

Wagga Wagga Urban Landcare

CELEBRATING BIODIVERSITY ENHANCEMENT ON THE WIRADJURI
TRACK: 20 YEARS OF WAGGA WAGGA URBAN LANDCARE

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suite 1, 39 fitzmaurice st (po box 5464) wagga wagga nsw 2650 australia
t (02) 6971 9696

www.nghenvironmental.com.au e ngh@nghenvironmental.com.au

room 15, 341 havannah st (po box 434)
bathurst nsw 2795 australia
0488 820 748

18/21 mary st
surry hills nsw 2010 australia
t (02) 8202 8333

unit 17/27 yallourn st (po box 1037)
fyshwick act 2609 australia
t (02) 6280 5053

suite 1, 216 carp st (po box 470)
bega nsw 2550 australia
t (02) 6492 8333

37 peron ave (po box 1037)
dunsborough wa 6281 australia
t (08) 9759 1985

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1 PROJECT BACKGROUND

1.1 INTRODUCTION

Celebrating Biodiversity Enhancement on the Wiradjuri Track is a project aimed at documenting aspects of the history of Wagga Wagga Urban Landcare over the past twenty years. The larger project aims to:

- Celebrate and promote community environmental action in order to encourage increased involvement
- Increase community understanding of Indigenous values in Natural Resource Management
- Plan and initiate future action for the sites to improve their management for biodiversity conservation

The project gives the history of a type of community environmental action through Wagga Wagga Urban Landcare over the past twenty years. It does this by mapping and describing sites that the group has worked on, and the environmental issues being addressed at these locations. The project will also carry out environmental assessments at each site, and have public workshops on biodiversity assessment and monitoring. Interpretative and educational signage will be erected at the sites describing the environmental features and issues at each site, including the importance of the site to Wiradjuri people of Wagga Wagga in historic and pre-European settlement times.

This report completes the first part of the project, a history of Wagga Wagga Urban Landcare.

1.2 METHODOLOGY

The report draws on a range of methods, reflecting the wide range of information and stakeholders involved in the project.

The history of the WWUL group has been written as a chronological narrative. This account provides a broad overview of the group's activities, and forms a basis for additional research in this and potentially other projects in the future.

The approach for discussing the sites selected has been to adopt a Cultural Landscape approach. This approach is used by National Parks and Wildlife Service for managing some of its heritage assets, historic and cultural. It is also an approach advocated by the Heritage Council of NSW. The cultural landscape approach seeks to move away from a sites focused approach that essentially focuses on objects as ends in themselves. It seeks to tie significant places to the wider landscape, and in doing so acknowledges that places can have multiple meanings: prehistoric, historic and environmental. None of these meanings are more important than others, as each serves to inform and influence the others.

Those interested in this approach are encouraged to seek out the following resources:

- Deborah Bird Rose, *Nourishing Terrains*, Australian Heritage Commission, Canberra, 1996, freely available at <http://www.environment.gov.au/heritage/ahc/publications/commission/books/pubs/nourishing-terrains.pdf>
- The NSW Office of Environment and Heritage website contains definitions and examples of projects that use a cultural landscapes approach: <http://www.environment.nsw.gov.au/chresearch/ResearchThemeCulturalLandscapes.htm>

The interviews were conducted using the methodology outlined in Beth M Robertson, *Oral History Handbook*, 5th edition, Oral History Association of Australia, South Australia, 2010.

1.3 SOURCES OF INFORMATION

This report has used the following sources as the basis for the information presented:

- WWUL reports, minutes and correspondence as made available by the group
- 'Walking Tracks- Wagga Wagga (Wiradjuri)' file from Department of Lands
- 'Pass the Salt' online exhibition carried out by the National Museum of Australia and available online at: http://www.nma.gov.au/online_features/pass_the_salt/home
- Conversations, informal interviews and formal recorded interviews

1.4 SELECTION OF SITES

The sites used as the focus of this study were selected following a process of research into the history of WWUL activity along the Wiradjuri Walking Track, and other parts of Wagga Wagga. The sites selected were intended to be representative of activity, and not necessarily the most important or high profile sites. They were also selected because there is currently no signage at these locations. The six sites selected are of importance in Indigenous natural resource management (NRM) values, locations of WWUL activity, and are either part of the Wiradjuri Walking Track or serve as a gateway to the track. The places are prominent and the signage will be highly visible. The stories contained in the sites are good stories to tell. They are not always positive stories, but reflect the challenges and achievements associated with community environmental action. Five sites were chosen in order to meet the requirements of the project in terms of timelines and budget. The sites selected are:

- Murrumbidgee River Corridor, comprising the Wiradjuri Reserve, The North Wagga Common and the grounds near the railway viaduct north of the Wagga Beach
- Willans Hill, situated as part of the Botanical Gardens
- Redhill Road in the area close to Glenfield Park
- Flowerdale Lagoon
- Pomingalarna Park

1.5 PROJECT LIMITATIONS

A project of this scope has faced a series of difficulties, which the author with the assistance of the WWUL group has attempted to overcome to provide as thorough and accurate an account as possible. However, some difficulties in obtaining primary source material have not been able to be resolved. At times the material has not provided the information that would have helped to guide the writing of the history. This is not a short coming of the group itself, but rather a common situation across volunteer groups everywhere. It is noted here for future reference, and not as a reflection upon WWUL or any of its members. Another difficulty encountered has been the lack of clarity surrounding the involvement of groups and outside support. Those who participate in environmental activity may be involved in multiple groups, who at times will cooperate and share resources and knowledge. As a result, it can be difficult to distinguish the lines between different groups and activities.

1.6 ACKNOWLEDGEMENTS

Many individuals have contributed to this project, and it would not have been possible without them. We would particularly like to acknowledge the following:

Marion Benjamin, Paula Charnock, Jeanette Coventry, Dick Green, Tony Hepworth, Warrick Hull, Pat Murray, David Read of WWCC, Petrina Quinn, Ted Wolfe

2 HISTORY

2.1 FORMATION AND EARLY YEARS

'For some years I walked across South Campus each week to my music lesson at the Riverina Conservatorium Centre. Despite my background I was slow to recognise that the ground I was walking over was salt affected. It was certainly affected by a high water table. It was not until the summer of 1992/3, when I became concerned at the white "stuff" on the bricks of my house, that I put "2 & 2 together". The white stuff below the damp course tasted like salt. The bare, boggy ground on South Campus was now white in places. I started to see more evidence of a high water table and of salt damage the more that I looked.'

Mark Conyers, a renowned soil scientist with the Department of Primary Industries, wrote the above summary as part of a background history compiled for the Landcare group.¹ After making the above observations, Conyers read an article in local Wagga newspaper *The Leader*, which outlined the issues of dryland salinity that was 'creeping through sections of Wagga'.² The article was written by Greg Bugden who worked at the then Department of Conservation and Land Management. Bugden had observed that grass was not growing at the racetrack. Conyers contacted Bugden, where he expressed his concern at the 'actual destruction of bricks and mortar' that salinity was causing.³

A public meeting was held at Wagga Wagga Technology High School on 15 September, 1994. The staff room was full, and following a lively meeting it was resolved to form a Landcare Group. The group was incorporated as the Wagga Wagga Urban Landcare Group in July 1995.

Funding was an early problem for the group. Initial monies were raised with a \$5 membership fee, which went towards incorporation and insurance fees. In 1996 WWUL became the umbrella group for other environmental groups, which resulted in a single insurance and incorporation levy. These groups were Wagga Tree Planters, Friends of Willans Hill and Gobbagombalin Landcare Group. During this period, WWUL carried out activities that focused on community education, tree planting, removal of introduced woody weeds, and raising awareness of salinity in the region.

Salinity is caused by a rising water table. The water table is the upper zone of ground water, and beneath that are layers of rock, sand and gravel. Usually the watertable remains many metres below the surface. However, with land clearing and urban development, a drop in deep rooted vegetation cover such as trees means that more water filters down to the water table than is absorbed by plant roots and transpired through the leaves of plants. As a result, the water table rises, and carries with it natural salts leached from the soil and rocks. As the water reaches the surface, it is evaporated, leaving the salt behind. The salt then accumulates on the surface causing damage to roads, footpaths, housing and infrastructure. The extra surface salt and water makes it difficult for plants to grow, which then compounds the problem.

To monitor the salinity situation in Wagga, piezometers were installed in about 100 locations around Wagga Wagga. A piezometer is used to measure ground water levels and quality. These were installed from 1996. The results were compiled into a map to highlight areas of high salinity and at risk areas in Wagga.

