



# Blackadder Woodbridge Catchment Group Action Plan 2012 – 2022



Plunkett Park Floodplain. Photo: Adam Viskovich

Prepared by Eastern Hills Catchment Management Program in consultation with  
Blackadder Woodbridge Catchment Group.



## Acknowledgements

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Perth Biodiversity Project	Renata Zelinova

## Summary

The *Blackadder Woodbridge Catchment Group Action Plan 2012-2022* (the plan) proposes practical management actions taking into account the likely cause, remediation, timing and priorities. The plan can be used by Blackadder Woodbridge Catchment Group (BWCG) as a guide for on ground rehabilitation activities and as a supporting document in grant funding. The Eastern Metropolitan Regional Council compiled the plan with the involvement of Blackadder Woodbridge Catchment Group. The project would not have been possible without funding and in-kind support provided by the Shire of Mundaring, Shire of Kalamunda, City of Swan, Perth Region Natural Resource Management and the Swan River Trust.

The plan has been developed with the intention of enhancing the natural environment within the Blackadder Woodbridge Catchment. Bank stability has been previously identified as management issues along the creeks. Restoration of fringing vegetation, with its bio-filtering and erosion control functions, is expected to address this issue. Weed invasions are known to occur and non-chemical actions are already being undertaken to address this, followed by planting of local species. By addressing these facets biodiversity will be maintained if not enhanced.

## Acronyms

ARRC	Australian River Restoration Centre
BWC	Blackadder Woodbridge Catchment
BWCG	Blackadder Woodbridge Catchment Group
CoS	City of Swan
DEC	Department of Environment and Conservation
DAA	Department of Aboriginal Affairs
DPaW	Department of Parks and Wildlife
EAC	Environmental Advisory Committee
ECMP	Eastern Catchment Management Plan
EHCMP	Eastern Hills Catchment Management Program
EMRC	Eastern Metropolitan Regional Council
LCCAAP	Local Climate Change Adaption Action Plan
NRM	Natural Resource Management
PBP	Perth Biodiversity Project
PRNRM	Perth Region Natural Resource Management
RCCAAP	Regional Climate Change Adaption Action Plan
SALP	Swan River Trust Alcoa Landcare Program
SoK	Shire of Kalamunda
SoM	Shire of Mundaring
Trust	Swan River Trust

## Units and Abbreviations

%	percent
Ha	hectare
Km	kilometre
m	metre

## Glossary

Corm	a short, vertical, swollen underground plant stem that serves as a storage organ used by some plants to survive adverse conditions. In contrast bulbs have a short stem with fleshy leaves or leaf bases.
Green stock	seedlings for planting in rehabilitation or restoration zones.
Rhizomes	a plant stem found underground, often sending out roots and shoots from its nodes.
Solarisation	a technique used to control certain weed species using solar heat and light deprivation.
Species richness	the number of different species represented in a particular area.

## Contents

Acknowledgements .....	i
Summary .....	ii
Acronyms.....	iii
Units and Abbreviations .....	iii
Glossary.....	iii
Contents .....	iv
Tables and Figures .....	iv
1. Introduction .....	1
1.1. Vision.....	1
1.2. Aims of this Plan .....	1
1.3. Previous Plans .....	2
1.4. Blackadder Woodbridge Catchment Area .....	2
1.5. Blackadder Woodbridge Catchment Group .....	6
Blackadder Woodbridge Catchment Group (continued) .....	9
2. Action List .....	11
2.1. On-ground Action List .....	11
2.2. Other Actions .....	13
3. Monitor and Review .....	15
Appendix 1 – Useful links and resources .....	16
Appendix 2 – Monitoring and Review Form .....	17
References .....	19

## Tables and Figures

Figure 1: Map of the five catchments within the ECMP .....	3
Figure 2: BWC land use .....	4
Figure 3: Breakdown of land use within the BWC.....	5
Figure 4: Before and after photos at Plunkett Park, Midland.....	7
Figure 5: Before and after photos at Plunkett Park, Midland.....	8
Figure 6: BWC aerial view. ....	10
Table 1: Land use within the BWC .....	5
Table 2: Gantt chart for on-ground restoration activities .....	11
Table 3: Other actions.....	13

# 1. Introduction

The *Blackadder Woodbridge Catchment Group Action Plan 2012 - 2022* stemmed from the review of the *Integrated Catchment Management Plan 2000 - 2010*. The review was initiated in 2010, and the new plan has been renamed the *Eastern Catchment Management Plan 2012 – 2022* (ECMP). The ECMP is the overarching document that covers the Jane Brook, Helena River, Susannah Brook, Wooroloo Brook and Blackadder Woodbridge Catchment Group areas. Three of the five catchments within the ECMP have an associated Individual Catchment Action Plan (ICAP). Both the ECMP and ICAP are living documents that are designed to be amended as new information becomes available or redundant. The aim of these documents is to assist the catchment groups when applying for grant funding and also to help guide restoration activities.

This action plan is a partnership project between Eastern Hills Catchment Management Program (EHCMP) and the Blackadder Woodbridge Catchment Group (BWCG). The project has been made possible through funding and in kind support provided by Shire of Mundaring (SoM), City of Swan (CoS), Shire of Kalamunda, Eastern Metropolitan Regional Council (EMRC), Perth Region Natural Resource Management (PRNRM) and the Swan River Trust (Trust). Friends groups and catchment groups are seen as the project custodians with the assistance of the relevant government bodies and the EHCMP Natural Resource Management (NRM) Officers.

## 1.1. *Vision*

To restore and rehabilitate the corridor within the Blackadder Woodbridge Catchment area, using local provenance species and without the use of pesticides. Also to educate the community on sustainable and safe landcare practices.

