Appendix 6

2014 T.E.N.T.A.C.L.E. Incorporated Rehabilitation Report

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T.E.N.T.A.C.L.E INC.

THE EDUCATION NETWORK TRAINING APPLYING CONSERVING LAND BASED ECOSYSTEMS

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METROMIX TERALBA BIO BANKING AREA BUSH REGENERATION PROGRESS REPORT 2014

Prepared by Sachi See-Tonkins

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INTRODUCTION

The following report details methods and purpose, hours worked, weeds controlled, results, observations and targets for future works from bush regeneration work completed by Tentacle Inc. at Teralba Metromix quarry & Biobanking area, New South Wales (Appendix 1.).

BACKGROUND

Works by Tentacle Incorporated were carried out in accordance with all current applicable legislation including:

- Environment Protection and Biodiversity Conservation Act 1999
- Pesticides Act 1995
- Protection of Environment Operations Act 1997
- National Parks and Wildlife Act 1974
- Threatened Species Conservation Act 1995
- Lake Macquarie City Councils Local Environmental Plan 2012

And supporting regulations. All works were compliant with the conditions of the National Parks and Wildlife Services checklist for bush regeneration activities in the habitat of threatened species, endangered populations and endangered ecological communities.

Bush regeneration techniques applied were in line with best practice guidelines outlined within the Bush Regenerators handbook (National Trust of Australia, NSW 1991).

The rehabilitation works aim to improve the overall natural condition of the site by controlling invasive weeds/species. The rehabilitation of native vegetation will increase biodiversity within the designated area. Improved native vegetation communities will also protect waterways from increased sedimentation by enhancing erosion control and protecting and conserving the habitat for native and threatened flora and fauna.
The works will improve the overall site condition encouraging an increase in native biodiversity.

AIMS

The works aimed to rehabilitate native vegetation communities and manage the habitat for increased native biodiversity by reducing or eradicating noxious weeds found within the bounds of the site according to the Noxious Weeds Act 1993.

The aims of the project were;

- reduction of noxious weeds
- reduction of WONS weeds
- reduction of target weeds
- reduction of environmental weeds

Paying special attention too;

- * Blackberry (*Rubus fruticosus agg.)*
- *#Bitou bush (*Chrysanthemoides monilifera* subspecies *rotundata*)
- *#Lantana (*Lantana camara*)
- *#Bridal creeper (*Asparagus asparagoides)*
- Asparagus fern (*Asparagus aethiopicus*)
- * Crofton weed (Ageratina adenophora)
- # Madeira Vine (*Anredera cordifolia)*

- Turkey rhubarb (*Acetosa sagittata)*

Declared a Weed of National Significance.

* Declared a Class 4 Noxious Weed in the Lake Macquarie LGA.

OBJECTIVES

- To remove a maximum amount of the target species to increase biodiversity of endemic species using bush regeneration techniques.
- Compliance with all applicable legislation.
- Direct application of chemical control minimizing disturbance to Leaf litter habitat for micro-organisms and invertebrates.

METHODS

Works included the implementation of ongoing rehabilitation activities within the Metromix quarry and biobanking area (approximately 148 Ha), inclusive of but not limited to:

- Hand weed removal
- Chemical weed control (Round-up Biactive ®)
- Primary, Secondary and maintenance control of invasive flora species

The methods for control were selected for accuracy in application and effectiveness in control. Below are specified the invasive flora managed and methods of control.

Grasses, Reeds and Rushes; Whiskey grass (*Andropogon virginicus*), Paspalum ssp., Pigeon grass(*Setaria pumila* subsp. *pumila),*Common pampass grass(*Cortaderia selloana*), Red Natal grass(*Melinis repens*), Kikuyu(*Pennisetum clandestinum*), Buffalo grass(*Stenotaphrum secundatum*), Lantern grass(*Bariza subaristata*), Perennial ryegrass(*Lolium perenne*), Rhodes grass(*Chloris gayana*), Stout Blue-Eyed Grass(*Sisyrinchium angustifolium*), Coolatai grass (*Hyparrhenia hirta*), Panic veldt grass(*Ehrharta ssp.),* oxalises, Giant reed(*Arundo donax*), Spiny rush(*Juncus acutus* subsp. *acutus*)

*Hand removal by crowning at the roots was the control method for most invasive grasses.The cut and paint method was applied for the control of Common pampass grass(*Cortaderia selloana*).

Seed heads were bagged and removed from site.

