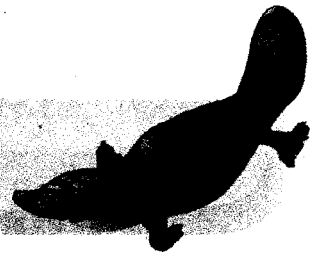


Pollution Report



Waterwatch Melbourne Pollution Report

EPA Pollution Watch Line
1300 372 842 (24 hours)
www.epa.vic.gov.au

Monitoring site details/location of discharge

Site code (if applicable): ETN 900 + ETN 600
 Site description (if applicable): Tanti Creek @ the Esplanade + Stones Crossing resp.
 Nearest street to pollution site: Nepean Hwy to the Esplanade
 Nearest road overpass: As above
 Other landmarks to assist site location:

Name of monitoring group Tanti Creek Friends

Persons monitoring: Martin Lenard

Date and time of monitoring: 9/2/2017 10:34 am - 12:10 pm.

Short description of what you have observed that was 'out of the ordinary'

Both sites recorded very high phosphate levels i.e. ETN 900 0.65 mg/L and ETN 600 0.69 mg/L (refer data sheets). Follow-up testing upstream recorded 0.36 mg/L at the Nepean Hwy bridge, and 0.18 mg/L at the Tanti Creek retarding basin drain (measured at the Richardson Dr drain point) and 0.08 mg/L at the Richardson Drive drain (refer map).

NB: SEPP (WAV) Water Quality Objective total phosphorus is ≤ 0.045 mg/L

Colour observed: Water colour appears normal i.e. clear

- Light yellow (similar to sediment/clay dissolved in water) Milky/Grey
 Dark brown/murky (top soil/compost dissolved in water) Rainbow coloured sheen

Does the pollutant:

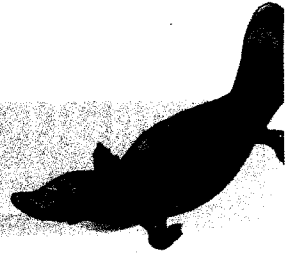
- Float on the surface Accumulates along the creek banks
 Form a foam/froth Dispersed in the water (refer photos)

Colour character (if detected): No unusual odour

- Chemical type of smell Sewage type of smell (rotten eggs)
 Rotting/putrid/decaying Petrol/diesel

Odour intensity/description (rate the strength of odour):

- No odour detectable Slight (detectable but inoffensive) Distinct (generally tolerable)
 Strong (unpleasant) Very Strong (obnoxious) Extremely strong (nauseating/unbearable)



Pollution Report

Pollution description:

How is it moving? Is it affecting whole stream?

Affecting whole stream. Foam seen evident at the Tanti Creek estuary from at least 4pm on 8/2/2017, and possibly up to a day earlier.
Is the surrounding vegetation effected? e.g. Staining on bark, die back of trees.

No

Any other signs of disturbance? e.g. Fish kills, loss of macro-invertebrates, dead or sick birds?

No

What distance/area of the creek does pollutant cover? e.g. Only in-stream, left side of creek, creek width, 100m downstream etc.

At least 1.7 km (from Estuary to Watts Rd)

What is the land use for the area? e.g. Residential, industry, farmland, etc.

Residential, and commercial.

If available, please attach physical/chemical data sheet and answer the following questions:

What parameter/s are indicating the problem (and value recorded (units))? e.g. Turbidity (400 NTUs)

ETN 900 9/02/2017 0.65 mg/L phosphate
ETN 600 0.69 mg/L phosphate

What value (max-min) do you usually get that indicates a healthier reading? e.g. Turbidity (10-30 NTUs)

Phosphate 0.00 - 0.05 mg/L

Is water upstream clear of pollution?

Yes No clearing

Is this the first time you have seen pollution at this site?

Yes No

Sometime on 8/2/17 to approx midday 9/2/17

Origin of pollution (if known)? e.g. stormwater drain, runoff.

Best bet is that the source of pollution was the Tanti Creek Retarding Basin stormwater drain (~~near~~ Melb Water drain DR-1730-LA012) upstream of the junction with drain DR-1740-LA001. Pollution occurred from

If possible, sketch a map of the spot where the pollution is coming in, label landmarks such as drains, signs, bridges, roads, etc.

Refer attached map.