## 1.2. *Aims of this Plan*

The aim of the *Blackadder Woodbridge Catchment Group Action Plan 2012 - 2022* is to provide direction and guidance to the Group's endeavours over the next ten years. It is anticipated the plan will be amended, over time to address the changing dynamics and circumstances of the Group and to adapt to environmental change.

The four areas of focus for the BWCG are to:

- protect and enhance existing biodiversity "hotspots" in the catchment;
- reduce the spread of invasive weed monocultures;
- re-introduce a diverse range of local provenance species for improved habitat;
- promote sustainable engagement with the local indigenous and non-indigenous community; and
- use methods that do not contribute additional stress to ecosystems already threatened by a multitude of physical, biological and chemical stresses.

### **1.3. Previous Plans**

BWCG have developed the *Blackadder / Woodbridge Catchment Group Management Plan 2010 – 2014* currently in effect and the 2005 – 2009 plan previous. This action plan is an additional resource available to the BWCG and can be used in conjunction with their current plan and as a continuance post 2014. The BWCG 2010-2014 plan is used as a source for baseline information such as the foreshore condition, fauna and vegetation survey, species richness etc. and documents the successes of the BWCG.

### **1.4. Blackadder Woodbridge Catchment Area**

The BWC is the smallest of the five catchments within the ECMP (Figure 1) and located predominately in CoS. The catchment consists of two major seasonal tributaries, the Blackadder Creek and Woodbridge Creek (Figure 2). These creeks begin in the Darling Scarp at Swan View and converge at Middle Swan, before Blackadder creek meanders through Midland and converges with permanent freshwater streams fed by springs underneath the towns of Midland and the suburb of Midvale. Blackadder Creek then flows into a large wetland before entering the Swan River via an artificial canal next to Ray Marshall Park, in Woodbridge.

Very little remnant vegetation remains in the catchment as much of the area has been cleared for urban expansion (Table 1 and Figure 3). Remnant vegetation within the catchment is found at Talbot Road Bushland Conservation Area, a small section of John Forrest National Park, Railway Reserve and found within areas zoned for public purpose, recreation and proposed residential sites. The condition of the remnant vegetation ranges within the catchment. Bush Forever sites exist at Talbot Road Bushland Conservation Area and Farrell Road Bushland. Talbot Road Bushland is regionally significant and in excellent to very good condition {Western Australian Planning Commission (WAPC), 2010}. Talbot Road Bushland contains two Threatened Ecological Communities being the:

- *Banksia attenuata* and/or *Eucalyptus marginata* eastern shrublands and woodlands; and
- *Corymbia calophylla* - *Xanthorrhoea preissii* woodlands and shrublands.

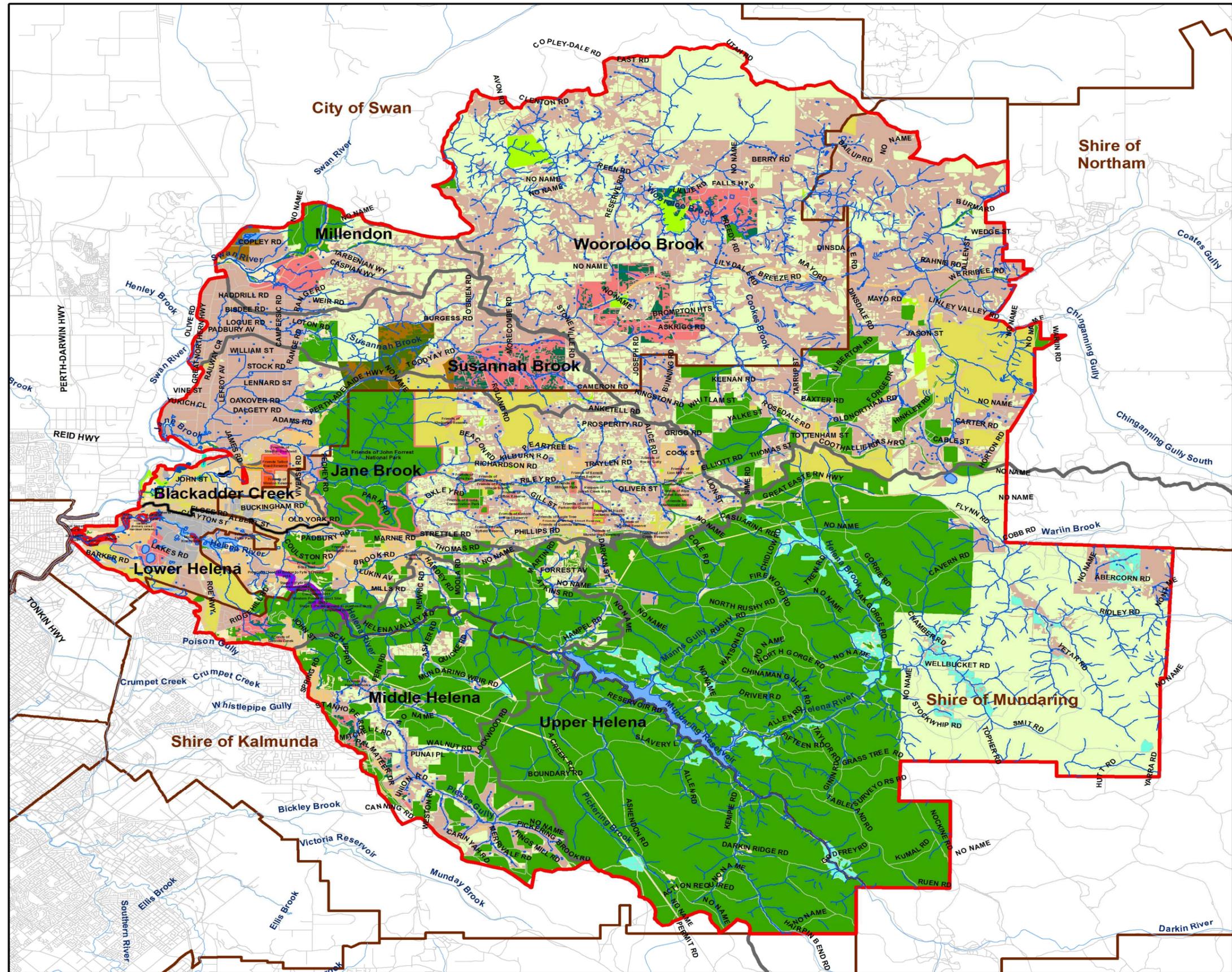
The BWCG have undertaken their own flora studies, including the use of the Keighery scale to determine vegetation condition. Some of their sites are listed below:

