

Golf D'Hardelot - The Dunes and The Pines

Executive summary (English & local language)

Les deux golfs se situent au cœur de la station balnéaire d'Hardelot, ils sont entourés de zones naturelles reconnues d'intérêt écologique, faunistique et floristique (ZNIEFF), garantes d'un écosystème fragile. Entre d'un côté des dunes et de l'autre la forêt, le golf des Pins et celui des Dunes se composent de 18 trous chacun. La forêt d'Écault se situant à côté permet une grande variété d'animaux. On croise parfois sur les parcours des chevreuils, biches, lapins, renards et sangliers. Il existe même sur certains parcours des passages de gros gibiers. La proximité avec la mer en fait un passage obligé pour les mouettes, cormorans et autres oiseaux marins. L'implantation du golf s'est donc faite en prenant garde de ne pas déranger la présence de ces animaux tout en assurant une qualité de jeux satisfaisante pour la clientèle. La très grande présence des zones boisées dans un relief naturel rend la végétation particulièrement riche (dunes blanches, dunes grises, argousiers, etc...) mais qui par endroit ne sauraient être laissée au hasard. Malgré un ensoleillement parfois difficile, un grand soin est apporté à la création de passage d'air, rendant les parcours moins humides. Cependant, de nombreuses zones restent sauvages et accueillent différentes espèces d'oiseaux.

Historiquement, le golf créé en 1906 par Tom Simpson, démarré au château d'Hardelot. Récemment le golf céda une partie de son terrain autour du château afin de protéger ce patrimoine culturelle et écologique. Il en va de même pour le lac de la Claire Eau, propriétaire de cette source de puisement, le golf céda le lac à la forêt domaniale d'Hardelot, aujourd'hui sanctuaire d'une colonie de cormorans, avec plus de milles individus.

La direction du golf a opté pour une bonne occasion de mieux intégrer son environnement naturel à ce milieu naturel typique pour les dunes. Des efforts était pris du démarrage du golf pour intégrer le terrain de golf avec la nature environnements du parc naturel régional. Les plans visant à améliorer encore ses installations s'ajoutent aux étapes précédemment prises pour réduire au minimum son empreinte environnementale. Ce ne sont que les étapes nécessaires pour appliquer avec succès la reconnaissance GEO. Parce que ce label exprime non seulement l'approche environnementale mais aussi le respect pour la communauté locale.

Un facteur important pour le terrain de golf dans ce climat typiques pour les dunes, fait que maintenir un gazon sain sur les parcours un véritable défi. La sélection de graminées plus fortes en combinaison avec des traitements de fertilisation spécifiques et la maximisation des activités d'entretien mécanique rendent le besoin de traitements fongicides minimal.

De plus, la construction est prévue d'une station de lavage moderne à technique de pointe avec une installation de récupération d'eau, minimisera encore l'impact environnemental du club de golf.

Le golf a créé une promenade naturelle qui peut être utilisée par les écoles locales pour donner aux jeunes locaux la possibilité de profiter de l'environnement agréable et d'apprendre sur la nature en même temps, ainsi que pour les visiteurs golfeurs et non golfeurs pour faire connaissance avec l'écosystème fragile typique pour les dunes.

Les résultats et les actions sont régulièrement communiqués au public afin que chacun puisse voir comment le golf et la nature peuvent facilement coexister en développant et en préservant la richesse botanique et faunistique typique de cette région, même dans un open golf club qui vise à rendre le golf facilement accessible à tout le monde.

En tant que tels, tous les critères sont remplis pour accorder la reconnaissance GEO pour un club de golf durable.

The two golf courses are located in the heart of the resort of Hardelot, surrounded by natural areas of ecological value for fauna and flora, containing a rich but fragile ecosystem. Located on the dunes of the Hauts-de-France coastline, in the middle of the seaside resort of Hardelot and next to Mont Saint-Frieux, the Pines Golf and Dunes Golf Club consist in 18 holes each and are surrounded by pine trees and some hardwoods. The nearby Ecault forest allows a wide variety of animals. There are deer, wild pig, rabbits, foxes and boars. There are even large game passages through the courses. The proximity to the sea brings in seagulls, cormorants and other seabirds. The golf was built taking into account the presence of the natural value of the area.

The large forest areas in a natural relief makes the vegetation particularly rich. Despite the limited sunshine caused by shade, great care was taken to create air passages making the courses less humid. However, many areas remain wild and host different species of birds and plants.

Historically, the golf started at the castle of Hardelot. Recently the golf course yielded part of its land around the castle in order to protect this cultural and ecological heritage. Same story for "Lac de la Claire Eau", once again, the golf sold the lake to the Region and it is now a bird and natural sanctuary.

