

Water quality and pollution changes facing the upper Merri Creek

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Overview

- Current condition
- Future challenges due to urbanization
- Vision for the Merri Creek

Ecological Values in the Merri Creek



1. Low macroinvertebrate and fish diversity in urban areas
2. Moderate condition in rural areas
3. Occasional reports of platypus in the lower Merri
4. Growling Grass Frog & Southern Toadlet

(Kellar et al, 2018)



Pollution Assessment of Merri Creek Part A Drain Pollution Assessment 2017

Report to Yarra Valley Water

CAPIM Technical Report No.85

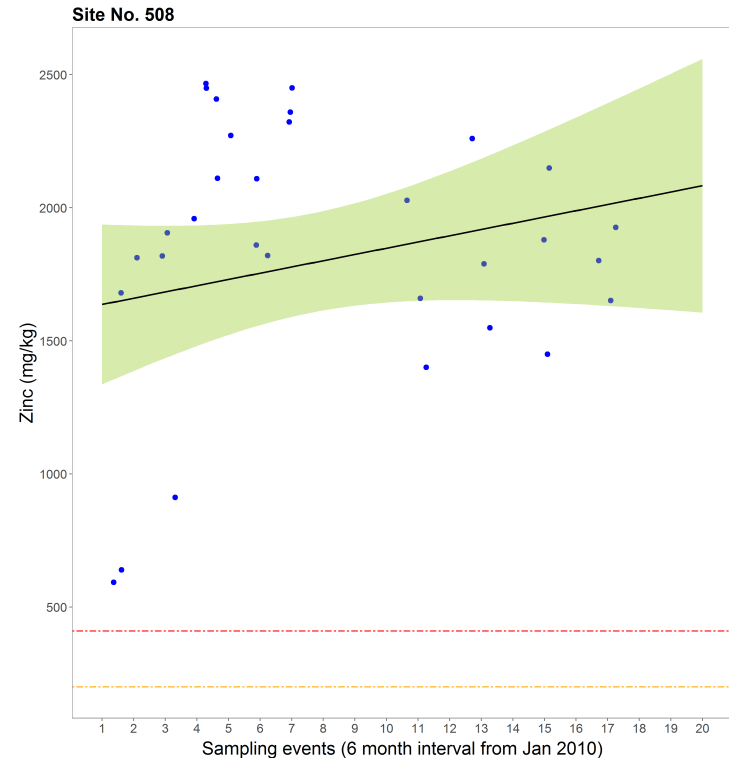
Daniel MacMahon, Hung Vu, Bree Tillett and Vincent Pettigrove

