induction process. Vegetation clearing will be conducted in a sequential manner.

The following vegetation communities are proposed to be lost within Precinct 4:

- RE 12.3.6 – 2.4ha;
- RE 12.3.11 – 5.2ha;
- Non-remnant RE 12.3.6 – 6.3ha;
- Non-remnant RE 12.3.11 – 10.2ha;
- Non-remnant RE 12.5.2 – 2.0ha.

A breakdown of the loss that will occur within each stage is provided in **Table 1**. In accordance with the requirements regarding the loss of bushland presented within the FBMP, rehabilitation of retained vegetation is required. Rehabilitation requirements for each vegetation community for each stage are presented in **Table 1**.

Table 1. Clearing that will be undertaken within each Development Stage and rehabilitation requirement

Stage	Vegetation Type (RE)	Area to be lost (ha)	Rehabilitation Requirement (ha)
B	12.3.11	0.062	0.124
B	non-remnant 12.3.11	0.732	0.732
C	12.3.11	0.624	1.248
C	non-remnant 12.3.11	0.009	0.009
C	non-remnant 12.3.11	4.451	4.451
D	non-remnant 12.3.11	1.315	1.315
D	non-remnant 12.5.2	0.457	0.457
E	12.3.11	0.046	0.092
E	12.3.11	4.204	8.408
E	12.3.6	1.824	3.648
E	non-remnant 12.3.11	2.071	2.071
E	non-remnant 12.3.6	0.187	0.187
E	non-remnant 12.5.2	0.281	0.281
F	12.3.11	0.270	0.54
F	non-remnant 12.3.11	1.661	1.661
F	non-remnant 12.5.2	1.281	1.281
G	12.3.6	0.589	1.178
G	non-remnant 12.3.6	6.075	6.075

In addition, it is proposed that the following trees (currently located outside the above vegetation communities) which have a Diameter at Breast Height (DBH) greater than 60cm will be lost:

- *Eucalyptus tereticornis* – 21 trees;
- *Eucalyptus seeana* – 1 tree;
- *Eucalyptus siderophloia* – 1 tree; and
- *Angophora leiocarpa* – 1 tree.

The planting of the following tree species will be required in order to comply with the FBMP:

- *Eucalyptus tereticornis* – 63 trees;
- *Eucalyptus seeana* – 3 trees;
- *Eucalyptus siderophloia* – 3 trees; and
- *Angophora leiocarpa* – 3 trees.

2.2.2 *Retained Fauna Habitat Areas*

The terrestrial habitats within Precinct 4 support a mixture of mature and regrowth native vegetation as well as hollow-bearing trees that provide important fauna habitat features. The site supports species of feed trees for Grey-headed Flying-Fox, Squirrel Glider and Koala and also provides roosting and nesting opportunities for numerous bird species.

Potential impacts, as a result of residential development, to fauna associated with these habitats include loss of habitat, including feeding and nesting resources, injury or death as a result of construction or from domestic dogs during the occupation phase, and displacement brought about by the presence of barriers to safe movement opportunities. **Tables 3** and **4** provide mitigation actions required to minimise these impacts.

With appropriate management (**Table 3** and **Appendix 1**), which includes promoting the natural recruitment of Squirrel Glider feed trees (**Appendix 2**), enhancement of retained areas will provide for foraging, nesting and sheltering resources for all fauna. Specific actions to minimise impacts on significant fauna habitats in retained areas are provided in the **Table 4**.

It is strongly recommended that ULDA consult with BCC to devise a fauna enhancement strategy for valuable fauna habitats outside of the UDA (e.g. Cabbage Tree Creek corridor,

reserve across from Telegraph Road and parkland on the opposite side of the transport corridor near Roghan Road). Enhancement of nearby adjacent habitats is considered necessary to mitigate potential impacts resulting from the expected loss of habitats within Precinct 4.

2.2.3 Site rehabilitation

The proposed development will be concentrated within the southern and western portions of Precinct 4. Most of this area currently supports disturbed non-remnant regrowth vegetation or pasture grasses. Although some areas of vegetation will be retained within areas of Precinct 4, most of the rehabilitation and enhancement effort will be located within the Bushland and open space area that is located to the north of Rogan Road and to the east of Precinct 4. Vegetation communities currently contained within the Bushland and Open Space area are shown in **Figure 2.1**. Areas available for potential Rehabilitation are indicated in **Table 2**.

Table 2. Rehabilitation Opportunities within the Bushland and Open Space Area

Current Vegetation Community	Proposed Climax Community	Available Rehabilitation Area (ha)
Queensland Blue-gum Regrowth	Queensland Blue-gum Open Forest	5.342
Grassy Areas with Scattered Trees	Woodland with Native Grassy Understory	6.833
Melaleuca Regrowth	Melaleuca Open Forest	8.701
Melaleuca Open Forest	Melaleuca Open Forest	14.613
Queensland Blue-gum and Bloodwood Open Forest	Queensland Blue-gum and Bloodwood Open Forest	13.321
Queensland Blue-gum Open Forest	Queensland Blue-gum Open Forest	5.432
Queensland Blue-gum and Bloodwood Regrowth	Queensland Blue-gum and Bloodwood Open Forest	1.981

A Rehabilitation Plan for the subject site, presented as **Appendix 2**, has been designed to reflect the pre-disturbance state (i.e. prior to previous human disturbance) of the proposed Bushland and open space area. Flora species used in the rehabilitation plan will be, wherever practical, endemic to the local area. Specific details relating to the restoration of buffers between each phase of development and the proposed bushland and open space area are provided within **Appendix A** of **Appendix 2**.

It is recommended that the ULDA consult with Brisbane City Council (BCC) regarding the rehabilitation of Cabbage Tree Creek which is currently a source of weed propagules for the bushland and open space areas within Precinct 4. However the actual rehabilitation of this creek is beyond the scope of this management plan.

2.2.4 Fauna Movement Corridors

Currently, the presence of bushland areas within Precinct 4 provides opportunities for unrestricted fauna movement within the subject site. Studies have shown that Squirrel Gliders regularly use areas within Precinct 4 and move between adjacent lands north of Telegraph Road (Rowston 2000) and the subject site.

At present, safe movement to suitable habitats outside of the subject site is compromised by the rail corridor to the west and to a lesser degree, the presence of Telegraph Road in the north. Safe access to habitats outside of the UDA is necessary to ensure the long-term health and viability of the local Squirrel Glider population (Rowston 2000, Goldingay and Sharpe 2004).

The proposed residential development within Precinct 4 will cause fragmentation of some of the existing bushland areas. The proposed north south connector road will present an additional barrier to safe fauna movement between retained habitats. It is important this roadway is subject to detailed design with input from ecologist to ensure the roadway is appropriately designed and provides safe movement options. In addition, it is understood that construction of a bus lane adjacent to the existing rail line is proposed, as is the future duplication of Telegraph Road.

Figure 2.1:

Existing Vegetation and Potential Rehabilitation Areas

Flora and Fauna Management Plan-Precinct 4, Fitzgibbon Urban Development Area

To maintain viability of the local Squirrel Glider population, specific management strategies designed to ensure that conservation significant fauna species, including Squirrel Gliders, can move safely throughout the subject site and to adjacent habitats are provided in **Table 3**.

Tables 3 and **4** provide actions and recommendations designed to protect and enhance fauna habitats to ensure safe movement options continue within the retained bushland areas. This FFMP should be referred to prior to producing the final design plans for Precinct 4.

2.2.5 Pest Management (fauna)

Four fauna pest species (cane toad, black rat, house mouse and brown hare) were identified during the flora and fauna surveys (BAAM 2008). In addition, although not observed, it is expected that feral or stray cats (i.e. ex domestic cats) and foxes would also utilise the subject site.

Whilst it is expected that the development will not significantly influence the distribution and abundance of feral pests, it is important in the overall management of the site to employ achievable strategies to minimise the disturbance on native fauna by pests. This report details methods by which pest management and monitoring can be undertaken. It should be understood that effective pest management in the local landscape can only be achieved through cooperation/participation of landowners.

Strategies to manage fauna pest species in all areas associated with the development in Precinct 4 are provided in **Table 5**.

