

Bathurst Regional Council

Plan of Management O'Keefe Park & Rankens Bridge Park, Abercrombie



Adopted: October 2015

THIS PAGE INTENTIONALLY LEFT BLANK

This Plan of Management (POM) was prepared in 2015 by Bathurst Regional Council in consultation with key stakeholders including Central West Councils Environment & Waterways Alliance. The POM was finalised as a working document of Council in October 2015. It is recommended that the POM be reviewed and updated every five years.

This POM was developed with assistance from the NSW Government through its Environmental Trust as part of the Restoring Regent Honeyeater Habitat in the Bathurst Region project.

Contacts

Council: Bathurst Regional Council Relevant Department: Engineering Services Responsible Officer: Environmental Programs Coordinator

Front Cover Image – Eastern Water Dragon – Intellagama Iesuerii – at O'Keefe Park Mick Callan – Central West Councils Environment & Waterways Alliance

CONTENTS

INTRODUCTION1
MANAGEMENT GOALS
PARK DESCRIPTION
CONSERVATION SIGNIFICANCE
Local Significance5
Regional Significance5
MANAGEMENT ISSUES
PAST THREATS7
PRESENT THREATS7
Weeds7
Water Pollution7
Rubbish Dumping7
Bank Erosion7
Sheep Grazing8
Unauthorised Vehicle Access & Vandalism8
CURRENT CONDITION OF THE PARKS9
MANAGEMENT AREAS
MANAGEMENT AREA 1
MANAGEMENT AREA 2
MANAGEMENT AREA 413
MANAGEMENT FRAMEWORK
CURRENT MANAGEMENT
VEGETATION MANAGEMENT PLAN14
BIODIVERSITY MANAGEMENT PLAN
IDENTIFICATION OF STAKEHOLDERS
RESPONSIBILITIES
MANAGEMENT STRATEGIES AND RECOMMENDATIONS
REFERENCES

INTRODUCTION

All Councils, including Bathurst Regional Council, have a charter under the *Local Government Act 1993* to guide their operations on public and private land. One of the principles identified in this charter is "To properly manage, develop, protect, restore, enhance and conserve the environment of the area for which it is responsible, in a manner that is consistent with and promotes the principles of ecologically sustainable development". This principle underpins the development of this Plan of Management (POM) for O'Keefe Park & Rankens Bridge Park.

It is important to note that this POM relates to the natural and environmental condition of the parks and does not deal with infrastructure such as playgrounds, seating, walkways and other buried infrastructure such as the various pipe networks. For information pertaining to general park maintenance and asset management within these parks, Council's relevant asset management plan should be referred to.

In 2014 Bathurst Regional Council successfully received funding from the NSW Government through its Environmental Trust for a project titled "Restoring Regent Honeyeater Habitat in the Bathurst Region". This project aims to rehabilitate a section of the Macquarie River utilising plants known to be associated with the Regent Honeyeater and to create a seed production area featuring native plants associated with Casuarina Gallery Forest and Box, Gum Grassy Woodland. This POM has been developed as part of this project. Funding will also include signage and other public education campaign tools to increase the awareness of the Casuarina Gallery Forest and Box, Gum Grassy Woodland ecological communities and their importance to the survival of the critically endangered Regent Honeyeater.

This POM will therefore guide all proposed Environmental Trust grant works and set the direction for maintenance works beyond the grant funding period.

MANAGEMENT GOALS

The specific goals for this POM are:

- Restore, to the greatest possible level, the natural riparian ecosystems along the Macquarie River, by instituting best management actions in relation to bush regeneration and natural area management.
- Develop a Seed Production Area in accordance with Flora Bank Guidelines, where plants of endemic, local provenance Casuarina Gallery Forest community and Box, Gum Grassy Woodland community trees will be grown for seed production.
- Improve overall community awareness and support for the planned management and values of the parks and encourage responsible use of the area.
- Improve the scenic amenity of the site.
- Benefit passive recreational users by decreasing the number of environmental weeds.

PARK DESCRIPTION

O'Keefe Park and Rankens Bridge Park have been combined in this POM as they are adjoining parcels of land largely treated as a single large open space area. The parks are adjacent to the Macquarie River and combined account for approximately 1,000 metres of river frontage.

