



# Thomastown Industrial Estate Pollution Monitoring and Education Project

City of Whittlesea

Edmond Lascaris

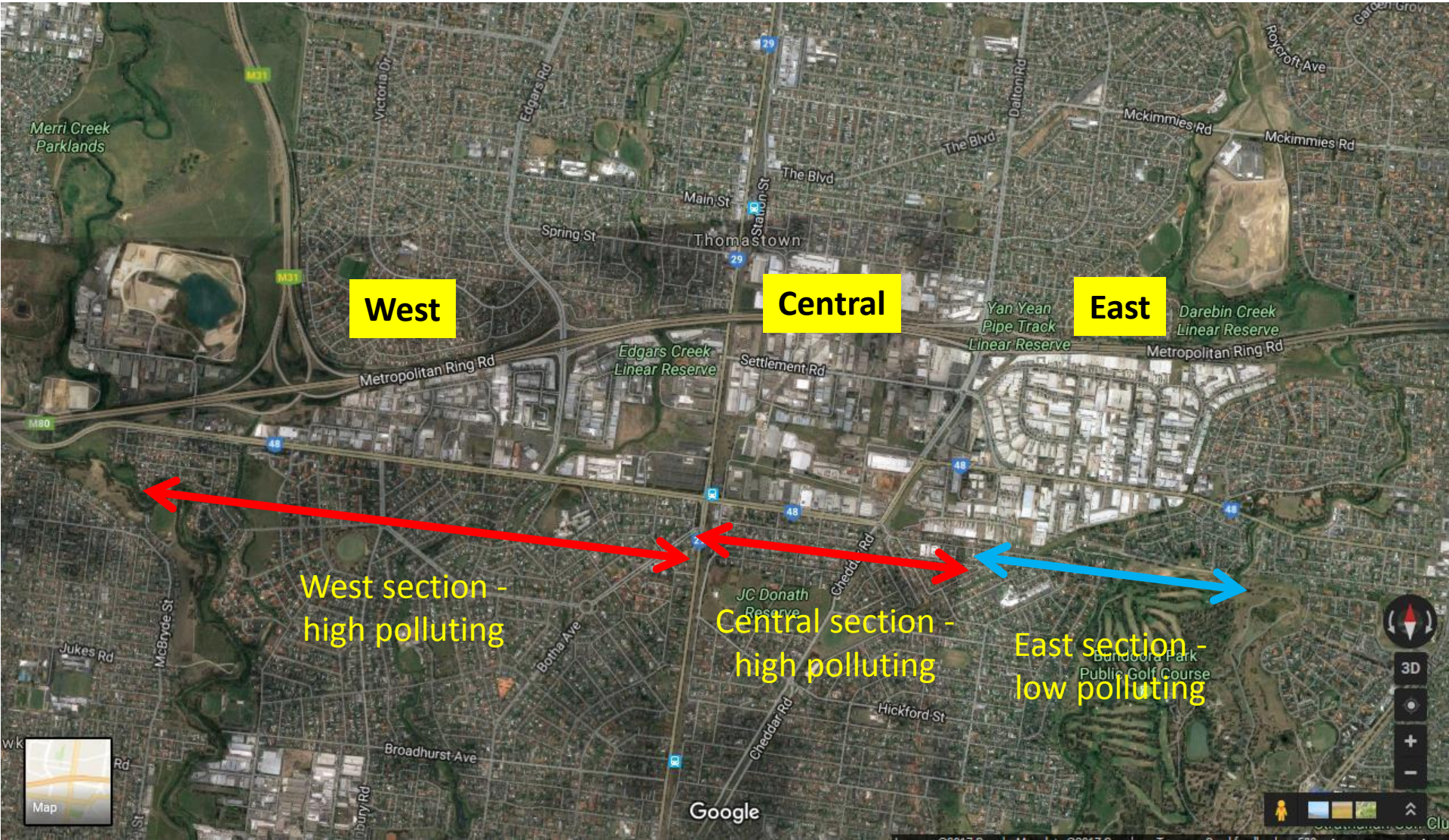
Melbourne Water - Living Rivers

CAPIM

Centre for Aquatic Pollution Identification and Management

# Thomastown Industrial Estate

## Stormwater pollution monitoring program



# Project Introduction

- EPA Victoria to investigate industrial premises in polluting catchments to pin-point polluting businesses (2009).
- City of Whittlesea to establish a stormwater education and enforcement program in industrial areas.
- City of Whittlesea to undertake an ongoing **monitoring program** to judge the effectiveness of steps 1 & 2 (2014-2016).

