Transforming Our Landscapes

Vegetation Offset Proposal for the Northeast Business Park Pty Ltd –Northeast Business Park Project.

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1 Introduction

Northeast Business Park Pty Ltd (ABN 28 101 569 457) is in the planning phase of the Northeast Business Park Project. That project is a major integrated development that encompasses five lots and includes business, residential, commercial and light industrial precincts. The project has been declared a significant project by the Coordinator General and an Environmental Impact Statement (EIS) has been prepared in accordance with the requirements of the *Environment Protection and Biodiversity Conservation Act 1999 (Cth).*

Development works within the 762 ha site (located on the southern bank of the Caboolture River) will include the construction of a marina, 160 ha of industrial area and more than 100 ha of mixed density residential development. More than 50% of the site will be set aside as open space.

Consultants PMM Group and Cardno have prepared studies in support of the EIS. That work included site surveys and the provision of advice with respect to the clearing of remnant vegetation. Those studies address the relevant state and Federal legislation and its associated codes. This proposal specifically addresses the *Interim Policy for Vegetation Management Offsets VEG/2005/2236 – Version 2.*

Field investigations have identified approximately 10.73 ha of native vegetation on freehold land that is proposed to be cleared as a part of the project. The area is classified as endangered regional ecosystem (12.5.3). The endangered vegetation occurs on Lot 2 RP902075 (2 Nolan Drive Burpengary Q 4506).

The clearing of the endangered vegetation is proposed to be offset in accordance with the *Interim Policy for Vegetation Management Offsets VEG/2005/2236 – Version 2.* The offset details are provided in the subsequent sections of this report.

1.1 Designation of Project under Section 22A of the *Vegetation Management Act 1999*

Clearing for the proposed project has been deemed by the Natural Resources and Water (NR&W) Director - Vegetation Management to be for the purpose of "*a project declared as significant under the State Development and Public Works Organisation Act 1971, Section 26*' under section 22a of the *Vegetation Management Act 1999*. This designation makes the project eligible to apply for a clearing permit under the *Vegetation Management Act 1999* through the Concurrency Agency Policy for Material Change of Use.

This report addresses the *Interim Policy for Vegetation Management Offsets VEG/2005/2236 – Version 2,* it should be read in conjunction with the previously mentioned EIS and development application.

2 Offset Proposal

The following sections of this report provide a summary of the proposed Vegetation Offset Proposal. Included is a summary of the vegetation proposed to be cleared as well as a summary of the proposed offset. The *Interim Policy for Vegetation Management Offsets VEG/2005/2236 – Version 2* is addressed.

2.1 Vegetation proposed to be cleared

Within the context of this proposal relevant clearing is: clearing of regional ecosystems with a *Vegetation Management Act 1999* classification of Endangered (VM status endangered). This is because Vegetation Offsets have been put forward as an acceptable solution to the previously mentioned performance requirements of the *Regional Vegetation Management Code for Ongoing Clearing Purposes – South-East Queensland Region June 2004.*

The proposed project (clearing) is situated in the South East Queensland bioregion within the sub-region - Southern Coastal Lowlands (12.4). The local government authority is Caboolture Shire. The project includes clearing 10.73 ha of Endangered Regional Ecosystem (12.5.3) on freehold land that is zoned as urban footprint. The clearing site is located immediately adjacent to the Bruce Highway.

The extent and location of the relevant vegetation has been verified by field survey and it was found to match that shown in Version 5.0 of the Regional Ecosystem Mapping prepared by the Queensland EPA. Details of the area of proposed relevant clearing (based on field inspection) by regional ecosystem are provided in Table One below.

Table One: Proposed Clearing

Clearing RE	VM Status	Area (ha)
12.5.3	E	10.73

Appendix 1 of this report shows a map of the proposed clearing.

2.2 Proposed Vegetation Offsets

The offset has been selected to comply with the *Interim Policy for Vegetation Management Offsets VEG/2005/2236 – Version 2*, Table One. The area and type of offset are provided below in Table Two and a graphical representation of the proposed offset site is provided in Appendix 2.

Table Two: Proposed Offset

Clearing RE	VM status	Area (ha)	Offset Re	VM Status	Area (ha)
2.5.3	E	13.1	12.9-10.11/12.3.3c 12.9-10.7	E OC	35.84 4.4

The proposed vegetation offset area is 40.24 ha against the 10.73 ha area of relevant vegetation to be cleared. Within the proposed offset area there is 4.4 ha of linking vegetation that will be protected by covenant. This is included to improve the ecological function of the offset vegetation but is outside of the code requirements (12.9-10.7 area) (Refer to Appendix 2 of this report for visual representation of the offset areas).

2.3 Policy Compliance

The specific tables from the *Interim Policy for Vegetation Management Offsets VEG/2005/2236 – Version 2* are addressed below. The policy response is supported in section 4 of this document with further information on the proposed vegetation offsets.

