



Merri-bek
City Council

Merri-bek City Council

Moomba Park Wetland Case Study

April 2024

Acknowledgement of Country



Merri-bek
City Council

This event is being held on the lands of the Wurundjeri Woi-wurrung people. It was taken from them without a treaty process, consent, or compensation, and sovereignty was never ceded.

We wish to acknowledge them as the Traditional Owners and Custodians of these lands and waterways and would also like to pay our respect to their Elders past, present, and emerging, as well as to all First Nations communities who significantly contribute to the life of this area and Elders of other communities who may be with us today.

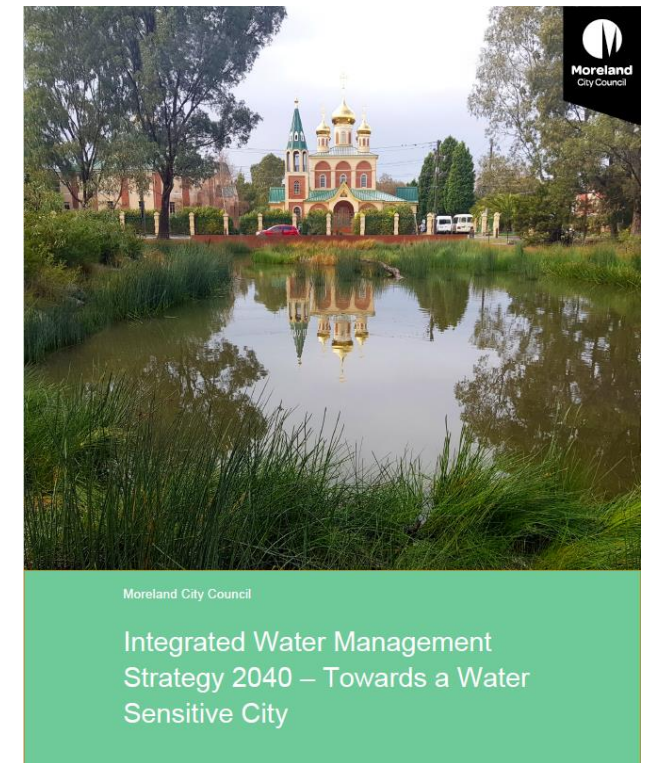
The project we are talking about today, Moomba Park Wetlands, is located on the Merri Creek. Merri Merri means “very rocky” in Woi-wurrung, the traditional language of this Country.

Integrated Water Management at Merri-bek



Merri-bek
City Council

- Merri Creek Constructed Urban Wetlands Feasibility Study (2009) - BMT
- Watermap (2015)
- Large scale WSUD opportunity and feasibility study across the Moreland municipality (Alluvium) (2015)
- Integrated Water Management Strategy 2040 (2020)



Towards a Water Sensitive City



Merri-bek
City Council

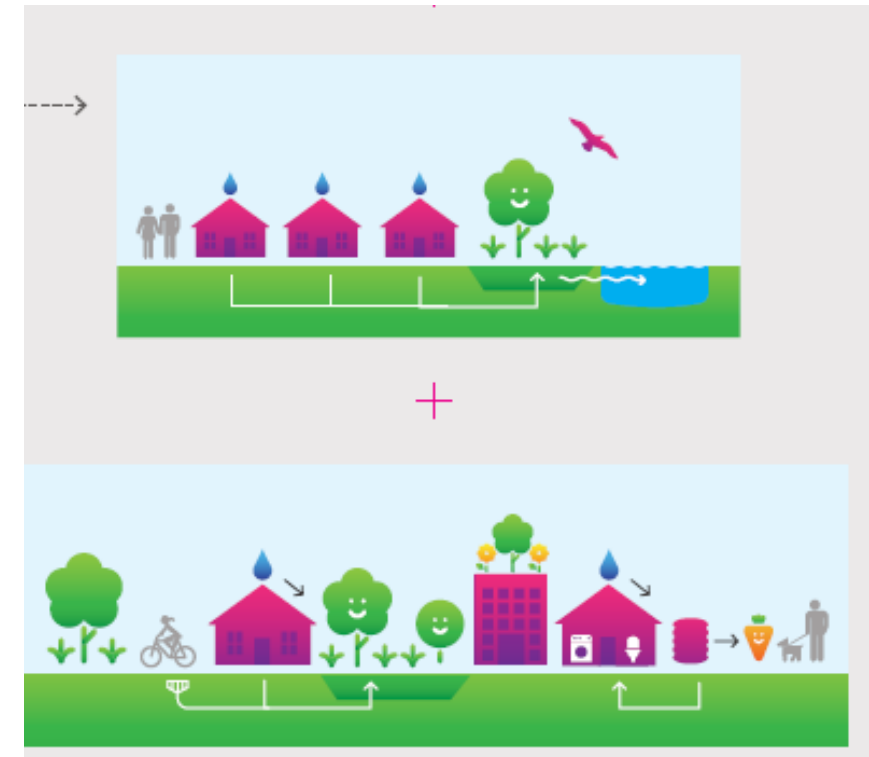
Outcome 4: Healthy Waterways

Indicator 4.1 Reduce stormwater pollutant loads and flow volumes discharged to receiving waters