¹ Landcare files

² *The Leader*, 'Dryland salinity creeping through sections of Wagga', Wednesday March 24, 1993, p.3

³ Letter, Conyers to Bugden, 26 May 1993, Landcare files



Figure 1: Piezometer, image from *Broadsheet: Urban Salinity in Wagga Wagga*

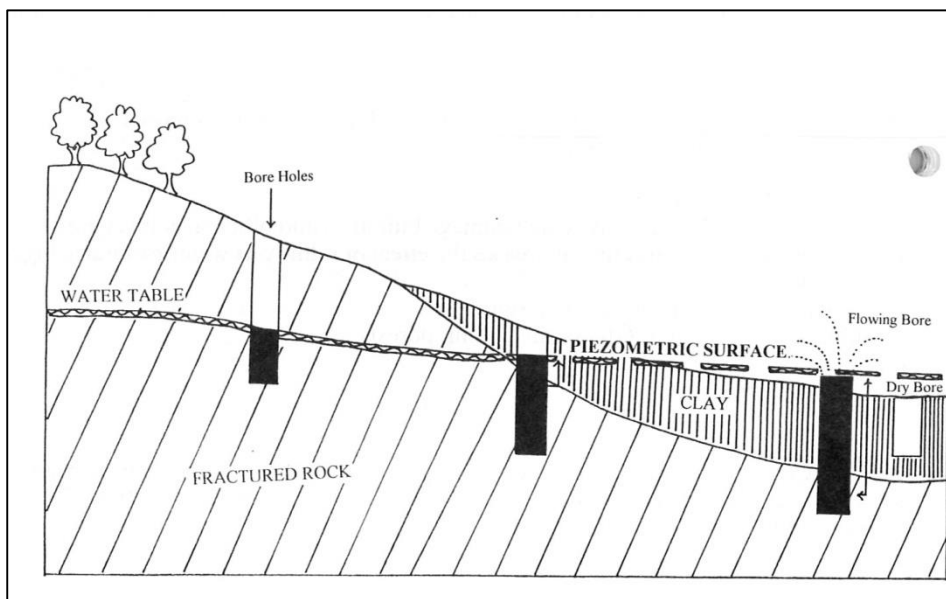


Figure 2: Piezometers placed in a line across the catchment. The water table varies depending on location in the catchment. From *Urban Salinity in Wagga Wagga*, p.18

The salinity map was released in May 1997 in the Daily Advertiser. Published with the map was a list of solutions and the approach of the Wagga Wagga City Council (WWCC) to tackle the salinity problem to empower individuals with solutions and avoid panic. The approach adopted when presenting information to the public was always positive, and aimed to equip members of the public with the knowledge and resources that they needed to be participants in the solution.

The solution to the problem was a four pronged approach. This was spearheaded by WWCC, but WWUL was a key component in the implementation of the strategy. The approach also involved WWCC, the

Department of Land and Water Conservation, the Environmental Protection Authority and Charles Sturt University. The key activities to combat urban salinity were:⁴

- Revegetation: WWUL was highly active in running tree planting days and advocating for the planting of water wise plants, along with native plant seed collection.
- Education: providing the necessary information to the public in a proactive way. This included running education displays at community events, letter box drops of information and writing articles and tips for the local newspapers.
- The installation of dewatering bores around Calvary Hospital.
- Leakage reduction: Action focused on the removal of rubble pits from backyards. Stormwater was diverted past the rubble pits into the storm water drainage system, rather than run off going directly into the ground (see image 3). Also, soil erosion control banks were eliminated or modified to prevent them directing water into the subsoil and bedrock.

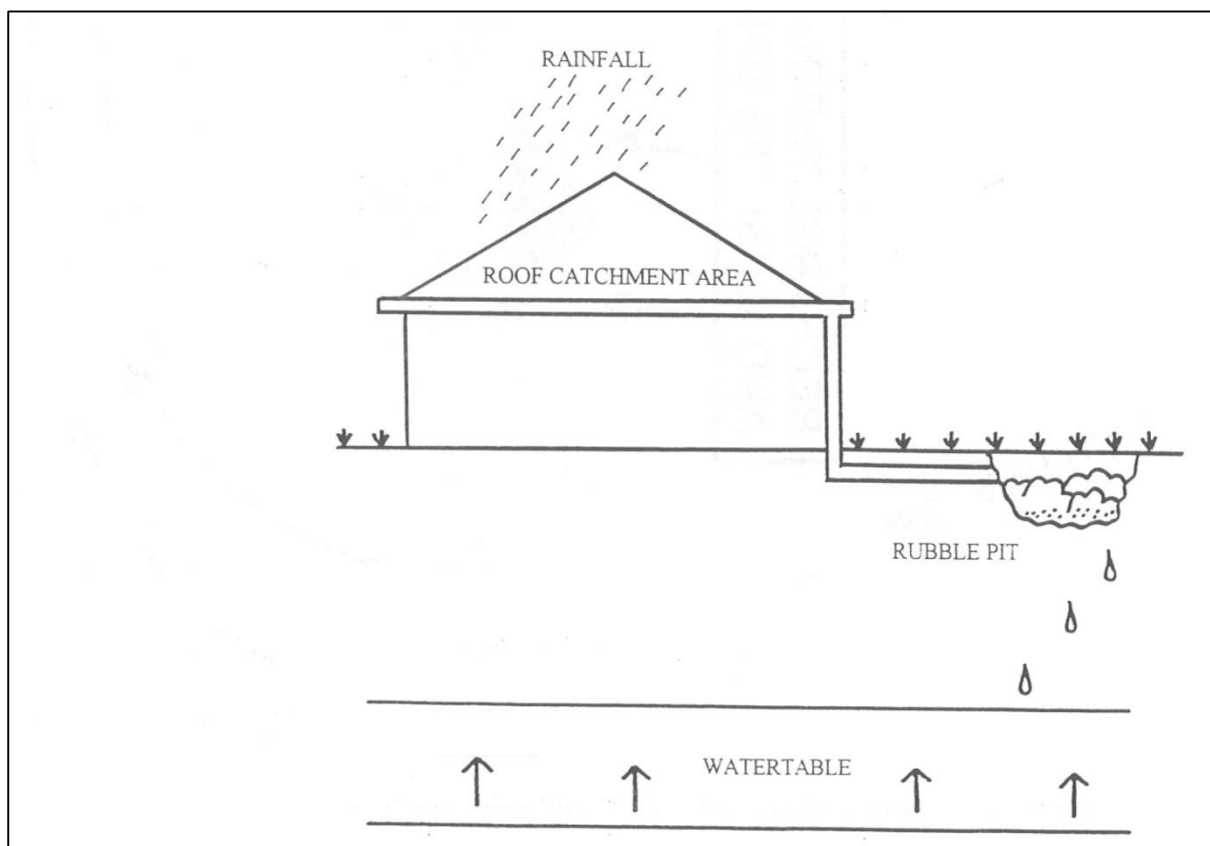


Figure 3: Recharge from Rubble pits. From *Urban Salinity in Wagga Wagga*, p.11

Wagga Wagga became a leading community in Australia in addressing the issues caused by urban salinity. The drought that began in 2003 caused a drop in the ground water level, and as a result the urgency of the salinity situation was reduced.

⁴ WWCC, *Urban Salinity, Wagga Wagga*, (1998, second edn 2000), WWCC: Wagga

2.2 WIRADJURI WALKING TRACK

The Wiradjuri Walking Track was first put forward as an idea in June of 1979. It was designed and constructed by the Department of Lands in 1980. Warwick Hull recalls *“It was created in the mid to late 1970s as an endeavour from the Crown Lands to improve access to various parcels of Crown Land around Wagga Wagga.”* The track linked recreation reserves, roads, council owned land, stock reserves, railway land, and some freehold land. Footbridges, stiles, ramps and steps were constructed to make walking the track easy and enjoyable for families and those interested in walking the track. The entire loop of the track was originally 28 kilometres. Accompanying the track is a brochure that details historic points of interest. The track provides recreational opportunities for residents of Wagga Wagga. *“It is a favourite spot for people in the central area of Wagga, and also favoured by mountain bike riders in more recent times.”*

3 CASE STUDIES

Five sites were selected to be used as examples of the types of activities that WWUL group has engaged in. These are not always the most high profile, but rather show a range of activities that the group has engaged in, from large projects that took place across a number of years, to small activities. Some activities were carried out by WWUL in partnership with other groups. WWUL has been both a leader of environmental action in Wagga Wagga, and also a supporter of other activities. The following case studies are discussed to highlight the myriad of roles the group has taken on in the past twenty years.

3.1 FLOWERDALE LAGOON

Prior to European settlement in the Wagga Wagga area, Flowerdale Lagoon would have been a fishing, meeting and camping place for the local Wiradjuri people. It forms a significant part of Wiradjuri cultural landscape, which is reflected in its recent nomination as a significant Aboriginal place. It also has an important role in the history of Wagga Wagga, as the records of early settlers the Best family attribute the naming of Wagga Wagga to an exchange with Wiradjuri people at the Flowerdale Lagoon. Wiradjuri people pointed to crows flying over the run, and spoke what was heard as 'Wagga Wagga', meaning 'a place where crows congregate'.⁵ The lagoon also features in the writings of Dame Mary Gilmore.

Intensive urban land development and extensive agricultural development following closer settlement at the turn of the twentieth century saw the Flowerdale Lagoon invaded by introduced fish species such as carp, and also introduced plants and decline in water quality. As a result of growing knowledge of environmental management, the Flowerdale Lagoon site has been the focus of rehabilitation action.

Activities were undertaken to restore this site as an excellent example of a water lagoon. Landcare was initially involved in the site following the accidental mowing of some trees during maintenance work on the levy bank. The plantings were restored away from the levy bank, to the east of the inlet. This work was done in about 2000. Crown Lands are heavily involved in the management of the site, and WWUL has also returned to carry out work since then. The plantings by the WWUL group included such species as River Red Gums and some Banksias.

Warwick Hull notes: *"The area is continuing to recover; the plantings have certainly aided the landscape. There are a lot of introduced grasses dominating the site, but it is coming back."*

The vegetation of the lagoon itself has not been interfered with.

3.2 POMINGALARNA PARK

Pomingalarna Park is a 225 hectare recreation reserve, about 4km from the centre of Wagga Wagga. It is the part of the Wiradjuri Track connecting Silvalite Reserve and Flowerdale Lagoon. Following European settlement, the land was used for grazing from 1832, with a pastoral lease established in 1850. A 427 hectare portion of this pastoral lease was set aside as a permanent Common in 1873 and reaffirmed in 1881. Various land grants for the golf course, a travelling stock route and freehold land saw the area of the common reduced after 1938. In 1960 the Common was revoked, and the land was dedicated as a Public Recreation Reserve and Wagga Wagga City Council became the trustees.

