GEO Certified® Report
Golf Club Ambrosiano

Prepared by independent verifier, Paolo Croce

Certified by GEO Foundation: September 2022
Valid until: September 2025

“Despite the presence of Agrostis stolonifera, which appears to be the most demanding turf species in terms of irrigation and fertilizer consumption, Golf Club Ambrosiano proves to be moving towards complete sustainability. Irrigation consumption, which can represent a sensitive data in an absolute sense, must be contextualized and inserted within a specific framework which is the case here. The golf course is bordered on one side by a residential area of the municipality of Bubbano and on the other three by the typical irrigated crops of the area: rice fields. As we know, the cultivation of this cereal requires the maximum amount of water expected in agriculture. The presence of the working irrigation consortium allows water to be stored in basins in the winter months, without competing with the surrounding crops. Therefore, the water used is not subtracted from agriculture nor is it pumped from the groundwater through wells. The club management is also well-intentioned to convert the turf to warm season species. For all other factors, the environmental sustainability indices are good.”

Paolo Croce

(GEO accredited independent verifier)

Introduction

GEO Foundation is pleased to confirm that **Golf Club Ambrosiano** has successfully achieved GEO Certified® status for its outstanding work to foster nature, conserve resources and support the community.

GEO Certified® is the most respected certification for golf, based on a credibly and transparently developed modern sustainability Standard of best practice.

Golf Club Ambrosiano has:

1. Met the required certification criteria for sustainable golf operations
2. Successfully completed the official third-party verification process
3. Successfully passed the final evaluation by GEO Certification Ltd. (autonomous subsidiary of GEO Foundation)

GEO agreed with the conclusions of the official verification report, that, having achieved all mandatory criteria; and with specific Continual Improvement Points (CIP) set for the future, **Golf Club Ambrosiano** should be awarded GEO Certified® status.

For the certification period stated above, **Golf Club Ambrosiano** can therefore claim a position as a leader in advancing sustainability in golf – making important contributions in protecting nature, conserving resources and strengthening communities.

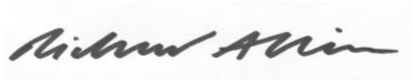
The GEO Certified® Report that follows comments on the actions undertaken against the criteria, as observed by the independent verifier during the assurance process.

Certification is nearly always the result of a dedicated team effort resulting in many practical and valuable social and environmental results around the golf course, maintenance facility and clubhouse. These dedication and leadership qualities are an important part of ensuring the resilience of the golf facility and the golf industry into the future and also as part of society's wider effort to pull together for people and planet.

We congratulate all involved.

Jonathan Smith
Founder and Executive Director, GEO Foundation
GEO Certification Ltd. Board Member

Kelli Jerome
Executive Director, GEO Foundation



Richard Allison
Manager, GEO Certified Facilities

Verification and Certification

Verification

The official third-party audit was carried out by an independent verifier, accredited by GEO to undertake verifications of golf facilities applying for certification.

Verification involves reviewing practices and data, using the International Voluntary Standard for Sustainable Golf Operations as the guide to ensure comprehensive and consistent evaluation of performance. A detailed verification report is submitted for evaluation by GEO Certification Ltd, a subsidiary of GEO Foundation.

Certification

GEO Certification Ltd, an autonomous subsidiary of GEO Foundation [both not-for-profit entities], undertook a full review of all content submitted through the OnCourse® online platform and the report submitted by the verifier, ensuring:

- Comprehensiveness – that activities undertaken touched on all elements of the Standard
- Consistency – that the verification approach was balanced, well weighted and with consistent depth of evaluation across each theme
- Accuracy - matching the verification report with evidence submitted by the golf facility to ensure statements and claims were accurate

GEO Foundation is an international not-for-profit founded to advocate, support and reward sustainability in and through golf. Over more than ten years, the group has worked collaboratively with dozens of golf industry associations and government and non-government organisations around the world, to help golf become a sustainability leader, striving for a net positive social and environmental impact. In addition to managing and assuring GEO Certified®, GEO Foundation also provides a suite of credible, practical programmes for golf facility management, new golf developments and golf tournaments called OnCourse®, often delivered in partnership with national golf bodies. Find out more at **www.sustainable.golf**

