



Pioneer Bridge, Wilsons Creek Rd, Byron Shire

Parcel # 124750 Lot 3 DP 730861



RESTORATION ACTION PLAN

Prepared by Byron Shire Council, 2009



Table of Contents

Pioneer Bridge, Wilsons Creek Rd, Byron Shire.....	1
1 Introduction.....	3
2 Vegetation Association	3
3 Threatened Species	3
3.1 Flora	3
3.2 Fauna.....	4
4 Weeds.....	4
5 Weed Control Techniques	6
6 Management Issues.....	8
7 Actions /Recommendations	8
8 Species List.....	9
9 Cultural Artefacts and Significant Sites in Bush Regeneration Areas.....	12
10 Monitoring	14
10.1 Photopoints	14

Acknowledgments

This plan was written by Byron Shire Council's bush regeneration team with the financial assistance of the NSW Environmental Trust.

1 Introduction

This action plan has been prepared by Byron Shire Council's Bush Regeneration Team to guide on-ground weed control and native vegetation restoration works at Pioneer Bridge over the next year. The overall aim of these actions is to continue to protect, maintain, and restore native vegetation on the site in a manner which enhances its value as habitat. Most of the actions cover the council owned block of land and the private land comprising the landcare site on both sides of the creek downstream from Pioneer Bridge.

The Pioneer Bridge site is a 4838 sqm patch of rainforest regrowth and vegetation gaps on a NE facing slope. The site is on the banks of the upper Wilson's River. It occurs on Rhyolite/Basalt soil surrounded by Rhyolite hills at an elevation of 160-180m and is approx.13km from the east coast. The site is immediately surrounded by bushland of varying quality in a well forested valley and rural dwellings.

The site is also mapped by Byron Council as Tertiary Koala Habitat, Key Fish Habitat, modeled Threatened Fauna Habitat, High Conservation Value Vegetation and forms part of the Wildlife Corridor. All of these values should guarantee that works are carried out in a professional and careful manner and that works and funding are likely to receive the ongoing commitment required to bring the restoration of the area closer to completion. The proposed work zone has easy access from the top of the site and the creek.

The Pioneer Bridge has a history of Landcare involvement, and some of the areas are established plantings.

2 Vegetation Association

The site is mapped as Acacia and Rainforest with minimal Camphor in BSC Vegetation 2007 GIS layer, which is based on Byron Flora and Fauna Study 1999.

Stratum	Height	Species
Canopy	12-18m	<i>Acacia melanoxylon, Tristaniopsis laurina, Elaeocarpus grandis</i>
Mid	2-8m	<i>Lantana camara, Erythrina x sykesii, Archontophoenix cunninghamiana</i>
Ground	0-1m	<i>Tradescantia fluminensis, Pteridium esculentum, Persicaria sp</i>

3 Threatened Species

One seedling of a threatened species has been recorded on the creek bank, *Syzygium hodgkinsoniae*, Red Lilly Pilly. There are some *Davidsonia jerseyana* near the mound beside the road but these were planted.

Other Threatened species and plants of significance recorded in the immediate vicinity are:

3.1 Flora

Species	Common Name	Status
<i>Acacia orites</i>	Mountain Wattle	ROTAP
<i>Archidendron muellerianum</i>	Veiny Laceflower	ROTAP

<i>Cupaniopsis newmanii</i>	Long-leaved Tuckeroo	ROTAP
<i>Endiandra hayesii</i>	Rusty Rose Walnut	Vulnerable
<i>Floydia praelata</i>	Ball Nut	Vulnerable
<i>Helmholtzia glaberrima</i>	Stream Lily	ROTAP
<i>Hicksbeachia pinnatifolia</i>	Red Boppel Nut	Vulnerable
<i>Macadamia tetraphylla</i>	Macadamia	Vulnerable
<i>Syzygium hodgkinsoniae</i>	Red Lilly Pilly	Vulnerable
<i>Trichosanthes subvelutina</i>	Silky Cucumber	ROTAP
<i>Helmholtzia glaberrima</i>	Stream Lily	ROTAP