The golf management opted this a good opportunity to better integrate its natural environment to this typical natural dune environment. Efforts have been made from the start of the golf courses to mingle with the surrounding nature of the regional nature park. The plans to further improve its facilities add up to the steps previously taken to minimize its environmental foot print. These were just the needed steps to apply successfully for GEO recognition. As this label also expresses not only the environmental oriented approach but also the respect for the local community.

A major factor for the golf courses are the typical dune environment what makes that maintaining a healthy turf on the courses is a real challenge. The selection of stronger

grasses in combination with specific fertilization treatments and maximization of mechanical maintenance activities, make the need of fungicidal treatments minimal.

Also the planned construction of a state of the art washing station with water recuperation will further minimizes the environmental impact of the golf club.

The golf created a nature walk that can be used by the local schools to give the local youth the opportunity to enjoy the nice environment and learn about nature at the same time, as well as for visitors golfers and none golfers to learn about the typical fragile dune ecosystem.

The results and actions are regularly communicated to the public so that everyone can see how golf and nature can easily co-exist by developing and safeguarding the botanical and faunal wealth typical for this area, even in an open golf club that aims to make golf easily accessible for everybody.

As such all criteria are met to grant the GEO recognition for a sustainability conscious golf club.

1. Nature

1.1 General Observations

The course has a relaxing impression with the maritime woods and open grassy place placed on a slightly hilly dune landscape. It is a well balanced landscape surrounded at certain areas with residential houses that have nice vistas on the golf courses on the one hand and green natural wooded dunes on the other hand.

The two golf courses are closely situated to each other but have clearly their own distinct character.

1.2 Specific Observations

Not all dead wood is removed from the wooded areas, which provides valuable habitat for invertebrates and other small organisms.

They have installed an educative path for the visitors and schools around bees and pollination, with some bee hives at the end of the path. Also they have abandoned an area with a holes on it, for wildlife development (dunes used for big game to migrate and the lake the lake that was used to irrigate the golf courses and this is now developing as a bird sanctuary).

The dune surface is now developing naturally, but this made that new holes needed to be constructed involving a partial deforestation of dune woodland. This has been compensated by planting new forest at another location in agreement with the government agency. ,

The course mingles well with the dune landscape (some sandy areas, maritime pine trees).

1.3 Consultations & Surveys

Specific studies have been performed in the past for development of the big game corridor and a study to evaluate the possibility to use groundwater instead of water coming from the lake.

No detailed inventory of plants/animals is yet at hand, however from time to time some rare birds and plants typical for the dune area are discovered (e.g. Meadow Saxifrage - *Saxifraga granulata*, Burnet rose - *Rosa pimpinellifolia*,...).

1.3.1 Habitats & Designations

The club tries to better cope with the typical dune landscape by keeping certain areas open, so that typical herbal dune growth can develop.

1.3.2 Turfgrass Species

The club uses grass varieties that thrive best under the local conditions to minimize the need of treatment against fungal diseases.

A consultant is involved to optimize the turf quality with a minimum of treatment and irrigation.

1.3.3 Conservation & Enhancement Activities

The club has allowed the dune vegetation take over the abandoned hole, so that animals can migrate freely without damaging the golf course.

By switching to groundwater to irrigate the golf courses, the lake has be left to develop, so currently already a colony of cormorants (*Phalacrocorax carbo*)

1.4 Actions Required

1.3.4 Description (if 'pending' only)

1.3.5 Evidence (if 'pending' only)

1.3.6 Continual Improvement

Develop written plan for nature development based on available species that contains preservative measures to secure endangered species growing/living spaces for the future. E.g. *Rosa pimpinellifolia* growing spot is endangered by young pine trees that will change the growing conditions for this rose

because of intensifying shade and changing the soil conditions because of the falling needles. So removing those trees should be considered/

Continue to increase the naturalization of the site.

Continue educating the visitors of the value of the local species/nature, possibly also by informing them about certain species that are thriving/flowering at that moment of year.

A detailed inventory of the natural occurring species would be a good guide to line out specific actions to guide the ideas for implementing general nature conservatory actions that would help the local fauna and flora.

2. Water

1.5 General Observations

The irrigation water will soon be sourced 100% from a well at the site. In the last full year of reporting (2016), still 50% was sourced from the lake. A permit has been obtained recently for the drilling of the second borehole. According to the studies of the groundwater system there will be no influence of the pumping for the environment due to the local underground geology.

1.6 Specific Observations

1.3.7 Sources & Levels of Consumption

Some water audits have been performed in the past what resulted in changing of the water supply from lake water to ground water..