- Eveline Road Reserve- Very good to Good;
- Lloyd Street Railway Reserve- Good to Degraded;
- Farrell Road Reserve- Excellent to Very Good; and
- Stratton Creek Reserve- Very Good to Good.

The Group has identified a number of flora species that are rare within the catchment and two species that are priority listed under the Wildlife Conservation Act 1950. This aligns with a flora survey undertaken by Taman, 2000 which identified rare populations of *Cyperus gymnocaulis* along the Blackadder creek and a rare stand of vegetation in Lloyd Street Railway Reserve on Guildford clay soils. The report concluded that there are 'sufficient amounts of native vegetation remaining to make this area prime location for rehabilitation' (Taman, 2000). Given the rarity of vegetation communities and species within the catchment and regionally, the Group has always sourced local provenance seed to maintain genetic integrity in their rehabilitation activities.

One of the biggest issues the BWCG faces is the possibility of residential and road development within their key sites. The Group is keen to provide local knowledge, assess the biodiversity of their sites further and gain recognition of certain species and communities for the purposes of protection.

# Eastern Catchment Project Area



**Legend**

- Roads
- Creeks
- Hydrology
- Catchment
- Eastern Catchment Project Area
- Local Government Authorities
- Friends of Groups

**Blackadder Woodbridge Catchment Group Sites**

- Blackadder Creek Reserve (Stratton Reserve)
- Elvire Street
- Eveline Reserve
- Farrell Rd Reserve
- Lloyd St East (North Swan Park)
- Lloyd Street Railway
- Plunkett
- Spring Reserve (Lloyd St West)
- Viveash Floodplain

**Jane Brook Catchment Group Sites**

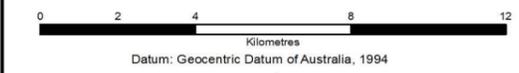
- Friends of Groups within the JBCG
- Friends Talbot Road Reserve
- Stratton Bushland

**Helena River Catchment Sites**

- Helena Catchment Groups
- Lower Helena Association Sites

**Land Use Categories**

- Remnant vegetation reserved for Parks & Recreation, State Forest and in Rural Conservation zone
- Remnant vegetation in local reserves
- Recreation reserves and State Forest cleared
- Remnant vegetation within large lot rural land use
- Cleared areas within large lot rural land use
- Remnant vegetation within small lot rural land use
- Cleared areas within small lot rural land use
- Residential, development, roads and railways
- Commercial/Public Purpose/Special Uses
- Industry
- Pine Plantations
- Remnant vegetation within Resource zone (basic raw materials)
- Cleared lands within Resource zone (basic raw materials)
- Wetlands (CCW & REW & EPP Lakes)

