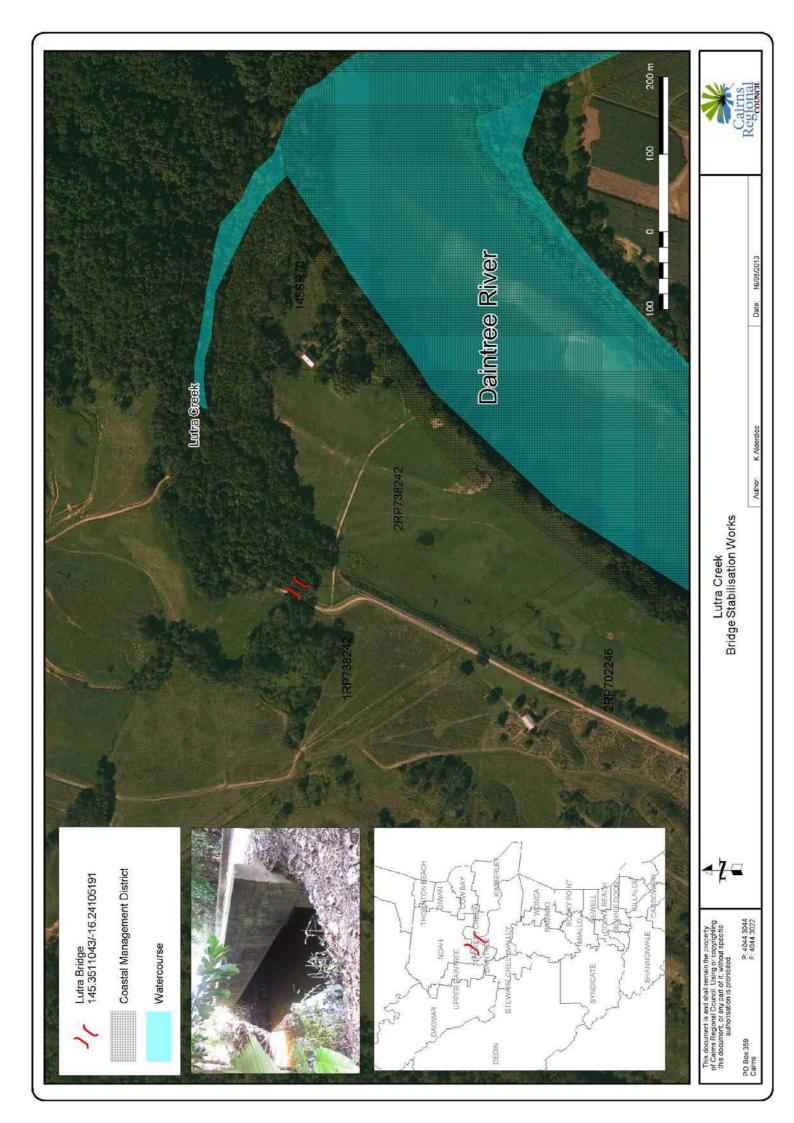
Not applicable

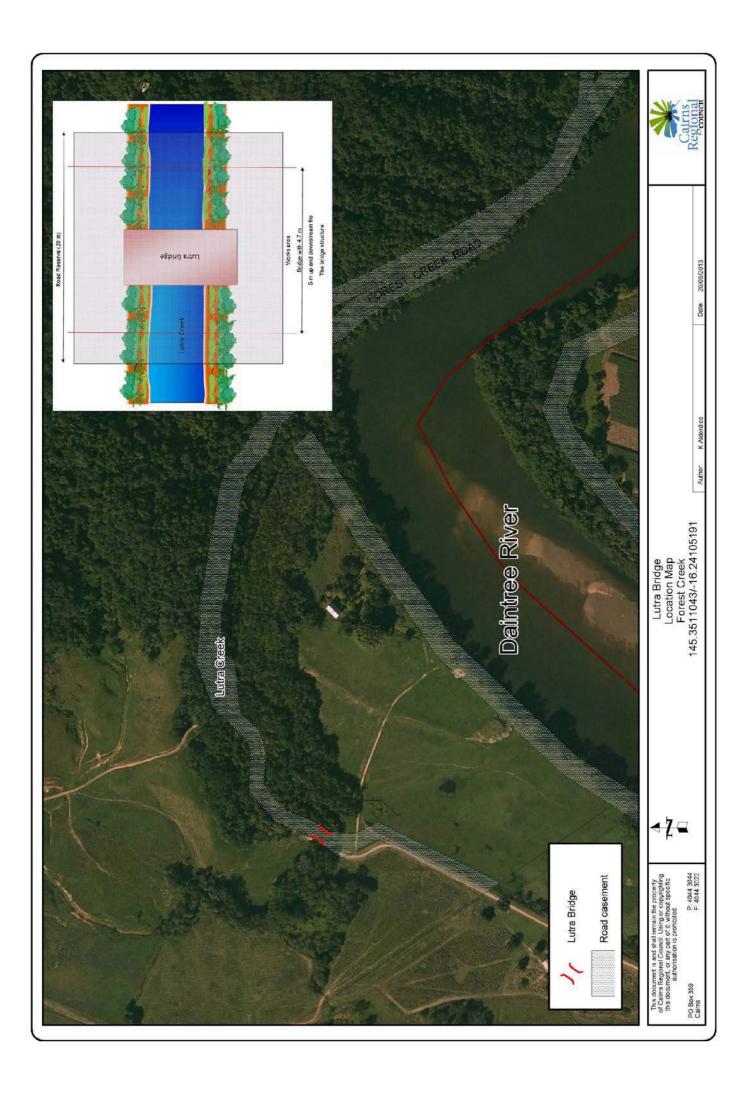


Adachmenta

Location Map







Adachment A

Vagadon Survey



RLJ: 8/20/18: #3811404

REPORT ON VEGETATION: Lutra Creek Bridge, Forest Creek Road

SITE: NO. 025

DATE: 6/12/2012

QRA REF No. 076 NDRRA SITE No. 143 BRIDGE ID No. 182734

INTRODUCTION

An inspection of the vegetation at Lutra Creek Bridge, Forest Creek Road was undertaken on Thursday 6th December 2012. The survey area covered the full width of the road reserve both up and downstream of the bridge and the approach to the bridge ten metres either side of the bridge. A list of all plants observed is attached.



Figure 1 Aerial view of site

This site contains Protected Marine Plants and a number of mangrove species are present. The bed and lower bank of the creek are covered in the large dragon teeth-like pneumatophores of *Sonneratia x gulngai*.

The downstream right bank riparian vegetation consists of a very narrow strip with *Hibiscus tiliaceus*. A single small specimen less than a metre tall of *Randia audasii* was observed on the high bank approximately 3 metres downstream of the bridge. This species is listed as Near Threatened in the *Nature Conservation (Wildlife) Regulation 2006*. Specimens of the Class 2 Pest Plant "Pond Apple" **Annona glabra* are also present.

