

Yeramba Lagoon Education Plan
Environmental Education Strategy for the Mid Georges River
Catchment

For the

Mid Georges River Sustainability Initiative

Just as the key to a species' survival in the natural world is its ability to adapt to local habitats, so the key to human survival will probably be the local community.

If we can create vibrant, increasingly autonomous and self-reliant local groupings of people that emphasise sharing, cooperation and living lightly on the Earth, we can avoid the fate warned of by Rachel Carson and the world scientists and restore the sacred balance of life. David Suzuki. *The Sacred Balance* [1997] Allen & Unwin p.8

It's Our Yeramba



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Yeramba Lagoon Education Plan - *It's Our Yeramba* Summary

This summary of the Yeramba Lagoon Education Program is written for key stakeholders and community members and will be useful in the implementation of the program. The program title and the tag line for the program are:

It's Our Yeramba

The Context

Yeramba Lagoon is a freshwater lagoon located as a tributary to the mid Georges River in Picnic Point, Sydney. The lagoon was established by the construction of a weir that was installed when Henry Lawson Drive was built. Water quality is very badly affected by human activity. In its natural state the lagoon was tidal and estuarine; but now the weir allows no tidal in-flow and the lagoon has become very degraded. Weeds are a major problem and they are encouraged by high nutrient conditions and lack of tidal flushing. Native flora is becoming more and more sparse and native fauna is being badly affected by loss of habitat, and die off of native species. Eutrophication, surface weed infestation, odour problems, and loss of visual amenity are also real issues for the Lagoon and surrounding land.

Most human impact upon the lagoon is caused unwittingly by residents in the catchment itself. There is little local connection with the lagoon and a lack of knowledge about the impact of simple household behaviour on the problem

The *It's Our Yeramba* Education Program

The education program will:

- Increase community connection with Yeramba Lagoon.
- Promote positive feelings for this unique environment and concerns for issues of sustainability especially over the period that the Lagoon is being rehabilitated.
- Motivate appropriate behaviours by local residents who live in proximity to Yeramba Lagoon and other relevant stakeholders, in order to reduce human impact on Yeramba Lagoon.
- Seek a greater level of involvement in bushcare management by local residents.
- Significantly reduce the illegal recreational use of the area surrounding Yeramba Lagoon.
- Increase the knowledge of those using the area surrounding Yeramba Lagoon about why activities are not to occur.

The program will grow connection, ownership and pride and to promote behaviour changes that will achieve a healthier Yeramba. It will comprise a number of activities including:

- Establishment of a *Friends of Yeramba Group* and working with this group to deliver local education activities, including bush care, bushwalking activities etc.
- Community education based on local stories.
- A media program.
- A schools program.
- A compliance/education program targeting those relatively few people who are dumping or littering in the area.

In order to be successful, the program will be significantly interactive and engaging of the local residents. This will require patient and persistent work by Council and the community. The program may be delivered once only or on a number of occasions.

It's our Yeramba

Yeramba Lagoon Education Plan

It's Our Yeramba

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Grahame Collier



Yeramba Lagoon Education Plan

It's Our Yeramba



1. Overview

Yeramba Lagoon is a freshwater lagoon located in the mid Georges River catchment. It is within the confines of the Georges River National Park, in the suburb of Picnic Point in Sydney. The Lagoon was established by the construction of a weir that was installed when Henry Lawson Drive was constructed in the early 1960s, resulting in the creation of a freshwater system. Prior to becoming a freshwater system, the Lagoon received tidal and estuarine influences from the Georges River. Yeramba Lagoon is heavily impacted by the surrounding residential areas and Henry Lawson Drive and has become highly eutrophied and supporting a large variety of weeds.

The Yeramba Lagoon is situated within the Bankstown local government area. The catchment has an area of 1.8 square kilometres. This comprises vegetated areas of approximately 1 km² within the Georges River National Park and about 0.8 km² of residential land use. Yeramba Lagoon lies within the national park and discharges over a weir to the Georges River via culverts beneath Henry Lawson Drive. The lagoon has an area of 5.97 ha and is generally less than 1 m deep.

Yeramba creates an image of an urban wasteland which leads to further negative behaviour. [Picnic Point resident]

This document outlines an education strategy for Yeramba Lagoon.

It's Our Yeramba

2. The Issues Impacting on Yeramba Lagoon

By almost every measure, Yeramba Lagoon is very badly affected by human activity. In its natural state it was tidal and estuarine; there was no impact from the run-off from the surrounding areas, because human settlement was limited. The lagoon was constantly flushed and provided a healthy, biodiverse ecosystem. Now the water is stagnant and weed covered, the run-off from the residential area to the north and west of the lagoon makes the situation worse every time it rains. The lagoon has been closed to tidal flows from the Georges River since construction of the weir and culverts in the 1960s. Lack of tidal flushing and ongoing sewage overflows and stormwater inputs from the upper catchment have resulted in the current state of the lagoon. Noxious weeds are a major problem in the lagoon and its drainage lines. Weeds are encouraged by high nutrient conditions and lack of tidal flushing. They out-compete native flora, cause loss of habitat, and their die-off contributes to eutrophication, odour problems, and loss of visual amenity.

The following is a brief history of the area since white settlement.

- 1840: first land grant given in the area
- 1926: transferred to War Home Commission
- 1964: Bankstown Council and Georges River Park Trust establish native plant garden and name it Yeramba. – Construction of the weir and the causeway removes tidal influence – Fish and bird species introduced.
- 1966: Introduction of water lilies
- 1972: Ownership transferred to NSW Lands Department
- 1976: Causeway raised
- 1982-83: Lake dries out for this period.
- From 1990 onwards: Lagoon increasingly affected by weeds and stormwater run-off.

The impact of human settlement has created some major problems with flora and fauna around the lagoon. For fauna, a search of the NSW Wildlife Atlas in 2009 found records of four threatened fauna species in the study area. Additional species were identified from the Commonwealth *Environmental Protection and Biodiversity Conservation Act* (EPBC) Protected Matters database search and community records. Based on these sources of information there are:

- Six vulnerable species under the TSC Act
- Thirty three marine species under EPBC Act
- Seven migratory species under the EPBC Act

Threats to these species include (but are not limited to):

- Reduced water quality due to siltation and pollution
- Drainage of wetlands and ponds
- Predation by foxes, dogs and cats
- Use of herbicides, pesticides and other chemicals near wetland areas
- Clearing and fragmentation of habitat
- Exclusion from smaller remnants by aggressive species such as the Noisy Myna (*Manorina melanocephala*)
- Disturbance during the breeding period
- Frequent hazard reduction burning
- Road kills
- Illegal hunting
- Rubbish dumping
- Electrocutation on powerlines.

Actions required to recover these species include (but are not limited to):

- Protect wetlands and water-courses from pollution
- Undertake fox and feral cat control in, and nearby, wetlands
- Protect wetlands, ponds and associated marshy areas from clearing, disturbance and inappropriate fire regimes

- Retain suitable woodland habitats, particularly those with an intact native ground plant layer
- Increase the size and connectivity of existing remnants, planting trees and establishing buffer zones
- Retain or reintroduce ecologically sustainable water flows to wetland and swamp habitat. Allow swamps to be flooded periodically and floodwaters to recede naturally
- Makes sure pesticides and herbicides are kept well away from wetlands
- Assist in determining distribution and population size of threatened species by recording sightings and submitting them to the NPWS Wildlife Atlas
- Report illegal hunting to NPWS.

Introduced fauna species observed in the study area include:

- Domestic dogs that escape from yards or walk unleashed in the national park are also a threat to native fauna.
- *Acridotheres tristis* Indian Myna
- *Anas platyrhynchos* Mallard
- *Felis catus* Cat
- *Gambusia affinis* Mosquito Fish
- *Lepus europaeus* Brown Hare
- *Oryctolagus cuniculus* European Rabbit
- *Trachemys scripta elegans* Red-eared Slider Turtles
- *Vulpes vulpes* Fox

For flora; Weed infestations are concentrated in Yeramba Lagoon and its drainage lines. There are five noxious weeds and four weeds of national significance in the area of the lagoon.