Although not considered a pest, domestic dogs and to a lesser extent, cats, can cause significant negative impacts on Squirrel Gliders and Koala. The preferred option to protect native fauna would be to prohibit the ownership of cats and dogs within Precinct 4. If this is deemed unacceptable, cats and dogs should be restricted indoors between dusk and dawn every night or restrained within outdoor enclosures. Potential feed trees should not be planted within outdoor enclosures, to ensure that native fauna are not attracted to enter enclosures.

2.2.6 Pest Management (vegetation)

Several pest weed species declared under the provisions of the Queensland *Land Protection (Pest and Stock Route Management) Act* 2002 are known from Precinct 4. These species include but is not limited to the following species:

- Annual Ragweed *Ambrosia artemisiifolia* – Class 2 Weed;
- Fireweed *Senecio madagascariensis* – Class 2 Weed;
- Chinese Elm *Celtis senses* – Class 3 Weed;
- Lantana *Lantana camara* – Class 3 Pest;
- Creeping Lantana *Lantana montevidensis* – Class 3 Weed;
- Groundsel Bush *Baccharis halimifolia* – Class 2 Pest;
- Singapore Daisy *Sphagneticola trilobata* – Class 3 Weed;
- Broad-leaved Pepper Schinus terebinthifolius – Class 3 Weed;
- Camphor Laurel *Cinnamomum camphora* – Class 3 Weed;
- Asparagus Fern *Asparagus aethiopicus* – Class 3 Weed;
- Yellow Bells *Tecoma stans* – Class 3 Weed.

These species have the potential to further invade areas of Precinct 4 that are not currently infested. It is therefore important in the overall management of the site to employ weed eradication/control techniques to maintain and enhance the ecological value of retained vegetation, particularly within the Bushland and open space area to the north of Rogan Road. It should be understood that effective pest management in the local landscape can only be achieved through cooperation/participation of landowners. Control techniques and specific information relating to each of these weed species is provided within **Appendix b** of **Appendix 2**.

2.2.7 Monitoring and Reporting Procedures

Regular monitoring to record compliance with the requirements of the FFMP is required. These monitoring events, together with their frequency, performance indicators and the person responsible for undertaking each event are outlined within **Table 5**.

All unauthorised vegetation clearing and all deaths, injuries or near-misses to native fauna species must be reported to the site manager

immediately, or as soon as practical, after the incident has occurred.

It will be the responsibility of the Site Manager to formulate a Flora/or Fauna Incident Report Procedure. It is also the responsibility of the Site Manager to inform the Administering Authority of any reported incidents involving NC Act listed species (i.e. all native species), and to promptly enforce mitigation measures to prevent further incidents.

3.0 GENERAL ENVIRONMENTAL DUTIES

The following sections provide guidelines for the responsibilities of designated personnel who are engaged to ensure compliance with this FFMP.

3.1 ULDA (PRINCIPAL)

The roles and general responsibilities of the Principal are to:

- Comply with internal ULDA policy;
- Comply with the EPBC Act and NC Act;
- Nominate a Site Manager who will represent the Principal in reviewing the performance of staff, issue instructions and variations, and be responsible for FFMP implementation;
- Promptly notify Administrating Authority of any changes to this FFMP and its implementation, reporting or monitoring, and any breach of Administrating Authority conditions and proposed corrective action; and
- As necessary, engage the services of a qualified ecologist.

It will be the responsibility of the Principal to ensure that the contents of the FFMP are adequately communicated to all site personnel, and that they are advised of the consequences if the recommended actions are not observed.

3.2 SITE MANAGER

The roles and responsibilities of the Site Manager (and / or its representatives) are to:

- Conform Environmental Best Management Practices;
- Satisfactorily demonstrate to the Principal, Ecologist and relevant authorities that appropriate measures have been implemented on-site during development to adequately manage the risks to protected fauna, protected flora and/or vegetation communities, as noted in the FFMP;
- Keep records of complaints received and responses relating to the site's flora and fauna, advise the Principal and Ecologist of complaints and responses, investigate and (where appropriate) implement control measures as soon as possible;
- Be present at inspections and as triggered by any environmental events or incidents
- Notify the Ecologist regarding FFMP performance and monitoring, non-compliance and actions taken, and seek advice and attendance at on-site inspections when required;
- Notify the Ecologist regarding environmental incidents with potential to cause environmental harm or nuisance and provide written details within 24 hours of occurrence;
- Report on FFMP implementation and performance to the Principal on completion of on-site works and following the maintenance and establishment periods; and
- Follow directions of the Principal with respect to performance of the FFMP.

3.3 ECOLOGIST

The roles and responsibilities of the Ecologist are to:

- Liaise with the Site Manager and the Principal to facilitate compliance with legislation, Council policy and conditions during the project;
- Conduct audit inspections as required /requested during earthworks, clearing and rehabilitation stages and other inspections as triggered by environmental events or incidents;
- Advise the Site Manager on the compliance and effectiveness of the FFMP/Site Instructions and its implementation;
- Immediately contact the Site Manager regarding any environmental incidents that have the potential to cause environmental harm, request written details within 24 hours of occurrence, and issue Site Instructions for rectification/remediation to the Site Manager as soon as possible;

- Issue Site Instructions (for correction of non-compliance) to the Site Manager within seven (7) days of inspections and completion of the Inspection Procedures and Checklist(s); and
- Review and advise the Principal and other relevant authorities of any changes to the FFMP.

3.4 COMMUNITY MEMBERS

The future residents of Precinct 4 can play a vital role in protecting significant fauna and their habitats. Interpretative programs to promote and inform the community about Squirrel Glider, Koala and other local fauna species and related management issues, particularly habitat requirements and threat mitigation strategies should be presented to residents prior to or immediately post occupation.

Table 3: Overall Flora and Fauna Management Plan

Overall Project Management		**Aim:** ***To ensure flora and fauna management is an integral component of development***		
Performance Objective	**Implementation Strategy**	**Performance Indicators** **Corrective Action**	**Responsibilities, Reporting and Review**	**Timing and Frequency**
On-site establishment of procedures and responsibilities	A pre-start meeting is to be arranged by UDLA to clearly define roles and the approach to Flora and Fauna management. Roles will specifically include: **Site Manager** – Establishment of protective fencing around retained bushland areas where deemed necessary. **Ecologist** – Assistance delineating areas to be fenced for protection of wildlife movement opportunities and individual habitat trees. **Regulating Authorities** – - Established compliance will be met. This FFMP is to be kept on site at all stages during construction.	All site workers are informed of their obligations with regard to Flora and Fauna protection. Pre-start meeting undertaken.	The Site Manager and ULDA to liaise with the Ecologist throughout construction.	At the pre-start meeting.
		Any incidents that may result in a breach of approval are reported.	Reported by relevant staff to the respective authority within 24 hours of the incident being identified.	Within 24 hours of the incident being identified.
		Investigate reasons why performance indicators have not been met and ensure all relevant staff and contractors are debriefed and advised of their responsibilities.	Site Manager and Ecologist.	As soon as incident has been reported.
		Where management methods are not achieving the desired performance indicators, the FFMP will be reviewed.	Site Manager, Ecologist, ULDA.	If required.
Communication of pre-start meeting outcomes	Site inductions will include the communication of Pre-Start meeting outcomes to all site workers.	All site workers are informed of their obligations with regard to Flora and Fauna protection.	Site Manager to inform and report.	Prior to commencement of vegetation and native habitat disturbance.

