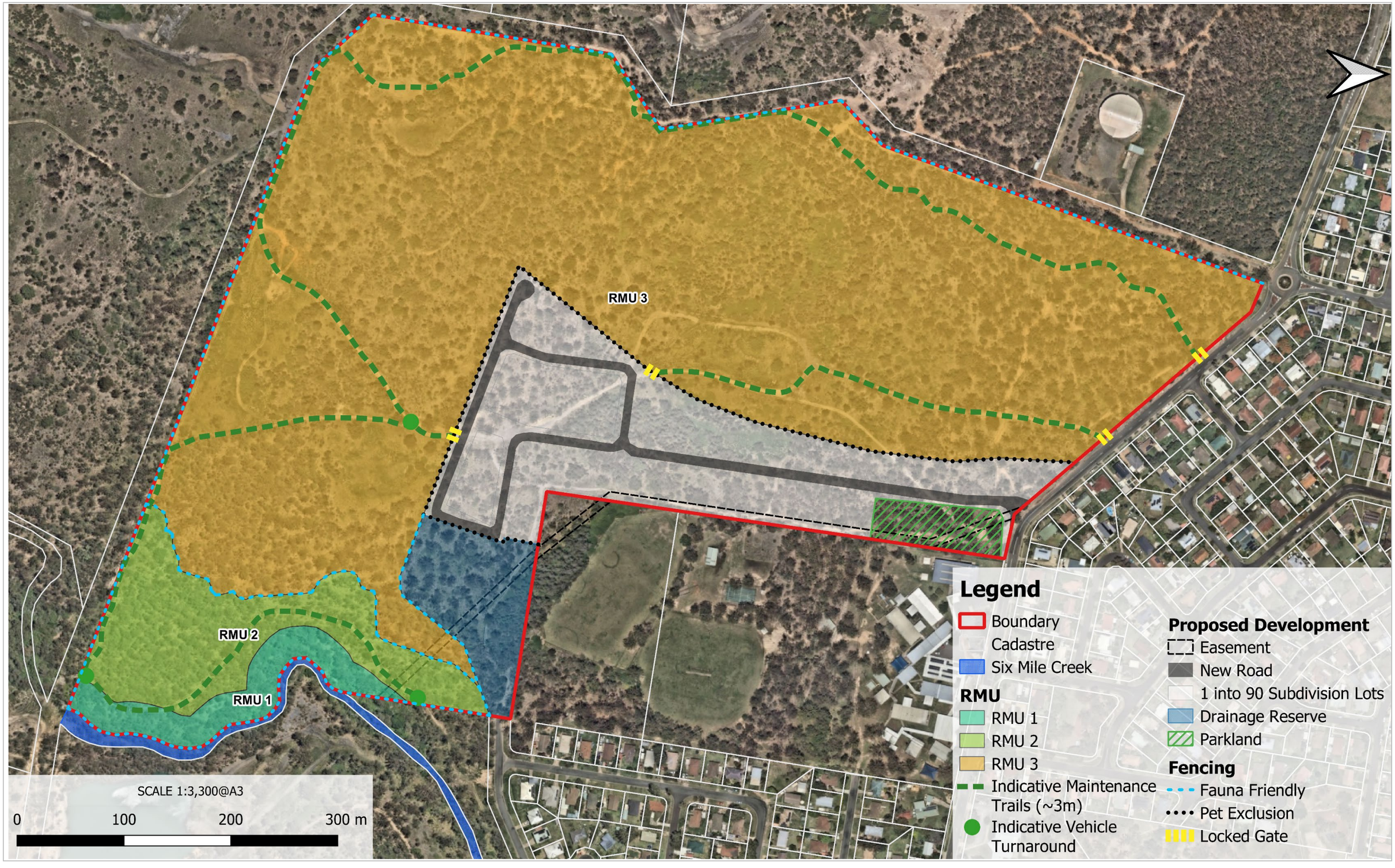


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| Issue | Description | Date | Client | Project Name | Project No. |
|---|---|---|---|---|---|
| A | Approval Conditions | 14/03/2024 | QLD Property Group and JLF Corporation | 36 Child Street, Riverview | S522117 |
| Drawing Name | DETAILED REHABILITATION MANAGEMENT PLAN | | | | DRMP001 |

# General Notes

**Address:** 36 Child Street, Riverview (Lot 45 on RP887270).

S5 Environmental have prepared this Detailed Rehabilitation Management Plan (DRMP) for QLD Property Group and JLF Corporation, to address a Development Approval Conditions Package (Application No: 1419/2022/RAL, dated 29/09/23), issued by Ipswich City Council (ICC) at 36 Child Street, Riverview (herein referred to as the 'subject site'). This conditions package is for the approved development of a staged Reconfiguration of a Lot (RoL), with residential development proposed within the lot in the eastern extent (Lot 2). Within Lot 2, an 86-lot residential subdivision is proposed, including a drainage reserve lot, open space (parkland) and internal roads. The balance lot (Lot 1), is located the western extent of the site, wrapping around to the south-east of the residential development area, and is to be retained as bushland with a Linear Open Space Lot (to be dedicated to Council) located in the south-eastern extent, adjacent to Six Mile Creek.

The subject site is mapped Residential Low Density (15.4 %) and Recreation (84.6 %) zoning, and is vacant, however it has been historically modified with unsealed and eroded tracks, an overflow dam and clearing undertaken. The northern portion contains a predominantly native woodland vegetation community with the balance containing remnant and non-remnant vegetation, open exotic grasslands and large areas of regenerating ecosystem, not yet at remnant status, with evidence of an historical bushfire event.

