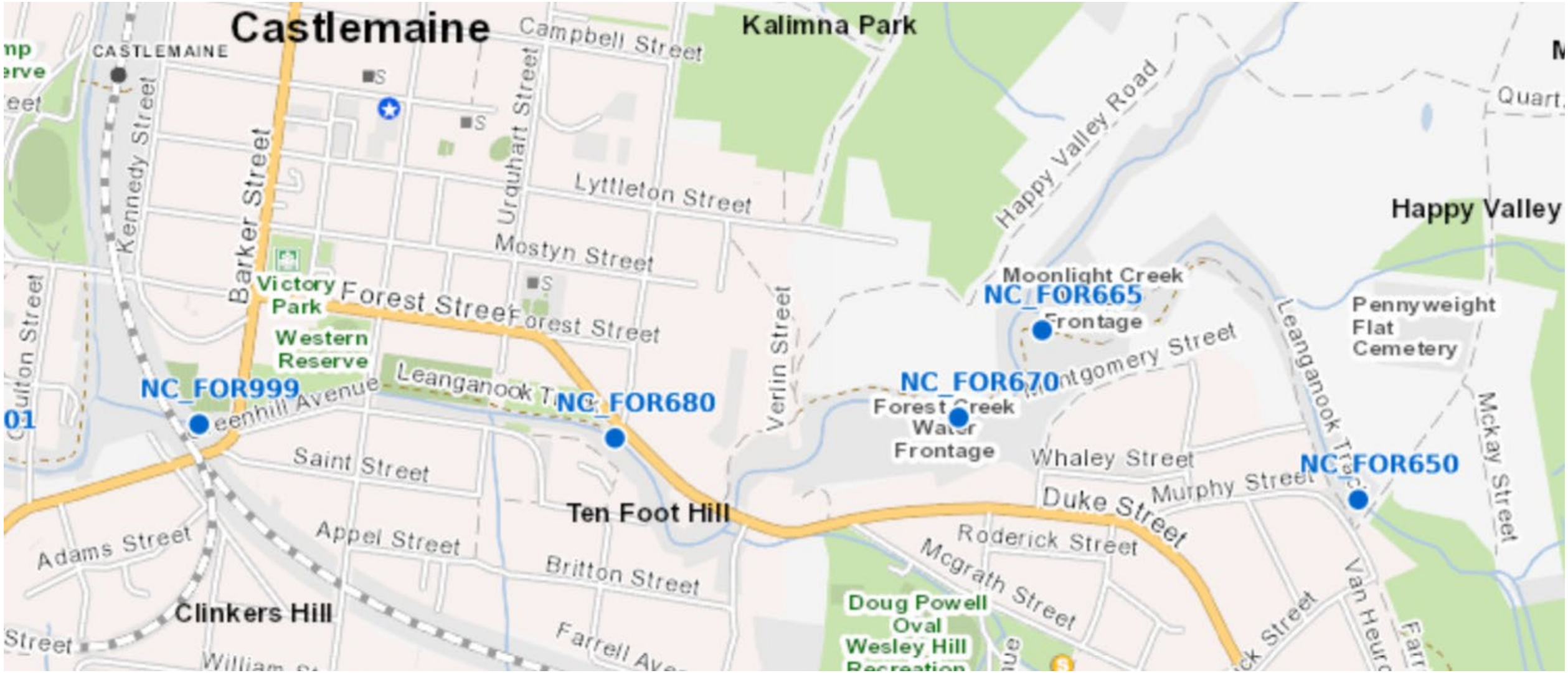
CASTLEMAINE LANDCARE GROUP
FOREST CREEK WATERWATCH
WATERWAY HEALTH MONITORING PROGRAM

Four sites have been monitored since 2006, with another added in 2019.