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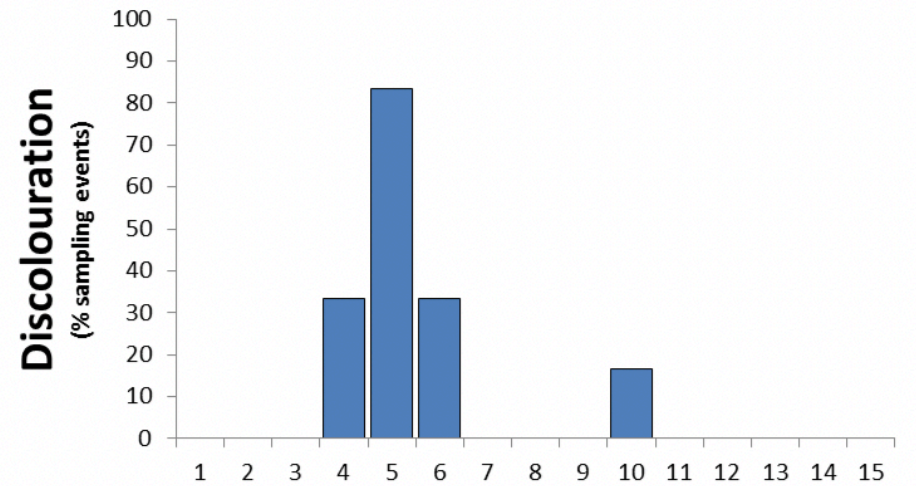
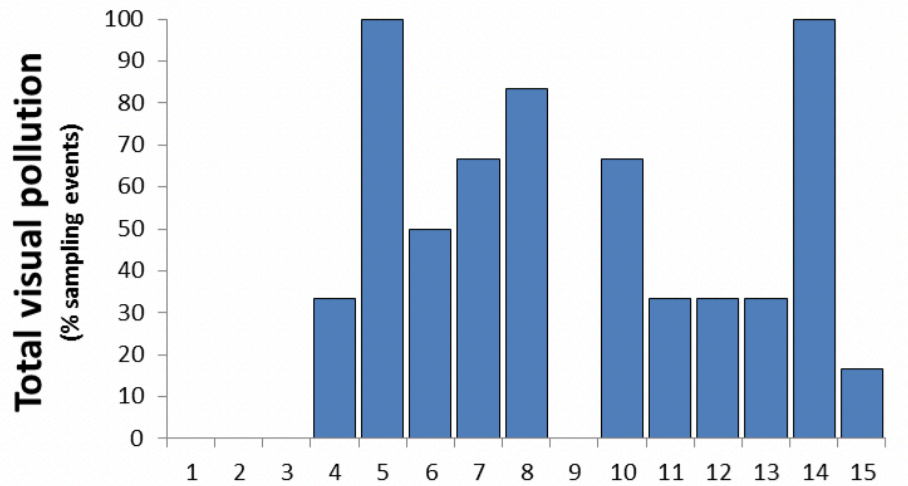
Drains with hot spots of pollution

Ainslie Rd Drain
Barry Rd Drain
Somerton Rd Drain
Jessica Rd Drain
Elizabeth St MD
Fairfield MD
Preston MD
Thomastown West MD



Zn concentrations in sediments of
Edgars Creek (Sharp et al, 2018)