Location

Rankens Bridge Park and O'Keefe Park are located within Abercrombie within the Bathurst Regional Council Local Government Area (refer to Figure 1). The parks are bound by Eglington Road to the south and the Macquarie River to the north. The area is located within the Central Tablelands Local Land Services area.

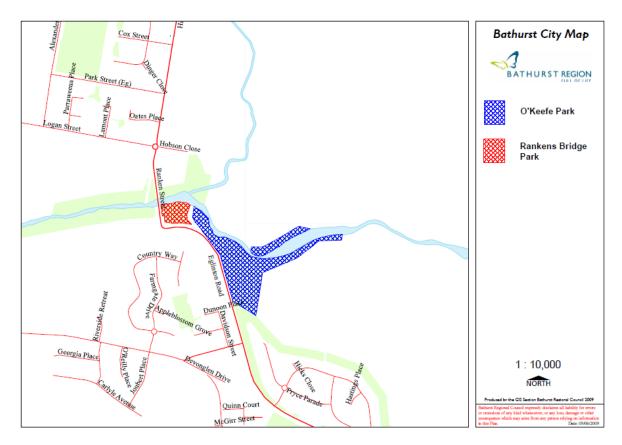


Figure 1: Location of Rankens Bridge Park and O'Keefe Park

Landuse

Both Rankens Bridge Park and O'Keefe Park exist for use as passive parkland. The parks are located between Bathurst and Eglinton, offering open space to recent Bathurst subdivisions and a link to the village of Eglinton. The parks are used for a range of passive recreational activities including walking, bike riding, dog walking, picnicking and using the play equipment.

Although most park users are passive and respective of the park rules, there has been some ongoing antisocial and destructive behaviour observed at the site. Vehicles have illegally accessed the river by driving across the parkland, leaving tracks and created erosion in some favourite fishing spots. Vehicle control devices have been installeds part of the recommendations in this Management Plan, thereby alleviating the impacts associated with such illegal vehicle entry.

Vegetation

The riparians area along the Macquarie River is dominated by introduced grass and forb weeds. Willows and woody weeds that previously dominated the riparian areas have been recently removed as part of weed control measures and will continue to require follow up removal. Native species within the riparian area include some mature and regrowth River Sheoaks (*Casuarina cunninghamiana*) and Poa grasses. The remainder of the park, including the seed production areas, are open space areas that are regularly mowed and maintained. Linear street trees have been planted along the share pathway.

Connectivity

Landscape connectivity exists along the Macquarie River and (most of) its tributaries, as these wind through natural sub-catchments and drainage lines throughout the urban area. Box, Gum Grassy Woodlands south of O'Keefe Park and Rankens Bridge Park are being managed and maintained to expand habitat linkages for mobile fauna. Over time, it is envisaged that other restoration and rehabilitation works along the Macquarie River will be undertaken to improve linkages across Bathurst to the study site. Ultimately, it is hoped that an increased number and range of fauna will be observed inhabiting the site at O'Keefe Park and Rankens Bridge Park, and that these animals will be able to traverse the peri-urban landscape to other remnants through vegetated connections in the larger landscape.

Water

The Macquarie River Catchment forms part of the Murray-Darling Basin. The Macquarie River is characterised by a series of shallow pools (1 - 2m deep), sand banks and shallow rocky riffles, with riparian zones ranging from flat or gently sloping sandy bars to steep, heavily weed-infested banks.



Figure 2: Revegetation along the Macquarie River within O'Keefe Park

LAND ZONING AND OWNERSHIP

A description of the parcels of land and zoning of O'Keefe and Rankens Bridge Park are provided as follows:

Table 1: Property description and zoning

Site Name	Lot & Plan	LEP Zoning
O'Keefe Park	Lot 4 on DP786946	RE1 Public Recreation
	Lot 111 on DP865948	
Rankens Bridge Park	Lot 99 on DP864476	RE1 Public Recreation
	Lot 10 on DP872516	
	Lot 7004 on DP1002346	
	Lot 7005 on DP1002346	

A small road reserve separates the two parks at the site where the former Rankens Bridge crossed the river. This area is now zoned RE1 Public Recreation and for the purposes of this POM is considered part of the parks.



