Waterwatch Program

Monitoring Plan

Monitoring Group Name: Friends of Merri Creek Stream Team (upstream of St Georges Rd Bridge, Fitzroy North)

Waterway Name: Merri Creek

This Plan will be reviewed every two years and adapted and amended as necessary.

General details

Information about our Waterwatch group

Name of monitoring group	Friends of Merri Creek Stream Team
Name of group leader	Trevor Hausler
Waterway(s) to be monitored	Merri Creek
Local Government Area	Cities of Darebin, Merri-bek and Yarra
Commencement date of monitoring	April 2003

Our Members

Group members will be registered on the WaterWatch online data portal. The WaterWatch Coordinator keeps a record of all current members.

Emergency Contact Details

See separate training tracker

Training Schedule

See separate training tracker

History and geography of the monitoring site

The entire Merri Creek lies within the lands of the Wurundjeri Woi-wurrung People. Prior to and following European colonization, the creek was important Country for Wurundjeri people, providing bountiful food sources, shelter and sites to live, to care for Country and otherwise practice culture, in and around the water, especially the riparian zone, wide floodplains and adjacent grasslands. Wurundjeri Woi-wurrung people continue to care for Country including along the creek.

To the north, the Merri Creek originates close to Wallan, and flows through Country that became the target for colonial farming including animal grazing and agriculture, and the development of towns that are fast becoming densely populated suburbs at Melbourne's northern urban growth boundary.

This WaterWatch monitoring site is in Fitzroy North at the southernmost end of the Merri Creek's Lower Catchment, before it flows through Clifton Hill into Birrarung/Yarra River at Dight's Falls, a significant Wurundjeri Woi-wurrung meeting place.

For close to two hundred years, Merri Creek has suffered from urban and industrial impacts, often viewed as a convenient way to dispose of waste. There are still significant industrial impacts along Merri Creek and within the catchment. With legal protections and increasing community conservation advocacy pressure over

the past few decades, substantial efforts have been made to clean up the creek and surrounds and repair the damage from cumulative negative impacts.

Although still polluted, Merri Creek water health is now vastly improved and restoration efforts continue.

The Fitzroy North site has been monitored by a WaterWatch group since 2003, with testing taking place every month where weather permitted, except for breaks due to Covid lockdowns.

Current conditions

This downstream, lower reach is located at a well used section of the Merri Creek shared path, much loved by local residents, and is near sports ovals and behind a primary school. During water quality testing sessions, the path is busy with walkers, joggers, cyclists and dogwalkers.

A significant amount of litter is washed into the waterway through the stormwater system servicing the neighbouring inner city suburbs and from well beyond. An inflow pipe approximately 400 metres upstream has occasionally been identified as the source of reported local pollutants. Invasive weedy grasses, shrubs, and trees continue to dominate the creek banks. and there are some larger trees.

Housing construction in Melbourne's north poses a threat to the Merri Creek's health along its length, adding significant sediment during construction, increased stormwater and decreased filtration in the longer term. This is likely to contribute to Urban Stream Syndrome (USS) already threatening the health of the lower catchment. USS deteriorates waterways by changes to the creek's shape including from eroding stream banks and interferences such as straightening meanders, and is marked by high concentrations of pollutants, nutrients and litter. These impacts reduce biodiversity in and around waterways, and increases the extent of invasive species.

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Monitoring Plan and Objectives

The following **land uses** are present within the catchment:

- Residential (main land use)
- Industrial (including factories close to the creek)
- Recreation (including multiple sporting reserves along the creek)
- Agriculture (much further to the north of our site)
- Transition from agricultural to residential at urban growth boundary
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Possible concerns for water quality, habitat and biodiversity are:

- Urban Stream Syndrome issues:
  - Stormwater volume and quality, especially extreme flows during large rainfall events
  - Bank erosion and reduced nearby permeability
  - Impact on biodiversity within waterways especially for freshwater macroinvertebrates and their indigenous predators
- Phosphate from agriculture, detergents from car washing, garden fertiliser and sporting ovals
- Dog poo
- Sediment (sodic soil) washed downstream from new developments
- Risk of occasional industrial pollution events
- Extensive weediness in riparian zone with a lack of understorey indigenous vegetation
- Litter, especially plastic (overwhelmingly the predominant litter type on the Merri Creek).

Changes which may be measured through monthly monitoring of physical chemistry and sampling macroinvertebrates, include water quality, water pollution, macroinvertebrate diversity and populations.

Ongoing, **the WaterWatch monitoring group focusses on establishing:**

- whether creek water quality is changing, and identifying emerging issues
- current status and changing patterns of macroinvertebrate diversity and populations

Medium term monitoring objectives:

1. Capitalise on the high visibility of the site and associated foot and bike traffic to share importance of water quality and stream health. Engage enthusiastically with local community members who approach us during water monitoring.

2. When local community members approach us during water monitoring, encourage them to be observant and Snap Send Solve/EPA alert when there are visible pollution events, and encourage them to take actions that support creek health (e.g. undertake litter cleanups, don't wash car in street, reduce plastic use, join revegetation activities).

3. Develop one pager highly accessible, summary of water quality and waterbug populations for public use. Anticipate and answer most common FAQs. Provide mall number of hard copies (DL folded) in monitoring kit and QR code on signage so passersby can access without hard copy.

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Our Site (WaterWatch group to receive a copy)

Monitoring at the site specified below will help us to answer our questions about the health of the area.

Site code	ME_YMR112
Site description	Urban stream with adjacent bike path
Suburb/town	Fitzroy North
Local Government area	City of Yarra / City of Darebin/City of Merri-bek
Catchment	Yarra River
Management unit	Merri Creek
Sub-management unit	Merri Creek Lower Sub Catchment
Type of waterway	Creek
Type of land use	Residential
Access to site	Steep banks
Risks to be aware of at this monitoring site	Adjacent cyclists, steep banks, rocky creek bed, polluted water, flooding after heavy rain, snakes, litter, extreme heat and lack of shade in summer
GPS reading	Long:144.988 Lat: -37.786

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Monitoring Parameters (Waterwatch group to receive a copy)

Parameters	Monitoring Frequency			
	Monthly	Seasonally	Spring and Autumn	Annually (date)
Temperature	✓			
Dissolved Oxygen	✓			
Turbidity	✓			
pH	✓			
Electrical Conductivity (salts)	✓			
Phosphate	✓			
Ammonium	✓			
Macro-invertebrates	✓			
Habitat assessment				✓
Photo point monitoring		✓		

Data Management

A copy of all data collected will be forwarded to the WaterWatch Coordinator and shared with the community via: Victorian WaterWatch database www.vic.waterwatch.org.au and may be summarized into annual reports

Data Collection Schedule

The group samples the **first Sunday afternoon of every month** and conducts **physical chemistry testing and macroinvertebrate sampling** unless adverse conditions mean it is unsafe to enter the water to collect macroinvertebrates.

How to report pollution incidents

If you notice pollution incidents in the waterway (e.g. coloured water, sewage, bad smell, etc), please call:

EPA Pollution Watch Line 03 9695 2777 (24 hours)

Please also notify your Waterwatch Coordinator of the incident.