In addition, some indigenous species are threatened in this area. For example, *Pterostylis saxicola* (Sydney Plains Greenhood Orchid) has been recorded near the study and is endangered under the TSC Act. This means that the species is likely to become extinct in nature in NSW unless the circumstances and factors threatening its survival or evolutionary development cease to operate.

Water quality is a significant problem; faecal coliform levels are above ANZECC (Australian and New Zealand Environment and Conservation Committee) guidelines, as are levels of low dissolved oxygen (DO) and turbidity. Testing reveals high nutrient levels especially of phosphorus and nitrogen.

The recently produced Yeramba Lagoon Masterplan identifies the following actions for the improvement of the Yeramba Lagoon:

- Control sources of pollution.
- Reintroduce tidal flows in the lower part of the lagoon while maintaining and improving freshwater ecology in the upper lagoon.
- Regenerate and re-vegetate bushland adjacent drainage lines to the north of the lagoon and in other degraded areas.
- Reduce weed growth in the lagoon.
- Improve the track network through the national park.
- Encourage greater community involvement in the environmental management of the Yeramba Catchment.

3. Purpose of this Document and the Rational for the Program

The purpose of this document is to outline a costed community education program containing some integrated enforcement activities for the Yeramba Lagoon Catchment. Its intent is to outline the structure and focus of the program and to provide much of the material that is required for the delivery of the program. The program needs to be in line with the directions set in the Yeramba Lagoon Master Plan.

The vision stated in the Yeramba Lagoon Masterplan is to:

Enhance environmental conditions and amenity in Yeramba Lagoon and surrounding bushland by re-establishing estuarine processes and open-water areas in the lower part of Yeramba Lagoon and improving pollution management in the upper catchment.

Clearly, in order to do this, the education program needs to grow connection, ownership and pride and to promote behaviour changes that will achieve a healthier Yeramba. It also needs to prepare the way by informing the community about the infrastructural changes that will occur at the lagoon. Yeramba needs to become a community point of attachment which is respected and looked after. Without this, behaviour change will not occur and the ecological realities of the Lagoon will remain as they are.

The program therefore will be trying to enhance community links to the lagoon as well as promote individual and community behaviours.

The Education program – *It's Our Yeramba* – has been developed as a six month initiative with some ongoing aspects. It can be run once or preferably it can be re-run in part or in whole. It is likely that decay of community behaviours will occur following only one delivery of the program, and so running the program on more than one occasion is recommended. A phased approach to the delivery of the program is outlined below. Staff resources will need to be allocated to enable delivery of the program for this period, see Section 8.



4. Who Needs to Change Behaviour to Affect Water Quality in Yeramba?

The major problems to be addressed by this program are: weed infestation, run off of pollutants through the stormwater system including sediment, garden products - fertilisers, pesticides and herbicides, oil and grease, detergents, and litter. Dumping is also a problem. Consultation with the community identified that the following key issues are important.

Key Findings about Target Populations

The program should:

- Educate kids through the schools in the catchment. Strongly encourage them to talk with their parents and neighbours about what to do and what not to do.
- Educate local residents in the catchment.
- Educate those that litter the roadside and dump. Need for a compliance program to support this.
- Educate Council staff relevant to the program - compliance and planning issues.
- Partner with key state government agencies - NPWS – the community and Council to manage the site more effectively.
- Ensure that the education aspects of the Yeramba Lagoon Management Plan are fully integrated into the Education Strategy and able to be implemented.

Key Findings about Content

There are a range of areas of content that are suggested from the consultation these are;

- Older people have seen the changes – they might talk about what it was like.
- People think putting unwanted plants in the bush is good. They don't realize the impact. The content of the program must change this behaviour.
- Weeds and their management are an essential piece of the content. Lack of control of weed species in private property and bushland areas.
- Managing the bushland.
- Managing the garden – fertiliser and pesticides.
- Managing nutrient in-flow –sewage overflow, GPTs and phosphates.
- Managing other run-off - washing cars, hosing down houses and paved areas.
- Educating trail bikers.

Key Findings about the Process

- There needs to be a community group so that all parties can work together and educate the wider community. Given the lack of ownership and commitment, this is a vital piece of input and might well frame the future.
- In addition, the interest exhibited in the site by the Rotary Club of Padstow is noted. This club developed an outline of a way forward to rehabilitate Yeramba Lagoon in 2004. There was no implementation of this strategy but there remains a commitment to activity in this area. The Rotary Club of Padstow could be a key player in the way forward.



Target all residents of the catchment

Section 2 above and the Masterplan for Yeramba Lagoon makes it clear that the majority of the negative impact is caused by the practices of the people who live in the sub-catchment. While this impact would be reduced by the removal of the weir, so that more tidal flushing could occur, this is not the total answer for two reasons:

- It is not possible just to undo all of the previously constructed infrastructure related mistakes in a moment. Rehabilitation will take time and significant funding.
- Human behaviour in the catchment will still have impact on the lagoon and the outflow from it into the Georges River.

Because of this the *It's Our Yeramba* education plan must target current residents and improve their:

- Connection with the Catchment.
- Weed and garden management.
- Understanding of stormwater pollution and its impact on Yeramba.
- Waste management understanding and practices.
- Bushland management and engagement.
- Use of the natural areas around Yeramba for recreation purposes.

The following is what is known about the demographic profile of these residents. Note the figures below are for the whole of Picnic Point and are drawn from the 2006 ABS survey, reported on the Bankstown City Council website. This brief profile is quoted from the website:

Picnic Point is an established residential and parkland area. Picnic Point is bounded by Riverside Avenue, Freda Street, Colleen Avenue, Lawler Street, Paul Street, Kennedy Street and Shari Avenue in the north, generally by The River Road in the east and by the Georges River in the south and west. Picnic Point is named to describe the geographic feature on the Georges River, which was popular with picnickers. [See map of the Lagoon, Appendix 4]

Settlement of the area dates from the mid 1800s, with land used mainly for farming and orchards. Significant development did not occur until after the 1930s, beginning as a southerly residential extension to the Panania and Revesby areas. Due to its isolation from the railway, development in this area was slower than areas to the north. Rapid growth took place in the post-war years. The population increased marginally from the mid 1990s, a result of new dwellings being added to the area.

The population of Picnic Point is 5,410 and the majority of these people live in the catchment area, hence all of their stormwater drains to Yeramba Lagoon. There are 1,932 dwellings and the vast majority of these are owned [46%] or in the process of being purchased [37%]. The gender mix is almost 50/50 male/female. Most residents are Australian born, with only 15% being born overseas. Ninety three percent are Australian citizens and only 0.5% are indigenous people. The age breakdown of Picnic Point residents is:

- 0 - 4 years, 6.7%
- 5 – 17 years, 10.7%
- 18 – 64 years, 59.8 %
- 65 – 84 years, 13.7%
- Over 85 years, 1.1%

The implications of this data are that any material produced can be in English only and should be primarily directed at adults. The high level of home ownership means that strong connections can be built with residents and it is assumed that the majority will remain long term in the area.

Target visitors to Yeramba Lagoon

Visitors to Yeramba come from a wide range of areas for a number of reasons. For the purposes of this program, these include: walking the bush track, picnicking on the Georges River across the road from Yeramba, bird watching, exploring the area, for educational purposes [TAFE and school groups], and dumpers and litterers on site or along the River Road.

The problems caused by these visitors are:

- Dumping of unwanted rubbish; a particular problem is the dumping of garden waste which includes weeds. This is often dumped in bushland around the lagoon and further impacts on the major issue affecting Yeramba.
- Littering: litter is a real problem in the area; it originates from passing vehicles and from those who are visiting the site. In part, littering might come from school students who are using the location under the supervision of school staff. The Georges River Environmental Education Centre has programs that assist. It should be noted that on site littering is a minor problem.
- Trail and Mountain bike riding in the area.
- Vandalism of the site; there is some evidence of vandalism in the area.