# CAPIM Meeting



Dave Sharley



Steve Marshall





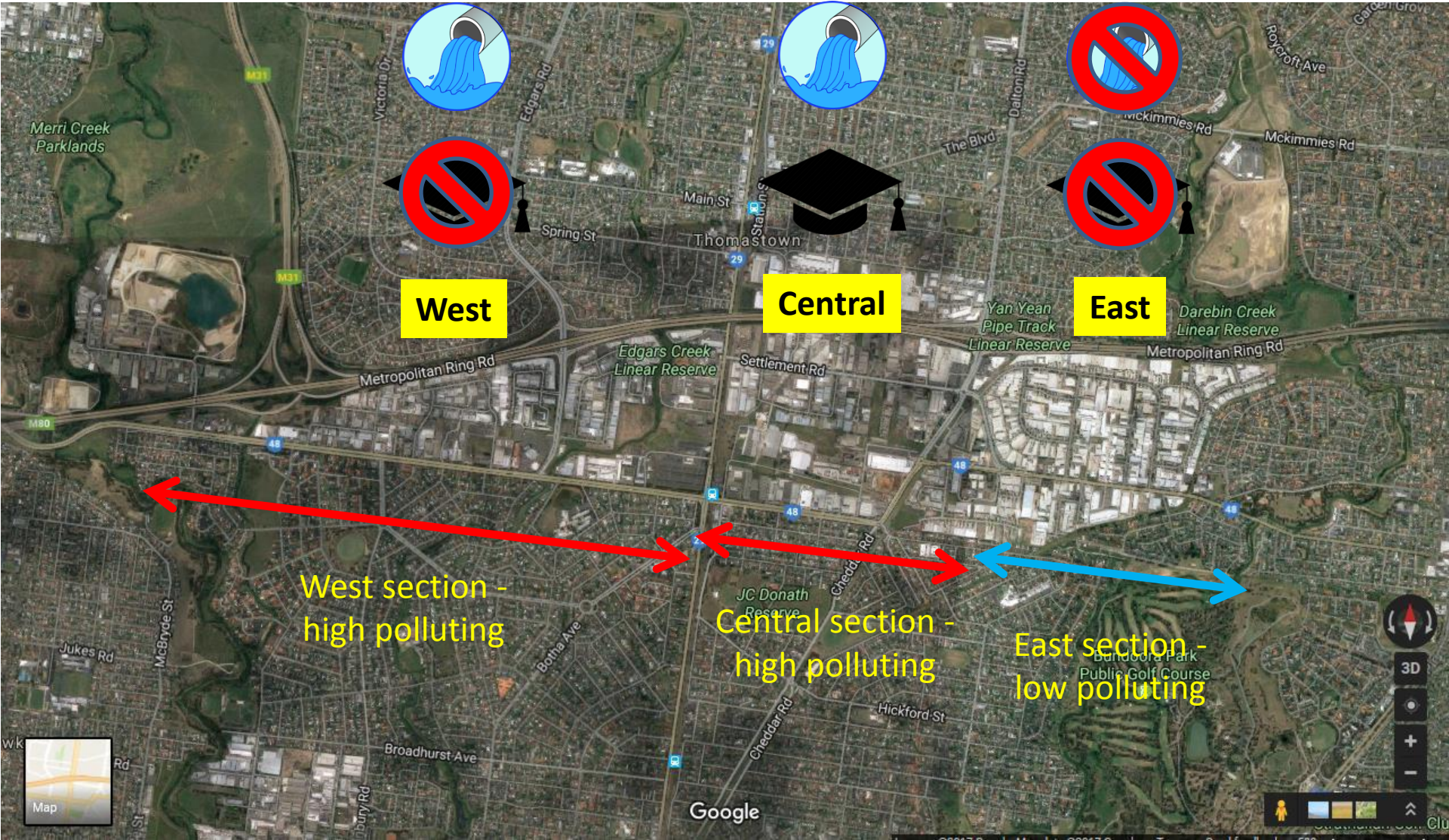






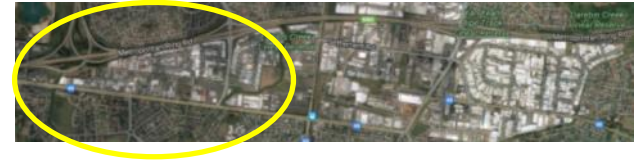
# Thomastown Industrial Estate



Experimental design



