

Shifting Sands

A Spotlight on South Australia and Northern Territory Golf Course Projects



The new 6th at Glenelg with the clubhouse in the background *Caroline Fisher Photography*

GLENELG GOLF CLUB

Project: Course reconstruction

Location: Adelaide

Superintendent: Daryl Sellar

Time period: 1998-2004

Cost: \$1.3m

Comments:

The Glenelg Golf Club has been located on its current site at Novar Gardens in Adelaide's western suburbs since 1927. The course has undergone numerous changes over its history, with this project seeing the third major routing of the course.

The previous layout was developed by Melbourne architect Vern Morcom when the original layout required significant modification due to the compulsory acquisition of portions of the club's land for the adjacent Adelaide Airport in the late 1940s and early 1950s.

Golf Strategies' principal architect Neil Crafter and local tournament promoter and Glenelg member Bob Tuohy were selected by the club to guide the latest redevelopment. The redevelopment was prompted by four major issues:

- Turf species – the conversion of kikuyu fairways and surrounds to Santa ana, and *Poa annua* greens to bentgrass (Dominant blend);
- Revegetation – the aim being to return sections of the course to their original character through the Remnant Indigenous Vegetation Action Plan (RIVAP);

- Playability – through the development of a more challenging and interesting course, coupled with the conversion to more suitable turf species, the overall presentation and playability of the course was to be enhanced;
- Sustainability – early in the redevelopment program, opportunities were identified and strategies instigated that allowed the 'new' course to be more sustainable than the old, while still achieving the goal of improved quality and playability.

The project was staged and completed over a seven-year time frame, with work being carried out during the cooler months, with the exception of the first stage in 1998/99 which required a summer grow-in of stolonised Santa ana fairways.

This mid-year timing minimised the stress on turf (and staff!) particularly during the first few years when the *Poa annua* greens were still trying to be maintained through the heat of an Adelaide summer, and disruptions to the irrigation system were inevitable.

Project stages

The first stage of work was carried out in the summer of 1998/99, when the predominantly kikuyu fairways of holes 4, 5, and 6 were stripped and replaced with Santa ana.

At the same time, the opportunity was taken to remodel the bunkering, extend the 4th green, construct a new 5th green and

reconfigure the 6th hole to play as a long par 4 to the old 7th green.

The 13th was realigned with a completely new green complex to utilise previously unused land, and a new par 3 14th hole (to the old 14th green) was created to cover the loss of the old 7th. Two large lakes were also excavated in an existing low area between the new 13th/14th holes and the adjacent 18th.

The 14th green and its surrounds were then rebuilt in the summer of 1999/2000, along with the creation of a new tee complex for the 15th and a lowering of the first part of the 18th fairway to improve visibility to this semi-blind landing area.

The timing of this work was to allow for the sprigging of fairways during the growing season, however, the existing *Poa* greens were retained and on some even relaid on the affected holes.

As one can imagine, this scale of work and all the associated stress that construction work brings, plus managing 16 existing *Poa* greens and relaying the modified ones through the height of summer was enough to break most people. The exception to this was the 13th and 14th greens which were seeded.

However, such was the skill of the previous superintendent Darrell Cahill, the work was completed successfully and commenced the transformation of the course.

This stage saw the revision of the timing of work, with the consensus being it was best if



The 11th at the reconstructed Glenelg Golf Club *Caroline Fisher Photography*

the work was carried out during winter. It was also decided that any areas requiring the introduction of Santa ana would be sodded rather than sprigged. This revision meant that it was not until the spring of 2000 that any further work was carried out.

In the meantime, the summer of 1999/2000 was particularly devastating on the old *Poa* greens. Many were in excess of 20 years old, and combined with the Adelaide climate and the accumulation of salts from the marginal quality bore and effluent water, the heat of summer proved too much for a number of them.

This led to a further revision of the course redevelopment program, and it was decided to replace the *Poa* greens with bentgrass. Cahill selected the Dominant blend (1019/1020), which has now been established throughout the course with all greens (except 13) being sown.

The works program for the redevelopment period was prioritised originally on the basis of turf quality needs (ie: removing the most troublesome greens, and heavily kikuyu infested areas first), as well as the scope of work involved.

This typically saw two major reconstructions (eg. complete new green complex, bunkering, turfing of fairway, irrigation etc) and two simpler surface replacements each year.

Irrigation system upgrades were to be carried out throughout the reconstructed areas, integrating with the old system and mindful of future upgrades. This work was done in-house.

Sand for the construction was sourced on site, with the native dune sand proving an excellent profile to manage for greens and also proven over the years to be a very good bunker sand.

However, with this sand in scarce supply, mining had to be very creative. This saw no

cartage of strippings of old turf off site, but rather the excavation of nearby sand deposits and the filling of mine sites with strippings which were subsequently capped with sand.

The details of each year's construction work are too complex for this article, but one continuous challenge throughout the redevelopment was to improve the drainage of the playing corridors.

