

Golf della Montecchia



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Executive summary - English & native language

The GC La Montecchia is located in northern Italy in the Veneto region, about 10 kilometres away from the city of Padua. It has 27 holes and covers a surface of 94 hectares at an altitude of 16 meters above the sea level. The geographical coordinates are: Latitude 45° 23' 12" North and Longitude 11° 45' 48" East. The construction of the holes dates back to 1988/89 (18 holes) and 1990 (9 holes). The landscape observed from the club and the weather conditions are those typical of the Po Valley, open and level land characterized by intense cold in the winter and sultry heat in the summer, of continental nature. The soil presents silt and sandy loams in line with the alluvial soil types that are common in the area. There are no forests or significant areas of wetland; the land is largely dedicated to agricultural crops, especially vineyards and arable land. Originally, the golf property was owned by Count Capodilista, to which the Renaissance villa and the

medieval castle near the Club House belong. Many areas of zero or low maintenance have been defined on the golf course, where herbaceous vegetation has been allowed to grow freely, enabling it to blend into the natural landscape.

The vicinity of the Parco Regionale dei Colli Euganei (Regional Park of the Euganean Hills) means that you can enjoy breathtaking views of the hills and distant Alps. In 2007, the GC La Montecchia was awarded a certificate of merit and in 2012 the "Committed to Green" prize for the Water category. The Club has also been mentioned by the R&A as a case study concerning the conversion of the turfgrass from coolseason species to warmseason varieties (it is the most northern site in Europe where warm-season turfgrasses have been established in all the course).

Il GC Della Montecchia è situato in nord Italia nella Regione Veneto a circa 10 km dalla città di Padova. Ha 27 buche e si estende per 94 ettari ad una quota di 16 metri s.l.m. Coordinate geografiche: Latitudine nord 45° 23' 12". Longitudine est 11° 45' 48". Il percorso è stato costituito negli anni 1988/89 (prime 18 buche) e 1990 (terze nove buche). Il panorama che si osserva dal circolo e il clima sono quelli tipici della pianura Padana, ambienti aperti pianeggianti caratterizzati da freddo intenso invernale e caldo torrido in estate di natura continentale. Il suolo presenta caratteristiche franco limose e franco sabbiose in linea con la tipologia dei terreni alluvionali della zona. Non vi sono coperture boschive né zone umide di rilievo, la vista spazia su colture agricole prevalentemente vite e seminativo. La proprietà del golf era originariamente parte dei possedimenti del Conte Capodilista cui appartiene la villa rinascimentale ed il castello risalente al periodo medioevale adiacenti al Club House. Nel percorso di golf sono state definite diverse aree a nulla o bassa manutenzione in cui la vegetazione prativa cresce spontaneamente anche per una migliore armonizzazione del percorso nel territorio. Il Parco Regionale dei Colli Euganei limitrofo, fornisce belle viste sulle colline e a distanza si vedono le Alpi. Il GC Della Montecchia ha ricevuto nel 2007 un attestato di merito e nel 2012 un premio Impegnati nel Verde per la categoria Acqua; è inoltre citato del sito della R&A come case study per la conversione del tappeto erboso da micro a macroterme (sito più

settentrionale in Europa dove le specie macroterme sono state inserite su tutto il percorso).

Nature

The habitat is typical of the Po Valley: open and flat areas characterized by intense cold in the winter and sultry heat in the summer, of a continental nature. There are no forests or significant areas of wetland; the land is largely dedicated to agricultural crops, especially vineyards and arable land. The golf course is located on the property of Count Capodilista, who also owns the villa and the castle which dates back to the Renaissance period. A variety of tree species have been planted on the golf course; not all of them are autochthonous. Moreover, zero and low-maintenance areas have been defined for a better harmonization of the golf course within the territory, where herbaceous vegetation grows freely. The environments are mainly characterized by grassland; trees and shrubs have been integrated along the holes and several zero or low-maintenance areas help the golf course to blend in with natural surroundings.