2.3.1 Policy Acceptance Criteria

Policy Section A: This offset proposal addresses *the Interim Policy for Vegetation Management Offsets VEG/2005/2236 – Version 2* and within that the Performance requirement S.7 or the RVM *Code for Ongoing Clearing Purposes – South East Queensland*. Part A of the *Interim Policy for Vegetation Management Offset VEG/2005/2236 – Version 2* applies.

Clause	Intent of Clause	Compliance Response
1	The area must not be mapped as remnant vegetation or otherwise protected	The vegetation proposed as offsets is mapped as non-remnant under the current, Version 5.0, of the EPA Regional Ecosystem Mapping. Appendix 2 of this report shows the proposed offset areas overlaying the current Regional Ecosystem mapping. The proposed vegetation offset areas are not on the site and not required to be retained under a development condition.
2	Pre-clearing extent of RE proposed to be cleared (2c applies)	The regional ecosystems proposed for clearing have pre-clearing extents as follows 12.5.3 - 10 to 30%. The proposed vegetation offset consists of re-growth vegetation of two endangered vegetation types, RE 12.9-10.11 and 12.3.3c This meets the requirements of the policy with respect to conservation status and provides potentially greater diversity. The vegetation occurs on different land zones to the proposed clearing. In accordance with the policy the proposed vegetation offsets meet conditions from Table One of the policy. Specifically, the vegetation offset provided is 2.5 times the area proposed to be cleared, provides ecological equivalence and, in this case, no tree planting / revegetation is required on the offset site.
3	The offset area must be greater than 2 ha.	The proposed offset is 40.24 ha in total area consisting or 35.84 ha of 'Endangered' vegetation and 4.4 ha of 'Of Concern' (linking) vegetation. The offset buffers an existing remnant patch of endangered 12.9-10.11 remnant that is 6.5ha in size, making an overall patch size of 46.74 ha. The offset is within the bioregion, (different sub-region). This is consistent with an option from Table One of the policy.

4	Ratio of offset to impact area must generally be greater than the area to be cleared.	The proposed vegetation offset area is greater than 2.5 times the area to be cleared. Specific details are provided in Table Two of this offset proposal.
5	Vegetation otherwise protected	The proposed offset vegetation is not assessable under the *Vegetation Management Act 1999*, with the proposed areas mapped as non-remnant. No covenants, development conditions or other protection instruments are known to apply.
6	Offset must be additional	The proposed offset areas and their associated management actions specifically relate to the performance requirements PRS7 – maintaining the current extent of endangered regional ecosystems.
7	The offset must be legally secured	A number of strategies have been employed to legally secure the offsets from the point of clearing approval until they reach remnant status. • Appendix 2 of this report provides a copy of a signed contract (with the landholder) that ensures that a covenant is enacted within 6 months of approval of the offset areas by NRM&W. • Appendix 2 provides an example of the proposed covenant that will be used to secure the vegetation until it reaches remnant status. Note that the covenant for this vegetation type can be recognised under the EPBC to provide additional protection against future development works if required. • Appendix 2 provides a copy of the specific Vegetation Management Plan that will be assigned to the vegetation offset if it is accepted by NRM&W. • Appendix 3 provides a copy of the management contract that ensures the required field works will take place when the vegetation offsets are accepted by NRM&W. Funds for that work will be managed under the Greening Australia Queensland Vegetation Offsets Trust. It is envisioned that the provisions of these legal instruments and contracts will be a condition of any clearing permit.
8	Offset must be protected and managed under	• Appendix 2 of this report provides copies of the signed landholder contracts. • Appendix 2 of this report provides the

	agreement with the landholder	specific Vegetation Management Plan that details the proposed management actions/field works required to support the re-growth vegetation in achieving remnant status.
9	Ecological equivalence	***a: Shape and edge effects:*** Appendix 2 of this report shows the spatial arrangement of the proposed offset. The offset area has an edge to area ratio of 1:110. The offset site is 1.6 km long and has an average width of 300 metres or more. The offset is 109 metres wide at its narrowest point. This compares favourably with the area proposed to be cleared, which has an edge-to-area ratio of 1:150 and is 700 m long by 180 m wide (average width). The area proposed to be cleared occurs in an urban footprint area and is immediately adjacent to a major arterial road, the Bruce Highway. The site has a significantly altered drainage pattern as a result of its landscape situation. The proposed clearing site also supports a more open vegetation community than the offset site and as such is more heavily impacted by the urban interface and its associated edge affects than are the more closed communities (12.9-10.11 /12.3.3c) of the offset site. The offset site is located in a rural landscape and whilst it has public roads on the eastern and northern edges of the property, these are dirt roads with low use in that they service only a small number of neighbouring properties. ***b: Condition:*** Although the proposed offset area within the O'Neill property has been impacted by grazing, logging and thinning operations, the vegetation is structurally and floristically intact. Grazing, and the activities associated with it, have resulted in a reduction in both the cover and height of the EDL and the T1 or emergent layers. The Eucalypt species have been logged and the Melaleuca has been actively thinned by ring barking and herbicide (Tordon axe). However, there is little or no alteration to the local drainage patterns, soil condition and importantly native ground cover.