Although classified as one of Adelaide's sandbelt courses, the proximity of the saline water table (within 1m of the surface in areas) meant that many areas had to be raised, or the water table regulated, to assist turf quality and playability.

The winter of 2004 has seen the start of the final stage of the redevelopment. Works include new greens and approaches to the 12th and 15th holes and new tees to the par 4 13th and 17th.

The most comprehensive work has been the construction of an entirely new par 3 hole, the 16th, which has been reversed in direction from the current hole.

The existing creek has been expanded into a lake network that provides a tranquil setting for this dramatic new hole. This final phase of the course remodelling will add some 110 metres to the length of the course.

Bunkers

Crafter and Tuohy developed a sod-stacked bunkering style to enhance the links character of Glenelg. Bunkers range from small 'one man' pot bunkers to larger, sprawling bunkers with capes and bays.

While more labour intensive to construct and maintain, methodologies have been developed and refined to produce the most effective 'look' for these unique bunkers.

The use of growth regulators has been explored, different edging techniques utilised, and grass types and sod thickness have been

revised, all leading to improvements in maintenance efficiency, although further trialling is still to be done.

Trees and bushes

One of the goals of the redevelopment was to create a more open feel to the course, while still retaining a distinctive treed character.

This was achieved by the removal of many tea-tree and other bushes that were 'lost ball' hazards that only succeeded in slowing down play and blocking vistas. Their removal and replacement with indigenous ground plane flora has opened up previously unknown view corridors and added significantly to a sense of spaciousness.

Some trees, predominantly non-native pines, were removed to facilitate the redevelopment. Many more trees have been replanted, including some non-native pines in areas to strengthen existing stands, while indigenous trees such as native pines have proven that they love to grow in Glenelg's sandy soils.

Results


There is no doubt that the redevelopment has seen a stunning transformation of the course and is a credit to the architects' and the club's joint vision. When the final stage of the redevelopment reopens for play this November, it will measure a demanding 6267m, par 71. From a challenge point of view, the objective has certainly been achieved.

More importantly, the course is now better equipped to meet the challenges of the future through greater sustainability. The character of the course now lends itself to reduced inputs in marginal or out-of-play areas, with greater focus on the playing surfaces.

The upgrade of the irrigation system and conversion of turf species has already seen improved playing conditions with reduced inputs.

The future

There is still a great deal to be done throughout the course, with upgrading remaining sections of irrigation, revisiting some revegetated areas, refining some design issues, upgrading the driving range, and completing investigations into Aquifer Storage and Redraw (ASR) schemes just some of the areas to be covered.

The strategy for these projects will become clearer once a review of the course redevelopment is conducted later this year. There is little doubt though that a strong foundation for Glenelg's future has been laid. 

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THE GRANGE GOLF CLUB

Project: East Course redevelopment

Location: Adelaide

Course manager: Chris Klei

Comments:

The Grange course manager Chris Klei reports that the East Course is being redeveloped by the club under the guidelines of Mike Clayton and Associates. The redevelopment consists mainly of bunker/tee upgrades and relocation. The forecast is that some greens will also be assessed for relocation in the future.

In conjunction with the redevelopment, the club's vegetation coordinator Derek Carter has developed and implemented a plan for the removal of unwanted indigenous species. The object is to create a natural open feel to the East Course to highlight the indigenous species. The club is lucky in that it has some of the last remaining pockets of indigenous species in the Adelaide Plains which are now heritage listed.

This concept will give the two courses their own distinct feel with the East Course open and natural and the West Course having a woodlands feel.

Another project the club is combining with the East Course redevelopment is a wetlands aquifer storage and recovery scheme. This will not only help guarantee a water source for the future but also enhance the visual aspect of the course. It is hoped this project will start in early 2005.

Also, around these major projects, a new irrigation system will be installed. Paul Jones is the designer and installation consultant. 🏌️

GAWLER GOLF CLUB

Project: Course redevelopment

Location: Sandy Creek

Comments:

An ambitious upgrading as part of a 400 lot residential development is being pursued by the club and a local developer, in conjunction with a number of neighbouring landholders.

Nine holes of the existing course are proposed to be retained, with nine new holes built to accommodate the planned residential allotments. Land surrounding the existing course will be incorporated into the development.

A large vegetated area comprising a remnant stand of native pines is planned to be protected as a conservation area. 🌲

The land will require rezoning, a process expected to take around 12-18 months.

Redevelopment of the course is planned in a staged manner, concurrent with the proposed stages of residential development.

It is proposed to retain 18 holes in play for golfers at all times. South Australian firm Golf Strategies will undertake the course redesign. 🏌️

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THE SOUTH AUSTRALIAN GOLF CLUB

Project: Construction of an 18-hole course
Location: Adelaide
Time Period: Construction start mid-2005

Comments:

This project, which will see the construction of an 18-hole members' course on the southern side of Adelaide International Airport, has been a long time in the making and was first conceived in the early 1990s.