The play area comprises a surface of around 43 hectares out of a total of 94. The vicinity of the Parco Regionale dei Colli Euganei (Regional Park of the Euganean Hills) means that you can enjoy breathtaking views of the hills and distant Alps.

Extensive golf environment research has been carried out in order to identify species of interest from a conservation point of view, including the following:

Grey Heron, Little Egret, Common Kestrel, European Nightjar, European Green Woodpecker, Barn Swallow, Common House Martin, Common Starling, Eurasian Tree Sparrow.

The University of Bologna has organized research which is about to begin, concerning tree heritage management. The University of Padua has also organized research on the renaturalization of the Club's grasslands with the aim of improving and safeguarding biodiversity. Here enclosed is a complete

list of studies and research involving the Club. The Club is in contact with LIPU (the Italian League for Birds Protection) to place nest boxes and troughs.

Water

Wells extracting groundwater constitute the water supply source for the irrigation of the golf course area. The Club House, however, is connected to the municipal aqueduct as is the Maintenance Centre. In this latter case, the water for machine-washing comes from the groundwater reservoir. The consumption of drinking water is on the rise starting from 2009 (9,698 mc) and reaching 9,971 mc in 2012 -an increase of 273 mc. This is due to the opening of a second restaurant and the increase in the number of members.

The Club is committed to replacing the turfgrasses of tees and fairways- previously coolseason species (mix of *Lolium perenne*, *Poa pratensis*, *Poa annua*, infested by *Cynodon dactylon* and *Paspalum distichum*) to warmseason varieties (hybrid of *Cynodon dactylon* x *Cynodon transvaalensis* cv Patriot). This operation started in 2010 and was concluded in 2012. Moreover, excluding rough, the irrigated surface has been reduced. This significantly reduced water requirements from 261,935 mc (2009) to 135,395 mc (2012), a percentage decrease of 48.3 %. These data are influenced by the abundant irrigation requirements, when establishing warmseason turfgrass. Therefore, it is estimated that in 2013, a significant reduction in the percentage of consumed water will be recorded, because further conversion operations are not foreseen. A computerized water system ensures the optimization of water distribution, enabling a perfect match amongst water requirements of the turfgrass and weather conditions of the site thanks to a connection with the local weather station.

Energy

The Club is also committed to implementing a programme aimed at decreasing golf course energy requirements through the: reduction of energy consumption connected to water supply (wells) and water distribution (reduction of requirements, see previous point) reduction of surfaces subject to high-maintenance (fairways) in favour of areas with limited management (rough and uncultivated area). A comparison with the past as regards the consumptions of fuels, lubricants and hydraulic oils is not possible, because the golf course maintenance service was outsourced to an external company until 2011. Recently low energy consumption light bulbs have been fitted in the Club House and all services have been installed with suitable sensors to switch on and off the electric lights. The golf carts are all powered electrically using high-efficiency batteries.

The land reclamation authority of the area has organized a system of piping and conduit to exploit part of the water from the River Bacchiglione (that flows near the golf course) in the water basin of the Club. In 2013, a contractual agreement with a provider of renewable electrical energy (a hydropower plant) will be negotiated, for the supply 100% "clean" energy, thus replacing the previous provider, who guaranteed a mere 30%.

Supply Chain

In the three-year period considered, the Club has enacted a green acquisition policy comprising:

- golf carts with high-efficiency batteries
- score boards and other accessories along the golf course made from recycled plastic
- the construction of car paths using recycled materials supplies coming from local producers (also for the restaurant of the Club House).

Half of the suppliers are located at a maximum distance of 10 kilometres from the Club. The other 50% is within 100 km.

