

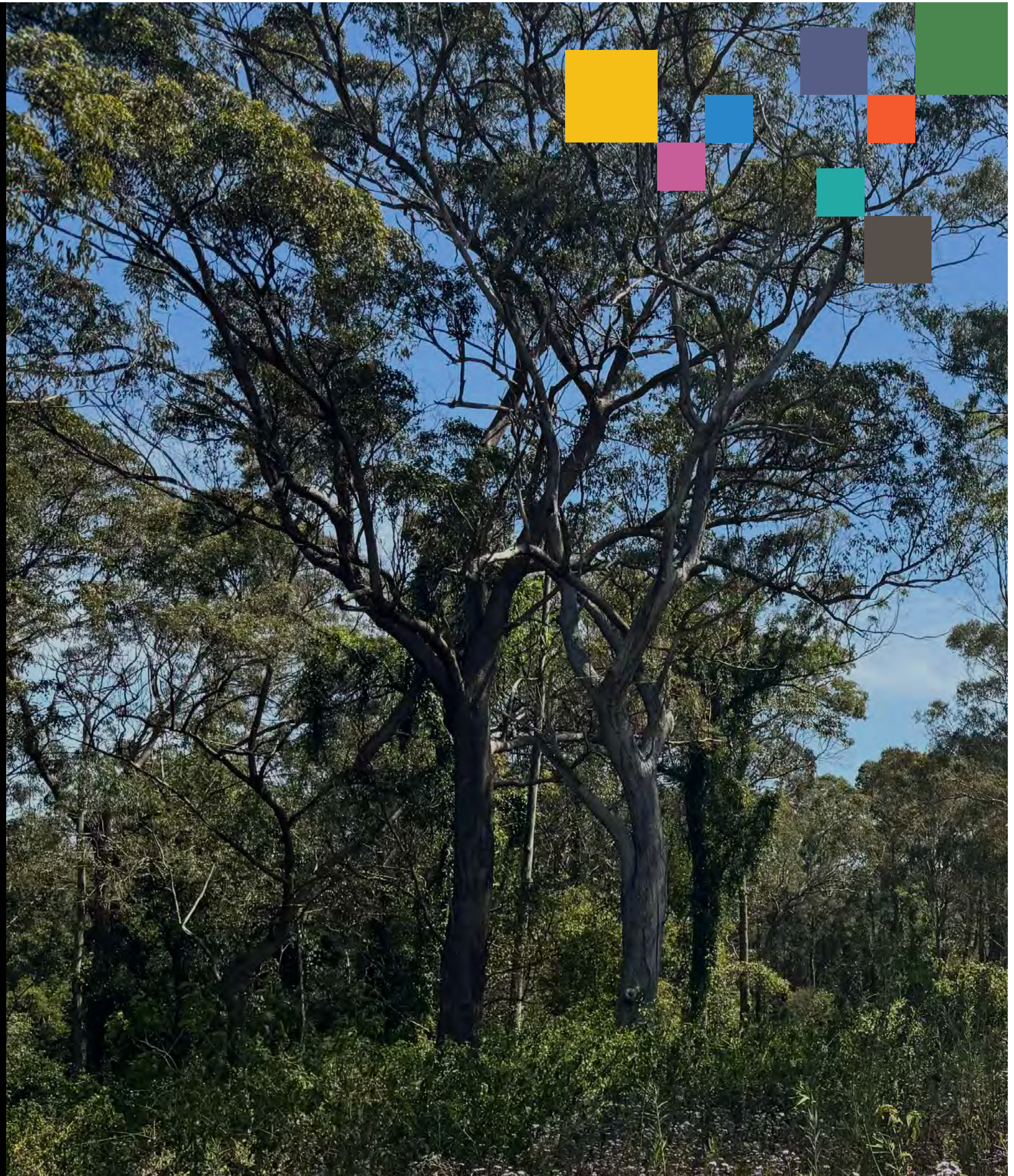
Mirabel

THORNLANDS

RFI RESPONSE

Eprapah Creek Riparian Corridor

APRIL 2026 - REVISION A



Purpose of this Document

This report has been prepared in response to information request DEV-2025-STH-4196 issued by Economic Development Queensland (EDQ). This response specifically relates to items 3, 4 and 5 regarding the integration of proposed infrastructure with the rehabilitation objectives of the Erapah Creek riparian corridor (ECRC).