Figure 1: Looking across the Macquarie River at Rankens Bridge Park and O'Keefe Park.

CONSERVATION SIGNIFICANCE

O'Keefe Park and Rankens Bridge Park is recognised as an important open space for the Bathurst community and has conservation value, of both local and regional significance.

LOCAL SIGNIFICANCE

O'Keefe and Rankens Bridge Parks are of local conservation significance as:

- Both parks form part of the ecologically important riparian zone along the Macquarie River. Retaining and rehabilitating the riparian zone has the potential to have a range of local environmental benefits including:
 - Providing vital habitat for terrestrial and aquatic plants and animals.
 - Maintaining water quality for domestic, industrial, agricultural, recreational and environmental purposes.
 - Enhancing bank stability.
 - Slowing overland movement of water and hence reduces the entry of sediments and nutrients into streams and rivers.
 - Stream shading by upperstorey vegetation reduces the amount of light in the stream channel, which prevents excessive growth of aquatic plants, which can impede natural water flows.
 - Reducing the risk of gully erosion.
 - Providing vital habitat links in the landscape for fauna and flora. The connectivity of revegetation projects within Bathurst is shown in Figure 3.
- The parks provide passive recreation and educational opportunities for local resident and visitors as well as visual amenity along the Macquarie River. The parks are close to residential areas and are easily accessed from Eglington Road. A shared pathway runs through the parks that links Eglington, the open space along the Macquarie River and the city to the south.

REGIONAL SIGNIFICANCE

O'Keefe Park and Rankens Bridge Park are of regional conservation significance as:

- The Macquarie River runs through the parks which is one the main rivers within the Murray Darling Basin. The river feeds into the Macquarie Marshes at its lower reaches which is an internally significant RAMSAR site; and
- The parks have the potential to provide habitat for a number of listed threatened fauna species. Several threatened species that have been observed within nearby woodland reserves include the Regent Honeyeater (*Anthochaera phrygia*), Scarlet Robin (*Petroica boodang*), Varied Sittella (*Daphoenositta chrysoptera*), Diamond Firetail (*Stagonopleura guttata*), Painted Honeyeater (*Grantiella picta*), Gang-gang Cockatoo (*Callocephalon fimbriatum*), Speckled Warbler (*Chthonicola sagittata*) and Little Eagle (*Hieraaetus morphnoides*).

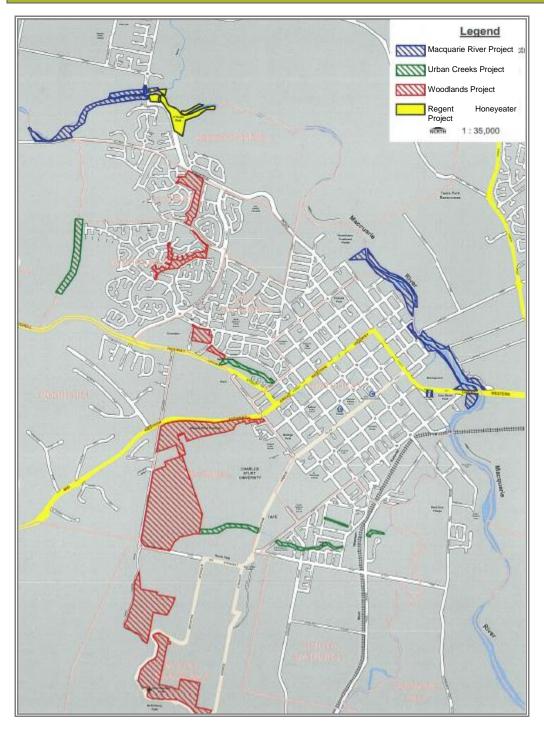


Figure 3: Connectivity of revegetation projects across Bathurst, including the Restoring Regent Honeyeater Habitat project within the POM area.