⁵ Go Green, Flowerdale Lagoon, 2012

The various activities carried out on the land since European settlement has reduced the natural values of the parkland. From the 1990s, various groups, including Wagga Wagga City Council, became involved in attempting to restore the natural values of the land, to encourage biodiversity and to help connect some of the fragmented areas of native vegetation. In 1995, a management plan for the park was created, and this drew on an extensive flora and fauna study carried out by the Friends of Pomingalarna.

From about 1998, Jim Webb, a renowned local horticulturalist, began instructing volunteers on native plant seed collection, propagation and plantings. Part of his work in education and supporting bush regeneration was carried out at Pomingalarna and Willans Hill. Jeanette Coventry, longstanding member of WWUL, remembers that Jim Webb was an enthusiastic, very knowledgeable, humorous and inspiring member of the group, who 'showed that everything is achievable if you take the time to do it right in the first place.' He taught direct seeding techniques. With this technique seeds are planted directly into pots, and once they germinate the weakest seeds are removed. One strong tree is left in the tube which is later planted out. As a result of Jim's guidance and education, a gradual shift in approaches emerged. Jeanette became involved in native plant seed collection and propagation, and also planting the appropriate plant to the local environmental conditions that takes into account the aspect, elevation and other factors to help encourage successful plantings.

In 1999, Wagga Wagga City Council began a project at Pomingalarna Park. This project emerged from a desire to create a wildlife corridor that connected two significant areas of native vegetation in the Wagga Wagga City Council area. A corridor is a strip of native vegetated land that connects patches of isolated native vegetation. A corridor acts as a highway for wildlife to move more safely between patches of larger vegetation. This reduces encounters with predators, urban dwellings, roadways or industrial areas. In this way, urban development does not have to become a stopping point to biodiversity.

The first linkage is from Pomingalarna Reserve to Livingstone National Park. Pomingalarna Reserve is part of a ridgeline of remnant native vegetation running down through Gelston Park to Livingstone National Park (2000 hectares) near Mangolplah 30 kilometres south of the Wagga Wagga urban areas. Developing a corridor between Pomingalarna and Livingstone National Park creates north-south connectivity between parks.

The second linkage provides an east-west connectivity along the river and through residential areas between Pomingalarna Reserve and the Murrumbidgee River. The corridor was established on land privately own by Pioneer Construction Materials, and a covenant was established on the land to ensure that it was protected indefinitely, even if ownership of the land changed in the future. Across the Murrumbidgee River from Pomingalarna and Pioneer Construction Materials are the Malbo Hills that run northward. The Murrumbidgee Catchment Management Authority has invested in ridgeline plantings on properties in these areas.

Landcare was involved in the project helping with plantings and by assisting with volunteer labour. Greening Australia also supported the project in this way.

3.3 REDHILL ROAD

On 30 July 2006, a small strip of Redhill Road was the site of a National Tree Planting Day. On the day 12 local schools and volunteers from the community met on the site to plant about 1500 trees.

National Tree Day emerged out of a growing awareness of the need for tree cover not only in environmental areas, but also on agricultural land. In the early 1980s, the role of native tree removal was publicly recognised as contributing to problems such as salinity, soil degradation and declining water

quality. A National Tree Program was announced by the then Prime Minister Malcolm Fraser in 1982. The program aimed to help reverse the decline of tree covers across Australia. Planting trees helps to provide food and shelter for wildlife and increases biodiversity.

National Tree Planting Day is coordinated by Planet Ark and sponsored by Toyota. It started in 1996 as a way of raising public awareness for the need to provide habitat for Australian native plants and animals. Sites are nominated by individuals, community groups or the local council.

The locations of tree planting sites are determined by a need for environmental action, but other factors such as visibility and accessibility are also important. The site at Redhill Road was an area that would benefit from increased tree cover, but was also easy to access for community members wanting to volunteer on the day.

The plants come from local native plant nurseries that grow local native plant species. Some of the seed may be locally sourced.

Prior to National Tree Day, the site is prepared. Ideally, lines of deep furrows have been opened up using a ripper behind a tractor many weeks before. This process is known as 'ripping'. These lines should then be sprayed with herbicide to kill weeds that compete for nutrients and water. This process makes it easier to dig a small hole and plant a seed or a plant on the day. Often, a tree guard is placed around the seedling to protect them from winds and reduce loss from being eaten by rabbits or wildlife.

On the day, about 70 volunteers worked to plant 1500 trees in total, including the then mayor Kerry Pascoe.⁶

3.3.1 Red Hill Road Extension

As part of battling urban salinity, tree plantings were carried out at Silvalite Reserve. Members of WWUL worked in conjunction with Greenfleet and the Silvalite Trust. Across Wagga Wagga, Greenfleet planted over 100,000 trees at seven different sites. As part of these plantings, WWUL carried out additional work at Silvalite Reserve. Work continued at the site through the Silvalite Trust, a group established by Jim Rees and supported by WWUL. WWUL helped with financial aid, the loaning of tools and equipment and with volunteer labour.

In 2004, plans to extend Redhill Road to connect with the Olympic Highway were announced. The Council planned to remove three hectares of understory grasses and trees from earlier plantings. These trees were a combination of natives and pines. Silvalite Reserve itself was to be cut in half. The Silvalite trust, a group which volunteered to improve the riparian values of Silvalite Reserve, sought the support of WWUL in opposing the proposed road and lobbying council.

Letters written to council requesting them to reconsider their position resulted in a response from the mayor, Kerry Pascoe, stating that the concerns of the group had been addressed as mitigation measures, to help avoid a serious disruption to the wildlife corridor. On 22 May 2005, a meeting was held between representatives from Wagga Wagga City Council and WWUL to discuss the implications of the road. WWUL noted the biological value of the reserve as a large area and the many hours of volunteer labour that had gone into tree and grass plantings. WWUL also questioned the necessity of the road. The response from council highlighted the need to alleviate traffic congestion on Edward Street and the massive amount of government and ratepayers' money that had already been invested in the road. Council had plans to

⁶ 'Green thumbs hit Red Hill Road', *Daily Advertiser*, 31 July 2006, p.3

include culverts and poles for native animals to use to cross the road safely and maintain the wildlife corridor.

The result of the meeting was that council held the stance that the road should continue to go ahead. Committee members compiled a folder documenting the volunteer hours, trees planted and projects undertaken and sent a copy to the mayor and each member of council. The group felt that council had overlooked three key points - the community hours invested into the project were not being valued, the fragmentation of the land would place pressure on existing species, and the road would increase traffic through Glenfield.

In late 2005, it was noted that the opportunity for stopping the road were diminishing.

3.4 WILLANS HILL

Willans Hill is a natural area in the middle of Wagga Wagga urban area. Willans Hill forms the most scenic part of the Wiradjuri walking track. On a clear day it is possible to see the city of Wagga, and beyond to North Wagga and Brucedale to the north, and across Lake Albert to the Australian Alps in the east.

Willans Hill has been the site of numerous activities over the years. This is due to its prominent location in Wagga Wagga, and the fact that many different groups use the area for different regions. It is a popular recreation spot, with children's parks, and also the home of Wagga Wagga's Botanic Gardens and the Wagga Zoo. Willans Hill is also a space popular with rubbish dumpers, including garden scraps. It has been the location of many Clean Up Australia Day activities.

Willans Hill is named after William Willans, Wagga Wagga's first solicitor. He came to Australia from Ireland in 1858. He owned a 32 hectare farm on the northern side of the hill. Willans Hill reserve was the first publically dedicated parcel of land in Wagga Wagga, being declared in 1886. It was a popular picnic and recreation grounds. It was the site of tree plantings for Arbour Day and up until the 1920s the western slope was used as a rifle range. It was used for firewood collection and grazing for a long time, but from 1951 to 1957 there was extensive replanting on the hill. 1971 saw another burst of planting activity.

July of 1997 saw the first activities carried out on the hill by the WWUL. Willans Hill had been identified as a source of groundwater discharge that contributed to urban salinity. A grant for \$5000 to revegetate Willans Hill was received for the group. This was done in conjunction with the Willans Hill School. Willans Hill School is a special purpose school for children aged 4-20 who have a moderate or severe intellectual or physical disability. Children from the school grew plants from seeds, and then helped to plant them out. Jason Mitchell, who worked with the group, wrote in the Landcare newsletter his experience on the day:

*"The first plants to go in on the 18th of July were proudly grown by the Willans Hill Primary School in a joint venture with South Wagga Rotary. This inspirational bunch of kids grew the plants from seed, cared for them and finally planted them."*⁷

Wagga Scout and Cub Groups also carried out plantings later the same year, and the following year a small but dedicated group from Euberta did some tree plantings.

⁷ Jason Mitchell, 'Willans Hill Tree Planting', Wagga Wagga Urban Landcare Group Newsletter, Vol 6, September 1997, p.2

The following two years, WWUL returned to the site to continue tree plantings with South Wagga Rotary and Willans Hill primary.⁸ The days were described as very successful, with Jason reporting that the *“kids thoroughly enjoy the day out and are always asking when the next one is coming around! I know the adults involved always find working with these special kids a joy.”*⁹

Willans Hill was the location of Clean Up Australia Day activities in March 2006, as it had been for two years prior. Nineteen volunteers worked to collect rubbish from the larger half of Willans Hill. On the day, volunteers were allocated areas to work in, which are shown on the map (Figure 4). Each number corresponds to a volunteer.