3.2 Fauna

Threatened Species recorded on the site are:

Species	Common Name	Status
<i>Assa darlingtoni</i>	Pouched Frog	Vulnerable
<i>Nyctophilus bifasciatus</i>	Long-eared Bat	Vulnerable

Threatened species recorded in the immediate vicinity due to intensive and repeated surveying by local experts are:

Species	Common Name	Status
<i>Amaurornis olivaceus</i>	Bush Hen	Vulnerable
<i>Coracina lineata</i>	Barred-Cuckoo Shrike	Vulnerable
<i>Dasyurus maculatus</i>	Spotted-tailed Quoll	Vulnerable
<i>Ixobrychus flavicollis</i>	Black Bittern	Vulnerable
<i>Monarcha leucotis</i>	White-eared Monarch	Vulnerable
<i>Pandion haliaetus</i>	Osprey	Vulnerable
<i>Phascolarctos cinereus</i>	Koala	Vulnerable
<i>Podargus ocellatus</i>	Marbled Frogmouth	Vulnerable
<i>Ptilinopus magnificus</i>	Wompoo Fruit Dove	Vulnerable
<i>Ptilinopus regina</i>	Rose-Crowned Fruit Dove	Vulnerable
<i>Thyligale stigmatica</i>	Red-Legged Pademelon	Vulnerable
<i>Tyto novaehollandiae</i>	Masked Owl	Vulnerable
<i>Tyto tenebricosa</i>	Sooty Owl	Vulnerable

4 Weeds

The following species were detected during the initial site assessment by Andrew Murray and during restoration works by BSC Bush Regeneration team.

Species present Scientific name	Common name	Canopy	Mid	Low	Ground
<i>Ageratina adenophora</i>	Crofton Weed			x	x
<i>Ageratina riparia</i>	Mist Flower				x
<i>Ageratum houstonianum</i>	Billy-goat Weed				x
<i>Aleurites fordii</i>	Tung Oil Tree		x		x
<i>Ambrosia artemisiifolia</i>	Ragweed			x	x
<i>Anagallis arvensis</i>	Scarlet Pimpernel				x
<i>Anredera cordifolia</i>	Madeira Vine		x	x	x
<i>Araujia sericifera</i>	Moth Vine				x
<i>Bidens pilosa</i>	Cobblers Peg				x
<i>Cinnamomum camphora</i>	Camphor Laurel	x	x		x
<i>Citrus limon</i>	Wild Lemon		x		

<i>Crassocephalum crepidoides</i>	Thick Head			x	x
<i>Cyperus eragrostis</i>	Umbrella Sedge				x
<i>Drymaria cordata</i>	Tropical Chickweed				x
<i>Erechtites valerianifolia</i>	Brazilian Fireweed				x
<i>Erythrina X sykesii</i>	Coral Tree	x	x	x	x
<i>Hedychium coronarium</i>	White Ginger			x	
<i>Hedychium gardnerianum</i>	Kahili Ginger			x	
<i>Ipomoea indica</i>	Morning Glory		x	x	x
<i>Lantana camara</i>	Lantana		x	x	x
<i>Ligustrum sinense</i>	Small-leaved Privet	x	x	x	x
<i>Paspalum wettsteinii</i>	Broad-leaved Paspalum				x
<i>Passiflora edulis</i>	Common Passionfruit				x
<i>Passiflora subpeltata</i>	White Passionflower				x
<i>Phytolacca octandra</i>	Ink Bush			x	
<i>Prunus persica</i>	Peach		x		
<i>Salix alba</i>	White Willow				
<i>Senna septemtrionalis</i>	Smooth Cassia		x		
<i>Setaria palmifolia</i>	Palm Grass			x	
<i>Solanum mauritianum</i>	Wild Tobacco Bush		x	x	x
<i>Solanum nigrum</i>	Blackberry Nightshade			x	
<i>Sporobolus africanus</i>	Parramatta Grass				x
<i>Tradescantia fluminensis</i>	Trad				x

