

BACKGROUND

Accelerating population density in urban areas continues to place pressure on existing outdoor spaces throughout NSW. The increased use of these places has prompted some communities to consider synthetic turf to accommodate sport for longer periods of time and in adverse weather conditions. While synthetic turfing can enable greater continuous use of fields, it can also have impacts upon the environment and heritage landscapes.

NSW Government Guidelines published in May 2025 recognise there are community concerns about synthetic turf, including potential polluting effects on air, soil and water from materials and chemicals, adverse effects on thermal comfort, reduced amenity and use for passive recreation.¹

The 2022 report of the NSW Chief Scientist highlighted many of these environmental and health issues in detail, including evidence (pp.50 - 51) that hundreds of kilograms of microplastics and rubber infill per year can be washed into waterways from a synthetic turf field, particularly as it degrades under UV exposure and weather conditions.² The report also referenced a 2022 study by Western Sydney University which noted (p.12) the case of the heritage listed Gardnier Park at Banksia where the temperature of a new synthetic turf oval reached 74°C.³

NATIONAL TRUST POSITION

The National Trust advocates for natural turf, particularly in historic parklands and landscapes. Natural turfing remains the best option for retaining both the heritage and ecology of these significant community spaces, as well as providing the preferred environmental outcome in this time of accelerating climate change.

The National Trust notes the following key concerns regarding the implementation of synthetic turfing in heritage places:

- **Biodiversity and ecology**
There is evidence that synthetic turf disrupts both flora and fauna habitats, including insect, soil, fungi and tree health. In heritage environments, this can actively harm the ecology that has been purposely cultivated and valued by local communities for many years.
- **Installation, maintenance, and cost**
Natural turf must be properly selected, installed and maintained to ensure optimal use, and provides carbon sink opportunities. While synthetic turfing also attracts high installation and preparation cost and requires resources for its maintenance, it must also be noted that when synthetic turfing needs to be replaced it cannot be recycled, causing further landfill and replacement costs.
- **Pollution and climate change**
Poor environmental outcomes actively harm all heritage. Synthetic turfing can cause significant water runoff that contains microplastics that negatively affect terrestrial and marine environments. There is no plastic migration associated with natural turf.
- **Health and safety**
Synthetic turf can heat to dangerous levels and contribute to the heat island effect and result in burns. Natural turf produces neither of these health concerns. The implementation of synthetic turf can also change the amenity for a local community by limiting an area to specific activities.

ACTION TO PROMOTE THE TRUST'S POSITION

The National Trust will continue to advocate for naturally turf in historic parklands. The National Trust urges the NSW Government to further examine both the immediate and long term cumulative impacts of synthetic turfing and develop protective policies for the best heritage and environmental outcomes.

¹ NSW Government, *Synthetic turf sports fields in public open space - Guideline for decision-makers*, May 2025

² NSW Chief scientist and Engineer, *Independent review into the design, use and impacts of synthetic turf in public open spaces*, October 2022

³ Western Sydney University, *Synthetic Turf in Public Spaces – Systematic assessment of surface temperatures and associated environmental impacts*, August 2022