Indicator 4.2 Increase provision of water for biodiversity

IWM Action Plan 2020 -2025

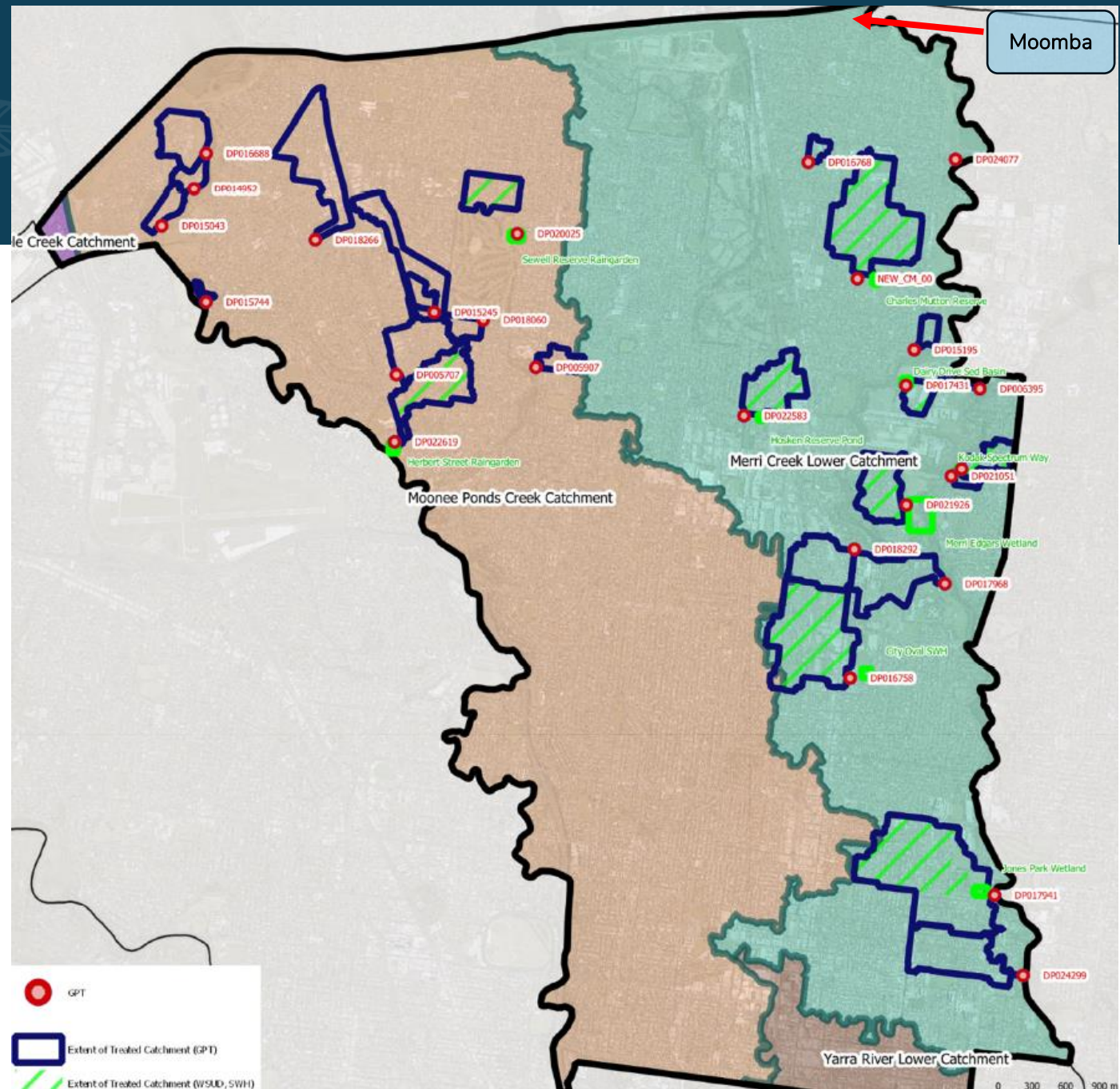
- Action 4.1 "Undertake functional design and costing of identified large scale WSUD projects e.g. Somerlayton*, AG Gillon Reserve Precinct (AG Gillon Reserve, Gilpin Park, Clifton Park, Raeburn Reserve, Brunswick Park), Fran Street wetland or Box Forest retarding basin"



*Somerlayton = Moomba Park site

Treated Catchments

Quantitative Measure - 4.1 -
Total area of new catchment treated (target 200 ha in five years) and total cumulative area.



Map of GPTs and large scale WSUD treatments.