MANAGEMENT ISSUES

PAST THREATS

The impact of early settlement on the riparian vegetation along the Macquarie River was considerable. Much of the original fringing vegetation of She-oaks was removed and replaced with exotic species. Further pressure on the watercourse and surrounding land has been felt with the advent of agriculture, land clearing, rabbits, grazing, development of urban areas and infrastructure and river regulation (Terra Consulting 2003).

Agricultural pursuits and urban development in the Bathurst locality have actively cleared wetland and woodland areas associated with riparian zones, altering the natural wetting regime. These alterations then led to changes in stream shape and flow, and increases in flood frequency.

The alteration of the Macquarie River over many decades has seen the pebble base predominantly smothered with sediments resulting from erosion and urban runoff. This has a negative effect on aquatic vegetation, often smothering smaller species, decreases habitat for aquatic fauna, and provides suitable conditions for exotic species such as Carp.

Many of these threats are consistent with urbanisation across Australia and are not unique to Bathurst.

PRESENT THREATS

WEEDS

Weeds are widespread throughout the site, particularly along the riparian zone. Weeds change the vegetation community composition, inhibit recruitment and growth of native plant species, decrease food and habitat for native fauna, and change water quality and hydrological processes. Soil disturbance from heavy machinery, such as that used for willow removal, can lead to an increase in weeds. This is because weeds are able to establish quickly and more efficiently than natives in these disturbed areas. The site is susceptible to willow invasion as these species are located within and upstream of the management plan area. Willow control has been undertaken at the site and staged control and follow up maintenance will continue to be required for years to come.

WATER POLLUTION

Stormwater runoff can also degrade the health of the Macquarie river system and surrounding land. Stormwater pollution that may discharge into waterways includes litter, chemicals, 'natural' pollution such as garden clippings, and sediments. Agricultural run-off, including sediments and nutrients (fertilisers), may also enter the river system particularly after heavy rains. This pollution can reduce light penetration, use up oxygen, cause sedimentation, and clog waterways and cause toxicity as the materials break down. This may kill riparian flora and fauna, as well as provide conditions that are favourable to many nutrient-tolerant weed species.

RUBBISH DUMPING

Dumping of garden waste and litter within the parks can attract unwanted pests, increase nutrient pollution entering the waterway, and introduce weeds seeds.

BANK EROSION

The stretch of the Macquarie River within the POM area is at risk of accelerated streambank erosion as a consequence of its modified state, particularly the limited riparian vegetation. Catchment wide impacts such as land clearing for agriculture or urban development and river regulation can also increase the rate of bank erosion. Soil disturbance from heavy machinery, such as that used for willow removal, can also lead to bank erosion. Bank erosion can increase erosion and river velocity and is problematic for fauna wishing to exit the waterway.

SHEEP GRAZING

The agricultural property to the north of the Macquarie River is stocked with sheep during the winter months. As this property is unfenced there is potential for the sheep to impact upon new plantings i.e. grazing and soil compaction.

UNAUTHORISED VEHICLE ACCESS & VANDALISM

Unauthorised vehicles, including by 4WDs, have created tracks through the parks and to the river edge. These tracks cause soil compaction, may cause erosion, degradation of vegetation, weed evasion, erosion on the steeper slopes, and depreciate the views of the parks. Vehicle control devices have been installed around the perimeter of these parks to reduce unauthorised vehicle access.

There is also the potential threat of vandalism such as plant removal, and damage to fencing, paths, playground equipment, bollards and gates.



Figure 4: Willow removal on the northern side of the Macquarie River, O'Keefe Park.

CURRENT CONDITION OF THE PARKS

Table 2 outlines the condition of these management areas based upon initial site assessments completed in July 2015.

The condition of the riparian areas (Management Areas 2-4) is poor with a moderate conservation value, as described in the Bathurst Biodiversity Management Plan (BRC 2012). The riparian areas have been highly modified and are dominated by exotic species. Until recently, willows were the dominant species within these areas. These weeds have been removed as part of Council's willow control program and will continue to require follow up maintenance for years to come. Streambank erosion and erosion from vehicle tracks are also evident along sections of the riparian zone. Small scale revegetation work near Rankens Bridge has been highly successful, assisted through community planting days.