Target people in the Bankstown LGA

While there is no direct impact on the site caused by those people who live in the wider Bankstown area, there is a need to keep the broader community informed about the program and to build their connection with the Lagoon. In essence this component of the program will be information based and be limited in time and duration compared to the other components.



5. The Approach

As indicated above there are a number of environmental issues that this program needs to address. The approach outlined below focuses on changing behaviours so that all of these problems are addressed. The key elements of the approach are growing connection with Yeramba, especially among local residents, encouraging behaviour change at home and promoting great care and regard for the bushland area and the lagoon itself.

Program Tag Line [and title]

The program tag line is *It's Our Yeramba*.

Program Aim

To increase community understanding and connection with Yeramba Lagoon so that resultant improved behaviour results in reduced human impact on the lagoon.

Program Objectives

- To increase community connection with Yeramba Lagoon.
- To promote positive feelings for this unique environment and concerns for issues of sustainability especially over the period that the Lagoon is being rehabilitated.
- To motivate appropriate behaviours by local residents who live in proximity to Yeramba Lagoon and other relevant stakeholders, in order to reduce human impact on Yeramba Lagoon.
- To seek a greater level of involvement in bushcare management by local residents.
- To significantly reduce the illegal recreational use of the area surrounding Yeramba Lagoon.
- To increase the knowledge of those using the area surrounding Yeramba Lagoon about why activities are not to occur.

Program Outcomes

Knowledge: Increased knowledge of impacts in the environment – and understanding of their importance to health of the Yeramba Lagoon.

Values and Attitudes: Heightened appreciation of the Yeramba Lagoon as an iconic feature of the local community and improved community connection with Yeramba Lagoon and surrounding bushland.

Behaviour: Modified behaviour by people across the community so that the environmental health of Yeramba Lagoon is improved.

The following abbreviated Outcomes Hierarchy has been developed for this program. It assumes that all interventions suggested below would be implemented. At the outset of the program this hierarchy needs to be completed dependent upon which strategies are to be implemented.

Project Outcomes	Evaluation Questions
6. Reduced environmental impact on the lagoon by the local community.	Is there evidence of reduced environmental impact on the Yeramba Lagoon as a result of effective implementation of the education program?
5. Increased appropriate behaviour by the Picnic Point community and visitors to the lagoon.	Is there evidence of improved community behaviour [Lagoon related] as a result of effective implementation of the program?

Project Outcomes	Evaluation Questions
4. Increased conservation activity by the community to enhance the sustainability of Yeramba Lagoon.	To what extent is there evidence of improved ownership / participation in Creek management?
3. Heightened appreciation and awareness of, and connection with Yeramba Lagoon as an iconic feature of the local community.	To what extent is there evidence of increased community valuing of the lagoon What evidence is there of increased use of bush tracks around the lagoon by local residents. Is there positive media coverage and public information about the lagoon?
2. Improved knowledge of what individuals might do to improve the health of the lagoon.	Do people in the catchment demonstrate a high level of knowledge about protecting the sustainability of the lagoon?
1. A significant range of education initiatives were conducted with residents, visitors and site users.	What education approaches were conducted?

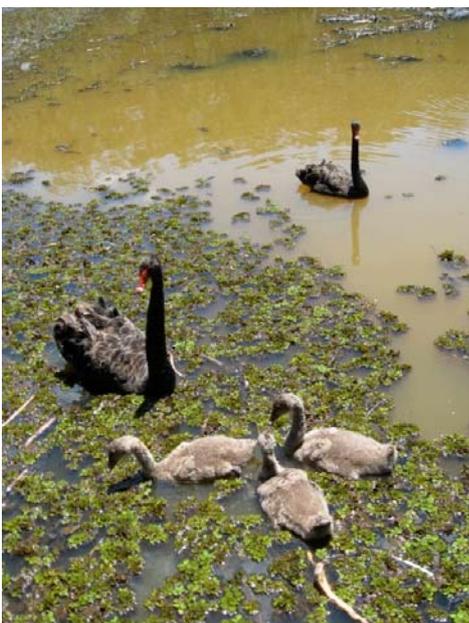
Program Logo

A decision will need to be made by the Mid Georges River Sustainability Initiative about whether there is a need for a Yeramba Lagoon project specific logo in order to brand all aspects of the project.

Program Key Messages

This program is built around the following key messages:

- *It's Our Yeramba*
- Get involved in helping Yeramba – bushcare etc
- Council is changing the face of Yeramba – you can help.
- No dumping of weeds and other garden waste or any other waste
- Keep the stormwater run-off into Yeramba as clean as possible
- Use Yeramba with care



6. The Education Strategies – *It's Our Yeramba*

This part of the Plan outlines all of the education strategies designed to address the *It's Our Yeramba Education Program* objectives and lead to achieving program outcomes. It is assumed that all activities will be implemented together in order to achieve program objectives.

There are three components of the program and each is integrated with the other and run concurrently. They target all key people whose behaviours need to change in order to improve the health of the lagoon:

- All residents of the catchment
- Visitors to Yeramba
- People in the Bankstown LGA.

The emphasis of the program, outlined below, will be on the residents of the catchment target group. Time and resources should be allocated as follows:

Component 1 – All residents of the catchment. 80% of time and resources	Component 2 – Visitors to Yeramba. 15% of time and resources	Component 3 - People in Bankstown. 5% of time and resources
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Complete delivery of the entire program will take six months. Component 1 will stretch across this time period and Components 2 and three will occur within that time frame, as identified in the table below.

Component	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6
1. All residents of the Catchment						
Visitors to Yeramba						
People of Bankstown						

After the Program has been delivered once aspects of it can be re-delivered so that initiatives like the friends of Yeramba Group can be built upon. It is recommended that the following redelivery occurs over a four month period each year

Component	Month 1	Month 2	Month 3	Month 4
1. All residents of the Catchment. Activities 3, 4, 5, 7, 8, and 9.				
Visitors to Yeramba Activity 10				
People of Bankstown Activity 11 and 12				

Component 1. Residents of the Yeramba Catchment

This component contains all activities that are to be used to target people who live in the catchment.

Activity 1. Re-establishment of the Friends of Yeramba Lagoon Group

The development of a community group which has connection with the Lagoon and works towards its well-being is a vital part of this strategy. The quality of the water in the Lagoon and the land around it will only improve when people start to look after it – to own it. Community development is essential

Through the conduct of an early evening program launch event where every local resident is invited, establish the Friends of Yeramba group. Invitations should be sent to the Rotary Club members, the birdwatchers and local schools who draw most students from the catchment as well as to all local residents.

It is suggested that this event is held in a location close to the lagoon and is well catered and supported. It would need to be high profile, well marketed and include 15/20 minute guided walking tours for all those that attend. These would clearly point out the problems and explain why they occur and what can be done.

The intention of this event is to both launch the *It's Our Yeramba* project and to establish the *Friends of Yeramba* group. High profile local and external speakers should be invited to attend [see Appendix 1].

At the launch community support would be sought to re-establish the Friends of Yeramba Group. The idea of the group would be outlined and community members would be asked to attend the first meeting. This should be scheduled two weeks after the launch so that momentum is built upon. Appendix 1 outlines the draft Terms of Reference for the group and its objects. This could be tabled at meeting 1 for amendment/adaptation. The establishment of this group is essential to the delivery of the program and it will require collaboration between the Council's education, bushcare, community engagement staff and the project manager to make this happen.

Activity 2. Support during the establishment phase of the Friends of Yeramba Group. Council through the work of the Project Manager provides support and training for this group during its inception phase. It is important to note that a successful program will be greatly influenced by on-the-ground activity conducted by Friends of Yeramba and so it is essential that work is put into the development of this community group. The Project manager needs to coordinate support that might be provided by a range of Council staff.

Activity 3. Provision of resources to Friends of Yeramba to carry the program forward. A key feature of this program is that the Friends of Yeramba group can take forward some key local activities in a planned way. Actions to be undertaken by the Friends of Yeramba include:

3a. A time limited but intensive [two months] campaign involving a number of letter box drops of a planned set of messages for local people about the issues and what they might do. First drop is a teaser [see appendix 1], then more specific messages over time, based on the hypothetical Yeramba stories see Appendix 3.