Herbs; Fire weed(*Senecio madagascariensis*), Purple top(*Verbena bonariensis),* Wild aster (*Symphyotrichum subulatum*), Cobbler's pegs(*Bidens pilosa*), Greater beggar's ticks(*Bidens subalternans*), Crofton weed(*Ageratina adenophora),* Flat weed*(Hypochaeris radicata),* Ribwort(*Plantago lanceolata*), Ink weed(*Phytolacca octandra*), Noogoora burr(*Xanthium strumarium*), Milk thistle(*Sonchus oleraceus*), Clovers(*Trifolium*), Sowthistles(*Sonchus*), Pennyworts(*Hydrocotyle*), Stinking Rodger(*Tagetes minuta*), Scarlet Pimpernel (*Anagallis arvensis*), Rabbits foot clover(*Trifolium arvense*), Blackberry night shade(*Solanum nigrum*), Paddy's Lucerne(*Sida rhombifolia*), Flea bane(*Conyza bonariensis),* Dandelion(*Taraxacum* ssp.)

*Hand removal, and cut and paint was used as the control methods for invasive herbs.

Vines; Pasion fruit(*Passiflora edulis*), Morning Glory(*Ipomoea cairica* and *Ipomoea indica*),Turkey rhubarb(*Acetosa sagittata*), Madeira Vine(*Anredera cordifolia)*

* The method applied for control of invasive vines were scrape and paint or where able, the vine was traced back to the node and cut and painted. Turkey rhubarb(*Acetosa sagittata*) infestations were sprayed and Madeira Vine(*Anredera cordifolia)* tubers were bagged and regular maintenance was carried out on the area.

Ferns; Fishbone fern(*Nephrolepis cordifolia*), Asparagus fern(*Asparagus aethiopicus*), Bridal creeper (*Asparagus asparagoides)*

*Hand removal by crowning at the roots was the control method for invasive ferns. Crowns were bagged and removed from site.

Trees; Camphor laurel(*Cinnamomum camphora*), Wild tobacco(*Solanum mauritianum*), Castor oil plant (*Ricinus communis*), Mulberry tree(*Morus ssp*.)

*Drill and inject was the method used for control of mature invasive trees, and the scrape and paint method was applied to juvenile growth too large to be hand pulled.

Shrubs; Blackberry (*Rubus fruticosus agg*), Lantana (*lantana camara*), Broad-leaf privet(*Ligustrum lucidum*), Small-leaf privet(*Ligustrum sinense*), Bitou bush(*Chrysanthemoides monilifera subsp. rotundata*), Cotoneaster, Narrow leaf cotton bush(*Gomphocarpus fruticosus*), Mickey mouse plant (*Ochna serrulata*)

*cut and paint and scrape and paint were the methods used for control of invasive shrubs along with frill and inject for mature privet species. Seed heads were bagged and removed from site.

Large or inaccessible Lantana (*lantana camara*) infestations were controlled by applying the splatter gun technique.

Regeneration of natives canvas the entire site.

lantana rafts provide habitat for fauna and structure for native vines.

Selected areas on the site affected by erosion were revegetated with endemic natives to stabilize the sediments and prevent further erosion.

HOURS WORKED

T.E.N.T.A.C.L.E Inc. staff have completed a total of 1100 work hours on site since the previous progress report in December 2013 up until the end of December 2014.

HERBICIDE USE

For the control of woody and other environmental weeds as shown in the methods section, T.E.N.T.A.C.L.E Inc. staff used a total of 22.045Litres of Glyphosate (Roundup Biactive).
Roundup Biactive was selected as the preferred form of chemical control as it is specially formulated for sensitive environments. It has been formulated specifically to reduce the toxicity of the product to certain aquatic organisms (The surfactants in Roundup Biactive are readily biodegradable according to OECD/EEC tests). Roundup Biactive has an active ingredient of Glyphosate, which is 'poorly absorbed along the digestive tract and does not bio accumulate' (Brain and O'Connor, 1988; Klemm et al, 1993; PMEP, 1999). Roundup Biactive 'has a low toxicity to bees, fish and other aquatic organisms' (Brain and O'Connor, 1988; Klemm et al, 1993; PMEP, 1999), as it 'contains a substantially less toxic surfactant and was designed for use in aquatic habitats as the recommended option' (Mann, 1998). 'Glyphosate is strongly adsorbed and inactivated by soil and by organic and mineral suspended particles in water bodies, so leaching and contamination of runoff is negligible' (PMEP, 1999). 'There is no residual weed control, and an area can be seeded or replanted soon after application' (The Water and Rivers Commission, 2001).