		Regrowth of seedlings and suckers of *Eucalyptus moluccana*, *Eucalyptus tereticornis* and the *M. irbyana* are favoured by grazing cattle and this has slowed (but not prevented) regrowth of the vegetation. The distribution and abundance of ligno-tubers from all of the principal structural species is widespread offering excellent regrowth potential in areas that currently support native pasture. Transects were undertaken in each of four locations within the offset area including a 100m transect through the centre of the adjacent remnant patch. The remnant patch measured an average height in the EDL of 8.00m with a cover of 38%. Whilst the regrowth measured a cover ranging from 3.20% to 17.9% in the EDL. The average height of the regrowth ranged from 2.28 m to 4.45 m. *M. irbyana* is known to respond to soil scarification. The species re-grows rapidly from root segments, ligno-tubers and from seed after disturbance. The threatening processes on the site are limited to cattle grazing, farm forestry and thinning and these can be easily controlled. This contrasts withthe proposed clearing site, which is surrounded by urban development and its associated uncontrolled impacts and edge effects. ***c: whether revegetation and or / restoration of the offset area is required :*** Within the overall offset area, there are some areas that principally appear to support native pasture. However, within those areas ligno-tubers and grazed seedlings are widespread. No actual revegetation is proposed. The site has widespread existing propagules as described, as well as the soil seed bank. It is proposed that soil scarification be used as primary disturbance event in the bare areas. This will be combined with the control of threatening processes (grazing, thinning and logging) and the reintroduction of the natural fire cycles. This will allow the existing grazed specimens to grow and promote colonisation from the soil seed bank and suckering.

		d: time necessary to achieve remnant status : 10 – 15 years. ***e: connectivity of offset areas to other areas of native vegetation:*** The proposed offset site links to and buffers a remnant area of 12.9-10.11 vegetation within the same property. The offset area provides an improved link between the remnant patch and a water course in the north of the property. Importantly, the combined area of the offset vegetation and the remnant make a much more viable habitat area than would otherwise be the case. Allowing the Melaleuca thickets to regrow will reduce the edge effects on the central part of the vegetation patch. ***f: size of the patch of native vegetation:*** The overall remnant patch will be in the vicinity of 46.6 ha. The area proposed for clearing has a total patch size of 15 ha although it occurs adjacent to a similar sized 12 ha patch (separated by a public road) and the combined area of the two is approximately 27 ha. Note that the latter of the two patches is predominantly vegetation classified as "Not of Concern" and is unlikely to persist in the landscape (urban exemption).
10	Management Plan	Appendix 2 of this report provides a Vegetation Management Plan for the proposed offset site including responses to Parts a – d of this clause of the Policy.

2.3.2 Policy Guide to Minimum Standards for Offsets

The following table provides a direct response to the "relevant offset option" from table 1 of the *Interim Policy for Vegetation Management Offsets VEG/2005/2236 – Version 2*.

Minimum standards for offsets	
Part 1. Maintain the current extent of an endangered regional ecosystem where: a) Its pre-clearing extent is less than 5% and is less than 500 ha in total extent;	Not applicable, the vegetation proposed to be cleared has a pre-clearing extent greater than 5% and a total extent of greater than 500 ha.
Part 2. Maintain the current extent of an endangered regional ecosystem where its pre-clearing extent is greater than 5% or 500 ha. **Response to Option 6 in this part of the table** Ratio 1:2.5 The proposed offset must: a) Be a different endangered regional ecosystem that contains similar species and habitat values to the area proposed for clearing;	a) The offset includes 35.84 ha of Endangered regional ecosystems (12.9-10.11 & 12.3.3). The offset site supports similar species assemblages as the area proposed to be cleared (except *E. racemosa subsp. racemosa*). The combined communities of the offset offer greater diversity particularly within the 12.3.3c, which includes at least two vegetation units (12.3.3c and 12.3.3).
b) Demonstrate ecological equivalence or better will be provided than the area proposed for clearing;	b) The offset site occurs in an area zoned as rural and it is located away from major planned or existing road and rail infrastructure (lies to the east). The offset site has very low levels of weed infestation and is in a very good condition from a composition perspective. In particular, the native understorey is a major asset to the site. The combined area of the existing remnant patch and the covenanted regrowth will