The proposed design adopts an integrated approach to the planning of stormwater infrastructure, access requirements and ecological rehabilitation within the 50 m upper riparian corridor. The layout and design of infrastructure, including bioretention basins, detention basins, maintenance access tracks, overflow structures and the sewer pump station, has been carefully considered to minimise disturbance to existing vegetation, maintain natural hydrological processes and support long-term ecological restoration outcomes.

In addition to minimising impacts, the proposal incorporates active rehabilitation measures across the corridor, including targeted revegetation using locally endemic species, removal of weeds and dumped rubbish, and restoration of degraded areas. These works are supported by a vegetation management strategy and detailed planting framework, which collectively aim to re-establish native riparian structure, improve habitat connectivity and enhance water quality entering Erapah Creek.

The infrastructure has been located and detailed to work in conjunction with these rehabilitation outcomes, including the treatment of stormwater prior to discharge, stabilisation of disturbed areas, and provision of access for ongoing maintenance and ecological management. As demonstrated in the Concept Plan (page 5) and supporting sections, the proposal ensures that infrastructure elements are subordinate to, and supportive of, the long-term function and restoration of the riparian corridor.

Since receiving the information request and submitting this response, EDQ in conjunction with their consultants, have been progressing masterplanning studies at the whole of PDA level, intended to inform the Southern Thornlands PDA Development Scheme, amongst other things. One element of this includes the PDA's Stormwater Master Planning investigation and reporting. This study includes hydraulic modelling analysis of the Erapah Creek. EDQ has advised this draft reporting indicates stormwater detention measures not be proposed for PDA catchments that discharge directly south in Erapah Creek, suggesting it is likely that the implementation of stormwater detention on these catchments may be counterproductive, by delaying the discharge of runoff to potentially coincide with the main flood wave in Erapah Creek and worsen impacts.

To this end, a revised design response is anticipated to be required by EDQ to reflect a 'no detention' outcome. The removal of the detention basins within the Erapah Creek corridor will have a decreased extent of disturbance within the corridor and greater revegetated footprint beyond the bio-retention basins and other necessary infrastructure.



Eprapah Creek Riparian Corridor Objectives

1. Protect and Reinforce Riparian Vegetation Structure

The works will protect existing native vegetation and reinforce the long-term structure of the riparian corridor through vegetation retention and targeted rehabilitation.

- « Retain existing native riparian vegetation wherever practicable.
- « Protect retained vegetation through establishment of tree protection zones (TPZs) during construction.
- « Minimise endemic vegetation clearing within the corridor.
- « Reinforce the natural riparian vegetation structure through supplementary planting of locally endemic species.

2. Restore Degraded Riparian Areas

Degraded portions of the corridor will be rehabilitated to improve ecological condition and habitat connectivity.

- « Undertake riparian revegetation planting using locally appropriate native species.
- « Prioritise planting in disturbed or cleared areas of the corridor.
- « Establish vegetation communities consistent with local riparian ecological communities.
- « Support long-term canopy, mid-storey and groundcover structure.

3. Remove Weeds and Rubbish from the Corridor

Existing degradation caused by weeds and rubbish will be addressed as part of the rehabilitation works.

- « Undertake targeted weed removal (including exotic pines and other introduced trees) and management within the ECRC.
- « Remove rubbish, debris and dumped material from the riparian area.
- « Implement weed control measures during establishment of rehabilitation planting.
- « Support ongoing weed monitoring during the establishment phase.

4. Maintain Natural Hydrology and Creek Function

Works will maintain natural drainage patterns and support the ecological functioning of the ECRC.

- « Maintain natural overland flow paths.
- « Avoid concentration of stormwater flows that may cause erosion.
- « Design stormwater infrastructure to replicate natural hydrological behaviour where practicable.
- « Ensure detention and treatment systems reduce peak flows entering the creek.

5. Improve Water Quality Entering Eprapah Creek

Stormwater treatment infrastructure will improve water quality before runoff reaches the riparian habitats.

- « Provide bioretention treatment systems to remove sediments, nutrients and pollutants.
- « Direct treated flows through vegetated buffer areas prior to discharge to the creek.
- « Minimise pollutant loads entering the riparian corridor.

6. Minimise Disturbance from Infrastructure

Infrastructure within the corridor will be designed to minimise disturbance and fragmentation of riparian vegetation.

