

**EN2 - Stonequarry Creek Environmental Management Strategy and
interpretive signage at the Argyle St Bridge, Picton and the Viaduct**

EN2	<u>Stonequarry Creek Environmental Management Strategy and Interpretive Signage at the Argyle St Bridge, Picton and the Viaduct</u>
606	TRIM 1040

EXECUTIVE SUMMARY

- The purpose of this report is to respond to two Council resolutions regarding environmental enhancements along Stonequarry Creek in Picton
- It is also to provide Council with the opportunity to adopt the Review of the Stonequarry Creek Vegetation Management Plan (RSCVMP)
The revised SCVMP considers native vegetation, weeds, revegetation opportunities and interpretive signage as well as identifying opportunities and constraints to enhancing the environmental aspects of Stonequarry Creek around the Argyle Street Bridge, the Picton CBD and the Viaduct.

This report recommends:

- That the Revised Stonequarry Creek Vegetation Management Plan be adopted by Council
- That Council investigate opportunities for external resources and partnerships to undertake the recommendations of the Revised Stonequarry Creek Vegetation Management Plan
- That Council consult with Crown Lands to gain access rights for any future works within the creek area.

REPORT

On 15 August 2014 Notice of Motion 280/2014 resolved:

"That Council develop a strategy to enhance the environmental aspects of the stretch of Stonequarry creek around the Argyle Street Bridge and Picton CBD and continue to identify and source resources to implement this strategy."

On 12 June 2014 a Notice of Motion 204/2014 resolved:

"That a report come to Council regarding strategies which includes signage, promotional material and funding opportunities, to improve the appearance and environment of the area around the viaduct in Picton."

This report aims to provide Council with information concerning the reviewed plan and to address the above resolutions.

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BACKGROUND

Original SCVMP

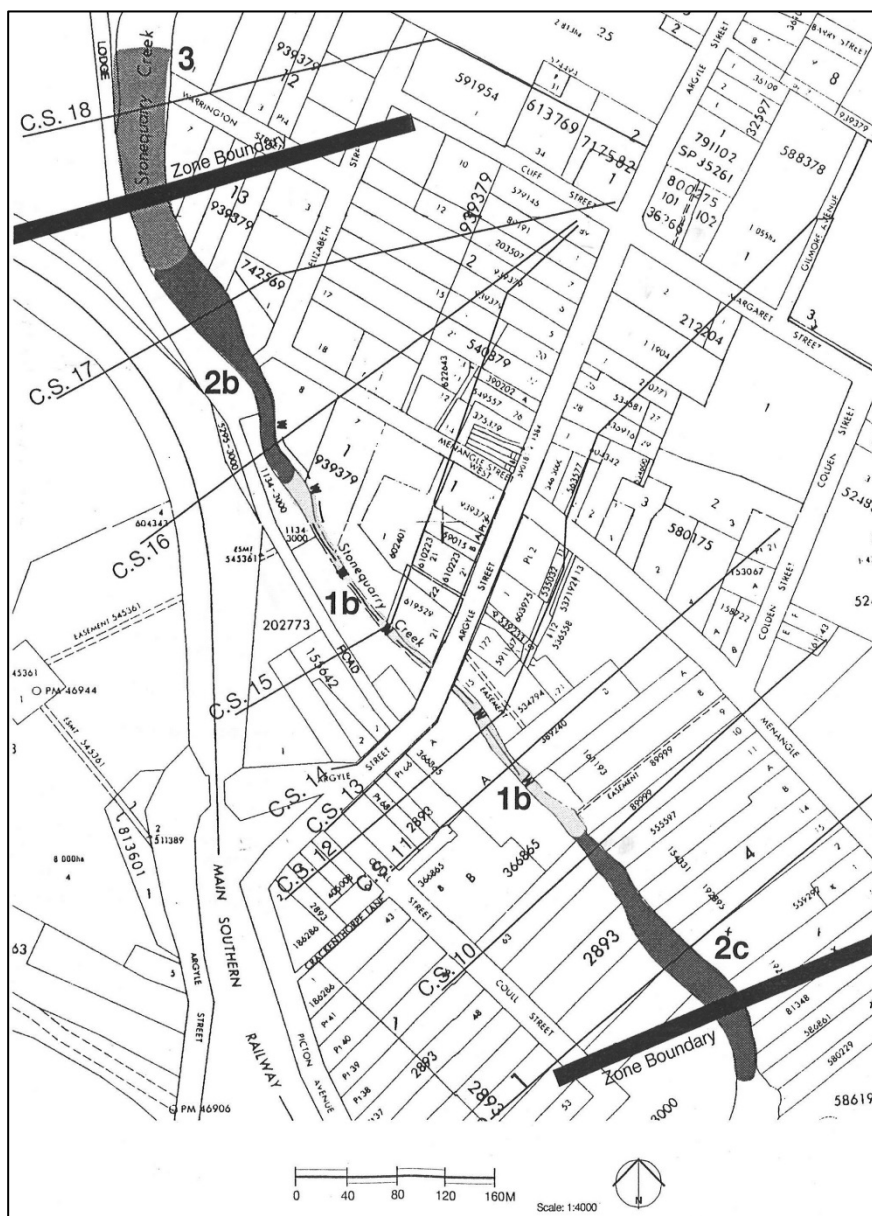
In 1996 Council commissioned the development of the original Stonequarry Creek Vegetation Management Plan (SCVMP) as part of the Stonequarry Creek Floodplain Management Strategy. The SCVMP covers the area of Stonequarry Creek from the junction of Racecourse Creek downstream to the Viaduct at Victoria Oval.