The open space areas of O'Keefe and Rankens Bridge Park (Management Area 1 and 4) are regularly mowed and maintained for passive recreational use. Habitat value is minimal is this area.

Management Area	Description	Approx Area	Vegetation Condition Ranking	Habitat Condition Ranking
1	Seed Production Area	2.4ha	Low	Low
2	Riparian area, south of the river	6ha	Low	Low
3	Riparian area, north of the River	2.2ha	Low	Low
4	Open space and passive recreation	3.2ha	Very Low	Very Low

Table 2: Current Condition of Management Areas (July 2015)



Figure 5: Black Shouldered Kite, recorded at O'Keefe Park and Rankens Bridge Park

MANAGEMENT AREAS

A key objective of the management plan is to define the management areas for the parks that will guide planning and management. The park has been mapped into four management areas based upon the vegetation type and condition, land use and/or access. These management areas areas are described as:

- Management Area 1 Seed production area
- Management Area 2 Riparian area south of the Macquarie River
- Management Area 3 Riparian area north of the Macquarie River
- Management Area 4 Open space and recreation

Refer to Figure 6 below for locations of each of these management areas.

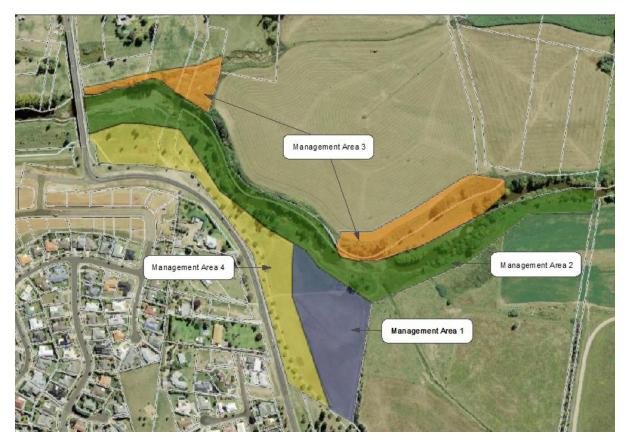


Figure 6: O'Keefe Park and Rankens Bridge Park Management Areas

MANAGEMENT AREA 1

Management Area 1 is a cleared stretch of land located towards the southern end of O'Keefe Park. This has been historically managed for open space and passive recreation.

The Woodland Native Seed Production Area has been recently planted with native and local provenance plants commonly found in Box/ Gum Grassy Woodland including *Eucalyptus albens* (White Box), *Eucalyptus melliodora* (Yellow Box) and *Eucalyptus blakelyi* (Blakely's Red Gum) (see Figure 7). The planting of the Riparian Seed Production Area has also commenced in Management Area 1 and 2. This seed production area will include *Casuarina cunninghamiana* (River Sheoak), *Acacia dealbata* (Silver Wattle), *Callistemon sieberi* (River Bottlebrush), *Leptospermum obovatum* (River Tea-tree), *Poa labillardieri* (Poa Tussock) and *Dianella revoluta* (Blue Flax Lily). Additional species will be utilised for the Riparian revegetation component. When the plants have matured, the seed will be collected and used for revegetation projects by Council and local environmental groups.



Figure 7: Native Seed Production Area within Management Area 1

MANAGEMENT AREA 2

Management Area 2 is a linear section of the parks that contains the Macquarie River, banks and riparian zone on the southern side of the River.

This area is dominated by exotic species which have almost completely displaced native species in the understorey. Willow historically dominated the rivers edge, however these have been removed as part of Council's Willow control program. Other weeds include Prairie Grass (*Bromis spp.*), Couch (*Cynodon dactylon*), and Chickweed (*Stellaria media*). Old growth *Casuarina cunninghamiana* (Forest Sheoak) trees exist along the River, particularly in the stretch from the old bridge infrastructure to the eastern edge of the project area. Other native species include *Poa bulbosa* (Bluegrass) and *Poa annua*.

The river contains large granite boulders, in areas where the river pools, but riffles where the river historically ran over granite beds are absent. The latter is probably due to a build-up of sedimentation.

