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Department of
Parks and Wildlife



**SWAN CANNING
RIVERPARK**

SWAN CANNING RIVERPARK RIVER PROTECTION STRATEGY COMMUNITY UPDATE 2016



2016 community update for the Swan Canning Riverpark

Water quality catchment targets		
Catchment	Total nitrogen	Total phosphorus
Avon River	✓	✓
Bayswater Brook	⊗	✓
Bannister Creek	⊗	✓
Bennett Brook	⊗	✓
Bickley Brook	⊗	✓
Blackadder Creek	✓	✓
Canning River	✓	✓
Ellen Brook	⊗	⊗
Helena River	✓	✓
Jane Brook	✓	✓
Mills Street Main Drain	⊗	✓
South Belmont Main Drain	✓	✓

Water quality catchment targets		
Catchment	Total nitrogen	Total phosphorus
Southern River	⊗	⊗
Susannah Brook	✓	✓
Yule Brook	✓	✓

Water quality estuary targets		
Ecological management zone	Water quality result	Description
Lower Swan Canning estuary	⊗	Based on targets for chlorophyll-a and dissolved oxygen concentrations at the surface
Middle Swan estuary	⊗	
Upper Swan estuary	⊗	
Canning estuary	⊗	

✓ met all targets
 ⊗ met 50% of targets
 ⊗ did not meet targets

Monitoring and reporting on water quality

Oxygen conditions

Oxygenation zone	2mg/L threshold	4mg/L threshold
Upper Swan estuary	94.5% of measurements met threshold	82.5% of measurements met threshold
Lower Canning River	97.1% of measurements met threshold	94.2% of measurements met threshold

Oxygenation zone thresholds

2mg/L – Below this threshold sensitive aquatic species are likely to exhibit signs of acute stress.

4mg/L – Below this threshold aquatic species are likely to exhibit modified behaviour. Above this level is considered acceptable for ecological function.

Potentially harmful algal bloom incidents

Ecological management zone	Notifications	Description
Lower Swan Canning estuary	2	<i>Dinophysis acuminata</i> – six weeks
Middle Swan estuary		<i>Alexandrium</i> sp. – nine weeks
Upper Swan estuary	1	Cyanobacteria – 11 weeks
Canning estuary	4	<i>Dinophysis acuminata</i> – one week
		<i>Alexandrium</i> sp. – three weeks
Lower Canning River	1	Cyanobacteria – two weeks

Biodiversity

Fish Community Index*

Ecological management zone	Shallow nearshore waters	Deeper offshore waters
Lower Swan Canning estuary	B	C
Middle Swan estuary	C	C/D
Upper Swan estuary	A	B
Canning estuary	B	C
Overall	Good	Fair

Condition grades are shown as an A-E scale where A= very good B=good C=fair D=poor and E=very poor.

*Data combines results for summer and autumn sampling 2016 (Hallett 2016)





SWAN CANNING RIVERPARK

The State Government's *Swan Canning River Protection Strategy* is a coordinated management approach to help guide investment, protect our rivers and enhance community recreation, cultural and social values for future generations.

This strategy binds 15 State Government agencies, 20 local riverfront councils and a variety of natural resource management groups to deliver priority river management actions while reporting annually on their outcomes.

The *River Protection Strategy Community Update 2016* is designed to tell the public how we are tracking with managing our rivers and the complex web of ecological pressures impacting our waterways.

The Swan Canning Riverpark is an important habitat for a wide variety of native animals with more than 300 species of birds and 130 species of fish recorded. There is also a resident population of 25 bottlenose dolphins.

The Swan and Canning rivers are renowned for their natural beauty and cultural and recreational significance. The rivers are used by the community for a wide variety of recreational pursuits including boating, fishing, picnicking, swimming, cycling, waterskiing, windsurfing, diving, walking and a multitude of events.

The rivers are culturally significant to Aboriginal and non-Aboriginal people and there is an expectation they will be protected now and into the future.

The Riverpark receives runoff from a catchment twice the size of Tasmania and embraces the Swan, Canning, Helena and Southern rivers. Groundwater and surface water flows into the rivers from tributaries and drains across the catchment.

It is an incredibly resilient river system but despite its stunning vistas and serene foreshores, the Riverpark is under pressure from population growth, competing land and water demands and riverfront development.

River system management is challenging; it involves uncertainty and rapid changes and applying innovative and comprehensive solutions. We all have a role in protecting our rivers and we hope this document builds a shared understanding of the key issues and achievements during 2015-16 for the Swan and Canning rivers.

This community update is designed to translate technical river management information into a meaningful public reporting template. Our next community update is scheduled to be published by 30 December 2017.

ACHIEVEMENTS 2015-16

How are we tracking?



115 properties from 10 agricultural industries across the Avon and Swan catchments are now involved in soil testing and nutrient management as part of the *Healthy Rivers Healthy Soils* program.



2478

River Guardians members took part in *RiverWise* training, volunteering or event opportunities.

\$83,000 invested into the Swan Canning Acoustic Array project to monitor black bream movements in the Swan and Canning rivers.



\$2 million

in *Riverbank* funding was distributed for 24 priority foreshore projects across 14 riverfront councils. Projects included erosion control, revegetation, weed control and riverwall repair.



350 audits of more than 250 light industrial premises as part of the 2015-17 *Light Industry Program*.



SWAN RIVER

Mt Henry B

Fremantle Traffic Bridge



875 *Dolphin Watch* volunteers monitored Riverpark dolphins. 1200 students from 25 schools participated in *Junior Dolphin Watch*.



\$3 million

Eric Singleton Bird Sanctuary wetland was completed and **170,000** native plants installed.

Bennett Brook

Middle Swan Bridge

Jane Brook

Helena River

Tonkin Highway Bridge

Narrows Bridge

Heirisson Island

32 planning policies consolidated into **10** departmental policy statements to help improve planning and licensing approval processing.



124 development applications assessed by Department officers in accordance with the Metropolitan Region Scheme. Provided advice on **32** strategic planning proposals likely to impact Riverpark water quality.



Canning Bridge

Kent Street Weir

Shelley Bridge

Bickley Brook

CANNING RIVER

Bridge



45

fishing line bins collected more than 15km of fishing line, 2000 fishing tackle items and 2000 bait bags in one year.



Wharf Street Wetland near the Canning River won the WA Stormwater Industry Award 2016 for the Research and Innovation category.



Of the portion of water that was diverted from the Ellen Brook and into the nutrient stripping wetland, **95%** of the phosphorus and **48%** of the nitrogen was removed before it was returned to the brook.



4.5 million

juvenile western school prawns released since 2012.



85% of water quality thresholds met in the oxygenation zones. New oxygenation compound built at Caversham on the Swan River.



\$390,000

distributed to 24 natural resource management groups to deliver 41 on-ground restoration projects through the Swan Alcoa Landcare Program.



\$576,000

provided to help sub-regional natural resource management groups reduce the amount of nutrients entering the Riverpark.

\$80,000

to fund 16 behaviour change workshops attended by 2962 people. These events help Perth residents adopt *RiverWise* behaviours.



4 interpretation facilities built under the *River Journeys* project at Bicton Baths, Point Walter, Heathcote and Brentwood to help improve the Riverpark's public amenity.



Ecological management zones

- Upper Swan estuary
- Middle Swan estuary
- Lower Swan Canning estuary
- Canning estuary
- Lower Canning River
- Oxygenation zone

Our Partners



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For further information on this Community Update contact the Rivers and Estuaries Division of Parks and Wildlife on (08) 9278 0900.

This publication is available in alternative formats on request. Information current as at November 2016.