5 Weed Control Techniques

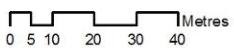
Common name	Control technique	Chemical mix
Coral Tree	1. Stem inject trees	Inject, 1:1.5 G at different heights up & around the trunk
Ink Bush	1. Handweed 2. Spot spray	Spray 1:50 G +MM +pulse
Lantana	1. Cut and paint. 2. Spot spray 3. Overspray large leafy clumps	S&P, 1:1.5 G + MM Spray, 1:100 G +protec
Madeira Vine	1. Scrape and paint thick vines 2. Spot spray	S&P, 1:1 G + MM Spray 1:50 G +MM +pulse
Mist Flower	1. Handweed 2. Spot spray	Spray, 1:100 G +protec
Morning Glory	1. Long scrape and paint. 2. spray regrowth 3. Long scrape and paint and hand removal of regrowth	S&P, 1:1.5 G + MM Spray, 1:50 G + MM S&P, 1:1.5 G + MM
Palm Grass	1. Handweed around Lomandra & Dianella 2. Spot spray	Spray, 1:100 G +protec
Ragweed	1. Handweed 2. Spot spray	Spray, 1:100 G +protec
Thick Head	1. Handweed 2. Spot spray	Spray, 1:100 G +protec
Tung Oil	1. Stem inject trees. 2. Spot spray seedlings 3. Handpull seedlings	Inject, 1:1.5 G + Spray, 1:50 G + MM

Notes:G- Glyphosate 360g/L eg. Weedmaster Duo, Wipeout Bio
 MM- Metsulfuron Methyl eg. Associate

Pioneer Bridge: Work Zones, Major Weeds, Threatened Species



Disclaimer : While all reasonable care has been taken to ensure the information contained on this map is up to date and accurate, no warranty is given that the information contained on this map is free from error or omission. Any reliance placed on such information shall be at the sole risk of the user. Please verify the accuracy of the information prior to using it.
Note : The information shown on this map is a copyright of the Byron Shire Council and the NSW Department of Lands.



Scale 1:1,500

Legend

- Red asterisk: Work Sites Th Flora
- Green circle: Monitoring
- Yellow polygon: Work Zones
- White box: Land Parcels



Date 15/02/09

6 Management Issues

- Edge effect providing resources for weeds with road verge forming two boundaries
- Close proximity of houses with garden escapes
- Some garden dumping on edges
- Canopy gaps and powerlines fragmenting site
- Large Coral Tree area (some treated) starting to collapse and make access difficult
- Periodic flooding causing soil disturbance

7 Actions /Recommendations

Timing	Action	Benchmark
1	Contact neighbours	Neighbours informed and aware of activities
1	Erect signage to inform public and deter dumping	Signage erected
1	Spot spray exotic seedlings and ground covers	Majority of existing exotic groundcover controlled
2	Overspray Lantana clumps and Morning Glory	Lantana controlled and Morning Glory set back
2	Cut-scrape and paint small woody weeds, stem inject exotic saplings and trees	Majority saplings and woody weeds from mid storey controlled in canopied area.
2	Spray follow up of Morning Glory	Morning Glory set back
3	Follow up spot spray of missed and newly emerged weeds. Follow up cut and paint of missed woody weeds.	All existing weeds controlled in canopied area.
4	Spray and hand treat follow up of Morning Glory & Madeira	Morning Glory and Madeira Vine reduced
5	Plant canopy gaps that have had weeds treated for over 1 year and have shown no sign of regenerating natives	Large gaps that are unlikely to close have plantings established.
6	Continue systematic follow up in all treated areas	No reestablishment of large scale weed infestation
6	Maintain weed free area around establishing plantings, particularly vines	High survival rate of planted trees
7	explore expanding site with co operation from relevant landholders	Reduced weed spread into site from surrounding areas

8 Species List

Prepared by A. S. Murray during site assessment in 2007.