The site generally slopes from a western ridgeline to its lowest point at the riparian corridor associated with Six Mile Creek in the south-eastern extent of the site. Old Ipswich Road bounds the site to the north and the Riverview State School to the north-east. The unformed roads of Child Street bounds to the site to the west and Bailey Street to the south. The lots to the north contain a residential subdivision, and to the west is a mining area.

The areas proposed for rehabilitation within the subject site are described below with Rehabilitation Management Unit 1 (RMU 1) and Rehabilitation Management Unit 2 (RMU 2) to be a land dedication post-rehabilitation to ICC. The area described as Rehabilitation Management Unit 3 (RMU 3) will be maintained in the future by the lot owner.

***Objectives***

- To identify, remove and maintain exotic weed species throughout the retained vegetation;
- To improve the ecological integrity, functionality and value of the area;
- To provide habitat for native fauna; and
- Revegetate RMU 1 and RMU 2, with infill planting of a variety of native groundcover, shrub and canopy plant species that are locally appropriate considering the ground-truthed regional ecosystem (RE) of 12.3.7 for RMU 1 and RMU 2.

**Rehabilitation Strategy**

There are three broad rehabilitation areas throughout the subject site, with the area to the south-east of the site, associated with and adjacent to Six Mile Creek requiring weed management and infill planting with this area ultimately being a land dedication to ICC. This area contains two of the rehabilitation areas, aligning with the ground-truthed RE through this area and as such are referred to as RMU 1 and RMU 2. The third area, referred to as RMU 3, comprises the balance of Lot 1, with weed removal and management the focus within this large lot. The rehabilitation areas are shown on Approved Plans as Amended in Red (dated 29/09/2023). These areas are described below.

**Rehabilitation Management Unit 1 – 10,763 m$^2$**

RMU 1 encompasses a 30 m area to the west of western edge of the riparian corridor adjoining Six Mile Creek. This area is to be a land dedication to ICC. The eastern boundary of Six Mile Creek forms the cadastral boundary of the site. RMU 1 is required to be rehabilitated to reflect the mapped pre-clear and ground-truthed RE of 12.3.7, described as *'Eucalyptus tereticornis, Casuarina cunninghamiana* subsp. *cunninghamiana +/- Melaleuca* spp. fringing woodland'.

While the canopy of the riparian community comprised mature canopy and was assessed as remnant, the ground and shrub layer contain a mix of native and exotic species. Refer to the vegetation assessment within the Detailed Ecological assessment (DEA; **S522117DEA001_v1.1**) for further information regarding ground-truthing and vegetation condition.

The aim of RMU 1 is to remove exotic species and encourage native vegetation growth through natural regeneration and dense infill planting. This will improve the ecological integrity, functionality, value, and stability of the bank of the area. As such, RMU 1 is to have a focus on planting suitable for the riparian area. The lower bank of the waterway is to be planted with dense plantings of species with matted root systems and flexible branches to stabilise the bank and provide shade and habitat, with the composition changing away from waterway plants, such as mat rushes and sedges as planting recedes from the creek.

Canopy species cannot be planted directly under large mature canopy trees and must not be located below frequent flood line (1:5 ARI), this is area is to be assessed by the contractor appointed for rehabilitation works. Densities vary through the riparian area, with dense planting on the lower bank with species that have matt forming root systems and flexible branches to tolerate water flows. Densities decrease moving up the bank profile zones, but still comprises species that bind soils and assist with the filtering of water entering the waterway and moderation of flow during heavy flow events. The nature of the shrub layer and groundcover tube stock infill planting must meet the target densities described in the planting palette described in **Table 2**, below (DRMP005). The bank zones are illustrated in **Figure 1**, below (DRMP005). The extent of bank zones will naturally vary within the waterway corridor and will be up to the rehabilitation contractor to interpret appropriate planting zones. All species included in the planting palette below are consistent with the ground-truthed RE mapping 12.3.7 and are specific to the riparian area.

**Rehabilitation Management Unit 2 – 28,782 m$^2$**

RMU 2 encompasses the area adjacent to the west of the riparian corridor of RMU 1. This area is a future land dedication to be managed by ICC post-rehabilitation. This area is to be rehabilitated to reflect the ground-truthed RE of 12.3.7. This area is mapped as RE 12.3.3 however, with ground truthing it was found to be generally consistent with RE 12.3.7 and had reached remnant status. There was weed infestation within the area observed in the ground and shrub layer. The aim of RMU 2 is to remove exotic species, improve and encourage native vegetation growth to reflect the RE, through natural regeneration and infill planting. This will improve the ecological integrity, functionality, and value of the area.

Canopy species cannot be planted directly under large mature canopy trees. The target density of canopy tube stock must be 1 plant per 10 m$^2$ including existing vegetation, however areas with minimal canopy cover may be denser. The nature of the shrub layer and groundcover tube stock infill planting must be random, with the target densities of 1 plant per 5 m$^2$ (shrub) and 1 plant per 1 m$^2$ (groundcover). All species included in the planting palette below are consistent with RE 12.3.7.

**Rehabilitation Management Unit 3 – 288,352 m$^2$**

RMU 3 encompasses the Lot 1 and will remain in private ownership post-development. This area largely contains remnant ground-truthed RE 12.9-10.2, described as '*Corymbia citriodora* subsp. *variegata +/- Eucalyptus crebra* open forest on sedimentary rocks', with areas of non-remnant to the south-east extending through the centre. A patch of remnant RE 12.9-10.19 was ground-truthed in the north-west of the Lot, described as '*Eucalyptus fibrosa* subsp. *fibrosa* woodland on sedimentary rocks'. RMU 3 is required to undergo weed removal and stabilisation works. Weed removal and stabilization works aim to promote natural regeneration of native flora, improve the ecological integrity and value of the area, and minimise weed dispersal and sediment deposition into the Six Mile Creek environment.