	have a significantly superior edge-to-area ratio than the proposed clearing site and the offset is located where the threatening processes can be controlled. In contrast, the clearing site is in an area with altered drainage patterns (associated with major arterial road) and significant population pressure. It is expected that urban development will completely surround the remnant patch proposed to be cleared within a relatively short period of time. The offset site compares favourably to the clearing site, in terms of diversity, spatial arrangement, landscape situation and threatening processes.
c) Be within the same bioregion as the area proposed for clearing;	c) Offset property is within the same bioregion, 12 as the clearing site at the Northeast Business Park.
d) Provide strategic biodiversity protection that enhances the viability and extent of endangered remnant vegetation;	d) The offset area significantly buffers a remnant patch in an otherwise relictual rural landscape. The proposed offset has an average width of over 300 m and a length of 1.6 km. It adjoins and significantly buffers a relatively small (6.5 ha) patch of remnant endangered vegetation. Combined, the offset and the remnant patch offer a significantly more viable forest than otherwise would be the case. The regrowth vegetation already supports a significant faunal population including a group of Eastern grey kangaroos as well as a broad range of other common fauna and occasional site visitation by Koalas. Its protection, enhancement and ongoing management will only improve the area for that purpose.
e) Not require revegetation across more than 10% of the offset area.	e) The offset site requires no direct revegetation but it is planned to scarify or rip the more open areas of the site to promote increased colonisation via natural recruitment, suckering from root segments and dormant lignotubers. This will be combined with the reintroduction of natural fire cycles and the control of threatening processes.

3 Further Information on the Proposed Vegetation to be Cleared

3.1 Regional Ecosytem 12.5.3

Eucalyptus tindaliae and/or *E. racemosa subsp. racemosa* open-forest with *Corymbia intermedia*, *E. siderophloia* ± E. *resinifera*, *E. pilularis*, *E. microcorys* and*Angophora leiocarpa*. *Melaleuca quinquenervia* is often a prominent feature of lower slopes. Minor patches (< 1ha) dominated by *Corymbia citriodora* can sometimes occur. Occurs on complex of remnant Tertiary surfaces ± Cainozoic and Mesozoic sediments.

3.1.1 Nature and Extent of Clearing

10.73 ha of RE 12.5.3 'Endangered' vegetation community is proposed to be cleared. The clearing will result in the complete removal of the patch from the landscape in favour of urban land uses.

No species will be lost from the landscape, sub-region or sub-catchment as a result of the clearing.

3.1.2 Condition of Vegetation

Vegetation has some weed infestation, predominately tropical pasture grasses.

The local drainage patterns are altered and continue to suffer further alteration due to road construction up and down stream of the site as well as increasing urbanisation.

3.1.3 Landscape Situation & Spatial Arrangement

The remnant patches proposed for clearing occurs in a relictual landscape in an urban footprint area adjacent to the Bruce Highway. The site is on the northern fringes of the Greater Brisbane urban area. The endangered vegetation occurs as part of a 10.73 ha. patch that has an edge to area ratio of 1:150 and it occurs in conjunction with a similar sized patch. Appendix 1 of this report shows a graphic representation of the proposed clearing.

3.1.4 Habitat Values

The patch overall includes some alluvial areas in association with a water course that runs West to East through the site. Its principal habitat values relate to floral species insects, reptiles and birds. The site is situated immediately adjacent to the Bruce Highway and the surrounding lands are either dominated by the built environment or survey and construction works towards that end.

3.1.5 Specific Habitat Matters

No scheduled species were observed on the site in the assessments undertaken as a component of the EIS, though the vegetation type is known to support two scheduled species, Koala (*Phascolarctos cinereus)* and the Acid Froglet (*Crinia tinnula)*.

3.1.6 Threatening Processes

The community is subject to edge effects associated with the increasing urban interface.

4 Further Information on the Proposed Vegetation Offsets

4.1 O'Neil Property

Name(s): O'Neill
Property Name: NA
GPS GDA94 (Decimal Degrees): 152.562505, -27.664056
Lot on Plan: 118CH312530, 24CH3150
Nearest Town: Rosewood (Lanefield)
Shire: Ipswich Shire
County: Churchill
Parish: Ferguson

The vegetation offset area occurs on a property of approximately 65.54 ha in size, (Appendix 2 of this report provides a map showing the proposed offset areas). The proposed offset area has been ground-truthed to confirm the Regional Ecosystems and the quality of the re-growth. The area includes three Regional Ecosystems two of which have a VM status of 'Endangered' (12.3.3 and 12.9-10.11) and a third has a VM status 'Of Concern' (12.9-10.7).

The offset area provides equivalence in landscape function and species composition, whilst having a significant advantage in terms of location and spatial arrangement.
The vegetation offset provides a buffer / expansion to a patch of endangered 12.9-10.11 *Melaleuca irbyana* low open-forest or thicket. The site provides habitat for an existing population of Eastern grey kangaroos (*Macropus giganteus)* and occasionally Koala *(Phascolartos cinereus)* as well as a range of other common fauna. The vegetation offset area includes a number of mature *Eucalyptus moluccana*, *Eucalyptus tereticornis and Eucalyptus crebra* specimens providing an existing stock of tree hollows for arboreal mammals, tree-dwelling reptiles and bird species.