# Thomastown Industrial Estate

West section - **high pollution**  
- **no education**



-  active sample point
-  inactive sample point

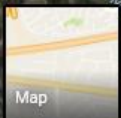
West

228  
229

400

240

Central Creek -  
Merri Creek

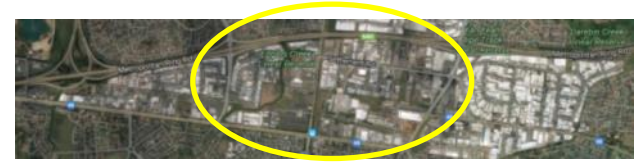


# Thomastown Industrial Estate

Central section

- high pollution

- education



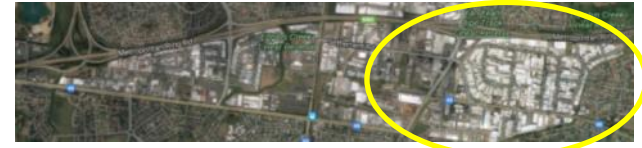
○ active sample point

○ inactive sample point

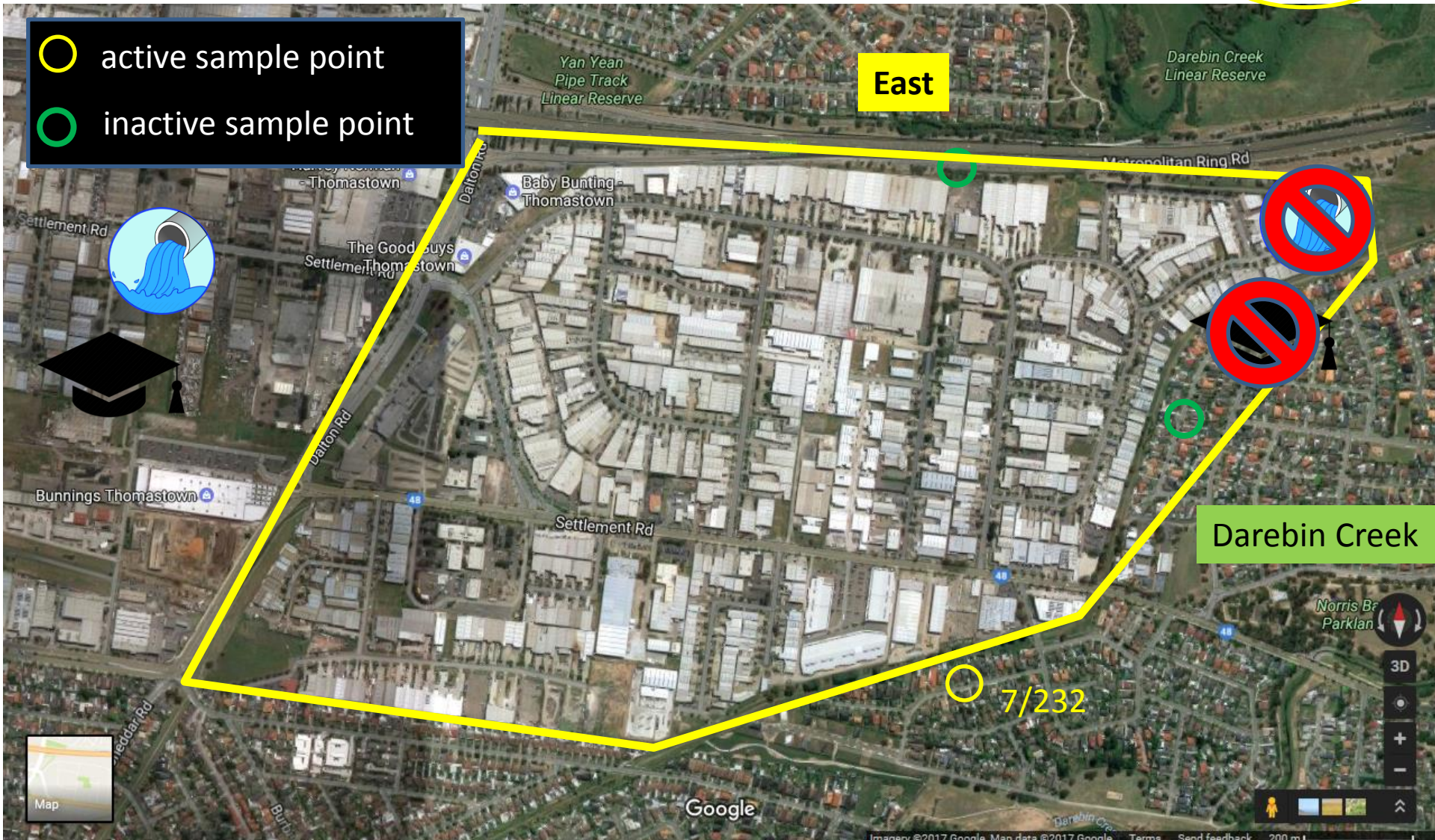


# Thomastown Industrial Estate

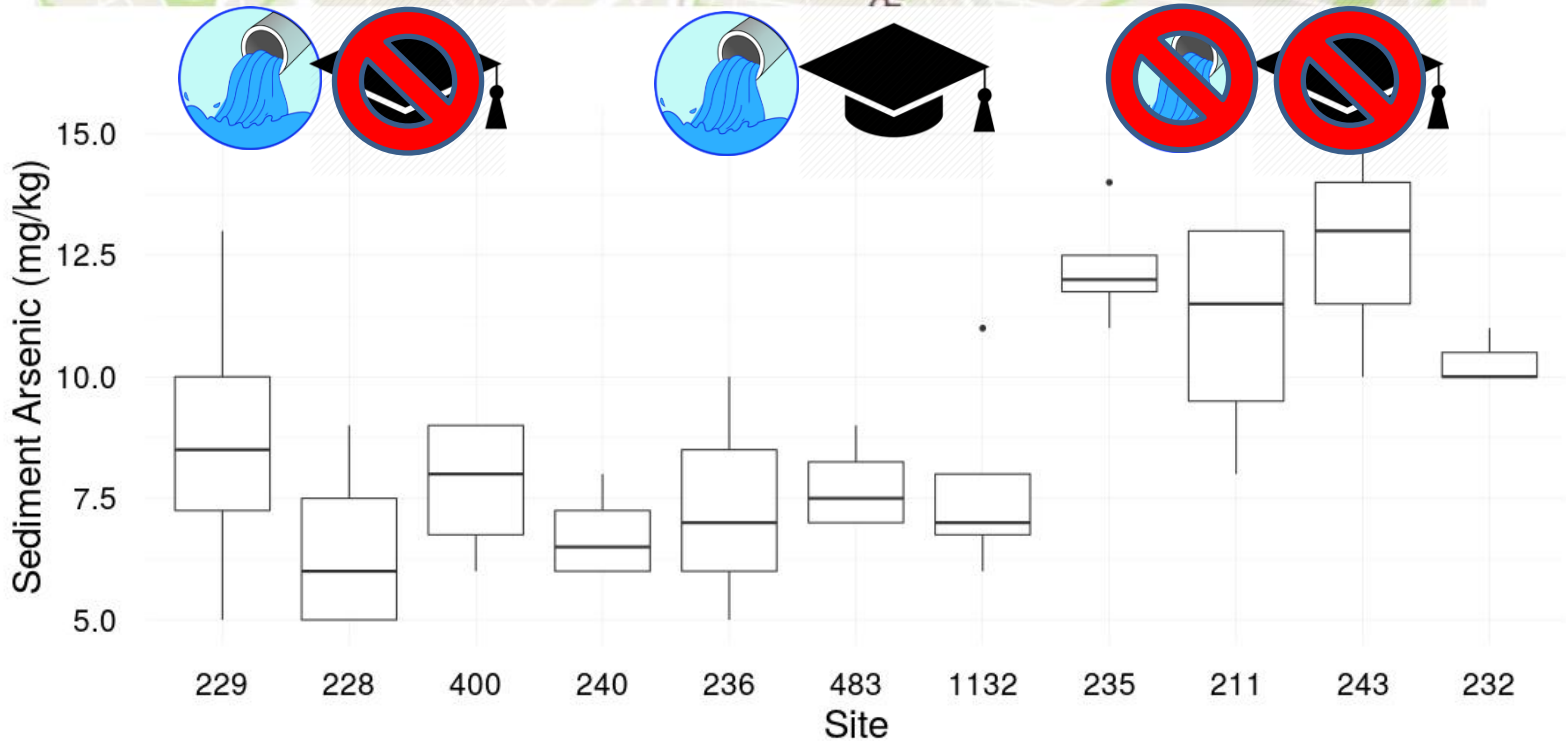
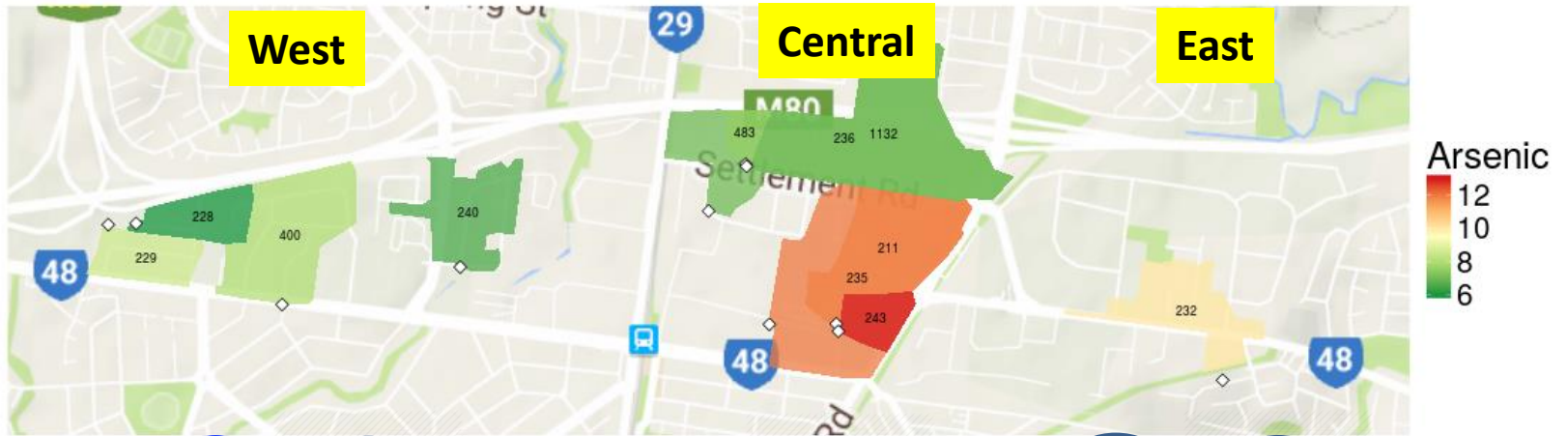
East section - **low pollution**  
- **no education**