## Revegetation Specifications

### *Contractor*

The contractor appointed for rehabilitation works must be experienced in bush regeneration techniques and retention of naturally regenerating vegetation. Any herbicide application is to be completed by a licenced ACDC contractor.

### *Site Preparation and Weeding*

All deleterious materials including rubbish, paths, stockpiles, and existing structures are to be removed from the rehabilitation areas. Note. Within this DRMP, weed control refers to all environmental weeds and is not limited to local/state declared exotic/invasive species.

See below for the steps for weed treatment:

1. Identify existing State and Council restricted invasive pest plant species occurring within the Rehabilitation Area;
2. Physical weed removal, followed by stem inject, cut and paint, or foliar spray all remaining weedy vegetation in accordance with specific control techniques, outlined in the ***Declared Weed and Waste Management Actions*** Section;
3. Manual removal must only be used on species resistant to herbicide treatment, as applicable. Herbicides are to be registered for use within proximity to a waterway/aquatic area and must be used in accordance with the registered label, relevant legislation or applicable APVMA approved off-label permit;
4. Initial weeding will take into account all weeds identified within the rehabilitation area, with a primary treatment followed by a secondary treatment to account for regermination and reshooting;
5. All understorey and ground-layer weed species are to be treated concurrently, unless there is a high risk of erosion, in which case, a staged approach to reduce soil exposure must be employed i.e. mosaic spraying or spraying of rings for tube stock. This is critical along the riparian corridor in RMU 1, where bank stability and water quality are not to be compromised by weed removal; and
6. Particularly in the riparian area (RMU 1), the stump of large woody weeds (e.g. Chinese elm) should be left in place to protect the bank.

### *Maintenance Trail and Access*

Given the size of each RMU and location in relation to Childs Road and the proposed internal road network, maintenance trails must be established so that access to each RMU can be achieved and managed. Maintenance trails should be sited by the Rehabilitation contractor, preferably utilising existing tracks or trails across the site. Maintenance trails should be minimised where possible to allow revegetation and maintenance contractors access to each RMU. Maintenance Trails should be clearly marked and maintained. Indicative trail locations are shown above in DRMP001.

### *Mulching*

1. Organic mulch is not to be used surrounding the waterway, and instead lower and mid bank zones (refer to **Figure 1**) are to be covered with jute mat or equivalent (installed as per manufacturers recommendations);
2. Jute matting (or equivalent) should be secured with pins at regular intervals (approx. 2/$m^2$) to ensure they are retained in place in the event of minor flooding or heavy rainfall; and
3. The balance of RMU 1 and RMU 2 are to utilise aged forest mulch, spread to a depth of 100 mm around new plants, with care taken to ensure mulch does not touch plant stems.

### *Exposed Soil and Slope Stabilisation*

1. Exposed soil in the rehabilitation area will be revegetated with planting of native species;
2. Mulching of new plants with aged forest mulch, as detailed above, is proposed; and
3. The installation of sediment fencing is to be used in accordance with direction from an erosion and sediment control certified person (CPESC), to ensure no sediment enters the RMU.

### *Planting*

1. Tube stock sized plants must be used and be at least 20 cm in height (dependent on species and availability), displaying healthy signs of growth. They must be adequately 'sun hardened', free from damage, pests and disease and be of local provenance;
2. All plants must be watered in pots before planting;
3. Plant species are to be selected in accordance with the planting palettes provided and placed as site conditions allow. Set out of plants and species is to be in accordance with the planting areas and densities as shown in this Rehabilitation Plan;
4. Plant placement of each species is to be generally randomised in keeping with a natural ecosystem and evenly distributed to achieve the set densities prescribed; and
5. Tree guards are to be installed where predation is evident during the establishment and maintenance period.

### *Pet-exclusion Fencing*

1. Pet exclusion fencing must be erected to the perimeter of the development area adjacent to Lot 1 and the drainage reserve in the south-east, to contain pets (refer DRMP001 above);
2. Pet exclusion fencing must be at least 1.5 m high and must have no greater gap than 100 mm between the bottom rail and the ground and not have gaps greater than 50 mm. Metal sheeting and corrugated iron must be capped; and
3. Where an access gate is required to access the RMUs for maintenance, it must be self-closing.

### *Fauna-friendly Fencing*

1. Where fencing is proposed to be installed or replaced along the western, southern and eastern boundaries of the site (as detailed on DRMP001), the following is permitted as fauna-friendly fencing options:

   **Wooden Pole Fence**:
   - Gap between ground and first rail is minimum 40 cm;
   - Gap between every other rail is 30 cm minimum;
   - Horizontal panels are of a size (less than 10 cm) to allow koalas to climb over. Gaps between horizontal rails/slats must be 2 cm;
   - Vertical panels use rails or slats that have spaces of 1 cm; and
   - Fence is no greater than 1.2 m in height.

   **Boxwire Fence:**
   - Squares no less than 15 cm is used provided a 30 cm gap between ground level and the mesh is provided; and
   - Fence is no greater than 1.2 m in height.

   **Strand Fence:**
   - Gap between ground and first rail is minimum 40 cm;
   - Gap between every other rail is 30 cm minimum; and
   - Fence is no greater than 1.2 m in height.

2. Fencing shown as "Potential fauna-fencing" on DRMP001 of the Detailed Rehabilitation Plan is not required to be erected, however, should fencing be erected in these locations, it must be fauna-friendly fencing unless agreed in writing with an Ecologist from Development Assessment, Ipswich City Council.

