

The Australian Garden History Society (AGHS) is opposed to the installation of plastic grass as it contravenes our mission to conserve significant gardens and cultural landscapes. Further, it contravenes multiple key principles of the Burra Charter, the basis of best practice heritage conservation in Australia. While not all gardens and cultural landscapes valued by AGHS have formal heritage recognition, they all have values that can be damaged from installation of plastic grass.

Natural grass turf serves as a carbon sink, reduces and stores water run off from rain, mitigating the effects of climate change by cooling the environment. It also helps in preserving biodiversity through providing natural habitat for wildlife. **Plastic grass is artificial and has a major climate change impact through trapping heat and has environmental costs during both its production and disposal:**

- It is a by-product of fossil fuels and therefore contributes to the main driver of climate change (while replacing natural turf, a natural carbon sink).
- It contributes to urban heat islands since the surface temperature of plastic grass on hot days can be at least double that of natural turf.
- It contributes to micro plastic pollution through shedding small fibres that contain toxic PFAS (also known as forever chemicals). Studies have shown that sports fields can release tens of thousands of plastic particles per square metre, polluting soil and waterways, to can enter the human food chain through seafood or drinking water. The presence of PFAS is linked to severe health impacts, including cancer, reduced fertility, and immune suppression. Reducing this pollution is costly and requires changes in user behaviour as well as manufacturing changes.
- Plastic grass removes all biodiversity value and threatens the lives of birds and other fauna through loss of natural habitat, negative impact on soil health and microplastics pollution.
- On public open space the use of plastic grass can exclude other sports and the general community, effectively privatising the open space for one sport only.
- It damages the values of significant heritage places – historic gardens and cultural landscapes – and is contrary to key principles of the Burra Charter as noted below.
- Plastic grass has significant costs and is not a sustainable or economical solution. Its lifespan is limited to 8-10 years, after which it will generally contribute to landfill despite claims of possible recycling. From landfill it can leach PFAS particles. The high replacement and disposal costs make it financially unsound in the long run, especially when compared to the maintenance of natural grass turf.
- Even with the evolution of plastic grass technology, such as hybrid turf and use of less toxic materials, it is not suitable for historic gardens and significant cultural landscapes as it poses severe threats to climate resilience, human health, and ecological balance.

The Australian Garden History Society promotes awareness and conservation of significant gardens and cultural landscapes through engagement, research, advocacy and activities.

Key principles from the Burra Charter applicable to plastic grass installation

Article 1.4 — Conservation

The Burra Charter defines conservation as all processes that maintain a place's cultural significance. Plastic grass installation introduces synthetic, non -biodegradable materials that replace the natural landscape, undermining the historic values of significant landscapes and traditional open space that include ecological biodiversity. Such an irreversible change does not align with the goal of retaining a site's cultural and environmental integrity.

Article 3.1 — Cautious Approach

The Charter advocates for a cautious approach to change: "do as much as necessary, but as little as possible." Installing plastic grass is an extreme and unnecessary intervention in a heritage landscape that has been maintained naturally for decades. This intervention contravenes the minimal interference principle by introducing a foreign, artificial element.

Article 5 — Values

Before any changes are considered, there must be a clear understanding of a place's cultural and natural significance. Introducing plastic grass disregards this understanding by altering natural character that plays an essential role in historical and social value.

Article 13 — Co-existence of Cultural Values

This article promotes the idea that new and existing cultural values should coexist harmoniously. The introduction of plastic grass disrupts the balance between the historic, therapeutic use of natural open spaces and new or current recreational use requiring the artificial surface. The industrial, synthetic nature of plastic grass is fundamentally at odds with a park or garden's historical landscape and environmental values.

Article 15.1

Change Must Not Adversely Affect Significance

While the Charter allows for changes, these must not reduce the cultural significance of the place. Plastic grass dramatically diminishes natural and cultural heritage significance by replacing open grasslands, which are key to its ecological and therapeutic values, with synthetic, impermeable surfaces. The loss of natural vegetation (natural grass turf) directly contradicts the principles of preservation outlined in the Burra Charter.

Article 21.1 — Adaptation

Any adaptation or change must respect the place's cultural significance. For example, the adaptation of natural fields into plastic grass does not respect the original fabric of a cultural landscape, as it replaces its natural heritage with artificial materials. This change would compromise the site's historical integrity as an open, therapeutic space.

Article 22.1 — New Work Should Respect the Place

New work should respect and not distort the cultural significance of a place. The installation of plastic grass does not respect the heritage of a park or garden, which is characterized by natural landscapes and open spaces. Synthetic grass introduces an industrial aesthetic and questionable functionality that is discordant with a park or garden's heritage landscape, undermining both its visual and ecological character.