The objectives of the original SCVMP were to create a valuable corridor of vegetation that improves biodiversity, habitat and other environmental attributes whilst mitigating floods in the area. The preferred flood mitigation option adopted by Council from the Floodplain Management Strategy was "Stream Clearing."

A priority risk area identified in the plan is within 150m upstream and downstream of the Argyle St Bridge, Area 1b (see map below). Works have been focused on this area since the commencement of the program in 2001, i.e. woody weed control, debris removal and bank stabilisation.

The SCVMP provides specific guidelines on revegetation activities within this area stipulating that revegetation is to be sparse with a focus on sedges and rushes and the occasional small shrub. Trees can only be planted outside of the channel at a vertical height of 8m above the creek line.

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Zone 1b, ~150m upstream and downstream of the Argyle St Bridge, Picton

The objectives of the original SCVMP must specifically be implemented in a manner which:

- Does not impede water flow or increase flood risk during high flow events
- Control exotic and weed species
- Enhance native species and resilience
- Consider and implement measures that reduce both nutrient loading and water pollution of the creek system

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- Provide information and educational aspects of the site
- Develop an ongoing management strategy
- Continue to seek and source external funding and partnerships to implement the strategy.

SCVMP activities undertaken to date

Date	Activity	Budget
2001	Stonequarry Creek Vegetation Management Plan commenced with employment of a project coordinator, engagement of contractors to undertake weed control and bank stabilisation and a number of community education activities and events. Interpretive signage was installed at various locations along Stonequarry Creek including the Argyle St Bridge and the Viaduct.	\$189,000
Jan 2002 til the present	Green Corps / Green Army team engaged to undertake works on Stonequarry Creek identified in the plan.	
2002	Continued community education and engagement, contractors engaged to continue weed control and bank stabilisation program.	\$135,000
Dec 2003 - Dec 2004	Privet control program from HNCMA grant	\$82,000
Apr-06	Willow Control project	\$6,000
July 2006 til the present	Contractors engaged annually to undertake ongoing maintenance, woody weed control and bank stabilisation	\$12,000 per annum
December 2015	Review and update the Stonequarry Creek Vegetation Management Plan	\$1,000

Other work activities that have occurred on other parts of Stonequarry Creek

- Stonequarry Creek Landcare (Viaduct)
- Kooris on the Move / Bushtucker Garden. Corporate Tree planting day, Council Staff Planting National Tree Day 2014
- Viaduct funding, HNCMA \$7,000, 2010/2011
- Racecourse Creek Funding, HNCMA \$7,000, 2013
- Picton Sports ground plantings, Interfaceflor Corporate day, National Tree day 2013
- Green Army has worked at various sites along Stonequarry Creek 2014 / 2015 including the Argyle St Bridge area and the Viaduct.

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The Revised SCVMP

In 2015 Council engaged Proust Bushland Services to undertake a review of the SCVMP in regard to the current state of the vegetation along the riparian zone from Racecourse Creek to the viaduct using 3 zones:

- Zone 1: Between Racecourse creek and Elizabeth Street
- Zone 2: Between Elizabeth Street and Coull Street
- Zone 3: Between Coull Street and the Viaduct.

The review area was located in the riparian zone (average bank width of 20M) along a 2.4 km section of the creek.

The following data was collected as part of the review:

- Native vegetation (canopy, understory and ground layer), their densities, numbers, health and locations
- All woody weeds, exotic climbers and noxious weeds, their densities, numbers, locations and recommended treatments
- Potential revegetation areas and implementation strategy
- Identify sites for interpretive signage.

The revised plan continues to keep the principles of maintaining a cleared stream area while also enhancing the environmental aspects of the riparian zone. The revised plan highlights the changes in the riparian zone vegetation since 2001 and also considers updating existing interpretive signage and identifies further revegetation opportunities.

It contains the following recommendations (in summary):

- Prioritize zones and keystone weed species.
- Implement a weed control and minimisation program
- Develop a revegetation program
- Develop or replace interpretive signage regarding environmental and heritage values of the Creek.

CONSULTATION

Consultation has occurred with Proust Bushland Services and Council Officers from both the Environmental Services and Infrastructure Planning Sections.

FINANCIAL IMPLICATIONS

Council engaged Proust Bushland Services to review and update the Stonequarry Creek Vegetation Management Plan. Funds were made available to undertake this activity from the Stormwater Levy Fund.

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Ongoing funds are available from the flood mitigation fund i.e. \$12,000 per year to implement the recommendations of the SCVMP.

Any other activities such as landscaping / beautification works, interpretive signage upgrades around Argyle St Bridge and the Viaduct will require extra funding.