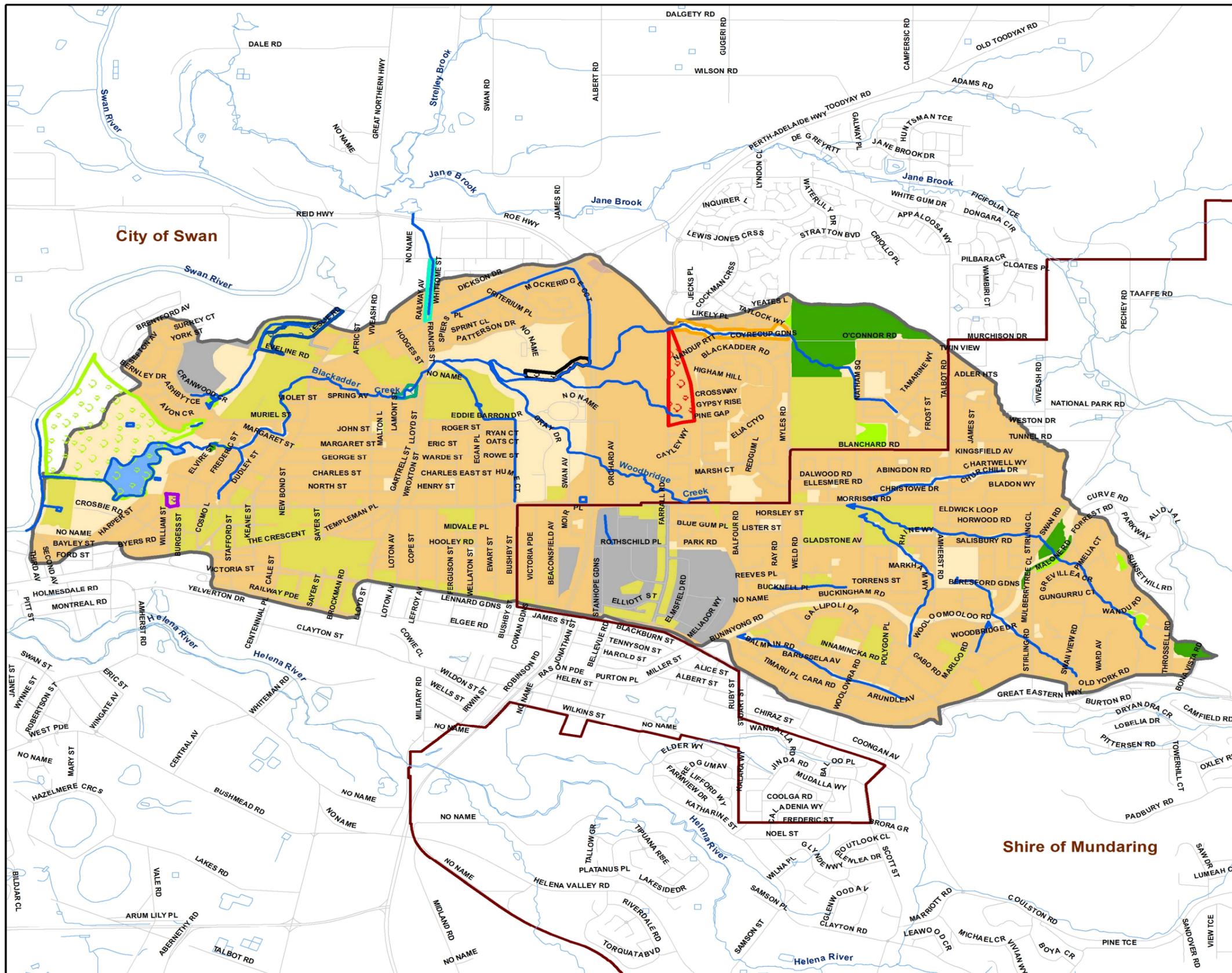


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Source  
 Reserves data supplied by Land Gate  
 Hydrology, Catchment data supplied by Department of Water  
 Roads data supplied by Landgate  
 Local Government Authority, Land Use data supplied by Department of Planning  
 Map Produced By GIS, Perth Region NRM  
 Map Date 19/11/2013

Figure 1: Map of the five catchments within the ECPA showing land use categories. BWC is the smallest of the catchments and located in the west.

# Blackadder Woodbridge Catchment



**Legend**

- Hydrology
- Roads
- Creeks
- Blackadder Woodbridge Catchment
- Local Government Authorities
- Blackadder Woodbridge Catchment Group Sites**
  - Blackadder Creek Reserve (Stratton Reserve)
  - Elvire Street
  - Eveline Reserve
  - Farrell Rd Reserve
  - Lloyd St East (North Swan Park)
  - Lloyd Street Railway
  - Plunkett
  - Spring Reserve (Lloyd St West)
  - Viveash Floodplain
- Land Use Categories**
  - Remnant vegetation reserved for Parks & Recreation, State Forest and in Rural Conservation zone
  - Remnant vegetation in local reserves
  - Recreation reserves and State Forest cleared
  - Cleared areas within large lot rural land use
  - Residential, development, roads and railways
  - Commercial/Public Purpose/Special Uses
  - Industry
  - Wetlands (CCW & REW & EPP Lakes)

0 0.275 0.55 1.1 1.65  
Kilometres

N

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Source  
Roads, Reserves data supplied by Land Gate  
Hydrology, Catchment data supplied by Department of Water  
Local Government Authority, Land Use data supplied by Department of Planning

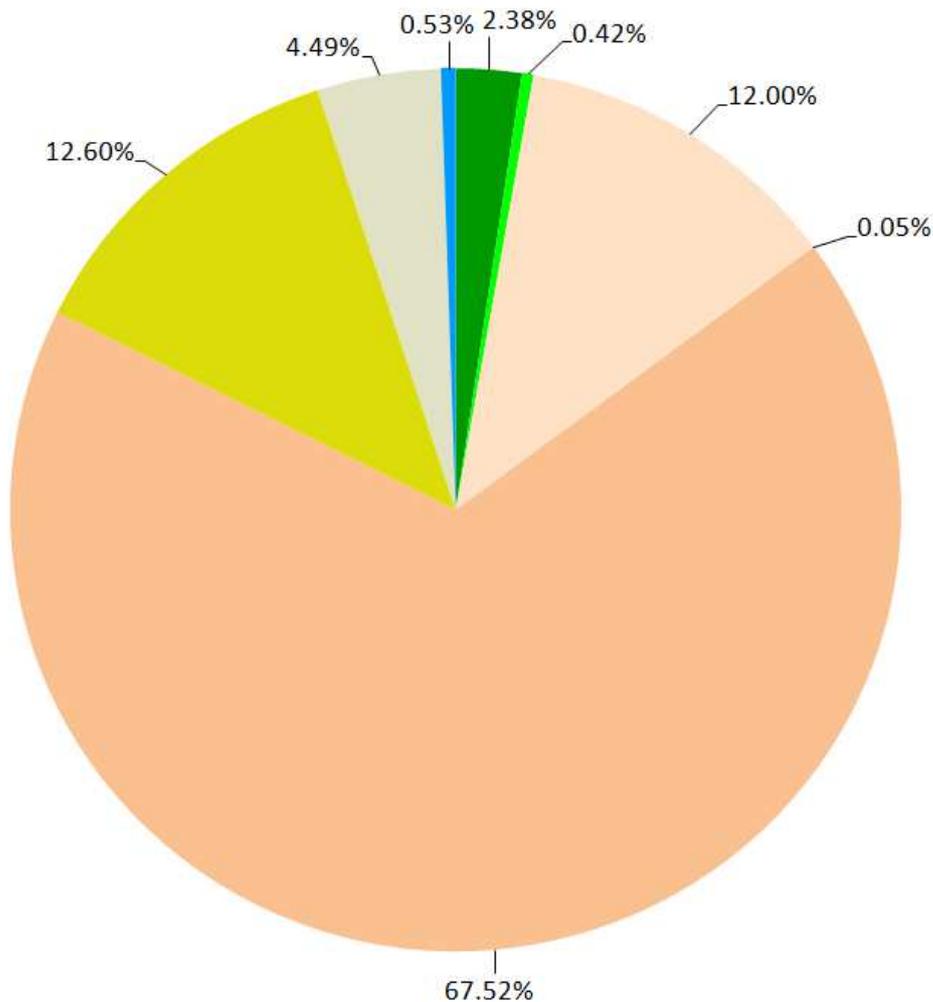
Map Produced By  
GIS, Perth Region NRM  
Map Date  
26/11/2013

Figure 2: BWC land use including BWCG sites.