HUMAN IMPACTS

The site is on highly disturbed land previously used for underground coal mining. Altered topography makes access to some areas of weed infestation hard. A main road (Rhondda Road) cuts through the centre of the site providing a constant challenge for the management of these areas.
Illegal dumping of litter in various forms has been found on the site.
Erosion found on the site was another human impact caused by the development of walking and riding tracks through vegetation. The installation of boundary fencing is recommended to reduce the occurrence of this impact in the short term, alternatively an increase of density in native vegetation cover should reduce this impact in the long term.

RESULTS

Aims and Objectives Achieved. Ongoing bush regeneration works carried out within the bounds of the biodiversity offset area have achieved control of a maximum amount of the target species (within the reporting period) therefore increasing biodiversity of endemic species. This in turn will strengthen the resistance of these native vegetation communities against weed infestations. Compliance with all applicable legislation was successfully achieved and direct application of chemical control was successful in minimizing the impact and disturbance to leaf litter habitat for micro-organisms and invertebrates(in most areas). Limited areas of problematic weed infestations were managed using the spray or splatter gun technique.

Maintenance of the site has resulted in reduced weeds and weed seed source, a high level of regeneration and an increase in natural diversity in plant communities.
The bush regeneration works have encouraged the regeneration of canopy species including:
Cheese tree (*Glochidion ferdinandi)*
Revegetation of natives canvas the entire site where appropriate. Pioneering species include, but are not limited to:
Bleeding heart *(Omalanthus populifolius*)
Coffee bush (Breynia oblongifolia)
Native violets (*Viola hederacea*)
Common maiden hair *(Adiantum aethiopicum*)
True Bracken(*Pteridium esculentum)*
Wombat berry*(Eustrephus latifolius)*

Scrambling lilly*(Geitonoplesium cymosum)*
Basket grass *(Oplismenus Imbecillis)*
Native grape (*Cayratia trifolia*)
Stephania japonica var. discolour
Billardiera scandens var. scandens
Clematis glycinoides var. glycinoides
Rubus moluccanus var. trilobus
Wattle *(Acacia ssp.)*
Common Reed (*Phragmites australis*)
River buttercup (*Ranunculus inundates*)
Scurvy weed *(Commelina cyanea*)
Matt rush *(Lomandra longifolia)*
Dusky coral pea (*Kennedia rubicunda*)

Additional native grasses may be identified during flowering time.

The reduction of weeds from areas on site has provided access to raptors.

Lantana rafts and weed debris are used as climbing structure for native vines and for habitat for smaller wrens, pardalote's and finches.

OBSERVATIONS

Fauna species observed at the Teralba Metromix quarry and biobanking area since the previous progress report:

Aves
Yellow-tailed black-Cockatoo(*Calyptorhynchus funereus*)
Diamond firetail finch*(Stagonopleura guttata)*
Australian pelican*(Pelecanus conspicillatus)*
Welcome swallow(*Hirundo neoxena*)
Sulphur-crested Cockatoo (*Cacatua galerita*)
Dollarbird(*Eurystomus orientalis*)
Pied Currawong(*Strepera fuliginosa*)
Yellow-throated scrub wren(*Sericornis citreogularis*)
Noisy minor(*Manorina melanocephala*)
White-necked *(pacific)*heron*(Ardea pacifica)*
Quail(*Coturnix*) and nest
Butcherbird(*Cracticus*)
Fantale*(Rhipidura*)
Tawny frogmouth(*Podargus strigoides*)
Willie Wagtail(*Rhipidura leucophrys)*
Variegated blue Fairy-wren (*Malurus lamberti)*
Eastern rosella(Platycercus eximius)
Wedge-tailed Eagle*(Aquila audax)*
Grey fantail(*Rhipidura albiscapa)*
Black and white wren(*Malurus*)
Superb Fairy-wren *(Malurus cyaneus)*
red striped wren(*Malurus)*
Olive-backed Oriole*(Oriolus sagittatus)*

White-bellied Sea-Eagle(*Haliaeetus leucogaster*)
Laughing Kookaburra(*Dacelo novaeguineae*)
Bell Miner(*Manorina melanophrys)*
Australian Raven (*Corvus coronoides)*
Butcherbird(*Cracticus*)
Eastern whipbird(*Psophodes olivaceus)*
Little 'brush' Wattlebird(*Anthochaera chrysoptera)*
Glossy Black-cockatoo*(Calyptorhynchus lathami)*
Spotted Pardolote(*Pardalotus punctatus*)
Brown Cuckoo-Dove (*Macropygia amboinensis*)