Revegetation works have commenced within Management Area 2 in line with the recommendations of this POM. The community have also carried out revegetation near Rankens Bridge, which is well established.



Figure 8: Management Area 2, Rankens Bridge Park

MANAGEMENT AREA 3

Management Area 3 includes the linear riparian areas along the northern edge of the Macquarie River. Willows were historically the dominate species along these stretches of riparian land, however these have been recently removed as part of Council's willow control program. The groundcover is dominated by exotic species. The site is dominated with exotic groundcover species including African lovegrass (*Eragrostis curvula*), and Prairie grass (*Bromis spp*). A small creek runs through the northeast corner of the management area.

The western lot (adjacent to Rankins Bridge) is bordered by Council owned land along the northern boundary. This land is currently leased private as a horse paddock and fenced. An agreement will need to be arranged with the leaseholder to access this section of Management Area 3.

The eastern lot (Lot 111 on DP865948) is bordered by private agricultural land along the northern boundary. Access to this management area is available via a private track from Eleven Mile Road through the agricultural property This access track however is long and may be restricted in wet weather and during crop irrigation. Access agreements with the landholder may also change in the future.

The adjacent agricultural land is stocked with sheep during the winter months. As this property is currently unfenced, management activities would need to consider the potential impact of sheep grazing. Agricultural activities have encroached onto Council land potentially because of uncertainty surrounding the property boundary.



Figure 9: Management Area 3, north of the Macquarie River

MANAGEMENT AREA 4

Management Area 4 is a cleared stretch of land located along Eglington Road. This area is primarily managed for open space and passive recreation. The area contains children's play equipment, exercise facilities and a shared pathway that links Eglington, the open space along the Macquarie River and the city to the south. This area will continue to be managed as per existing practices through regular mowing.

Bollards have been installed along the boundary of Management Area 4 to prevent unauthorised vehicle access into the parks.



Figure 10: Playground and open space within Management Area 4

MANAGEMENT FRAMEWORK

CURRENT MANAGEMENT

The current level of management is low/moderate. This includes mowing of the open space areas and the maintenance of a children's playground, exercise facilities, pathway trees and other assets as required.

Councils Community Engagement Officer continues to work with the community to plant and maintain native vegetation in the riparian zone. Contract maintenance of these plantings has also been in place to ensure that the area is mulched and weeded on a regular basis to assist with plant establishment.

Grant funding from the NSW Environmental Trust has provided for the development of this POM as well as funding to carry out restorative management activities for three years from August 2014.

VEGETATION MANAGEMENT PLAN

The Bathurst Vegetation Management Plan (VMP) (Terra Consulting, 2003) was prepared to provide a working tool to manage vegetation resources and to plan for the future. Relevant information from this document for O'Keefe and Rankens Bridge Parks falls predominantly under the Waterways section (Section 8), notably regarding the Macquarie River.

Objective 1 is to restore the riparian vegetation along the Macquarie River (excluding the section between Hereford Street and Evans Bridges) to state that resembles the pre-European condition, including:

- W3 Control, remove and manage willows and environmental weeds, and undertake river restoration in accordance with recognised best management practices.
- W4 Generate community support for riparian restoration through public awareness and education.

BIODIVERSITY MANAGEMENT PLAN

The Bathurst Biodiversity Management Plan makes a number of recommendations in relation to Rankens Bridge and O'Keefe Parks, including:

- Develop site specific landscape plans/ management plans for the Macquarie River in areas controlled by Council.
- Implement biodiversity management recommendations for the Macquarie River in areas controlled by Council.

IDENTIFICATION OF STAKEHOLDERS

O'Keefe Park and Rankens Bridge Park do not have a community group directly involved in the management and use of the area. Volunteers working under the supervision of Council's Community Engagement Officer however have contributed extensive volunteer hours over several years to revegetate part of the riparian zone adjacent to Rankens Bridge.

Other stakeholders of the project area include recreational users of the parks, neighbours, Greening Bathurst, Conservation Volunteers Australia, Birdlife Australia, Central Tablelands Landcare, Upper Macquarie County Council, Central West Councils Environment & Waterways Alliance and Central West Local Land Services.