Merri-bek
City Council

Wetlands in Merri-bek



Merri-bek
City Council



Jones Park Wetland,
Brunswick East



Merri-Edgar Confluence
Wetland, Coburg North



Gavin Park Wetland,
Pascoe Vale

Moomba Park Wetland, Fawkner



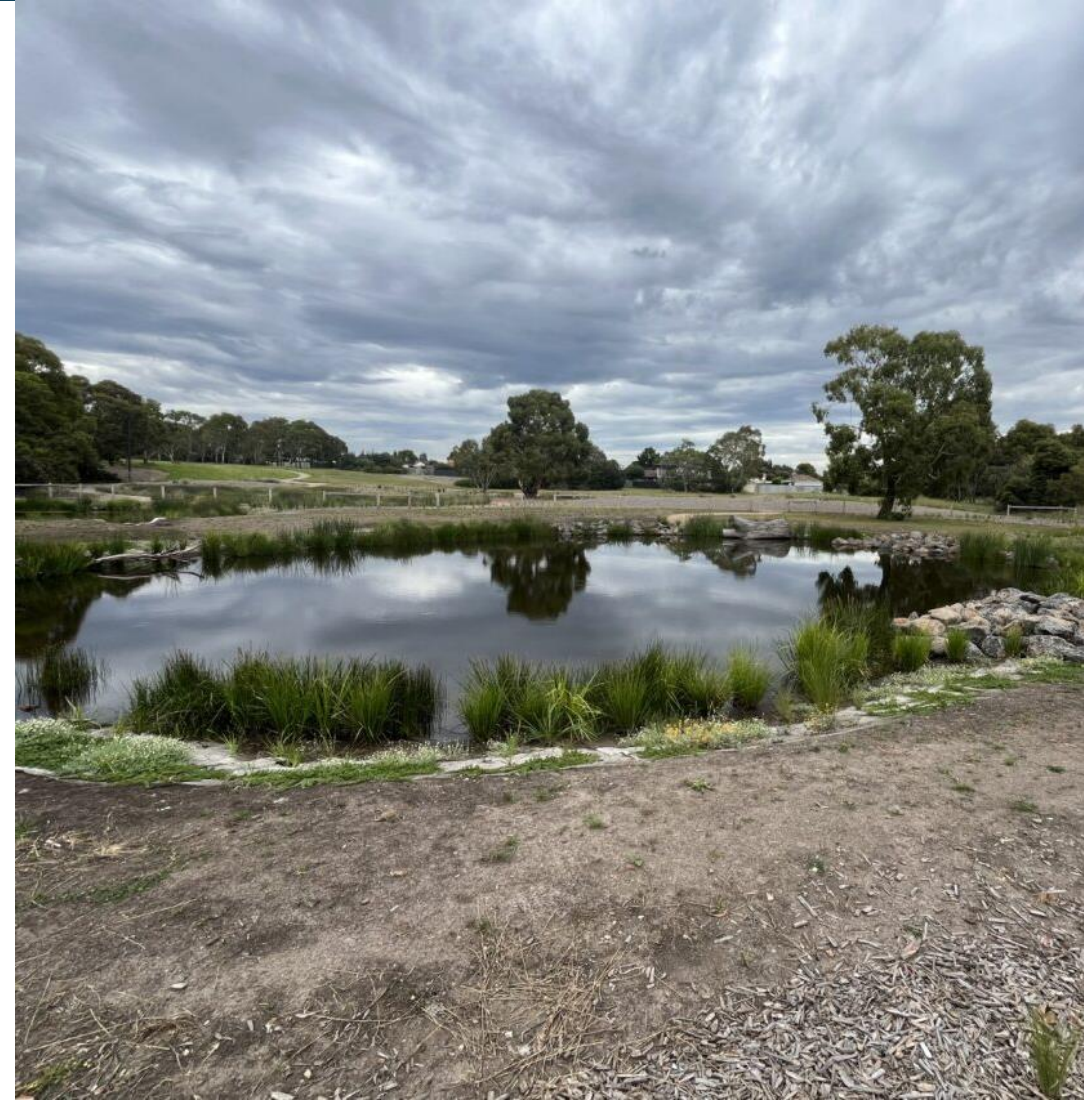
Merri-bek
City Council

Opportunity

- Underutilised open space
- Drainage upgrades in adjoining neighbourhood

Objectives

- Treat stormwater
- Passive recreation and amenity
- Frog habitat and biodiversity



Funding the project



Merri-bek
City Council

- The project was implementing an action from the Integrated Water Management (IWM) Strategy 2040 and the Five-Year Action Plan: 2020/21 -2024/25.
- Council's annual IWM WSUD implementation budget (approx. \$350k).
- Melbourne Water Liveable Communities, Liveable Waterways grant funding (August 2021).
- Successful Grant - \$385k.
- Total construction cost approx. \$900k.



Planning phase



Merri-bek
City Council

1. 2015 - Large Scale WSUD study (Alluvium) - identified Moomba Park as a priority site WSUD.
2. 2018 - Somerlayton Crescent - council drainage upgrades including option for diversion pipe.
3. 2020 - Concept design was completed in August 2020.
4. 2020-2021 - Detailed design (Design Flow) .

Collaboration with subject matter experts - Melbourne University and Melbourne Water to make sure the design of the habitat for Growling Grass Frogs aligned with the latest research and best practices.



Area 1: Diversion Pipe

New underground (~1.5m depth) stormwater pipe of approx. 500 mm width within this area. Pipe to run from the existing stormwater pit (in blue) until the beginning of the wetland.

Area 2: Constructed wetland

Construction of a new wetland of approximately 3,000 m² in size / footprint in this area. Excavation to maximum 3 m depth (generally aiming to keep excavation above 1.5 m depth).

Area 3: Reconnection to Merri Creek

Small channel ~ 3 m wide in this area. Overland connection of small flows leaving wetland to Merri Creek. Should only require minor reshaping however assume possible excavation up to 1 m depth.

Engagement with the community



Merri-bek
City Council

- Community consultation mid 2021 on concept design.
- 500 letters were sent to local residents and shared via online platforms.
- Pop-Up in person event at Moomba Park.
- The Merri Creek Management Committee (MCMC) have also been extensively consulted and contributed to the design phase of this project.
- Council also engaged broadly on the Fawkner Parklands plan which included various water sensitive initiatives.
- We have received significant feedback on restoration of natural habitats and lots of support for the construction of wetland.



What we heard



Merri-bek
City Council

I am so excited by this idea. The Merri Creek parklands throughout Fawkner have suffered from neglect for a while, and this kind of revitalising project that has so many benefits is exactly what we need.

I strongly support the proposed wetland project which will greatly enhance the environment, bio-diversity, and beauty of the local area and add to the health of the whole Merri Creek natural corridor. Good for frogs. Good for our mental health and well-being. And it gives me hope that we can improve things for our children and their children

I really like the idea of helping with the recovery of threatened species and creating a natural cooling mechanism in urban areas. It's great also that we can walk and enjoy the space.

Wonderful to learn about native animals.

Excellent.

Engagement with Traditional Owners



Merri-bek
City Council

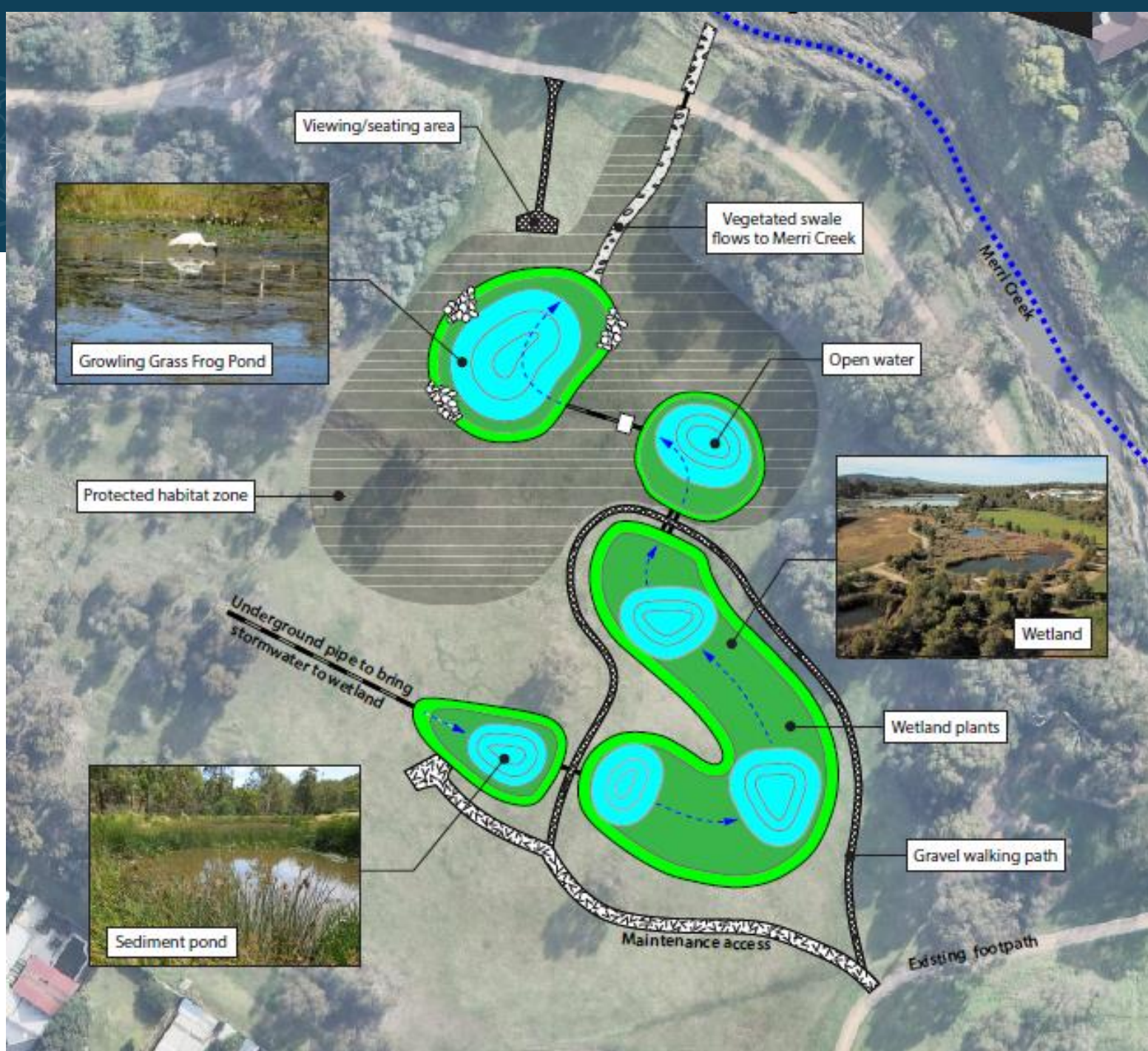
A Cultural Heritage Management Plan was prepared for the project.