### *Habitat Creation*

1. Recoverable log sections from native trees (DBH >200 mm) are to be relocated to within the rehabilitation areas and integrated to provide habitat for resident fauna;
2. Log sections should be limited within the rehabilitation areas, so as not to reduce allowable densities for native revegetation; and
3. Hollow bearing trees were identified during the Detailed Ecological Assessment. Where these trees are approved for removal, recoverable hollow sections are to be relocated within the RMUs.

### *Fertilising*

An organic fertiliser suitable for use on Australian native vegetation, in pellet form, will be applied at time of planting. The fertiliser will be placed adjacent and not in contact with the root ball at 2 – 4 cm below the soil surface and under the mulch.

### *Watering*

1. Plants must be watered before planting.
2. All plants are then to be watered in at time of planting (approximately 5 – 10 L per plant);
3. Watering requirements will be influenced by site and climatic conditions and must be carried out as often as required to ensure establishment and active growth. Under extremely dry conditions, follow-up watering must be generally carried out as follows:
   - Three times a week for the first month after planting;
   - Twice a week for 4-8 weeks after planting; and
   - As required according to climatic conditions thereafter for the duration of the maintenance period.
4. Watering schedule may vary according to rainfall. If soil is moist, watering will not be necessary.

### *Maintenance and Monitoring*

1. A 24-month maintenance period will commence from the date of practical completion of rehabilitation works;
2. The rehabilitation areas must be assessed to replace dead plants (RMU 1 and RMU 2) and control weeds at intervals no less than that indicated in the 24 Month Maintenance Schedule of this DRMP (refer DRMP007-008). Weed removal, monitoring and maintenance will be undertaken as per the Monitoring and Maintenance Schedule;
3. During scheduled maintenance visits, dead plants (RMU 1 and RMU 2) must be replaced with suitable replacement species from the Species Palette listed on DRMP004-005; and
4. During scheduled maintenance visits, weak or leaning plants must be staked. The stakes are to be removed once the plants become strong and established (RMU 1 and RMU 2).

### *Rehabilitation Targets*

1. Rubbish/debris is to be removed before rehabilitation commences;
2. A survival rate of 90% of native vegetation planting at end of maintenance period must be achieved;
3. A removal rate of 90% of weed species cover/abundance at the end of the maintenance period must be achieved; and
4. All works, such as mulching/matting and fencing, are to be installed prior to the first round of native vegetation planting.

### Planting Palette

**Table 2. Buffer Planting Palette based on RE 12.3.7 - Specific to the Riparian Area**

| Scientific Name | Common Name | % | RMU1 Plant Density Targets |
|---|---|---|---|
| **Lower Bank*** | | | |
| *Melaleuca viminalis* | Weeping bottlebrush/creek bottlebrush | 10 | Canopy @ 1 plant per 2 m²**<br>Midstorey @ 1 plant per 2 m²**<br>Groundcover @ 1 plant per 0.5 m²<br><br>Dense planting in rows or clumps as per the ICC Riparian Corridors Revegetation Guideline.<br><br>Do not plant trees below frequent flood line (1:5 ARI). |
| *Casuarina cunninghamiana* | River she-oak | 5 | |
| *Cryptocarya triplinervis* | Brown laurel | 5 | |
| *Cyperus gracilis* | Slender flat sedge | 5 | |
| *Ficus coronata* | Creek sandpaper fig | 5 | |
| *Ficus opposita* | Sandpaper fig | 5 | |
| *Juncus continuus* | Common rush | 20 | |
| *Lomandra hystrix* | Creek mat-rush | 20 | |
| *Lomandra longifolia* | Mat rush | 5 | |
| *Melaleuca bracteata* | Black tea-tree | 5 | |
| *Szygium australe* | Brush cherry | 10 | |
| *Waterhousea floribunda* | Lilly pilly/weeping lilly pilly | 5 | |
| **Mid Bank*** | | | |
| *Angophora subvelutina* | Broad-leaved apple | 5 | Diverse mix:<br>Canopy @ 1 plant per 10 m²<br>Midstorey @ 1 plant per 5 m²<br>Groundcover @ 1 plant per 1 m² |
| *Melaleuca viminalis* | Weeping bottlebrush/creek bottlebrush | 5 | |
| *Casuarina cunninghamiana* | River she-oak | 5 | |
| *Cyperus gracilis* | Slender flat sedge | 5 | |
| *Dianella caerulea* | Flax lily | 10 | |
| *Eucalyptus tereticornis* | Forest red gum/blue gum | 5 | |
| *Glochidion fernandi* | Cheese tree | 5 | |
| *Ficus coronata* | Creek sandpaper fig | 5 | |
| *Ficus opposita* | Sandpaper fig | 5 | |
| *Jagera pseudorhus* | Foambark | 5 | |
| *Lomandra hystrix* | Creek mat-rush | 10 | |
| *Lomandra longifolia* | Mat rush | 5 | |
| *Lophostemon suaveolens* | Swamp mahogany | 5 | |
| *Melaleuca bracteata* | Black tea-tree | 5 | |
| *Melaleuca linariifolia* | Narrow-leaved paperbark | 5 | |
| *Melia azedarach* | White cedar | 5 | |
| *Syzygium australe* | Brush cherry | 5 | |
| *Cyperus gracilis* | Slender flat sedge | 5 | |
| **Upper Bank*** | | | |
| *Eucalyptus tereticornis* | Forest red gum/blue gum | 10 | Canopy @ 1 plant per 10 m²<br>Midstorey @ 1 plant per 5 m²<br>Groundcover @ 1 plant per 1 m² |
| *Angophora subvelutina* | Broad-leaved apple | 5 | |
| *Cryptocarya triplinervis* | Brown laurel | 5 | |
| *Cyperus gracilis* | Slender flat sedge | 5 | |
| *Dianella caerulea* | Flax lily | 10 | |
| *Euroschinus falcatus* | Pink poplar/ribbonwood | 5 | |