RESPONSIBILITIES

Bathurst Regional Council has responsibility for the management of O'Keefe Park and Rankens Bridge Park. It is recommended that management of the site be carried out in accordance with the objectives and strategies contained within this POM, in addition to general park maintenance activities as detailed within Council's Asset Management Plan for the site. Additionally, it is recommended that ongoing revegetation maintenance works be undertaken as resources permit, following completion of this grant funded project.

MANAGEMENT STRATEGIES AND RECOMMENDATIONS

The strategies and recommendations within Tables 3-6 have been developed in response to the management issues identified within this POM.

Table 3: O'Keefe Park and Rankens Bridge Park Management Strategies

Management Issue	Actions	Management Area	Occurrence	Responsibility	Status
	1A: Utilise National Best Practice Management Manuals where they exist to plan and monitor noxious weed control.	1,2,3,4	During weed control operations	BRC	Ongoing
	1B: Undertake, at a minimum, an annual weed control program.	1,2,3,4	Annual; as resources permit	BRC	Ongoing
	1C: Use integrated weed management techniques to control weeds including appropriate combinations of herbicide application, physical removal, mulching, revegetation.	1,2,3,4	During weed control operations	BRC	Ongoing
	1D: Where equipment (including mowing) is brought onto the site ensure that it is clean of weed seeds	1,2,3,4	As required	BRC	Ongoing
1. Noxious and environmental weeds	1E: Where noxious weeds are known to exist on neighbouring properties, notify residents of their obligations under the <i>Noxious Weed Act 1993</i> to control noxious weeds.	External	As required	BRC	Ongoing
	1F: Control willows in a staged manner along the length of the river in in accordance with Council's Willow Replacement Guidelines.	2,3	Initial weed control to be completed March 2015.	BRC	Ongoing
	Compliance will also be in accordance with Part 7 of the Fisheries Management Act, seeking a permit from the Department of Primary Industries.		Staged willow removal to be completed March		
	The willow control should be in a manner that will not adversely affect shade and bank stability in accordance with Council's Community Land Management Program.		2017. Follow-up weed control to be completed March 2016 & March 2017.		
	1G: Conduct seasonal weed survey, and map priority weed species for density and distribution	1,2,3,4	Annually	BRC	Ongoing
2. Access	2A: Arrange access to Management Area 3 with northern landholders/leaseholders	3	Once	BRC	Ongoing

	Plan of Management – O'Keefe Park &	& Rankens Bridge F	Park		
Management Issue	Actions	Management Area	Occurrence	Responsibility	Status
3. Revegetation	3A: Develop revegetation plan for each management area. Restoration of Casuarina Gallery Forest will be carried out utilising plant species known to be associated with the critically endangered Regent Honey eater.	1,2,3	Once	BRC	Complete
	3B: Order local provenance native tubestock.	1,2,3	Once. Then as required for plant replacements	BRC/ Contractor	Ongoing
	3C: Site preparation for revegetation including deep ripping (where specified), triple spraying, mulching, and survey and mark locations for Box Gum Grassy Woodland species grid.	1	Once	BRC/ Contractor	Complete
	3D: Shrub, riverbank and top of bank planting	2,3	Once.	BRC/ Contractor	Complete
	3E: Seed Production Area planting	1	Once.	BRC/ Contractor	Complete
	3F: Maintenance will be contracted out for 12 months following planting i.e. weed control and tree guard replacement. Replacement or infill planting may also be required	1,2,3	Monthly for 12 months then as resources are available	BRC/ Contractors	Ongoing
	3G: Protect naturally regenerating native species from mowing and trampling via tree guards, fencing etc.	2,3	Ongoing	BRC	Ongoing
4. Water pollution	4A: Retain riparian vegetation for bank stability	2,3	Ongoing	BRC	Ongoing
and river bank erosion	4B: Reinstate riparian vegetation as per Action 2C.	-	-	-	-
	4C: Ensure works crews are appropriately trained in best management practice willow control	2,3	Once, then as required	BRC	Complete
5. Unauthorised vehicle access	5A: Install vehicle control devices along the perimeter of O'Keefe Park.	4	Once.	BRC	Complete
6. Vandalism & Rubbish	6A: Check and maintain park infrastructure including new bollards, gates and signs.	1,2,3,4	In accordance with Council's Asset Management Plan	BRC	Ongoing