The riparian vegetation on the upstream right bank is also very narrow. The large tree adjacent to the bridge is a specimen of "White Carbeen" *Sloanea langii*. The large tree *Sonneratia x gulngai* responsible for the large dragon teeth-like pneumatophores is situated just outside of the study area. This tree is approximately 25 metres tall with a stem of 70 cm. d.b.h.

The bed and lower bank on the left upstream bank is once again dominated by pneumatophores of *Sonneratia x gulngai*. The bank adjacent to the creek supports *Barringtonia racemosa* with common rainforest trees growing in the riparian corridor.



The large tree adjacent to the bridge is a specimen of Creek Satinash (*Syzygium tierneyanum*) approximately 20 metres tall with a stem of 60 cm. d.b.h. The other large tree adjacent to the approach to the bridge is a specimen of *Glochidion sumatranum* approximately 20 metres tall with a stem of 28 cm. d.b.h.

The downstream left bank contains *Hibiscus tiliaceus* and *Barringtonia racemosa* with common rainforest species along the edge of the road on the approach to the bridge.

REGIONAL ECOSYSTEM MAPPING

The bridge is close to an area mapped as RE 7.3.10a. This regional ecosystem has an Of Concern status. This regional ecosystem is described as; Mesophyll vine forest. Moderately to poorly-drained alluvial plains, of moderate fertility. Lowlands of the very wet and wet zone.

The vegetation present on the study site however closely conforms to RE 7.1.4a. Estuarine wetlands (e.g. mangroves). Mesophyll vine forest/mangrove complex. Canopy species include *Heritiera littoralis*, *Bruguiera gymnorhiza*, *Sonneratia alba*, *Barringtonia racemosa*, *Archontophoenix alexandrae*, *Elaeocarpus grandis*, *Melicope elleryana*, *Acacia managium* and *Syzyguim tierneyanum*. Inland margins of mangroves and estuaries. This regional has an Of Concern status.

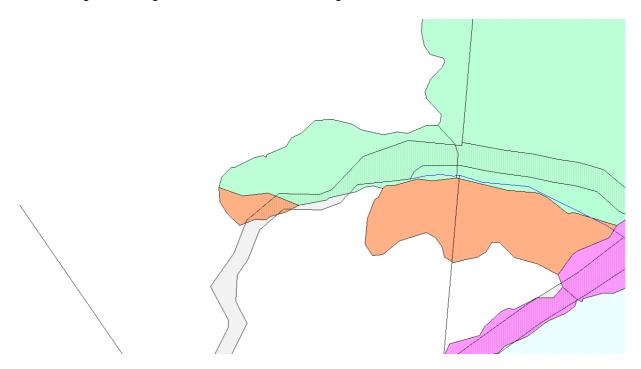


Figure 2 Regional ecosystem mapped adjacent to the bridge is RE 7.3.10a

PROTECTED MARINE PLANTS

The following Protected Marine plants were observed.

Acanthus ilicifolius, Barringtonia racemosa, Cynometra iripa, Sonneratia x gulngai, Hibiscus tiliaceus, Bruguiera gymnorhiza and Heritiera littoralis



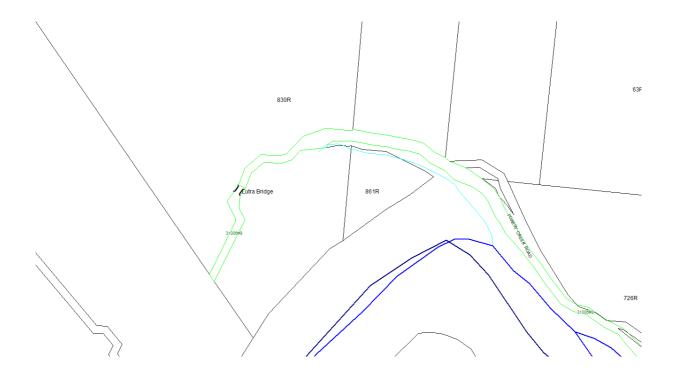


Figure 3 Location of Lutra Creek Bridge on Forest Creek Road

WEEDS

The wetlands adjacent to the bridge contain infestations of the Class 2 Pest Plant "Pond Apple" *Annona glabra. Appropriate measures should be put in place to prevent the spread of this pest plant.

NATURE CPONSERVATION ACT 1992

Only one small specimen of the Near Threatened *Randia audasii* was observed within the study area. This small plant less than a metre tall is situated on the left downstream bank approximately 3 metres from the bridge.





Figure 4 Upstream right bank dominated by *Barringtonia racemosa with pneumatophores of Sonneratia x gulngai.*





Figure 5 Upstream left bank dominated by *Barringtonia racemosa*. Large tree to the extreme right is a specimen of *Syzygium tierneyanum*.



Figure 6 Downstream right bank. The small specimen of *Randia audasii* is situated on the high bank near the edge of the riparian vegetation in the approximate centre of the photograph.





Figure 7 Downstream left bank with *Bruguiera gymnorhiza*, *Heritiera littoralis* & *Barringtonia racemosa*.



Figure 8 Dragon teeth pneumatophores of *Sonneratia x gulngai*. Small trees in foreground are specimens of *Barringtonia racemosa*.