ATTACHMENTS:

1. Review of the Stonequarry Creek Vegetation Management Plan 2016.

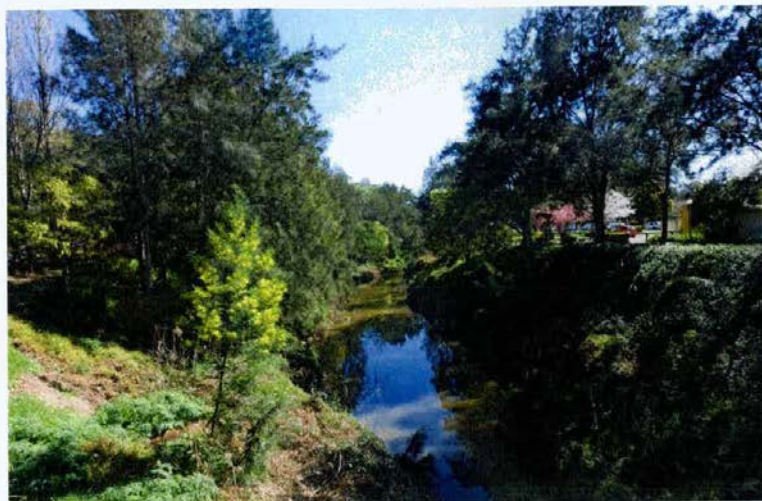
RECOMMENDATION

1. That the Revised Stonequarry Creek Vegetation Management Plan be adopted by Council.
2. That Council to investigate opportunities for external resources and partnerships to undertake the recommendations of the Revised Stonequarry Creek Vegetation Management Plan.
3. That Council consult with Crown Lands to gain access rights for any future works within the creek area.

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**REVIEW
of
Stonequarry Creek
&
Vegetation Management Plan**



October 2015

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1.0 Introduction

Proust Bushland Services (PBS) had been invited by Wollondilly Council to undertake a review of the Stonequarry Creek Vegetation Management Plan (1996; 2006) in regard to the current state (type, density, health etc) of the vegetation along the riparian zone from Racecourse Creek (GPS GDA84 27919/6215568) to the Viaduct (GPS GDA84 27919/6215568). The area was divided into 3 zones (see Maps 1-3):

- Zone 1: Between Racecourse Creek and Elizabeth Street.
- Zone 2: Between Elizabeth Street and Coull Street.
- Zone 3: Between Coull Street and the viaduct.

2.0 Scope of Review

The review area was located in the riparian zone (average bank width of 20m) along a 2.4k section of Stonequarry Creek (approx 9ha). See Maps 1, 2 & 3. From the survey of the riparian zone from Racecourse Creek to the Viaduct, the following data was collected

- Native vegetation (canopy, understorey & ground layer); their densities, numbers, health & locations.
- All woody weeds, exotic climbers & noxious weeds; their densities, numbers, locations & recommended treatments.
- Potential revegetation areas & implementation strategy.
- Identify potential sites for interpretive signage.

3.0 Survey Data

The survey was undertaken in August/September 2015 with the on ground works from all access points. Both banks and the immediate riparian zones were comprehensively surveyed. The remnant vegetation in the review area was Open Forest with River Oak (*Casuarina cunninghamiana*) as canopy in the immediate riparian zone and Eucalypts (i.e. Forest Red Gum [*E. tereticornis*]) and Black Wattles (*Acacia mearnsii*) further up the banks.

The understorey was scattered and few in numbers with the main native species recorded being Tree Violet (*Hymenocallis dentata*) and Blackthorn (*Bursaria spinosa*). The ground layer was predominantly exotic herbs and grasses with occasional scattered native grass patches and clumps of Lomandras.

The review concentrated on keystone (priority) weeds such as woody weeds, exotic climbers and noxious weeds. There was >25 weed species recorded with 12 recorded as keystone weeds: 5 woody weeds species (1 canopy, 4 understorey), 6 exotic climbers (2 canopy, 4 understorey) and 1 ground layer species. Of these 12 weed species 6 are declared noxious in the Wollondilly LGA. See Weed Tables 1 & 2 for complete details.

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Zone 1: Between Racecourse Creek and Elizabeth Street (1k length, 4ha).

North/Eastern bank:

- The vegetation ranged from Open Forest with River Oak as canopy in the immediate riparian zone. The River Oaks were in good health and were a range of age classes but no natural recruitment was recorded. Eucalypts and Black Wattles were further up the banks. The Eucalypts were in reasonable health except for a band (30m length; see photo 1 & map 1) that were dead. Many of the Black Wattles are senescent.
- Occasional native understorey and previously planted Wattles (*Acacia* spp.), Bottlebrushes (*Callistemon* spp.), Heath-Myrtles (*Baeckea* spp.) and Paperbarks (*Melaleuca* spp.) were recorded in this section.
- There were medium/dense patches of Moth Vine (*Araujia sericifera*) climbing over shrubs and up into canopy with English Ivy (*Hedera helix*) increasing as you move downstream to the private lands that had less native vegetation and more weed species. The ground layer was predominantly dense exotic groundcovers (i.e. Trad [*Tradescantia fluminensis*]) that were preventing natural regeneration but were also covering the bare soils minimising erosion.
- Interpretive sign identifying Zone 1 and intended outcomes of the original Stonequarry Creek Vegetation Management Plan project. The sign is now quite worn and the text is difficult to read.
- The current density of vegetation in this section does not seem high or to be detrimental to water flow. However a hydrologist (or suitably qualified person) should review this and present findings to council.