Reptiles
Red-bellied black snake*(Pseudechis porphyriacus)*
Marsh frog(Limnodynastes)
Eastern Blue-tonged lizard*(Tiliqua scincoides)*
Garden Skink (*Lampropholis delicata*)
Jacky lizard(*Amphibolurus Muricatus)*
Eastern water dragon(*Physignathus lesueurii)*

Anphibians
Australian green-tree frog(*Litoria caerulea)*
Eastern Dwarf Tree Frog (*Litoria fallax*)
Striped Marsh Frog (*Limnodynastes peroneii*)

Mammals
Flying fox*(Pteropus)*
Swamp Wallaby (*Wallabia bicolor*)
European Rabbit (*Oryctolagus cuniculus*)

Marsupials
long-nosed bandicoot (*Perameles nasuta*)
Dasyurid marsupial *(Antechinus*)
Brushtail possum (*Trichosurus vulpecula)*
Possum drey

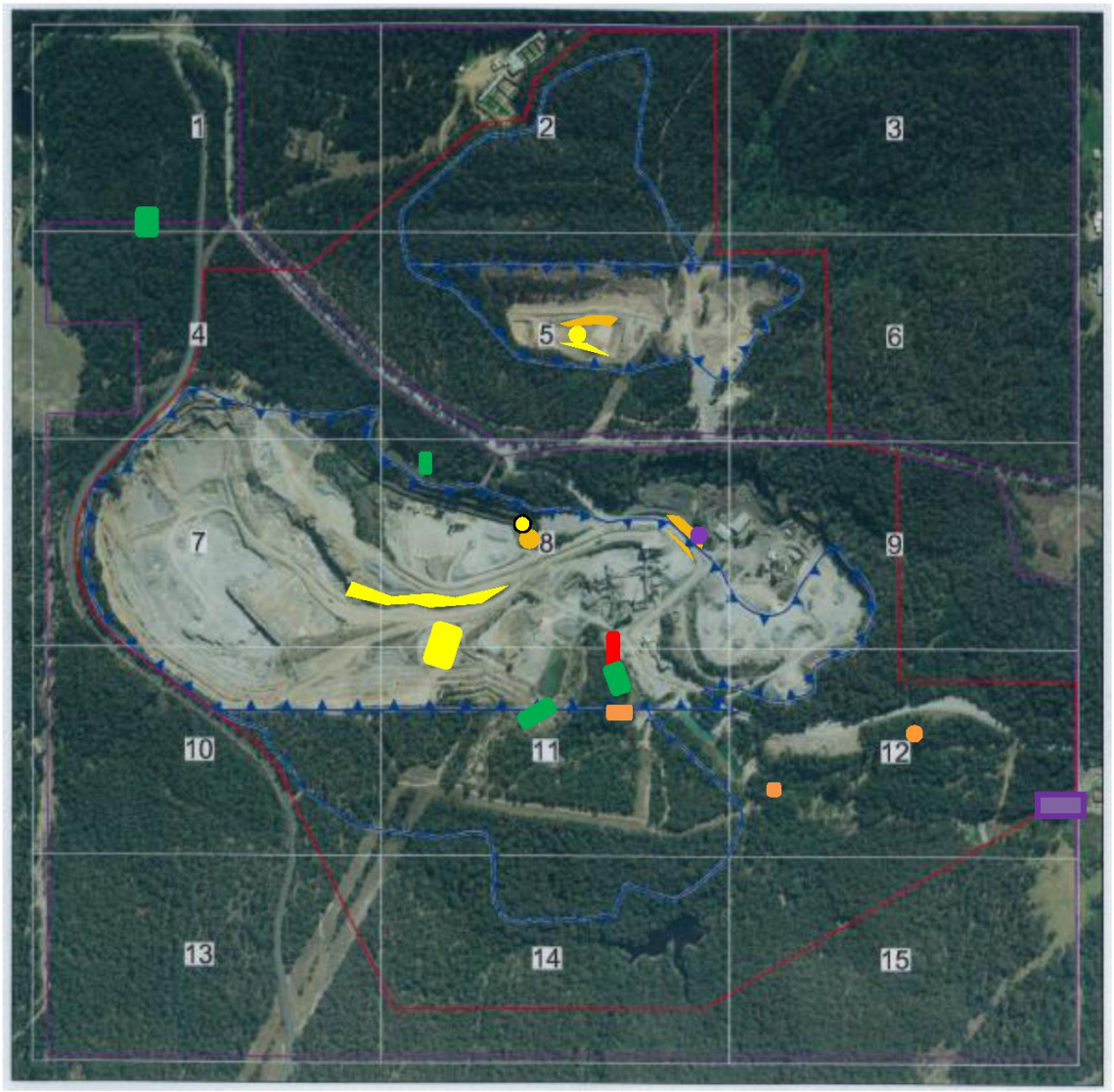
Insects
dragonfly(*Odonata*),
Stick insect(*Phasmatodea*)
Tick(ixodes)
Funnel-web Spider (Atrax robustus)
Red Dregonfly*(libellula*)
termite (*Isoptera*) nest
Bull ant(*Myrmecia)*
Bush cockroach(*Diploptera*)
Black ants(Ochetellus glaber)
dragonfly(*Odonata)*
Australian stick-insect(*Ctenomorpha chronus*) juveniles
Garden Orb Weaving Spider(*Eriophora* spp)