⁸ Newsletter, 3 June 1998

⁹ April 1999 Minutes

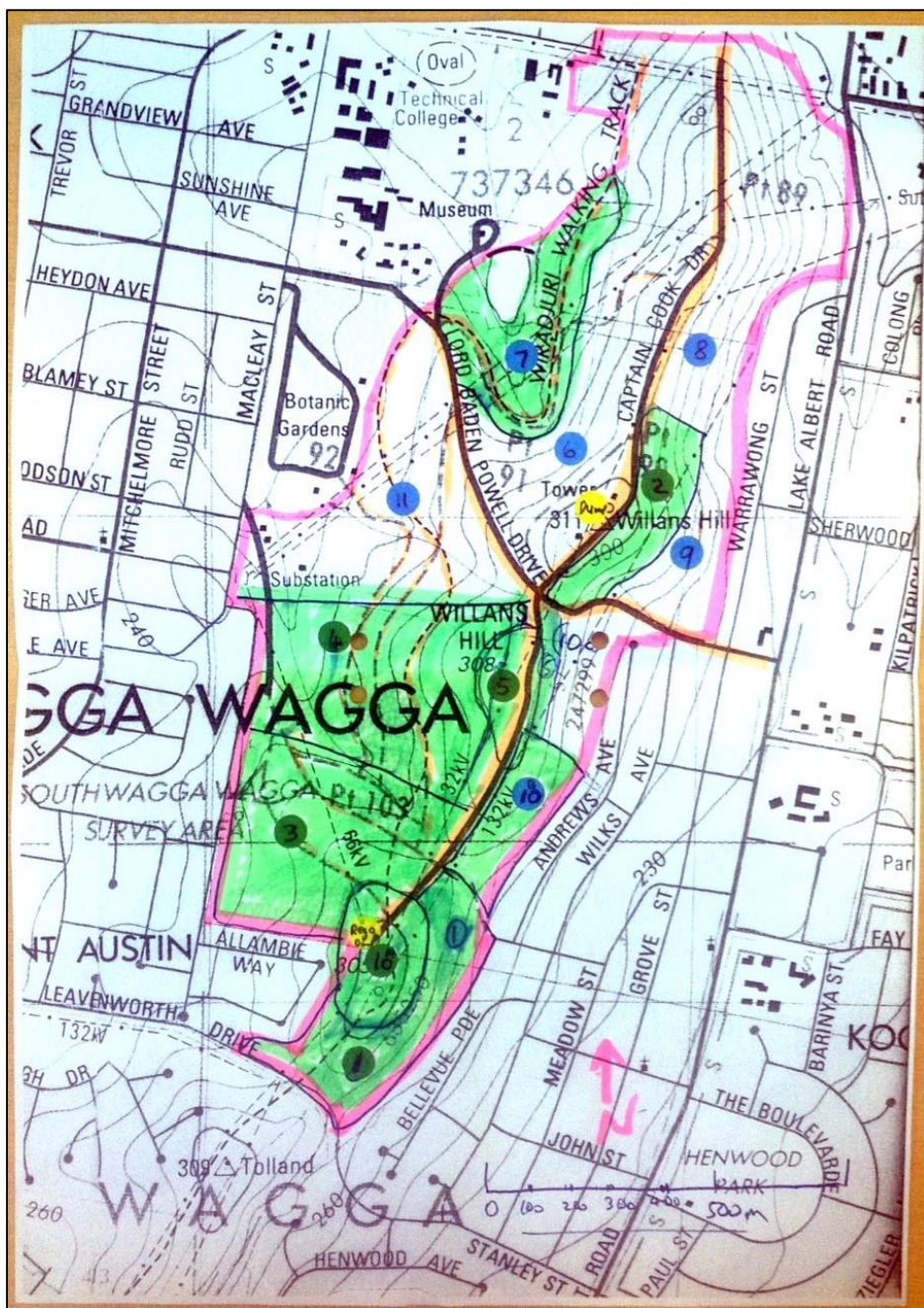


Figure 4: Clean Up Australia Day map, WWCC WWUL file

Wagga Wagga Urban Landcare Group
Cleanup Australia Day 5th Mar 2006
Willians Hill

Volunteer Name	Cleanup Area Nominated (By Number see Map)
Marg, Bhab, John	①
Petrina, Ed, Quinn	②
Don	③
Hugh, Heather, Rosyln ZOE	④
Janette, Casie	⑤
?	⑥
Bret, Desley, Amelia, Lorraine	⑦
?	⑧
?	⑨ (Warranung St)
Dick, Paula	⑩ a, b, (10c?)
?	⑪
(19 volunteers)	

Figure 5: Clean Up Australia Day, WWCC WWUL file

3.5 MURRUMBIDGEE RIVER CORRIDOR

In April 1997, a survey of vegetation along the riparian area of the Murrumbidgee River was done by volunteers as part of a project called "Bridge to Bridge." The project was funded by the NSW government's 'Rivercare 2000' initiative. Many groups contributed to the project including WWCC, the Department of Land and Water, Greening Australia, Tree Planters Wagga Wagga and Wagga Wagga Urban Landcare. The survey covered a stretch of the Murrumbidgee from Eunony Bridge to Gobbagombalin Bridge. The project assessed the condition of the riparian (riverside) environment within the city of Wagga Wagga. Volunteers walked a stretch of the Wiradjuri Walking Track, collecting information on the types of vegetation along the banks, the width of vegetation and other environmental issues they observed.

This scoping study went on to provide the basis for other projects that were carried out along the Murrumbidgee.

3.5.1 Murrumbidgee River upstream of the Wagga Wagga Beach

“Bush regeneration is about letting the bush regenerate itself.”



Beginning in September 1999, WWUL worked on clearing woody weeds and replanting trees upstream of the Wagga Wagga Beach, at one of the railway viaducts that crosses the Murrumbidgee River. Work continued on a mostly monthly basis until 2008. It is a good example of why environmental activity requires patience and perseverance over an extended period of time to be effective.

The viaduct site is a significant site within the Wagga Wagga landscape, because it is one of the few remaining stretches of bushland along the

Murrumbidgee River within the urban area of Wagga Wagga. Regeneration in corridors such as this one helps to improve the habitat for native fauna, such as birds and possums. Increasing and improving native vegetation increases the food and shelter habitat for native fauna. The area also links to other important corridors along the river such as the levee bank that is a highly used recreation corridor for many local people and visitors. The Wagga Beach, just downstream of the viaduct, is an active recreation area and has had a long history of use, being the favourite swimming spot in summer before the community pool was built.

The work began because Paula Charnock, at the time secretary and later president of the group, and her friend Vanessa Mosciovic were completing a Bushland Regeneration Certificate at TAFE. They wanted to put into practise the skills that they had learnt during this time. Paula explains the reasons for selecting this site:

“The viaduct was a good place to start our work. It had lots of woody weeds, it had good access so that we could get our equipment down too, and it was a good meeting place, so we started there once a month.”

Other bush regeneration sites were also worked on during this period, but this was the main site of activity. A sub-group was formed within WWUL, known as the Wagga Wagga Bushcare Group. The work undertaken was focused on bush regeneration, involving woody weed removal. Woody weeds are weeds or invasive plants that are like a tree with a woody trunk. In this area of the track, most of the weeds removed were small leaf privet, large leaf privet, cotoneaster and date palms. Most of these weeds are plants that have 'escaped' from gardens.

The standard tool kit consisted of secateurs, saws and occasionally someone with a chainsaw. The weeds are cut down at ground level and dragged to a large central pile. The trunk bases are immediately painted with Roundup, to hopefully kill the plant roots to stop it from reshooting. The weeds themselves are then ground up with a chipper and removed.

Bush regeneration also involved some ground spraying of weeds like purple top, and privet. Paula clarifies: *"By doing that you hope there is enough seed species of old native vegetation and that will regrow itself, it will regenerate."* In some sections it was necessary to plant native vegetation, but mostly the work focused on clearing the woody weeds.



From the start, participants knew it was going to be a long, slow process and it would take a long time to see results. *"It felt slow some times, like you weren't getting anywhere, but at other times it felt like we were really making progress."* In some areas weeds were very thick, and it might take a day to do a 5 metre section. *"Some days you'd feel like you'd done a lot, other days not so much."* However, before and after pictures helped to show what progress had been made. During the period of activity on the site, the methods and approaches used remained consistent. It was a simple yet effective approach.

A summary of the work undertaken was written and shared with group members. Although the year is not provided, it does provide a good overview of what bush regeneration is and as viewed by the group, and is included in the Appendix.

Another important aspect of the work undertaken on the site was to educate the public, not only about the work being done, but what things they could do in their own lives and backyards. Advertising and signage were displayed to encourage local involvement. A demonstration area was also established, to provide examples of what the area looked like before and after clearing. However, most of the educational work was done in a more personal manner. WWUL members were able to share their knowledge and skills by explaining removal techniques and educating interested community members about different weed and plant types. Ending the day with a cup of tea allowed everyone involved to reflect on the day's achievements, and also to connect and engage with others in the local community.

The work continued in a small scale way, with volunteers being involved on a monthly basis. In 2004 the group received a grant from Envirotrust. At about this time, Wagga Wagga City Council also received a grant to carry out works in the area with the Maldhangilanna River Restoration Project. By 2008, all the woody weeds had been removed from the identified stretch of river, and the WWUL group shifted its activities to other areas.

Paula reflected on what was achieved along the river:

"You just had to keep in your mind that every little bit counts, and when you see how many seeds a privet tree has on it, you think every privet tree you took out that was like, thousands and thousands,

probably millions of seeds that we removed from the eco system, so hopefully, somewhere that would do some good."

3.5.2 Wiradjuri Reserve

WWUL was involved in surveying this part of the river as part of Bridge to Bridge.

During the Bridge to Bridge survey, this area of the Wiradjuri Walking Track was assessed primarily by Dick Green, Jim Rees, Jenny Grantley, Gordon Murray, along with other members of the public. The total number of individuals involved in the assessment was about thirty.

The canopy in this area along the river was observed as being well wooded with River Red Gums. Some natural regeneration was occurring, although many plants were also being repressed by grazing cattle and horses. Weed infestation and erosion was also seen along this area. The stretch of river approaching the sewerage treatment works was heavily infested with weeds the river colour was also affected. There was also a large amount of dumped garbage observed.