3b. The drafting of real stories of what local people are doing. These can replace the hypothetical stories Kerry and Brad, Maria and Annie and the Simpsons [see appendix 3] Appendix 2 provides a list of possible actual stories.

3c. A local 'talking campaign', where each member of the group targets at least five local residents that they will talk with about Yeramba and what is happening there – this should be timed to tie in with works program and use Jenna's story

3d. The organisation of local community information small events – education about Yeramba and what you can do.

3e Establishment of a local bush care group and working with a concerted Council program to clean up the bushland above the Lagoon. Once established, the Yeramba Bushcare group will need to target the edge of the escarpment and walking track rehabilitation. Generate interest by holding guided walking trips [see 9 below] Note that participants are likely to want to work in

priority areas near their homes. Support should also be given to residents who express an interest in non-priority areas e.g. roadsides and local parks.

Activity 4. Schools program. Work with the identified teachers in each local school to develop key content – curriculum links etc. based on the stories in Appendix 3 [below] and the new stories to be developed. A key feature of this program would be educating students about how they can encourage their parents to be interested in Yeramba too and what could/should be done differently at home. It is essential that the program is well integrated within the primary curriculum.

A range of options are suggested in Appendix 1 for the development of a schools program that meets the project's objectives. It is of note that the Georges River Environmental Education Centre provide a resource to assist in the development of this program.

Activity 5. Ongoing community education about the works program. For local residents in the catchment and those further a field, the works process will be a visible sign of action on the Lagoon. This should be used as a way of growing connection and community involvement. People will be very interested in the works on the Lagoon. A number of banners can be produced for the duration of the program and placed near to the road entrance to Yeramba [see Appendix 1]. These will inform visitors and passers by, as well as the local residents. They will generate a significant amount of discussion and involvement.

Activity 6. Signage at the GPTs and along the escarpment above the lagoon and around the lagoon. Signage is an important component of the program and must be upgraded to carry all key messages forward. The *It's Our Yeramba* message must occur on all signs. Clear signage is needed at the GPTs and along the escarpment as well as on all walking tracks. Liaison with NPWS should occur to determine the words for signs but some examples are provided in Appendix 1.

*This pleasant loop walk that circumnavigates the Yeramba Lagoon follows a series of small bush tracks that undulate up and down the side of the hills in the surrounding area. The Yeramba Lagoon is a great spot for bird watchers, it is a home to more than 100 species of birds. The walk is 1.8km in length and should form the focus of all interpretive activity. There are currently no guide signs on the track and it is overgrown and only used by people with a real interest [for example, bird watchers and the keenest of walkers]. Yeramba Lagoon Master Plan. Note *It's Our Yeramba* signs should be well located over the extent of the track.*

Activity 7. Residents that back on to bushland at the top of the hill. The residents living very close to bushland at the top of the escarpment have a special responsibility to care for the bushland. It is hoped that many of them will be a part of the Friends of Yeramba group. It is important to implement specific community education to reduce stormwater pollution at the source and increase stormwater harvesting measures with these people. Education will be undertaken to encourage rainwater tanks, reduced use of lawn fertilisers and greater use of native plants in gardens. A letterbox drop will focus on these issues as well as the risks of dumping garden clippings and rubbish in the bush (e.g. weed proliferation, bushfire, poor amenity), pest animals and mosquitoes.

Activity 8. Bushwalkers and Birdwatchers. Consistent with NPWS policies and guidelines, improve the main track network and install signage to improve recreational amenity, and reduce erosion and risk to public safety. The NPWS and Council will rehabilitate tracks that are actively eroding, or in ecologically sensitive areas. Bushwalkers and birdwatchers have an important role to play in monitoring the safety and use of the track and in reporting problems with signage etc. They must be encouraged to become Friends of Yeramba and to report any issues to Council.

Activity 9. Guided Yeramba Lagoon Bush Walks. A way of gaining resident connection is to hold a series of guided walks around the area. These should be negotiated with local bushwalkers and promoted widely. A number of audiences might be involved in this project:

- School groups
- Senior citizens groups
- A group with a common interest – e.g. Probus Club
- A mixed group of interested persons wanting to know more about the Lagoon responding to a Council advertisement. Perhaps walks could be offered on a monthly basis.

This activity will require a good deal of marketing among local residents to ensure that sufficient numbers of people attend. The provision of refreshments, a simple and obvious meeting place, and a welcoming demeanor from the Bush Walk Leader will be very important. Perhaps the *Friends of Yeramba* Group can be engaged in the marketing of the bush walks into the local community. Incentives might be offered to attend for the early walks. Perhaps the *Friends of Yermaba* Group might start a Yeramba Ramblers Bushwalking Group as one of their activities. This group could meet for walks regularly and provide a social as well and a physical experience for members.

Component 2. Visitors to Yeramba Lagoon

Activity 10. Compliance and Enforcement. Some of the actions that are creating the problem are illegal. A part of the program should involve the use of Council's enforcement staff on a weekend blitz for one month in the early part of the program. This will involve the issuing of warning letters and a banner. It is unlikely people will be fined in the early stages but this action should be widely publicised.

Warning letter and Littering Dumping Banner wording can be found in Appendix 1 below.

Note activities 8 and 9 will also target people who are visitors to the area.

Council may wish to engage the NSW Police in assisting to enforce anti-littering and anti-dumping behaviour around the catchment. The Police are open to involvement in these sorts of programs and are willing to work in partnership with local government in these sorts of programs.

Component 3. Broader Bankstown Community

Activity 11. Schools program beyond the immediate catchment. The intention of this activity is to encourage school staff across the Bankstown LGA staff to bring school excursions to the area. Bush walking, school picnics and bush regeneration could be the focus of such an activity. The Key Learning Area link would be into the Human Society and its Environment [HSIE] curriculum. Teacher training and curriculum material could be offered if required.

Activity 12. Media generated about Yeramba

Engaging the local media in the program is important. In this regard the following activities should be carried out:

- The ProjectManager needs to develop an ongoing relationship with the relevant journalist at the *Torch*. This will provide value for the project over time..
- Provide the *Torch* with regular press releases and other relevant material. Use the 'stories' as the basis for some of this material.
- Provide a point of access between the *Torch* journalist and local community so that human interest stories and interviews can occur.
- As part of the education program and the implementation of the Yeramba Master Plan devise a 'report card' for Yaramba mechanism so that regular reports to the community can be provided through the press. This report card can be used to provide simple ongoing information about progress back to the community either through the media, letter box drops or other means. [See sample in Appendix 1.

7. Indicative Program Budget

The program budget is outlined in the two tables below. Table 1 outlines the costing for full delivery of the program. Table 2 assumes structures and groups are in place and provides a costing for a 4 month delivery program.

Income

It is likely that some fines will be issued as a part of the enforcement component of this program. It is anticipated that there will be minimal income for Bankstown City Council from this, given that it is likely that relatively few fines will be issued and that the Council receives only a percentage of the revenue after a processing fee is paid to the Prosecution Infringement Bureau.