Wolf spider(*Lycosa)*
Honey bee(*Apis Mellifera*)
hoppy joe (*Myrmecia gulosa)*
Soft bodied:
Leeches*(Annelida)*
Grubs(*Coleoptera*)

An abundance of unrecognisable ant species and various other macro and meso fauna appeared present at each site visit.

TARGETS FOR ONGOING WORK

AREAS REQUIRING MANAGEMENT FOCUS (EXCLUDING *LANTANA CAMARA*)TO REDUCE WEED SEED SOURCE



REFERENCE
Property Boundary
Project Site Boundary
Existing Extraction Boundary
Proposed Extension Boundary
1 A3 Photo Page Reference

SCALE
0 100 200 m

- Turkey rhubarb (*Acetosa sagittata)*
- Dumping areas
- Bitou Bush (*Chrysanthemoides monilifera* subspecies *rotundata*)
- Pampas Grass (*Cortaderia ssp.)*
- Morning glory (*Ipomoea cairica* and *Ipomoea indica)*

lap provided by Metromix
lap alterations by Sachi See-Tonkins For T.E.N.T.A.C.L.E Inc.
ovember 2013
polygons representation only

N

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Mann, Reinier (1998) Acute Toxicity of Herbicide Formulation Surfactants to Four Species of Western Australian Frogs. Report prepared for the Water Corporation of Western Australia at Curtin University of Technology, Western Australia

PEMP 1999, Extension Toxicology Network – herbicide toxicology data. Cornell University extension services, USA.

