

# golf courses

*benefits to the community and the environment*



Well designed golf courses benefit both the Community and Environment. This document serves to highlight a 'total environment' approach to golf course management and the inherent community benefits commonly found within a golf course. In recent years, environmental awareness has significantly increased. Today's society is far better informed and reacts more quickly to the pressure on the environment and natural resources. Much of this environmental pressure is attributable to a burgeoning world population and the resultant urbanisation. The conservation and management of our natural resources is vitally important, as is our recognition and definition of those resources.



Society of Australian  
Golf Course Architects



Australian  
Golf Union

**Golf Courses are increasingly recognised by conservationists, bird societies and others for their conservation value and for being integral in the preservation of our flora and fauna We acknowledge that a significant responsibility lies with all of us to act at the local level in addressing these issues As designers we are taking an increased responsibility in the preservation of the environment, in it's enhancement and creation**

Well designed golf courses will:

- 1 Provide a recreational resource promoting physical and mental wellbeing
- 2 Promote indigenous flora and fauna and the Australian landscape experience
- 3 Provide wildlife sanctuaries
- 4 Preserve open space and remnant vegetation within urban environments
- 5 Utilise and treat water resources such as sewage and urban runoff
- 6 Protect valuable water sources
- 7 Rehabilitate degraded landscapes
- 8 Improve air quality and moderate temperature
- 9 Protect topsoil from degradation
- 10 Beautify the environment and provide community education on environmental issues



**1 Provide a recreational resource promoting physical and mental wellbeing**

Golf provides over 2 million Australians of all ages with the motivation to pursue outdoors exercise. The average round of golf takes the player on a 7-8 km walk. Research shows that this alone can reduce cholesterol levels. Additionally golfers are exposed to the unconscious benefit of their natural surroundings whilst chasing the 'elusive little white ball'. Studies show that a pleasant landscape positively contributes to the mental well being of it's viewer. For example hospital patients are known to recover more quickly when blessed with a pleasant landscape view. This benefit, together with the ability of a game of golf to provide the temporary escape from the pressures of day to day life make golf a healthy pursuit for mind and body.

**2 Promote indigenous flora and fauna and the Australian landscape experience**

The Australian landscape is not easily defined or typified. Across our vast continent the climate, topography, flora and fauna varies considerably. Ranging from the extreme intensity of our centre, to the tropical abundance of the far north and the coastal heath of our southern parts, the landscape's

character and form are constantly changing. Australians and visitors to our country are afforded the opportunity to experience the Australian landscape, wherever they might be, whilst enjoying a round of golf. The importance of cultural, rural and historic landscapes should be recognised and managed appropriately.

**3 Provide wildlife sanctuaries**

Golf Courses provide a unique opportunity to create within their boundaries wildlife sanctuaries, which preserve and enhance an often rich variety of native birdlife, animals and vegetation, thereby enriching the ecology of the region. Many golf courses house significant areas of natural landscape (some 65% of the site), consisting of rough and non play areas, natural grasses, trees and shrubs. Careful management actively promotes desirable habitat via sound practices such as weed and pest control to eliminate competition on the more delicate endemic species. In broader terms golf courses act as important 'links' of green space across a region, particularly in an urban context, thereby providing vital wildlife corridors.

**4 Preserve open space and remnant vegetation within urban environments**

Australia boasts some 1,500 golf courses of which a large number occur within urban environments, occupying approximately 100,000 hectares of land. This is a similar area to greater Melbourne and a substantial area preserved as open space at a time when parks and gardens are constantly under pressure from development. The remnant indigenous vegetation found within many of our golf courses serves to protect the gene stock of our floral heritage. Golf courses are compatible with contiguous green belts and other land uses such as sporting reserves, wildlife sanctuaries, wetlands and forests. In this way golf courses preserve, protect and enhance flora and fauna. Golf Courses also serve as a 'buffer' between sensitive natural environments, and residential and industrial areas.