**Table 1: Land use within the BWC in hectares (ha) and percent (%).**

Type of Land Use	Ha	%
Residential, development, roads and railways	1,149.05	68
Commercial/Public Purpose/Special Uses	214.48	13
Recreation reserves and State Forest cleared	204.25	12
Industry	76.39	4
Remnant vegetation reserved for Parks & Recreation, State Forest and in Rural Conservation zone	40.58	2
Wetlands	9.07	1
Remnant vegetation in local reserves	7.08	<0
Cleared areas within large lot rural land use	0.88	<0
<b>Total</b>	<b>1,701.79</b>	<b>100</b>

It should be noted that additional remnant vegetation has not been identified here but can be seen in Figure 6. Data source: Department of Planning.



**Figure 3: Breakdown of land use within the BWC. Data source: Department of Planning.**

## **1.5. *Blackadder Woodbridge Catchment Group***

BWCG has been using chemical free methods of weed control since 2003, including solarisation and manual removal techniques (See Figures 4 and 5). The BWCG aim for quality weed control over quantity to ensure invasive vegetation is not removed too quickly, which can adversely affect habitat and water quality values. The methods undertaken by the Group avoid exposing people and the environment to potential risks posed by herbicides.

After a few years of experimenting with solarisation, the BWCG have improved their technique and have achieved excellent results. The Group has successfully used the technique over approximately 0.5 hectares throughout three sites in the last four years. The success of the technique has been demonstrated through predominately weed free, self sustaining and low maintenance sites. Solarisation forms the core from which the Group expands their restoration activities. The Group has found that solarisation has not harmed native bulbs and encouraged native seed germination of particular native species.

Another technique the Group has used over the past 10 years is manual hand weeding and composting on their sites. This includes digging bulbs and rhizomes, pulling up annuals and bagging seed heads. All seeds, bulbs, tap roots etc. are composted on site on high ground using black plastic and returned as mulch onsite.

The success of these innovative techniques has clearly been demonstrated by the Group. Their knowledge and technique can be replicated in other land care groups as an alternative method to chemical weed control. The Group's efforts to seek out and implement such methods for the benefit of human and environmental health are commended by EHCMP.



Figure 4: Before and after photos taken at the Plunkett Park, Midland. 2009 with an understorey dominated by *Zantedeschia aethiopica* (Arum lily) and *Cenchrus clandestinus* (Kikuyu grass). 2010 after the invasive weed species were removed. 2012 showing the established sedges planted by BWCG. Photos by Phil Cloran.



Figure 5: Before and after photos at Plunkett Park, Midland. 2009 with an understory dominated by *Z. aethiopica* (Arum lily) and *C. clandestinus* (Kikuyu grass). 2010 the *Z. aethiopica* were removed and solarisation of *C. clandestinus* with black plastic is in progress. 2012 sedges have been planted and established. Photos by Phil Cloran.

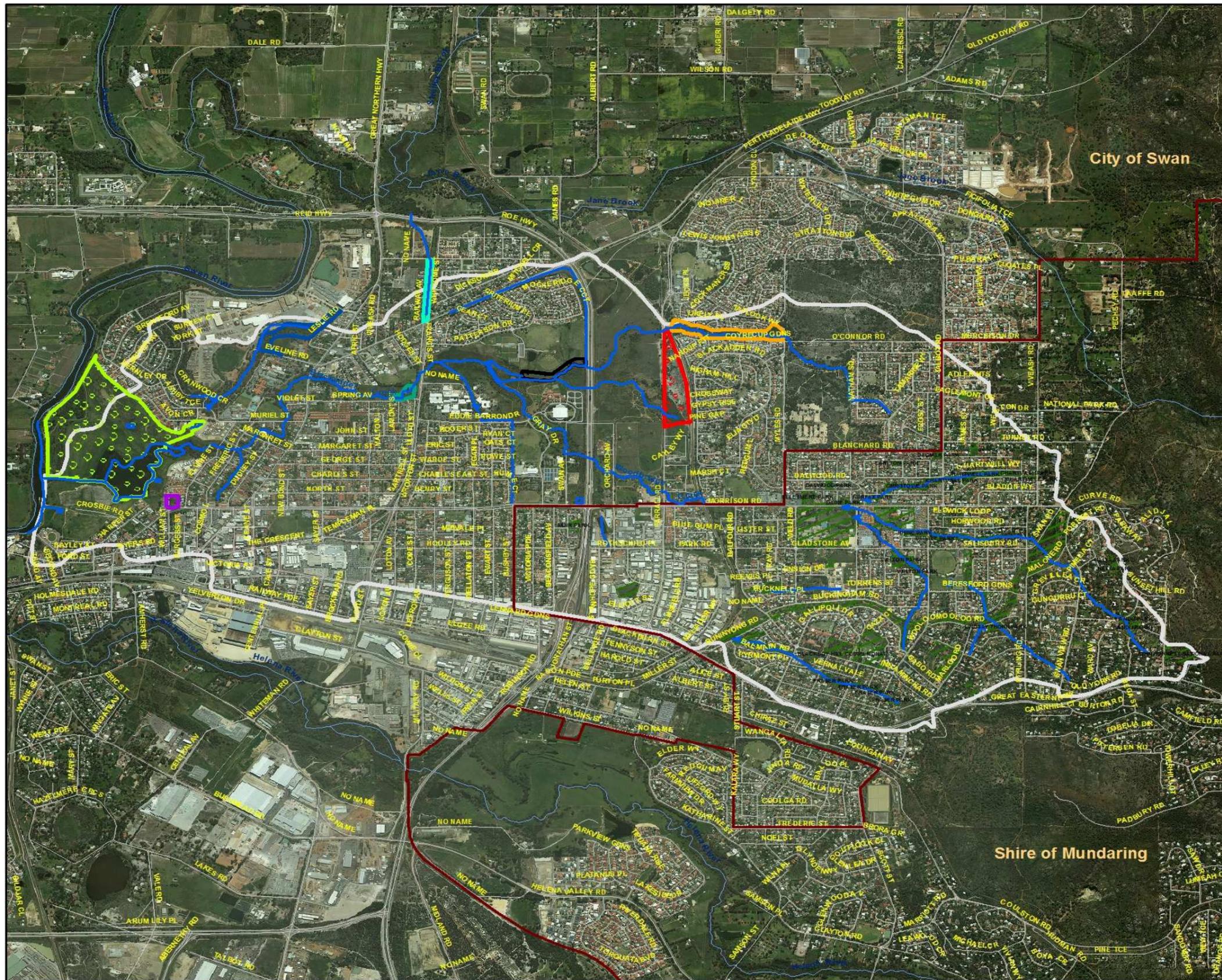
## ***Blackadder Woodbridge Catchment Group (continued)***