Part of the Castlemaine Urban Waterways Citizen Science Project

"RIVER HEALTH SNAPSHOT REPORT" 2019-2020

WATERWATCH MONITORING FOREST CREEK
SITE NC_FOR650
COLLES ROAD BRIDGE, MOONLIGHT FLAT

NORTH CENTRAL CMA WATERWATCH DATA "RIVER HEALTH SNAPSHOT REPORT" 2019-2020

Water Quality Colour Coding

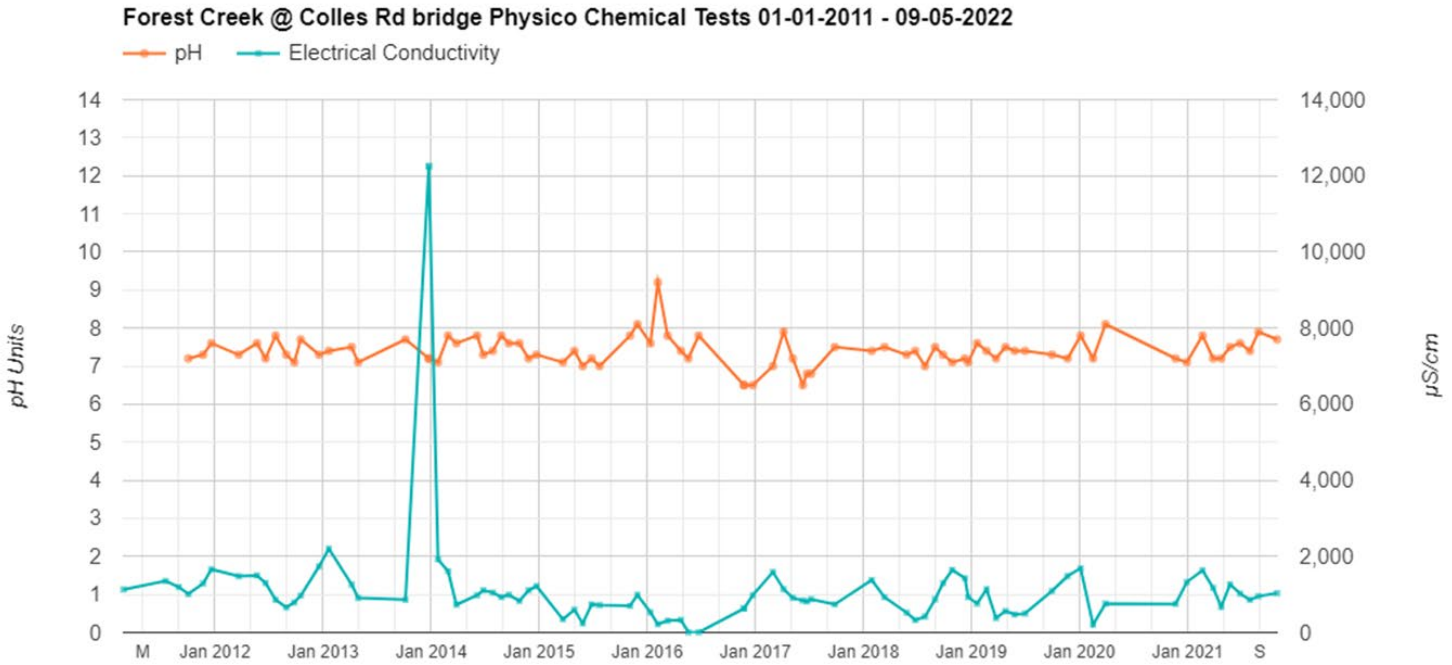
Sites have been colour coded and interpreted as follows:

Good: Water quality is acceptable and has minimal impacts on aquatic ecosystem health.

Moderate: Water quality and aquatic ecosystem health are moderately impacted.