Performance Objective	Implementation Strategy	Performance Indicators / Corrective Action	Responsibilities, Reporting and Review	Timing and Frequency
Protect fauna and vegetation communities	Clearly define all areas not directly affected by development to delineate limits of disturbance. No unauthorised disturbances should occur within defined zones (e.g. dumping of excavated soil). Retain all trees marked for retention (alive or dead). Conduct clearing in a sequential manner. No vegetation clearing is to be conducted between the hours of 6pm and 6am. Ensure a QPWS authorised fauna spotter/catcher is present during all tree clearing activities. It is not expected that fauna will need to be trapped and relocated prior to vegetation clearing. However an experienced Ecologist will inspect potential habitat trees prior to clearing and if required, will co-ordinate a trapping/release program.	All vegetation communities and fauna habitats identified for protection remain undisturbed outside of designated disturbance zones.	ULDA, ecologist and Site Manager.	Ongoing.
		Induction of site staff regarding requirements for vegetation and fauna habitat protection.	ULDA and ecologist to present the induction. Site Manager to ensure all staff have completed induction.	Pre-clearing stage.
		Flag all trees to be retained.	Under the guidance of an ecologist.	Pre-clearing stage.
		Appropriate fencing/barrier to be erected to delineate no go areas.	Under the guidance of an ecologist.	Prior to commencement of ground works.
		Vegetation removal only conducted in a sequential manner between the hours of 6am and 6pm. No injury to fauna as a result of tree removal.	A qualified fauna spotter/catcher is present during tree clearing.	During vegetation removal.
		If disturbance is reported outside of the designated disturbance zone, all works are to cease. Assess damage and causes within 1 week. Prevent future occurrences through re-surveying, change of clearing plan, improve temporary (barrier) fencing of no go areas, update site personnel information and training on clearing procedures. Do not commence clearing until corrective actions have been implemented.	Site Manager to inform site personnel about corrective actions. All relevant personnel to implement corrective actions.	Ongoing.

Long-term Maintenance of Site's Fauna Populations		**Aim:** ***To ensure the continued presence of native fauna within the subject site***		
Performance Objective	**Implementation Strategy**	**Performance Indicators** **Corrective Action**	**Responsibilities, Reporting and Review**	**Timing and Frequency**
Promote safe fauna movements within and outside of the subject site.	Identify barriers to safe fauna movement and remove or modify these barriers. Monitoring of the movements and any incidents of the fauna populations will identify if there is the need for erection of fauna exclusion fencing If required fencing should be designed and located with the assistance of an ecologist.	No deaths or injuries to native fauna have been reported. Fauna are regularly observed moving between habitats throughout the subject site. If deaths, injuries or barriers to safe movement are reported, rectify causes through updating site personnel; information and training; modify development plan and/or install equipment to prevent further impediments to safe movement.	Site Manager.	Ongoing.
Ensure development does not promote an increase in the presence of pest animals.	Prevent activities likely to promote the presence of pest species. All staff/contractors must remove any food scraps from the site. Unused building materials or rubble that could provide refuge for pest species is not to be stored on site.	All site personnel are aware of their responsibilities to keep the site clean of human refuse. No evidence of food scraps or commercial waste present within the areas of development. If waste is reported on site, Site Manager is to identify cause and rectify. If necessary reinforce site personnel responsibilities.	Site Manager and all site personnel.	Weekly inspections of development site and immediate surrounds.
Community Participation	Encourage residents to actively participate in protecting all native fauna and enhancing significant fauna habitats.	All residents are informed of the management strategies contained within this FFMP. Conduct regular information/education sessions for all residents to inform the management strategies and action contained within this FFMP.	Site Manager and ULDA.	Immediately following occupation at each development phase.

VEGETATION PROTECTION/CLEARING AND DISPOSAL		**Aim:** ***To establish boundaries and protection around vegetation and individual trees to be retained***		
Performance Objective	**Implementation Strategy**	**Performance Indicators** **Corrective Action**	**Responsibilities, Reporting and Review**	**Timing and Frequency**
Protect retained vegetation communities	Clearly define, using flagging or fencing if considered necessary, all areas not directly affected by clearing activities to delineate limits of disturbance. Protect all trees marked for retention (alive or dead) as identified during on-site establishment.	All vegetation identified for protection remains undisturbed by operational works.	ULDA, ecologist and Site Manager	Pre-clearing stage.
		Induction of site staff into requirements for vegetation and tree protection.	ULDA and ecologist to present the induction. Site Manager to ensure all staff have completed induction.	Pre-clearing stage.
		Delineate areas of disturbance. Flagging of trees to be retained,	Under guidance of an ecologist.	Prior to commencement of operational works.
		If vegetation outside of disturbance area is damaged, it is to be rehabilitated. Prevent future occurrences through re-surveying, change of clearing plan, update site personnel information and training on clearing procedures.	Site Manager.	Ongoing
Prevention of secondary impacts on retained vegetation communities within the UDA	Monitor retained vegetation for secondary impacts such as weed invasion from disturbed areas, compaction, altered hydrology (e.g. water-logging), scouring and erosion from runoff and dumping of spoil.	No secondary impacts to affect the condition and long-term viability of retained vegetation communities.	During the occupational phase of the development, ULDA is to delegate a person responsible for regular visual monitoring and reporting of potential impacts.	Ongoing
		If a secondary impact is observed, remove the source of the impact (e.g. implement a weed control program).	The ecologist is to conduct regular monitoring of retained vegetation and inform ULDA of requirements for remediation as necessary.	Ongoing

INDIVIDUAL TREE PROTECTION		**Aim:** ***To ensure Individual Tree Protection is an integral component of site construction***		
Performance Objective	**Implementation Strategy**	**Performance Indicators** **Corrective Action**	**Responsibilities, Reporting and Review**	**Timing and Frequency**
Ongoing Tree Management	Retained trees are to be monitored for signs of deterioration. Trees suspected of deteriorating health are to be assessed by a qualified arborist. Corrective actions to be prescribed by the arborist and corrective works supervised.	Trees are to remain visually healthy.	Vegetation checked by Ecologist or qualified arborist as required throughout development.	Throughout occupational phase.
		Induction of site staff into requirements for maintenance and monitoring of tree health.	ULDA and ecologist to present the induction. Site Manager to ensure all staff have completed induction.	
		Regularly assess vegetation.	Vegetation checked by Ecologist or qualified arborist as required throughout development.	
Cleared vegetation management	Cleared vegetation to be used on site for rehabilitation. Fertile weed material to be removed off site. Cleared material should not be placed within 20m to the watercourse. Any logs, stumps or hollows should be incorporated into area of retained vegetation and rehabilitation areas for the creation of fauna habitat.	Stockpiled mulch to be free of weed propagules. Logs and hollows are incorporated into habitat creation where possible.	Vegetation checked by Ecologist as required throughout initial construction phase. Ecologist to provide advice regarding the placement of logs etc. for habitat enhancement.	Construction activities (prior to earth works) and during earthworks.
NATIVE VEGETATION MONITORING AND MAINTENANCE		**Aim:** ***To prevent the long-term degradation of the habitat values of retained vegetation***		
Performance Objective	**Implementation Strategy**	**Performance Indicators** **Corrective Action**	**Responsibilities, Reporting and Review**	**Timing and Frequency**
Weed Monitoring and Control	Regular visual search for declared weeds within the retained vegetation for weed infestations (as listed within Section 2.2.6 and Appendix C of Appendix 2). Weed control is implemented when weed infestations are significant or an increase in declared weed species (i.e. species declared under the provisions of the LP Act 2002) is observed.	No large weed infestations visible within retained vegetation.	Ecologist to report to nominated ULDA representative.	Bi-annual.
		Weed Control is implemented to control weed infestations. Recommended weed control techniques are contained within **Appendix C** of **Appendix 2**.		As Required.

REHABILITATION ACTIVITIES		**Aim:** ***To rehabilitate areas post development to reflect their pre-disturbance state***		
Performance Objective	**Implementation Strategy**	**Performance Indicators** **Corrective Action**	**Responsibilities, Reporting and Review**	**Timing and Frequency**
Rehabilitation	Rehabilitation associated with each of the development phases (e.g. the provision of vegetated buffers between the area of development and the bushland and open space area) (refer to **Appendix A** of **Appendix 2**) is to commence prior to clearing of the relevant phase. Where this is not practical, rehabilitation of areas within the bushland and open space area is to occur prior to the initiation of tree removal.. Rehabilitation works and species to be used in the rehabilitation program are provided within **Appendix B** of **Appendix 2**. Signage within rehabilitation areas is to be erected to educate the public and temporary fencing may be required to reduce incidences of unauthorised entry into the rehabilitation areas. Specific recommendations regarding the planting of edges associated with each of the development Phases in Precinct 4 are provided within **Appendix A** of **Appendix 2**.	Rehabilitation works are undertaken in accordance with **Appendix 2**. Unauthorised entry into rehabilitation areas does not occur.	Ecologist to report to nominated ULDA representative.	Rehabilitation works to start prior to the commencement of vegetation removal. Then on an as needed basis following the completion of development.
		Temporary fencing of and/or signage within rehabilitation areas is erected.	Site Manager.	When required.