- « Locate infrastructure away from significant existing vegetation where practicable.
- « Consolidate infrastructure footprints to reduce habitat fragmentation.
- « Design infrastructure to support and not preclude revegetation and long-term ecological function.
- « Restore disturbed areas following construction.

7. Support Long-Term Management of the ECRC

The design will facilitate ongoing protection, maintenance and ecological processes of the ECRC.

- « Provide maintenance access to enable rehabilitation, weed control and monitoring activities.
- « Stabilise stormwater outlets and disturbed areas to prevent erosion.
- « Ensure rehabilitation works utilise endemic species and will be maintained during the vegetation establishment period.
- « Support the long-term ecological processes and function of the Eprapah Creek riparian corridor.

Extent of stormwater retention basins and associated works are to be determined based on Condition 22, Condition 25 and Condition 30

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By: Nicole Tobias

Date: 19 April 2026



Existing Site Photos



Remnant Vegetation 1

« Areas of good existing vegetation with little restoration work required



Remnant Vegetation 2

« Small natural remnant woodland



Eprapah Creek

« Edge of site adjoining the Creek. This area holds native vegetation and presence of weed growth



Dumped rubbish

« Rubbish – including car bodies



Exotic Pines

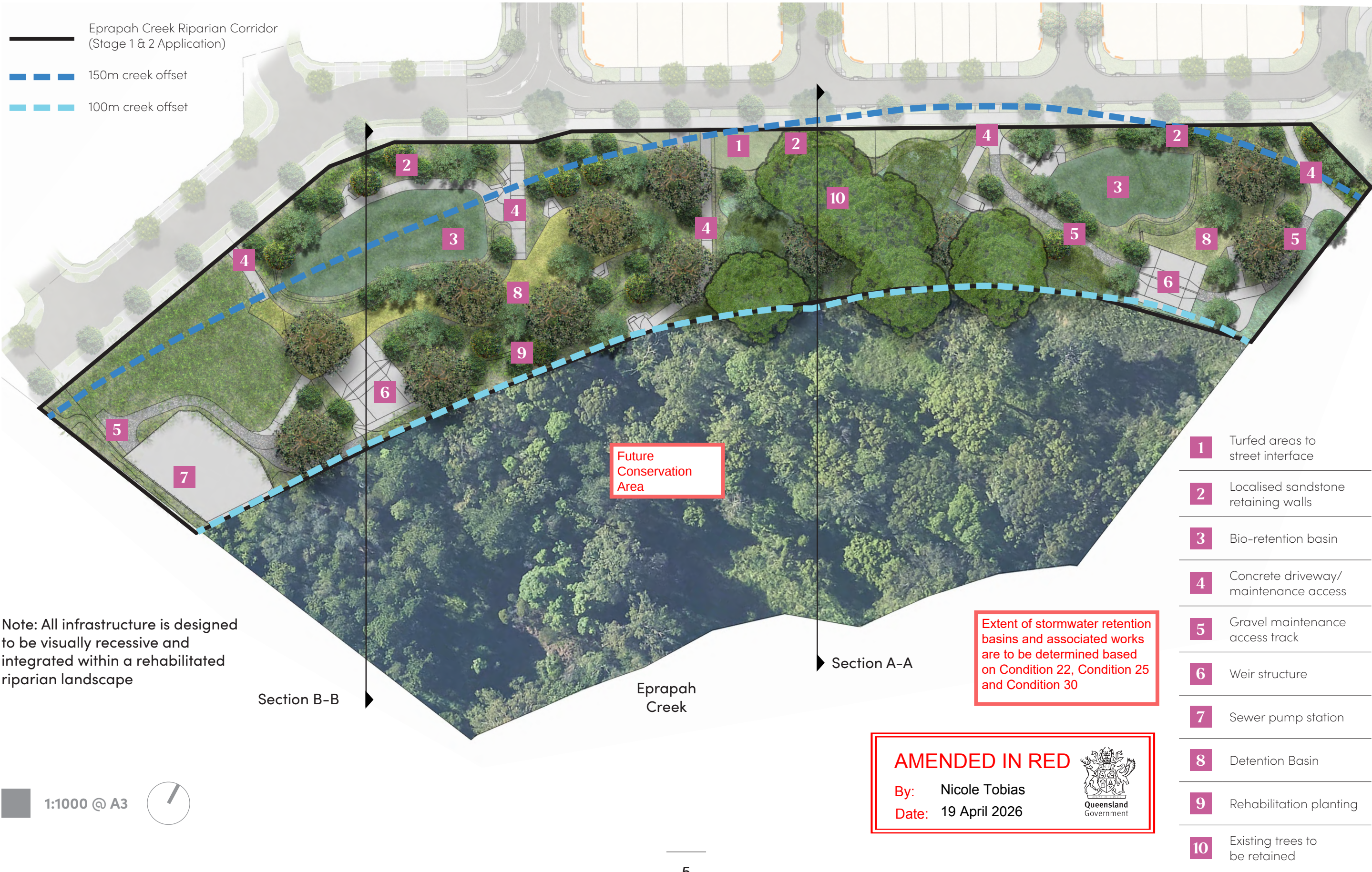
« Areas of dominant pine weed growth with non native weed grasses beneath