Following on from the survey, many activities were carried out in Wiradjuri Reserve. Since 2007, the area between Wiradjuri Reserve and Gobba Beach has been the focus of work done by the Wiradjuri men's group Maldhangilana (Working Together) River Restoration Project. This group works to rehabilitate the river frontage.

It is a significant area for Wiradjuri community members and also as a historic site.

3.5.3 North Wagga Flats

North Wagga Common- Restoration of Habitat for an Endangered Population of Squirrel Gliders

In September 2001, WWUL successfully obtained a grant from the Threatened Species Network in order to enhance the habitat of the locally endangered Squirrel Glider and the nationally threatened Superb Parrot and Swift Parrot. In conjunction with this, WWCC received some an Environmental Trust Grant to work in the same area. The North Wagga Common was identified as an unusual area, because it was a riparian environment along the Murrumbidgee River located close to an urban area. At 39 hectares in size, the common represented an opportunity to have a substantial positive impact on the habitat of the Squirrel Glider, while also engaging the community.

The North Wagga Common was identified as a rare riparian environment, because along with its size, it was vegetated by stands of mature and young regrowth River Red Gum. The project aimed to enhance the features of the area that already existed, and to create and implement a long term strategy that would support the endangered species that inhabited the area. Activities carried out on the Common involved:

- Planting wattles and bottlebrush as understorey shrubs to provide a food source for the Squirrel Glider and the Parrots
- Trialling the reestablishment of a native grass understorey, to provide food for the endangered Superb Parrot and other grain feeding birds.
- Allowing mixed age regeneration of River Red Gums (purpose)
- Constructing and installing nesting boxes on mature trees without hollows, to enhance the nesting potential of the area
- Removal of woody and non woody weeds to allow the native plantings the opportunity to establish themselves and compete

Work on the common began early in 2002, and initially involved opening up the understorey by removing a large concentration of woody and non-woody weeds. Woody weeds were cut at ground level and painted with a herbicide, while the non woody weeds were sprayed.

Following the clearing of the understorey, it was possible to plant native species that would provide an alternative food source and shelter for the Squirrel Glider and other native animals. Over two thousand trees were planted throughout 2002 and 2003, with much of the work being carried out by volunteer groups, community members, school students and volunteers from DancePlant and WWUL. The trees planted included River She-oak, Silver Wattle, Northern Silver Wattle, Golden Wattle and River Bottlebrush. Native grass plantings were carried out by Wagga Wagga City Council employees.

The final stage of the project involved the installation of nest boxes in mature trees that did not have hollows suitable for nesting. Fifty eight boxes were built by school students from North Wagga Primary School, Ashmont Primary School, and St Michaels Regional High School. Members from WWUL also built boxes. Students from TAFE along with employees from WWCC and the RTA installed the boxes. Along with building the boxes, school students had the opportunity to learn about Squirrel Gliders during excursions to the flats.

The work on the North Wagga Flats provided the opportunity for community engagement. 'Spotlighting' was carried out on various occasions, often in conjunction with threatened species day.

The project was a great success in two ways. The vegetation that was planted has survived, and the woody weeds have not reinvaded. In addition, the flats have become a site for regular spotlighting events through the year, making it an important place for ongoing education. These education events also help to share the riparian environment and the existence of these natural areas in the urban landscape. The area is recognised as a prime habitat for the threatened population of Squirrel Gliders.

4 TIMELINE OF ACTIVITY

- 1993: 24 March: *The Leader* publishes an article titled 'Dryland salinity creeping through sections of Wagga'.
- 1994: 15 September: Meeting at Wagga Wagga Technology High School for purpose of discussing salinity and to form a Landcare group. Chaired by Mayor Pat Brassil. Meeting resolved to form a Landcare group
- 1995: July: Wagga Wagga Urban Landcare Group incorporated
- 1995: September: Councillors lobbied by Landcare
- 1995: October: Landcare staffs stall at Wagga Show to talk to people about salinity
- 1996: group became umbrella organisation for Wagga Tree Planters, friends of Willans Hill and the Gobbagumbalin Landcare Group. Initially met at the Showground, then at Council Chambers
- 1996: June: residents of Finch place interviewed by "Witness"
- 1996: September: propagation day held at North Wagga TAFE by WW Tree Planters and Landcare, 1000 trees and 250 wattles
- 1996: 25 October: spoke with local land valuers over complaints about lost land values to the Attorney General's Office
- 1995/1996 financial year: received funding for a newsletter (\$480) and removal of rubble pits in four houses on Chaston Street (\$800), first funding source that group received
- 1996: November approx: Evaporation basin surveyed
- 1997: February approx: DOCENT program began training 15 volunteers to be sources of community knowledge about urban salinity
- 1997: 2 May, revegetation day at Kapooka
- 1997, 19-20 April: Rivercare Grant. River walk from 19-20 April, from Eunony bridge to Gobba bridge
- 1997, May approx, Tree Planters of WW ceased to be a separate group, and turned into a sub group of WWUL
- 1997, May approx: It was reported that groundwater mapping in salt affected zones was being carried out. 260 holes drilled to 3 metres, 20-30 of these were retained as piezometers
- 1997, May approx this time, release of the salt map
- 1997, June approx: Publicity about salinity, interviews from DA, 7.30 Report, other local activities
- 1997 10 July Builders information night at Wagga leagues Club
- 1998 13 June: Family Tree Planting Day, Leavenworth Drive Willans Hill, Euberta Landcare grew local species for planting.
- 1998, June, Willans Hill Tree planting carried out by Willans Hill primary
- 1998, July approx, deboring work carried out in the Calvary area; ten bores installed to pump non saline water into the Murrumbidgee River over a 5 year period
- 1998, August: National Conference of the Australian Association of Natural resource Management on Urban Salinity held at CSU Wagga, Landcare's involvement part of proceedings.
- 1998 September approx, ecological justice centre established by Sister Carmel at Mt Erin, Landcare involved in/supportive of

- 1998 (general) working with WWCC in \$3 million dollar planning and implementation of ground work. Nine bores in Calvary area. Rubble pits bypassed. Meetings with residents of Hardy ave and Emblem park. Reveg committee involved in replanting 45 hectares in Leavenworth Drive, students from Mount Austin, City Council and EPA. Education subcommittee and DOCENTS speaking with many groups and also school groups.
- 1998, September approx: Best Park project started. Ground sprayed and ripped and plants ordered.
- 1998, October/November approx: 1600 plants planted at Best Park by Koorinal Primary and Landcare members; also planted out with help of Ashmont primary
- 1998, November: Students from Willans Hill Primary sowing seeds for plants 'for what has become an annual event on the Hill.'
- 1999, February: Funding for Silvalite approved (Jim Rees)
- 1999 Feb approx: 4 blocks in leakage reduction program finished
- 1999 March 20, Working bee Mount Erin convent (supportive, not run by Landcare)
- 1999 April approx, WWUL approached to become trustees of Silvalite
- 1999 April approx, funding grant from great Southern Energy; \$600 for St Michaels students to plant by the river, \$300 for trees to be planted by WWHS students on Willans Hill.
- April minutes has summary of funding applications (not sure on successful or not?)
- 1999 May: Green Corp working on Pomingalarna pulling out road tracks, putting through walking tracks and enhancing seed orchard at Gregadoo.
- 1999, featured in April-June edition of Dick Smith's Australian Geographic Magazine with feature article titles 'Wagga's Salt Solution'.
- 1999 June approx: Best park, Knights Blinds site (?) and Silvalite Ripped
- 1999 25 July: Best Park tree planting day for National Planet Ark, about 1,000 trees planted.
- 1999 August approx: expression of interest from Vanessa Moscovis to form a bush regeneration group for projects around Wagga. Students from Bushland Regeneration Group from TAFE.
- 1999 September, closing of Councils 3 year commitment to Urban Salinity following expenditure of \$2 million from sale of gasworks.
- 1999, 16 October: Privet removal day at Mt Erin Convent, to remove and poison old privet hedge from Kildare ave to Edmondson street
- 1999, September Revegetation of Hardy ave begins (following dewatering bores installed)
- 1999 September 19, first bush regen at railway viaduct; continued on a mostly monthly basis regularly until 2008
- 1999 November summary from AGM: Highly commended at NSW Landcare forum; tree plantings done by group, school groups and Green corps at Best Park, Jubilee Oval, Silvalite, Whelans Hill; funding for Silvalite
- 2000 March, Council approached group about conducting a survey following fires for revegetation, worked with CSU with assistance from Anneliese
- 2000 April: Silvalite research managed as a Trust from this time, Jim Rees chair of trust
- Trent (?) working on bush regen stuff for Willans Hill; Annalese monitoring plant/weed growth
- 2000, May: Salt saver tips dropped from Leader 'after a very long and hopefully successful run'