4.1.1 Vegetation Communities

The offset area consists of the vegetation communities described below. Within the 12.3.3 alluvial part of the site there are at least two distinct vegetation units, 12.3.3 and 12.3.3c However, the majority of that part of the site includes *Melaleuca irbyana* and will regrow to 12.3.3c.

12.9-10.11
Melaleuca irbyana low open-forest or thicket. Emergent trees may be present (e.g. *Eucalyptus moluccana*, *E. crebra* and *E. tereticornis)*. *Casuarina glauca* or *Acacia harpophylla* occasionally present. Occurs on Cainozoic and Mesozoic sediments.

12.3.3/12.3.3c
Eucalyptus tereticornis open-forest to woodland. *Eucalyptus crebra* and *E. moluccana* are sometimes present and may be relatively abundant in places, especially on edges of plains and higher level alluvium. Other species that may be present as scattered individuals or clumps: include *Angophora subvelutina* or *A. floribunda*, *Corymbia clarksoniana*, *C. intermedia*, *C. tessellaris* and *E. melanophloia*. Occurs on broad

Quaternary alluvial plains where rainfall is usually less than 1000 mm/yr: 12.3.3c: *Melaleuca irbyana* low open-forest or thicket. Emergent trees may be present e.g. *Eucalyptus moluccana*, *E. crebra*, *E. tereticornis* and *Corymbia citriodora*. *Casuarina glauca* or *Acacia harpophylla* occasionally present. Occurs on Quaternary alluvial plains.

12.9-10.7
Eucalyptus crebra, *E. tereticornis* ± *Corymbia tessellaris*, *Angophora* spp., *E. melanophloia* woodland. Occurs on Cainozoic and Mesozoic sediments.
12.9-10.7a: *Eucalyptus tereticornis*, *E. siderophloia* and/or *E. crebra*, *Corymbia intermedia* and *Lophostemon suaveolens* woodland. Occurs on Cainozoic and Mesozoic sediments.

4.1.2 Management Requirements

The proposed offset area is weed free and supports the full suite of native species. Management of the site will consist of cessation of logging, thinning and grazing combined with scarification of barer areas and the reintroduction of natural fire cycles.

There is a low to moderate population of mother-of-millions in the ground layer of the offset site. The weed is restricted to the drip zone of patches of vegetation that have been heavily grazed or used as cattle camps. This will be controlled with appropriate herbicide application and annual follow-up.

4.1.3 Period to Reach Remnant Status

Approximately 10 – 15 years. The following tables provide a comparison of the remnant 12.9-10.11 community on the site and the least vegetated parts of the regrowth vegetation. Plates are provided for each of the transects including the remnant vegetation. Within the overall re-growth vegetation there a number of significant thickets of *Melaleuca irbyana* and *Acacia harpophylla* (and its associates) that would easily meet remnant status in comparison to the mapped remnant. No transects were conducted in those areas.

Summary of site surveys — O'Neill Offset Site Lots: 118CH312530 & 24CH3150

N	Description	RE:	M	N	Total Cover	Cover %	EDL Cover %	EDL Av. Ht.	Emergent Cover %	Emergent Av. Ht.	T1Cover %	T1 Av Ht.	T2Cover %	T2 Av. Ht.	Shrub Cover %
1	Barest regrowth patch on O'Neill Site at Rosewood	12.9-10.11/12.3.3	200	6	20.4	10.20%	3.20%	2.28	0.00%	0	7.00%	16.00	3.20%	2.28	0.00%
2	Regrowth patch on O'Neill Site at Rosewood	12.9-10.11/12.3.3	200	7	37	18.50%	8.35%	2.63	0.00%	0	10.15%	12.67	8.35%	2.63	0.00%
3	Regrowth patch on O'Neill Site at Rosewood	12.9-10.11	100	7	19.3	19.30%	17.90%	4.45	0.00%	0	1.40%	2.50	17.90%	4.45	0.00%
4	Remnant patch on O'Neill Site at Rosewood	12.9-10.11	100	17	47.4	47.40%	38.20%	8.00	0.00%	0	9.20%	23.50	38.20%	8.00	0.00%