Drinking water is obtained from the public mains water.

Waste water is connected to the public sewer.

There are no field toilets on the courses.

Regular toilets are fitted with a dual flush.

The current washing zones are not equipped with water pre-treatment tanks (sludge, hydrocarbon separator) and is directly connected to the sewer system. An investment plan is lined out to built a state of the art washing combined with the new technical building (when is this intended to be completed?.....sorry please ignore, 2017, just seen it lower down the page.....)

1.3.8 Irrigation & Efficiency

Irrigation is done at night to reduce loss by transpiration, and based on the meteo information.

Fairways are also irrigated but less intensive than tees and greens, because of the dune environment this is necessary to keep vegetation alive on the fairways.

PVC pipes have been replaced by PE pipes to reduce bursting of the pipes what created huge water losses in the past. Also spraying heads are modernized to further optimize irrigation results with smaller water quantities.

1.3.9 Wider Activities to reduce water consumption

Installed low flow toilets.

Water recycling installation is planned in the new technical building for 'the Pines'.

1.7 Actions Required

1.3.10 Description (if 'pending' only)

1.3.11 Evidence (if 'pending' only)

1.3.12 Continual Improvement

Monitor the water quality and evaluate the water consumption.

Investigate possibilities to further improve the performance of the irrigation system.

Evaluate the impact of the new washing station on the water consumption (e.g.; separate water meter on the washing station) and capture the rainwater of buildings were possible for toilets e.g.

No rainwater is currently collected. However because of the basic good quality of rainwater it is advised to invest in rainwater storage for recycling this rainwater starting with the roof of the new technical building.

3. Energy

1.8 General Observations

No energy surveys have been undertaken at this golf facility.

1.3.13 Specific Observations

Practice areas and roads on the golf have no lighting (opening hours only during daylight) so that no energy is needed for artificial lighting.

1.3.14 Sources & Levels of Consumption

Electricity is obtained from the mains network, which is for 14,4 % coming from sustainable sources (rest is mainly nuclear in France).

Heating is done by gasoil and natural gas.

Most of the buildings have large windows, so that natural light is entering the building.

No photovoltaic or sun-boiler are installed. No plans to do so are currently considered..

Diesel is used for the heavier maintenance vehicles, smaller ones are electrical.

The diesel is stored in a tank with a second containment.

Several hybrid mowers have been purchased and are used.

1.3.15 Diversifying energy supply

Where possible natural gas is used for heating the buildings as this is more environmental friendly.

1.3.16 Activities undertaken to reduce energy and fuel consumption

Energy saving lighting has been installed (everywhere, or just certain parts?).

Machines are maintained in optimal condition to reduce repair costs and save on energy consumption.

Insulation of the building in the Dune Golf club house. Are there two clubhouses? Can you make any distinctions between them in terms of energy use and performance?

Classic lighting is gradually replaced by low energy lighting.

Cooking equipment has been replaced to lower energy consuming systems.

1.3.17 Actions Required

1.3.18 Description (if 'pending' only)

1.3.19 Evidence (if 'pending' only)

1.3.20 Continual Improvement

Keep maintenance vehicles in good condition to minimize their consumption. Above it says they are already in optimal condition. Do we need to have this here?

Explore further opportunities for electric/hybrid machinery when new purchases are in the pipeline.

Re-evaluate the possibility to install photovoltaic elements (e.g.; for charging the batteries of the

caddies) now the prices of these elements are further decreasing.

Continue to inform staff and customers on energy saving initiatives.

Maximize the usage of renewable energy.

4. Supply Chain

1.9 General Observations

As the golf is part of the Open Golf organization, they have the advantage of using preferred suppliers to reduce price, however they can use also local suppliers, which they favor the most. This helps to promote the golf club locally (everybody knows each other) as part of the local economy. So about half of their suppliers are located in the close environment (30-100km), and this policy is clearly illustrated in the clubs restaurant.

1.10 Specific Observations

1.3.21 Purchasing policies

They are in favor of environmentally certified suppliers (ISO 14001) and short chain products from nearby producers/suppliers.

1.3.22 Supply chain / economic multiplier

They buy mainly locally as this reduces stocks and is faster when they need support.

The majority of food materials is coming from the broader area (<100 km).

More specialized products need often to be purchased from the nearest dealer but these can be located in other departments.

1.3.23 Turfgrass inputs

The course uses strong and disease tolerant varieties as advised by their consultant.

They add fertilizers and sometimes herbicides which they purchase from the nearby located supplier.