Table 4. Recommendations to provide safe fauna movement opportunities within Precinct 4 and connections to habitats outside of Precinct 4.

Location of Fauna Movement Corridor	Implementation Strategy	Actions	Responsibilities, Reporting & Review	Timing and Frequency
Within Retained Habitats north of Stage G to habitats across Telegraph Road.	Enhance this crossing to provide valuable safe movement between UDA and the bushland reserve on northern side of Telegraph Road known to contain Squirrel Gliders. The crossing at this location must be reviewed prior to any works associated with the road duplication.	Refer to **Appendix 2** for recommendations on rehabilitation, using Squirrel Glider feed trees, of retained habitats and along the powerlink easement. Install nest boxes on either side of powerlink easement.	Ecologist.	Before commencement of works associated with road duplication.
North south connection road	Ensure safe fauna movement continues between the bushland and open space area located between Phase E and G and the eastern bushland and open space area. Promote community awareness of the presence of significant fauna and encourage community participation in the protection of fauna and their habitats.	Road construction and final layout must consider the following actions: • Locate roadway to minimise the clearing of mature trees. • Clearly define all areas not directly affected by road construction to delineate limits of disturbance. No unauthorised disturbances should occur within defined zones (e.g. dumping of excavated soil). • Clearing for road construction must be done in a sequential manner to allow fauna to move away from the clearing area, and should only be conducted during the hours of 6am and 6pm. • Ensure mature trees are retained that allow Squirrel Gliders to glide across the distance of the roadway. Retained trees should be twice the height of the horizontal glide distance. Clearly mark trees to be retained. If tall trees are absent install glider poles of the appropriate height to allow Gliders to safely glide across the roadway. • Prevent clearing of any hollow-bearing trees. If hollows are removed these must be replaced with Squirrel Glider nest boxes (refer to SGMAP for design	Site Manager to ensure all actions are implemented and respected by all relevant staff. Any breach of compliance to be reported to Site Manager and corrective actions implemented. If any death/injury to fauna occurs, review Action Plan.	Ongoing.

Location of Fauna Movement Corridor	Implementation Strategy	Actions	Responsibilities, Reporting & Review	Timing and Frequency
		specifications) at a rate of two nest boxes per hollow removed. • Ensure a QPWS authorised fauna spotter/catcher is present during all tree clearing activities. • Limit vehicle speed along this roadway to 50k/h and install signage to advise motorists of the presence of fauna and the need for caution. • Use fauna sensitive lighting (e.g. directional or shade barriers) along the section of the roadway where it adjoins retained bushland areas. • Monitor the roadway for fauna/vehicle hits. If death or injury to native fauna has occurred, review this Action plan.		
TRANSPORT CORRIDOR At present, it is not expected that fauna could safely move across the existing rail corridor. The loss of fauna habitats within Stages E and G increases the need to provide safe access to additional habitats outside of the UDA to ensure population viability is maintained.	Facilitate safe fauna movement to parklands adjacent to retained habitats between Stages E and G.	Wooden launch poles will need to be installed to allow Squirrel Gliders to cross the approximate 60 m gap associated with the transport corridor. The exact location and height of necessary launch poles will be decided once final development plans for the busway are completed. It is anticipated that 3 x 13 m high launch poles will be required on either side of the transport corridor. The existing culvert at this location should be subject to detailed design to allow retrofitting with fauna furniture. The installation of a raised platform to provide a dry ledge to facilitate safe movement for ground-dwelling fauna is required.	Ecologist.	Once final development plans for the busway are completed.

Table 5. Monitoring Program for Pest Species and Significant Fauna Species

Significant Fauna Monitoring and Maintenance		**Aim:** ***To highlight and prevent the long-term degradation of fauna populations within retained or rehabilitated habitats, wildlife corridors and ecological reserves***		
Performance Objective	**Implementation Strategy**	**Performance Indicators** **Corrective Action**	**Responsibilities, Reporting and Review**	**Timing and Frequency**
Ongoing fauna Monitoring and Management.	Fauna populations on site, including pest species, are to be monitored by qualified ecologist to record any significant change in abundance of species.	Native fauna populations are to remain healthy and in similar abundances and diversity as recorded prior to development, as assessed by project ecologist. No increase in the abundance of fauna pest species. Corrective actions are to be prescribed by the ecologist and corrective works supervised.	During the occupational phase ULDA will engage competent contractors to monitor and manage fauna populations.	Once following clearing and construction phase, then biannually during occupational phase.

4.0 REFERENCES

BAAM (2008a). *Flora and Fauna Habitat Assessment – Fitzgibbon Urban Development Authority.* Unpublished report prepared for Urban Land Development Authority.

BAAM (2008b). *Squirrel Glider Management and Action Plan - Fitzgibbon Urban Development Authority.* Unpublished report prepared for Urban Land Development Authority.

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Rowston, C (2000). *Fitzgibbon Squirrel Glider Study.* Unpublished report prepared for Brisbane City Council.

WBM Oceanics (2003). *An assessment of squirrel glider population viability and raptor habitat values – Queensland Department of Housing Land, Bracken Ridge.* Unpublished report prepared for Queensland Department of Housing.

APPENDIX 1

Site-specific Management Actions for Staged Development of Precinct 4

Development Stage E

It is understood that Stage E is the next area to be developed and development will occur in two stages. This area currently supports a mixture of remnant and non-remnant vegetation that provide valuable feeding resources for Squirrel Gliders.

Clearing of 8.613 ha of vegetation is to be undertaken in Stage E; the rehabilitation requirement for this Stage totals 14.687 ha. It is suggested that rehabilitation works should be located within the relevant vegetation communities as outlined within **Table 1**, **Table 2** and **Figure 2.1**.

The management strategies and actions in the following table are relevant to both stages and should be considered in conjunction with the Squirrel Glider Management and Action Plan.

Management Strategies and Actions for Stage E.

Management Intent	Implementation Strategy	Estimated Costings
To minimise the loss of significant fauna habitats.	Wherever practical potential feed trees for Squirrel Gliders and Koalas should be retained within individual Lots and within internal roadways. Supplementary plantings of feed trees should occur along the boundaries of these areas. Clearing of vegetation will not commence until planned rehabilitation works in the northern retained habitats have been undertaken. Areas to be cleared should be inspected by a spotter/catcher for hollows. If any are found, they should be replaced as per the recommendations of the previous BAAM reports (BAAM 2008a, BAAM 2008b).	Refer to Rehabilitation Plan for cost for plantings. $90 per hour for spotter/catcher.
To minimise impacts on individual significant fauna.	Domestic dogs and to a lesser extent, cats, can kill, injure or stress native wildlife, especially Koala and Squirrel Gliders. Dog and cat ownership should be discouraged within areas associated with Stage E, as fencing will not be sufficient to deter Squirrel Gliders and from entering properties. If present, dogs and cats should be kept indoors or in enclosures that do not support potential feed trees from dusk until dawn each night. Ensure a QPWS authorised fauna spotter/catcher is present during all tree clearing activities.	$90 per hour for spotter/catcher.
Provide for safe fauna movement in retained bushlands.	The retained bushland habitats to the north of Stage E should be rehabilitated as per the Rehabilitation Plan. Three wooden poles at least 13 m in height should be erected within the retained bushlands to the north of Stage E and three similar poles on the opposite side of the rail line to facilitate safe movement opportunities for Squirrel Gliders to access habitats west of the rail/bus corridor. These poles should be installed prior to commencement of vegetation clearing.	Cost estimate for six 13m Glider Poles: $14,000 including installation

Development Stage F

The eastern boundary of Stage F forms the western boundary of the Precinct 4 Investigation Area identified in the FBMP. The investigation area supports abundant hollows and feed trees for Squirrel Gliders as well as feed trees for Koala and Grey-headed Flying-Fox.

Clearing of 3.212 ha of vegetation is to be undertaken in Stage F; the rehabilitation requirement for this Stage totals 3.482 ha. It is suggested that rehabilitation works should be located within the relevant vegetation communities as outlined within **Table 1**, **Table 2** and **Figure 2.1**.