	Transect No:	1		**RE:**	12.3.3		Barest re-growth patch on O'Neill Site at Rosewood			
	Transect Length (M):	200		**Sample Size:**		6				
Spec No	**Species**	**Ht.**	**Emergent**	**T1**	**T2**	**Shrub**	**EDL**	**Start**	**Finish**	**Cover**
1	*Eucalyptus moluccana*	17		1				9.5	17	7.5
2	*Eucalyptus moluccana*	15		1				35	41.5	6.5
3	*Eucalyptus moluccana*	2			1		1	40.6	41	0.4
4	*Eucalyptus moluccana*	1.8			1		1	77	77.7	0.7
5	*Eucalyptus moluccana*	1.8			1		1	140	144.6	4.6
6	*Melaleuca irbyana*	3			1		1	164.4	165.1	0.7
7	*Melaleuca irbyana*	2.5			1		1			0
8	*Eucalyptus moluccana*	3			1		1			0
9	*Melaleuca irbyana*	1.1			1		1			0
10	*Melaleuca irbyana*	3			1		1			0
										0
	Totals		**0**	**2**	**8**	**0**	**8**	**466.5**	**486.9**	**20.4**
	% Cover									10.2%

							Re-growth patch on O'Neill Site at Rosewood			
	Transect No:	2		**RE:**	12.9-10.11/12.3.3					
	Transect Length (M):	200		**Sample size:**	7					
Spec No	**Species**	**Ht.**	**Emergent**	**T1**	**T2**	**Shrub**	**EDL**	**Start**	**Finish**	**Cover**
1	*Eucalyptus tereticornis*	11		1				8.7	16.3	7.6
2	*Eucalyptus moluccana*	10		1				50.7	57.4	6.7
3	*Melaleuca irbyana*	1			1		1	75.7	76.5	0.8
4	*Acacia harpophylla*	17		1				118	124	6
5	*Melaleuca irbyana*	4			1		1	145.4	154	8.6
6	*Melaleuca irbyana*	2			1		1	161.6	162.3	0.7
7	*Melaleuca irbyana*	3.5			1		1	191.2	197.8	6.6
30										0
	Totals		**0**	**3**	**4**	**0**	**4**	**751.3**	**788.3**	**37**
	% Cover									18.5%

	Transect No:	3		**RE:**	12.9-10.11		Re-growth patch on O'Neill Site at Rosewood			
	Transect Length (M):	100		**Sample size:**		7				
Spec No	**Species**	**Ht.**	**Emergent**	**T1**	**T2**	**Shrub**	**EDL**	**Start**	**Finish**	**Cover**
1	*Eucalyptus moluccana*	2.5		1				0	1.4	1.4
2	*Melaleuca irbyana*	2.5			1		1	5.9	6.7	0.8
3	*Melaleuca irbyana*	3			1		1	19.1	19.3	0.2
4	*Melaleuca irbyana*	7			1		1	20.6	25.1	4.5
5	*Melaleuca irbyana*	7			1		1	44.8	50.7	5.9
6	*Melaleuca irbyana*	1.2			1		1	77.6	78.7	1.1
7	*Melaleuca irbyana*	6			1		1	91.3	96.7	5.4
30										0
	Totals		**0**	**1**	**6**	**0**	**6**	**259.3**	**278.6**	**19.3**
	% Cover									19.3%