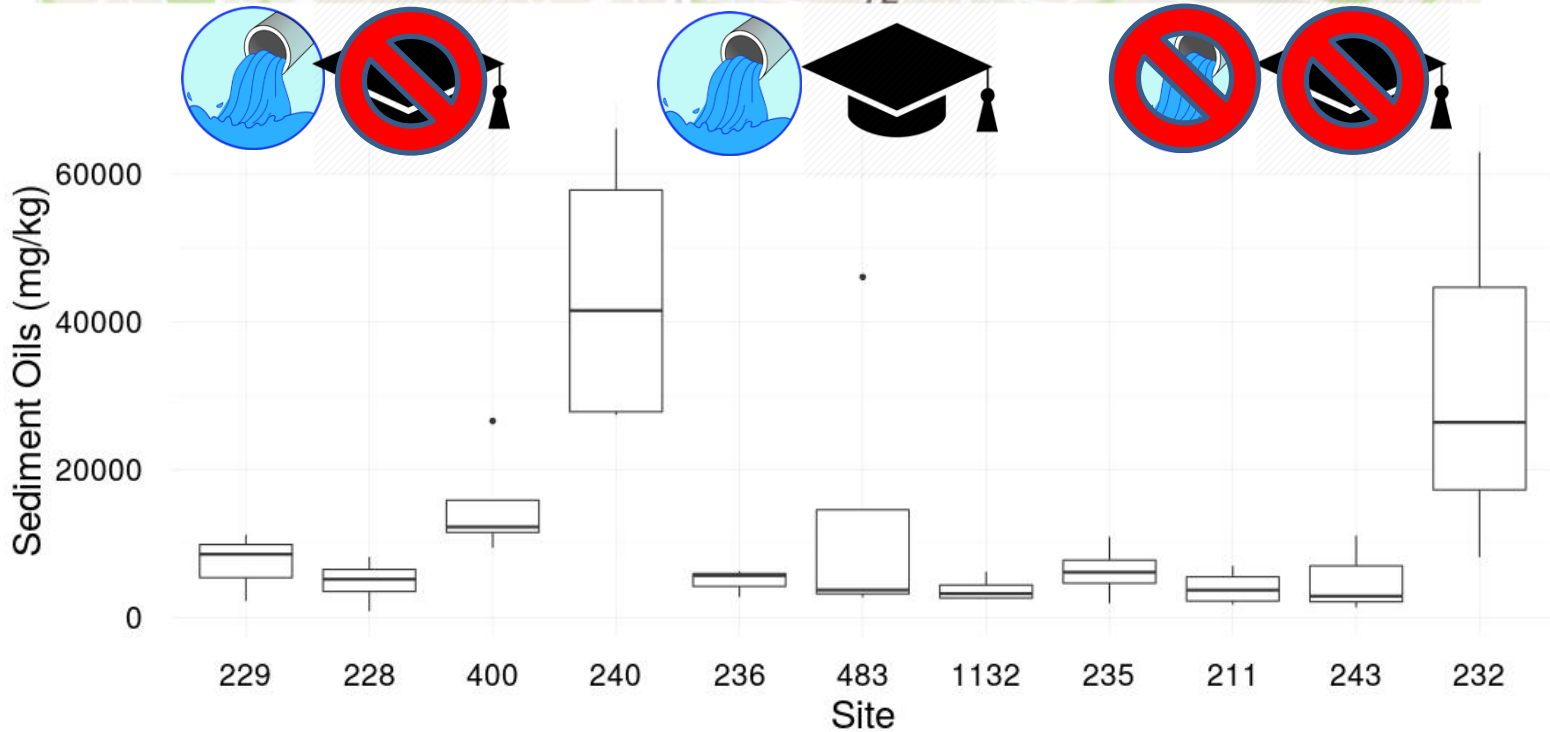
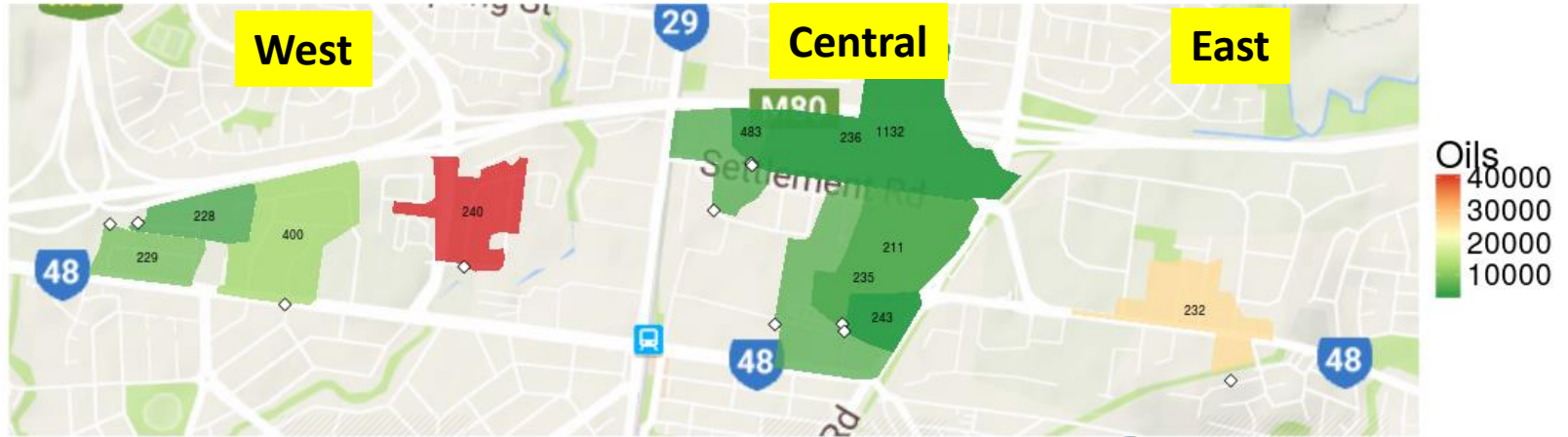
○ active sample point  