BOB JAGO
Environmental Officer Development Assessment

Family Code Taxon Common Name

FERNS & ALLIES

Lycopodiaceae Lycopodiella cernua

Qld. Coral Fern

Schizaeaceae

Lygodium reticulatum

Thelypteridaceae

Pronephrium triphyllum

FLOWERING PLANTS-DICOTYLEDONS

Acanthaceae

Acanthus ilicifolius Holly-leaved Mangrove

Annonaceae

*C2 Annona glabra Pond Apple

Apocynaceae

Ichnocarpus frutescens

Melodinus acutiflorus Yappa Yappa

Araliaceae

Polyscias Australiana Ivory Basswood Umbrella Tree

Schefflera actinophylla

Wrinkle Pod Mangrove

Caesalpiniaceae

Cynometra iripa

Celastraceae

Hippocratea barbata **Knott Vine** Salacia chinensis Lolly Berry

Salacia erythrocarpa

Clusiaceae

Calophyllum australianum Blush Tourgia

Combretaceae

Terminalia sericocarpa Damson

Convolvulaceae

Erycibe coccinea

Dilleniaceae

Tetracera nordtiana var. nordtiana Fire Vine

Elaeocarpaceae

Sloanea langii White Carabeen

Euphorbiaceae

Macaranga involucrata var. mallotoides Brown Macaranga

Macaranga polyadenia

Swamp Macaranga

Fabaceae

Millettia pinnata Pongamia Mucuna gigantea Burny Bean

Lamiaceae

Premna serratifolia Coastal Premna

Lauraceae

Beilschmiedia obtusifolia Blush Walnut



Family Code	<u>Taxon</u> <u>C</u>	Common Name
	Cryptocarya hypospodia	Northern Laurel
	Cryptocarya murrayi Endiandra hypotephra	Murray's Laurel Rose Walnut
	Litsea leefeana	Bollywood
Lecythidaceae	Elisca lecicalia	Bolly Wood
,.	Barringtonia racemosa	Mango Pine
Lythraceae		
Malasaa	Sonneratia x gulngai	
Malvaceae	Hibiscus tiliaceus	Cottonwood
Melastomataceae	Hibiscus tiliaceus	Cottonwood
Welastomataccac	Melastoma malabathricum	Melastoma
Meliaceae		
	Dysoxylum alliaceum	Buff Mahogany
Menispermaceae		
	Hypserpa decumbens	
Mimosaceae	Hypserpa laurina	
Wiiiiosaccac	Acacia celsa	Black Wattle
Myristicaceae	, , , , , , , , , , , , , , , , , , , ,	2.6.6.1.1.616
·	Myristica globosa subsp muelleri	Nutmeg
Myrtaceae		
	Rhodamnia sessiliflora Malletwood	Oracl Orthorn
Dhyllanthacaaa	Syzygium tierneyanum	Creek Satinash
Phyllanthaceae	Glochidion sumatranum	Buttonwood
Polygalaceae	Cloomaion Gamatianam	Battoriwood
7.0	* Polygala paniculata	
Proteaceae		
Distriction	Helicia nortoniana	Norton's Silky Oak
Rhizophoraceae	Bruguiera gymnorhiza	Orange Mangrove
	Carallia brachiata	Corky Bark
Rubiaceae	Carama brasinata	Conty Bant
	Atractocarpus fitzalanii subsp fitzalanii	Brown Gardenia
	NT Randia audasii	
D (Tarenna dallachiana subsp. dallachian	a Tree Ixora
Rutaceae	Melicope elleryana	Evodia
Sapindaceae	Melicope elleryaria	LVOdia
Capillaaccac	Allophylus cobbe	
	Ganophyllum falcatum	Daintree Hickory
	Guioa acutifolia	Glossy Tamarind
	Mischocarpus Igabagarrus	Giant leaf Tamarind
	Mischocarpus lachnocarpus Sarcopteryx reticulate	Woolly Tamarind Scrub Tamarind
	Synima cordierorum	Synima
Sterculiaceae	- ,	2,
	Heritiera littoralis	Looking Glass Mangrove



FLOWERING PLANTS-MONOCOTYLEDONS

Arecaceae

Archontophoenix alexandrae Alexandra Palm

Cyperaceae

Hypolytrum nemorum

Scleria polycarpa

Flagellariaceae

Flagellaria indica Supplejack

Orchidaceae

Dockrillia calamiformis Northern Pencil Orchid

Pandanaceae

Pandanus monticola Scrub Breadfruit

Zingiberaceae

Hornstedtia scottiana Native Cardamon



IDAS form 27—Waterway barrier works

(Sustainable Planning Act 2009 version 3.0 effective 1 July 2013)

This form must be used for development applications for operational work that is the constructing or raising of waterway barrier works.

You **MUST** complete **ALL** questions that are stated to be a mandatory requirement unless otherwise identified on this form.

For all development applications you must:

- complete IDAS form 1—Application details
- complete any other forms relevant to your application
- provide any mandatory supporting information identified on the forms as being required to accompany your application.

Attach extra pages if there is insufficient space on this form.

All terms used on this form have the meaning given in the *Sustainable Planning Act 2009* (SPA), the Sustainable Planning Regulation 2009, the *Fisheries Act 1994* or the Fisheries Regulation 2008.

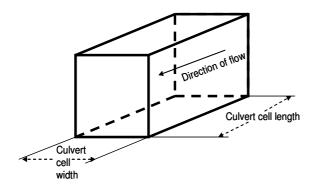
This	This form can also be completed online using MyDAS at www.dsdip.qld.gov.au/MyDAS				
Man	Mandatory requirements				
1.	Has a Fish Movement Exemption Notice been issued for the proposed work?				
	Yes — submit with this application, a copy of the Fish Movement Exemption Notice for the proposed work. No — submit with this application, details of how the proposed work provides for adequate fish movement.				
2.	2. What is the nature of the proposed work? (Tick all applicable boxes.)				
	Construction of a new waterway barrier/s		Raising an existing waterway barrier/s		
	Temporary waterway barrier/s		Permanent waterway barrier/s		
	Partial waterway barrier/s		Bank to bank waterway barrier/s		

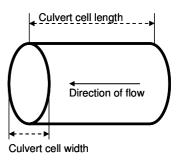


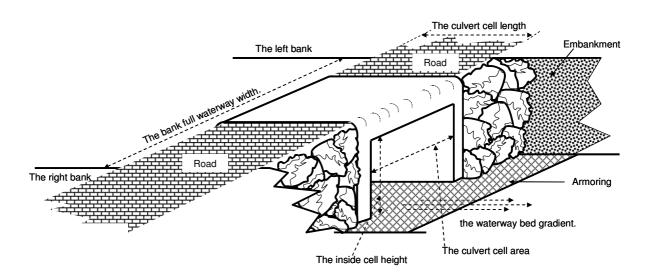
3.	What is the type of the proposed work? (Tick all applicable boxes.)	
		Number of barriers
	Dam, weir or a barrage (complete section 4)	
	Culvert (complete section 5)	
	Causeway (complete section 6)	
	Bridge pylon (abutments or pile foundations) (complete section 6)	
	Flow control structure such as a floodgate (complete section 6)	
	Pollution control device such as trash rack or a boom gate (complete section 6)	
	Levee bank across a waterway (complete section 6)	
	Other—please specify (e.g. groyne, construction platform, sediment curtain, causeway) (complete section 6)	Number of barriers
4.	Constructing a new or raising an existing dam, weir, barrage, bund wall, coffer dam or o structures	ther similar
The	application is seeking approval for: new barrier raising of an existing barrier	
Brie	fly describe the type of barrier proposed (i.e. dam, weir, tidal barrage, etc.)	
For a temporary barrier (i.e. in place less than 12 months), how many days will the barrier be in place?		
Will	the barrier extend across the waterway from bank to bank? Yes	
	No – how long is the proposed barrier (across the waterway)?	metres
	- how wide is the waterway (bank to bank)?	metres
What is the purpose of the proposed barrier? (E.g. creating a new or increasing the capacity of the existing water storage, maintenance work, etc.)		