Scientific Name	Family	Common Name
Trees & Shrubs		
<i>Acacia melanoxylon</i>	Mimosaceae	Sally Wattle, Blackwood
* <i>Aleurites fordii</i>	Euphorbiaceae	Tung Oil Tree
<i>Alphitonia excelsa</i>	Rhamnaceae	Red Ash
<i>Archontophoenix cunninghamiana</i>	Arecaceae	Bangalow Palm
<i>Breynia oblongifolia</i>	Euphorbiaceae	Breynia
<i>Castanospermum australe</i>	Fabaceae	Black Bean
<i>Castanospora alphandii</i>	Sapindaceae	Brown Tamarind
* <i>Cinnamomum camphora</i>	Lauraceae	Camphor Laurel
<i>Cinnamomum virens</i>	Lauraceae	Oliver's Sassafras
* <i>Citrus limon</i>	Rutaceae	Wild Lemon
<i>Claoxylon australe</i>	Euphorbiaceae	Brittlewood
<i>Commersonia bartramiana</i>	Sterculiaceae	Brown Kurrajong
<i>Cordyline stricta</i>	Asteliaceae	Narrow-leaved Palm Lily
<i>Cryptocarya glaucescens</i>	Lauraceae	Jackwood
<i>Cupaniopsis newmanii</i>	Sapindaceae	Long-leaved Tuckeroo
<i>Cyathea cooperi</i>	Cyatheaceae	Straw Tree Fern
<i>Cyathea leichhardtii</i>	Cyatheaceae	Prickly Tree Fern
<i>Cyclophyllum coprosmoides</i> var. <i>coprosmoides</i>	Rubiaceae	Coast Canthium
<i>Daphnandra micrantha</i>	Cunoniaceae	Socketwood
<i>Davidsonia jerseyana</i> (planted)	Davidsoniaceae	Davidson's Plum
<i>Decaspernum humile</i>	Myrtaceae	Silky Myrtle
<i>Diploglottis australis</i>	Sapindaceae	Native Tamarind
<i>Duboisia myoporoides</i>	Solanaceae	Soft Corkwood
<i>Dysoxylum fraserianum</i>	Meliaceae	Rosewood
<i>Dysoxylum rufum</i>	Meliaceae	Hairy Rosewood
<i>Elaeocarpus grandis</i>	Elaeocarpaceae	Silver Quandong
<i>Ellatostachys nervosa</i>	Sapindaceae	Green Tamarind
<i>Endiandra pubens</i>	Lauraceae	Hairy walnut
* <i>Erythrina X sykesii</i>	Fabaceae	Coral Tree
<i>Eupomatia bennettii</i>	Eupomatiaceae	Small Bolwarra
<i>Ficus coronata</i>	Moraceae	Sandpaper Fig
<i>Ficus watkinsiana</i>	Moraceae	Strangler Fig
<i>Flindersia australis</i> (p)	Rutaceae	Teak
<i>Flindersia schottiana</i>	Rutaceae	Cudgerie
<i>Glochidion ferdinandii</i>	Euphorbiaceae	Cheese Tree
<i>Guioa semiglauca</i>	Sapindaceae	Guioa, Bee Tree
<i>Homalanthus populifolius</i>	Euphorbiaceae	Bleeding Heart
<i>Hymenosporum flavum</i>	Pittosporaceae	Native Frangipani
<i>Jagera pseudorhus</i> var. <i>pseudorhus</i>	Sapindaceae	Foambark
* <i>Lantana camara</i>	Verbanaceae	Lantana
* <i>Ligustrum sinense</i>	Oleaceae	Small-leaved Privet
<i>Litsea australis</i>	Lauraceae	Brown Bolly Gum
<i>Lophostemon confertus</i>	Myrtaceae	Brush Box
<i>Macaranga tanarius</i>	Euphorbiaceae	Macaranga
<i>Mallotus discolor</i>	Euphorbiaceae	White Kamala
<i>Melia azederach</i>	Meliaceae	White Cedar
<i>Neolitsea dealbata</i>	Lauraceae	White Bolly Gum