- 2000, June: Landcare member Gavin Wall representative on Willans Hill management committee
- 2000 July 30: National Tree planting day at Karoom drive; Bulolo St Ashmont; Dalman Parkway Glenfield
- 2000 November 23: River species seed collecting day besides hampden bridge on Fitzmaurice Street
- 2000 November 30: Propagation day
- 2001 4 March: Clean Up Australia Day along Murrumbidgee River, near viaduct
- 2001, 27 may, tree planting at Riverina water
- 2001, August: National tree planting day along Murrumbidgee near Eunony Bridge
- 2001, August: plantings at Best Park, Silvalite and other areas around Wagga, also tree guard collection
- 2001 16 September: Silvalite reserve tree plantings
- 2001 21-23 September: Oura beach planting, joint project between Wagga Urban, Danceplant and Oura community
- 2001 November Bird watch/walk on Willans Hill
- 2002: National tree Day, on the flats on the South Side of Gobba bridge
- 2002 June: Coles tree Planting Day WWUL involved in, at Bowmen near caravan park on south side of Bourkelands
- 2003 July, proposed road through Silvalite causing concern amongst group members
- 2003 July: Wollundry Lagoon Landcare Action
- 2003 July 2: Worked with Wagga High at Lake Albert, loads of rubbish collected and 300 Casuarina trees planted
- 2004 March 7: Clean Up Australia Day at Willans Hill
- 2004 May 16 Bush regeneration at Willans Hill
- 2004 July: National tree planting day at Equex Centre
- 2004 August: WWUL supporting Silvalite Trust in applications to stop clearing of land in the reserve for Red Hill road
- 2004 September 5: Wollundry Lagoon working bee
- 2005 March 6 Clean up Australia Day ay Willans Hill
- 2005 April: Wollundry Lagoon
- 2005 May 4: Landcare working to oppose Redhill road extension through Silvalite Reserve
- 2005 June 27: Wollundry lagoon
- 2005 July 4: Wiradjuri Track near Beach
- 2005 July 11: Wiradjuri Reserve
- 2005 July 25: National tree day at Equex Centre
- 2005 September 25: planting on North wagga Flats
- 2005 October 23: Working bee at Wagga beach, Westpac Staff coming along to help

5 REFERENCES

City of Wagga Wagga, Pomingalarna Management Plan 2008-2013 (n.d), Wagga Wagga City Council.

http://www.wagga.nsw.gov.au/_data/assets/pdf_file/0005/6836/Pomingalarna_Park_2008-2013_sm.pdf

Various Files, Wagga Wagga Urban Landcare records. To be donated to Charles Sturt Regional Archives.

The Leader

The Daily Advertiser

APPENDIX A NEWSPAPER REPORTS

Wagga council calls for help in fight against urban salinity

\$30 million in government funding to be sought

By KEN GRIMSON

WAGGA City Council has asked the State and Federal governments for \$30 million to help defeat urban salinity and to improve sewage and drainage management.

Council has committed \$12 million over five years to develop effluent re-use programs and to rebuild the aging sewer infrastructure, but estimates \$42.5 million is needed to tackle the three related issues together and adequately.

A grant application has been lodged under the Federal Government's proposed \$1.25 billion National Heritage Trust Fund, while talks have also been held with the State Government.

Wagga is receiving national atten-

tion for its urban salinity problem which is affecting at least 600 homes, most of which are around the show-ground and Calvary Hospital areas.

The rising underground water table is damaging roads, sportsgrounds, water pipes and other infrastructure, while salt the water brings to the surface is eating away at house foundations.

A hydrological geologist with the Department of Land and Water Conservation, Sue Hamilton, told council's environmental services committee yesterday that it would take more than money to fix the city's urban salinity problem, which is the subject of a State pilot study.

"A critical thing is people's attitude," said Ms Hamilton after explaining the clearing of deep-rooted

timber, overwatering of gardens, stormwater rubble pits and leaky pipes were major non-natural contributors to the rising water table.

Ms Hamilton said major questions in defeating urban salinity were obtaining money to finance prevention/rehabilitation and what to do with saline water if it was pumped from bores to lower the water table.

Council has committed \$750,000 over three years for urban salinity, but a number of councillors yesterday called for a larger financial commitment over a shorter period.

Cr Lindsay Vidler said council needed to set money aside to help replace the estimated 500 rubble pits in Wagga.

Referring to council's plan to spend millions of dollars on upgrading Bay-

lis Street, Cr Vidler asked: "We are going to spend a heap of money on the main street, but what is the use of having the best main street in Australia if people don't have a house to live in?"

Cr Kevin Wales asked the director of corporate services, Tony Elphick, the likelihood of "finding" \$2 million at council's annual budget meeting on Thursday to "help out" home owners replace rubble pits with stormwater drainage to the street.

Mr Elphick said it was feasible to divert \$2 million from, say, the main street upgrade.

"As I have said before, council can do anything it wants, it just can't do everything it wants," Mr Elphick said.

Cr Kay Hull brought the committee's attention to the fact that council's sale of its natural gas enterprise

would result in the immediate availability of \$1.25 million which could be devoted in part or whole to the urban salinity fight if council wished.

Meanwhile, the committee will recommend to the full council at its May 29 meeting that anyone buying a property be told if it is in an urban salinity risk area.

If council accepts the recommendation, notations will be made on future Section 149 certificates that must be obtained from council when properties are sold.

On a motion from Cr Mary Kideon, the committee will also recommend that a council policy be developed that makes land developers responsible for telling council the potential of their land to be salt-affected.

'Wagga council calls for help in fight against urban salinity', *Daily Advertiser*, 20 May 1997 p.5

URBAN SALINITY CRISIS



RUBBLE PIT: A fairly typical rubble pit in Wagga. Stormwater is directed into the ground through a downpipe at the back of homes.



EATING AWAY: Salt eats away at brickwork, destabilising walls and foundations.



SURFACE SALT: Salt brought to the surface clings to grass in Fernleigh Road.

Salt ... Uprising of the urban enemy

SPECIAL REPORT

By KEN GRIMSON



SALTY groundwater may be pumped out of rising water tables under Wagga and into the Murrumbidgee River for short-term relief from the city's urban salinity problem.

It is one engineering solution being investigated to help fight urban salinity which is threatening hundreds of homes and millions of dollars worth of public infrastructure, such as underground pipes, roads and sports fields.

The city council is negotiating with the Murray Darling Basin Commission and the New South Wales Environment Protection Authority on guidelines for the discharge of saline water into the river.

Council and the Department of Land and Water Conservation are working together on the urban salinity crisis and admit the river pumping option is not ideal because putting saline water into the Murrumbidgee is a sensitive environmental issue.

But it is seen as a possible brake on salinity until long-term planning options, such as the possible creation of urban forests and land use limitations, are decided upon and become effective.

In a financial strategy plan adopted last month, council has set aside \$750,000 over three years for salinity works.

However, council's finance committee will recommend to the full council tomorrow night that this amount be increased to \$1.75 million.

Whatever the sum decided, early capital works attention is likely to be directed towards the elimination of some 550 household "rubble pits", most of which are in the Turvey Park area, according to the Wagga Urban Landcare Group, which is playing a key role in identifying urban salinity and developing strategies to defeat the nemesis.

Rubble pits were generally dug at the back of houses on the "low side" of streets to accept stormwater run-off from roofs

where there was no drainage to the street.

They are considered one of the major causes of the rising watertable and the landcare group wants them to be replaced with rear-of-block drainage that will carry water into the drainage system.

Another major identified cause is leaking water mains and sewage pipes, while other contributors are overwatering of gardens and lawns, leaking swimming pools and clearing of deep-rooted timber for urban development.

Council has made a submission for a grant under the \$1.25 billion National Heritage Trust Fund (NHTF) on the basis it wants to manage urban salinity, disposal of sewage effluent and stormwater discharge as one issue rather than as three separate problems.

Council wants a lot of money — about \$30 million from the Federal and State Governments — but in its favour are the facts it is a recognised national leader in developing and utilising sewage effluent re-use programs and the city's Urban Salinity Action Plan is a pilot scheme for New South Wales.

Lessons learned from the Wagga experience could be used by other Australian centres faced with similar circumstances, council argues in its submission.

The proposition being put to the NHTF revolves around pumping water from deep bores in areas affected by rising groundwater and mixing this saline water with sewage effluent and possibly stormwater to irrigate a tree plantation.

According to a brochure prepared by council, the NHTF project will involve the "scaling up" of the award-winning effluent re-use work being carried out by the CSIRO at the "Flushing Meadows"

plantation site at Forest Hill.

Council has already committed itself to spending a minimum of \$12 million over five years towards the development of sustainable effluent re-use systems and sewer infrastructure maintenance.

"The fundamental aim of the (NHTF) project is to lower the groundwater watertable to at least two metres below ground level in order to remove the impact of rising water tables in the affected parts of the urban area," said a report to the May meeting of council's environmental services committee.

Studies have shown that salinisation can occur when groundwater comes to within two metres of the surface. Evaporation can occur from that depth, causing a concentration of salts at the soil's surface.

The Department of Land and Water Conservation has released a colour map which shows urban salinity risk areas.

The map shows three levels of risk.

High risk is where the watertable is less than two metres below the surface, medium risk is where the watertable is between two and five metres below the surface and low risk is where the watertable is greater than five metres below the surface.

However, the department and council say interpretation of the map should be "done carefully".

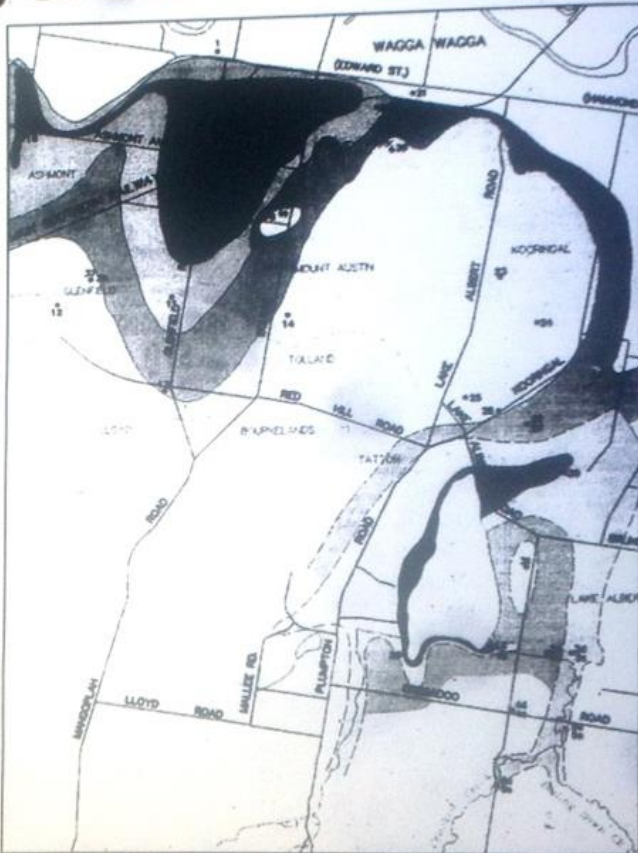
"The map is a representation of what levels water tables would rise to if there were no barriers, such as heavy clay soils, between the underground water and the surface," council says.