What are the details of the proposed corrock fill, steel, timber, sand, etc.)	nstruction materials? (E.g. earth, concrete,	
In reference to the diagrams below, prov	ride the following details of the proposed barrier:	
A	total crest height (D)	metres
Crest Full Supply Level	thickness (A) of crest	metres
Bywash Level	 height of spillway / bywash (H) 	metres
Downstream Upstream	 width of spillway / bywash inlet (W) 	metres
) H	base width (B)	metres
adamana amanana	internal diameter (O) of outlet pipe/works and discharge capacity	milli- metres
← B	 length of wall (L) 	metres
Cross section of barrier	 distance of backup from barrier wall at full supply level 	metres
Upstream Weir Pool	volume of storage.	mega- litres
+	If raising an existing waterway barrier:	
A Weir Crest	- additional height above existing crest	metres
	- method of raising (e.g. capping crest, inflatate	ole bag, gates etc.).
Aerial view of waterway		
Does the application involve more than o	one harrier addressed by this section?	
<u> </u>	tion 4 response for each barrier and submit with the	application
No - if the application invol	lves another type of barrier identified in section 3, go	
identified.	s not involve another type of barrier identified in sec	tion 3, go to section 7
- ii tile application does	s not involve another type of barrier lucifilited in Sec	ion o, go to section 7.

5. Constructing a new or modifying (including maintenance and replacement of) an existing culvert		
What is the nature of the proposed work? Construction of a new culvert Maintenance of an existing culvert Replacement of an existing culvert		
What is the purpose of the proposed culvert?		
For a temporary barrier (i.e. in place less than 12 months), how many days will the culvert be in place?		
Will the culvert extend across the waterway from bank to bank? Yes		
No - how long is the proposed culvert (across the waterway)?	netres	
- how wide is the waterway (bank to bank)?	netres	
What type of culvert is proposed? Box culvert Pipe culvert Pipe culvert		
Combination culvert Other—please specify:		
In reference to the diagrams below, provide the following details of the proposed culvert.		
How many culvert cells are there?		
What is the upstream downstream culvert cell length?	netres	
	netres	
What is the internal height within the culvert cell?		







Does the application involve more than one culvert?

- Yes generate another section 5 response for each culvert and submit with the application.
- No if the application involves another type of barrier identified in section 3, go to the relevant section identified.
 - if the application does not involve another type of barrier identified in section 3, go to section 7.

	ii tiio appiioation acce net inverse anether	type o	barrier recriamed in econom e, go to econom ri
6.	Constructing a new or modifying (including maintenexcept those listed in sections 4 and 5.	ance a	and replacement) an existing waterway barrier
What	is the nature of the proposed work?		Construction of a new barrier Replacement of an existing barrier Maintenance of an existing barrier
Briefl	y describe the proposed barrier.		

For a temporary barrier (i.e. in place less than 12 months), how many days will the barrier be in place?	days
Will the barrier extend across the waterway from bank to bank?	
Yes	
No - how long is the proposed barrier (across the waterway)?	metres
- how wide is the waterway (bank to bank)?	metres
	
What is the purpose of the proposed barrier?	
What is the maximum height of the proposed barrier above the existing bed level?	metres
What are the proposed construction materials? (E.g. earth, concrete, rock fill, steel, timber, sand, etc.	:.)?
Does the barrier follow the natural gradient of the bed level?	
Yes	
□ No	
Does the application involve more than one barrier under this section?	
Yes - generate another section 6 response for each barrier and submit with the application	n.
No - go to section 7.	

Mandatory supporting information		
7. Confirm the following mandatory supporting information accom	panies this application	l.
Mandatory supporting information	Confirmation of lodgement	Method of lodgement
Location details for all applications		
 A scale map/sketch plan of the site and the neighbouring area identifying: the site of the proposed works on the waterway the names of the waterway and the catchment in which the waterway is located stream order where the (site) waterway joins with another, more major waterway (or coastal waters) downstream other easily identifiable geographical features adjacent to the proposed works the limit and area of impounded waters (upstream weir pool) at full supply level (if relevant). 	Confirmed	
GPS coordinates and zone references of the works site (GDA94 preferred).	Confirmed	
Photographs of the site and the waterway upstream and downstream of the works site.	Confirmed	
A scale plan showing the limit of and area of impounded waters at full supply level.	Confirmed	
Details of the proposed development for all applications		
Justification and the benefits of the proposed waterway barrier works.	Confirmed	
Assessment of lesser impact alternatives and reasons for the proposed waterway barrier.	Confirmed	
Details of the proposed waterway barrier.	Confirmed	
Details of the structure and management of the impoundments.	Confirmed	
Details of the proposed maintenance program on the waterway barrier after construction.	Confirmed	
A statement addressing the relevant part(s) of the State Development Assessment Provisions (SDAP).	Confirmed Not applicable	
Details of the waterway for all applications	1	1
A scaled plan showing a cross-section of the stream profile at the proposed location.	Confirmed	
Description of the stream morphology at the proposed location, and up to 1 km upstream and downstream (e.g. width and depth of stream, stream bed substrate types, bank stability, presence of pools, rifle runs, sand bars, etc.).	Confirmed	
Description of the riparian habitats at and adjacent to the proposed location (e.g. Intact native vegetation, presence of weeds and other disturbances).	Confirmed	

Description of the stream hydrology (e.g. flood frequency and height, altered flow regimes due to existing waterway barriers)	Confirmed	
 Note: for most applications involving permanent waterway barriers on larger waterways, specific data on stream hydrology and flood levels will be required. 		
Description of likely changes to stream hydrology resulting from construction of the proposed barrier.	Confirmed	
 Note: for most applications involving permanent waterway barriers on larger waterways, the results of hydrological modelling will be required to show expected changes to flow characteristics, particularly velocity, at different water levels, expected headwater/tail water differences at different water levels, and frequency, timing and duration of drown-out of the proposed structure. 		
Aquatic ecology details for all applications		
Description of the aquatic ecology at, and adjacent to, the proposed location, including instream fauna and flora, fish assemblages, and endangered or vulnerable fish species.	Confirmed	
Description of likely impacts on fish movements as a result of construction of the waterway barrier, with reference to expected changes instream hydrology.	Confirmed	
Description of likely impacts on both riparian and aquatic habitats as a result of construction of the waterway barrier, including impacts due to the expected changes instream hydrology.	Confirmed	
Description of any proposed disturbances to riparian and aquatic habitats associated with construction activities (e.g. site access for machinery and personnel, material laydown areas, potential turbidity or other water quality impacts).	Confirmed	
Details of the construction for all applications		
Scaled drawings of the proposed waterway barrier works.	Confirmed	
If a fishway is proposed, scaled drawings of the fishway and details of proposed operation and maintenance of the fishway.	Confirmed Not applicable	
Time frame for construction of the proposed barrier.	Confirmed	
Mitigation details for all applications		
Description of any design features of the proposed waterway barrier that will help to mitigate the impacts of the structure on fish movements.	Confirmed Not applicable	
Description of all measures that will be implemented during the construction period to mitigate the impacts of construction on aquatic habitats.	Confirmed	
Description of all measures that will be undertaken at the completion of construction activities to restore the site to its previous condition or better.	Confirmed	
For applications relating to section 5 of this form (separate information	n to be provided for each	ch barrier)
Culvert design information including:	Confirmed	
whether the invert of the culvert is above, at or below waterway bed levels	_	
 size, angle, numbers and position of any baffles along the inner walls of the culverts 		