Visible Pollution



Types of Litter

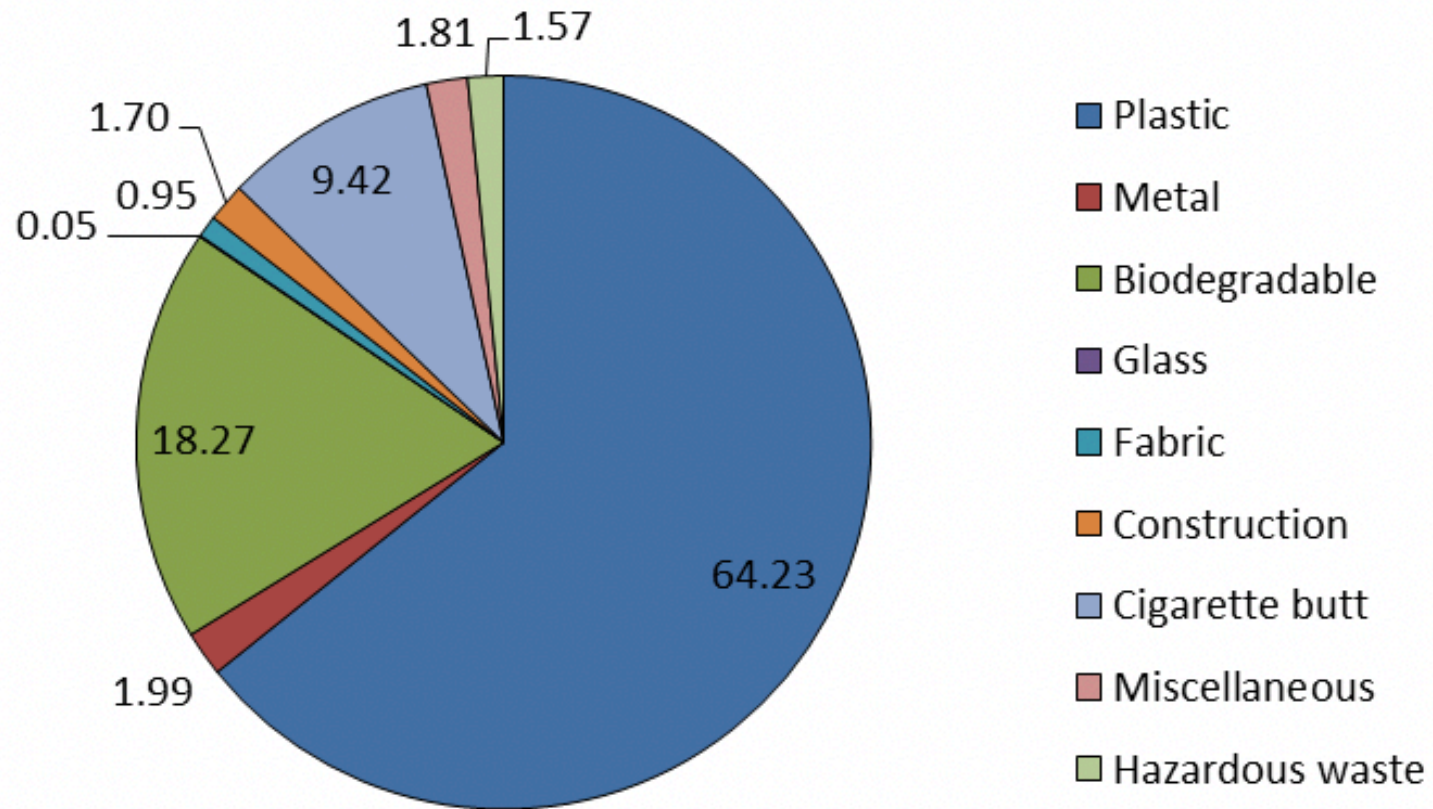
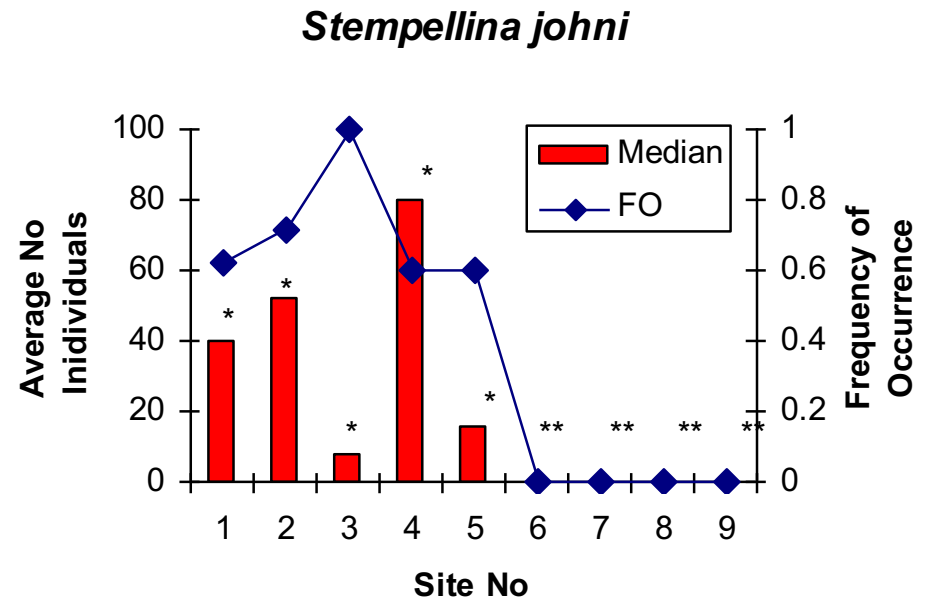
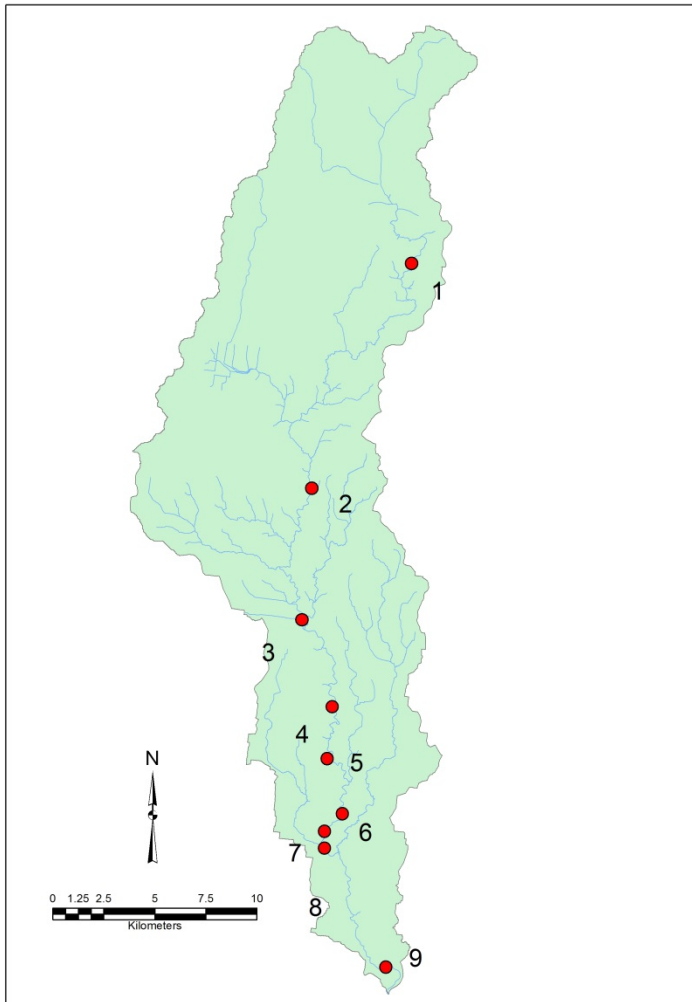