Poor: Water quality and aquatic ecosystem health are largely impacted.

pH
Turbidity
Electrical conductivity
Reactive phosphorous

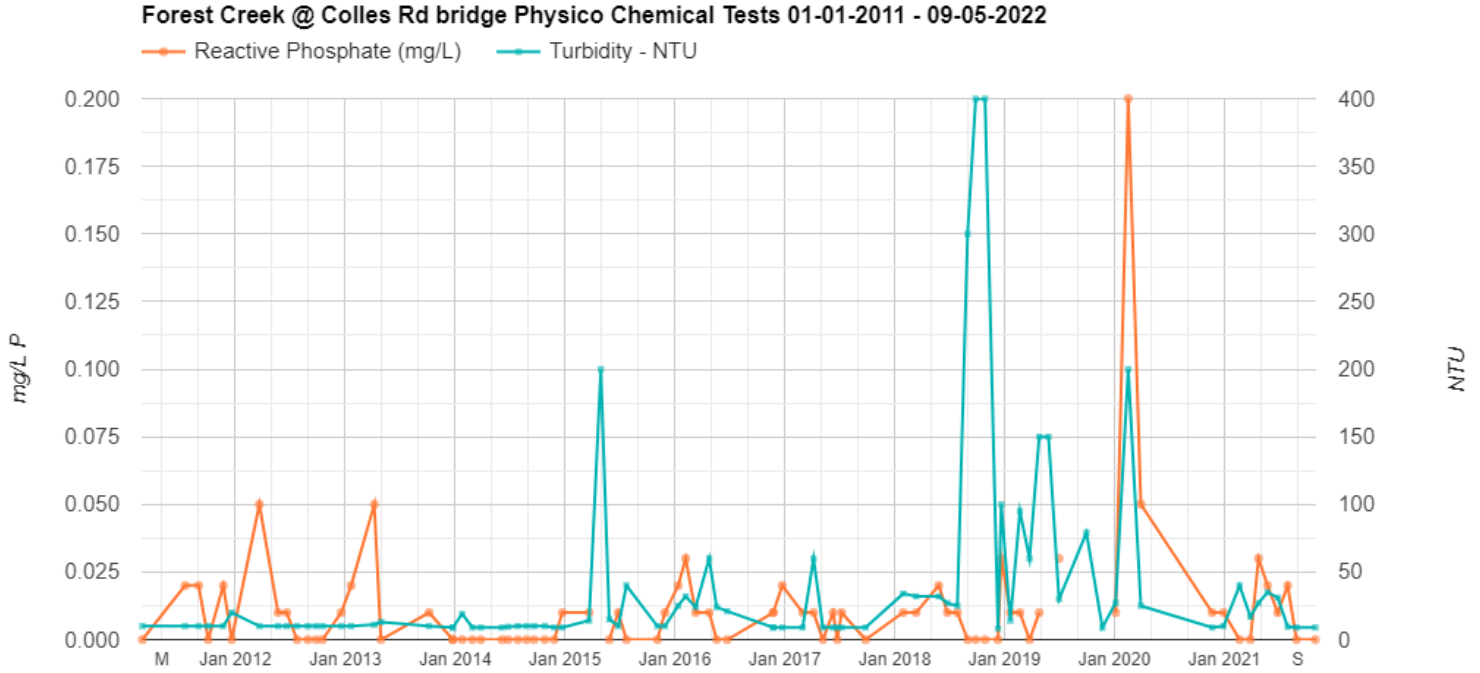


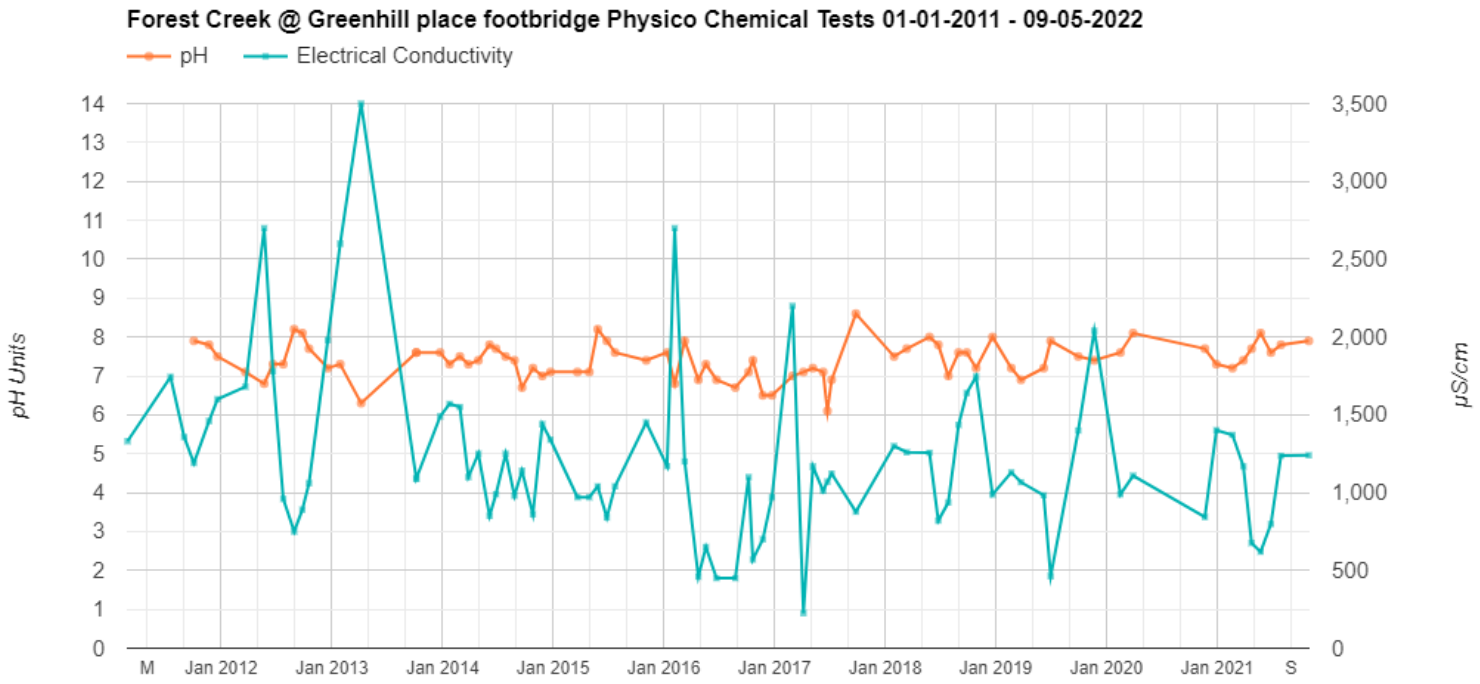
pH – basic /neutral / acid

EC – salinity

P – Phosphate nutrient

NTU – turbidity or muddiness





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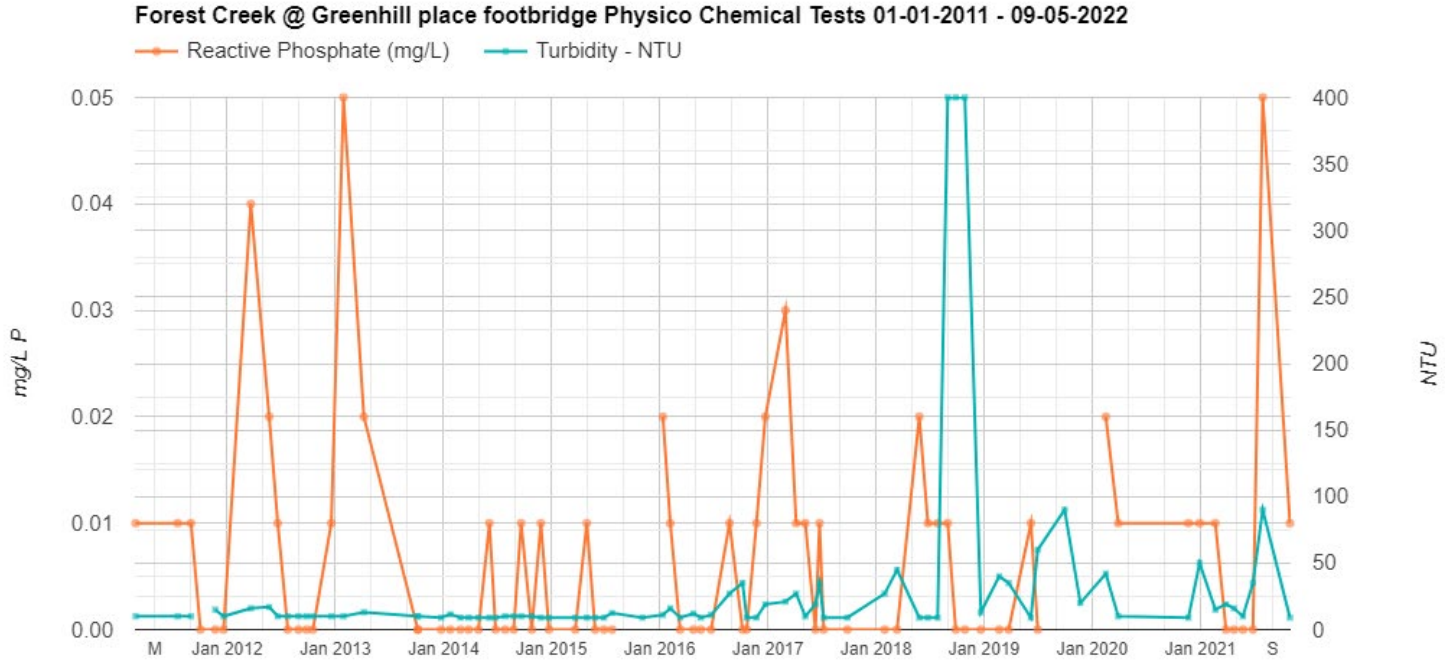

NORTH CENTRAL CMA WATERWATCH DATA "RIVER HEALTH SNAPSHOT REPORT" 2019-2020

Water Quality Colour Coding

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NCCMA Water health & Waterbug surveys 2019

gravel road that crosses the creek. Interestingly, NC_FOR999 indicated low turbidity values which is surprising due to its proximity to the highway and train line. It was assumed runoff from here would (negatively) influence the site's turbidity.