details of the culvert cell bed (bed material, rocks to aid fish passage, riffle, smooth concrete or roughness, baffles, etc)		
whether there will be a low flow channel culvert in any multi-cell culverts		
detail on whether the culvert base gradient is less than, the same as or more than the natural gradient of the waterway bed.		
For applications relating to section 6 of this form (separate information	on to be provided for each	ch barrier)
All dimensions of the barrier	Confirmed	
Detailed drawings of the barrier design	Confirmed	
The operational requirements of the barrier	Confirmed	
Details of any aprons, embankments or other erosion control methods	Confirmed	
The specific structural inclusions to improve fish passage across the barrier	Confirmed	
For an application involving assessable development in a wild river a	irea	
 Documentation that: describes how the development to which the application relates is not prohibited development and demonstrates how the proposed development will meet the requirements set out in the relevant wild river declaration and any applicable code mentioned in the relevant wild river declaration under the Wild Rivers Act 2005. 		
the Wild Rivers Act 2005. A map showing the proposed location of the development in relation to any nominated waterways under the Wild Rivers Act 2005 and wild river management areas. (a map may be produced digitally at www.ehp.qld.gov.au/wildrivers/wildrivers-map.php). Wild river management area means any of the following areas under the Wild Rivers Act 2005: • special floodplain management area • high preservation area • floodplain management area • designated urban area. Editor's note: A floodplain management area, subartesian management area or designated urban area may be over all or part of a high preservation area or preservation area may be over all or part of a special floodplain management area.		
Privacy —please refer to your assessment manager, referral agency and/or use of information recorded in this form.	building certifier for furthe	er details on the
OFFICE USE ONLY		
Date received Reference numbers		1
The Sustainable Planning Act 2009 is administered by the Department of S	tato Dovolonment Infrastr	ructure and
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The Sustainable Planning Act 2009 is administered by the Department of State Development, Infrastructure and Planning. This form and all other required application materials should be sent to your assessment manager and any referral agency.

Department of State Development, Infrastructure and Planning PO Box 15009 City East Qld 4002 tel 13 QGOV (13 74 68)



IDAS Form 27 Lutra Bridge Waterway Barrier Works

Supporting Information

Location details for all applications

Map attached identifying (Attachment 1)

- The site of the proposed works on the waterway
- The names of the waterway and catchment in which the waterway is located
- Where the (site) waterway joins with another, more major waterway (or coastal waters)
 downstream
- GPS coordinates

Photographs of the site and the waterway upstream and downstream of the works site







Lutra Bridge



Downstream of Lutra Bridge

Details of the proposed development for all applications

Justification and the benefits of the proposed waterway barrier works

The structural integrity of Lutra Bridge is being compromised due to erosion behind the abutments. To reinstate the bridges stability Cairns Regional Council will scrape away 200 mm of existing soil and vegetation and replace with 300 mm armour rock. The reinforcing will include 5 m up and downstream of the structure to prevent further erosion and undermining allowing traffic to pass over the bridge safely.





Erosion exposing the abutment under Lutra Bridge

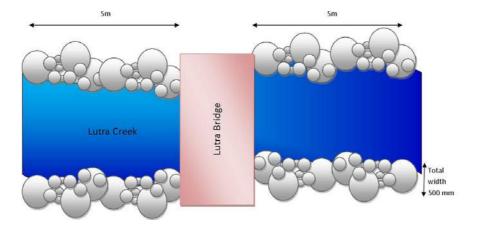
Approach to Lutra Bridge eroding

Assessment of lesser impact alternatives and reasons for the proposed waterway barrier

The option chosen had the least impact to the waterway and surrounding vegetation and will only decrease the existing fish passage by 300 mm either side of the stream whilst providing structural safety and integrity to the bridge and creek banks. Armour rock is quick to construct and only a sediment curtain will need to be placed in Lutra Creek during the construction phase.

Details of the proposed waterway barrier

Council will use a small 5 tonne digger to remove existing vegetation from around the abutments and 5 m up and downstream to a depth of 200 mm. It will then be replaced with clean 300 mm rock which will be reinforced using concrete to fill the voids in the rocks preventing any undermining or movement. The total width of the new structure will be 500 mm decreasing the creek by 300 mm on both banks.





Details of the proposed maintenance on the waterway barrier after construction

Due to the materials being used the maintenance regime is very basic with annual inspection to check for any defects. Defects will be remedied as required.

A statement addressing the relevant part(s) of the State Development Assessment Provisions (SDAP).

Performance Outcome	Acceptable Outcome
All assessable waterway barrier works	
P01 The development will not increase the risk of mortality, disease or injury or compromise the health and productivity of fisheries resources	AO1.3 The waterway barrier will allow for tidal flows and not physically restrict movement of marine species. Placement of the rock will only impede the watercourse an additional 300 mm one either bank.
	AO1.4 During construction erosion and sediment control will be installed to maintain water quality.
	AO1.5 No cumulative effects of waterway barrier works are likely to impede fish movements. The area is on the upper reaches of tidal flows and been preciously modified and altered for the purpose of landfill with RL heights above AHD.
	AO1.1 Works will be confined to low tide to stop or reduce possibility of stranded marine species.
PO2 Development maintains or enhances the community access to fisheries resources and fish habitats, through, for example fishing access and linkages between commercial fisheries and infrastructure, service and facilities	AO2.1 The development does not impact on existing infrastructure or access required by commercial or recreational fishing
PO3 Development that has the potential to impact on the operation and productivity of commercial or recreational fisheries mitigates impacts due to adjustment of fisheries	Not Applicable
PO4 When the purpose of a waterway barrier is no longer relevant, or the design life of the structure is complete and the structure is not intended to be re-lifed, the waterway barrier will be removed.	AO4.1/AO4.2 – This is a permanent structure and will not be removed.
PO5 Development demonstrates appropriate rights and an overriding public need for the development including consideration of any impacts beyond the footprint of the constructed development	A05.1 Works are considered essential for structural integrity and public safety. The area has been identified as NDRRA remediation works.
development	AO5.2 The waterway barriers are located within tidal waters that are located within road reserve. Owners consent is being requested and is expected in approximately six weeks.
	AO5.3/5.4 The development is for public infrastructure (bridge) where there is no other viable alternative.