| Scientific Name | Common Name | % | RMU1 Plant Density Targets |
|---|---|---|---|
| *Glochidion fernandi* | Cheese tree | 5 | |
| *Ficus coronata* | Creek sandpaper fig | 5 | |
| *Ficus opposita* | Sandpaper fig | 5 | |
| *Jagera pseudorhus* | Foambark | 5 | |
| *Grevillea robusta* | Silky oak | 5 | |
| *Lomandra hystrix* | Creek mat-rush | 10 | |
| *Lomandra longifolia* | Mat rush | 5 | |
| *Lophostemon suaveolens* | Swamp mahogany | 5 | |
| *Melaleuca linariifolia* | Narrow-leaved paperbark | 10 | |
| *Melia azedarach* | White cedar | 5 | |

*Refer to **Figure 1**, below. The extent bank zones will naturally vary within the waterway corridor and will be up to the rehabilitation contractor to interpret appropriate planting zones.
** Density may be increased if erosion is evident of curve in waterway
Note: *Canopy trees are not to be planted under existing canopy, with the exception of the lower bank due to requirement for high density planting.*

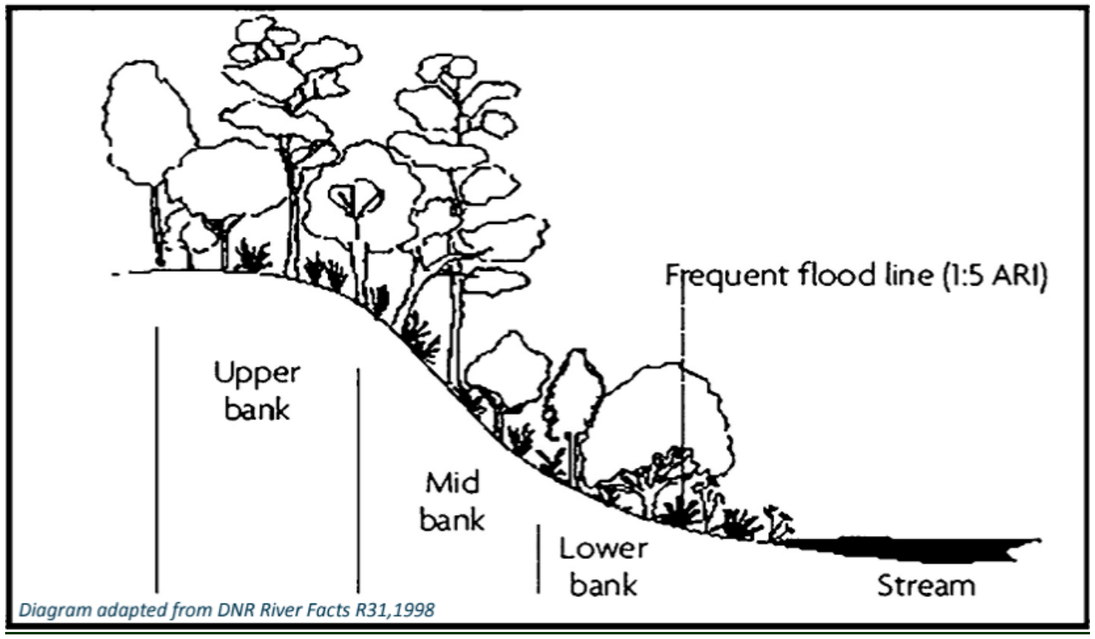


**Figure 1. Bank positioning zones.**
Adapted from ICC '*Riparian Corridor Revegetation Guideline*' as adapted from DNR River Facts R31, 1998

**Table 1 Planting Palette based on RE 12.3.7**

| Scientific Name | Common Name | % | RMU 2 Plant Density Targets |
|---|---|---|---|
| **Canopy** | | | |
| *Angophora subvelutina* | Broad-leaved apple | 5 | 1 plant per 10 m$^2$ |
| *Aphananthe philippinensis* | Native elm | 5 | |
| *Casuarina cunninghamiana* | River she-oak | 10 | |
| *Corymbia tessellaris* | Moreton bay ash | 10 | |
| *Corymbia intermedia* | Pink bloodwood | 5 | |
| *Cryptocarya triplinervis* | Brown laurel | 5 | |
| *Diplatia furcata* | Bottlebrush mistletoe | 5 | |
| *Drypetes deplanchei* | Yellow tulipwood | 5 | |
| *Ficus adenosperma* | Riverine fig | 5 | |
| *Eucalyptus tereticornis* | Forest red gum/blue gum | 10 | |
| *Euroschinus falcatus* | Pink poplar/ribbonwood | 5 | |
| *Lophostemon suaveolens* | Swamp mahogany | 5 | |
| *Melaleuca bracteata* | Black tea-tree | 5 | |
| *Melaleuca fluviatilis* | Weeping tea-tree/weeping paperbark | 5 | |
| *Melaleuca viminalis* | Weeping bottlebrush/creek bottlebrush | 5 | |
| *Pleiogynium timorense* | Burdekin plum | 5 | |
| *Waterhousea floribunda* | Lilly pilly/weeping lilly pilly | 5 | |
| **Shrubs/Midstorey** | | | |
| *Acacia concurrens* | Curracabah | 10 | 1 plant per 5 m2 |
| *Acacia disparrima* | Hickory wattle | 10 | |
| *Acacia leiocalyx* | Black wattle | 5 | |
| *Allocasuarina littoralis* | Black she-oak | 5 | |
| *Alphitonia excelsa* | Red ash | 5 | |
| *Banksia integrifolia* | Coast banksia | 5 | |
| *Breynia oblongifolia* | Coffee bush | 5 | |
| *Dodonaea triquetra* | Hop bush | 5 | |
| *Elaeocarpus obovatus* | Blueberry ash | 5 | |
| *Ficus coronata* | Creek sandpaper fig | 5 | |
| *Glochidion fernandi* | Cheese tree | 5 | |
| *Glochidion sumatranum* | Umbrella cheese tree | 5 | |
| *Hakea florulenta* | Three-nerved willow | 5 | |
| *Jagera pseudorhus* | Foambark | 5 | |
| *Leptospermum polygalifolium* | Jellybush | 5 | |
| *Melaleuca linariifolia* | Narrow-leaved paperbark | 5 | |
| *Notelaea longifolia* | Long-leaved olive | 5 | |
| *Pultenaea paleacea* | Chaffy bush pea | 5 | |
| **Groundcover** | | | |
| *Cyperus gracilis* | Slender flat sedge | 15 | 1 plant per 1 m$^2$ |
| *Cyanthillium cinereum* | Little ironweed | 10 | |

