**Extraction of Beach Sand from West Sands Beach, St Andrews for Use on St Andrews Links Golf Courses**

**Method Statement**

September 2020

**1) Introduction**

The application of sand is crucial to the effective and sustainable maintenance of the Links as it enables the indigenous grass species to flourish. The practice of taking sand from the West Sands beach has been employed by green-keepers since the time of Old Tom Morris in the 1850s and has become synonymous with the Old Course. In that time, the Old Course has staged 29 Open Championships and in July 2015 received widespread praise from some of the world’s leading players for its condition. We work closely with the independent Sports Turf Research Institute and they too have recognised the excellent condition of the Old Course. The Open will return to St Andrews in 2022.

This is due, in no small part, to the application of sand and, indeed, it is now recognised as one of the most effective greenkeeping techniques for Links courses. The sand is used to top-dress the turf but it is also put in the bunkers and used to supplement the already sandy soil for jobs such as building new tees, repairing bunkers and filling divot holes on the fairways.

**2) Investigation of Alternative Sources**

The particle size and texture of the sand is extremely important. Over the years we have investigated other sources and the closest we can find comes from a quarry in Kilwinning. Transporting large quantities of sand across Scotland on a regular basis would be impractical, expensive and damaging to the environment. Using sand from other sources which is less suitable would also be ineffective. Using other sand in the growing medium will result in root break and drainage problems which in turn will lead to a change in species composition and poorer playing conditions. It would also badly affect the experience of playing out of the bunkers which golfers have come to associate with the Old Course.

**3) Extraction Methods**

The method the St Andrews Links Trust employ to extract the sand has been honed over the years and minimises any impact. We wait until the tide has gone out and scrape a small depth from over a large area from below the high water mark. By that method, once the tide has come in and gone out again you it is no longer visible where any sand has been removed.

Sand is extracted using a tracked, 360 degree, 7 tonne extractor feeding 3 tonne trailers, pulled by tractors.

The extraction depth is limited to 150 – 200 mm.

**4) Timing of Extraction**

The main periods of extraction are February/March for topping up bunkers and October/November for rebuilding bunkers with extraction at lower rates occurring throughout the year. The Trust does not stockpile large quantities of sand to avoid loss due to wind blow.

Extraction is generally carried out during inclement weather when other green-keeping activities cannot be done and recreational use of the beach is minimised.

**5) Erosion Investigations**

There is evidence to suggest that more sand is accumulating at certain points on the beach. Photographs taken by Jack Jarvis over the past 30 to 40 years show that the sand is accumulating the nearer one gets to Outhead. Each year we limit the maximum amount of sand we take from the beach to 1,700 tonnes and, in practice, most years it is in the region of 500-800 tonnes. One option we would like to explore is collecting the sand from closer to this area in future but overall we do not believe it has a detrimental impact on the beach.

**6) Use of the Extracted Sand**

We use the sand in 3 different areas:

1. Because it is the same particle size and shape as the composition of the land the courses are built on we use it to fill the bunkers on the golf courses, including the world famous Old Course. This is a practice that has been happening for at least the past 150 years and probably long before that.

2. It is also used to bulk up the sandy soil we retain from any alterations and repairs we make on the course. This material is kept for a couple of years until the vegetation breaks down and then when bulked up with the sand, used as divot mix and for course repairs.

3. We use a small amount to top-dress the landing areas on the Old Course to help break down organic matter and drainage, although this is a practice we have reduced as we have the organic matter build-up under control.

Being the same size and shape is vital to allow roots to develop to their maximum depth and also prevent flooding. If you were to start creating a layering effect by using a sand which was a different size or shape then you would cause some serious issues to the health of the turf because of the problems I've mentioned.

**7) Conclusion**

St Andrews Links Trust place a great deal of emphasis on employing the most sustainable methods of maintaining the historic Links courses as possible. We became one of the first major golf destinations to undertake Golf Environment Organisation (GEO) accreditation and are generally recognised throughout the golf industry as an exemplar for sustainable practices. Using sand from the West Sands on the Old Course is at the heart of this approach.