The management strategies and actions for Stage F provided in the following table should be considered in conjunction with the Squirrel Glider Management and Action Plan.

Management Intent	**Implementation Strategy**	**Estimated Costings**
To minimise the loss of significant fauna habitats.	A previous study (WBM 2003) has identified the presence of one hollow-bearing tree within Stage F. If practical, this tree should be retained. Wherever practical potential feed trees for Squirrel Gliders and Koalas should be retained within individual Lots and within internal roadways. Supplementary plantings of feed trees should occur along the boundaries of this area. Clearing of vegetation will not commence until planned rehabilitation works in the eastern retained habitats have been undertaken. Areas to be cleared should be inspected by a spotter/catcher for hollows. If any are found, they should be replaced as per the recommendations of previous BAAM reports (BAAM 2008a, BAAM 2008b).	Refer to Rehabilitation Plan for cost for plantings. $90 per hour for spotter/catcher.
To minimise impacts on individual significant fauna.	Dog and cat ownership should be discouraged within areas associated with Stage F, as fencing will not be sufficient to deter Squirrel Gliders and from entering properties. If present, dogs and cats should be kept indoors or in enclosures that do not support potential feed trees from dusk until dawn each night. Ensure a QPWS authorised fauna spotter/catcher is present during all tree clearing activities.	$90 per hour for spotter/catcher.
Provide for safe fauna movement in retained bushlands.	The retained bushland habitats to the east of Stage F should be rehabilitated as per the Rehabilitation Plan. Landowners should be discouraged from erecting fencing that prohibits fauna from accessing feed trees within their properties, unless unrestrained dogs and cats are present within the property.	Refer to Rehabilitation Plan for cost for plantings

Development Stage G

The southern boundary of Stage G adjoins the western portion of the Precinct 4 Investigation Area identified in the FBMP. The investigation area supports a mixture of regrowth and mature Melaleuca trees that provide important feeding resources for Squirrel Gliders, Grey-headed Flying-Fox and to a lesser extent, Koala.

Clearing of 6.664 ha of vegetation is to be undertaken in Stage G; the rehabilitation requirement for this Stage totals 7.262 ha. It is suggested that rehabilitation works should be located within the relevant vegetation communities as outlined within **Table 1**, **Table 2** and **Figure 2.1**.

The management strategies and actions for Stage G provided in the following table should be considered in conjunction with the Squirrel Glider Management and Action Plan.

Management Intent	Implementation Strategy	Estimated Costings
To minimise the loss of significant fauna habitats.	Wherever practical potential feed trees for Squirrel Gliders and Koalas and tall trees for gliding should be retained within individual Lots and within internal roadways. Clearly mark trees to be retained. If tall trees are absent install glider poles of the appropriate height to allow Gliders to safely move through the site as specified in Table 3. Supplementary plantings of feed trees should occur along the northern and southern boundaries of this area, as prescribed in the Rehabilitation Plan. Clearing of vegetation will not commence until planned rehabilitation works in the northern retained habitats have been undertaken. Areas to be cleared should be inspected by a spotter/catcher for hollows. If any are found, they should be replaced as per the recommendations of the previous BAAM reports (BAAM 2008a, BAAM 2008b).	Refer to Rehabilitation Plan for cost for plantings. $90 per hour for spotter/catcher. Cost for Glider Poles: $2,000 per 12m pole including installation
To minimise impacts on individual significant fauna.	Dog and cat ownership should be discouraged within areas associated with Stage F, as fencing will not be sufficient to deter Squirrel Gliders and from entering properties. If present, dogs and cats should be kept indoors or in enclosures that do not support potential feed trees from dusk until dawn each night. Ensure a QPWS authorised fauna spotter/catcher is present during all tree clearing activities.	$90 per hour for spotter/catcher.
Provide for safe fauna movement in retained bushlands.	Clearing of vegetation within this area should not commence until safe movement options have been provided for fauna, especially Squirrel Gliders to access habitats within the bushland reserve on the opposite side of Telegraph Road. Refer to Table 3 of the FFMP for specific actions for fauna movement options at this location. Landowners should be discouraged from erecting fencing that prohibits fauna from accessing feed trees within their properties, unless unrestrained dogs and cats are present within the property.	6 x Glider nest Boxes @ $500 per box.

Development Stage B

Fauna habitats within Stage B have been highly degraded as a result of previous land clearing, and now consist of a patch of wattle regrowth, open grassy areas with some scattered trees and weeds.

Clearing of 0.794 ha of vegetation is to be undertaken in Stage B; the rehabilitation requirement for this Stage totals 0.856 ha. It is suggested that rehabilitation works should be located within the relevant vegetation communities as outlined within **Table 1**, **Table 2** and **Figure 2.1**.

Management strategies and actions within Stage B should ensure that all activities associated with the residential development and north south road construction comply with the overall intent of the FFMP for Precinct 4. No further site-specific actions are required for Stage B.

Development Stage C

Fauna habitats within Stage C have been highly degraded as a result of previous land clearing, and now consist of a patch of wattle regrowth, open grassy areas with some scattered trees and weeds.

Clearing of 5.084 ha of vegetation is to be undertaken in Stage C; the rehabilitation requirement for this Stage totals 5.708 ha. It is suggested that rehabilitation works should be located within the relevant vegetation communities as outlined within **Table 1**, **Table 2** and **Figure 2.1**.

Management strategies and actions within Stage C should ensure that all activities associated with the residential development and north south road construction comply with the overall intent of the FFMP for Precinct 4. No further site-specific actions are required for Stage C.

Management Intent	Implementation Strategy	Estimated Costings
To minimise the loss of significant fauna habitats.	Wherever practical potential feed trees for Squirrel Gliders and Koalas should be retained within individual Lots and within internal roadways. Clearing of vegetation will not commence until planned rehabilitation works in the eastern retained habitats have been undertaken. Areas to be cleared should be inspected by a spotter/catcher for hollows. If found, these should be replaced as per the recommendations of the previous BAAM reports (BAAM 2008a, BAAM 2008b). 8 mature *E. tereticornis* have been identified (as per the specifications set out in the FBMP on stage C that would require replacement replanting on a 3:1 basis if removed. Therefore the maximum replanting requirement for Stage C is 24 plantings. Replacement plantings can be located in parks within Stage C or within the Bushland and/or Open Space Area once land is stabilised therein.	$90 per hour for spotter/catcher. Replacement planting cost per mature tree removed: 3 tube stocks @ $1.50/unit = $4.50 + Labour (cost of labour to be determined according to density of planting).
To minimise impacts on individual significant fauna.	Dog and cat ownership should be discouraged within areas associated with Stage C, as fencing will not be sufficient to deter Squirrel Gliders and from entering properties. If present, dogs and cats should be kept indoors or in enclosures that do not support potential feed trees from dusk until dawn each night. Ensure a QPWS authorised fauna spotter/catcher is present during all tree clearing activities.	$90 per hour for spotter/catcher.
Provide for safe fauna movement between feed trees.	Landowners should be discouraged from erecting fencing that prohibits fauna from accessing feed trees within their properties, unless unrestrained dogs and cats are present within the property.	

APPENDIX 2

Rehabilitation Plan

REHABILITATION PLAN

Fitzgibbon Urban Development Area: Precinct 4

Report prepared for ULDA

Biodiversity Assessment AND MANAGEMENT PTY LTD

FAUNA AND HABITAT SPECIALISTS

REHABILITATION PLAN
PRECINCT 4
FITZGIBBON URBAN DEVELOPMENT AREA

Table of Contents

List of Figures

List of Tables

List of Appendices

List of Abbreviations

BAAM	Biodiversity Assessment and Management Pty Ltd
FFMP	Flora and Fauna Management Plan
QPIF	Queensland Primary Industries & Fisheries (within the Department of Employment, Economic Development and Innovation)
LP Act	Queensland Land Protection (Pest and Stock Route Management) Act 2002
UDA	Fitzgibbon Urban Development Area
ULDA	Urban Land Development Authority

1.0 INTRODUCTION

This Rehabilitation Plan together with the Flora and Fauna Management Plan (BAAM 2009) forms an integral part in the conservation of the ecological values of the Precinct 4 of the Fitzgibbon Urban Development Area (subject site). The site supports significant remnant bushland and fauna habitat, as well as open eucalypt regrowth forest and large areas of rank pasture.