Expenditure

The costings below assume that the Bankstown City Council will cover all project management, education and compliance staff costs required to deliver the project as outline. Hence table 1 identifies direct costs only for the first delivery of the program [six months] and Table 2 identifies the required budget for subsequent delivery [four months]

Budget Table 1 – Full six month delivery

Component 1 - Residents	Design and Publication costs	Other costs
1. Launch / Friends of Yeramba event		Launch costs \$2,500
2. Seed funding for Friends of Yeramba		Establishment funding to cover admin costs \$3,000
3. Friends of Yeramba activities Activities 3a to 3e	Publication costs stories etc \$10,000 Publication Posters and other material \$ 8,000	Local event costs \$5,000
4. Schools Program	Print material \$ 5,000	Development \$5,000
5. Information about the Works Program	Banners x 4 \$ 6,000	
6. Signage	Signage 15 new signs \$12,000	
7. Residents close to Bushland	Letter box drop material \$ 4,000	Letter box drops \$3,000
8. Bushwalkers	Nil	
9. Guided Bushwalks		Honorarium to guides \$2,500
Component 2 Visitors	Design and Publication costs	Other costs
Nil direct costs		
Component 3 The wider Bankstown community	Design and Publication costs	Other costs
11. Schools program across Bankstown		Schools Program budget \$3,000
12 Media Program		Contingency budget \$2,000
Overall Total Components 1, 2 and 3 – one delivery	\$45,000	\$26,000

Total Program Cost [excluding Staff costs and GST]: \$71,000

Budget Table 2 – Four month delivery only

Component 1 - Residents	Design and Publication costs	Other costs
2. Ongoing admin funding for Friends of Yeramba		Funding to cover admin costs \$3,000
3. Friends of Yeramba activities Activities 3a to 3e	Publication costs stories etc \$13,000	Local event costs \$5,000 Letter box drops \$3,000
4. Schools Program	Print material \$5,000	Development new material \$2,000
5. Information about the Works Program	New Banners x 2 \$3,000	
7. Residents close to Bushland	Letter box drop material \$2,000	
8. Bushwalkers	Nil	
9. Guided Bushwalks		
Component 2 Visitors	Design and Publication costs	Other costs
Nil direct costs		
Component 3 The wider Bankstown community	Design and Publication costs	Other costs
11. Schools program across Bankstown		Schools Program budget \$3,000
12 Media Program		Contingency budget \$2,000
Overall Total Components 1, 2 and 3 – one delivery	\$23,000	\$18,000

Total Program Cost [excluding Staff costs and GST]: \$41,000

8. Staff Roles

Program Manager: Education Staff member

In order to develop and deliver this program, staff time will need to be allocated. This is not costed in the budget above, which provides information about direct program costs only. While much of the development work has been done already and is included in Appendix 3, an experienced education professional will be required as the Project Manager for this project. They will work actively on the project for two and a half days per week for the duration of the project in its initial delivery period. This will be reduced to two days – or slightly less per week in subsequent delivery. In the periods between the deliveries of the project, some staff time will be required to provide ongoing support for the Friends of Yeramba Group.

In her program delivery role the Project Manager will:

- Be responsible for the coordination of all activities in the project.
- Liaise with the Publications staff from Bankstown City Council BCC in the timely production [layout and printing] of all publications required in the program.
- Liaise with Communications staff from Bankstown City Council in the timely placement of all paid advertising and distribution of all press releases.
- Work with the Manager Compliance and his/her staff at BCC to coordinate their involvement in the compliance strategy of the Project. Ensure that Compliance staff are equipped with the appropriate print material. Coordinate the Police presence in the program if desired.
- Establish relationships with all project partners and provide briefings, presentations and support as appropriate.
- Liaise with schools over the delivery of the school's program.
- Organise signage, banner placement, poster placement, letter box drops and hand out of warning flyers etc in an appropriate, timely manner.
- Organise the launch event and all other project activities.
- Identify residents with local stories, to add to the story bank
- Organise project evaluation as appropriate. This will involve collecting any baseline data that is available and establishing how program data will be collected and collated. Write final report on the project – which will include recommendations for repeat delivery of the intervention.
- Develop schools material relevant to HSIE [Parts 1 and 3] and approach schools in the Bankstown LGA about the use of this material and visits to Yeramba.
- Provide ongoing support to the Friends of Yeramba Group

Compliance and other relevant Bankstown City Council staff

- Support the program as indicated in the program schedule and negotiated with Program Manager.



9. Program Evaluation

It is anticipated that the program is to be internally evaluated; hence time needs to be allocated by the Project Manager to enable planning, data collection and analysis of the evaluation results. Reporting these results will be part of the Project Manager's role and is not identified separately in the budget, above.

It might be that resources exist within the project budget and that Bankstown City Council would find external evaluation appropriate. This might be especially useful if the program is seen to have significant impact and there is a need to write it up so that the successes can be communicated elsewhere. If so, additional funding will need to be allocated to this activity and an external agency would need to be contracted to undertake this role or part thereof.

In Appendix 5 the evaluation framework is provided in final form and will include:

- Measures of behaviour change, compared to identified baseline data.
- Measures of stakeholder support and responses from stakeholders should also be collected and analysed.
- Measures of number of complaints received, statements of support received etc.
- Media log data kept and analysed.
- Measure of involvement in bushcare etc.
- Measuring ongoing impact of program after intervention completed.

Draft data collection mechanisms are also provided .



Appendix 1 Materials for Program Implementation

Component 1. Residents of the Yeramba Catchment

Activity 1. Re-establishment of the Friends of Yeramba Lagoon Group and Launch Event

Launch Event

Suggestions for invitations

- Develop a post card invite that uses a photo of the current state of Yeramba
- Press advertising
- Letter box drop
- Letters inviting key people and organizations.

Suggestions for speakers:

- The Mayor and/or Ward Councillor
- Minister Tebbutt
- A local community person who is very involved
- A Bankstown icon – for example Steve Waugh
- A noted green speaker with local profile.
- Community theatre presentation with an environmental theme, for example Leapfish [contact Thor Blomfield at www.leapfish.com.au]

Nature of the Friends of Yeramba Organisation

Suggestions for Terms of Reference for Friends of Yeramba

The Friends of Yeramba Lagoon Group will:

- Work towards the improvement of water quality and reduce land degradation in and around Yeramba Lagoon.
- Define specific objectives for its activities which might include:
 - Connect with all residents in the Yeramba Lagoon Catchment who have an impact on water and land quality.
 - Promote significant behaviour shift among this population to improve the quality of water entering the Lagoon
 - Deliver specific targeted programs into the community that promote enhanced connection with the Lagoon and improved behaviour
 - Work to coordinate and extend on ground activities in the area, for example, bush care, use of the walking track, bird watching etc, so that emphasis is given to each activity.
- Have the capacity to:
 - Identify and manage volunteers
 - Seek enhanced community ownership of the lagoon by promoting awareness and action
 - Manage funding and people
 - Draw together the work of a number of community groups interested in the well being of Yeramba.
- Be funded by Bankstown City Council for the development and delivery of specific projects as negotiated
- Develop an annual business plan for community education on and around the lagoon and liaise with Council about its contents and funding.

The Constitution of the Friends of Yeramba Group

Once established the Friends of Yeramba will need to be properly constituted and the following might assist in this regard:

- A constitution will need to be developed. The Sutherland Environment Centre could provide assistance in this regard by offering advice on drafting and using their constitution as a model.

- Office bearers will need to be established and elections held.
- The Group will need to work towards incorporation so that funds can be properly managed.
- An MOU or equivalent agreement will need to be established with the Council so that an effective working relationship can be forged and continue over time.
- An annual work plan will need to be drafted and accepted by members and the Council.

The work of the Friends of Yeramba Group

Activity 3 outlines some of the strategies that the Friends of Yeramba Group might undertake. These should be seen as probable activities only and the Group should work on developing its own work plan to identify ongoing priorities. It must be noted that this should be developed in conjunction with the Project Manager so that it is based on reality and reflects what is possible and can be funded.

Activity 2. Support during the establishment phase of the Friends of Yeramba Group. Relevant Council staff to meet with the fledgling Friends of Yeramba group and assist them with issues related to financial management, planning, incorporation etc. Training should be offered in how to run a behaviour change projects etc. This support is vital if the Friends of Yeramba group is to become self sustaining and to work alongside council in the development and delivery of interventions that enhance the water quality in Yeramba. The Project Manager will need to coordinate this approach so that the development of the group is carefully managed and strongly supported.

Activity 3. Provision of resources to Friends of Yeramba to carry the program forward

3a. Teaser letter box drop text.

If *It's Our Yeramba* then we need to care for it. Are you? If you are caring for our lagoon you will be:

- Making sure all of the weeds from your garden go out in the Council greenwaste collection
- Limiting the use of fertiliser on your garden
- Making sure no detergent, litter or waste oil goes down the stormwater drain from your place
- Giving a little of your time to clean up the bushland.

Are you doing all these things? Fantastic!