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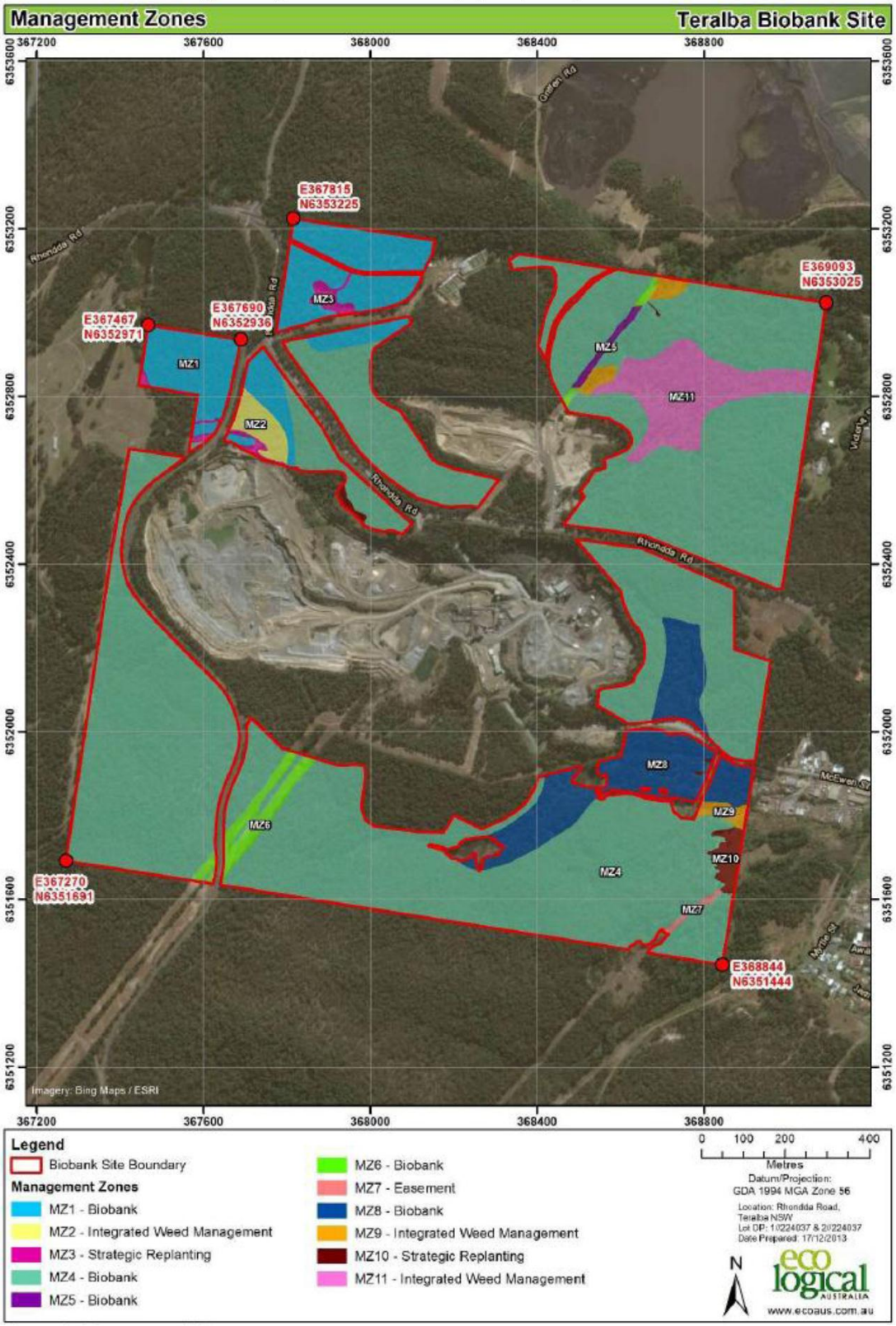
Available: http://www.nynrm.sa.gov.au/portals/7/pdf/landandsoil/49.pdf.
Last accessed 5/11/2012

APPENDICES:

Appendix 1. Site map of Metromix Teralba quarry and biodiversity offset area New South Wales, Australia. Displaying areas managed for native biodiversity.

Map provided by Metromix
Map alterations by Sachi See-Tonkins For T.E.N.T.A.C.L.E Inc.
November 2013
*Rehabilitated areas representation only

Appendix 2. Biobanking Management Zones Map (ELA, 2013).



Appendix 3. Table 1. Area Of Each Management Zone(ELA, 2013).