The green keeping prefers to try more mechanical treatment to improve the root zone of the turf as this proves very helpful to obtain more solid turf matt. This also helps to remove soil compaction and so is a better irrigation obtained and better aeration what results in deeper rooting and healthier turf.

Currently some of the equipment is used for both golf courses, so that good planning is required.

The dew concentrations are carefully followed and when felt necessary the turf is brushed, and in some extreme situations an anti-dew product is applied.

Diseases are closely monitored, and when problems are noticed, local corrective actions are taken.

1.3.24 Waste minimization, reuse and recycling

The grass clippings are left on the fairway during mowing. The clippings from the greens and tees are sometimes stored and later used for mulching the neighboring olive trees.

They would like to compost all the clippings, but currently no adequate method or system has been determined for implementation (but currently it seemed only a vague idea they did not really explore). Where does the green waste go that is not recycled?

Wood, when not left on the place to rot, is chipped and distributed around the woody plants.

Do they recycle in the clubhouse? Separate waste streams?

1.11 Actions Required

1.3.25 Description (if 'pending' only)

1.3.26 Evidence (if 'pending' only)

1.3.27 Continual Improvement

Start to formally evaluate the suppliers on sustainable criteria (certified, kms,...). This evaluation should be recorded.

Register basically the volume of waste products to get an idea from the volume that has to be disposed of (e.g. number of bags...).

Continue to minimize usage of chemicals or biocides for maintaining a good quality turf by using robust grass species and mechanical treatments.

5. Pollution Control

1.12 General Observations

Only limited quantities of pesticides are kept on the premises (special cupboard as required by law) as most products are supplied when needed, whereas the local supplier also advises about the best suitable products (see above).

Oil crates are not always placed on containments as required. But this will be improved when the new building is constructed. Currently price quotes for secondary containments are requested from possible suppliers.

Waste is collected by the municipal services and waste water is treated on site of municipality. Certain waste products are separated and are collected separately by the municipality.

Waste collection bins are present on the course.

1.13 Specific Observations

1.3.28 Water Quality Analysis

No real data of the water quality of the groundwater is known yet (new well).

1.3.29 Waste water disposal

No toilets are present on the course.

Waste water from the club facilities are connected to the public sewer system.

The planned washing facility will have a water recycling system and will use rainwater. (planned 2017).

1.3.30 Handling hazardous materials

Pesticides are used according the guidelines and only by certified persons only (green keeper and his helpers that have a license), there is only a limited risk for accidents.

Currently filling and rinsing is done in the open, but on a contained space. In the future this will be done on the new washing site facilities. Spill prevention materials are available in the storage room.

Spill absorbing materials are also present in the mechanical room as well as at the diesel pump.

1.3.31 Pollution prevention at the clubhouse & maintenance area

The new washing installation will have separate tanks to avoid that possible polluting materials (such as hydrocarbons from grease on the machines or fuel) will be discharged to the sewer.

The people using dangerous products are trained with regular updates, as is legally required for handling pesticides. Absorbing materials are available where dangerous products are used.

Where possible environmental friendly alternatives are used.

Storage of pesticides is according to the legal requirements.

"Some" liquid products are stored on a containment containers.

1.3.32 Pollution prevention on the golf course

They sell biodegradable tees that should be used on the golf courses.

1.14 Actions Required

1.3.33 Description (if 'pending' only)

1.3.34 Evidence (if 'pending' only)

1.3.35 Continual Improvement

Mark all containers with according safety labels/product info to avoid any misuse. Jerry cans in the technical building are not marked.

Also jerry cans are taken outside sometimes, then it would be important to be able to identify the content via the labels on it.

Oil drums where on the floor without containment. Sometimes it was not clear what they contained.

Place all liquids on containments as required.

Implement that only biodegradable tees can be used on the courses.

Temporary storage of fuels (jerry can's) should also be placed on containment reservoir and correct safety symbols should be put on these (safety regulations).

All oil drums and jerry cans should be placed on a containment.

Also intermediate storage (leftover,...) should be stored accordingly. Clear markings of products in the containers will help to prevent environmental accidents.

Monitor the groundwater levels and water quality of the pumped water.

6. Community

1.15 General Observations

The golf club tries to link with the local community to neighborhood by opening the educative nature trail.

Youngster can come to work and combine this with school apprentice).

Mowing schedules are adapted to not interfere to much with the neighbors.

Participate in the beauty contest (Miss Opal Country).

City Cup every 14th of July.

Participates in the local festival activities for kids during the holidays.

Restaurants are open to visitors.

Participating in the Mr Goodfish program (sustainable fisheries fish) in combination with the local fishing companies.

Free classes in the primary school. What's this, golf lessons for young children?