Management Issue	Actions	Management Area	Occurrence	Responsibility	Status
			inspection frequency.		
	6B: Remove piles of rubbish and correctly dispose.	1,2,3,4	As required	BRC	Ongoing
	6C: Repair damage to signage, fencing, gates or other future assets within the park	1,2,3,4	As required	BRC	Ongoing
	6D: Replacement or repair of vegetation with local provenance tubestock	1,2,3	As required	BRC	Ongoing
	6E: Remove rope swing into the river for safety purposes	2	Once	BRC	Ongoing
7. Sheep grazing	7A: Install fencing if sheep grazing is impacting upon the plantings within Management Area 3	3	As required	BRC	Ongoing
8. Community	8A: Develop a communication strategy	1,2,3,4	Once	BRC	Complete
Engagement	8B: Develop and erect two interpretive signs relating to the Casuarina Gallery Forest Restoration and the SPA	1,2	Once	BRC	Ongoing
	8C: Install species specific signage relevant to the species and their providence in the SPA	1	Once	BRC	Ongoing
	8D: Host an annual community planting day for extension plantings	2,3	Annually	BRC	Ongoing
	8E: Engage with local residents to take part in project works including watering plants, hand weeding around new plantings, and infill plantings to replace plants that may not have survived. Specifically, volunteers will be engaged to hand weed around the grasses and lillies, with contractors utilised for maintenance of the shrub and tree plantings.	1,2,3	As required	BRC/ Community engagement officer	Ongoing
	8F: Produce media releases about the project, highlighting the importance of good quality vegetation for native fauna	1,2,3,4	Annually	BRC	Ongoing

Management Issue	Actions	Management Area	Occurrence	Responsibility	Status
	species				
	8G: Utilise radio advertising to raise awareness of the project as well as the Regent Honeyeater	1,2,3,4	Bi-annually	BRC	Ongoing
9. Seed Collection	9A. Local Landcare groups will utilise the site for seed collection of grass and lily species as soon as possible after planting. Tree and shrub species are expected to well enough established to provide seed within the first two years of the project.	1	As required	BRC/ Local Landcare Groups	Ongoing
10. Monitoring	10A: Conduct condition assessment of revegetation plantings	1,2,3	As per revegetation specification. Then Bi-annually	BRC	Ongoing
	10B: Complete photo point monitoring, flora and fauna field surveys (step point monitoring as per the Grassy Ecosystems Management Kit) to determine if native flora and fauna species are increasing	1,2,3	Bi-annually	BRC	Ongoing
	10C: Utilise monitoring data to assess success of completed management actions and to guide future management actions	1,2,3,4	Bi-annually	BRC	Ongoing
	10E: Record volunteer numbers at various events, number of media releases, radio advertising and enquiries or complaints to BRC regarding the project	1,2,3	As required	BRC	Ongoing

REFERENCES

Bathurst Regional Council (2003) Bathurst Vegetation Management Plan. Prepared by Terra Consulting (2003)

Bathurst Regional Council (2012) Biodiversity Management Plan. Prepared by Mactaggart Natural Resource Management.

Bathurst Regional Council (2013) Willow (*Salix spp*) Replacement Guidelines. Weed control and replacement for long-term water and biosecurity. Bathurst Regional Council, Bathurst, NSW.

Houghton, P (1999). NSW willow clearing guidelines. In *Natural resource management special*. R Jean (ed). Australian Association of Natural Resource Management: ACT.

Sharp, S., Dorrough, J., Rehwinkel, R., Eddy, D. and Breckwoldt, A., 2005. Grassy Ecoysystems Management Kit: A Guide to Developing Conservation Management Plans. Environment ACT, Canberra.

Windsor, D., Bloomfield, C. and Goldney, D. (2004) *Ecological status and restoration of degraded riparian zones in the Upper Macquarie River Catchment.* Faculty of Rural Management, University of Sydney, Orange Campus.