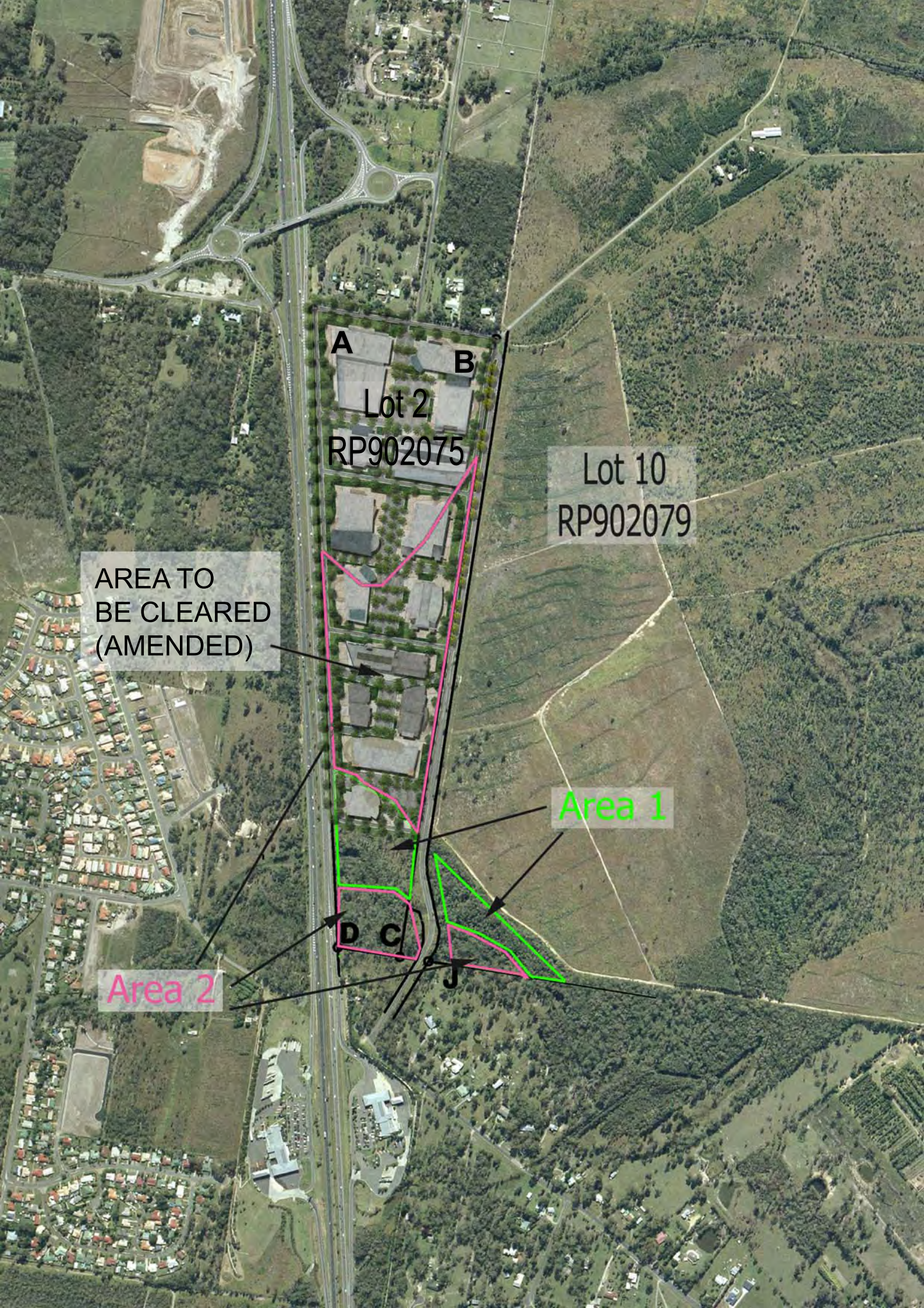
	Transect No:	4		**RE:**	12.9-10.11		Remnant patch on O'Neill Site at Rosewood			
	Transect Length (M):	100		**Sample size:**		17				
Spec No	**Species**	**Ht.**	**Emergent**	**T1**	**T2**	**Shrub**	**EDL**	**Start**	**Finish**	**Cover**
1	*Eucalyptus moluccana*	23		1				0	6.2	6.2
2	*Eucalyptus moluccana*	24		1				21	24	3
3	*Melaleuca irbyana*	5			1		1	22.3	23.3	1
4	*Melaleuca irbyana*	12			1		1	24.3	27.1	2.8
5	*Melaleuca irbyana*	9			1		1	38	43	5
6	*Melaleuca irbyana*	8			1		1	41	45	4
7	*Melaleuca irbyana*	9			1		1	45.2	48.7	3.5
8	*Eucalyptus moluccana*	11			1		1	53	55	2
9	*Melaleuca irbyana*	7			1		1	48.8	51	2.2
10	*Melaleuca irbyana*	9			1		1	53	55	2
11	*Melaleuca irbyana*	8			1		1	48.8	51	2.2
12	*Melaleuca irbyana*	8			1		1	53	55.7	2.7
13	*Melaleuca irbyana*	9			1		1	56.6	58.1	1.5
14	*Melaleuca irbyana*	8			1		1	62	62.4	0.4
15	*Melaleuca irbyana*	2			1		1	65.4	67	1.6
16	*Melaleuca irbyana*	7			1		1	67.7	71.9	4.2
17	*Melaleuca irbyana*	8			1		1	83.1	86.2	3.1
										0
	Totals		**0**	**2**	**15**	**0**	**15**	**783.2**	**830.6**	**47.4**
	% Cover									47.4%

4.2 Proposed Management Instruments

The vegetation offset has been secured via an agreement made between the landholder and the applicant. Where the offset area is approved by NRM&W the landholder will, within 4 months, sign a covenant agreement with NRM&W, within which there will be a Vegetation Management Plan that sets out the required vegetation works and the restrictions that apply over the area.

The covenant and its associated Vegetation Management Plan are supported by contractor agreements that demonstrate the applicant's arrangements with respect to monitoring and management of the offset areas. These instruments are provided as appendices to this offset proposal.

Appendix 1: Map of Clearing Site


A
B
Lot 2
RP902075
Lot 10
RP902079
AREA TO
BE CLEARED
(AMENDED)
Area 1
Area 2
D
C
J

Appendix 2: Offset Contract

O'Neill Property - Offset Site

The proposed offset site encompasses 32 ha of 12.9-10.11, 3.84ha of 12.3.3 and 4.4ha 12.9-10.7, total area 40.24 ha.
The 12.9-10.7 re is included as linking vegetation betweent the two ptaches of endangered regrowth.