Scientific Name	Family	Common Name
<i>Pilidiostigma glabrum</i>	Myrtaceae	Plum Myrtle
<i>Pittosporum revolutum</i>	Pittosporaceae	Hairy Pittosporum
<i>Pittosporum undulatum</i>	Pittosporaceae	Sweet Pittosporum
<i>Polyscias elegans</i>	Araliaceae	Silver Basswood
<i>Polyscias murrayi</i>	Araliaceae	Pencil Cedar
* <i>Prunus persica</i>	Amygdalaceae	Peach
<i>Rhodosphaera rhodanthema</i> (planted)	Anacardiaceae	Deep Yellowwood
<i>Sarcopteryx stipata</i>	Sapindaceae	Steelwood
* <i>Senna septemtrionalis</i>	Caesalpiniaceae	Smooth Cassia
<i>Sloanea woollsii</i>	Eleocarpaceae	Maiden's Blush
* <i>Solanum mauritianum</i>	Solanaceae	Wild Tobacco Bush
<i>Synoum glandulosum</i>	Meliaceae	Scentless Rosewood
<i>Syzygium crebrinerve</i>	Myrtaceae	Purple Cherry
<i>Syzygium francisii</i> (planted)	Myrtaceae	Giant Water Gum
<i>Syzygium ingens</i>	Myrtaceae	Red Apple
<i>Syzygium leuhmannii</i>	Myrtaceae	Riberry
<i>Syzygium smithii</i> rheophytic form	Myrtaceae	Creek Lilly Pilly
<i>Tabernaemontana pandacaqui</i>	Apocynaceae	Banana Bush
<i>Toona ciliata</i>	Meliaceae	Red Cedar
<i>Tristaniopsis laurina</i>	Myrtaceae	Water Gum
<i>Wikstroemia indica</i>	Thymelaeaceae	Wikstroemia
<i>Wilkiea huegeliana</i>	Atherospermataceae	Veiny Wilkiea
* <i>Salix alba</i>	Salicaceae	White Willow
Vines		
* <i>Anredera cordifolia</i>	Basellaceae	Madeira Vine
* <i>Araujia sericifera</i>	Apocynaceae	Moth Vine
<i>Austrosteenisia blackii</i> var. <i>blackii</i>	Fabaceae	Blood Vne
<i>Caesalpinea subtropica</i>	Caesalpiniaceae	Corky Prickle Vine
<i>Calamus muellerii</i>	Arecaceae	Lawyer Vine
<i>Callerya megasperma</i>	Fabaceae	Native Wisteria
<i>Celastrus subspicatus</i>	Celastraceae	Large-leaved Staff Vine
<i>Cissus antarctica</i>	Vitaceae	Water Vine
<i>Embelia australiana</i>	Myrsinaceae	Embelia
<i>Hibbertia scandens</i>	Dilleniaceae	Scrambling Guinea-flower
* <i>Ipomoea purpurea</i>	Convolvulaceae	Common Morning Glory
<i>Maclura cochinchinensis</i>	Moraceae	Cockspur
<i>Melodinus australis</i>	Apocynaceae	Southern Melodinus
* <i>Passiflora edulis</i>	Passifloraceae	Common Passionfruit
* <i>Passiflora subpeltata</i>	Passifloraceae	White Passionflower
<i>Rauwenhoffia leichhardtii</i>	Annonaceae	
<i>Ripogonum elseyanum</i>	Ripogonaceae	Hairy Supplejack
<i>Rubus moluccanus</i>	Rosaceae	Molucca Bramble
<i>Rubus rosifolius</i>	Rosaceae	Rose-leaf Bramble
<i>Smilax australis</i>	Smilacaceae	Sarsparilla
<i>Stephania japonica</i>	Menispermaceae	Snake Vine
<i>Tricosanthes subvelutina</i>	Cucurbitaceae	Silky Cucumber
<i>Trophis scandens</i>	Moraceae	Burny Vine
<i>Tylophora paniculata</i>	Apocynaceae	Thin-leaved Tylophora
Herbs/Ferns		