MGMT ZONE ID	TSSZ IDs	BIOMETRIC VEGETATION TYPE	CONDITION AND CODE	CREDITS GENERATED	AREA (HA)
MZ1 - Biobank	1a	HU622 Smooth-barked Apple - Sydney peppermint - Turpentine heathy open forest on plateaux areas of the southern Central Coast, Sydney Basin	Moderate to Good_High	Default increase	0.14
MZ1 - Biobank	1b	HU622 Smooth-barked Apple - Sydney peppermint - Turpentine heathy open forest on plateaux areas of the southern Central Coast, Sydney Basin	Moderate to Good_High	Default increase	0.15
MZ1 - Biobank	1c	HU622 Smooth-barked Apple - Sydney peppermint - Turpentine heathy open forest on plateaux areas of the southern Central Coast, Sydney Basin	Moderate to Good_High	Default increase	1.36
MZ1 - Biobank	1d	HU622 Smooth-barked Apple - Sydney peppermint - Turpentine heathy open forest on plateaux areas of the southern Central Coast, Sydney Basin	Moderate to Good_High	Default increase	3.55
MZ1 - Biobank	1e	HU622 Smooth-barked Apple - Sydney peppermint - Turpentine heathy open forest on plateaux areas of the southern Central Coast, Sydney Basin	Moderate to Good_High	Default increase	0.98
MZ1 - Biobank	1f	HU622 Smooth-barked Apple - Sydney peppermint - Turpentine heathy open forest on plateaux areas of the southern Central Coast, Sydney Basin	Moderate to Good_High	Default increase	1.34
MZ1 - Biobank	1g	HU622 Smooth-barked Apple - Sydney peppermint - Turpentine heathy open forest on plateaux areas of the southern Central Coast, Sydney Basin	Moderate to Good_High	Default increase	1.96
MZ1 - Biobank	1h	HU622 Smooth-barked Apple - Sydney peppermint - Turpentine heathy open forest on plateaux areas of the southern Central Coast, Sydney Basin	Moderate to Good_High	Default increase	2.82
MZ2 - Integrated Weed Management	2a	HU622 Smooth-barked Apple - Sydney peppermint - Turpentine heathy open forest on plateaux areas of the southern Central Coast, Sydney Basin	Moderate to Good_Poor	Increase above default	1.20
MZ3 - Strategic Replanting	3a	HU622 Smooth-barked Apple - Sydney peppermint - Turpentine heathy open forest on plateaux areas of the southern Central Coast, Sydney Basin	Low	Increase above default	0.08
MZ3 - Strategic Replanting	3b	HU622 Smooth-barked Apple - Sydney peppermint - Turpentine heathy open forest on plateaux areas of the southern Central Coast, Sydney Basin	Low	Increase above default	0.24
MZ3 - Strategic Replanting	3c	HU622 Smooth-barked Apple - Sydney peppermint - Turpentine heathy open forest on plateaux areas of the southern Central Coast, Sydney Basin	Low	Increase above default	0.05
MZ3 - Strategic Replanting	3d	HU622 Smooth-barked Apple - Sydney peppermint - Turpentine heathy open forest on plateaux areas of the southern Central Coast, Sydney Basin	Low	Increase above default	0.07
MZ3 - Strategic Replanting	3e	HU622 Smooth-barked Apple - Sydney peppermint - Turpentine heathy open forest on plateaux areas of the southern Central Coast, Sydney Basin	Low	Increase above default	0.49
MZ4 - Biobank	4a	HU631 Spotted Gum - Grey Ironbark open forest on the foothills of the central Coast, Sydney Basin	Moderate to Good_High	Default increase	1.83
MZ4 - Biobank	4b	HU631 Spotted Gum - Grey Ironbark open forest on the foothills of the central Coast, Sydney Basin	Moderate to Good_High	Default increase	0.03
MZ4 - Biobank	4c	HU631 Spotted Gum - Grey Ironbark open forest on the foothills of the central Coast, Sydney Basin	Moderate to Good_High	Default increase	0.07
MZ4 - Biobank	4d	HU631 Spotted Gum - Grey Ironbark open forest on the foothills of the central Coast, Sydney Basin	Moderate to Good_High	Default increase	28.36
MZ4 - Biobank	4e	HU631 Spotted Gum - Grey Ironbark open forest on the foothills of the central Coast, Sydney Basin	Moderate to Good_High	Default increase	0.24
MZ4 - Biobank	4f	HU631 Spotted Gum - Grey Ironbark open forest on the foothills of the central Coast, Sydney Basin	Moderate to Good_High	Default increase	1.67
MZ4 - Biobank	4g	HU631 Spotted Gum - Grey Ironbark open forest on the foothills of the central Coast, Sydney Basin	Moderate to Good_High	Default increase	10.15
MZ4 - Biobank	4h	HU631 Spotted Gum - Grey Ironbark open forest on the foothills of the central Coast, Sydney Basin	Moderate to Good_High	Default increase	21.24
MZ4 - Biobank	4i	HU631 Spotted Gum - Grey Ironbark open forest on the foothills of the central Coast, Sydney Basin	Moderate to Good_High	Default increase	0.05