| Scientific Name | Common Name | % | RMU 2 Plant Density Targets |
|---|---|---|---|
| *Bothriochloa decipiens* | Pitted bluegrass | 10 | |
| *Cymbopogon refractus* | Barbed wire grass | 10 | |
| *Eragrostis spartinoides* | | 10 | |
| *Eustrephus latifolius* | Wombat berry | 10 | |
| *Heteropogon contortus* | Spear grass | 5 | |
| *Imperata cylindrica* | Blady grass | 5 | |
| *Lomandra hystrix* | Creek mat-rush | 5 | |
| *Ottochloa gracillima* | Pademelon grass | 5 | |
| *Oplismenus aemulus* | Basket grass | 5 | |
| *Phyllanthus virgatus* | Knotgrass | 5 | |
| *Stephania japonica* | Tape vine | 5 | |
| Note: *Canopy trees are not to be planted under existing canopy. No planting is to occur within 6m of any dwelling.* | | | |

## Declared Plant and Waste Management Actions

S5 Environmental's Ecologists located 6 State Declared Pest Plant/ Weed species within the subject site during the site inspection. The below information is to inform rehabilitation works in the prevention of future weed invasions.

### *Objective*

Prevent weed presence from negatively impacting native plant growth/survival by undertaking weeding for 24 months by removing 90% of weed species cover/abundance by the end of the maintenance period.

### *Performance Criteria*

1. Remove and control all environmental weeds;
2. Eliminate the spread of declared plants within the subject site as well as offsite; and
3. Remove rubbish from the site before rehabilitation works begin.

### *Responsibility*

1. Rehabilitation Contractor and Site Supervisor.

### *General Management Actions*

2. A thorough weed treatment must be undertaken prior to planting to promote stock survival and diminish plant competition with exotic species;
3. Vehicles are not to enter the rehabilitation area after planting;
4. Storage areas are to be bunded to prevent chemical spills (petrol, oil, etc.) from discharging from the site and entering stormwater drains;
5. During works, weed species are to be removed as per the State and Council Declared Pest Plant/Weed Treatment and Control Table. Declared and invasive plants must be stockpiled separately and disposed of at an appropriate waste disposal facility;
6. Stockpiles of vegetation are to be inspected for declared plant species prior to exporting offsite/mulching;
7. Declared plants as defined by the *Biosecurity Act 2014* are not to be planted on-site; and
8. Fire as a management technique for controlling declared plants is not to be administered on the site.

### *Monitoring*

1. Germination or regrowth of declared plant species; and
2. Site Supervisor to monitor declared plant control and ensure management strategies are adhered to.

### *Corrective Action*

1. Undertake successive phases of declared plant control to treat newly germinated or remaining declared plants.

### *Reporting*

1. Any incidents of non-compliance to be recorded in an Environmental Diary.

**It should be noted** that weed control works are NOT limited to the specified declared weeds within **Table 3** below but apply to all environmental weeds located within the rehabilitation area.