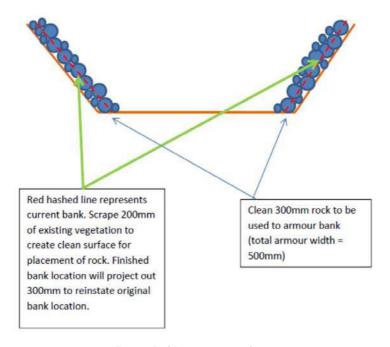
PO6 Development minimises stream crossings	AO6.1 Only one waterway barrier works is located at the location.
PO7 Development avoids non-essential hardening or unnatural modification of channels	AO7.1 The development does not involve the channelization of meandering waterways
PO8 Impacts on water quality in declared fish habitat areas are minimised	Not applicable – not a declared fish habitat area Erosion and Sediment Control will be utilised to ensure water quality.
PO9 Development resulting in drainage or disturbance of acid sulphate soil is managed to prevent impact on fisheries resources.	AO9.1 Acid sulphate soils are present in the tidal environment. Excavated material will not be stockpiled on-site and will be disposed offsite at an authorised facility reducing the risk of runoff or leachate.
P10 Impacts of development on fish habitat and fish passage that cannot be avoided or mitigated are offset	Not Applicable
Incorporation of fish ways	Not Applicable
Inherent barrier design and provision of fish pa	
 PO20 Fish passage is provided for: 1. In the inherent design of the waterway barrier works 2. Over the in-situ life of the barrier in the position through adequate construction and maintenance of the barrier 	AO20.1 Fish passage is not compromised by the stabilisation works. Flows will be maintained over the life of the barrier with an annual maintenance inspection for structural defects and repairs done as required.
	There will be no impacts on the bed or the creek profile as a result of these works.
PO21 The use of floodgates is avoided or minimised	Not Applicable
PO22 Waterway barriers that are bridges are designed, constructed and maintained to provide adequate fish passage for the site and: (1) Fish passage is provided for the life of the crossing (2) Hydraulic conditions (depth, velocities and turbulence) from the downstream to the upstream limit of the structure allow for fish passage of all fish attempting to move through the crossing atl all flows up to the drownout of the structure	The bridge is a current structure therefore this section is not applicable.
PO23 Waterway barrier that are culverts	Not Applicable
PO24 Waterway crossing other than bridges or culverts	Not Applicable
PO25 All waterway barriers are designed constructed and maintained to provide adequate fish passage for the site and fish passage for the life of the barrier	Works will impede an additional 300 mm on either bank than the existing profile of the creek banks. This design will not affect fish passage within the watercourse.
Temporary Waterway Barrier Works	Temporary Waterway Barrier for erosion and sediment control will comply with the Self Assessable Code for Temporary Waterway Barriers.
Construction	1,000,4
PO30 The construction of waterway barrier works does not limit the movement or wellbeing	AO30.1 Works is proposed to occur outside the wet



of fish	season. AO30.2 Minor excavation works in unbunded tidal areas is to be scheduled to occur at and around low tides. AO30.3 Work is proposed to occur outside the wet season.
	AO30.4 In-stream construction (very minimal) is proposed to be completed as quickly as possible AO30.5 Existing roads are used as access points and works corridor will maintain road footprint.
PO31 The development does not cause or minimises direct or indirect disturbance to the bed and banks adjacent to the approved footprint of works	The footprint of works is detailed in the design drawings and will be limited to the 5 m up and downstream footprint. Marine Plants disturbance approval is being sought along with this application.
Development within a wild river area	Not Applicable

Details of the waterway for all applications

A scaled plan showing a cross-section of the stream profile at the proposed location



Lutra Bridge cross-section

<u>Description of the stream morphology at the proposed location, and up to 1 km upstream and downstream</u>

Not available at the current time.

Description of the riparian habitats at and adjacent to the proposed location

A copy of the vegetation survey completed by Bob Jago is attached (Attachment 2).



Description of the stream hydrology

A narrow creek with tidal influences from the Daintree River. Natural ebb and flow of the tide is unobstructed from any downstream structures and functions as a tidal estuary.

<u>Description of likely changes to stream hydrology resulting from construction of the</u> proposed barrier

Due to the minimal change to the existing profile the hydrology of Lutra Creek will not be altered with tidal ebb and flow remaining the same.

Aquatic ecology details for all applications

An ecology survey has been completed by Martin Cohen which did not find any protected fauna in the area. A vegetation survey conducted by botanist Bob Jago has been undertaken and is attached to this application (Appendix 2).

An erosion and sediment control plan will be in place at the time of works to ensure water quality is maintained for that tidal area.

Details of the construction for all applications

Scaled drawing of the proposed waterway barrier

Drawings of the work supplied as above, although not to scale as the works are relatively minor.

Time frame for the construction of the proposed barrier

It is anticipated that work will commence mid October and take approximately one week to complete.

Mitigation details for all applications

<u>Description of any design features of the proposed waterway barrier that will help to mitigate the impacts of the structure on fish movements</u>

- Erosion and sediment control will be implemented to maintain water quality
- Acid sulphate soils will be treated appropriately to reduce any risk of runoff and leachate
- Works will be undertaken at low tide to limit any possibility of fish stranding or impacts to water

<u>Description of all measures that will be undertaken at the completion of construction</u> activities to restore the site to its previous condition

- Removal of temporary any waterway barriers after works complete
- Ensure no areas are exposed reducing erosion impacting water quality

For applications relating to section 6

All dimensions of the waterway barrier

Please refer to previous drawings

Detailed drawings of the barrier design

Please refer to previous drawings



The operation requirements of the barrier

The barrier is a permanent static structure that will be within road reserve and provide structural integrity to the bridge structure and the creek bank.