Scientific Name	Family	Common Name
* <i>Ageratina adenophora</i>	Asteraceae	Crofton Weed
* <i>Ageratina riparia</i>	Asteraceae	Mist Weed
* <i>Ageratum houstonianum</i>	Asteraceae	Billy-goat Weed
* <i>Adiantum aethiopicum</i>	Adiantaceae	Common Maidenhair
<i>Adiantum hispidulum</i>	Adiantaceae	Rough Maidenhair
* <i>Ambrosia artemisifolia</i>	Asteraceae	Ragweed
<i>Aneilema biflorum</i>	Commelinaceae	Twin-flowered Wandering Dew
<i>Alocasia brisbanensis</i>	Araceae	Cunjevoi
<i>Alpinia arundelliana</i>	Zingiberaceae	Native Ginger
<i>Alpinia caerulea</i>	Zingiberaceae	Native Ginger
* <i>Anagallis arvensis</i>	Primulaceae	Scarlet Pimpernel
<i>Asplenium australasicum</i>	Aspleniaceae	Birds Nest Fern
* <i>Bidens pilosa</i>	Asteraceae	Cobblers Peg
<i>Blechnum cartilagineum</i>	Blechnaceae	Gristle Fern
<i>Blechnum wattsii</i>	Blechnaceae	Hard Water Fern
<i>Carex apressa</i>	Cyperaceae	Tall sedge
<i>Carex fascicularis</i>	Cyperaceae	Tassell Sedge
<i>Christella dentata</i>	Thelypteridaceae	Binung
<i>Commelina cyanea</i>	Commelinaceae	Blue Wandering Dew
<i>Calochlaena dubia</i>	Dicksoniaceae	Rainbow Fern
<i>Cyperus enervis</i>	Cyperaceae	sedge
<i>Cyperus eragrostis</i>	Cyperaceae	Umbrella Sedge
<i>Cyperus</i> sp. (Mullumbimby couch type)	Cyperaceae	sedge
<i>Cyperus tetraphyllum</i>	Cyperaceae	Four-leaf Flat Sedge
<i>Cyperus stradbrokeensis</i> ?	Cyperaceae	sedge
<i>Cyperus trinervis</i>	Cyperaceae	sedge
<i>Davallia pyxidata</i>	Davalliaceae	Hare's Foot Fern
<i>Dianella caerulea</i> var. <i>producta</i>	Phormiaceae	Blue Flax Lily
<i>Dictymia brownii</i>	Polypodiaceae	Strap Fern
<i>Doodia aspera</i>	Blechnaceae	Prickly Rasp Fern
<i>Doryanthes palmeri</i> (planted?)	Doryanthaceae	Spear Lily
* <i>Drymaria cordata</i>	Caryophyllaceae	Tropical Chickweed
* <i>Erechtites valerianifolia</i>	Asteraceae	Brazilian Fireweed
* <i>Hedychium gardnerianum</i>	Zingiberaceae	Kahili Ginger
* <i>Hedychium coronarium</i>	Zingiberaceae	White Ginger
<i>Helmholtzia glaberrima</i>	Philydraceae	Stream Lily
<i>Hydrocotyle pedicellosa</i>	Apiaceae	Scrub Pennywort
<i>Hydrocotyle peduncularis</i>	Apiaceae	Pennywort
<i>Hypolepis muelleri</i>	Dennstaedtiaceae	Harsh Ground Fern
<i>Juncus usitatus</i>	Juncaceae	a rush
* <i>Lantana camara</i>	Verbenaceae	Lantana
<i>Lastreopsis marginans</i>	Dryopteridaceae	Bordered Shield Fern
<i>Lastreopsis microsora</i>	Dryopteridaceae	Creeping Shield Fern
<i>Lomandra longifolia</i>	Xanthorrhoeaceae	Spiny-headed Mat
<i>Lomandra hystrix</i>	Xanthorrhoeaceae	Rush
<i>Oplismenus aemulus</i>	Poaceae	Mat Rush
<i>Ottochloa gracillima</i>	Poaceae	a beard grass
<i>Oxalis ?chnoodes</i>	Oxalidaceae	Forest Grass
<i>Oxalis ?brasiliensis</i>	Oxalidaceae	
<i>Paspalum wettsteinii</i>	Poaceae	Broad-leaved Paspalum
* <i>Persicaria capitata</i>	Polygonaceae	