3b. See Appendices 2 and 3 below

3c. A local 'talking campaign', where each member of the group targets at least five local residents that they will talk with about Yeramba and what is happening there – this should be timed to tie in with the works program and use Jenna's story. There is a need for a story board to be produced so that participants know what to talk about.

3d. The organisation of local community information small events – about Yeramba and what you can do? The Project Manager should work with the *Friends of Yeramba* Group to identify any local events which offer the opportunity for information stalls and/or presentations about what is happening at the Lagoon. The *Friends of Yeramba* Group could be provided with a small resource base to attend and participate in these events. Gradually the Group will build a profile and a constituency and increase in size. The more people who are *Friends of Yeramba* the more positive behaviour will result.

3e. Revitalisation of the local Yeramba Bush Care group is very important to achieving the desired outcomes for the program. The volunteers need to work in an integrated way with a Council program to clean up the bushland above the Lagoon, and to maintain the integrity of the bushland. Council will need to put a significant amount of effort into growing involvement to voluntary community involvement in bushcare in this area. In addition the Project Manager should look to opportunities to involve people on Community Service Orders or on parole. Juvenile Justice might also be approached to engage people.

Activity 4. Schools' program: To be written specifically for years 5 and 6 students in the schools in the catchment only – Picnic Point PS. Work with the identified teachers in each school to develop key content – curriculum links etc. based on the stories in Appendix 3 below and the new stories to be developed. A key feature of this program would be educating students about how they can encourage their parents to be interested in Yeramba too and what could/should be done differently at home. For this activity the Project Manager would liaise with the school and work with an identified teacher to develop the teaching/learning unit. The schools project needs to reflect the overall project objectives, above.

Additional school/s activities

There are a range of activities that could be undertaken with local schools – especially Picnic Point Primary but other slightly further a field schools might also be targeted see Activity 11 below.

- Build on the previous *Stormwater Education Action* program; a group of students from Picnic Point PS followed the drain trail to their local waterway, Yeramba Lagoon, where they tested water quality. They then traced the trail of street litter even further, and found traces lurking behind the mangroves lining the nearby Georges River. The Riverkeeper provided boat transport to otherwise inaccessible mangroves and precious saltmarsh communities the students would otherwise not have seen! Students reported back to the school community. Revesby South PS students followed a similar program with their Environment Special Interest Group. Their culminating activity was the stencilling of drain inlets, within their school grounds, with the message *Drains to the Georges River*. This was to make students aware of the reason behind the rule *Don't Litter*.
- Develop an *It's Our Yeramba* unit for integration into a selected KLA at level 2 and or 3.
- Encourage local schools and community groups in introducing/extending the Streamwatch Program into the sub-catchment and involve them in water quality testing at Yeramba.
- Link indigenous speakers, local community champions with the school to provide more information about the Lagoon.
- Conduct teacher training session about *It's Our Yeramba*.

Involvement of staff from the Georges River Environmental Education Centre [GREEC] will assist in the development of the schools program. It will also assist local schools and teachers to make connections with the GREEC and hence further their in-school programs.

Activity 5. Ongoing community education about the works program

Words for banners – examples. To be further developed

Banner 1: *It's Our Yeramba* and we are cleaning it up. Watch this space for more information [Can be reused in periods where little action is occurring

Banner 2. *It's Our Yeramba* and right now weeds are being removed from all the bush surrounding the Lagoon

Banner 3. *It's Our Yeramba* and the Lagoon is being cleared of weed and dumped litter

Banner 4. *It's Our Yeramba*, Right now the weir is being removed and contact will be restored with the River

Activity 6. Signage at the GPTs and along the escarpment above the lagoon and around the lagoon.

Words for signage are to be developed in conjunction with staff from the NPWS by the Project Manager. It is essential that signage meets NPWS and Bankstown City Council protocols and that it carries the endorsed program messages;

All signs need to incorporate the *It's Our Yeramba* tag line.

Activity 7. Residents that back on to bushland at the top of the hill

Specific material is to be developed by the Project Manager in conjunction with members of the *Friends of Yeramba* Group. The stories [Appendix 2] will provide useful material for letter box drops etc. the content and style of this material will be dependent upon the sorts of activities that are to be undertaken by the Group itself.

Activity 8 Bushwalkers and Birdwatchers

The Project Manager will conduct a planned approach to connect with people who currently use the Lagoon or the tracks around it. They need to be approached sensitively and asked to become *Friends of Yeramba*. Their place of residence should not bar their involvement – people outside of the LGA will be welcome

Activity 9: Guided Yeramba Lagoon Bush Walks

See above in the Section which establishes the need for local bushwalks as a part of the program and possibly establishes a Yeramba Ramblers group that meets regularly. Engagement with the Lagoon through involvement in bush walking is an important part of the educational approach.

Component 2 Visitors to Yeramba Lagoon

Activity 10

Warning Letter

Dear Sir/Madam

The dumping of rubbish in and around Yeramba Lagoon or anywhere along the Georges River is against the law. you maybe fined up to \$????? If you are caught dumping again.

Yours sincerely

Signed.....

It's Our Yeramba

Littering Dumping Banner

Banner 5. Littering or dumping in this area is against the law. You will be fined up to \$???????

It's Our Yeramba

Component 3. Broader Bankstown Community

Activity 11. *Schools program* beyond the immediate catchment

See activity 4 above. It is anticipated that the Project Manager will work with schools close to the Yeramba Lagoon catchment and develop teaching/learning activities or programs with them. Then, using this material as the basis for discussion, negotiate with other schools, that might choose to use this material or develop their own school appropriate teaching/learning resources about the Lagoon. Schools should be encouraged to bring students to the lagoon to bushwalk, to study the natural environment, to picnic or to conduct other school events.

Activity 12. Report Card

Words for Report Card – to be updated on a six-monthly basis

YERAMBA LAGOON REPOTR CARD

Restoration of Yeramba Lagoon – on ground work /10. The following on-ground work has been undertaken in the six months from

Bushcare around Yeramba Lagoon /10. Volunteers have spent hours in removing weeds and replanting over the past six months

Friends of Yeramba Group /10 The Friends have spent Hours working on activities to improve the Lagoon over the past six months. They have:

- Jjf
- Bfb
- ahvh

Community Education Activities /10. Bankstown City Council has undertaken the following education activities around Yeramba over the past six months.

Appendix 2

Development of Local Stories

As indicated in Section 6 above, real stories will be produced progressively to replace the hypothetical stories in Appendix 3 [below]. These will be sourced and drafted by the *Friends of Yeramba Group* with input from the Project Manager.

It is envisaged that the following topics will be covered in the real stories but this list is not exhaustive:

- Being a Friend of Yeramba Story
 - What does it mean?
 - What do you get out of it?
 - How can someone join?
- *It's Our Yeramba – What do I do at home?* Story, Note there could be multiple different stories addressing this issue, where householders are doing different things.
- *It's Our Yeramba – Bushland restoration* story. What's happening and how can I get involved?
- *It's Our Yeramba - Dumping and littering* story – why does this impact on the lagoon?
- *It's Our Yeramba - School's* stories = what schools are doing to protect Yeramba.

Stories will need to be well written and give the reader a sense of what they might be able to do to improve Yeramba.

Appendix 3. The Stories for the Delivery of the Program

Our Impact on the River Keeping the River Healthy

Maria and Anna's story

"There's a lot we can do," said Maria, firmly as she sat with her friend having a coffee in Bankstown.

"Why should we bother?" Annie replied. "It's brown, covered in weeds and dirty and you can't make it right again – no matter how hard you work."

"That's not true you know." Maria was calm, but determined to get her friend to listen. "The Yeramba Lagoon is polluted - especially for a few days after rain. That happens because people who live near the lagoon and some who drive alongside it, don't do the right thing. They let their cars leak oil, don't stop sediments, leaves, twigs and litter flow down the drains, they don't mulch their gardens or plant natives; they throw weeds into the stormwater drains.....Would you like me to go on?"

Annie was astonished. She knew her friend cared about the lagoon, but not this much. "How can I find out more about this; you've got me interested now."