***The following declared weeds were identified within the Rehabilitation Area and must be controlled accordingly.***

**Table 3. State and Locally Declared Pest Plant/ Weed**

| DECLARED PEST TREATMENT AND CONTROL | |
|---|---|
| **Trees** | |
| **Broad-leaved pepper *(Schinus terebinthifolia syn. Schinus terebinthifolia)*** State Category 3 | 1. Cut, scrape and paint with glyphosate no more than 15 cm from the ground and apply herbicide immediately to all cut/scraped surfaces; then<br>2. Foliar spraying with glyphosate to wet all foliage but not cause runoff; or<br>3. Paint the stem of the plant with herbicide, up to 30 cm from the ground and allow the herbicide to absorb for 24 hours; or<br>4. Stem inject with glyphosate. Drill around the base of the trunk at 7.5 cm intervals on a 45° angle and immediately inject herbicide. |
| **Chinese celtis (*Celtis sinensis)*** State Category 3 | 1. Cut, scrape and paint with glyphosate no more than 15 cm from the ground and apply herbicide immediately to all cut/scraped surfaces; or<br>2. Stem inject with glyphosate. Drill around the base of the trunk at 7.5 cm intervals on a 45° angle and immediately inject herbicide. |
| **Shrubs** | |
| **Creeping lantana (*Lantana montevidensis)*** State Category 3 | 1. Physical removal; or<br>2. Foliar spraying with glyphosate to wet all foliage but not cause runoff. |
| **Lantana *(Lantana camara*)** State Category 3 | 1. Foliar spray with glyphosate if there is sufficient leaf coverage. Spray thoroughly to wet all foliage but not cause runoff; and<br>2. Slash and mow to retard plant growth. Slashing or mowing is to be completed before flowering or seeding; or<br>3. If lacking foliage cut, scrape and paint with glyphosate and metsulfuron no more than 15 cm from the ground and apply herbicide immediately to all cut/scraped surfaces.<br>4. Plant material on the ground should be cut into small pieces to prevent re-shooting. |
| **Ground-cover** | |
| **Mother-of-millions (*Bryophyllum delagoense)*** State Category 3 | 1. Physical removal; or<br>2. Foliar spraying with glyphosate to wet all foliage but not cause runoff. |
| **Singapore daisy (*Sphagneticola trilobata*)** State Category 3 | 1. Foliar spraying with metsulfuron-methyl plus a wetting agent, to wet all foliage but not cause runoff. |

NB. Herbicides must be applied by appropriately qualified/supervised persons in accordance with the *Agricultural Chemicals and Distribution Control Act 1966* at rates identified on registered product labels, or on an Australian Pesticides and Veterinary Medicines Authority (APVMA) issued off-label permit where applicable. Refer to South East Queensland Ecological Restoration Framework for additional guidance.

## Fire Ants and Restricted Species

Upon review of the fire ant biosecurity map, the locality of Riverview is within fire ant biosecurity Zone 2; covering suburbs yet to receive fire ant eradication treatment. Restrictions to fire ant carrier movements apply (National Red Imported Fire Ant Eradication Program 2016) including the movement of soil, mulch, manure, baled hay, straw, potted plants, turf, and compost. If any fire ants or restricted species are located within the subject site, a report to the Department of Agriculture and Fisheries must be made within 24 hours of suspected sighting. Refer to the Queensland Government's Fire ant biosecurity zone map at https://www.fireants.org.au/ for further information.

## Monitoring and Maintenance Schedule

| Monitoring and Maintenance Schedule | | | |
|---|---|---|---|
| **Timing** | **Task** | **Remedial Action** | **Responsibility** |
| Pre-planting | • At least 1 round of weed pre-treatment;<br>• Confirm that appropriate pest plant control has been completed as guided by the State and Council Restricted Invasive Pest Plant Table. | • Ensure initial weed treatment rounds are completed as per the approved RMP;<br>• Evaluate success of initial weed treatment;<br>• Instigate an additional round of treatment if success rate is low. | Restoration Ecologist and Rehabilitation Contractor |
| | • Apply mulch as specified in approved RMP. | • Reapply mulch where required. | |
| | • Acquire fertilizer and sun-hardened seedlings. | • Delay planting until all materials are available. | |
| | • Install exclusion signing and/or fencing to prevent disturbance from vehicles, livestock and/or otherwise. | • Delay planting until all materials are available. | |
| During Planting | • Any necessary follow-up weed control. | • Ensure all works are completed as per the approved RMP. | Restoration Ecologist and Rehabilitation Contractor |
| | • Initial planting and watering and installation of tree guards. | • Ensure all works are completed as per the approved RMP. | |
| 3 Month Establishment Period | • At the minimum, water newly installed seedlings three times a week for the remainder of the first month after planting. | • Replace damaged seedlings and stake weak or leaning plants. | Rehabilitation Contractor |
| | • Water newly installed seedlings TWICE EACH WEEK during Month 2 after planting or as required. | • Additional watering may be required during dry periods. | |
| | • Check exclusion signage is still in place and performing its role. | • Reinstate or upgrade exclusion signage if required. | |
| | • Check for disturbances from pests (e.g., hares, foxes, etc.) or vandals. | • Replace damaged seedlings if browsing is observed | |
| | • Check for signs of soil erosion and instability. | • Implement erosion and sediment control i.e., jute matting and sediment fencing in areas suffering erosion. | |
| Month 1 - 6 (On Maintenance)<br>At least Monthly (or as conditions dictate) | • Monitor rehabilitation progress and seedling health (RMU 1 and RMU 2). | • Replace damaged seedlings and stake weak or leaning plants. Water as required. | Rehabilitation Contractor |
| | • Check for disturbances from pests (e.g., rabbits, foxes, etc.) or vandals. | • Replace dead seedlings (RMU 1 and RMU 2). | |
| | • Check for signs of soil erosion and instability. | • Implement additional erosion and sediment control i.e., jute matting and sediment fencing in areas suffering erosion. | |
| | • Monitor restricted invasive plants and weeds. | • Treat invasive species to prevent their spread. | |
| Month 6 – 11<br>At least Monthly (or as conditions dictate) | • Check for erosion and sediment run-off. | • Implement additional erosion and sedimentation control i.e., jute matting, or jute netting and mulch. | Rehabilitation Contractor (weed monitoring & control) |
| | • Monitor restricted invasive plants and weeds. | • Treat restricted invasive pest plant species and spray/remove to prevent their spread. | |
| | • Monitor and record rehabilitation progress and seedling health (RMU 1 and RMU 2). | • Additional watering when rainfall is low; and<br>• Replace damaged or dead seedlings and replenish mulch where required. | |
| Month 12 | • Check for erosion and sediment run-off. | • Implement additional erosion and sedimentation control i.e., jute matting, or jute netting and mulch. | Rehabilitation Contractor (weed monitoring & control) |
| | • Monitor for restricted invasive pest plant species and other weeds, record progress and ongoing issues. | • Treat restricted invasive pest plant species and spray/remove to prevent their spread. | |
| | • Monitor and record rehabilitation progress and seedling health (RMU 1 and RMU 2). | • Additional watering when rainfall is low; and<br>• Replace damaged or dead seedlings and replenish mulch where required. | |
| | • Review the first 12 months of the monitoring schedule and assess effectiveness of Rehabilitation Plan. | • Report rehabilitation progress results to landowner | |
| | • First year report to be submitted to Council. | | Ecologist |
| Month 13 – 23 | • Check for erosion and sediment run-off. | • Implement additional erosion and sedimentation control i.e., jute matting, or jute netting and mulch. | Rehabilitation Contractor (weed |