This Rehabilitation Plan prescribes actions necessary to manage and enhance the ecological values of the site's natural areas (incl. stormwater detention areas) post construction works through active management of identified areas to increase the site's biodiversity values over time. Prescriptive recommendations to preserve the site's vegetation values during construction activities are detailed in the FFMP (BAAM 2009). This plan also recognises that there will be a requirement to disturb areas within the designated Bushland and open space area (i.e. areas north of Rogan Road) for management of vegetation for bushfire and public access and safety issues. Although disturbance associated with these issues is beyond the scope if this management plan and will be detailed in specific management plans (e.g. Bushfire Management Plan), this Rehabilitation Plan highlights fire-retardant vegetation.

2.0 RESPONSIBILITIES AND TIMING

All rehabilitation works are to be undertaken by qualified, experienced bush regenerators. All contract staff are to undertake a site induction prior to commencement of rehabilitation works to familiarise visitors with the site's ecological values and rehabilitation strategies.

Any major proposed changes to the Rehabilitation Plan, including changes to the planting schedule or scheduled species, are to be approved by ULDA.

This Rehabilitation Plan is to be implemented and completed to the satisfaction of the ULDA.

3.0 AIMS AND OBJECTIVES

3.1 AIMS

The Rehabilitation Plan aims to provide:

- Maps identifying and delineating areas of the Site requiring rehabilitation;
- Proposed rehabilitation works, methods, objectives and desired outcomes;
- Rehabilitation schedules including staging, plant species, stock size, quantities and locations;
- Maintenance program for the works;
- Stabilisation methods for all areas of exposed soil surface and stormwater detention areas;
- Habitat features to be provided for enhancement of habitat values in the rehabilitation area; and
- Weed management strategies, planting methods, mulching and site preparation including mechanisms to reduce the incidence of mosquito breeding site by reducing the availability of standing water within rehabilitation areas.

The desired outcomes (i.e. climax vegetation communities) for rehabilitation of retained bushland and open space areas are shown in **Figure 2.1**.

3.2 OBJECTIVES

The broad objectives of the Rehabilitation Plan are to rehabilitate degraded areas and improve ecological functions through enhanced ecological connection and condition of extant and revegetated communities across Precinct 4 of the UDA (particularly areas to the north of Rogan Road). This will be achieved through the specific rehabilitation objectives, listed in Table 1, and delivered through an intensive rehabilitation strategy and management recommendations presented in Tables 2 and 3.

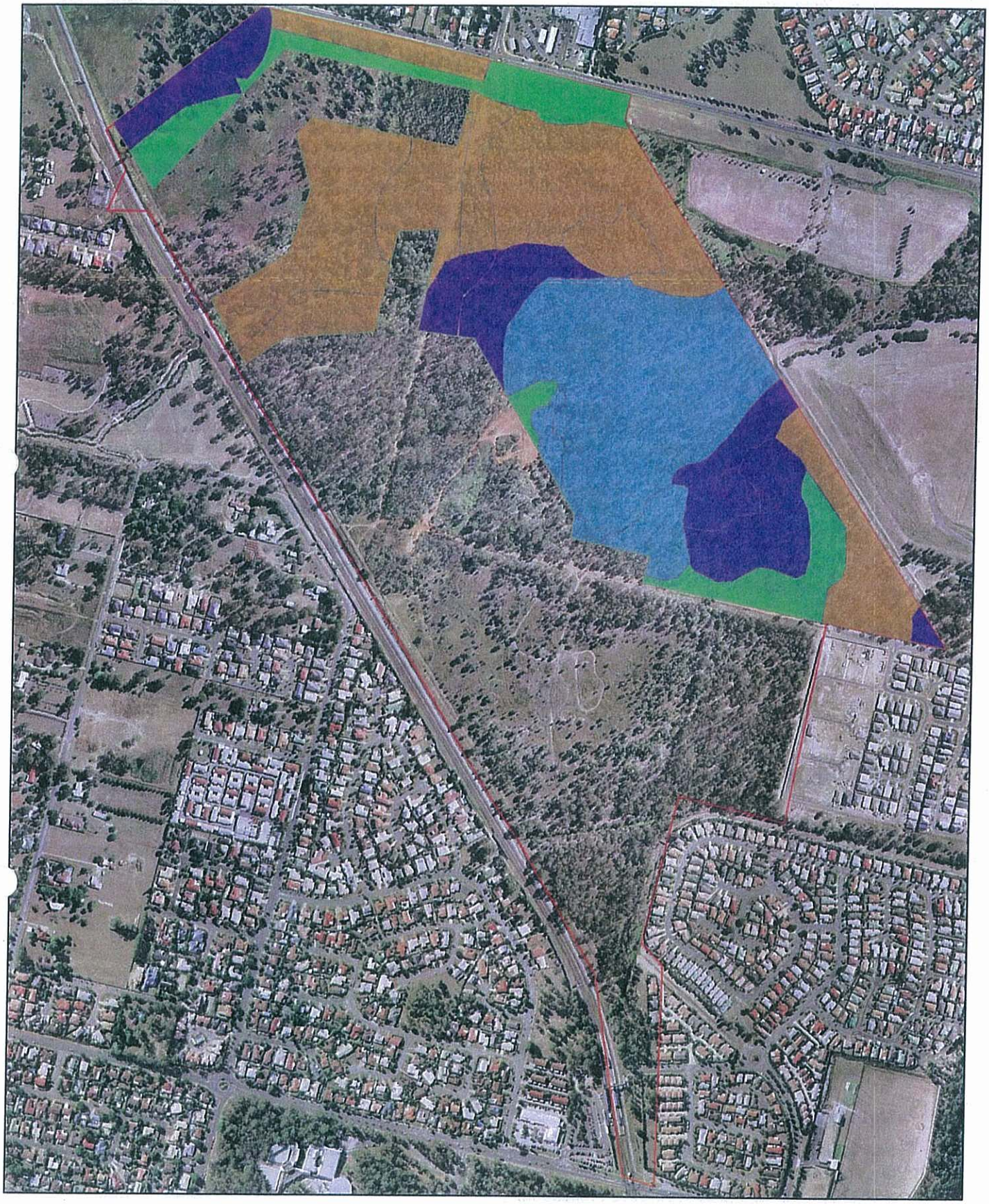

Figure 2.1:

Target Climax Communities

Rehabilitation Plan-Precinct 4, Fitzgibbon Urban Development Area

Table 1 – Rehabilitation Objectives

	Objective	Details
1	Identify and delineate rehabilitation and revegetation areas	Base-line studies have identified the condition and extent of vegetation communities across the Site. Ecological modelling has delineated bushland and open space areas and fauna movement corridors. This plan identifies areas within this conservation network that require rehabilitation in order to increase the functionality of this conservation network.
2	Prioritise and schedule rehabilitation works	Highly degraded areas within the bushland and open space area (i.e. Areas to be retained to the north of Rogan Road) or areas of retained vegetation requiring immediate action are prioritised whilst the development of the complete rehabilitation works is staged in response to the development. Areas of retained vegetation within the development area sill be credited to reduce the rehabilitation requirement within the bushland and open space area.
3	Control and eradicate declared and invasive weeds	Control and eradicate (where practical) state declared weeds (as listed under the *Land Protection (Pest and Stock Route) Management Act 2002*) (LP Act) and priority environmental weeds on the site through appropriate weed control methods.
4	Conserve and enhance existing native vegetation	Identify native vegetation to be retained, control weed species and undertake supplementary planting with native species to support existing native vegetation.
5	Conserve and enhance ecological process and habitat values	Conserve and identify existing habitat values, introduce suitable habitat features such as hollow logs and nesting boxes, control weeds to encourage a diversity of wildlife, remove barriers to fauna movement (see also FFMP Plan (BAAM 2009)).

4.0 REHABILITATION STRATEGY

4.1 EXISTING SITE CONDITIONS

Precinct 4 of the UDA is located in the north-eastern suburbs of Brisbane City approximately 12 km from the Central Business District. The total area of Precinct 4 is approximately 120 hectares. Much of the vegetation contained within Precinct 4 has been highly disturbed and has been subject to land clearing, although Remnant stands still remain on site although it is particularly abundant north of Rogan Road.