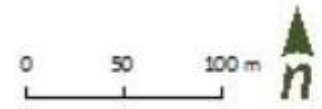
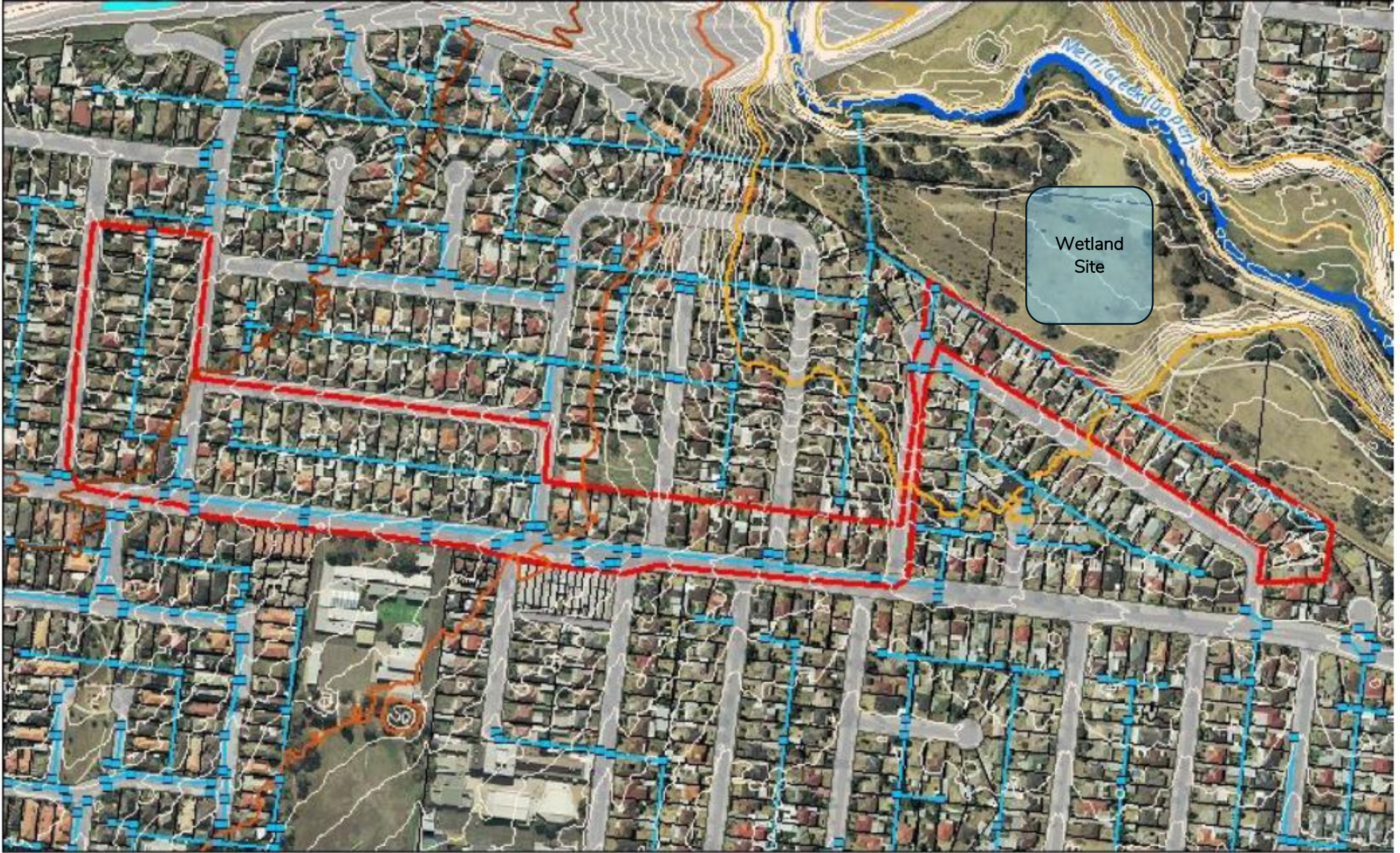
Three Wurundjeri Woi-wurrung Cultural Heritage Aboriginal Corporation elders were involved in the CHMP process, which included meetings between Merri-bek City Council and Wurundjeri Woi-wurrung elders.

