

# SUSTAINABILITY

## What is it and what are the implications for the golf turf industry...?

### Introduction

Sustainability is a term that is often heard nowadays in relation to virtually all industries and activities. The following Fact Sheet looks at what Sustainability means for Golf Clubs.

### Sustainability – What is it?

#### **The Royal & Ancient (R and A) define golf course sustainability as:**

*“Optimising the playing quality of the golf course in harmony with the conservation of its natural environment under economically sound and socially responsible management”  
(Royal and Ancient)*

In other words:

- A primary requirement is to “sustain” playing conditions that are good enough to allow the game to be played and hence attract and maintain participants. If the playing conditions are not good enough, the game will perish.
- Playing conditions need to be achievable within the context of restrictions that might apply. For example, use of resources such as pesticides, fertilisers, sand or water may either be severely restricted or simply unavailable for use in the future.
- Clearly another side to resource use is the cost, with the price of many of the resources referred to above continuing to escalate. Maintaining current levels of resource use will simply not be an option for many golf clubs in the future.
- The “economics” of individual golf clubs need to be sound if they are to be “sustained” in the long term. The present reality is that the “economics” of many New Zealand golf clubs is under pressure and means that they may not have a long term future unless significant changes are made.
- “Sustainability” also relates to the landscape on which the golf course is situated. Golf course operations will not be “sustainable” if they have negative “off course” effects (e.g. leaching of nutrients into waterways). Further to that, the golf course management operations must not damage the natural environment within the golf course itself (e.g. destruction of soil structure destruction of wild life habitats etc). Instead, the golf course operation needs to preserve and enhance the natural environment of the golf course.



*Perfection (LHS) is resource hungry, whilst working with nature (RHS) provides a more sustainable approach*

## Key Sustainability Issues Facing Golf Clubs

To date NZ golf courses have been fortunate that resources such as sand, water etc. have been readily available at comparatively low cost. Legislation governing the maintenance of our golf courses relative to that occurring internationally has been minimal. However, this situation is changing and has the potential to seriously impact on the already-stretched finances of many golf clubs. The key considerations are summarised below.

### **Oil**

The industry is heavily reliant on oil, directly for mowing and cartage of materials such as sand and indirectly for manufacture of fertilisers, pesticides.

Strategies which allow a club to reduce their fuel usage make good financial and environmental sense. Realistic playing standards, the correct grasses, judicious use of fertiliser and a targeted strategy to mowing the different areas of a golf course (greens, rough, tees etc) as practiced by our pioneering turf managers offer a way forwards.

### **Water**

When considering water, we need to be aware of both its availability and the quality of the water found in our water systems.

Throughout New Zealand, water is typically taken for granted, given that for most parts of the country a readily available source of quality water is available. The recent drought has reminded many how quickly this situation can change.

Disputes concerning the use and availability of water are now a regular occurrence in New Zealand and as result obtaining or maintaining water consents can be expected to become more difficult and/or expensive.

Water quality is also an issue. Regrettably the water quality in many of New Zealand's waterways is substandard. As an industry, we have a responsibility to ensure our practices do not damage water quality and preserve this resource for the future.

### **Fertilisers**

Fertiliser is an essential tool when managing turf. However increasing concerns with the adverse effects of nutrients, in particular nitrogen and phosphorous in waterways, aquifers and the atmosphere, again requires current practises to be reviewed and best practise (*Fertiliser Code of Practise*; [www.fertresearch.org.nz](http://www.fertresearch.org.nz)) to be adopted.

### **Pesticides**

The reality is that the desire for perfection, constant ratcheting up of playing standards and the prevalence of *Poa annua* means the industry is increasingly reliant on pesticides.

The concern for Turf Managers and golfers is what happens if, or most likely when, these products are lost to the industry. The loss of pesticides is no longer an “idle threat”, with many products both here and internationally under review.

### Community perception

New Zealand golf courses are fortunate that for the most part they are considered a desirable and valuable community asset. It is essential that this positive relationship with the community is preserved in order that unnecessary legislation, compliance and conflict is avoided. Best practise and good environmental stewardship will be essential to maintaining this relationship.

### Other considerations

Other issues such as Kyoto Treaty, legislation, etc. will impact on course management.

## Key Features of a Sustainable Golf Course

To implement sustainable golf course management greater emphasis will be required on long term planning, record keeping and having systems in place to ensure the club remains on track with their maintenance and development. Some specific things that golf clubs need to have in place are summarised below:

Key Requirements for a Sustainable Golf Course	
<b>Policy document</b>	<p>This states the principles and vision that will underpin the development and preparation of the course for the foreseeable future and would include the likes of:</p> <ul style="list-style-type: none"> <li>▪ Vision for the club.</li> <li>▪ Landscape assessment i.e. style of golf course.</li> <li>▪ Defines the grasses, maintenance intensity for each of the areas on the course.</li> <li>▪ Sets realistic standards for each of the playing areas, etc.</li> </ul>
<b>Environmental policy</b>	<ul style="list-style-type: none"> <li>▪ What are the key environmental features on your course?</li> <li>▪ What are the environmental risks?</li> <li>▪ What strategies will the club implement to prevent or mitigate these risks?</li> </ul>
<b>Course development policy (Master plan)</b>	<ul style="list-style-type: none"> <li>▪ Identifies and prioritises the areas of the course for improvement.</li> </ul>
<b>Best practice</b>	<ul style="list-style-type: none"> <li>▪ Reviewing current legislation for compliance.</li> <li>▪ Reviewing and adopting Codes of Practice (where available) or other industry recognised best practises.</li> <li>▪ Reviewing all options available (i.e. product options, other management practises) when managing and improving the course.</li> <li>▪ Use of the minimum amount of product necessary to achieve the desired playing standards.</li> </ul>
<b>Communication</b>	<ul style="list-style-type: none"> <li>▪ Members are the reason for a club’s existence and with the inevitable change that is likely, it is important that they are kept informed.</li> </ul>
<b>Record keeping</b>	<ul style="list-style-type: none"> <li>▪ Accurate records (products used, condition of the course, membership perception) are essential to making informed decisions and change.</li> <li>▪ Review process.</li> </ul>

*If your club would like more information or assistance with the issues raised above contact your  
 NZ Sports Turf agronomist ▪ Ph: (06) 356 8090 ▪ [www.nzsti.org.nz](http://www.nzsti.org.nz)*