| Monitoring and Maintenance Schedule | | | |
|---|---|---|---|
| **Timing** | **Task** | **Remedial Action** | **Responsibility** |
| At least every second month (or as conditions dictate) | • Monitor for restricted invasive pest plants and other weeds, record progress and ongoing issues. | • Treat restricted invasive pest plant species and spray/remove to prevent their spread. | monitoring & control) |
| | • Monitor and record rehabilitation progress and seedling health (RMU 1 and RMU 2). | • Additional watering when rainfall is low; and<br>• Replace damaged or dead seedlings and replenish mulch where required. | |
| Month 24 | • Check for erosion and sediment run-off. | • Implement additional erosion and sedimentation control i.e., jute matting, or jute netting and mulch. | Rehabilitation Contractor (weed monitoring & control) |
| | • Monitor for restricted invasive pest plant species and other weeds, record progress and ongoing issues. | • Treat restricted invasive pest plant species and spray/remove to prevent their spread. | |
| | • Monitor and record rehabilitation progress and seedling health (RMU 1 and RMU 2). | • Additional watering when rainfall is low; and<br>• Replace damaged or dead seedlings and replenish mulch where required. | |
| | • Review months 12-24 of the monitoring schedule and assess effectiveness of Rehabilitation Plan. | • Report rehabilitation progress results to landowner | |
| | • Second year report to be submitted to Council. | | Ecologist |

## Table Notes: -

- **Timing column**: the terminology 'or as conditions dictate' is taken only to mean an increased frequency will be implemented on a reactive basis (where necessary) to ensure that rehabilitation works achieve compliance with the 'Rehabilitation Targets') throughout the duration of the 24-month maintenance period.
- **Task column**: during monitoring events, the threshold to trigger remedial action will be any observed conditions that do not meet the performance targets specified in 'Rehabilitation Targets' (refer to Sheet DRMP004), or anywhere else in this plan.
- **Remedial Action column**: Specified remedial actions (as well as any other necessary actions) will be undertaken to restore conditions throughout the rehabilitation areas to achieve the performance targets specified in 'Rehabilitation Targets' (refer to Sheet DRMP004), or anywhere else in this plan.
- **Monitoring and Maintenance Reports** - Report to include monitoring and maintenance inspection logs from the rehabilitation contractor for each monitoring/maintenance event outlining specific details of the date of event, monitoring findings and (where necessary) remedial actions for each event.

### Future Owner's Maintenance Manual

At the completion of 24 months maintenance, the area of RMU 3 will be the responsibility of the lot owner to maintain and manage. The Land Dedication Area (RMU 1 and RMU 2) will be managed by ICC at the completion of rehabilitation.

The purpose of RMU 3 is to promote natural regeneration of native flora, improve the ecological integrity and value of the area, and minimise weed dispersal and sediment deposition into the Six Mile Creek environment.

### Access

All future access to RMU 3 shall be via the established maintenance Trail as described above.

### Ongoing Maintenance and Monitoring

It is the ongoing responsibility of the owner of Lot 1 to keep the area of RMU 3, free of weeds, rubbish, and deleterious material, and for the ongoing monitoring prohibited weed species in accordance with their General Biosecurity Obligation (GBO) as landowners.

As a guide, maintenance indicators/issues that are predominantly observed during long term monitoring would include but is not limited to:

- Weed infestations – if unsure of weed species refer to Council's guide for landholders, available at <www.ipswich.qld.gov.au/__data/assets/pdf_file/0011/227558/WeedsOfIpswich.pdf>.

Regular maintenance is to occur on an at least biannual basis to identify any of the above issues. Should such issues be identified outside the biannual inspections, immediate redial actions should be implemented, including but not limited to:

- Additional weeding.

Remedial actions will be implemented as needed to ensure that the performance indicators specified in 'Rehabilitation Targets' (detailed on Sheet DRMP004) will be maintained in perpetuity.

In addition to the above, both the pet exclusion fencing, and the access gates should be maintained in perpetuity. To that end the fence should be maintained so that it remains at least 1.5m high with gaps no greater than 100mm between the bottom rail and the ground and not have gaps greater than 100mm. Should the fence be damaged resulting in larger gaps or reduced height, it should be replaced immediately with a new fence meeting the above specifications.

The access gate should also be maintained as above and ensure that the self-closing function remains active. Should this cease to be the case the gate should be repaired or replaced to meet the above specifications.

### Fire ants

The Department of Agriculture and Fisheries' Fire Ant Biosecurity Map outlines suburbs and localities which are in Biosecurity Zones for Red Imported Fire Ants. This property is located within the Queensland Governments Biosecurity Zone 2 for fire ants. Should it be suspected that fire ants are present within each RMU, the Government's National Fire Ant Eradication Program must be notified.

For more information on Fire ants or to report suspected sightings at the following web address: https://www.fireants.org.au/look.