*improving the quality of the air we breathe*

5 **Utilise and treat water resources such as sewage and urban runoff**

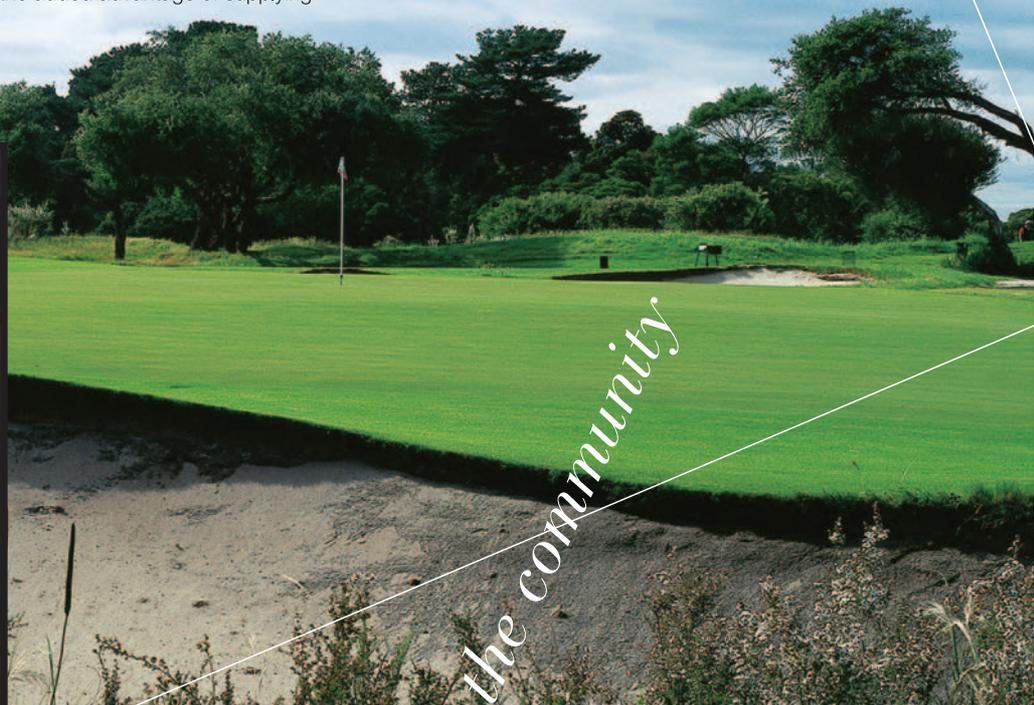
The reliance on potable water to irrigate a golf course is an issue gaining increased attention. Golf Courses face the reality that when striving for sustainability they must not only seek alternative water sources but more effective water usage /management practices.

Where feasible Golf Courses can offset their potable water usage by the use of alternative water sources. As the costs of potable water rise there is an economic incentive to supplement potable water with effluent and/or stormwater. Filtering effluent and stormwater through a Golf Course lessens the pollution and sedimentation of our oceans and waterways. The use of secondary treated effluent has the added advantage of supplying

up to 70% of the nutrient requirement needed to maintain 'quality' turfgrass, lessening the need for chemical support.

6 **Protect valuable water resources**

Golf Courses play a significant role in the management of water, particularly in urban areas and in proposed residential developments, aiding in the conservation and preservation of water resources. Golf Courses act as a natural filter of stormwater and runoff.



*reclaiming land for the community*

Turfgrass, together with the natural landscape function in trapping sediment and pollutants before they enter common waterways. The containment of water on site helps in flood control and filtration whilst contributing to the recharge of aquifers and ground water which may otherwise pollute nearby waterways.

**7 Rehabilitate degraded landscapes**

Often economic limitations make it difficult to rehabilitate scarred and degraded landscapes such as landfill, quarries, tip sites and barren rural land. Golf Courses provide a viable and sustainable use for land degraded over time by intensive use or mismanagement. Golf Courses can contribute to the reinstatement of the natural process of a healthy environment by reconditioning degraded sites and restoring natural systems. Perhaps the most significant benefit is in providing a new use for this land with wide community benefit.

**8 Improve air quality and moderate heat**

Vegetation has the unique capability of improving the quality of air we breathe as well as producing it. Photosynthesis is a process whereby carbon dioxide is consumed by the plant, converting it into oxygen. Research shows that an area of 180 square metres of turfgrass, grasslands, shrubs and trees produces enough oxygen for one person for one year. The average golf course therefore sustains enough oxygen for around 4,000 people per year.

Turfgrass and trees also have the effect of reducing the heat of an area. Planting around buildings and carparks provide the dual benefits of a more comfortable environment whilst reducing cooling costs.

**9 Protect topsoil from degradation**

The degradation of soil appears in many forms such as acidification, salination and erosion. With the scarcity of soils in some parts of Australia, years of poor farming practice have seen millions of cubic metres of topsoil literally washed and blown away, ending up in our waterways, lakes and oceans. Topsoil is vital in not only maintaining an environmental equilibrium but also in practical and economic terms for building materials and farming. However, as with all natural resources it must be managed in a sustainable manner. Vegetation plays a significant role in the sustainable management of soil. Vegetation, particularly turfgrass, successfully controls water's erosive power. A dense root and shoot system creates an organic thatch layer that filters and slows surface water runoff. Research shows that even during high rainfall periods (6-7cm/hr), turf holds up to 20 times more soil than traditionally farmed cropland.



**10 Beautify the environment and aid community education on environmental issues**

Golf Courses provide the opportunity to enrich the environment by housing a diverse and rich ecology. Significant ecosystems such as wetlands provide a valuable resource in terms of an education facility for golfers and interest groups alike. The habitat qualities of wetlands sustain many varieties of migratory birds, native animals, fish, insects and plant life. Guided walks educate and alert participants to the environmental issues within the Golf Course as well as within the broader context of the region.

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**The Society of Australian Golf Course Architects**

Golf Australia House  
153 - 155 Cecil Street  
South Melbourne  
Victoria 3205 Australia  
Telephone (03) 9699 7944  
Facsimile (03) 9690 8510