Weed infestation

« Dense swathes of lantana and other exotic weeds

Concept Plan (Vegetation & Infrastructure Integration)



50m Upper Corridor – Proposed Infrastructure Character

Extent of stormwater retention basins and associated works are to be determined based on Condition 22, Condition 25 and Condition 30



1. Street Interface

- « Minor extension of turf verge into corridor
- « Endemic planting to support corridor ecosystem
- « Approved maintenance edge between turf and planting



2. Minor Sandstone Block Walls

- « Localised walls for retention of existing trees & in basin design
- « Less than 1m in height
- « Adjoining native planting to minimise visual impact



3. Bioretention Basins

- « Planting densities to achieve full coverage of basins once established
- « Full strata planting to batters



4. Primary Maintenance Access

- « Plain grey broom finished concrete to primary access points
- « Typically 3m width
- « Approved vehicle deterrents



5. Secondary Maintenance Access

- « Stabilised gravel construction to secondary access locations
- « Typically 3m width



6. Rock Armouring

- « Rock armouring to weir, outfalls and other areas prone to scouring
- « Use of mortared site rock where appropriate

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7. Sewer pump station

- « Screen planting between street and pump station
- « Colours to blend into surrounding landscape
- « Details TBA



8. Detention Basin

- « Planting densities to achieve full coverage of basins once established
- « Full strata planting to basin floor and batters



9. Rehabilitation Planting

- « 100% native to south east Queensland
- « Prioritise species endemic to the site

Extent of stormwater retention basins and associated works are to be determined based on Condition 22, Condition 25 and Condition 30

The proposed infrastructure within the 50 m upper riparian corridor has been designed to be visually recessive and integrated within a rehabilitated landscape setting. As illustrated, infrastructure elements are low-scale, utilise natural materials where practicable, and are complemented by endemic planting to minimise visual and ecological impact. Stormwater infrastructure is designed to function as part of the landscape, supporting water quality improvement and revegetation outcomes.