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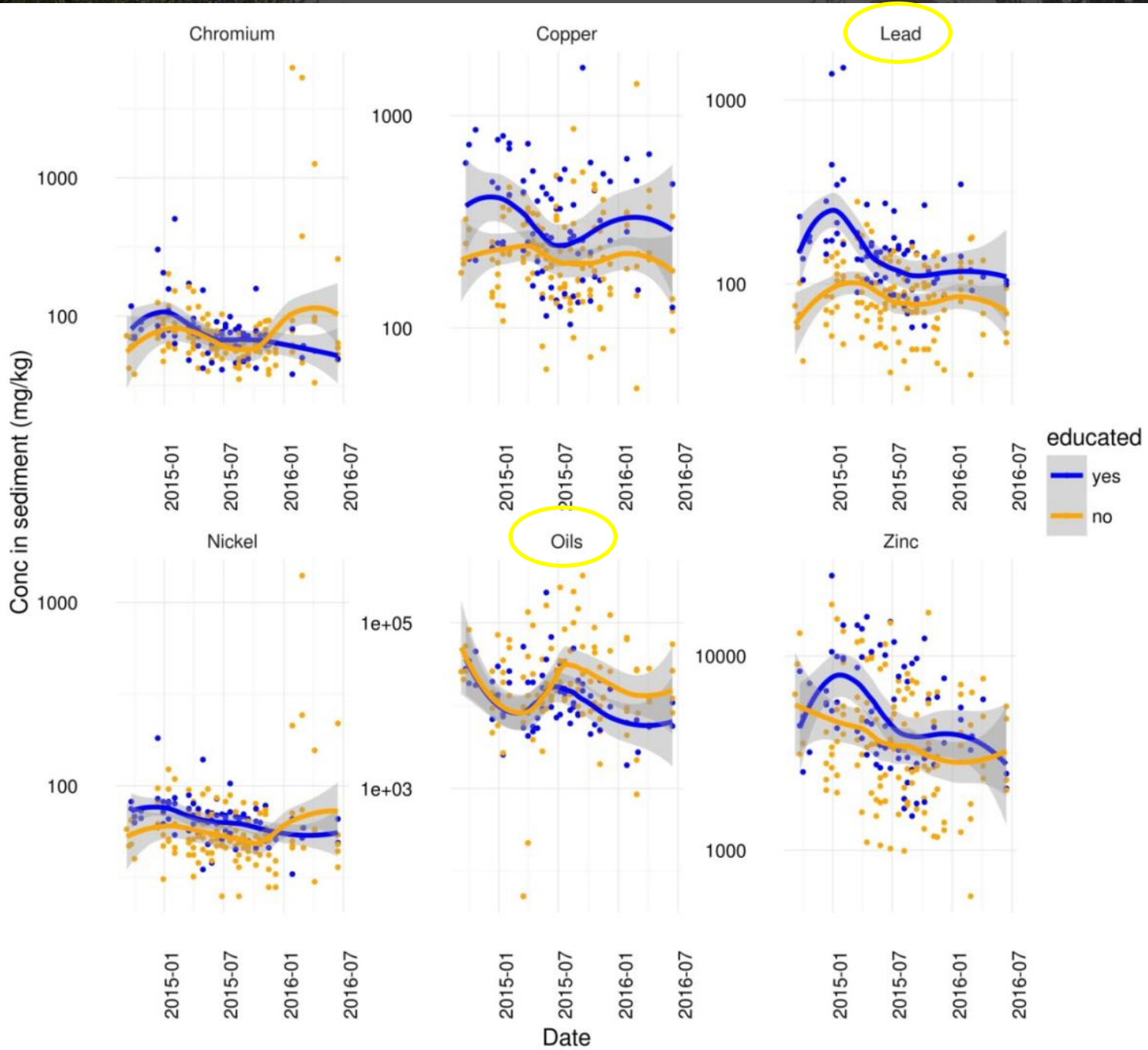