There were elevated salinity levels across each site which may be linked to historical land clearing and agricultural practices. The concentrations of reactive phosphorous were considered moderate overall and were considered good at both NC-FOR650 and NC-FOR680. The elevated readings for Forest Creek were driven by NC-FOR999, which may be linked to runoff from nearby roads, but is more likely being influenced by a phosphorous source upstream. Finally, pH was within a good range for all sites and remained relatively consistent across the sampling period.

Waterbug monitoring indicates poor taxa richness, EPT and SIGNAL scores, which may be driven by the overall high turbidity. Additionally, site specific factors such as lack of riparian vegetation and instream habitat are strong drivers for instream ecological condition. More data is needed to get a better picture of ecological condition. Further sampling will also provide a better insight into the health of the waterway in line with stream and revegetation works.

Phos (Mg/L)	pH	EC (Us/cm)	Turbity (NTU)	Waterbug Taxa Richness	ALT EPT	Signal Score
0.06	7.5	1758.5	74.3	12.5	1.5	3.5

ALT Signal Index
(indicates the pollution tolerance of the waterbug community present)

Taxa Richness
(number of different types of waterbugs)

EPT Signal
(different types of stoneflies, mayflies and caddisflies)

At the moment Waterwatch monitoring is shared by Matt Kennedy and Anne Perkins, but we would be happy to have some more volunteers to share the fun! You get :

- training and support from North Central CMA, and us
- Citizen science cred
- Some new basic scientific testing skills
- A great introduction to stream health and what makes Forest Creek tick!
- Meet new people and bugs
- Contact Matt on migalake33@gmail.com