CHMP requirements:

- Test pits to the depth of excavation
- 2 site visits during earthworks for observation







Growling Grass Frog



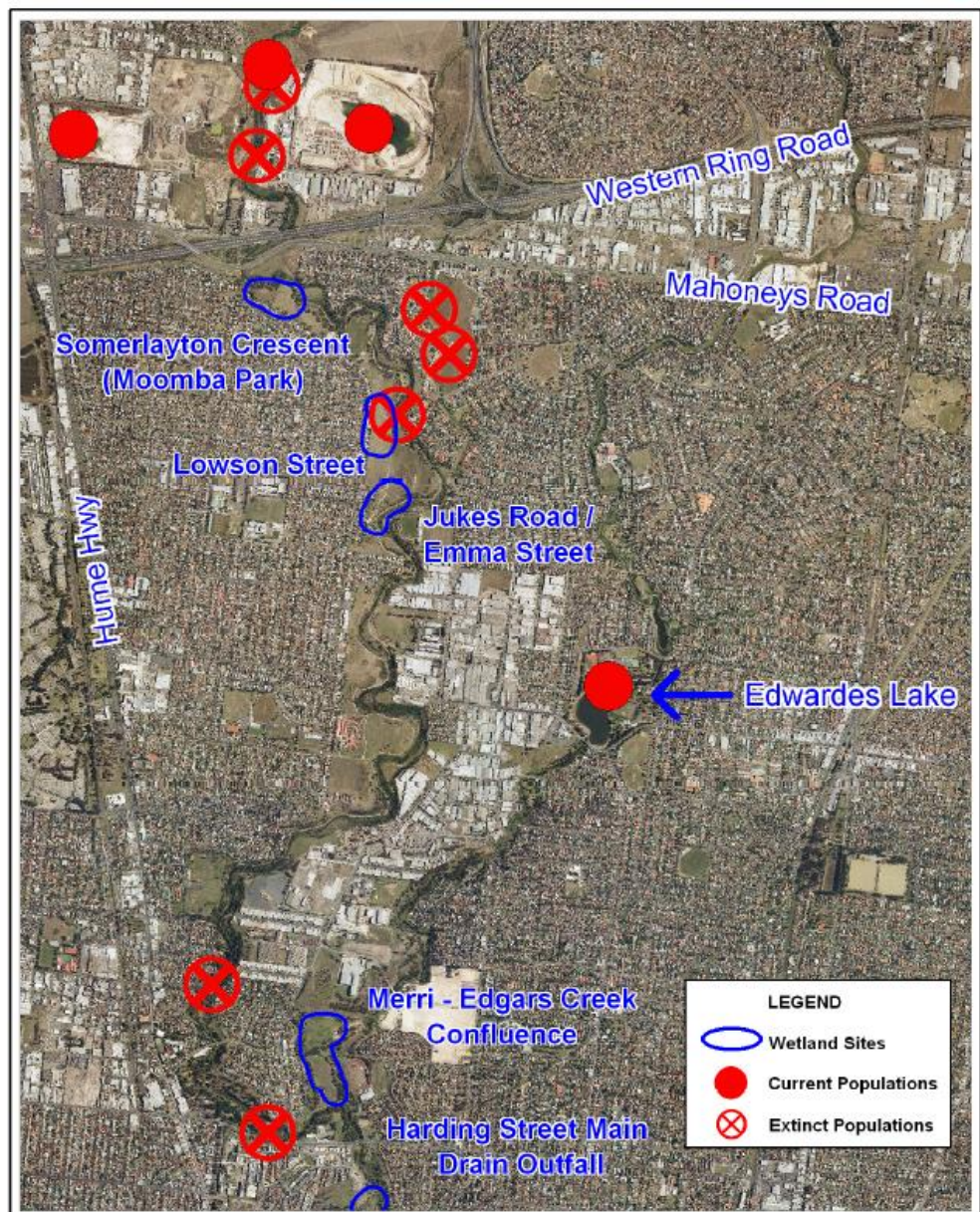
Merri-bek
City Council

- The Growling Grass Frog (*Litoria raniformis*), is a species of ground-dwelling tree frog native to south-eastern Australia.
- Growling Grass Frog is listed as a threatened species in Victoria.
- Individuals have been previously recorded in Merri Creek, downstream of Moomba Park.
- Wetlands are important habitat for these frogs,



Threats to the Growling Grass Frogs

- habitat loss,
- drought,
- diseases such as chytrid fungus,
- predatory fish that eat eggs and tadpoles, and
- changes to stream flows and quality.



Title: Growling Grass Frog Populations (courtesy of Geoff Heard, Latrobe University)	Figure: 5-1	Rev: A
<small>© BMT WBM Pty Ltd 2009 Copyright: This document is and shall remain the property of BMT WBM. The document may only be used for the purpose for which it was commissioned and in accordance with the terms of engagement for the commission. Unauthorised use of this document in any way is prohibited. BMT WBM does not warrant, guarantee or make representations regarding the currency and accuracy of information contained in this map.</small>	<p>Approx. Scale</p>	<p>BMT WBM www.wbmpl.com.au</p>
Filepath : S:\M7701_AG\Morland Wetland Feasibility\MapInfo\Drawings\ENV_025_GGFrog_RevA.WOR		



Merri-bek
City Council

Frog habitat success



Merri-bek
City Council

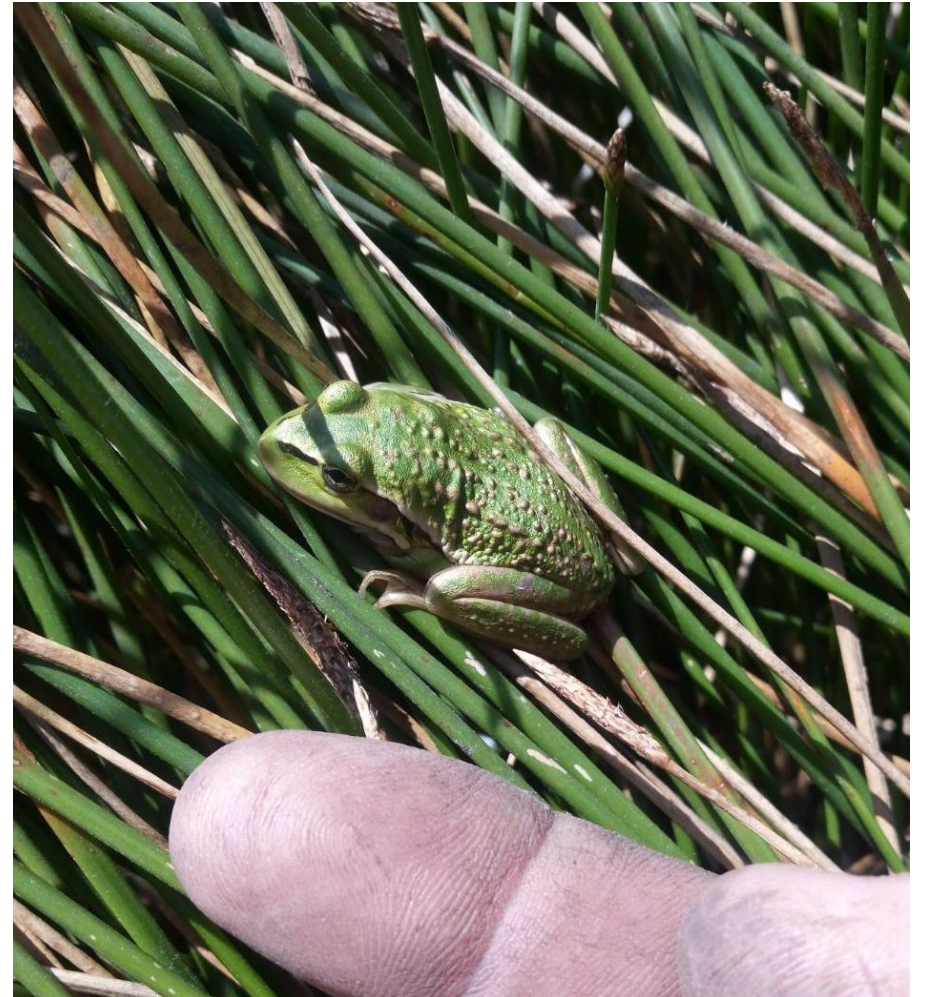
- The wetland includes purpose-built habitat for Growling Grass Frogs. It has rocky edges and shallow water areas for sunbaking, deep water areas to hide from predators, and grasses and areas for breeding and food hunting.
- The area is enclosed by a small see through fence to help protect the frogs.
- It also provides habitat for many bugs, insects, invertebrates, frogs, waterbirds, and reptiles.