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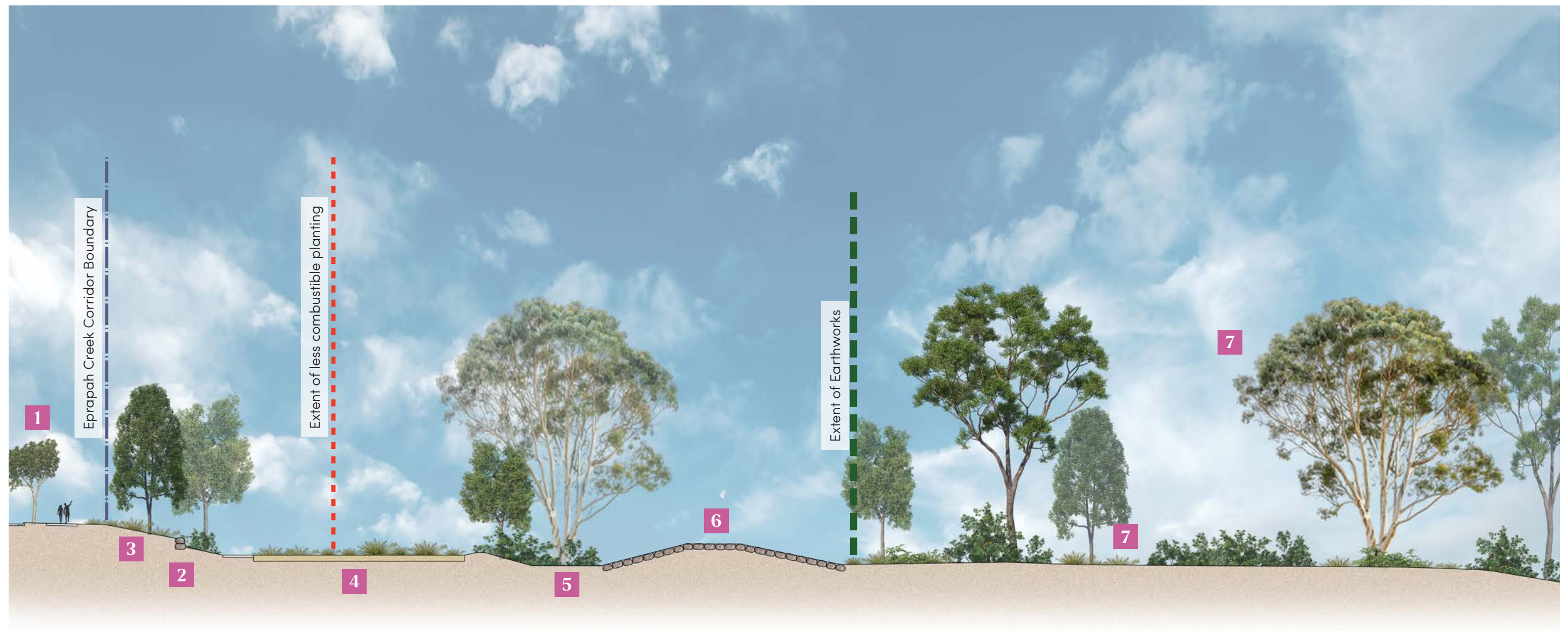
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Section A-A
1:400 @ A3

- | | | |
|---|---|--|
| <p>1 Streetscape</p> <hr/> <p>2 Minor localised boulder retaining wall to protect existing tree</p> | <p>3 Existing endemic trees to be retained (exotic trees to be removed)</p> <hr/> <p>4 Selective species to achieve less combustible planting</p> | <p>5 Weed management and rehabilitation as per vegetation management strategy</p> <hr/> <p>6 Eprapah Creek</p> |
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Extent of stormwater retention basins and associated works are to be determined based on Condition 22, Condition 25 and Condition 30