The specific structural inclusions to improve fish passage across the barrier

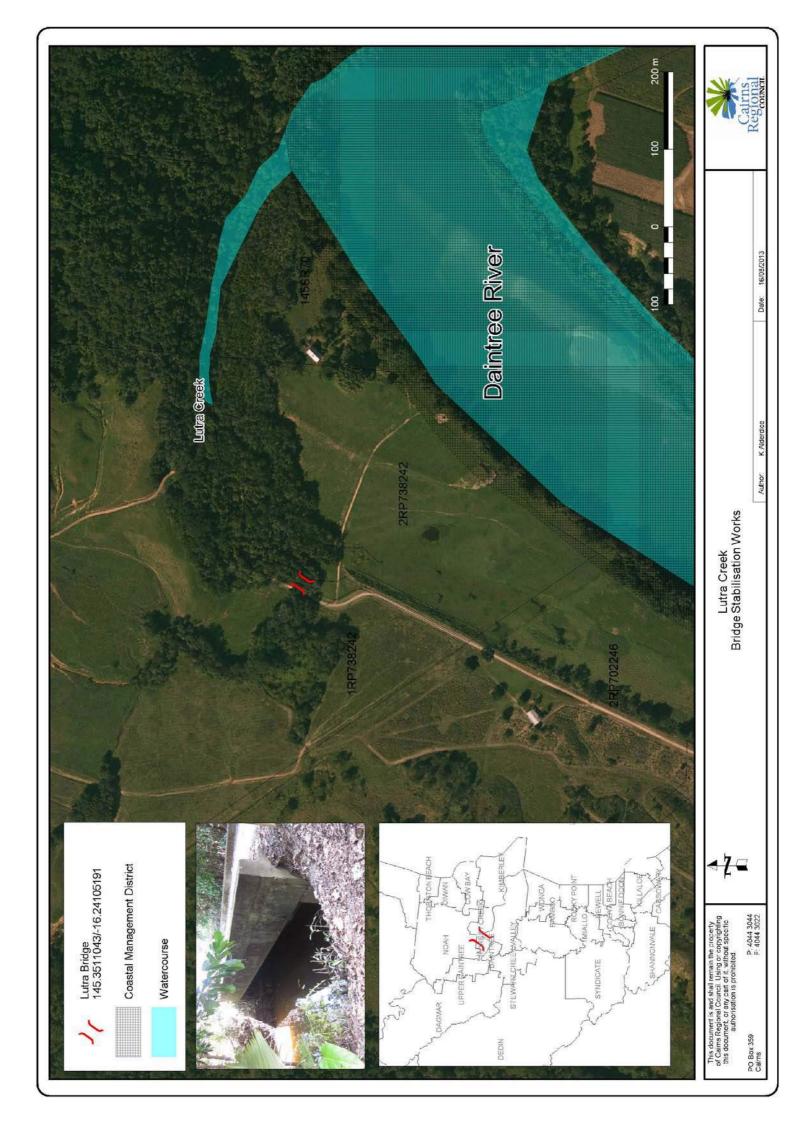
There are no specific structural inclusions to improve fish habitat as the structure will not be impeding the creek. The structure will however, reduce erosion and sediment in the creek therefore enhancing the quality of the fish habitat.



Adachment

Location Map





Addahment A

Vegetation Survey



RLJ: 8/20/18: #3811404

REPORT ON VEGETATION: Lutra Creek Bridge, Forest Creek Road

SITE: NO. 025

DATE: 6/12/2012

QRA REF No. 076 NDRRA SITE No. 143 BRIDGE ID No. 182734

INTRODUCTION

An inspection of the vegetation at Lutra Creek Bridge, Forest Creek Road was undertaken on Thursday 6th December 2012. The survey area covered the full width of the road reserve both up and downstream of the bridge and the approach to the bridge ten metres either side of the bridge. A list of all plants observed is attached.



Figure 1 Aerial view of site

This site contains Protected Marine Plants and a number of mangrove species are present. The bed and lower bank of the creek are covered in the large dragon teeth-like pneumatophores of *Sonneratia x gulngai*.

The downstream right bank riparian vegetation consists of a very narrow strip with *Hibiscus tiliaceus*. A single small specimen less than a metre tall of *Randia audasii* was observed on the high bank approximately 3 metres downstream of the bridge. This species is listed as Near Threatened in the *Nature Conservation (Wildlife) Regulation 2006*. Specimens of the Class 2 Pest Plant "Pond Apple" **Annona glabra* are also present.

The riparian vegetation on the upstream right bank is also very narrow. The large tree adjacent to the bridge is a specimen of "White Carbeen" *Sloanea langii*. The large tree *Sonneratia x gulngai* responsible for the large dragon teeth-like pneumatophores is situated just outside of the study area. This tree is approximately 25 metres tall with a stem of 70 cm. d.b.h.

The bed and lower bank on the left upstream bank is once again dominated by pneumatophores of *Sonneratia x gulngai*. The bank adjacent to the creek supports *Barringtonia racemosa* with common rainforest trees growing in the riparian corridor.



The large tree adjacent to the bridge is a specimen of Creek Satinash (*Syzygium tierneyanum*) approximately 20 metres tall with a stem of 60 cm. d.b.h. The other large tree adjacent to the approach to the bridge is a specimen of *Glochidion sumatranum* approximately 20 metres tall with a stem of 28 cm. d.b.h.

The downstream left bank contains *Hibiscus tiliaceus* and *Barringtonia racemosa* with common rainforest species along the edge of the road on the approach to the bridge.

REGIONAL ECOSYSTEM MAPPING

The bridge is close to an area mapped as RE 7.3.10a. This regional ecosystem has an Of Concern status. This regional ecosystem is described as; Mesophyll vine forest. Moderately to poorly-drained alluvial plains, of moderate fertility. Lowlands of the very wet and wet zone.

The vegetation present on the study site however closely conforms to RE 7.1.4a. Estuarine wetlands (e.g. mangroves). Mesophyll vine forest/mangrove complex. Canopy species include *Heritiera littoralis*, *Bruguiera gymnorhiza*, *Sonneratia alba*, *Barringtonia racemosa*, *Archontophoenix alexandrae*, *Elaeocarpus grandis*, *Melicope elleryana*, *Acacia managium* and *Syzyguim tierneyanum*. Inland margins of mangroves and estuaries. This regional has an Of Concern status.

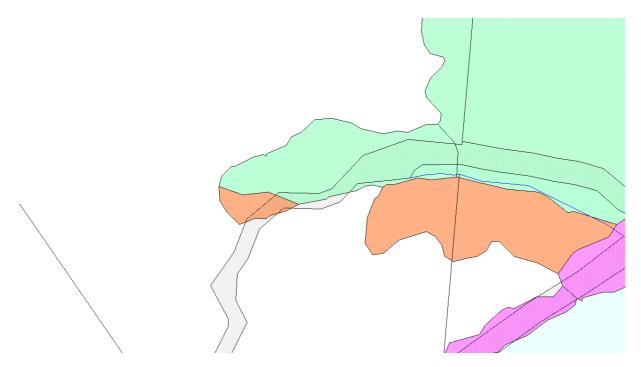


Figure 2 Regional ecosystem mapped adjacent to the bridge is RE 7.3.10a

PROTECTED MARINE PLANTS

The following Protected Marine plants were observed.