South/Western bank:

- There was a discontinuous narrow band of River Oaks on this side of the creek. Also there was less native species and dense sections (see photo 2) of woody weeds (i.e. Privet [*Ligustrum* spp.]) throughout this side of the river with many more open areas adjacent to the mown zone behind the houses.

Zone 2: Between Elizabeth Street and Coull Street (0.8k length, 3ha)

This zone is generally narrow than the other zones and lies either side of the main bridge in the centre of Picton.

Up stream from bridge:

- There was another discontinuous band of River Oaks. The River Oaks were in reasonable health and were of similar age classes but again no natural recruitment was recorded (see photo 3).
- Occasional native understorey and some previously plantings were recorded in this section. Low diversity of native species in all strata.
- There were medium patches of Moth Vine climbing over shrubs and up into canopy. The ground layer was predominantly dense exotic groundcovers that were preventing natural regeneration but were also covering the bare soils minimising erosion.
- 2 interpretive signs one near the Argyle St Bridge (worn, text difficult to read) and one near the Gazebo behind St Mark Church near the public car park (Sign in relatively good condition, the sign is bent but text still legible) identifying Zone 2 and the intended outcomes.

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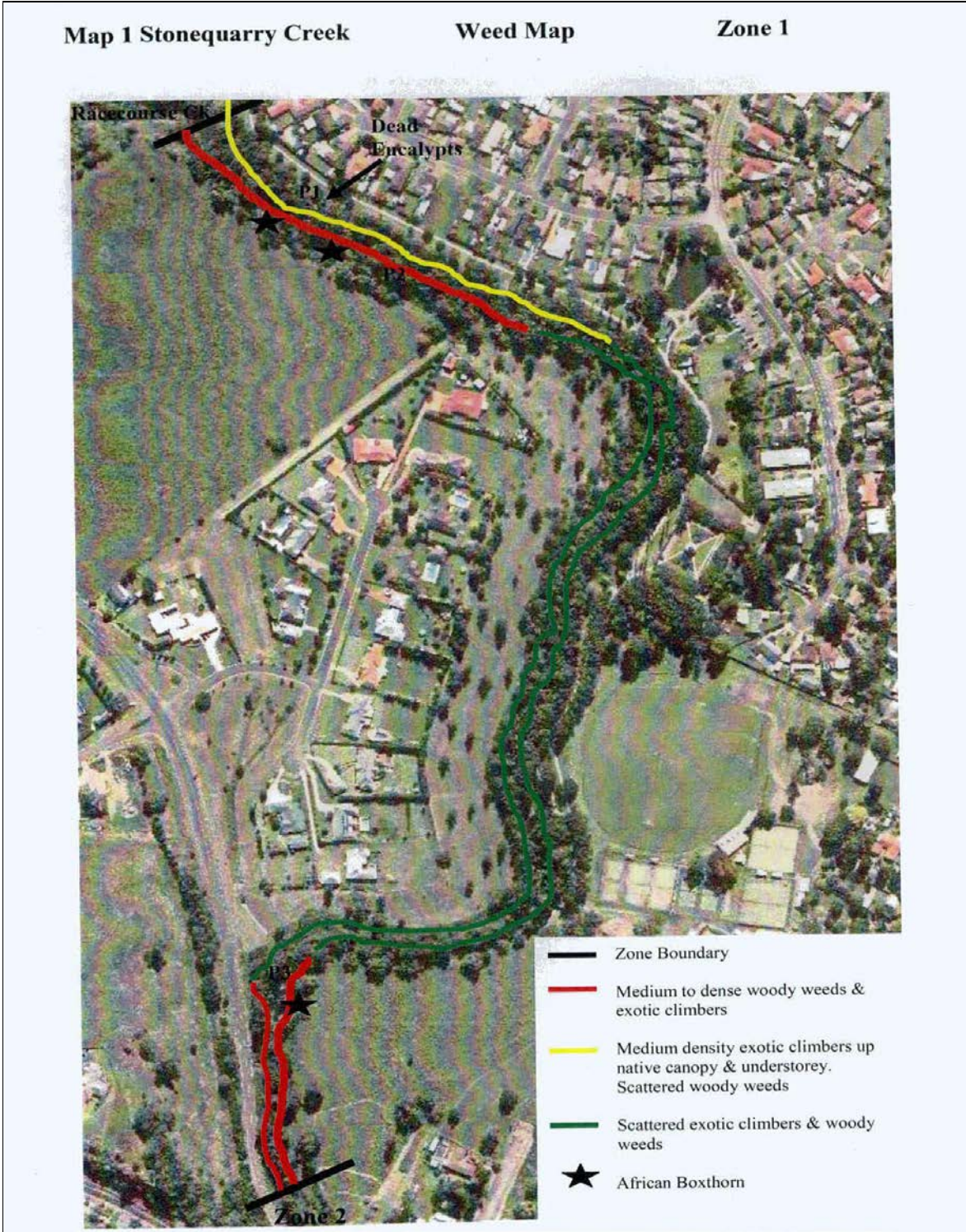
- The current density of vegetation in this section does not seem high or to be detrimental to water flow. Though some of the River Oaks on the western bank could be checked by a hydrologist (or suitably qualified person) and present findings to council.

