

GEO Certified® Independent Verification Report



Golf Facility: Nordcenter Golf & Country Club

Prepared by: Sanni Sjöblom

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Executive Summary

This independent audit for GEO certification renewal was carried out at Nordcenter Golf & Country Club on 08.03.2018, following the club's initial certification in 2014 (also undertaken by myself). During the audit, I was hosted by course manager Staffan Lundmark and was able to speak with a few other members of staff.

Nordcenter GCC is located in the town of Raasepori on the southern coast of Finland. It was founded 1986 on Åminne Manor. The club consists of two 18 holes golf courses, Fream and Benz. Fream is the older of the two courses, with interesting altitude variations, starting from the beach of the Baltic Sea coast, rising up to rocky hills with some woodlands, then ending by the old park of the Åminne manor house. Benz is a more open parkland-type golf course, running along forested highlands. Different fairways sit fittingly on the variations of the surrounding landscape.

The site of the golf course is generally clay and forest till soils. The club has six permanent employees and 20 seasonal employees. The club is owned by stakeholders.

Nature

The staff at Nordcenter are knowledgeable about their site and its special natural demands. There are protected areas, for example, one for butterflies. There is a wetland area providing habitat for birds, and caves for bat populations. The areas of low-maintenance grasslands have gradually been increased and there is a plan to increase the area by 1.6 hectares this year. These are cut once a year, and the timing for the cut is scheduled not to disturb nesting of the birds. Wild grassy vegetation offers habitat for a great amount of wildlife, for example, martens.

There is about 1,5 km of coastline with the Baltic Sea fjord Sandvik, and approximately 2 ha of wetlands. The coastline is protected under Natura 2000.

The newest nature survey is from the year 2013, which will be updated within the next two years to present and compare the latest biodiversity findings. Regarding the survey, over 130 bird species were found nesting on the area. The possibility to increase birds' nesting areas are studied.

It is the specific job of the caddiemaster to supervise that national and regional legislation is complied with.

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Of 83 ha that belongs to the club, only 25 ha are under intensive maintenance. There have been improvements in the quality of the turfgrass, due to the constant surveillance on the turf species. The quantity of favourable perennial species has increased. Perennial species are more resistant to shade and disease, local factors that are the main criteria for turfgrass selection at the club.



New humidity sensors will be installed to improve allocation of the irrigation, and to avoid double irrigation. Their installation will also decrease the risk of plant diseases. Other means are to moderate the tree growth and the use of plant growth regulators such as Primo Maxx. Other chemicals used are fungicide (Medallion by Sygenta) and fertilized ICL Sportmaster.

Overall use of the fertilizers N and P has slightly decreased 2013 - 2017 on both Fream (-4 %) and Benz (-20%). Over the years the decrease has been steady, except a raise on 2016. In general, the fertilizers use has decreased especially on roughs, range and fairways.

On greens, the use of N and K has increased on somewhat 20% from 2013 to 2017. This is following a reduction in the use of fertilizers on 2013 season. However, that resulted on increase of need of pesticides during the season 2014, especially that of fungicides. Therefore, the use of fertilizers was again increased over the following years. 2017 the use of fertilizers has again decreased, showing that an integrated approach to turf management is applied and the relationships between turf health, fertilization and chemical intervention are well informed.

Pest control agents are not used. The use of herbicides has decreased from 2,2 kg on Fream to zero. On Benz, they haven't been used during 2013-2017 at all. The use of fungicides was fairly high in 2013 and '14. On Benz the use of fungicides was 8,8 kg during 2014, and on Fream it was 13 kg. On both courses the use of fungicides decreased to 0,8 kg by 2016, and during 2017 it remained the same.

In addition to the humidity sensor system, there are plans to install a weather station to optimize the irrigation based on the weather conditions.

There is a 15 m buffer zone and no-spray area around water bodies. Fertilizers and other chemicals if needed are sprayed when the course is free from players. Staff are educated and there is a bookkeeping on their qualifications.

Machinery washing area is covered with asphalt and the water from the asphalt runs to the willow waste water purification plant, a natural way to treat waste water before it reaches the local environment. The runoff is lead to a willow field, where the impurities are taken up by the willows. In regular basis, the growing willow is cut and incinerated for energy, where the harmful chemicals and destroyed.

Hazardous materials are stored in separate storage with concrete floor. Pesticides are kept in locked storage with ventilation.