In 2010 BWCG were nominated for the Kookaburra Award for their innovative approach to weed management. The Plunkett Park site has been transformed from a degraded polluted area choked with weeds into a biodiverse naturally regenerating bushland. The revegetation occurring over 10 years has developed into a resilient ecosystem providing multiple benefits to the environment, such as reducing evaporation, increasing biodiversity and inhibiting the emergence of introduced species.

Associated Friends Groups within the BWC but not working under BWCG include:

- Midland FROGS (Friends Restoring Our Green Spaces);
- Friends of Talbot Rd Bushland Reserve;
- Friends of Woodbridge Creek;
- Friends of Peace Park; and
- Friends of Rhine Park.

BWCG provides a valuable service to the wider community by rehabilitating publicly owned sites along the Blackadder and Woodbridge Creeks. The Group formed in 1997 and currently has 57 members. The Group has a wealth of knowledge of the BWC, developed over many years of undertaking landcare activities in the area. The Group work on five key sites: Elvire Street, Plunkett Park, Lloyd Street West, Lloyd Street East, and Stratton (See Figure 6). Local provenance species are used to revegetate these sites.



# Blackadder Woodbridge Catchment

## Legend

- Roads
- Creeks
- Hydrology
- Reserves
- Blackadder Woodbridge Catchment
- Local Government Authorities

## Blackadder Woodbridge Catchment Group Sites

- Blackadder Creek Reserve (Stratton Reserve)
- Elvire Street
- Eveline Reserve
- Farrell Rd Reserve
- Lloyd St East (North Swan Park)
- Lloyd Street Railway
- Plunkett
- Spring Reserve (Lloyd St West)
- Viveash Floodplain



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Source: Roads, Reserves data supplied by Land Gate  
Hydrology, Catchment data supplied by Department of Water  
Local Government Authority, Land Use data supplied by Department of Planning

Map Produced By:  
GIS, Perth Region NRM  
Map Date:  
06/05/2014



Perth Region  
NRM

Coordinating sustainable environmental outcomes

Figure 6: BWC aerial view. Additional remnant vegetation can be seen here along the creek and in smaller reserves that are zoned for public purpose, residential and recreation shown in Figure 4.

## 2. Action List

This section has been divided into two parts, on-ground actions (Table 2) and other actions (Table 3).

### 2.1. On-ground Action List

**Table 2: This Gantt chart depicts the activities, frequency and timing of the action which may need to occur within the BWC. Not all activities may be necessary at all sites. The key is located at the bottom of the table.**

Action	Description	Freq	J	F	M	A	M	J	J	A	S	O	N	D
Site selection.	Choosing the sites to work on for the coming year.	Annual												
Aims and goals.	Determine the short and long term aims of the project and timeframes to do so. Can be reviewed annually.	Annual												
Reference sites.	Identify comparable sites.	Annual												
Threatening processes.	What processes need to be taken into account when rehabilitating. E.g. erosion, acid sulfate soil exposure, dieback, etc.	Annual												
Species inventory.	A species list of the flora and fauna at both the reference site and the restoration site, to determine how to gain the most complete restoration.	Cont.												
Plant species list.	Development of plant species list for the revegetation site.	Annual												
Seed collection list.	Development of plant species list, which require the collection of seed for the revegetation site.	Annual												
Plant material delivered to nursery.	Seeds and cuttings, any material for cuttings to be delivered as fresh as possible to the nursery.	Annual												
Seed collection.	Depending on species this could be the year previous, or two years (some species need after-ripening). Local provenance is preferable however to maintain genetic diversity looking further afield may be required. Department of Parks and Wildlife (DPaW) suggests no less than 50 plants for genetic diversity to be maintained.	Annual												
Green stock production.	Could be completed by the catchment group or a nursery and includes the maintenance of plants to time of planting.	Annual												
Seed delivered to the nursery	Delivery of seed to the nursery for production of green stock.	Annual												
Solarisation 50 m <sup>2</sup> of a site at a time.	Timeframe for action is dependent on how hot it is. Low lying areas should be concentrated on when the water has receded for the season to prevent black plastic entering the water way. Works well on grasses (e.g <i>Cenchrus clandestinus</i> (Kikuyu grass)).	Annual												
Solarisation maintenance.	To prevent runners re inhabiting the solarised area particular focus on the boundary areas.	Cont.												
Manually remove <i>Arundo donax</i> .	Removed by digging up the whole rhizome and plant content.	A as R												
Manually remove <i>Canna sp.</i>	Has been known to reproduce by seed however predominant method is rhizomes.	A as R												
Manually remove <i>Coyza sp.</i> (fleabane).	An annual flowering in summer.	A as R												
Manually remove <i>Cyperus sp.</i> (nut grass).	A perennial which flowers in summertime with some species having an additional flowering period in late autumn.	A as R												
Manually remove <i>Ficus spp.</i> (fig).	Cut figs back to a height that will be subject to drowning through inundation.	A as R												
Manually remove <i>Ipomoea indica</i> (morning glory).	A perennial creeper which flowers in spring and summer. If part of the plant is removed and not disposed of appropriately new plants can grow from the material. This can be prevented using solarisation, however deeper older roots can re-sprout and need to be manually removed.	A as R												
Manually remove <i>Paspalum sp.</i> (e.g. water couch, sour grass).	Is known to spread by runners and flower in summer.	A as R												
Manually remove <i>Rosa sp.</i> (rose).	Fruiting occurs October to February	A as R												
Manually remove <i>Rubus sp.</i> (blackberry).	Fruiting occurs December to May. Requires follow up after removal.	A as R												
Manually remove <i>Rumex sp.</i> (dock).	There are annual and perennial species, most flower in spring and early summer.	A as R												