Table 3. Summary of drains with pollutants detected at elevated levels. A pollutant highlighted in orange indicates it was measured at elevated levels and further investigation is recommended. Red highlights indicate drains with consistent detections of human faecal contamination.

Drain ID	Drain Name	Human Faecal	<i>E. coli</i>	Ammonia	Pesticides	Heavy Metals	TPH	Conductivity	Visual/Litter	Further investigation recommended
1	Wallara Waters Drain									No
2	O'Herns Drain									No
3	Epping Drain									No
4	Ainslie Rd Drain	✓		✓						Yes
5	Jessica Rd Drain	✓	✓	✓		✓	✓		✓	Yes
6	Barry Rd Drain					✓				Yes
7	Somerset Drain		✓			✓	✓	✓		Yes
8	Thomastown West Drain	✓			✓					Yes
9	Thomastown Main Drain									No
10	Merrylands Drain									No
11	Merlynston Creek									No
12	Elizabeth St Main Drain	✓	✓				✓			Yes
13	The Avenue Main Drain									No
14	Preston Main Drain				✓		✓		✓	Yes
15	Fairfield Main Drain	✓	✓		✓					Yes

Sediments in the Cambellfield area are toxic to aquatic life



New housing estates are also a major source of pesticide pollution





Urbanisation of the catchment

- **Urbanisation will occur in most of the Merri Catchment**
- **Need to protect substantial ecological values remaining in the rural sections**
- **Development using standard urban stormwater management practices will certainly result in a loss of multiple values**
- **Risk that urban stormwater will not be adequately retained, treated or released in a flow regime adequate to protect the receiving streams**
- **Alternative strategies for urban stormwater management are required**

Walsh, Bond & Fletcher (2013). Possible ecological futures for Merri and Darebin Creeks. Melbourne Waterway Science- Practice Partnership, The University of Melbourne

What is our Vision for the Merri Creek?

For more information...

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