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Grass clippings are recycled and spread to roughs. The organic waste from aeration is used in maintenance purposes along the course. All the waste that is organic is recycled at the course.



Other wastes, such as oils from cooking, lubricants, batteries, oil filters, are collected by an appointed company.

Other than visual water quality monitoring, some form of regular chemical or biological testing is recommended.

Resources

The club has a licence to pump water from river Mustionjoki. 100% of the water used for irrigation and washing of maintenance vehicles is surface water from the river. Only drinking water is groundwater. Since the year 2013, the use of water for irrigation has been cut to half, which is a story of great success.

Perennial turfgrasses with deeper rooting systems are favoured on the courses, since they better withstand the drought than annual turf species. There have been continual improvements in turf composition over the years, and the work continues.

Completely unirrigated areas are growing through naturalisation. Every year it is estimated that at least 1% of the course land area is removed from irrigation.

The most important issues taken in account when planning irrigation are the timing and the coverage of the rig. Irrigation rig is monitored, optimized and renewed on a regular basis.

When this audit was carried out, there was a decision made that humidity sensors will be installed on the greens. This should again cut down the irrigation needs.

The next steps to improve the irrigation are the set-up of the humidity sensors, improvements in the rig, and to develop the turf species further.

Nordcenter uses oil and electricity as their main energy sources. Energy consumption is reported once a week. Buildings are checked for energy consumption a minimum of once a week.

Electricity is billed once a month which helps to react faster if they seem to be growing too fast. Oil consumption is monitored and kept in books.

Issues regarding energy use are covered in weekly staff meetings. Guidebooks and information on vehicle use and charging of their batteries are updated in regular basis. The club has 31 golf cars that run and charge electricity.

Air source heat pumps are installed on the buildings but otherwise heating is carried out by use of oil. Installation of heat pumps has decreased the oil consumption 50% since their installation.

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The amount of electricity consumed by renewable source varies since the golf club uses an energy broker.

Goals for the next 5-year period will be to install ground heating system, air source heat pumps also to the maintenance hall where they still are missing, and to apply the optiwatti - intelligent temperature monitoring system on the office building.

There are many reduce, reuse, replace waste initiatives going on at Nordcenter. Overall consumption has been monitored and reduced, to help minimise the waste produced; Liquid fertilizers are purchased in containers that can be recycled. Occasionally large sacks are used. They are also collected for recycling; Old furniture that is used on the course, is reused after repairs at the maintenance hall. This can offer employment over the winter season. Very few plastics are used.

The new office building has been renovated with fully reused materials. For example the floors are made of appropriate recycled waste materials. All the furniture is reused.

Organic wastes from the course maintenance are reused to improve the natural boundaries of the site. Shredding is carried out by a contractor. On the course, green waste, mixed waste and bottles are separated in different bins, to be able to recycle the most. Cardboard, cooking oil, and glass are separated at the club house.

Due to the new waste regulation in Finland, also plastics can now be recycled separately. The next step is for the club to improve their plastic recycling.

Community

Sustainability issues are discussed and decided between the caddie master and the CEO of the golf club.

During the winter it is possible to ski on the golf course. There are already many public pathways, but their number will be increased, too. There's also a frisbee golf track, gym with memberships open to everyone, group gymnastic exercise sessions, bootcamps and bird tower for bird watchers.

There is an aim to increase the number of training days for the employees. GEO-day, where information about GEO and sustainability issues is given, was held soon after this audit was undertaken.

There is also an aim to increase the collaboration with the city of Raasepori. For example, the local football field is kept in good condition with advice and practical help from the golf club.

Conclusion

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I, Sanni Sjöblom, independent accredited verifier, recommend the Nordcenter Golf & Country Club to be awarded the GEO Certified® ecolabel. The club has again clearly fulfilled the basic demands of the GEO voluntary industry standards, but in addition shown that they strive to minimise their consumption in overall golf club management, while keeping the high quality of a championship level course without any issues. The club has shown that they have constantly worked to achieve their sustainability goals and now they have set many new ones.

The club has increased their roughs and uncut grasslands and made work to naturalise these areas. They have been able to increase the number of perennial turf species that is always a challenge to a golf club. At the same time, they are investing in current technologies to optimize the irrigation and to decrease their energy consumption.

While improving their own business, they have been able to keep the golf course open for everyone, during the winter for skiers, and during the summer for example for frisbee golf players and many others.