Down stream from bridge:

- The section (approx 150m length; see photo 4) closest to the bridge had no canopy and sparse native and weed species in understorey layer. There was a mix of exotic grasses, Lomandras and exotic herbs in the ground layer.
- As you moved downstream there was occasional River Oaks but the greatest change was the dramatic increase in the woody weed cover ranging from seedlings, saplings to mature trees (see map 2).
- One large interpretive sign downstream of the bridge on the edge public car park. The sign is obscured by overgrowth of a couple of trees. The sign is also worn with portions of the text illegible. The sign provides an overall outline of the Stonequarry creek vegetation management project and its intended outcomes.

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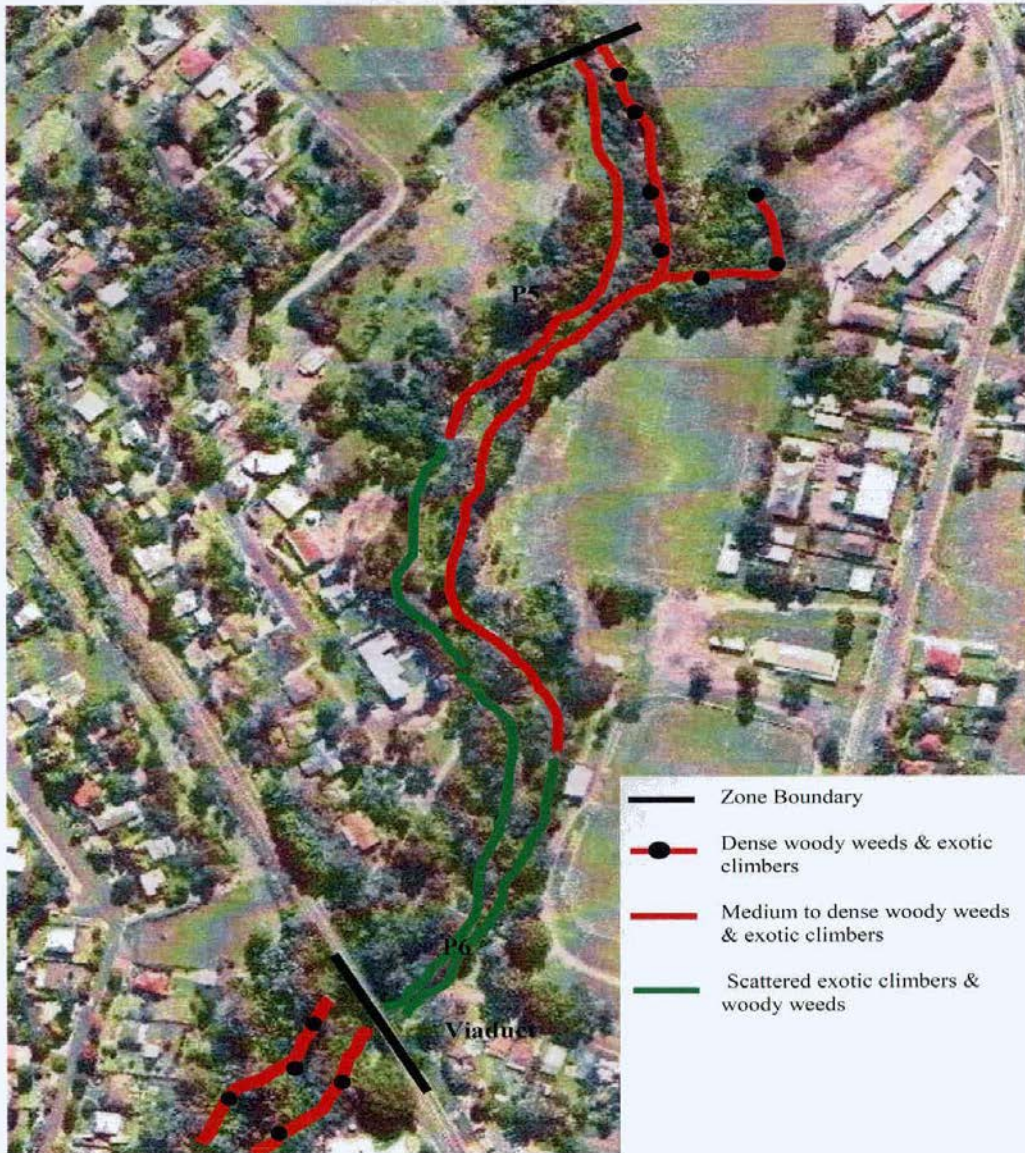
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Map 3 Stonequarry Creek

Weed Map

Zone 3



Zone 3: Between Coull Street and the viaduct (0.6k length, 2ha)

The canopy starts to improve in this zone with more mature River oaks in good health and less canopy gaps. Also there was more diversity (from previous plantings) with increase numbers and variety of Eucalypts and Wattles. Photo 5 shows a good range of canopy to

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understorey native plantings which are approximately 10 years old. Previously it was a dense Giant Reed (*Arundo donax*) section that was restored by PBS and council.