As regards the maintenance of the turfgrass and in particular the use of fertilizers, it is important to note that the golf course uses an annual percentage (of N and K) that is significantly lower (at least by half) in comparison to the yearly average of the other golf courses located in the Po Valley, such as (Montecchia 2012 data; "Golf Courses and traditional crops: a comparisons of inputs" data - ETS Conference – Pisa 2008):

N	=	15.5	kg/ha/year	in	comparison	to	39.8	kg/ha/year
P	=	3.97	kg/ha/year	in	comparison	to	2.64	kg/ha/year
K	=	10.57	kg/ha/year	in	comparison	to	27.63	kg/ha/year

Data regarding Club use of plant protection products is reassuring; (Montecchia 2012 data; "Golf Courses and traditional crops: a comparisons of inputs" data - ETS Conference – Pisa 2008):

Fungicides	=	0.36	kg/ha/year	in	comparison	to	3.5	kg/ha/year
Herbicides	=	0.71	kg/ha/year	in	comparison	to	1.7	kg/ha/year
Insecticides	=	0.002	kg/ha/year	in	comparison	to	1.9	kg/ha/year

Taking into consideration the last year in which coolseason turfgrasses have been present on the total surface of tees and fairways (2009) and analysing the data concerning the use of pesticides in that year in relation to the most recent 2012, the following information is obtained:

-Fungicides + 1.7 % (the use of these products is limited to greens/collars and it has not been influenced by the reduction of the treated surfaces)

-Herbicides – 55.5 % (In 2012, the conversion of the last 9 holes has been carried out and the data has been negatively influenced by this operation. Despite this consideration, a significant reduction in the use of herbicides has been obtained.

-Insecticides – 96.93 % (also in this case, the use of these products is limited to greens/collars and it has not been influenced by the reduction of the treated surfaces).

In general, the reduction in the use of pesticides amounts to 47.31% comparing the data of 2009 and 2012. The data related to herbicides is significantly influenced by the need for a total and systematic weed control of the coolseason turfgrasses, before converting it to warmseason grasses. In the future, it is deemed possible to further decrease this value, as well as the use of fertilizers.

Pollution Control

The GC La Montecchia has been among the first clubs to support in 2000 the project "Committed to the Green", demonstrating its real commitment in favour of the environment and environmental quality which characterizes the Club's management. These goals have been met thanks to a number of actions taken, such as the reduction of water consumption by up to 48.3%, pesticides up to 47.31% thanks to the replacement of coolseason turfgrass with warmseason varieties. Moreover, asbestos has been removed from the maintenance facility roof; uncultivated areas have been increased to create other ecological corridors and improve landscape harmonization and no spray zones have been widened.

The quality of water will be monitored on a yearly basis through laboratory analysis, whereas visual checks will be carried out as always on a daily basis during irrigation periods. Zero or low-maintenance areas, in which actions will be carried out for environmental improvement, especially in favour of grass areas, will be better defined thanks to the participation in scientific research aimed at detecting top priority species to be conserved and the subsequent adoption of measures to protect them.

Community

The Club is significantly engaged in communication at a local level, both among its members (informative newsletters, continuous updates of the web site, signs on the golf course and in the Club House) and with the general public, via local media (newspapers, TV, radio, other web sites). Study visits for students of the local University are organized regularly.

Documentation Reviewed

- Action Plans and Project Proposals
- Awareness Raising Materials
- Certification Report
- Emergency Incident Plan
- Environmental Data
- Environmental Policy
- External Surveys and Reports
- Internal Reports
- Minutes of Meetings
- Newsletters
- Register of Accidents
- Training Log

Conclusion

Since 2003, the Club has demonstrated a high level of awareness towards environmental issues and over the years it has reached significant objectives. The consistent reduction in the use of pesticides, water, electrical energy (limited to the golf course), as well as relying on a supplier that uses 100% renewable energy, the decrease in play areas and the correspondent increase in uncultivated areas and/or natural vegetation places the GC La Montecchia high in the ranking of top clubs in terms of environmental sustainability.

Certification Highlights

Conversion of the turfgrass from coolseason species to warmseason varieties, thus reducing water consumption and the use of pesticides.

Attainment of partial certifications on behalf of the Italian Golf Federation in the framework of the Committed to Green Project in the field of: Water (2012) and Management of Turfgrass (2007).

The Club is committed to communication with members and the general public at a local and national level, in order to raise awareness of actions in favour of the environment.