



8 April 2024

Dear Councillors,

RE: MICROPLASTIC MONITORING AT NORMAN GRIFFITH OVAL

Voices of Kur-ring-gai are writing about our concerns about the synthetic field development at Norman Griffiths oval.

Firstly, we are asking for clear confirmation as to whether or not Ku-ring-gai Council is going to undertake ongoing, publicly available microplastic monitoring at Norman Griffiths synthetic oval.

The contamination event at Quarry Creek over this past weekend underscored the fundamental flooding and drainage issues at Norman Griffiths.

Despite assurances in the REF that an 'Environmental Management Plan' is in place to ensure that any 'pollution from construction' will be 'controlled through stormwater management and erosion and sediment management measures'¹, huge amounts of sediment yet again ended up in Quarry Creek from the construction site - just one of multiple incidents where Quarry Creek has been full of sediment and sand after a rain event.² Understandably many residents (not just Bushcare volunteers) are upset and angry at the impact on the creek. To date it has been residents that have had to notify the EPA and we understand the EPA is formally investigating these incidents.

The creek flows into National Park and Lane Cove River. Sediment of this magnitude in stream beds disrupts the natural food chain by destroying the habitat where the smallest stream organisms live. There are dozens of aquatic and terrestrial [species](#) affected by these incidents including the Eastern water dragon and Longfin eels. Frogs are disappearing in Australia and are highly sensitive to sedimentation including the Common Eastern Froglet, Striped Marsh Frog and the Green Stream Frog identified downstream and the vulnerable red crowned toadlet.³

The obvious issue these events raise is the wisdom of putting an impervious surface in the middle of a flood detention basin and the question remains whether Ku-ring-gai council will be able to keep microplastics and chemical leachates out of Quarry Creek in high rainfall events once the synthetic field is constructed.

¹ Norman Griffith oval REF, page 81

² Incidents notified to EPA include 18 May 2023, 8 August 2023, 6 November 2023, 15 January 2024, 6 April 2024

³ There are 71 records for the Red-crowned Toadlet within a 5 km radius of the subject site, covering a period from 1994 to 2022 – 10 from call recognition.



The Chief Scientist report into synthetic ovals recommended that synthetic ovals should not be placed in flood prone areas (such as Norman Griffith oval) because in high rainfall events microplastics and infill can *entirely bypass* mitigation measures (such as swales and traps) and end up in nearby creeks and waterways. The fact that the oval will contain cork infill does not mean that microplastic or chemical pollution will not occur at the field. The Chief Scientists report notes loss of turf fibres from fields is:

“likely to be in the 100s of kilograms per year, however this type of loss....is far less studied.....Due to the lower density of the turf fibres and hence higher mobility, they may pose a greater pollution risk for aquatic environments than infill’.⁴

Furthermore, chemical leachates and microplastics from these fields’ breakdown over time (e.g. from the shockpad).⁵ There is now irrefutable scientific evidence that microplastics do not undergo biodegradation and associated chemicals from artificial turf fields accumulate and are harmful to aquatic environments as well as entering the food chain with adverse effects on humans and the environment.

It is important that microplastic monitoring is funded by council and not reliant on volunteers. This is exactly why residents pay an environmental levy. It is also only fair given the council is now spending an extraordinary amount of money on the development (apparently now up to \$5 million) which will mainly be utilised by soccer clubs. This is the very least council could do for to environmental groups and bush carers who have been calling for this since the plan was first announced - many of whom have spent hours on the Norman Griffith and Quarry Creek Bushcare sites.

Secondly, we also would like to know if Ku-ring-gai Council’s design for the oval has been signed off by a third party experienced and accredited flood engineer, and if so who that third party is.

Kur-ring-gai Council has not provided any modelling of a Probable Maximum Flood event at Norman Griffith oval nor any analysis of the extent of water pollution likely to be generated by the development with impacts directly affecting Lane Cove River in National Park where there are endangered plant and animal communities. The lack of downstream modelling means there is no indication that the mitigation measures planned for the oval will, in fact, work.

⁴ Chief Scientist Synthetic Review, 24 citing Glamore, Appendix 4.

⁵ The cork turning into sludge, as it has at ELS Hall at Ryde is another concern.



The multiple failures to keep sediment out of the creek during construction shows that an assurance and information about relevant specialist signing off on the synthetic fields design is a reasonable request.

Yours sincerely,

Kristyn Hayood
Voices of Ku-ring-gai | www.voicesofkuringgai.org

Saturday 6th April 2024

Norman Griffiths Oval



Quarry Creek (downstream)





2 examples of previous pollution incidents involving Norman Griffiths Oval