The top section of this zone still had medium to dense woody weeds in understorey. The ground layer was predominantly weed but there were some areas (see Photo 6) were native species (i.e Lomandra) dominated.

There are 3 interpretive signs in this area, 2 identifying Zone 3 and the intended outcomes of the vegetation management plan. One of the signs is bent in half and therefore unreadable (at the end of Webster St). The other sign, on the Picton Ave. side, is in good condition. There is also a larger sign on this side of the creek highlighting the historical use of the area; this sign is in good condition.

The dense woody weeds & exotic climbers continue both upstream and downstream of the review area.

4.0 Recommendations

PBS recommends an integrated management approach that should be flexible and dynamic in nature. This involves being reactive to any changes in site conditions, monitor throughout the year and have all stakeholders aware of the different riparian management issues. From the site assessments and PBS’s years of experience the following recommendations are:

- Prioritise zones and keystone weed species;
- a weed control and minimisation program implemented;
- a revegetation program be implemented to complement the weed control works;
- develop interpretive signage re both environmental and heritage values of the areas.

Priorities zones

All three zones have a mix of native vegetation in predominantly the canopy layer with some native species scattered in the understorey and ground layer. All three zones have a variety of weed (numbers & densities). The following priorities in zones and weeds are recommended:

- Start work in the ‘better areas’ (mid section: Zone 1 [700m length], either side of main bridge: Zone 2 [200m length], lower section: Zone 3 [250m length]) and target all keystone weeds (see table 1).
- Target weed all exotic climbers in all other areas starting at the top of Zone 1 and work downstream. Key Threatening Processes (KTP’s) are the processes that threaten the survival or evolutionary development of species, populations or ecological communities. They are listed in the *Threatened Species Conservation Act*, and include the Invasion of native communities by the establishment of exotic climbers.
- Starting at the top of Zone 1 undertake a systematic wood weed removal program. Rate (area) of work should not exceed the on-going ability to carry out secondary and maintenance weeding. This also will be reliant on the available funds and resources.

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Weed Control

Over 25 weed species were recorded throughout the survey site. The types and densities of weeds have been discussed as has the priorities of keystone weed species (See tables 1 & 2). There were 6 noxious weeds (see Table 1) and 2 Weeds of National Significance (WoNS).

To control the keystone weeds a variety of weed treatments should be implemented. All weed treatments should follow the guidelines set out by the Australian Association of Bush Regenerators (AABR).

A variety of treatments (see Table 1) should be implemented depending on the type of weed and its density, its location, slope and proximity to native plants and waterways. A variety of herbicides are recommended to be used depending on the type of weed and its density, effectiveness of herbicide, proximity to native plants and waterways and to minimise the chance of the weeds building up resistance. The appropriate disposal of the weed material is also important to prevent re-infestations from those materials. The main method of disposal recommended is the 'rafting' of these weed materials on site. This means placing any weeds that can re-shoot (e.g. Crofton Weed) off the ground on 'rafts' of dead material. These rafts will gradually break-down and also provide temporary replacement habitat for native fauna (esp. smaller birds).

So for high priority keystone species such as the climbers Madeira Vine hand removal and bagging all plant material is recommended. Some appropriate spraying can occur after thorough site preparation. While for weed such as Honeysuckle and English Ivy growing as a groundcover the hand dig treatment with rafting as the preferred control but larger plants growing up trees then the cut/paint treatment (using 100% glyphosate) is the recommended control.

Revegetation Program

Any natural areas project should try to maximise native recruitment and minimize weed establishment and spread. Having decided upon the appropriate weed control strategies we must now look into whether other appropriate bush regeneration strategies can be applied to help the regeneration process. The natural regeneration process after disturbances such as flood entails the recruitment of plants from seed in the soil and/or in the surrounding vegetation. The ability of an area to regenerate is also known as the sites resilience. It is considered that the overall resilience of this site is low.

So in conjunction with the weed control program a revegetation program should be implemented. The objectives of the revegetation program should be to increase species diversity in all strata, help minimise erosion, increase bank stability, increase the visual amenity and help minimise successional weed invasions. Areas that could be suitable for revegetation are highlighted in Map 4. Some of the aspects of the revegetation program should include:

- Adding more species to all strata levels;
- Plant out canopy gaps;
- Underplantings of existing established native vegetation with suitable canopy and understorey species;