1.16 Specific Observations

1.3.36 Employment & Education

Staff (full time and seasonal) are regularly informed and trained to work safely and have attention for the environment (as is legally required in France).

1.3.37 Sustainability working group

A person was engaged in the decision and process to GEO certification, but, as with most processes in the golf, no formal structure is given to such a group (two persons). Depending on the theme external help is brought in (consultants, GEO...).

1.3.38 Community relations

Partnership with local cities free initiations are organized. What's this, membership introductions?

1.3.39 Land use and cultural heritage

No specific studies on land use or cultural heritage have been performed.

Cooperation with O.N.F. to manage the forest (reforestation project) and restore a part of the golf as a natural dune to make free migration of some animals possible.

Dunes are kept into its natural shape (no major transformations).

Part of the castle grounds have been seeded to create a natural space around the castle. (historically the golf course started from the castle).

1.3.40 Legal disputes (if none leave blank)

1.3.41 Internal communications

Internal communications are direct and informal (no memo's, written procedures...)

There is a regular newsletter for the members and display with information for the visitors.

1.3.42 External communications

External communications usually take the form of press releases, articles in the local-golf press.

1.17 Actions Required

1.3.43 Description (if 'pending' only)

1.3.44 Evidence (if 'pending' only)

1.3.45 Continual Improvement

Formalize the internal procedures, to prevent unclear situations when people are absent for a longer period of time or when changes in staff occurs.

7. Documentation Reviewed

1.3.46 Action Plans and Project Proposals

ok

1.3.47 Awareness Raising Materials

ok

1.3.48 Certification Report

NA

1.3.49 EIA Statement

NA

1.3.50 Emergency Incident Plan

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1.3.51 Environmental Data

OK

1.3.52 Environmental Management Plan

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1.3.53 Environmental Policy

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1.3.54 External Surveys and Reports

OK

1.3.55 Internal Reports

OK

1.3.56 Minutes of Meetings

NA

1.3.57 Newsletters

OK

1.3.58 Register of Accidents

In preparation (external company will guide them)

1.3.59 Training Log

In preparation (external company will guide them)

8. Conclusion

Hardelot Golf has the past years put a lot effort to comply with the GEO standards, and with the planned environmental investments and continued attention they are a good example of how to combine using larger surfaces of for sport/recreation and dosing that in a sustainable way with respect of the local environment and offer extra's to the local people.

In general there is a high environmental awareness, and the club is mainly oriented to the local community and economic activities (tourism), and as such is well integrated and cooperates in several local programs.

Although no real management plan exists, all relevant information has been brought together in an extensive file that contains a lot of information on which the GEO dossier has been extracted.

With a little effort this could lead to an integrated environmentally oriented management plan, mainly specific data about biodiversity elements present on the golf are lacking today and as a result a conservation plan for some rare species present on the golf courses.

In general the golf has taken a major step to implementing sustainable criteria in the day to day activities and should be considered as a GEO golf club and although they can still improve on certain fields they should be granted GEO status.

9. Certification Highlights

Hardelot Golf Club started working according the voluntary industry standards that GEO introduced for a sustainably managed golf club. With its lean staff most communication is done informally internally.

Water supply will be changed to preserve the lake with its nature. The groundwater uses some of the deeper groundwater that flows to the sea, but without interfering with the sweet water table.

The golf created also a local nature path that can be used by local schools to offer the schools to bring the pupils in direct contact with the local nature in a unique dune environment. This is a nice illustration how nature development can be linked with a modern sporting environment with a lot of natural elements. But the major achievement for nature lies in the protection of rare species and to

return some of its former golf area for natural development.

It has taken steps to reduce its energy and pesticides consumption and also took steps to increase the local nature by moving some playing grounds and giving old playing zones back to nature so that delicate ecosystems can be restored and freely develop.

10.Press Release Quote

The Golf d'Hardelot is located in the resort of Hardelot and contains two 18 holes golf courses that are surrounded by pine woods situated in the dunes of the Hauts France. The club has taken some major steps to comply with the GEO.

Although the golf enjoys the much appreciated coastal environment, its unique location in a sandy dune landscape, it is also confronted with the sea influence what can be a challenge for the golfers as well as for the greenkeeper to maintain a good quality turf and still respect the natural environment.

The GEO label also not only takes into account the environmental oriented approach but also the respect for the local community and good working conditions, and an open communication about its sustainable efforts.

During an external audit these criteria were evaluated and all the environmental efforts the golf club already took and have in the pipeline with their new state of the art technical building that will be finished the coming months, the Golf of Hardelot received the international label from the international Golf Environmental Organization (GEO) as a recognition for their environmental efforts.