"Good." said Maria. "It's about time. We should all be much more interested in the Yeramba Lagoon than in just going shopping on a Saturday afternoon. There are two things we can do. First of all we should go for a walk around the Lagoon. It will take a couple of hours and we'll learn a lot. Maybe your Mario and my Geoffrey might come too. It would not do them any harm and we can do it on a Saturday."

"That's a good idea." Annie said. "I would like that and I would learn a lot too. But now tell me what the second thing is?"

"OK, I think you should join my Bushcare group, The Friends of Yeramba Lagoon. I think you would enjoy it once you got started," Maria said.

"I know you have been going to plant stuff, but apart from that I am pretty ignorant," mumbled Anna. "Can you tell me about it; I will look stupid because I don't know a weed from a plant."

"I never thought you were very interested." said Maria. "So I did not want to go on and on about it. Our group meets once a month for three hours on a Saturday morning. That's why I never come shopping with you then. The Council provides all the equipment we need and the Bushcare officer comes along and helps us to identify plants and coordinate our efforts. She is just great – not pushy, just really informative about the plants and really committed to the Lagoon. I have made a lot of changes to my garden at home because of what I have learnt at Bushcare. I am learning all the time and I am never made to feel stupid."

"When can I start?" said Annie. "I am really excited now."

"Come this Saturday morning, its great fun, you learn a lot and the Lagoon benefits too."

What can you do?

- Find out more by calling Bankstown City Council and ask to speak to the Bushcare Officer.
- Find out more about how to join the local group.
- Your Council will have a lot of information about plants and weeds and how to tell the difference.
- You can use this information to help develop and maintain your home garden too.

The Lagoon and What I Do at Home

The Simpson's Story

Aren't we lucky to live so close to Yeramba Lagoon and the Georges River? Many of the people who live close to the Lagoon really love it and do a lot to care for and protect it. Here are some of their stories...

In our family we really love living by the Lagoon. It is a real icon for us. Our Dad always says that:

"The Lagoon is entertainment, exercise and beauty in our backyard. Other suburbs would kill for it".

"He's a bit crazy – my Dad – but perhaps he is right! And if he is, it is really important that we all look after the Lagoon. Steve Simpson [14]

The Simpson family have just moved into their house which is two blocks from the bushland at the top of the Lagoon. They love it. This is Jack Simpson's story.

We feel so privileged to live here. We saved for ages for this house and have been here for about six months.

We're down the Lagoon a lot. We go for walks around the banks and my sister and I paddle our canoes on it. Dad even fishes down there sometimes – but mostly on the Georges River.

In our family it is important that we all look after the Lagoon. We learnt at school that we need to make sure that none of our rubbish goes down the drain – this includes leaves and twigs as well as chemicals from washing the car or fertilising the garden. This all ends up being washed into the Lagoon and could wreck it.

They say that too much polluted run-off destroys the balance of the Lagoon and means that lots of plants and animals don't survive.

Jack Simpson [12]

I think the Lagoon is fantastic. It is great to see the trees and shrubs and the wildlife so close – especially the birds. I am only planting natives at my place and so the corridor gets extended. The birds we get are amazing and we need to care for them.

Gerry Simpson [43]

What can you do at your place?

- Plant natives and gradually remove all non-native plants from your garden.
- Try not to use fertilisers, herbicides etc on the garden.
- Clean up after your animals! Don't let dog poo end up in the Lagoon.
- Sweep up dead leaves and twigs from the gutter and use them as mulch.
- Make sure sediment stays out of drains
- Water less and mulch more.

Inside

- Install a water tank: save water and reduce runoff.
- Install a front loading washing machine and low flow shower heads.
- Have shorter showers.
- Compost and / or worm farm kitchen waste to use on the garden.
- Collect water from showers and sinks.

What else can you do?

- Use the Lagoon more for fun and recreation and tell other people how terrific it is.
- Contact.... For help contact your Council

It's Our Yeramba

Why Is It Weedy and so Brown?

Kerry and Brad's Story

Kerry and Brad had decided to get married later in the year. They wanted an outside area for the wedding and the reception. They were looking at Park on the Georges River and then wandered across the road to Yeramba Lagoon

"It is pretty, I suppose, but why is the water brown and why are there so many weeds?" asked Kerry.

Brad, who grew up in Picnic Point and whose family still lived there answered. "Yeah it's a shame it is so horrible. This small grassed area would be just perfect – private and just the right size."

"Yes you are right, but we can't have it here. Look I can't even see any water, just weeds and rubbish" Kerry said.

"I heard that this is because the whole area is polluted and overgrown with weeds. There are the sediments that are suspended in the water and lots of other pollution too. The Lagoon got that way because it is in the middle of a large City and the water cannot get away because of the weir. Sediment, pollution and weeds wash down the streets and through the stormwater drains and they make quite a mess of the Lagoon. They change the natural flow and vegetation of the Lagoon, and that seems to have contributed to its brown colour and the weed infestation." Said Brad.

"How do you know all this stuff? Kerry asked

"When you started talking about having the wedding somewhere near here I got interested and went to the library and to Council to find out all I could about the Lagoon; they have some great stuff there. I discovered that the Lagoon is being cleaned up and there is a Friends of Yeramba group starting. Did you know that this Lagoon is a corridor for our wildlife and it is a place of sanctuary and peace for many people – not just you and me?"

"Yeah, I guess," Said Kerry.

"There is more I know too," said Brad. "I also found out that you can walk all around the Lagoon and even **walk the dog [off the leash] in** some parts. Lots of people care for the Lagoon in their own time and Council has a bushcare groups, where volunteers get together to look after the Lagoon. We should join one after the wedding."

"Yeah, OK. We can also do more at home to care for the Lagoon, like clean up all the leaves, soil and twigs that run down the drains. If we clean it up, maybe our kids can get married here" said Kerry.

Outside your house	Inside your house
<ul style="list-style-type: none">• Plant natives and gradually remove all non-native plants from your garden.• Try not to use fertilisers, herbicides etc on the garden.• Clean up after your animals! Don't let dog poo end up in the Lagoon.• Sweep up dead leaves and twigs from the gutter and use them as mulch.• Make sure sediment stays out of drains• Water less and mulch more.	<ul style="list-style-type: none">• Install a water tank: save water and reduce runoff.• Install a front end loading washing machine and low flow shower heads.• Have shorter showers.• Compost and / or worm farm kitchen waste to use on the garden.• Collect water from showers and sinks.

It's Our Yeramba

What are the Actual Problems

Jenna's Story

Jenna is the Project Manager – Mid Georges River Sustainability Initiative, at Bankstown City Council. This is her story about the problems with the lagoon and what is occurring to improve the area.

What is the problem?

People living around Yeramba Lagoon and the actions of urban planners have had a significant impact on the quality of water in the Lagoon. The Lagoon was established by the construction of a weir that was installed when Henry Lawson Drive was constructed in the 1960s. This resulted in the creation of a freshwater system rather than the tidal and estuarine influences that previously occurred from the Georges River.

The problems are mostly related to weed infestations that are concentrated in Yeramba Lagoon and its drainage lines. There are five noxious weeds and four weeds of national significance in the area of the lagoon. Other water quality problems link with the weed infestation. These include:

- Use of herbicides, pesticides and other chemicals near wetland areas
- Clearing and fragmentation of habitat
- Sewage overflow
- Sediments, oils, grease and detergents
- Litter and dumped material
- Illegal use of the area around the Lagoon.

This has had a significant impact on wildlife and bushland around the Lagoon. Wildlife studies indicate that there are six vulnerable land species, thirty three vulnerable marine species and seven vulnerable migratory species in and around the Lagoon. Similarly some plant species are threatened.