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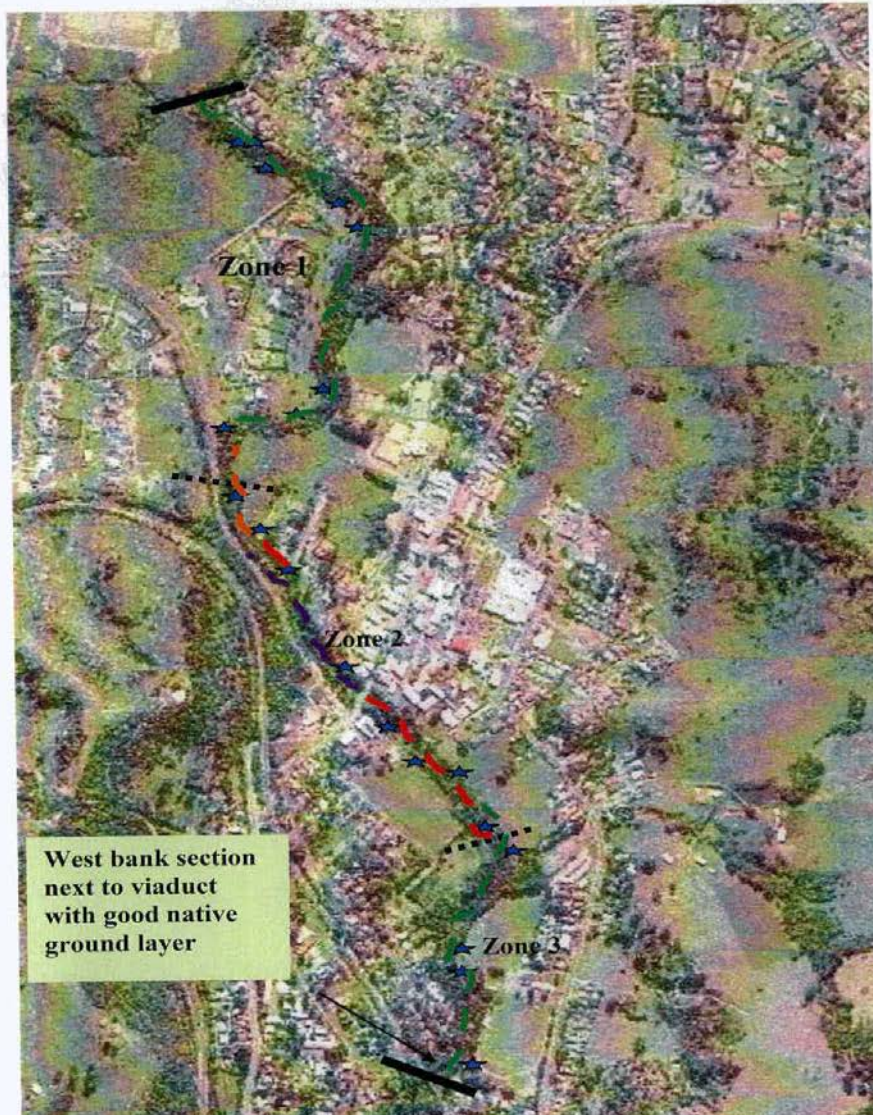
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- Source seed/plants from local provenance ;
- In high profile area (i.e. near main bridge and viaduct) plant more native understorey and ground layer species;
- At all times the species used should have minimal impacts on the water flow as stated in earlier reports;
- The revegetation works could also start in the 'better areas' (mid section: Zone 1 [700m length], either side of main bridge: Zone 2 [200m length], lower section: Zone 3 [250m length]) after the areas has been weeded and site prepared.
- Involve as many stakeholders (schools, community groups, local businesses etc) in the revegetation program as possible.
- Develop implementation strategy utilising Council, Community and 3rd party investment.

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Map 4 Stonequarry Creek Native Species & Revegetation Map



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Table 1 Weed Treatments

Common Name	Treatment(s) / Disposal	Zone(s) Density
African Boxthorn N	Cut/paint and/or spray with Metsulfuron mix.	Zone 1. Scattered with dense patches
African Olive N	Cut/paint.	Zone 1, 2. Occasional.
Baby Smilax N	Biological control at work.	All. Scattered throughout
Blackberry N	Spray with Metsulfuron mix.	All. Scattered throughout
Blue Periwinkle	Spray with Metsulfuron mix. (in selected areas & revegetation zones)	All. Dense patches
Crofton weed	Manual removal 'raft' materials. Spray denser patches after site prep.	Zone 3. Occasional
English Ivy	Cut/paint stems going up trees & shrubs. Spray any dense ground patches with Metsulfuron mix	Zone 1. Scattered growing up trees & understorey in some areas
Giant Reed N	Cut/paint.	Zone 1, 2. Some patches
Inkweed	Hand dig, spot spray with glyphosate if not near native plants,	All. Scattered throughout
Japanese Honeysuckle	Cut/paint or spot spray depending on size of stem and proximity to native plants.	All. Scattered with medium patches
Madeira Vine N	Dense areas sprayed with Starane and surfactant.	Zone 1. Occasional patches
Moth Vine	Hand dig, bag fruit.	All. Scattered but denser in upper areas of Zone 1
Passionfruit	Hand pull; cut/paint.	All. occasional
Privet	Cut/paint up to 8cm stems, stem inject larger ones. Spray seedlings Raft cut materials.	All. scattered seedlings, saplings to mature trees with dense section in upper Zone 1, lower zone 2 & upper zone 3.
Trad	Spray with Starane mix. (in selected areas & revegetation zones)	All. Dense section throughout.
Turkey Rhubarb	Remove from native plants, site preparation then spray program.	All. Scattered with medium patches
White Morning Glory	Remove from native plants, site preparation then spray program.	Zone 3. Medium patches in lower areas
Annuals such as Fleabane, Thistles etc	Hand dig amongst natives. Spot spray otherwise.	All. Scattered throughout.