Scientific Name	Family	Common Name
<i>Persicaria hydropiper</i>	Polygonaceae	Water Pepper
<i>Platycerium bifurcatum</i>	Polypodiaceae	Elkhorn Fern
<i>Platycerium superbum</i>	Polypodiaceae	Staghorn Fern
<i>Plectranthus parviflorus</i>	Lamiaceae	A cockspur flower
<i>Pollia crispata</i>	Commelinaceae	Pollia
<i>Pteridium esculentum</i>	Dennsaediaceae	Bracken Fern
* <i>Setaria palmifolia</i>	Poaceae	Palm Grass
* <i>Solanum nigrum</i>	Solanaceae	Black Nightshade
* <i>Sporobolus africanus</i>	Poaceae	Parramatta Grass
* <i>Tradescantia fluminensis</i>	Commelinaceae	Trad
<i>Urtica incisa</i>	Urticaceae	Stinging Nettle

9 Cultural Artefacts and Significant Sites in Bush Regeneration Areas

The climate and abundance of food in this area mean there could be a high density of use in some places. It is extremely likely there are signs of Aboriginal land use and habitation all around us. There are over 35 000 known Aboriginal sites in NSW.

Some of the types of artefacts or sites that could be present in a regeneration site are: Caves and overhangs, Middens, Pathways, Campsites, Quarries, Tool making sites, Spiritual sites, Burial sites, Scar trees, Stone artefacts such as axe heads, grinding stones, sinkers, tally stones, scrapers, wedges, other as yet undiscovered signs of habitation and culturally significant plants.

Any area that has not been extensively sand mined or cleared or capped could contain artefacts or significant sites. Some findings are already recorded, whilst others are yet to be discovered. This is why the precaution should be taken that any site could be a likely artefact site. Other landscape cues that are found in regeneration sites are ridgelines, headlands, outcrops of desirable stone, fresh water, significant plants.

Threats to sites and artefacts as a result of regeneration work

- Erosion by rain, wind, runoff after weed control
- Theft once exposed by weed control
- Digging for planting or fencing
- Soil removal for track making or weed control
- Inappropriate access

Management guidelines to minimize threats to potential artefact sites

- Check with NPWS if there is a registered significant site nearby that you should not have access to.
- Be observant when working in a site.
- Choose weed control techniques that minimise erosion.
- Close inspection by experts of areas to be more heavily disturbed.
- Minimize soil disturbance when planting, or track making.
- No heavy machinery used for weed control.

If you think you have found something

Stop works in the vicinity immediately. Leave the artefact or site where it is undisturbed. If the artefact is in danger of being destroyed or taken, take steps to protect it. Record the details of where it is. Keep this information confidential until you have reported it. Report the find to the Local Aboriginal Land Council and to the Cultural Heritage Officer at DECC. Representatives from these organisations will inspect and assess the find. Then follow their instructions of how best to manage the area. It may require fencing, revegetation, or some other site specific action.

Contacts

Tweed-Byron Local Aboriginal Land Council
23 Morton St Chinderah 66743600

Jali Local Aboriginal Land Council
8/48 Tamar St Ballina 66867055

Ngulingah Local Aboriginal Land Council
53 Conway St, Lismore. 66215541, ngulingah@bigpond.com

Aboriginal Heritage Officer
DECC, Alstonville 66270200
NPWS website for information on accessing the Aboriginal Heritage Information Management System

10 Monitoring

10.1 Photopoints



Figure 1. Open area downstream of old bridge pylon following initial treatment of small leaved privet and lantana. Picture taken 12 April 2006.



Figure 2. Open area upstream of old bridge pylon following initial treatment of small leaved privet and lantana. Picture taken 12 April 2006



Figure 3. Left bank, downstream of bridge.



Figure 4. Looking upstream towards new bridge from old crossing following initial treatment of small-leaved privet. Note telephone wire in upper part of picture. Taken 8 April 2006.