# Sediment concentration of Arsenic in passive samplers (mg/kg)



# Sediment concentration of Oils in passive samplers (mg/kg)





# Results

- Significant reductions in oils and lead in educated site.
- Most businesses did not contribute to stormwater pollution.
- All businesses permitted Council officers to complete inspections of their work sites.
- Most businesses were unaware of the connection between stormwater and local waterways or the connection to the bay.



# Results (cont)

- Businesses appreciated the visit by Council officers. Opportunity to speak face to face.
- Businesses in general had been in decline for the past 5 years.
- High turnover of businesses.

# Polluters - examples

- Large gardens supply company contributing to sediments.
- Site stockpiling large quantities of fire extinguishers. EPA
- Small single garage auto wrecker. Fuel and oil leaking into stormwater.
- Trucking business with large earth moving machinery.
- Small wrecker. Suspected of being the source of a diesel spill.
- Softdrink company with several chemical spill.
- Small business doing repainting. Paint flecks found in sampler.
- Small meatworks business. Sent daily washdowns to stormwater.
- Medium sized autowrecker. Site appears to be highly contaminated.
- Tyre shredding business. Particles of tyre ending up in stormwater.
- Crane hire business. Regularly conducted wash downs to stormwater.
- Auto repair shop with illegal connections to stormwater.
- Legacy of old drums from previous tenants. Contents unknown.
- Air pollution from grease trap processing operation.

# Lessons learned

- Education proved to be an effective mechanism to improve community awareness and engagement
- The Education program was very time intensive, with Council staff engaging with businesses twice a year for the whole industrial estate (400 businesses)
- Valuable to target all businesses in a catchment in the initial sweep of the area.
- There are some recalcitrant businesses that do not respond to education alone.

# Thank you

- Melbourne Water - Living Rivers Grant
- CAPIM
- EPA