RE DESCRIPTIONS

12.3.3c: Melaleuca irbyana low open-forest or thicket. Emergent trees may be present e.g. Eucalyptus moluccana, E. crebra, E. tereticornis and Corymbia citriodora. Casuarina glauca or Acacia harpophylla occasionally present. Occurs on Quaternary alluvial plains.

12.9-10.11 Melaleuca irbyana low open-forest or thicket. Emergent trees may be present e.g. Eucalyptus moluccana, E. crebra and E. tereticornis. Casuarina glauca or Acacia harpophylla occasionally present. Occurs on Cainozoic and Mesozoic sediments.

12.9-10.7 Eucalyptus crebra, E. tereticornis ± Corymbia tessellaris, Angophora spp., E. melanophloia woodland. Occurs on Cainozoic and Mesozoic sediments.

1:10,000

190 95 0 190 Meters

Greening Australia

Legend

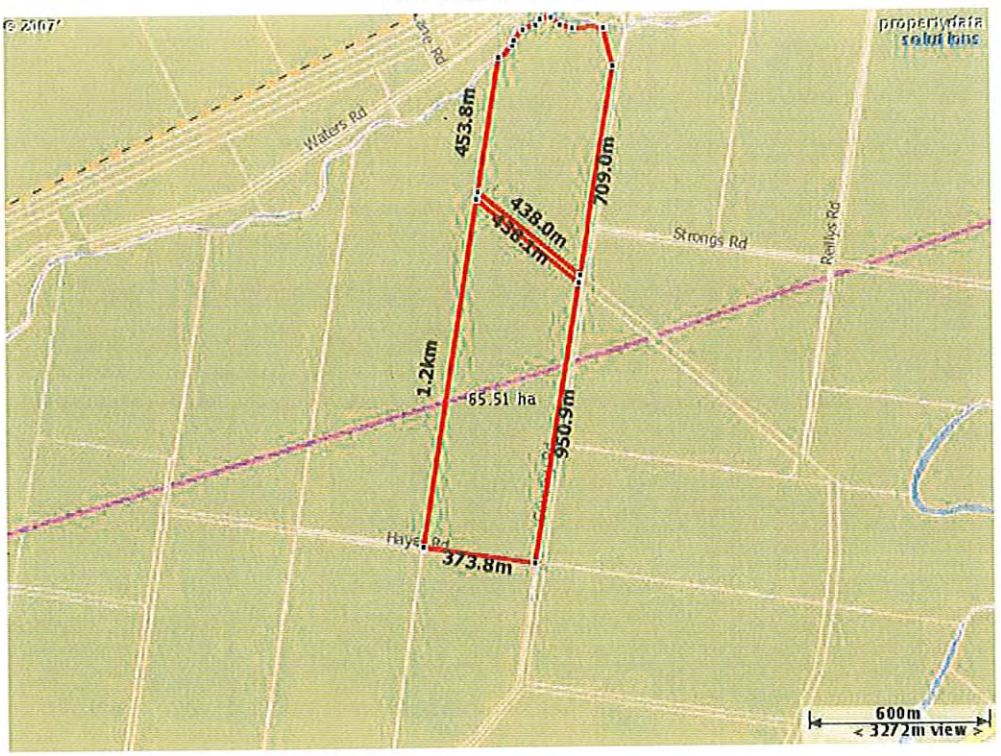
- Photo_monitoring_points
- Transect_location
- Exclusion_zone
- Offset

PORT BINNLI

80 STRONGS RD, LANEFIELD, QLD 4340

Local Authority: IPSWICH

UBD: Brisbane - 209 M19



Owner Details

Owner Name(s):
JOHN J O`NEILL
THOMAS K O`NEILL

Owner Address: 11 HAYES ST, RACEVIEW QLD 4305

Property Details

RPD: L118 CH312530 & L24 CH3150:PAR FERGUSON

Pri Land Use: Large Home site - Vacant

2nd Land Use:

Unimproved Value: $340,000

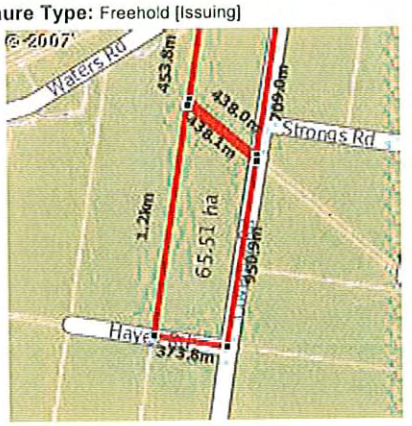
Date: 30/06/2006

Area: 65.51 ha

Water: No

Sewerage: No

Tenure Type: Freehold [Issuing]



Zoning

Plan #	LG Zoning	Parish
CH312530	NOT ZONED (I/M)	FERGUSON
CH3150	NOT ZONED (I/M)	FERGUSON

Sales history

Last Sale Amount	Last Sale Date	Sale Type	Parties Related

No Sales history available

Appendix 3: Management Contract