Frogs have arrived!



Merri-bek
City Council



Community engagement and citizen science



Merri-bek
City Council



Frog Pond

There are 37 native frog species in Victoria and 16 of these live in Melbourne (Naarm). Slow-flowing waters and damp conditions provide excellent foraging habitat for frogs.



Want to know how you can make a frog friendly habitat or get involved with Melbourne Water's frog monitoring program? Visit melbournewater.com.au/frogs



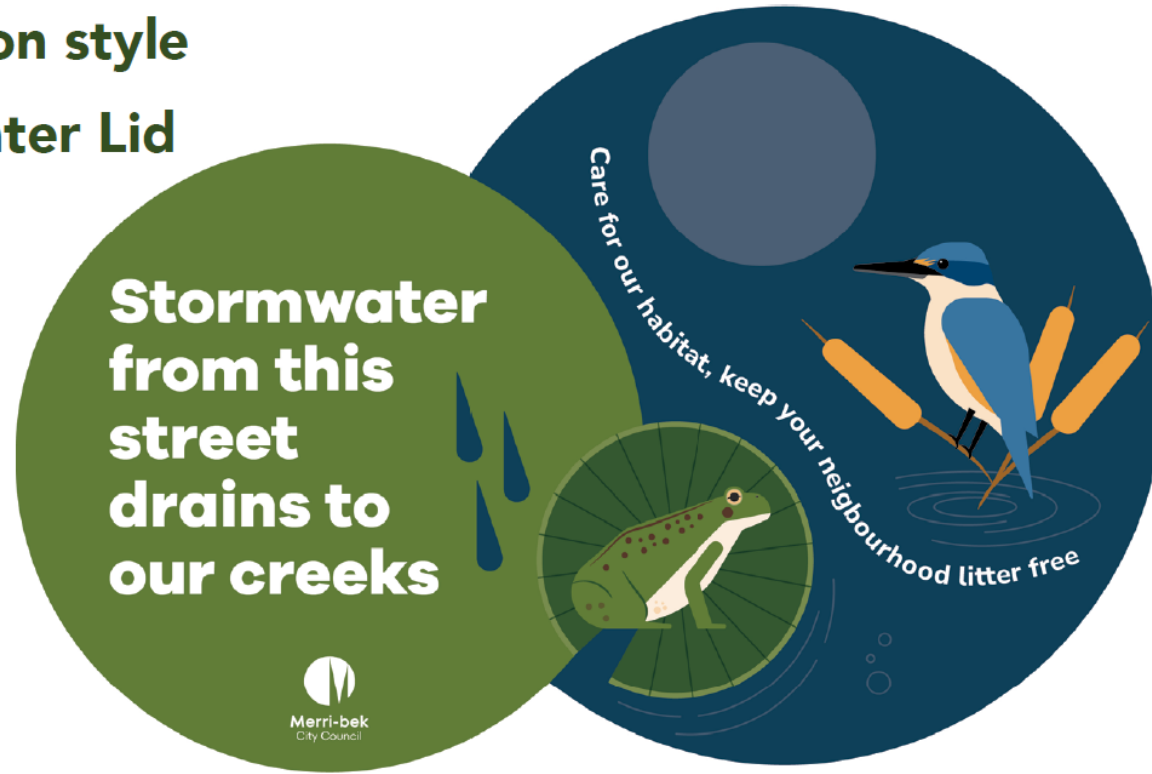
Merri-bek
City Council





Indicative Illustration style

Stormwater Lid Decal



Challenges & lessons



Merri-bek
City Council

Planning phase

- Land ownership – DEECA.
- Soil removal/distribution.