Acanthus ilicifolius, Barringtonia racemosa, Cynometra iripa, Sonneratia x gulngai, Hibiscus tiliaceus, Bruguiera gymnorhiza and Heritiera littoralis



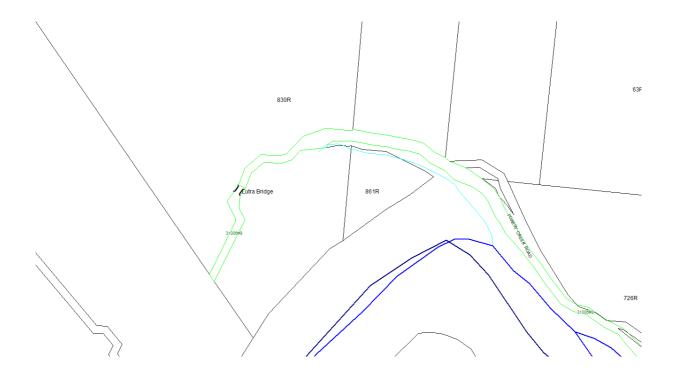


Figure 3 Location of Lutra Creek Bridge on Forest Creek Road

WEEDS

The wetlands adjacent to the bridge contain infestations of the Class 2 Pest Plant "Pond Apple" *Annona glabra. Appropriate measures should be put in place to prevent the spread of this pest plant.

NATURE CPONSERVATION ACT 1992

Only one small specimen of the Near Threatened *Randia audasii* was observed within the study area. This small plant less than a metre tall is situated on the left downstream bank approximately 3 metres from the bridge.





Figure 4 Upstream right bank dominated by *Barringtonia racemosa with pneumatophores of Sonneratia x gulngai.*

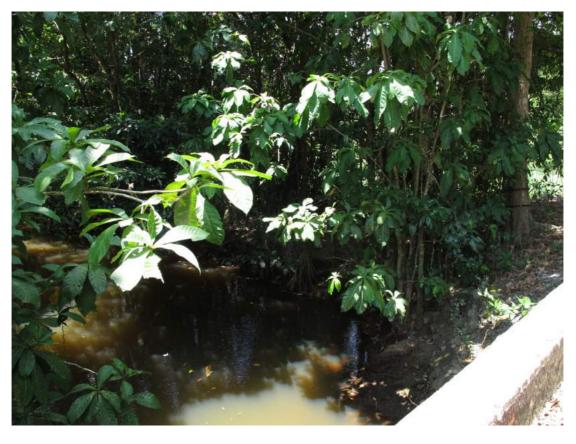


Figure 5 Upstream left bank dominated by *Barringtonia racemosa*. Large tree to the extreme right is a specimen of *Syzygium tierneyanum*.





Figure 6 Downstream right bank. The small specimen of *Randia audasii* is situated on the high bank near the edge of the riparian vegetation in the approximate centre of the photograph.





Figure 7 Downstream left bank with *Bruguiera gymnorhiza*, *Heritiera littoralis* & *Barringtonia racemosa*.



Figure 8 Dragon teeth pneumatophores of *Sonneratia x gulngai*. Small trees in foreground are specimens of *Barringtonia racemosa*.

BOB JAGO
Environmental Officer Development Assessment

Family Code Taxon Common Name

FERNS & ALLIES

Lycopodiaceae
Lycopodiella cernua Qld. Coral Fern

Schizaeaceae Lygodium reticulatum

Thelypteridaceae

Pronephrium triphyllum

FLOWERING PLANTS-DICOTYLEDONS

Acanthaceae
Acanthus ilicifolius
Holly-leaved Mangrove

Annonaceae

*C2 Annona glabra Pond Apple

Apocynaceae

Melodinus acutiflorus Yappa Yappa

Araliaceae Polyscias Australiana Ivory Basswood

Schefflera actinophylla Umbrella Tree

Caesalpiniaceae

Cynometra iripa Wrinkle Pod Mangrove
Celastraceae

Hippocratea barbata Knott Vine Salacia chinensis Lolly Berry

Salacia erythrocarpa

Ichnocarpus frutescens

Calophyllum australianum Blush Tourgia

Combretaceae Terminalia sericocarpa Damson

Terminalia sericocarpa Damson Convolvulaceae

Erycibe coccinea

Dilleniaceae

Tetracera nordtiana var. nordtiana Fire Vine

Elaeocarpaceae
Sloanea langii
White Carabeen

Euphorbiaceae

Macaranga involucrata var. mallotoides

Brown Macaranga

Macaranga polyadenia Swamp Macaranga

Fabaceae

Millettia pinnata Pongamia
Mucuna gigantea Burny Bean

Lamiaceae

Premna serratifolia

Coastal Premna

Lauraceae

Beilschmiedia obtusifolia Blush Walnut

Family Code Taxon Common Name

Cryptocarya hypospodia Northern Laurel
Cryptocarya murrayi Murray's Laurel
Endiandra hypotephra Rose Walnut
Litsea leefeana Bollywood

Lecythidaceae

Barringtonia racemosa Mango Pine Lythraceae



Clusiaceae

Sonneratia x gulngai

Malvaceae
Hibiscus tiliaceus
Cottonwood

Melastomataceae

Melastoma malabathricum Melastoma

Meliaceae

Dysoxylum alliaceum Buff Mahogany Menispermaceae

Hypserpa decumbens

Hypserpa laurina

Acacia celsa

Myristicaceae

Myristica globosa subsp muelleri

Nutmeg

Myrtaceae

Rhodamnia sessiliflora Malletwood

Syzygium tierneyanum Creek Satinash

Black Wattle

Phyllanthaceae Glochidion sumatranum Buttonwood

Polygalaceae

* Polygala paniculata

Proteaceae

Helicia nortoniana Norton's Silky Oak Rhizophoraceae

Bruguiera gymnorhiza Orange Mangrove

Carallia brachiata Corky Bark

Rubiaceae

Atractocarpus fitzalanii subsp fitzalanii Brown Gardenia

NT Randia audasii

Tarenna dallachiana subsp. dallachiana Tree Ixora

Rutaceae

Sapindaceae

Sterculiaceae

Flagellariaceae

Mimosaceae

Melicope elleryana Evodia

. Allophylus cobbe

Ganophyllum falcatum
Guioa acutifolia
Mischocarpus grandissimus
Mischocarpus lachnocarpus
Sarcopteryx reticulate

Daintree Hickory
Glossy Tamarind
Giant leaf Tamarind
Woolly Tamarind
Scrub Tamarind

Synima cordierorum Synima

Heritiera littoralis Looking Glass Mangrove

Family Code Taxon Common Name

FLOWERING PLANTS-MONOCOTYLEDONS

Arecaceae Archontophoenix alexandrae Alexandra Palm

Cyperaceae

Scleria polycarpa

Hypolytrum nemorum

Scieria polycarpa

Flagellaria indica Supplejack Orchidaceae

Dockrillia calamiformis Northern Pencil Orchid

Pandanaceae
Pandanus monticola Scrub Breadfruit

Zingiberaceae

Hornstedtia scottiana Native Cardamon