Action	Description	Freq	J	F	M	A	M	J	J	A	S	O	N	D
Manually remove <i>Watsonia sp.</i>	Manual removal of corms.	A as R												
Manually remove <i>Zantedeschia aethiopica</i> (Arum lily).	Manual removal of rhizomes growth.	A as R												
Manually remove seedheads of <i>Cyprus sp.</i> (nut grass).	Flowers in summertime with some species having an additional flowering period in late autumn.	A as R												
Manually remove seed heads of <i>Rumex sp.</i> (Dock).	Highly important as seed is persistent for 20 years or more. Flowering occurs in spring and early summer or most species.	A as R												
Weeding annual herbs.	These species generally come up after the initial rains of the season and die back with the onset of warmer weather.	A as R												
Weeding maintenance	This is all year because of the variety of weed which exist at the sites. Ideally maintenance of a site would occur every 3-4 months; however given the size of the project this is not always possible.	Cont.												
Green stock planting.	Varies subject to the season, dryland areas should be planted at the start of the season to maximize the use of the rains and wetland areas should be planted towards the end of the season when the earth is not flooded for ease of planting.	A as R												
Onsite composting of weed material	Seeds, bulbs, tap roots etc are composted onsite (high ground) using black plastic. The piles need turning occasionally including during summer to help them dry out.	Annual												
Monitoring and reporting.	A brief summary of progress twice a year to give the group a snapshot (See Appendix 2 for a guide)	Annual												
Monitoring and reporting.	A detailed report of progress once a year.	Annual												

**Key**

Activities which relate to planning	Activities which relate to plant production	Activities which relate to site works	Activities which relate to monitoring and reporting
Freq – Frequency, this is the frequency at which the action occurs.	Cont. – Continuous, the action occurs continuously over the lifetime of the project	A as R – Annual as Required, the action occurs once in the year but may not be required each year	As R – As Required, the action occurs as much as is necessary. It may be the first two years or ten years of a project

## 2.2. Other Actions

In addition to on-ground works, BWCG has a list of actions shown below in Table 3 focusing on adaptation to climate change, education and awareness of local residents and incorporation of the local government and community. It is thought these actions in tandem with the on-ground action will aid in corridor connections.

**Table 3: BWCG has a long term vision of a more extensive corridor connection which can be achieved with the assistance of local residents. The following table is a list of actions relating to climate change, education and awareness of local residents and incorporation of the local government and community.**

Action	Timing	Additional Information and Resources*	Supporting Partners
<b>Adaptation to Climate Change</b>			
Plant local native species along the northern banks of creeklines and summer refuge pools.	Long	<ul style="list-style-type: none"> <li>Managing Australian Landscapes in a Changing Climate section 4.1 and 4.2.</li> <li>Regional Climate Change Adaptation Action Plan (RCCAAP).</li> <li>SoM Local Climate Change Adaptation Action Plan (LCCAAP).</li> </ul>	CoS DPaW EMRC PRNRM SoM Trust
<b>Education and Awareness of the Local Residents</b>			
1. Plan and implement education days or events to promote all aspects of watercourse rehabilitation and management.	Ongoing	<ul style="list-style-type: none"> <li>Education days can be local shows, shopping centers, resource launch.</li> <li>Grants for printing cost through Lotterywest, local government, etc.</li> </ul>	CoS EMRC Private landholders PRNRM SoM Trust
2. Work with secondary and tertiary education institutions in the catchment with an emphasis on succession planning.	Ongoing	<ul style="list-style-type: none"> <li>Avenues could include local schools, scouts, Polytechnic West, etc.</li> <li>DPaW education portal.</li> </ul>	
3. Educate community members on priority weeds and locally native species and control methods.	Long	<ul style="list-style-type: none"> <li>Bradley Method.</li> <li>Funding bodies (e.g. Swan Alcoa Landcare Program (SALP), DEC Lotterywest, etc.).</li> </ul>	
4. Encourage the adoption of best land management practices aimed at reducing erosion and nutrient export.	Ongoing	<ul style="list-style-type: none"> <li>The Australian River Restoration Centre (ARRC).</li> <li>Managing Australian Landscapes in a Changing Climate section 4.1 and 4.2.</li> </ul>	
<b>Incorporation of Local Government and Community</b>			
5. Ensure the best chance of protection for the biodiversity within the catchment	Ongoing	<ul style="list-style-type: none"> <li>Use Perth Biodiversity Project's (PBP) online Regional Framework Mapping Viewer to determine biodiversity values and land zoning information.</li> <li>Fill out the Natural Area Initial Assessment templates.</li> <li>Provide feedback to City of Swan in the Local Biodiversity Strategy review process.</li> </ul>	CoS PBP
6. Increase the awareness of BWCG with agencies and the progress made so far.	Short	<ul style="list-style-type: none"> <li>This could take effect in many forms e.g. letter of intention or letter of thanks.</li> <li>A story in the local paper about recent success.</li> </ul>	CoS DPaW DAA
7. Lobby where appropriate.	Ongoing	<ul style="list-style-type: none"> <li>Letter to the relevant local government or government agency.</li> <li>A regular piece in the local paper.</li> </ul>	EMRC PRNRM
8. Investigate and incorporate the historical importance of worksites, to both Aboriginal and European people.	Medium	<ul style="list-style-type: none"> <li>Department of Aboriginal Affairs (DAA) Heritage Officer.</li> </ul>	Trust