"This map does not mean that all the land shown to be of high risk of salinisation will show signs of salinity."

Monitoring bores in the urban area which were used to produce the map have been in place only two to three years and it will take some time yet before long-term trends in watertable levels can be determined, according to council.

While there is strong evidence Wagga has a large urban salinity problem, data is still being sought to complete the picture.

As part of the salt action plan, more than 30 bores have or will be installed in Wagga's urban area to monitor the watertable.



SALINITY MAP: This map, produced by the Department of Land and Water Conservation, gives an indication of urban salinity risk in Wagga. The map was produced using 1996 groundwater level data from monitoring bores. The Department warns that groundwater levels change with time in response to seasonal conditions and changes in land use. The map should be used as a guide only and any land development dependent on accurate data should undertake site-specific studies. The red area is considered to be at high risk of urban salinity (the watertable is two metres or less from the surface), the blue area is at moderate risk (two to five metres below the surface) the green areas are at low risk (the darker area shows the watertable five to 10 metres below the surface and the lighter area shows the watertable to be 10 metres or more below the surface).

What is urban salinity?

WHAT is urban salinity?

The following explanation comes from the Department of Land and Water Conservation.

"Urban salinity, like salinity in rural areas, is caused by rising water tables.

"A watertable is the surface of the saturated zone in the soil, known as the groundwater, and in a well-balanced system usually remains many metres below the Earth's surface.

"As the watertable rises to, or near, the surface it carries with it dissolved salts that are normally locked in the soil and rock profile."

"Saline water kills vegetation, damages roads and

buildings, corrodes gas, water and sewer pipes and causes waterlogging.

According to the DLWC, watertables rise for a number of reasons.

Overwatering of lawns is one reason. Excess water that is not evaporated or not used by plants filters down through the soil and adds to the groundwater.

Other factors that contribute to a rising watertable include tree clearing for urban development, over-irrigation of public recreation areas and roof run-off which is directed into siltage or "rubble" pits instead of the stormwater system.

SCORCHED EARTH: Salt brought to the surface has killed vegetation and made the earth barren on a former football oval near the Riverina Juvenile Justice Centre in Fernleigh Road.

12 The Daily Advertiser, Wednesday, May 28, 1997



FROM LITTLE THINGS: Three-year old Cleo Randal gets ready to plant her native shrub as part of National Tree Day celebrations at Central Wagga Childcare yesterday. A thousand trees and shrubs will be planted at Best Park in Ashmont on Sunday. Picture: BRETT KOSCHEL

Grinning to get greening

WAGGA residents will be digging in this weekend, planting 1000 native trees and shrubs in Ashmont's Best Park for National Tree Day.

While schoolchildren made a head start yesterday, putting around 3000 trees in the ground, dozens of volunteers are expected to get their hands dirty on Sunday for a big day of planting.

Organiser and Secretary of the Wagga Urban Landcare

Group Tony Hepworth said National Tree Day was an important date on the environmental calendar.

"This Local Government Area has only 10 per cent of its natural vegetation left and that 10 per cent is in small pockets," he said.

"What is left is vulnerable. National Tree Day is doing it's best to bring it back.

"Planting does all sorts of good things. Planting at Best

Park will bring back a beautiful little reserve for the community, bring back the birds, lizards, insects, all of those things and it gives the land a chance to recover."

Mr Hepworth said a total of 10,000 trees would be planted in the coming month, with Wagga City Council planting more than 5000 trees and shrubs in various pockets around Wagga, including Willans Hill.

Green thumbs hit Red Hill Road

ABOUT 70 people from Wagga got their hands dirty and their thumbs green yesterday in honour of Planet Ark's National Tree Day.

Mayor Kerry Pascoe was among the crowd, which included a number of community groups from across the city, and helped to plant some 1500 native plants along Red Hill Road.

It is hoped the trees, which were donated by council for the day, will help to beautify the roadside with the Red Hill Road extension soon to open up the road as a major transport route.

Cr Pascoe said he was impressed at the commitment of the volunteers who worked quickly to plant the trees yesterday morning.

"It was a real community effort," he said. "The trees will be a great thing for the aspect of the road."

The tree-planting also helped to kick-off Local Government Week, which will see council hosting events and activities throughout this week.

The official opening of the Tolland Recreation and Activity Centre for Kids (TRACK) brought the Tolland community out in great numbers on Saturday, and the week promises to be just as exciting.

"The day at Tolland yesterday was an excellent event," Cr Pascoe said.

"I was really pleased with the number of people that turned up from the local community.

Local Government Week will get into full swing today, with Council offering tours of the Civic Theatre, including a comprehensive look at how performances are brought to life on stage.

— Ben Smee



WORKING ON THE LAND: Sam, 5, helps mum Anita Bailey plant one of 1500 native trees that will grow to brighten up the landscape of Wagga's Red Hill Road as part of National Tree Day.

Picture: Mark Thompson



PLANTING PARTY: Tait Huggett, 6, with her sister Elise, 3, at Koorungal Public School's National Tree Day celebration. Picture: Les Smith

NATIONAL TREE DAY

Wagga gets its hands dirty

THERE were hundreds of muddy hands around Wagga throughout the weekend as families and friends of the environment rolled up their sleeves for National Tree Day plantings.

Wagga City Council took the opportunity to plant more than 1000 native seedlings near the Bowmen industrial area by organising a community planting session yesterday.

Although Sunday was the official day for National Tree Day, the folk at Koorungal Public School couldn't wait to get their hands dirty and staged their planting party on Saturday.

"We had about 40 parents turn up and they each brought a native drought and frost tolerant plant," said P and C treasurer Michele Hemmings.

"As well as reducing carbon dioxide in the atmosphere, we're improving our landscape and helping to make an attractive environment for the kids to play in."

The school has also signed up to be a part of a new "green" fundraiser through the Enviro School Program.

For each household that signs up to have free energy efficient light globes and showerheads installed, the school

will receive a \$5 cash donation.

"We want as many people as possible to get involved. We want to build an outdoor amphitheatre for drama activities and we will get \$5 per house," Ms Hemmings said.

Each household that registers will receive a visit from a water and energy assessor who will provide a free assessment of energy and water use in the home.

Nominate Koorungal Public School by logging onto www.enviroschools.com.au or phoning 1800 006 770.

— Rebekah Holliday

CLEAN UP AUSTRALIA DAY

Wagga gets cleaned up



RUBBISH PILE: Wagga council's natural resource management facilitator Tony Hepworth was all smiles with yesterday's Clean Up Australia Day.
Picture: Les Smith

WAGGA is gloating in squeaky clean pride today following an autumn spring-clean which has rid it of its rubbish.

About 1000 decomposable bags were divvied up among 49 sites around Wagga where school and community groups took to picking up rubbish in the name of the annual Clean Up Australia Day.

Yesterday's clean up involved about 4500 people, which according to natural resource management facilitator of Wagga City Council, Tony Hepworth, "is a tremendous community response."

Food and drink wrappers remain the top offender in contributing to the town's rubbish piles, and were mainly found at the North Wagga Flats, Wiradjuri Reserve, Willans Hill, Glenfield Road open storm water drain and along the river's levy banks.

According to Mr Hepworth, teenagers are most likely to litter while adults are the ones who dump the likes of cars, washing machines, and microwaves.

Mr Hepworth said the amount of rubbish picked up this year showed no improvement on previous years.

"We are not losing the battle but we are not winning the battle."

"The more we do this the more people will learn to love the land the way they should," he said.

Across the country around 70,000 volunteers removed more than 9000 tonnes of rubbish at a record breaking 7527 sites.

APPENDIX B WWUL HISTORY



The formation of the Wagga Wagga Urban Landcare Group

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This document aims to provide a succinct background to the formation of the Wagga Wagga Urban Landcare Group. It is intended to supplement and complement the formal records held by the Secretary.

A personal introduction to the formation of the group

For some years I walked across South Campus each week to my music lesson at the Riverina Conservatorium Centre. Despite my background I was slow to recognise that the ground I was walking over was salt affected. It was certainly affected by a high water table. It was not till the summer of 1992/93, when I became concerned at the white "stuff" on the bricks of my house, that I put "2 & 2 together". The white stuff below the damp course tasted like salt. The bare, boggy ground on South Campus was now white in places. I started to see more evidence of a high water table and of salt damage the more that I looked.

On 24 March 1993 there was an article in The Leader newspaper reporting the diagnosis of a salinity problem on the western side of Wagga Wagga by Greg Bugden of the then Department of Conservation and Land Management. I wrote to Greg on 26 May 1993 about my observations on South Campus and in my own neighbourhood of "the aviary". I included photos of damage to not only gardens but to roads and houses as well. On 7 September 1994 Greg rang me, asking me to talk at a meeting being organised to form a Landcare Group.