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MGMT ZONE ID	TSSZ IDs	BIOMETRIC VEGETATION TYPE	CONDITION AND CODE	CREDITS GENERATED	AREA (HA)
MZ4 - Biobank	4j	HU631 Spotted Gum - Grey Ironbark open forest on the foothills of the central Coast, Sydney Basin	Moderate to Good_High	Default increase	16.77
MZ4 - Biobank	4k	HU631 Spotted Gum - Grey Ironbark open forest on the foothills of the central Coast, Sydney Basin	Moderate to Good_High	Default increase	2.59
MZ4 - Biobank	4l	HU631 Spotted Gum - Grey Ironbark open forest on the foothills of the central Coast, Sydney Basin	Moderate to Good_High	Default increase	6.60
MZ4 - Biobank	4m	HU631 Spotted Gum - Grey Ironbark open forest on the foothills of the central Coast, Sydney Basin	Moderate to Good_High	Default increase	7.68
MZ4 - Biobank	4n	HU631 Spotted Gum - Grey Ironbark open forest on the foothills of the central Coast, Sydney Basin	Moderate to Good_High	Default increase	3.42
MZ4 - Biobank	4o	HU631 Spotted Gum - Grey Ironbark open forest on the foothills of the central Coast, Sydney Basin	Moderate to Good_High	Default increase	1.39
MZ5 - Biobank	5a	HU631 Spotted Gum - Grey Ironbark open forest on the foothills of the central Coast, Sydney Basin	Moderate to Good	Default increase	0.39
MZ6 - Biobank	6a	HU631 Spotted Gum - Grey Ironbark open forest on the foothills of the central Coast, Sydney Basin	Moderate to Good_Medium	Default increase	0.14
MZ6 - Biobank	6b	HU631 Spotted Gum - Grey Ironbark open forest on the foothills of the central Coast, Sydney Basin	Moderate to Good_Medium	Default increase	0.21
MZ6 - Biobank	6c	HU631 Spotted Gum - Grey Ironbark open forest on the foothills of the central Coast, Sydney Basin	Moderate to Good_Medium	Default increase	1.65
MZ6 - Biobank	6d	HU631 Spotted Gum - Grey Ironbark open forest on the foothills of the central Coast, Sydney Basin	Moderate to Good_Medium	Default increase	0.07
MZ7 - Easement	6e	HU631 Spotted Gum - Grey Ironbark open forest on the foothills of the central Coast, Sydney Basin	Moderate to Good_Medium	Increase below default	0.26
MZ8 - Biobank	7e	HU631 Spotted Gum - Grey Ironbark open forest on the foothills of the central Coast, Sydney Basin	Moderate to Good_Other	Default increase	2.43
MZ9 - Integrated Weed Management	8a	HU631 Spotted Gum - Grey Ironbark open forest on the foothills of the central Coast, Sydney Basin	Moderate to Good_Poor	Increase above default	0.46
MZ9 - Integrated Weed Management	8b	HU631 Spotted Gum - Grey Ironbark open forest on the foothills of the central Coast, Sydney Basin	Moderate to Good_Poor	Increase above default	0.33
MZ9 - Integrated Weed Management	8c	HU631 Spotted Gum - Grey Ironbark open forest on the foothills of the central Coast, Sydney Basin	Moderate to Good_Poor	Increase above default	0.36
MZ10 - Strategic Replanting	9a	HU631 Spotted Gum - Grey Ironbark open forest on the foothills of the central Coast, Sydney Basin	Low	Increase above default	0.80
MZ10 - Strategic Replanting	9b	HU631 Spotted Gum - Grey Ironbark open forest on the foothills of the central Coast, Sydney Basin	Low	Increase above default	0.05
MZ10 - Strategic Replanting	9c	HU631 Spotted Gum - Grey Ironbark open forest on the foothills of the central Coast, Sydney Basin	Low	Increase above default	0.18
MZ10 - Strategic Replanting	9d	HU631 Spotted Gum - Grey Ironbark open forest on the foothills of the central Coast, Sydney Basin	Low	Increase above default	0.02
MZ11 - Integrated Weed Management	10a	HU638 Sydney Blue Gum - White Mahogany shrubby tall open forest of coastal ranges of the southern North Coast	Moderate to Good_Poor	Increase above default	6.16

Appendix 4. Monitoring photos

Figure 1. Photo of condition of site prior to completion of works.

Figure 2. Photo of condition of site after comencment of works.

Figure 3. Photo of condition of site prior to completion of works.

Figure 4. Photo of condition of site after to completion of works.

Figure5. Photo of condition of site prior to completion of works.

Figure 6. Photo of condition of site after the completion of works.

Figure 7. Photo taken 12 months after previous monitoring photo.

Figure 8. Photo of condition of site prior to completion of works.

Figure 9. Photo of condition of site after the completion of works.

Figure 10. Photo taken 12 months after previous monitoring photo.

Figure 11. Photo of Lantana after control.

Figure 12. Photo of lantana infestation revisited approximately 7months after control.

Figure 13. Photo of lantana infestation revisited approximately 7months after control.

Figure 14. Photo of lantana infestation revisited approximately 7months after control.

Figure 15. Photo of lantana infestation revisited approximately 7months after control.

Figure 16. Photo taken after splatter gun control has taken effect.

Figure17. Photo taken after splatter gun control has taken effect.

Figure 18. Photo taken after splatter gun control has taken effect.

Figure19. Photo taken after splatter gun control has taken effect.

Figure 20. Photo taken after splatter gun control has taken effect.

Figure 21. Photo taken after splatter gun control has taken effect.

Figure 22. Photo taken after splatter gun control has taken effect.

Figure 23. Photo taken after splatter gun control has taken effect.