Section B-B
1:400 @ A3

1 Streetscape

2 Minor localised boulder retaining wall to basin

3 Selective species to achieve less combustible planting

4 Bio-retention basin

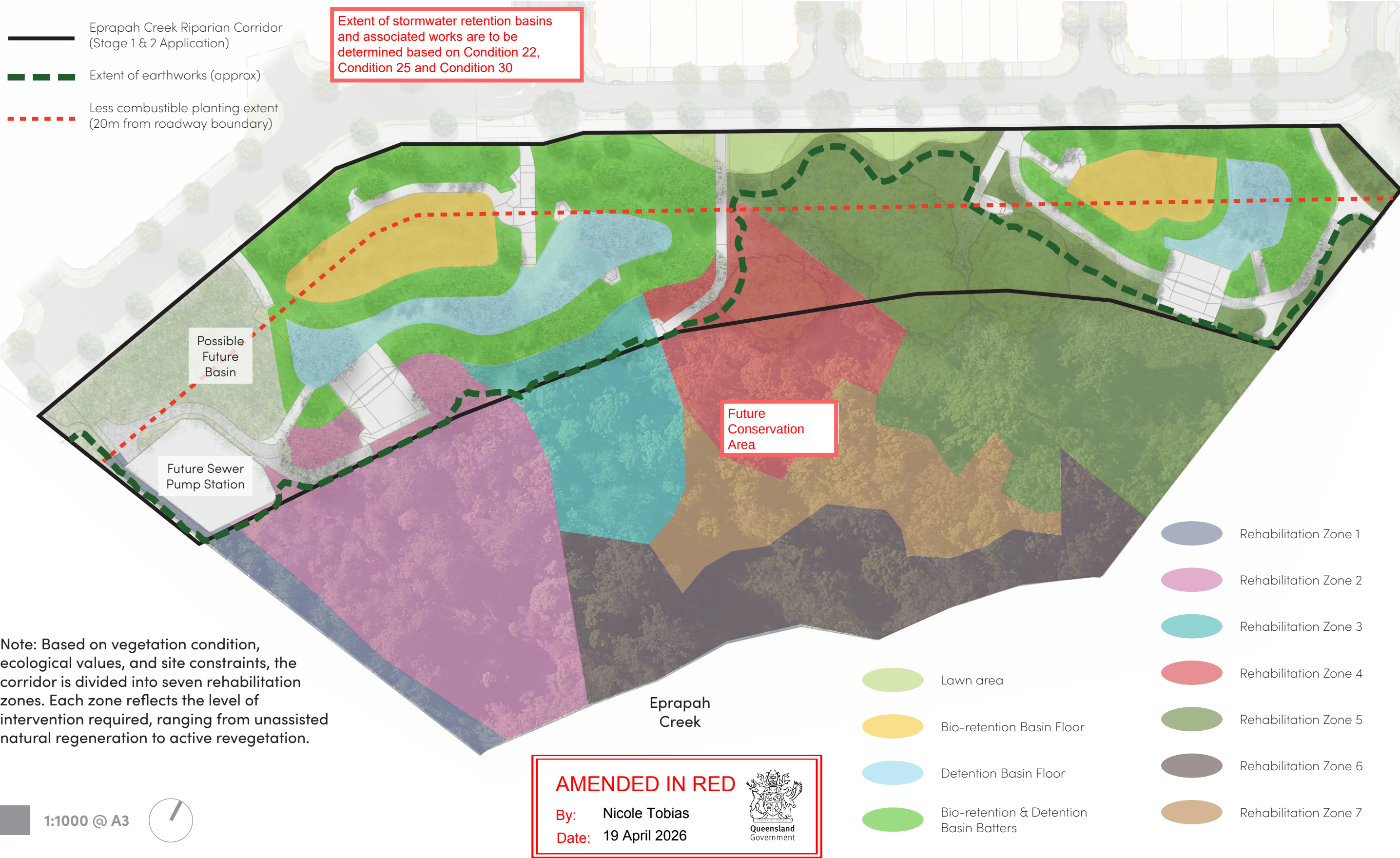
5 Detention basin

6 Overflow weir

7 Existing endemic trees to be retained (exotic trees to be removed)

8 Weed management and rehabilitation as per vegetation management strategy

Vegetation Management Strategy (Indicative Zones)





REHABILITATION ZONE 1



REHABILITATION ZONE 2



REHABILITATION ZONE 3



REHABILITATION ZONE 4



REHABILITATION ZONE 6



REHABILITATION ZONE 7

Rehabilitation Zone 1

- « Maintain natural eucalypt woodland with midstorey and groundcover species
- « Primarily unassisted natural regeneration.
- « Spot weed control of non native grasses
- « Removal/mulching of small pines if accessible – alternatively, in situ poison/stem inject
- « Tubestock planting where/if gaps persist after 12 months.

Rehabilitation Zone 2

- « Restore degraded eucalypt woodland
- « Retain existing native vegetation.
- « Rubbish removal of both general rubbish and car bodies within eroded channels
- « Weed and pine control required
- « Large areas of pines to be removed and chipped – for mulch.
- « Timber also to be retained for erosion control/rehabilitation purpose.
- « Also retain timber (felled pines) for habitat value CWD
- « Implement erosion control
- « Numerous weeds including category 3 weeds in open areas in this zone to be removed/ sprayed as priority weed control
- « Tubestock planting in cleared areas, with selective soil ripping in planting zones

Rehabilitation Zone 3

- « Maintain and restore eucalypt woodland with midstorey and ground cover vegetation
- « Removal of rubbish
- « Focus on removal of pines and exotic grasses.
- « Pines to be chipped for mulch where accessible – alternate in situ poison/stem inject
- « Implement erosion control
- « Use felled timber as sediment traps where rill erosion exists.
- « Spot spray non-native grasses without affecting native cover.
- « Tubestock planting in gaps after monitoring.