Construction phase

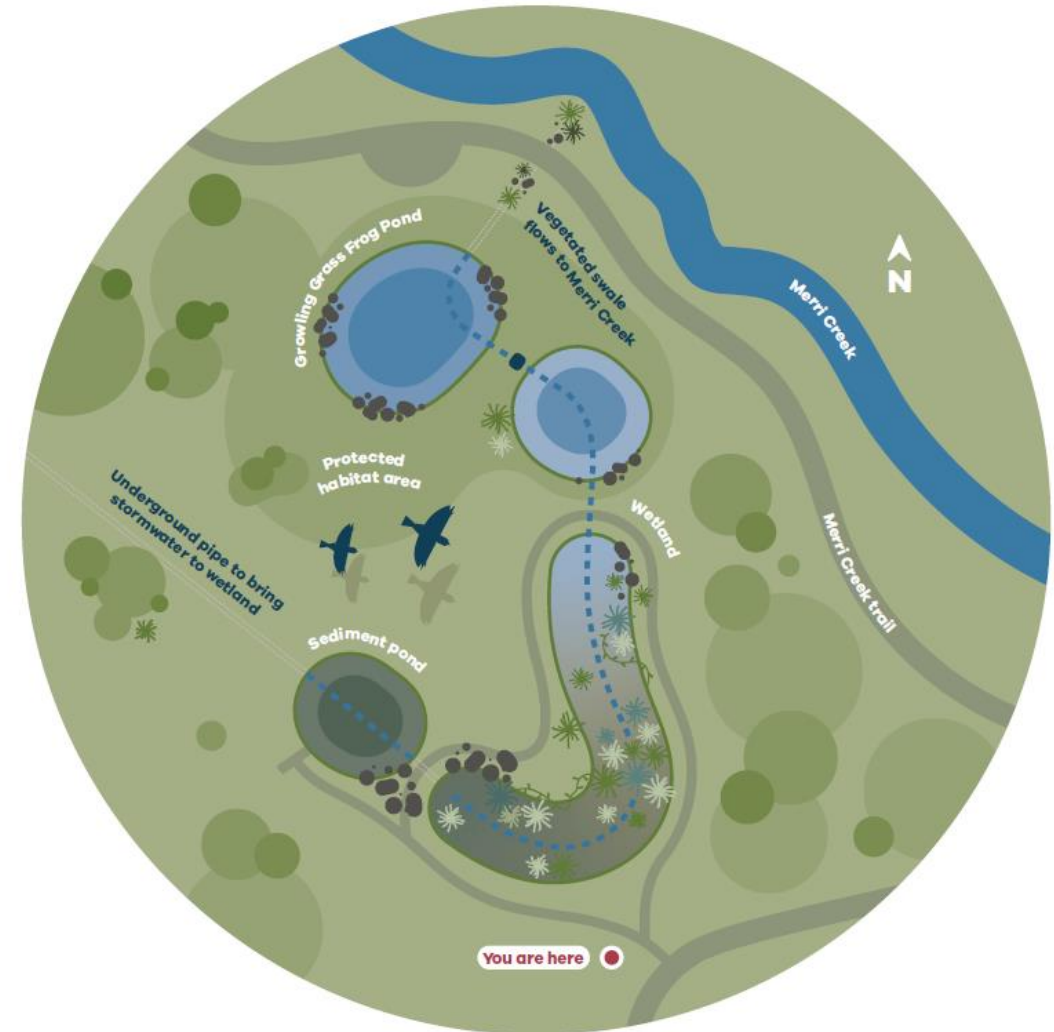
- Dust suppression.

Scope

- Signage design.
- Don't forget to celebrate and tell people about it!

Legacy

- Ongoing monitoring of water quality and habitat.
- Keeping the frogs and other animals there.



Projects in the pipeline

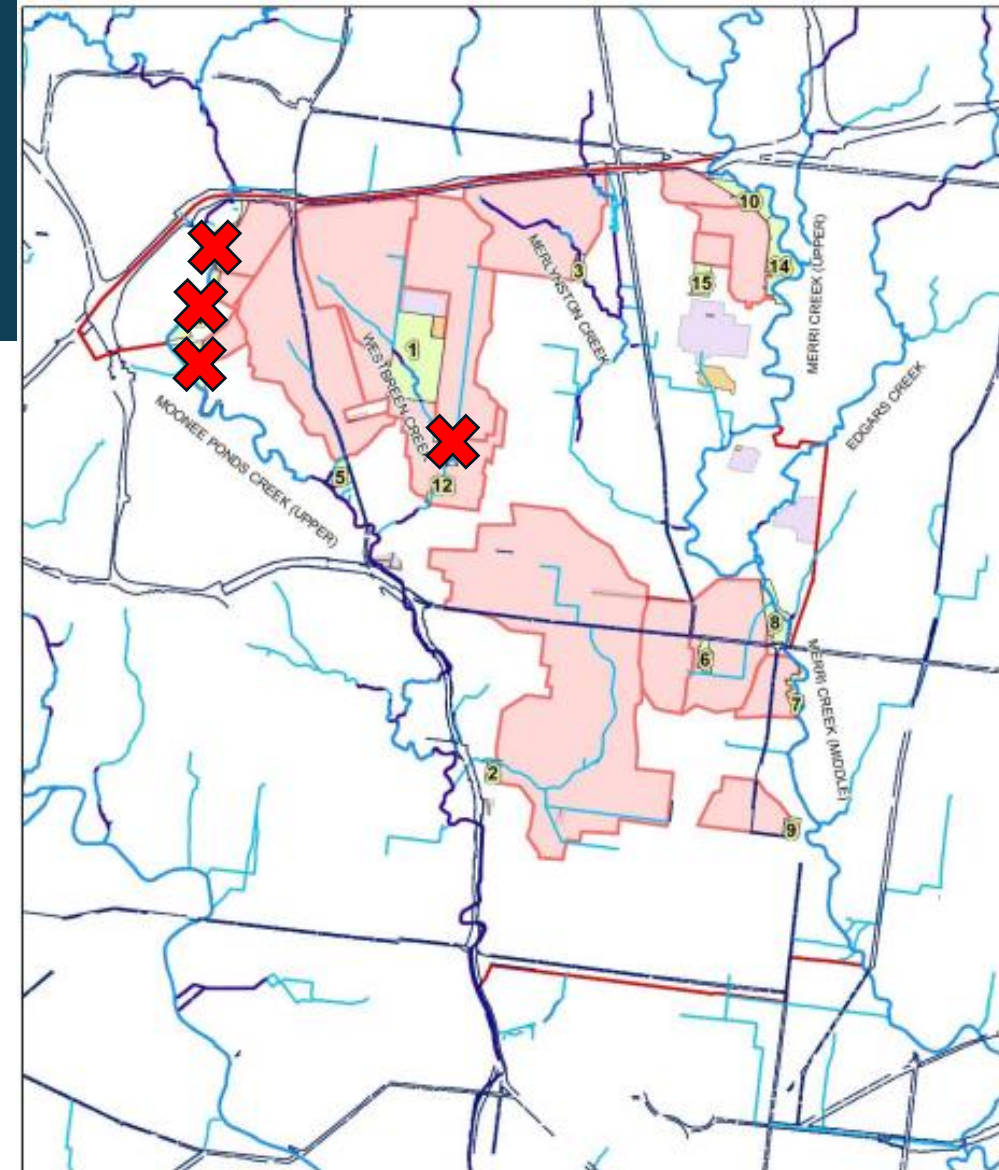
Wetlands

Feasibility for 4 more sites (shown with red crosses) – Upper Moonee Ponds Creek:

- Fran Street Park;
- Kingsford Ulm Smith Reserve;
- K W Joyce Reserve; and
- Moonee Boulevard Reserve.