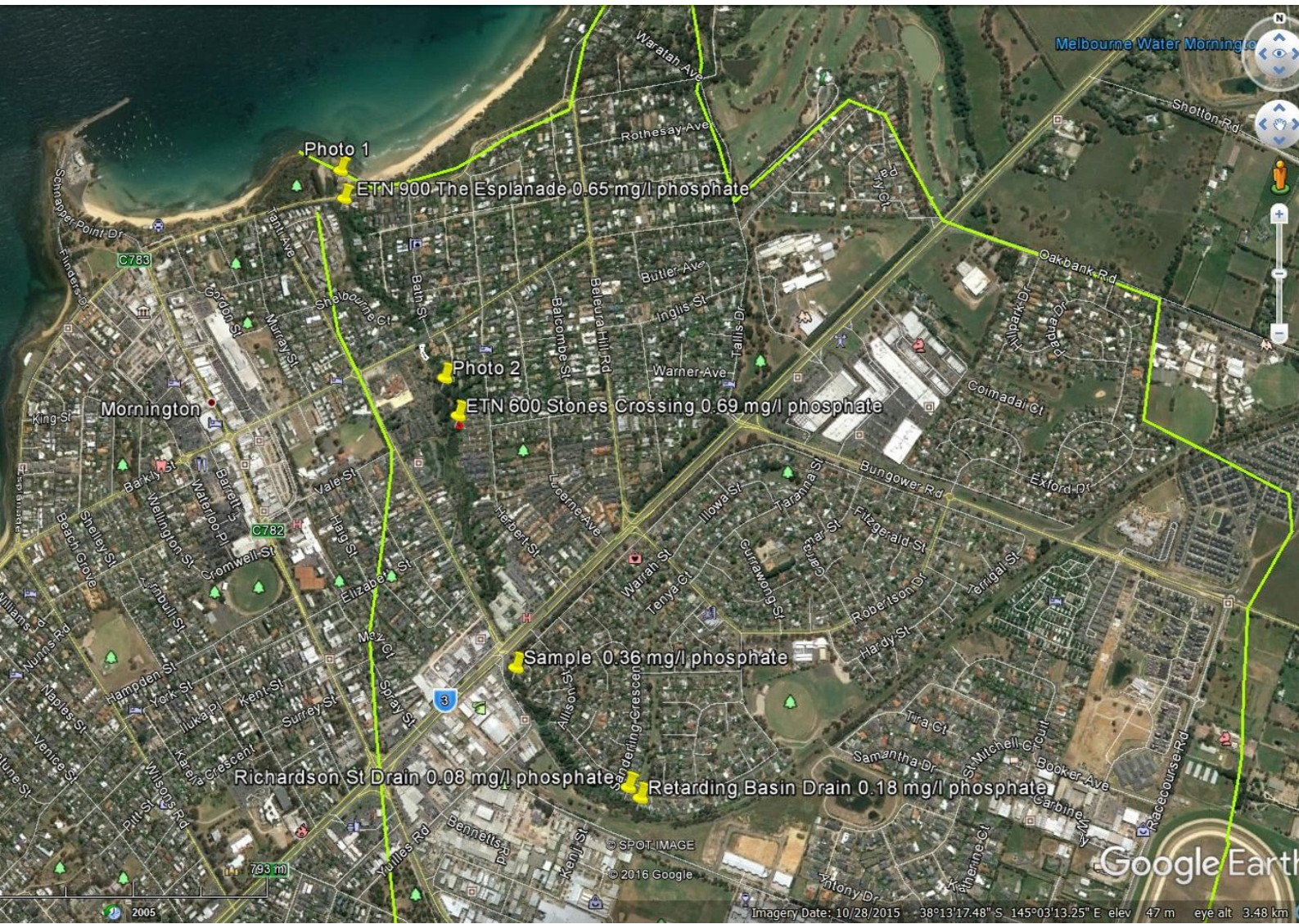


Photo 1

ETN 900 The Esplanade 0.65 mg/l phosphate

Photo 2

ETN 600 Stones Crossing 0.69 mg/l phosphate

Sample 0.36 mg/l phosphate

Richardson St Drain 0.08 mg/l phosphate

Retarding Basin Drain 0.18 mg/l phosphate

Google Earth

Imagery Date: 10/28/2015 - 38°13'17.48" S 145°03'13.25" E elev 47 m eye alt 3.48 km

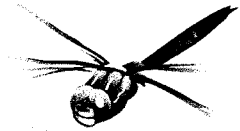


Photo 1



Trapped Foam

Photo 2



Physical and Chemical Analysis Data

Waterwatch Melbourne Physical and Chemical Analysis

Monitoring site details

Site code: ETN 600

Site description: Tanti Creek Mornington Site#2 Stones Crossing

Name of monitoring group

Persons monitoring: Martin Lenard

Date and time of monitoring: 9/2/2017 ~~10:30 am~~
12:10 pm

Please record your data below:

Parameter	Reading	Comments
Air Temperature	29 °C	
Water Temperature	23.2 °C	
Turbidity	NTU	forgot to do!
pH	6.5 Unit	
Conductivity	2900 µS / cm	
Dissolved Oxygen	6.9 ppm mg / L	% Saturation
Phosphate <small>(if using Lammotte Smart2 spectrophotometer by Smart to calculate mg/L)</small>	2.11 ppm $\times 0.326 = 0.69$ mg / L	recomm. level is less than 0.045 mg/L \Rightarrow 15 times recomm level
Ammonium	mg / L	
Nitrate	mg / L	

Observations and Notes:

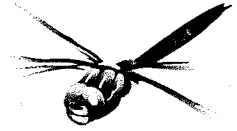
What has changed since last time you monitored?