Rehabilitation Zone 4

- « Integrate stormwater infrastructure with native vegetation, including maintaining and restoring eucalypt woodland
- « Rehabilitation to align with adjacent biobasin landscape plan.
- « Pines to be chipped for mulch where accessible – alternate in situ poison/stem inject
- « Erosion control where/ if required
- « Open gully areas to be planted with tree tubestock initially
- « Non native grass to be ring sprayed for tubestock planting of upper canopy vegetation (trees and shrubs)
- « Unassisted natural regeneration with in native vegetated areas after spot spraying of grass

Rehabilitation Zone 5

- « Integrate stormwater infrastructure with native vegetation, including maintain and restore eucalypt woodland
- « Rehabilitation to align with adjacent biobasin landscape plan – Tubestock planting in open areas to link corridor with biobasins.
- « Focus on priority removal of Category C weeds (Lantana) amongst paddock trees at top of slope.
- « Minimal intervention required; control Category 3 weeds.
- « Mostly unassisted rehabilitation in eucalypt woodland on slopes. Spot spray weeds where required- ensure no invasion of lantana into this remnant area.

Rehabilitation Zone 6

- « Assisted rehabilitation
- « Restore riparian vegetation- all stratum
- « Remove non-native grasses and weeds.
- « Plant native groundcovers (e.g., Lomandra spp.) for bank stabilisation.
- « Use jute, jute mats or similar erosion control measures where flooding risk exists. Including tubestock planting adjacent to creekbanks.
- « Priority removal of category 3 weeds – Lantana in dense swathes at bank top, spray and remove where possible and or necessary to avoid weed scaffolding effect)
- « Ongoing spray program for creeping shade tolerant ground cover weeds (Singapore Daisy and Creeping Inch Plant)
- « Herbicides used to be aquatic safe

Rehabilitation Zone 7

- « Re-establish natural woodland on previously cleared – highly disturbed areas.
- « Assisted revegetation of open area with staged planting – eucalypt trees and shrubs (T1 and T2 canopy only – to assist in gradual and eventual weed reduction of grass through shading out by canopy species
- « Maintain slashing regime for grassland control
- « Spot spray areas for tubestock planting
- « Groundcover managed around tubestock with mulch rings or with jute mats

Extent of stormwater retention basins and associated works are to be determined based on Condition 22, Condition 25 and Condition 30

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Riparian Corridor Planting

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All planting must be in accordance with RCC standards

Rehabilitation Planting

Planting species for each rehabilitation zone will be selected to restore riparian habitat, improve connectivity, and support koala and other fauna movement. Species selection is specific to the creek corridor and does not include broader STPDA species lists. The revegetation palette specific to RE 12.3.11.

Less Combustible Planting

Plant species to be selected based on low flammability characteristics. This zone may overlap rehabilitation, bio-retention and detention areas. Plants will be chosen with the multi-purpose of building on the desired environmental and functional outcomes for these areas, while ensuring compliance with the Bushfire Management Plan.

Bio-Retention Basin Floor

Filtration function. No trees to preserve infrastructure and function.

Detention Basin Floor

Species to form an extension of rehabilitation strategy. Inclusion of tree species.

Bio-retention & Detention Basin Batters

Species to form an extension of rehabilitation strategy. Inclusion of tree species.

Extent of stormwater retention basins and associated works are to be determined based on Condition 22, Condition 25 and Condition 30

Species	Common Name	Rehabilitation Planting	Less Combustible Planting	Bio-Retention Basin Floor	Detention Basin Floor	Bio-retention & Detention Basin Batters
Trees						
ALLOCASUARINA littoralis	Black She-oak	✓				
ALPHITONIA excelsa	Red Ash	✓			✓	
ANGOPHORA leiocarpa	Rusty Gum				✓	
BANKSIA integrifolia	Coast Banksia	✓			✓	
CORYMBIA intermedia	Pink Bloodwood	✓			✓	
CORYMBIA gummifera	Red Bloodwood				✓	
ELAEOCARPUS eumundii	Eumundi Quandong		✓		✓	
ELAEOCARPUS obavatus	Hard Quandong		✓			
ELAEOCARPUS reticulatus	Blueberry Ash		✓			
EUCALYPTUS microcorys	Tallowwood					
EUCALYPTUS racemosa	Scribbly Gum					
EUCALYPTUS seeana	Narrow Leafed Red Gum					
EUCALYPTUS siderophloia	Northern Grey Ironbark	✓				
EUCALYPTUS tereticornis	Queensland Blue Gum				✓	✓
FLINDERSIA australis	Crows Ash		✓			
GLOCHIDION ferdinandii	Cheese Tree		✓		✓	✓
LOPHOSTEMON confertus	Brush Box		✓		✓	
LOPHOSTEMON suaveolens	Swamp Box	✓			✓	
MELALEUCA quinquenervia	Broad Leaved Paperbark	✓			✓	
MELALEUCA salicina	Willow Bottlebrush	✓				
SYZYGium hemilampra	Broad leafed Lilly Pilly		✓			✓
WATERHOUSEA floribunda	Weeping Lilly Pilly					✓