4.2 REHABILITATION PLAN

The desired outcomes of the Rehabilitation Plan are presented in **Figure 2.1**. This figure delineates the extent and type of rehabilitation according to the existing condition and the intended climax community. All areas that are located outside of the development footprint are *bushland and open space areas*. These areas will be the primary focus of this Rehabilitation Plan.

There are 4 rehabilitation area types (i.e. Target Climax Communities) distributed across the Site. This plan presents:

- A Summary of the current condition;
- The Intended climax community
- General management requirements;
- Specific rehabilitation/revegetation requirements (including priority weeds); and
- Species schedule and planting intensities recommended.

4.3 REHABILITATION TECHNIQUES

All existing native species, including mature and regrowth trees and saplings, shrubs, grasses and forbs identified within the bushland and open space areas of the site, are to be retained and managed as part of the

rehabilitation phase and maintenance. Where planting of tube stock is required within the drip zone of retained vegetation all works are to be carried out by hand.

Recommendations regarding size of planting stock, mulch specifications and any other necessary treatments, such as weed control, are detailed in **Table 4** *'Rehabilitation Methodology'*. Recommended weed control methods are outlined in **Table 6** *'Invasive Weed Species on Site'* with reference to specific weed control techniques in **Appendix B**.

For all Rehabilitation Zones, habitat features such as rocks, fallen branches and dead trees and shrubs in all zones are to be retained *in situ* unless they pose a safety risk to workers.

In addition to the designated bushland and open space area, rehabilitation of areas abutting each of the 4 residential zones (Stages D, E, F and G) and tracks and trails contained within Precinct 4 will occur. Site specific rehabilitation information relating to these areas is provided in **Appendix A**.

Rehabilitation activities are to cease during flooding events and are to resume once flood waters have subsided. Any areas containing standing water that are not part of a natural drainage system are to be drained or filled to eliminate the area becoming a mosquito breeding site. Areas directly adjacent to stormwater management areas are to be planted with species that will consolidate the soil. Such species are highlighted in **Table 3**.

4.4 General Rehabilitation Requirements

All weed and exotic species are to be removed according to the methods provided in **Appendices B** and **C**. All weed species listed in **Table 6** are to be eradicated from the rehabilitation area prior to the planting of tube stock. Other exotic and environmental weed species are to be controlled as necessary to protect rehabilitation plantings and to encourage natural regeneration of native species.

Spot spraying methods are to be employed to control exotic grasses. Particular care must be taken to avoid spraying native grasses, forbs and regenerating trees and shrubs. Two weeks following spraying of rank exotic grasses these are to be knocked down by brushcutting. Particular care must be taken to avoid slashing native grasses and forbs.

Where woody trees and shrubs are removed their roots shall be left to rot *in situ* as the roots help to prevent erosion.

4.5 Management and Maintenance Requirements of Vegetation Communities

The four (4) target climax vegetation communities within the bushland and open space area (i.e. areas outside of the development footprint and to the north of Rogan Road) are identified in **Figure 2.1**. Seven (7) vegetation communities currently exist outside of the development footprint (BAAM 2008). These communities are illustrated in **Figure 4.1**. **Table 2** outlines the general management, revegetation, monitoring and maintenance requirements for each of the Target Climax Communities as indicated in **Figure 2.1**. To achieve the desired climax community, recommended planting schedules and densities for each climax community are provided in **Table 3**.

4.6 Estimated Costs Associated with Rehabilitation and/or Revegetation

Approximations regarding the average cost of Rehabilitation and Revegetation of Precinct 4 are provided below:

Weed management (incl. labour): Herbicide - $7.00/L (Glyphosate), Spraying / brush-cutting and labour - $200/ha;

Revegetation: Tube stock - $1.50/ea, Labour - $800/ha;

Mulching: Free (sourced from site); and

Monitoring and Maintenance: $200/ha over a 12 month period.