Action	Timing	Additional Information and Resources*	Supporting Partners
9. Promote the historical Aboriginal and European value of BWCG to the community.	Medium	<ul style="list-style-type: none"> <li>Local library.</li> </ul>	

**Key**

Timing defined as follows

Short	1 – 2 years
Medium	2 – 5 years
Long	5 – 10 years
Ongoing	To occur throughout the implementation of the plan
*	can be found in Appendix 1

### **3. Monitor and Review**

The *BWCG Action Plan* can be monitored annually to determine the progress against the plan. Monitoring can be in a variety of formats (e.g. report, photos etc) see Appendix 2 for an example review form. Annual progress can be reported at the AGM and conveyed to relevant agencies by the EMRC NRM Officer. The EHCMP NRM Officer can assist with annual monitoring and review if needed. Reviews can be undertaken by BWCG to include or remove actions as required. A major review will be undertaken by EHCMP in collaboration with BWCG in 2021 – 2022 to identify issues and actions that will need to be included in future plans.

**Appendix 1 – Useful links and resources.**

Source	Link or contact
CoS Local Biodiversity Strategy	<a href="http://www.swan.wa.gov.au/Our_City/Corporate_Publications/City_Plans_and_Strategies">http://www.swan.wa.gov.au/Our_City/Corporate_Publications/City_Plans_and_Strategies</a>
DPaW education portal	<a href="http://education.dec.wa.gov.au/">http://education.dec.wa.gov.au/</a>
DAA	<a href="http://www.daa.wa.gov.au/">http://www.daa.wa.gov.au/</a>
Lotterywest	<a href="http://www.lotterywest.wa.gov.au/grants">http://www.lotterywest.wa.gov.au/grants</a>
<i>Managing Australian Landscapes in a Changing Climate</i>	<a href="http://www.climatechange.gov.au/publications/adaptation/managing-australian-landscapes.aspx">http://www.climatechange.gov.au/publications/adaptation/managing-australian-landscapes.aspx</a>
NAIA Templates	<a href="http://pbp.walga.asn.au/Tools/NaturalAreaInitialAssessmentTemplates.aspx">http://pbp.walga.asn.au/Tools/NaturalAreaInitialAssessmentTemplates.aspx</a>
PBP Regional Framework Mapping Viewer	<a href="http://lbp.asn.au/index_public.html">http://lbp.asn.au/index_public.html</a>
RCCAAP	<a href="http://www.emrc.org.au/future-proofing-perth-s-eastern-region-climate-change-adaptation.html">http://www.emrc.org.au/future-proofing-perth-s-eastern-region-climate-change-adaptation.html</a>
SALP	<a href="http://www.perthregionnrm.com/pr-nrm-programs/swan-river-trust-alcoa-landcare-program.aspx">http://www.perthregionnrm.com/pr-nrm-programs/swan-river-trust-alcoa-landcare-program.aspx</a>
SoM Environmental Advisory Committee (EAC)	Staff Officer – Toni Burbidge Phone: 9290 6675 <a href="http://www.mundaring.wa.gov.au/ResidentServices/Environment/Pages/EnvironmentAdvisoryCommittee.aspx#contactslinks">http://www.mundaring.wa.gov.au/ResidentServices/Environment/Pages/EnvironmentAdvisoryCommittee.aspx#contactslinks</a>
SoM LCCAAP	<a href="http://www.mundaring.wa.gov.au/ResidentServices/Environment/Documents/Local%20Climate%20Change%20Adaptation%20Action%20Plan%20-%20FINAL.pdf">http://www.mundaring.wa.gov.au/ResidentServices/Environment/Documents/Local%20Climate%20Change%20Adaptation%20Action%20Plan%20-%20FINAL.pdf</a>
The Australian River Restoration Centre	<a href="http://australianriverrestorationcentre.com.au/resources/">http://australianriverrestorationcentre.com.au/resources/</a>

***Appendix 2 – Monitoring and Review Form***

Name of the site: \_\_\_\_\_

What timeframe is this review considering: \_\_\_\_\_

What work was undertaken in this period: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

What fauna (bird, mammals, reptiles) was seen at the site? \* represents new species to the site: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Photo monitoring

Photo from the start of timeframe.

Photo from the end of timeframe



## References

BWCG. 2010. *Blackadder / Woodbridge Catchment Group Management Plan 2010 – 2014*. Perth, Western Australia.

Taman, L. 2000. *Flora Survey of the Floodplain of Blackadder Creek and LLOYD Street Bushland*. Perth.

WAPC. 2010. Talbot Road Bushland Site Description. *Bush Forever*. 2:1-2.  
[http://www.bushlandperth.org.au/images/stories/BF\\_Ref\\_Sites/talbot\\_road\\_bf\\_site\\_306\\_site\\_description.pdf](http://www.bushlandperth.org.au/images/stories/BF_Ref_Sites/talbot_road_bf_site_306_site_description.pdf) (Accessed 29 August 2013).