MARK CONYERS

Formation and Office Bearers

Formal notification of a public meeting appeared in The Leader on 14 September 1994. It was held the following night at Wagga Wagga Technology High School on 15 September 1994. The meeting was chaired by Pat Brassil, then Mayor of Wagga Wagga. Speakers included Greg Bugden of the Department of Land and Water Conservation, Bryan Short of Wagga Wagga City Council, Mark Conyers, an affected resident, and Bruce Mulqueeny of the Wagga Wagga Show Society. The staff common room was full and a lively meeting demonstrated strong community concern and interest. The meeting resolved to form a Landcare Group via a steering committee which consisted of:

Lindsay Vidler, who later became inaugural chairperson, Kate Penrose, who became Treasurer, Neale Irons, who became the treasurer the following year, Mary Anne Sheahan, who became Secretary and Public Officer, Lorraine Hardwick, who became secretary the following year, Mark Conyers, who became Publicity officer, Bruce Mulqueeny, Sandie Duckers, Joanne Jones, Steve Sutherland and John Powell. We became incorporated as the Wagga Wagga Urban Landcare Group in July 1995.

In the background to the formation of the Landcare Group was an Urban Salinity Working Party consisting of representatives from Wagga Wagga City Council, Charles Sturt University, Department of Land and Water Conservation, Environment Protection Authority, Southern Riverina Electricity and Water, Murrumbidgee Catchment Management Committee and Kendall and Sellick P/L. This professional group formulated policy and technical input the salinity problem. The Landcare group was the communities' opportunity to be active in overcoming salinity in the urban

area and other environmental issues. It was only through active community involvement that adequate access could be gained to Federal Government funds such as the National Heritage Trust.

Early Management

With no financial resources the Urban Landcare Group had a rough early road. Funds were raised by a \$5 membership fee, which was spent on incorporation and insurance fees. Only financial members therefore can move motions and vote on issues put to meetings.

The objectives of the group were, and still are:

- to address environmental issues relevant to the Wagga Wagga Urban Landcare Group's area which are of concern to members.
- to achieve an ongoing community commitment to manage watertable levels and salinity within the context of ecologically sustainable development in the local Landcare area.

We soon found that incorporation and insurance fees were a stumbling block to other groups. In 1996 the Group became the umbrella organisation for Wagga Tree Planters, Friends of Willans Hill and the Gobbagumbalin Landcare Group. This resulted in one insurance and incorporation levy.

Initially Bruce Mulqueeny provided us with a meeting venue at the Showground free of charge. By the time of our incorporation the WWCC Council Chambers became the regular venue for monthly meetings, held the first Wednesday of each month. This was notified to the public via the Community Diary in The Leader.

Our members had no common fencelines, unlike our rural counterparts. Therefore another of our early problems was : how do we communicate with our members when we have no funds and no ‘over the fence’ contact?

Newsletters and meeting minutes

The first “newsletter” was a simple single-page information sheet which was hand delivered by 2 members to a membership of 60 (see Newsletters). Thanks to a 1 year sponsorship of \$480 from the Murrumbidgee Catchment Management Committee we were able to start a better looking quarterly newsletter in September 1995. When that funding ended after 4 issues, the newsletter reached 130 members. It only lasted 2 more issues (5 & 6), persisting thanks to unofficial subsidisation by the NSW public sector. From then on we adopted the current format of a combined Minutes of the Monthly meeting plus news items, posted to members monthly. An example is given of the October 1997 meeting, which was also our AGM, which followed closely after issue 6 of the defunct Newsletter.

The logo

A competition to find a logo offered a Mars Bar as first prize. The logo depicts a hand under a tree and crow, and uses the river and crow theme of the Wagga Wagga City Council Logo. The aim is to highlight our river, vegetation and wildlife, and to highlight the community’s spirit of cooperation in Wagga’s effort to improve our local natural environment. The logo underwent subtle improvements when it went digital in 2000.

Publicity: newspapers, TV, radio

Funding does not come without sufficient noise from the public. "Salt Lake City" (see Newspaper clippings) was the dubious beginning of a high profile time for the Group.

Newspaper clippings from the first 5 years are collected in the relevant folder.

The Group approached Prime TV to produce a TV advertisement written by members to increase community awareness of salinity in the urban area. Jodie Jolliffe (Account Manager) and Andrew Moss (Production) were noteworthy for their support. Our budget of \$2000 enabled production of a 30 second ad and 56 showings. The ad commenced on 24 November 1996 and officially ran for 2 weeks. However Prime continued to show the ad for a 3rd week, giving us a bonus 33 showings. They continued with the ad as an opportunistic "filler" until the end of January 1997. On 21 February 1997 the President and Publicity Officer wrote formally to Prime thanking them for what was effectively a very generous sponsorship.

Members of the Group were interviewed by Radio Australia in November 1995 (Stuart Heather, ABC) for a segment called "Salt'N'Bush". We were also interviewed by local radio stations 2WG and Community FM.

In June 1996 the TV show "Witness" interviewed residents of Finch Place.

The group manned a stall at the Wagga Show in October 1995 and subsequently manned stalls at the Garden Expo and wherever else we could talk to people.

Letterbox drops, both of our own and Council material, wore out a few pairs of legs.

We purchased 20 caps in May 1996 with our Wagga Wagga Urban Landcare name printed on them so that we could be identified as we planted trees.

We lobbied prospective Councillors before the September 1995 elections, sending all 27 of them information packs. This was repeated by the next Publicity Officer prior to the following local government elections.

Following complaints about land values to the Valuer-General's Office, we were given the opportunity to talk to local valuers on 25 October 1996. The fear of lost land values added to the publicity which urban salinity received.

First Funding

We received two small grants from the Murrumbidgee Catchment Management committee in the 1995/96 year: \$480 for the newsletter and \$800 toward the trial for the removal of rubble pits at 4 houses in Chaston Street.

*Petina Quinn - lead house
5 Chaston St*

Our first applications for major funds were in the 1996/97 round of the National Landcare program. We submitted two projects. After consultation with Brian Wray at WWCC we submitted a proposal to revegetate 4 areas on Willans Hill with local tree species. The initial application, for \$36,500, was unsuccessful but we were given an opportunity to submit a revised, smaller budget in April 1996 for \$16,665. Again, we were initially unsuccessful but thanks to the Total Catchment Management Enhancement Program we received \$5,160 to start our tree planting project.

By the time this funding success was achieved, we were also successful in obtaining \$1,250 for tree planting at the public reserve below Pomingalarna under the Rivercare Program. In addition SREW donated \$300 toward tree planting along easements. We were under way!

Our second major initial project submission was for a public education campaign using electronic media (\$37,200). This submission caused concern within the NLP review panel. There were fears of legal ramifications over widespread disclosure over the extent of the problem. Despite a letter to the review panel via the TCM coordinator, assuring them that we were not out to "get" council but to work with them, the project was not funded. Eventually a smaller scale campaign (\$2000) went

ahead using the Education fund component of a grant to Wagga Wagga City Council.

This funded the TV ad.

Neale Irons put together a business plan to obtain commercial sponsorship. Our first business Sponsor was Knight's Blinds, who sponsored tree planting at a site on Willans Hill.

A joint proposal with 9 other Landcare Groups resulted in our first Landcare coordinator, Jason Mitchell.

Activities – a summary of our collective strategy.

Our joint approach with Council and the Department of Land and Water Conservation to overcoming the salinity problem in an urban environment can be summarised as follows:

Emptying the bathtub. This involved Council and DLWC installing deep bores in the Calvary vicinity. Landcare members helped by liaising with local residents.

Turning off the tap. This involved both biological and engineering solutions. The Landcare Group undertook tree planting in public areas. Tree propagation days were lead by the Wagga Tree Planters starting in May 1996 at North Wagga TAFE and the Field Studies Centre of DLWC. Public education was used to encourage water-wise gardens, both public and private. Council commenced removing rubble pits from areas of Wagga where roof run-off was channelled straight to groundwater. The Landcare group assisted in initiating the trial area in Chaston Street. One of the residents in the trial area was Petrina Quinn, who subsequently joined the Group and became a long serving Publicity Officer.

Repair existing infrastructure and improve building techniques.

Together with DLWC and The Building Supply Company we sponsored a trade night for builders on building in a saline environment. Eighty building industry people attended the night at the Wagga Wagga Leagues Club.

Therefore the Group has been active in many ways: tree planting, like most groups, community education, like some other groups, and in lobbying local and State members. The group has worked cooperatively with Council and sometimes with conflict. But ever onward...

And onward..... *Nick Green (DOCENT member)*

The Docent program, further tree planting programs at Best Park, Silvalite, and Marshalls Creek, representation at Garden Expos, *etc*, are all documented in the regular monthly Minutes and Minutes-cum-newsletters, and other documents, held by the Secretary.

Office bearers and other individuals who regularly attended meetings and helped with our activities are also apparent from these records. Professional staff from DLWC, *hydrologist, EDUCATOR, ENGINEER*, such as Sue Hamilton and Debbie Slinger, and Bryan Short of WWCC, will stand out in the Minutes of the Group. This document has hopefully filled in some of the background history to the establishment of the Wagga Wagga Urban Landcare Group. The efforts outlined here bear testimony to the willingness of a small band of individuals to work unselfishly toward a better natural environment for the community of Wagga Wagga.

Above - pre-release of Re, ^{SALINE} Risk MAP

APPENDIX C VIADUCT SUMMARY

On Sunday morning, April 27, Ros and Tony worked on the bush regeneration site near the railway viaduct.

A few days later, Jim Rees came along with the Conservation Volunteers, and a lot more work was done to improve the site.



Part of the regeneration area, cleared and burnt (we are not sure by whom).



Some of the privet, just waiting for another working bee.

One of the piles of the privet, and other woody weeds, cut and waiting to be burnt.



On the left is what bush regeneration is all about. One of the native plants getting a chance at life.

**Next bush regeneration
working bee is Sunday,
May 25, at 9.30 am.**

Bring a hat, gloves and water to the railway viaduct ... go east on Morgan into Day, turn right at Reddoch, and meet at the end.