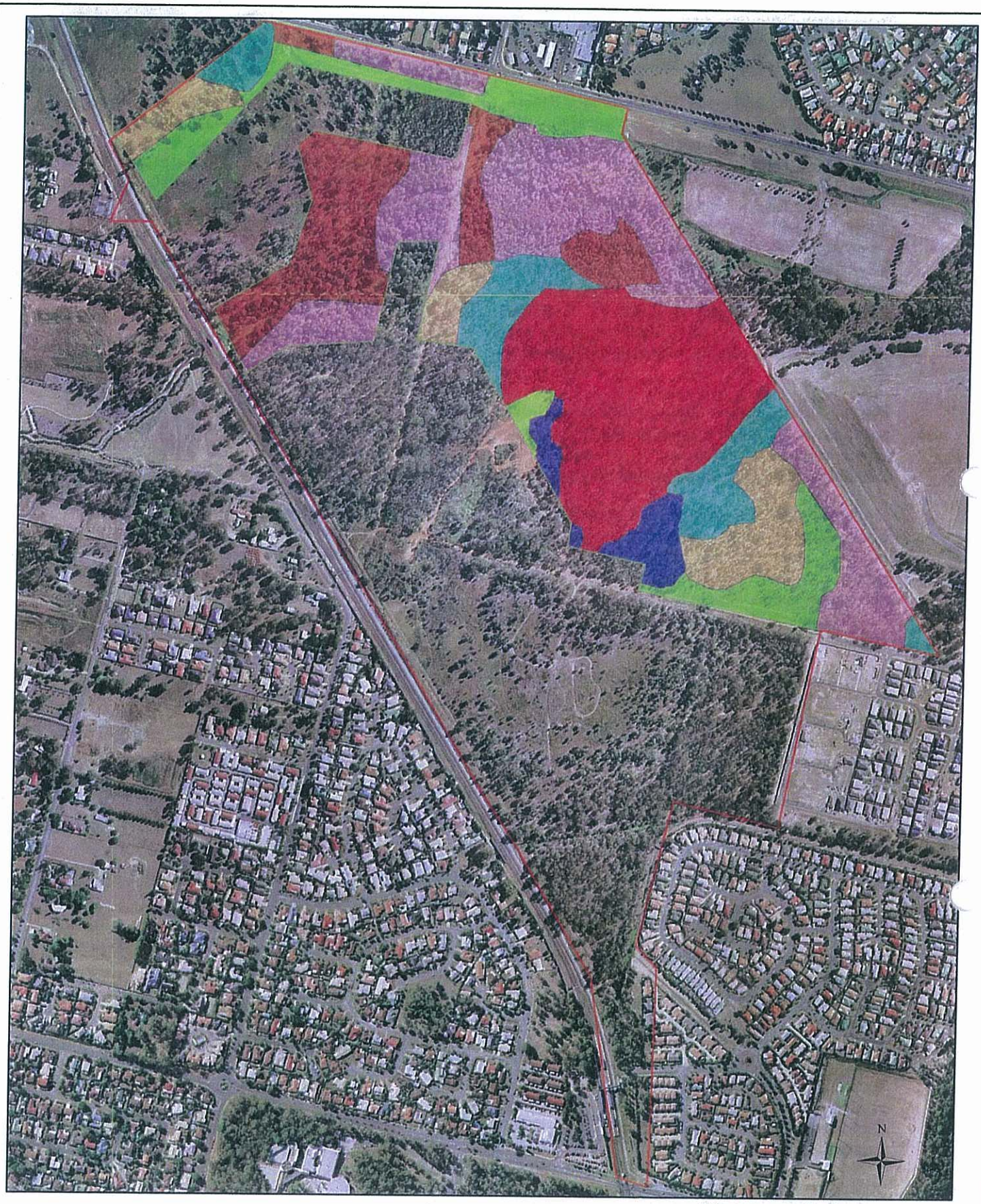

Figure 4.1: Extant Vegetation Communities

Rehabilitation Plan-Precinct 4, Fitzgibbon Urban Development Area

Table 2: Management and Maintenance Requirements of Vegetation Communities

Vegetation Management Climax Community (Figure 2.1)	Existing Vegetation Communities (Figure 3.1)	Current Condition Summary	General Management Requirements and Potential Threats	Species schedule	Monitoring and Maintenance	Desired Outcomes and Performance Indicators
***Melaleuca* Open Forest**	***Melaleuca* regrowth;** ***Melaleuca* Open Forest.**	Generally in good condition this community shows high species diversity in the mid and upper stratum. However, in many areas the understorey is dominated by rank grasses (e.g. signal grass *Urochloa mutica*). Other weeds such as Chinese Elm *Celtis sinensis,* Groundsel Bush *Baccharis halimifolia* and Camphor Laurel *Cinnamomum camphor* are common along tracks and other disturbed areas within this community. Portions of this community (regrowth areas) are currently a source of weed seeds threatening the condition of neighbouring native communities.	Weeds currently present include Slash pine *Pinus elliottii*, Groundsel Bush *Baccharis halimifolia* and Broad-leaved pepper tree *Schinus terebinthifolius* (see weed control techniques provided in **Appendices B** and **C**). A weed eradication programme within this area is required. This will enhance the ecological values of the area by promoting recruitment of *Melaleuca* regrowth, reducing the spread of weeds into adjoining areas and increasing cover and foraging resources for native fauna species.	Implement initial weed eradication and control. No revegetation requirements for this area unless canopy gaps (measured from the drip zone) exceed 50m.	Monitoring and maintenance schedule for revegetated areas: - Monthly for the first 12 months; - Every three months for the second 12 months; - Bi-annually for following 3 years; and - Annually there-after.	Improve vegetation community condition by eradication of weed infestations. Performance indicators include: - No evidence of dieback of canopy species. - Continued evidence of canopy species seedling recruitment. - No weed infestations.

Vegetation Management Climax Community (Figure 2.1)	Existing Vegetation Communities (Figure 3.1)	Current Condition Summary	General Management Requirements and Potential Threats	Species schedule	Monitoring and Maintenance	Desired Outcomes and Performance Indicators
Queensland Blue-gum Open Forest	**Queensland Blue-gum Open Forest;** **Queensland Blue-gum Regrowth**	Generally in good condition, this community shows high species diversity and condition in all layers. Some minor weed infestations currently degrade the condition of this community.	There is no requirement for revegetation within this community. Rehabilitation requirements include control of existing nuisance weeds including Signal Grass (*Urochloa mutica)*, Mickey mouse bush (*Ochna serrulata*), Yellow bells (*Tecoma stans*), Cadagi (*Corymbia torelliana*) and Camphor laurel (*Cinnamomum camphora*) (see weed control techniques provided in **Appendices B** and **C**). Removal of weeds will maintain and enhance the integrity of the habitat and facilitate the natural recruitment of locally endemic species that form forage for native fauna species (including Squirrel Gliders).	Implement initial weed eradication and control. No revegetation requirements for this area unless canopy gaps (measured from the drip zone) exceed 50m.	Monitoring on a bi-annual basis for the first two years to ensure natural regeneration processes are taking place. Outbreaks of weeds are to be controlled in accordance with **Appendices B** and **C** when identified. Monitoring annually there-after.	Improve vegetation community condition by eradication of weed infestations. Performance indicators include: - No evidence of dieback of canopy species. - Continued evidence of canopy species seedling recruitment. - No weed infestations.
Queensland Blue-gum and Bloodwood Open Forest	**Queensland Blue-gum and Bloodwood Open Forest;** **Queensland Blue-gum and Bloodwood Open Forest regrowth.**	Generally in good condition this community shows high species diversity and condition in all layers. Some minor weed infestations currently degrade the condition of this community, particularly along the interface of disturbance areas.	Weeds present include Lantana (*Lantana camara*), Signal Grass (*Urochloa mutica)*, Mickey mouse bush (*Ochna serrulata*), Yellow bells (*Tecoma stans*), Cadagi (*Corymbia torelliana*) and Camphor laurel (*Cinnamomum camphora*). These species are to be controlled (see weed control techniques provided in **Appendices B** and **C**).	Implement initial weed eradication and control. No revegetation requirements for this area unless canopy gaps (measured from the drip zone) exceed	Monitoring on a bi-annual basis for the first two years to ensure natural regeneration processes are taking place. Outbreaks of weeds are to be controlled when identified. Monitoring annually there-after.	Improve vegetation community condition by eradication of weed infestations. Performance indicators include: - No evidence of dieback of canopy species. - Continued evidence of canopy species

Vegetation Management Climax Community (Figure 2.1)	Existing Vegetation Communities (Figure 3.1)	Current Condition Summary	General Management Requirements and Potential Threats	Species schedule	Monitoring and Maintenance	Desired Outcomes and Performance Indicators
			There is no requirement for revegetation within this community. Rehabilitation requirements include control of existing nuisance weeds. Removal of weeds will maintain and enhance the integrity of the habitat and facilitate the natural recruitment of locally endemic species that form forage for native fauna species (including Squirrel Gliders).	50m.		seedling recruitment. - No weed infestations.
Woodland with native grassy understorey	**Grassy areas with scattered trees.**	Currently degraded with loss of much of the structure associated vegetation endemic to the area. This area has been cleared and currently contains exotic grass and forb species which have reduced the levels of native species recruitment. Portions of this community (regrowth areas) are currently a source of weed seeds threatening the condition of neighbouring native communities.	These areas require revegetation to reduce the size of canopy gaps. Such revegetation will enhance the environmental values of this area in the long term by providing increased forage and cover for native fauna and reduced resources for weed species. However, trees or plants that grow in excess of 4m are not to be planted within the electricity easements that run parallel to Telegraph Road within the northern portion of Precinct 4. All exotic species (including weeds) within this area should be controlled as per the recommendations provided within **Appendix B** and **C**.	See **Tables 3** and **4**.	Monitoring and maintenance schedule for revegetated areas: - Monthly for the first 12 months; - Every three months for the second 12 months; - Bi-annually for following 3 years; and - Annually thereafter.	Re-creation of a woodland community dominated by Queensland Blue-gum and Grey Ironbark with a native grassy understorey. A reduction in the abundance and diversity of exotic species is a performance requirement.

Table 3 – Species Planting Schedule

Community Stratum Species	Common Name	Density*	Notes
***Melaleuca* Open Forest**			
Tree layer			**In general, this community does not require revegetation**. However, where weeds are eradicated supplementary plantings may be required to prevent re-invasion. Weed control of this community will enhance the natural recruitment of locally endemic flora species.
Melaleuca quinquenervia [1]	Broad-leaved Paperbark	2m centres	
Eucalyptus tereticornis [1]	Queensland Blue-gum	2m centres	
Lophostemon suaveolens [1]	Swamp Box	2m centres	
Shrub Layer			
Alphitonia excelsa [1 2]	Red Ash	2m centres	
Glochidion ferdinandi [1]	Cheese Tree	2m centres	
Callistemon salignus [1]	Willow bottle brush	2m centres	
Queensland Blue-gum Open Forest			
Tree layer			**In general, this community does not require revegetation**. However, where weeds are eradicated supplementary plantings may be required to prevent re-invasion when canopy gaps exceed 50m (measured from the drip zone). Weed control of this community will enhance the natural recruitment of locally endemic flora species.
Eucalyptus tereticornis [1]	Queensland Blue-gum	2m centres	
Eucalyptus seeana	Narrow-leaved Queensland Blue-gum	2m centres	
Lophostemon suaveolens [1]	Swamp Box	2m centres	
Eucalyptus siderophloia	Broad-leaved Grey Ironbark	2m centres	
Corymbia intermedia	Pink Bloodwood	2m centres	
Sub-canopy			
Allocasuarina litoralis	Black She Oak	2m centres	
Alphitonia excelsa [1 2]	Red Ash	2m centres	
Melaleuca quinquenervia [1]	Broad-leaved Paperbark	2m centres	
Shrub Layer			
Acacia disparrima	Hickory Wattle	2m centres	
Acacia leiocalyx	Black Wattle	2m centres	
Acacia fimbriata [1]	Brisbane Golden Wattle	2m centres	
Dodonaea triquetra [1 2]	Hop Bush	2 m centres	
Ground Layer			
Hibbertia stricta	Guinea Flower	1m centres	
Hibbertia vestita	Guinea Flower	1m centres	
Lomandra longifolia [1 2]	Matrush	1m centres	
Hardenbergia violacea [2]	Native Sarsaparilla	1m centres	
Dianella caerulea [1 2]	Blue Flax Lily	1m centres	