Weeds in **bold** are keystone priority weeds to target
 N declared noxious weeds

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Table 2 Plant Species Table

Family <i>Botanical Name</i>	Common Name
Ferns	
Adiantaceae <i>Adiantum aethiopicum</i>	Common Maidenhair Fern
Aspleniaceae <i>Asplenium flabellifolium</i>	Necklace Fern
Blechnaceae <i>Doodia aspera</i>	Rasp Fern
Schizaeaceae <i>Cheilanthes distans</i>	Cloak Fern
Sinopteridaceae <i>Pellaea falcata</i>	Sickle Fern
Monocots	
Commelinaceae <i>Commelina cyanea</i>	
<i>Tradescantia fluminensis</i> *	Trad
Cyperaceae <i>Lepidosperma</i> spp.	
Xanthorrhoeaceae <i>Lomandra longifolia</i>	
<i>Lomandra multiflora</i>	
Philesiaceae <i>Geitonoplesium cymosum</i>	Scrambling Lily
Phormiaceae <i>Dianella</i> sp.	Flax Lily
Poaceae <i>Arundo donax</i> *	Giant Reed
<i>Imperata cylindrica</i>	
<i>Oplismenus</i> spp.	Basket Grass
<i>Themeda australis</i>	Kangaroo grass
Dicots	
Acanthaceae <i>Pseuderanthemum varibile</i>	Pastel Flower
Asclepiadaceae <i>Araujia sericifera</i> *	Moth Vine
<i>Tylophora barbata</i>	
Asparagaceae <i>Asparagus asparagoides</i> WoNS *	Baby Smilax
Araliaceae <i>Hedera helix</i> *	English Ivy
Asteraceae <i>Ageratina adenophora</i> *	Crofton weed
<i>Bidens pilosa</i> *	Cobblers Peg
<i>Senecio</i> spp.	

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<i>Siegesbeckia orientalis</i>		Indian Weed
Family		Common Name
<i>Botanical Name</i>		
Basellaceae		
<i>Anredera cordifolia</i>		Madeira Vine
Bignoniaceae		
<i>Pandorea pandorana</i>		Wonga Vine
Caprifoliaceae		
<i>Lonicera japonica</i>	*	Japanese Honeysuckle
Caryophyllaceae		
<i>Stellaria flaccida</i>		Forest Starwort
Casuarinaceae		
<i>Casuarina cunninghamiana</i>		River Oak
Cassythaceae		
<i>Cassytha pubescens</i>		Devil's Twine
Convolvulaceae		
<i>Ipomoea alba</i>	*	White Morning glory
Crassulaceae		
<i>Crassula multicava</i>	*	Shade Crassula
Euphorbiaceae		
<i>Breynia oblongifolia</i>		
<i>Phyllanthus sp.</i>		
Fabaceae: Faboideae		
<i>Glycine sp.</i>		
<i>Hardenbergia violacea</i>		False Sarsparilla
Fabaceae: Mimosoideae		
<i>Acacia elata</i>		
<i>Acacia floribunda</i>		Sally Wattle
<i>Acacia mearnsii</i>		Black Wattle
Lamiaceae		
<i>Plectranthus parviflorus</i>		
Meliaceae		
<i>Melia azedarach</i>		White Cedar
Myrsinaceae		
<i>Rapanea variabilis</i>		Muttonwood
Myrtaceae		
<i>Eucalyptus baueriana</i>		Blue Box
<i>Eucalyptus tereticornis</i>		Red Forest gum
<i>Eucalyptus spp.</i>		
Oleaceae		
<i>Ligustrum spp.</i>	*	Privet
<i>Notelaea longifolia</i>		Native Olive
<i>Olea europaea</i> subsp. <i>cuspidata</i>	N *	African Olive
Passifloraceae		
<i>Passiflora edulis</i>	*	Passionfruit
Phytolaccaceae		
<i>Phytolacca octandra</i>	*	Inkweed
Pittosporaceae		
<i>Bursaria spinosa</i>		Blackthorn

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<i>Pittosporum undulatum</i>		Pitto
Family <i>Botanical Name</i>		Common Name
Polygonaceae <i>Acetosa sagittata</i>	*	Turkey Rhubarb
Ranunculaceae <i>Clematis aristata</i>		Old Man's Beard
Rhamnaceae <i>Pomaderris sp.</i>		
Rosaceae <i>Rubus fruticosus</i> aggreg. N	*	Blackberry
<i>R. parvifolius</i>		Native Raspberry
Sapindaceae <i>Dodonaea truncatiales</i>		Hop Bush
Solanaceae <i>Lycium ferocissimum</i> N	*	African Boxthorn
<i>Solanum prinophyllum</i>		Forest Nightshade
Ulmaceae <i>Trema tomentosa</i>		Native Peach
Verbenaceae <i>Clerodendrum tomentosum</i>		
Vitaceae <i>Cayratia clematidea</i>		Native Grape

*denotes weed species

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Site Photos



P1: Zone 1. Dead eucalypts

P2: Zone 1. Native canopy, dense weed understorey

P3: Zone 2. Sparse canopy. Revegetation area?



P4: Zone 2. Looking east from Remembrance Dr.

P5: Zone 3. Successful revegetation area

P6: Zone 3. Native canopy, native ground layer