The only way we can address these problems is to change our behaviour

It's Our Yeramna

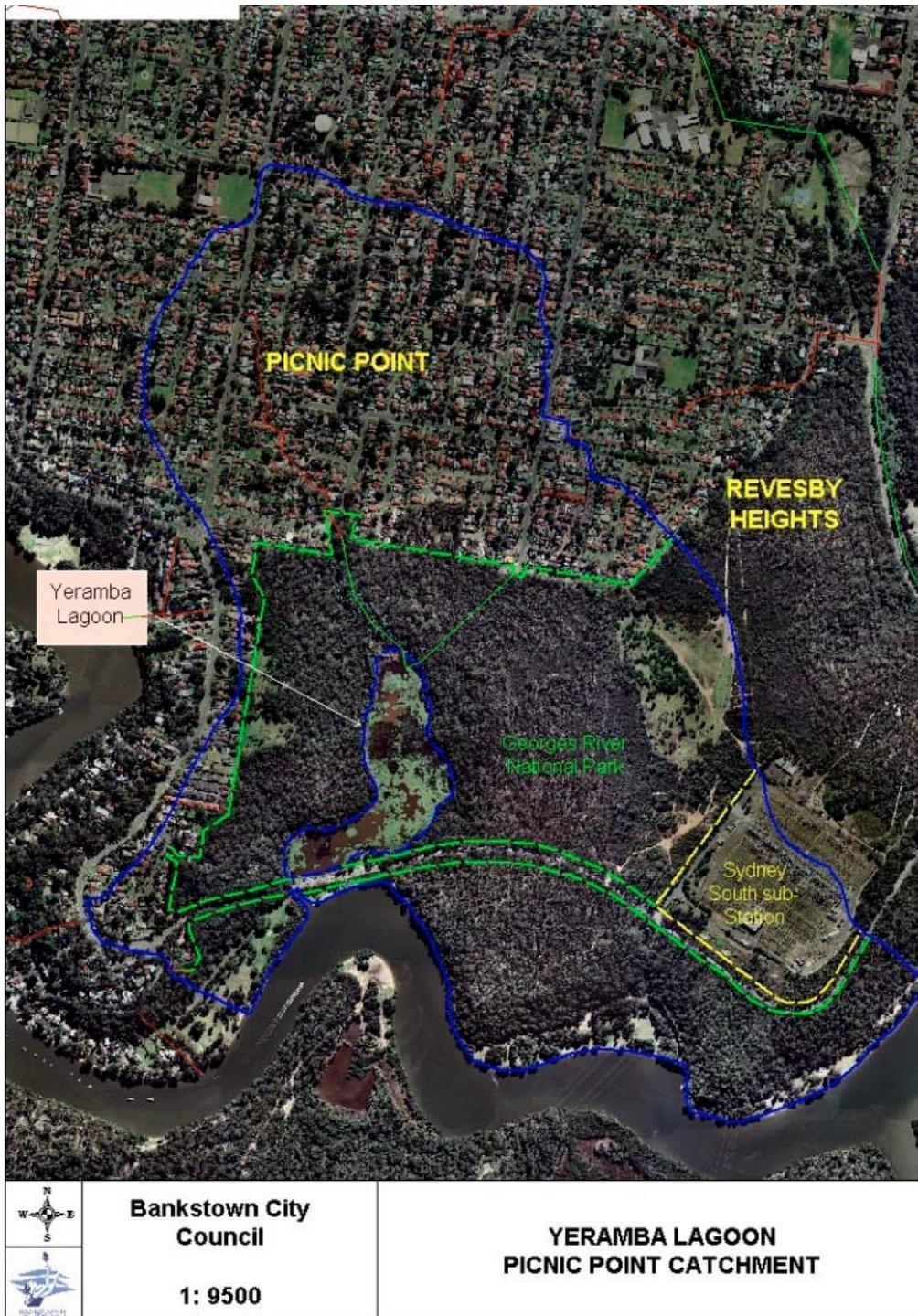
What is happening to improve the Lagoon?

For completion at the time of publication - this section may be amended over the life of the program and will simply explain what infrastructure and other activity is occurring

What Can you do to Help?

For completion at the time of publication - this section may be amended over the life of the program and will include different behaviours related to the work that is being carried out at the time. These may be related to involvement in bush care, support with on ground works and/or promotion of Friends of Yeramba activity – plus many others.

Appendix 4. Map of the Yeramba Catchment



Appendix 5. Evaluation Material

Outcome Hierarchy – *It's Our Yeramba* Project

Project Outcomes	Evaluation Questions	Who has the Data?	How do we get the Data	Comments
6. Reduced environmental impact on the lagoon by the local community.	Is there evidence of reduced environmental impact on the Yeramba Lagoon as a result of effective implementation of the education program?	Council monitoring data showing key pollution measures, nutrients	Review over time of monitoring data against key indicators	The Project Manager will need to identify the key environmental indicators and measure these at the end of each delivery of the program
5. Increased appropriate behaviour by the Picnic Point community and visitors to the lagoon.	Is there evidence of improved community behaviour [Lagoon related] as a result of effective implementation of the program?	The residents of the Yeramba Lagoon Catchment.	Resident survey	Need to determine the footprint of the catchment, so that sample size and extent of survey can be determined.
4. Increased conservation activity by the community to enhance the sustainability of Yeramba Lagoon.	To what extent is there evidence of improved ownership / participation in Creek management?	Friends of Yeramba Group Council has compliance information	Annual reporting by Friends of Yeramba on the level of community ownership and involvement. Council review of compliance data within the Yeramba Catchment	Report pro-forma below Review of data and comparison with previous data

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<p>3. Heightened appreciation and awareness of, and connection with Yeramba Lagoon as an iconic feature of the local community.</p>	<p>To what extent is there evidence of increased community valuing of the lagoon</p> <p>What evidence is there of increased use of bush tracks around the lagoon by local residents.</p> <p>Is there positive media coverage and public information about the lagoon?</p>	<p>The residents of the Yeramba Lagoon Catchment.</p> <p>Anecdotal data is possible. Information from track users.</p> <p>Collection of media articles about the Lagoon and comparison of number and extent of media articles.</p>	<p>Resident survey</p> <p>Talk with bush walkers about level of track use.</p> <p>Project manager to collect media and report on this.</p>	
<p>2. Improved knowledge of what individuals might do to improve the health of the lagoon.</p>	<p>Do people in the catchment demonstrate a high level of knowledge about protecting the sustainability of the lagoon?</p>	<p>The residents of the Yeramba Lagoon Catchment.</p>	<p>Resident survey</p>	<p>See draft survey below</p>
<p>1. A significant range of education initiatives were conducted with residents, visitors and site users.</p>	<p>What education approaches were conducted?</p>	<p>The Project Manager will identify and conduct the range of initiatives each time the program is delivered.</p>	<p>Project Manager report</p>	<p>Given the variation in activities at each delivery of the program, it is important that full detail is made available to the community.</p>

Friends of Yeramba Lagoon Annual Report Pro -forma

The Friends of Yeramba Group will need to provide a simple report to Council each year about the extent of activity and the level of connection of the community with Yeramba. A pro-forma is provided below.

It's Our Yeramba Report by the Friends of Yeramba Group Period 20..to 20..

What community education activities have occurred in this period?

What information do you have about increases in knowledge or changes in behaviour?

What other data do you have about the community and Yeramba?

Has there been an increase in community connection with Yeramba Lagoon? To what extent? Why do you say this?

Any other comments?

Yeramba Lagoon Generic Survey

The generic survey below is provided for use with residents of the Yeramba Catchment

It's Our Yeramba Community Survey

Name [optional].....

Address [optional].....

What has the most harmful effect on water quality in the Yeramba Lagoon?

On a scale of 1 to 5, where 5 equals excellent how would you rate your level of knowledge about Yeramba

1.....2.....3.....4.....5
Very poor Just OK Reasonable Good Excellent

What have you learnt recently about the environmental impacts on Yeramba?

Since the start of the It's Our Yeramba Program do you:

- Love the Lagoon and use it often?
- Feel more connected with the Lagoon
- Feel just the same as I did previously about the Lagoon
- Have no connection with the Lagoon at all?

How often do you use the Lagoon?

- Daily
- Monthly
- Every three months or so
- Once a year
- Less than once a year

What behaviours have you changed as a result of this program? List behaviours below

What else might you do in the future to look after the Lagoon?

Any other information you can add?