

Commonwealth Golf Club's Course Improvement Programme has seen the planting of around 360,000 native grasses and heathland species to help recapture the club's Melbourne sand belt heritage



ATM's new environmental management columnist Kate Torgersen looks at the recent course improvement and revegetation works undertaken at Commonwealth Golf Club.

Starting from scratch

In 2013 Commonwealth Golf Club embarked on a bold three-year Course Improvement Programme (CIP). In addition to the reconstruction of tees and converting them to Grand Prix couchgrass, the CIP also included adjustments to some fairway lines and reconstruction of select bunkers, replacing transition areas with better grass types, re-planting boundaries and a major revegetation programme.

The aim behind the programme was to re-introduce heathland and native grasses to break up the parkland look of the course and create that special 'Commonwealth feel'. Commonwealth's course architect Michael Cocking, from Ogilvy Clayton Cocking Mead, sums up succinctly the intent behind the CIP: "Over many years the landscape at Commonwealth evolved to something resembling a parkland golf course, where the entire property was mown and the roughs had been converted to ryegrass. It was virtually devoid of any indigenous heathland plants and grasses.

"The programme of re-introducing these plants to tee carries and selective sections of rough is helping recapture that unique feel of what sand belt golf courses look like – a combination of wonderfully

shaped 'flashed sand' bunkers, beautiful green complexes and a texture to the ground outside the fairways which can include a mixture of wispy grasses, sand and heath plants."

Over a three-year period the CIP saw approximately 4.5 hectares of mown rough (predominately the areas between tees and fairways and out of play areas) converted to native indigenous vegetation. The new native vegetation areas add great aesthetic value to the course, but more importantly provide enormous environmental benefits and long-term cost savings. In addition to reducing the amount of time spent mowing rough, the club has also realised savings in terms of water and chemical use, while at the same time also creating valuable habitat for local fauna.

Commonwealth course manager Mark Prosser, who has been with the club for 19 years, notes: "When I began the entire course was mown fence line to fence line. Now the native vegetation areas have reduced rough mowing times significantly, saving time on labour, reducing wear and tear on machinery and cutting fuel consumption. Chemical applications to roughs have also been greatly reduced. All these savings are now put back into other aspects of maintaining the course."

GOOD THINGS TAKE TIME

As with any large project of this nature, many lessons were learnt along the way. One of the main ones related to preparation time. All the areas that were chosen to be revegetated had been mown as rough for decades, indicating that the seedbank would be predominately weed species and very little, if any, indigenous seeds. The method of starting from scratch was most suited to these areas.

In saying this, not all sites need to start from scratch; if you believe you have a good seed bank (perhaps overgrown trees have been covering an area known to house indigenous vegetation) all it may take is removing the unwanted species, exposing the soil and waiting to see what appears. Ecological burning can also help promote any native seeds that may reside in the seedbank.

A recommendation to Commonwealth was to ideally have at least 12 months' preparation



Reveg area on Commonwealth's 7th (above) and the site prepped (below). Allowing 12 months' prep time before planting is critical



time, however, programming challenges made this somewhat difficult. Due to this, some areas only received three to six months' preparation time and that was evident 12 months later with those areas requiring more intensive weed management practices. With those issues resolved, going forward the club made sure the recommended preparation time was met and started preparing sites at least 12 months in advance.

Preparation of each site started with a spray programme to exhaust the seedbank of weeds, while in some areas weed-burning techniques were also employed. The next step leading up to planting (although not always applicable), was scraping off the top layer, usually around 100mm. This left the site with a relatively clean area, allowing the new plants to have a chance to establish without being inundated with weeds.

Although sites may be clean when planted, weeds will always find their way into these areas. A regular weed maintenance programme was implemented and became challenging at times with the large amount of areas that had to be managed and lack of resources. At the beginning of the programme, one horticulturalist managed the entire re-vegetation programme; however, it soon became apparent that more resources were needed and the club now employs a team of three to maintain all the vegetation on course.

The club's horticulturalist worked with the architects and consultant to compile a list of plants that would be suited to the golf course and chosen from those which would have originally been found on the site. One of the main reasons why Commonwealth chose to plant native indigenous species is that once established they are mostly self-sufficient, especially when it comes to water, and they will out-compete the weeds.

Native vegetation in Victoria is classified into distinctive groupings known as Ecological Vegetation Classes (EVCs). These groupings are based on floristic, structural and ecological features of the vegetation. Each EVC has been assigned a distinct descriptive name and number (e.g. Coast Banksia Woodland 002). Different classification systems are used in other states.

The majority of Commonwealth's vegetation comprised species predominately from the 'heathy woodland' EVC, while in the higher dunes sections of the course, species were chosen from the 'sand heath' EVC. Although Commonwealth is within the Melbourne sand belt, it also has some areas on heavier soils which fall under a different EVC (damp-sands, heathy-woodlands).

In total, the revegetation works saw about 300,000 native grasses and 60,000 heathland species planted over the three years. Native grasses were contract grown and planted and the heathland species were all grown from local nurseries. Later in the programme the club invested in its own greenhouse to start growing species on site.



CONSIDERATIONS

Protecting re-established areas is an important aspect of any revegetation programme. Once planted, the areas were roped off for approximately 18 months and marked as ground under repair (GUR) which helped the plants to establish. Once the ropes were removed in certain areas, golfers had begun walking through, so traffic ropes and signs were used to direct the golfers away from the new vegetation areas.

Another important aspect to consider is irrigation. Off-target watering in native vegetation areas can cause an influx of weeds so it is important to ensure irrigation from playing surfaces does not throw into native vegetation areas or is at least minimised as much as possible. Initially, temporary sprinklers were used to help establish the native areas, however, planting at the right time of year (April to September) reduced the club's need to water. In recent years the club has relied on planting through late autumn to early spring and selective watering through a watering tank to reduce off target watering.

Above all, a key fundamental for any revegetation project like this is that patience is a virtue! As the old saying goes 'good things take time' and that is very much a lesson the club garnered throughout this programme according to general manager Peter Parks.

"A distinct learning from the Course Improvement Programme, in particular the revegetation component, was that we initially underestimated the enormity and complexity of the scope of the works," says Parks. "In addition, member education, in particular with regard to managing expectations, was not clear in the early days. Members needed to be told that the revegetation programme is a marathon, not a sprint, and hence it will take time to develop and mature." 🌱

The new native vegetation areas have added great aesthetic value to Commonwealth, but more importantly have provided enormous environmental benefits and long-term cost savings



REVEGETATION – THE FUNDAMENTALS

- Off-target watering in native vegetation areas can cause an influx of weeds. Ensure irrigation from playing surfaces does not throw into native vegetation areas or is at least minimised.
- Not all sites need to start from scratch. If you believe you have a good seed bank, all it may take is removing the unwanted species, exposing the soil and waiting to see what appears.
- Above all, a key fundamental to remember when planting native vegetation areas is patience. It's a marathon, not a sprint.