Stormwater Harvesting

- Dunstan Reserve (Contract to be awarded in May 2024).
- Brunswick Parklands (Detail Design to be completed June 2024 – Construction planned 25/26).
- Feasibility/Concepts for 3 sites Oak Park Reserve, De Chene Reserve, CB Smith Reserve.



Legend

	Moreland City Council Boundary		Potential sites
	Melbourne Water Waterway		Site catchments
	Melbourne Water Open Channel		WSUD existing assets
	Melbourne Water Main Drains		WSUD existing assets catchments
	Major roads		Site ranking

0 1,000 m



Thank you – Questions ?



Merri-bek
City Council



Naomi Clarke

Integrated Water Management Lead

nclarke@merri-bek.vic.gov.au

Sylvie McLean

Integrated Water Management Officer

smclean@merri-bek.vic.gov.au

Moomba Park Wetland Official Opening Event



Merri-bek
City Council



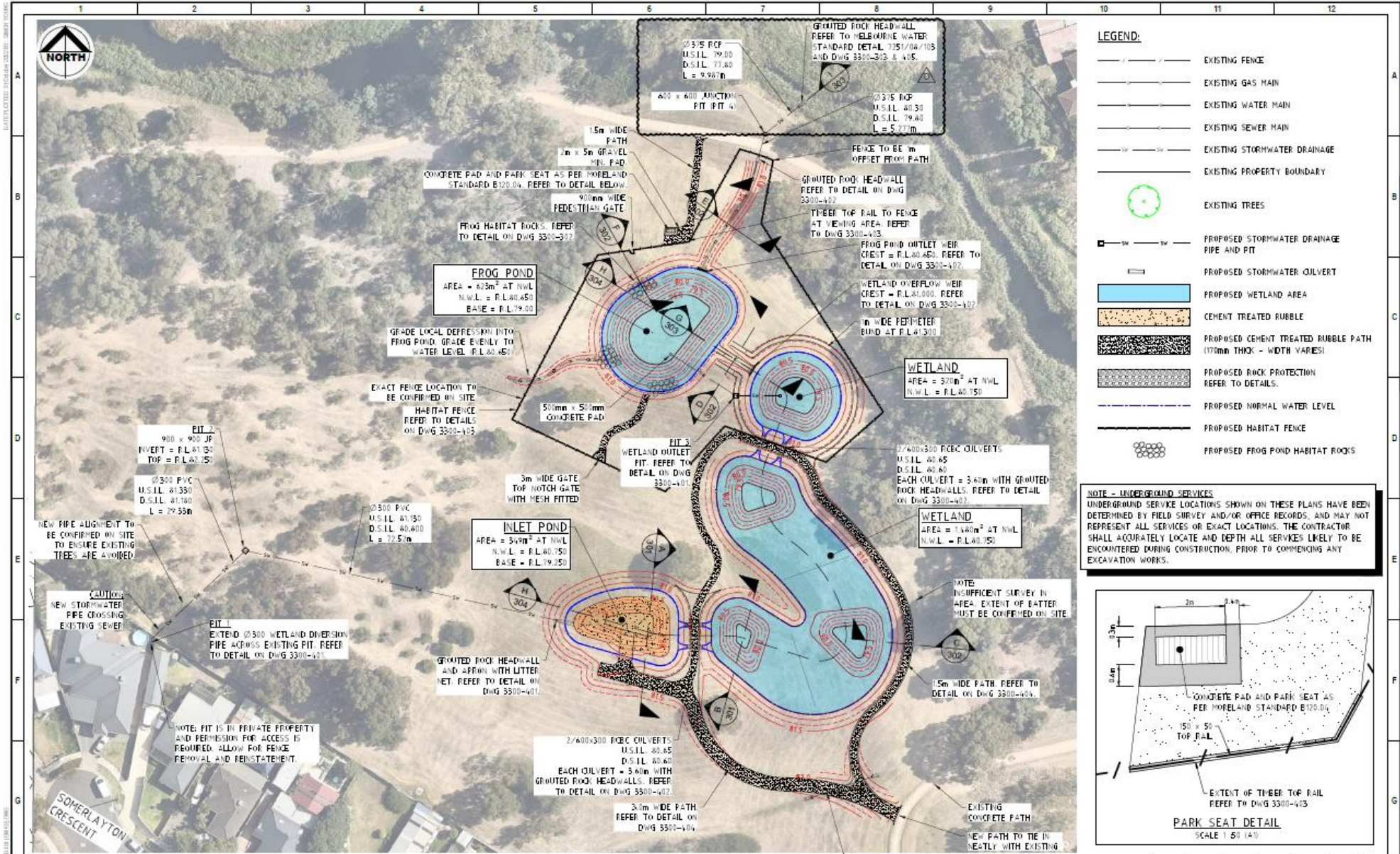
Join us for the Moomba Park Wetlands opening



Saturday 11 May 10am-12pm, Moomba Park Wetlands, Fawkner

Please join the Mayor Cr Adam Pulford and representatives from Melbourne Water to celebrate the opening of these beautiful wetlands. Come and see this important revitalisation and listen to the Growling Grass Frogs, a threatened species that has made Moomba Park Wetlands its home.

Celebrations will include a Welcome to Country and Smoking Ceremony, free coffee, speeches, nature play and an all-ages educational session about waterbugs and citizen science. BYO keep cup or mug.



DATE	DESCRIPTION	DRAWN	APPROVED
01	ISSUED FOR CONSTRUCTION	S.B.Y.	R.A.
		DATE	DATE
		01/10/22	01/10/22

ISSUED FOR CONSTRUCTION

THIS DRAWING IS COPYRIGHT TO DESIGNFLOW.
 NO PART OF THIS DRAWING INCLUDING THE WHOLE OR PART THEREOF SHALL BE USED FOR ANY OTHER PURPOSE NOR BY ANY OTHER THIRD PARTY WITHOUT THE WRITTEN CONSENT OF DESIGNFLOW.

© DESIGNFLOW

DesignFlow
 1/70 RACECOURSE ROAD, NORTH MELBOURNE VIC 3081
www.designflow.net.au

CLIENT	MORELAND CITY COUNCIL	PROJECT	MOOMBA PARK WETLANDS
DRAWN BY	S.B.Y.	DATE	11.05.2021
CHECKED BY	R.A.	DATE	11.05.2021
SCALE	AS SHOWN	PROJECT NO.	A1
		DRAWING NO.	3300
		REVISIONS	101
		ISSUED BY	C1