For a range of reasons the project was unable to proceed previously, however,

developer SAGC Pty Ltd has now achieved all the necessary approvals and has entered into a lease with the operators of the airport, Adelaide Airport Limited.

The course has been planned by Adelaide's Golf Strategies as a challenging links course with a par of 72 and 6380m in length. Extensive earthworks will be employed to create a series of dunes through which many of the holes will play, while the Keswick and Brownhill Creek which runs diagonally through the course will be reshaped and landscaped to form a strategic hazard to a number of the holes.

The holes are named in the British manner with some featuring the use of dry stone walls which will be built to enhance the feel and play of the course. A number of holes will have similar strategic elements to some of the great British holes such as the Redan from North Berwick, the Cardinal from Prestwick and the Eden from St Andrews Old.

Detailed planning for the course is expected to commence later this year, with construction scheduled for mid 2005. 🏌️

THE VINES GOLF CLUB OF REYNELLA

Projects: Various
Location: Adelaide
Superintendent: Rob Millington

Comments:

Superintendent Rob Millington has been a busy man in recent times. The main focus of the club over the past eight years and continuing into the future is to improve turf quality with reduced water resources.

To achieve this all par four and five fairways have been planted with Santa ana, with one par 3 remaining to be done. All greens have been converted from a high *Poa annua* percentage/bentgrass mix, to bentgrass.

The green on the par 3 10th is to be resurfaced due to large patches of couch, while the 10th fairway and surrounds will be stolonised with Santa ana.

One of the major projects in the pipeline is the establishment of a 3000m² Santa ana turf nursery to enable the sodding of greens surrounds and any remaining tees.

The existing practice facility will be reconstructed to make way for the nursery.

The work will include relocation of the chipping green, reconstruction of the drain/spillway from the adjacent dam that currently leaks and makes the practice fairway unplayable during winter, drainage on the fairway, irrigation installation and planting.

Millington has also budgeted around

\$300,000 for a new 50 megalitre dam. Water currently available to the club includes 59 megalitres of winter stormwater held in four dams, 30 megalitres of bore water (reliant on aquifer recharge) and 30 megalitres of mains budgeted each year. With an approximate loss to evaporation from the dams of 15 megalitres, this leaves 104 megalitres available for 20.5ha of irrigated area.

The new dam project will involve bulk earthworks (35000m³); clay lining (6000m³); associated pipe work; upgrading storm water mining from 20litres/second to 75l/s; and installing a chain mesh fence around the perimeter. 🏌️

DARWIN GOLF CLUB

Projects: Various
Location: Darwin
Superintendent: Shane Bisseker

Comments:

The Darwin Golf Club is Australia's northernmost 18-hole golf course designed by Thomson and Perrett. With nearly 1000 members, the club in the past three years has gone from strength to strength. However, this was not always the case and in 2000 the club was struggling to repay debt while membership numbers declined.

Together with the general manager and executive committee, superintendent Shane Bisseker, who joined the club in May 2001 from the Empire Hotel and Country Club in Brunei, began thinking outside the square on how to make money to reduce debt and replace machinery.

On his arrival, Bisseker went about the task of tackling the course problems. In consultation with the committee he developed a machinery replacement program and turf management strategies to address underlying problems with the greens and fairways.

However, it became apparent that the club needed to increase its spending on the course and to look at other ways of funding works.

Bisseker researched various options and in doing so discovered that the Northern Territory Government was about to call tenders for the ground maintenance of a number of Darwin sporting venues.

From this the club won a three-year tender with the Department of Sport and Recreation to maintain 14 sporting ovals. This included the State's premier facility, Marrara Oval, where recently the club's maintenance staff prepared the ground for international Test cricket matches and the Western Bulldogs-Port Adelaide AFL game.

In addition to the sports maintenance tender, Bisseker has established a 50-hectare turf farm, off site, where the club has leased the land and entered a partnership with a local landscape company. This turf will be used for replacing turf on tees, greens and fairways as well as sold commercially.

Due to Bisseker's experience, many approaches have been made to the club for assistance with turf management. The club has recently gone into partnership with the

Larrakia Nation Association to establish another farm where the turf will be used on a native title subdivision.

Due to the increase in cash flow, apart from purchasing new machinery, the club has been able to start the installation of concrete cart paths and continue its tee renovation program.

In May, the club invited Peter Thomson to visit the course and put in place a blueprint for further works. Thomson is compiling a report and plans that will include bunker redesign and an upgrade to the irrigation system.

The course is a links style layout with Tifdwarf greens, Queensland blue couch fairways and uses recycled water for irrigation. The average quality of the effluent water has lead Bisseker to plant test plots of Sea Isle 2000 seashore paspalum. Bisseker reports that the results so far are encouraging with good turf texture, colour and quality.

Future projects for the club's turf maintenance team include work on the Defence Force's Robertson Barracks tank parade ground, travelling to Bathurst Island to renovate the town's football oval and the Darwin High School's sporting grounds. 🏌️