Species	Common Name	Rehabilitation Planting	Less Combustible Planting	Bio-Retention Basin Floor	Detention Basin Floor	Bio-retention & Detention Basin Batters
Shrubs						
ACACIA disparrima	Hickory Wattle	✓				
BANKSIA robur	Swamp Banksia		✓		✓	✓
BANKSIA spinulosa	Hairpin Banksia				✓	✓
BORONIA rosmarinifolia	Forest Boronia				✓	
BREYNIA oblongifolia	Coffee Bush	✓			✓	✓
CALLISTEMON sieberi	River Bottlebrush				✓	
CUPANIOPSIS anacardioides	Tuckeroo		✓		✓	
DODONAEA triquetra	Forest Hop Bush				✓	
FICUS coronata	Sandpaper Fig		✓		✓	
GLOCHIDION sumatranum	Broad-Leaved Cheese Tree		✓		✓	✓
HOVEA acutifolia	Pointed-leaved Hovea				✓	
HYMENOSPORUM flavum	Native Frangipani				✓	✓
JAGERA pseudohus	Foambark Tree		✓			✓
LEPTOSPERMUM polygalifolium	Wild May	✓				
MELALEUCA linariifolia	Snow in Summer	✓				
MELASTOMA malabathricum	Malabar Melastome				✓	
MELICOPE elleryana	Pink Euodia				✓	
PULTANEA retusa	Notched Bush-Pea				✓	
PULTANEA villosa	Hairy Bush Pea		✓		✓	
WESTRINGIA eremicola	Native Westringia				✓	
Groundcovers and Grasses						
ALLOTEROPSIS semialata	Black Seed Grass				✓	
BAUMEA rubignosa	Soft Twigrush				✓	
CALOCHLAENA dubia	Soft Bracken Fern				✓	
CAREX appressa	Tall Sedge			✓	✓	✓
CAREX brunnea and/ or C. maculata	Sedge Grass	✓		✓	✓	✓
CYMBOPOGON refractus	Barbed Wire Grass	✓				✓
CYPERUS haspan and/ or C. leiocaulon		✓				
DIANELLA brevipedunculata	Blueberry Lily		✓	✓	✓	✓
DIANELLA caerulea	Blue Flax Lily	✓	✓	✓	✓	✓
DIANELLA longifolia	Smooth Flax Lily		✓	✓	✓	✓
DIANELLA revoluta	Blueberry Lily	✓	✓			
DORYANTHES palmeri	Spear Lily		✓	✓	✓	

Species	Common Name	Rehabilitation Planting	Less Combustible Planting	Bio-Retention Basin Floor	Detention Basin Floor	Bio-retention & Detention Basin Batters
ENTOLASIA stricta	Wiry Panic	✓				
EUSTREPHUS latifolius	Wombat Berry		✓			
FICINIA nodosa	Knobly Club Rush			✓	✓	
GAHNIA aspera	Rough Saw Sedge			✓	✓	✓
GAHNIA sieberina	Red Fruited Saw Sedge			✓	✓	✓
IMPERATA cylindrica	Blady Grass	✓			✓	✓
JUNCUS polyanthemus	Juncus	✓		✓	✓	
JUNCUS usitatus	Common Rush			✓	✓	
LEPIDOSPERMA laterale	Variable Saw Sedge			✓	✓	✓
LOMANDRA laxa	Broad-leaf Mat-Rush	✓				✓
LOMANDRA hystrix	Slender Mat Rush		✓	✓	✓	✓
LOMANDRA longifolia	Spiny-headed Mat Rush	✓	✓	✓	✓	✓
LOMANDRA multiflora	Many-flower Mat Rush	✓	✓	✓		✓
LOMANDRA spicata	Mountain Mat Rush		✓	✓	✓	✓
OTTOCHLOA gracillima	Graceful Grass	✓				
PTERIDIUM esculatum	Hard Bracken Fern	✓			✓	
THEMEDA triandra	Kangaroo Grass	✓			✓	✓
VIOLA hederacea	Native Violet		✓		✓	



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