Evidence of high water flow

What stands out about the site today?

Rubbish on high water mark
Scum on surface of quieter pools.

Other observations:



Physical and Chemical Analysis Data

ETN 600 9/2/2017 12-10 PM 2

Waterway Information

Rate of flow:

- Very fast
- None
- Fast
- Permanent
- Normal base flow
- Temporary
- Slow
- Other
- Trickle

If 'Other', please specify:

Type of flow:

- Rising
- Steady
- Falling
- Peak
- Dry
- Pools / Puddles
- Other

If 'Other', please specify:

Waterway Appearance:

- Clear
- Oily
- Muddy
- Discoloured
- Smelly
- Milky
- Frothy
- Stained brown
- Scummy *Slightly*
- Other

If 'Other', please specify:

~~cloudy~~ Noticed a lot of scum on the surface at the Estuary yesterday,

Waterway depth: _____ cm (0 to 3000cm)

Waterway width: _____ cm (0 to 100m)

Weather:

- Sunny
- Hail
- Cloudy
- Windy
- Overcast
- Foggy
- Showers
- Other
- Rain

If 'Other', please specify:

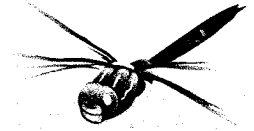
Last rainfall:

- Raining now
- Last 24hrs
- Last 3 days
- Last 7 days *43mm in 3 hrs*
- More than a week ago

Litter / Pollutants:

- Cans
- Food Packets
- Waxed Cardboard
- Paper
- Plastic
- Bottles
- Clothing
- Polystyrene
- Petrol/Diesel (m²)
- Oil (m²)
- Car bodies
- Other

If 'Other', please specify:



Physical and Chemical Analysis Data Form

Waterwatch Melbourne Physical and Chemical Analysis

Monitoring site details

Site code: ETN 900

Site description: Tanti Creek Mornington Estuary Site 1

Name of monitoring group

Persons monitoring: Martin Lenard

Date and time of monitoring: 9/2/2017 10.34 am.

Please record your data below:

Parameter	Reading	Comments
Air Temperature	26 °C	
Water Temperature	23.3 °C	
Turbidity	8.47 FAU	
pH	7.1 Unit	
Conductivity	2830 µS / cm	
Dissolved Oxygen	7.4 ppm mg / L	% Saturation
Phosphate <small>(If using Lamotte Smart2 Colorimeter multiply by 0.326 to calculate mg/L)</small>	1.98 ppm × 0.326 = 0.65 mg / L	Highest level ever recorded ?? Second test 1.95 ppm.
Ammonium	- 0.02 mg / L	
Nitrate	- mg / L	

Observations and Notes:

What has changed since last time you monitored?

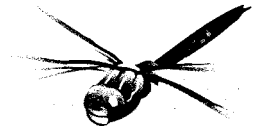
Clearly been a flood event

What stands out about the site today?

Flood debris + litter

Other observations:

Abundant adult + juvenile galaxias in creek.
Swamp Melaleuca tipped out of ground by log during flood
Kikuyu colonising sand on banks of creek.



Physical and Chemical Analysis Data Form

Waterway Information

Rate of flow:

- Very fast
- Fast
- Normal base flow
- Slow
- Trickle
- None
- Permanent
- Temporary
- Other

If 'Other', please specify:

Type of flow:

- Rising
- Steady
- Falling
- Peak
- Dry
- Pools / Puddles
- Other

If 'Other', please specify:

Waterway Appearance:

- Clear
- Muddy
- Smelly
- Frothy
- Scummy
- Oily
- Discoloured
- Milky
- Stained brown
- Other

If 'Other', please specify:

Waterway depth: 126 cm (0 to 3000cm)

Waterway width: 40 cm (0 to 100m) (new sik)

Weather:

- Sunny
- Cloudy
- Overcast
- Showers
- Rain
- Hail
- Windy
- Foggy
- Other

If 'Other', please specify:

Last rainfall:

- Raining now
- Last 24hrs
- Last 3 days
- Last 7 days
- More than a week ago

43mm in 3 hrs.

Litter / Pollutants:

- Cans
- Paper
- Clothing
- Oil (m²)
- Food Packets
- Plastic
- Polystyrene
- Car bodies
- Waxed Cardboard
- Bottles
- Petrol/Diesel (m²)
- Other

If 'Other', please specify:

Files of rushes + phragmites at high water level