Credibility

GEO Certified® is part of the ISEAL Alliance, a group of the world's foremost credible certification systems including Fairtrade, Rainforest Alliance, Forest Stewardship Council, Marine Stewardship Council and many others. GEO Foundation earned and retains full membership of the ISEAL Alliance global association following a rigorous evaluation against the ISEAL Codes of Credibility in Sustainability Standards and Certification. The ISEAL Codes cover standard-setting, assurance, and monitoring and evaluation. Find out more at **www.isealalliance.org**

The Sustainability Agenda for golf covers the following themes and action areas:

THEMES	ACTION AREAS
Nature	• Habitats & Biodiversity • Turfgrass management • Pollution prevention
Resources	• Water • Energy • Materials
Community	• Partnerships & Outreach • Golfing & Employment • Advocacy & Communications

Included below are the observations made by the Independent Verifier against each item in the Standard.

NATURE

N1 Habitats and Biodiversity

Objectives	Requirements	Mandatory Practices	Verifier Notes
N1.1 Understand the site and surroundings	**N1.1.1 Sound understanding of the nature and landscape value of the site**	Map all habitats and vegetation types on the site; Regularly update landscape / biodiversity surveys	The property has an area of over 60 ha and has a mapping of the different plant types and a classification of the surfaces: greens 7,112 m2, collars 12,855 m2, tees 14,127 m2, fairways 121,370, bunkers 8,786 m2, 84,855 m2, rough lakes 269,080 m2 , wild vegetation 80,390 m2.

	N1.1.2 Knowledge of legal designations for protected areas, habitats and species	Understand legal responsibilities for protected landscapes and species; Record and monitor protected, endangered, or rare species found on the site	There are no specific documents on the site, but the South Milan Park provides all the information of an environmental nature at the macro-area level.
	N1.1.3 Understanding and respect for cultural heritage	Protect any archaeological, historical or cultural designations on the site	The area has no buildings of historical or cultural interest
N1.2 Opportunities to naturalise the course	**N1.2.1 Measures taken to identify and minimise the required area of managed turfgrass**	Observe, track and / or monitor golfer play	The design is the work of an important professional studio (Cornish & Silva) and has fully exploited the typical characteristics of the surrounding habitat characterized by intensive agriculture, especially rice fields. As many as 12 holes are adjacent to the water basins (9). The fairways have been designed very wide and the reduction of their surface would involve a complete reconstruction of the irrigation system, which, due to very high costs, has been postponed for the time being. The management therefore operated by reducing maintenance on the rough strips and created a series of no maintenance areas of over 8 ha. **CIP** There are opportunities to reduce the area of maintained rough in out-of-play zones. This would increase the natural value of the site and reduce costs (inputs, labour).
N1.3 Actively manage habitats for wildlife	**N1.3.1 Projects to manage habitats in the best way for wildlife and golf**	Regularly review and follow a habitat management plan; Prioritise native species when planting and landscaping	The do not have a written document on the matter, but the superintendent is qualified at National School of Golf, and he is aware of the importance of protecting the original habitats. He is also Vice President of AITG (Italian Association of Golf Technicians). **CIP** Formalise and document the planning and management of natural areas, i.e. with a spreadsheet stating such as – area / location; action taken / description; person responsible; time / date undertaken or completed; special considerations or guidance required; other notes.
N1.4 Conserve key species	**N1.4.1 Practical conservation measures for priority species**		
N2 Turfgrass			
	N2.1.1 Appropriate turfgrass varieties	Select appropriate grass species for climate	Similar to many golf courses in Northern Italy, at the moment the majority of the surfaces have *Agrostis stolonifera* and the most important weed is

	N2.1 Maintain optimum turf and soil health	**adapted to climatic and other geomorphological factors**		the *Poa annua*. It should also be considered that since the field is part of an irrigation consortium that supplies water to the rice fields in the area, this important element is available in large quantities and at low cost. In consideration of the climate change underway and on the basis of the experience gained by other golf clubs in the Po Valley, the management has however set itself as the next important intervention the conversion of the turf of tees and fairways from cool to warm season grasses. The superintendent has already started test plots to compare the varietal adaptation of different hybrid Bermuda cvs.
		N2.1.2 Practices to maintain good soil structure and condition		As written, the superintendent is particularly experienced due to the 5 years of courses at the CTF (Federal Technical Center of the IGF) and is in possession of the qualification of Certified Superintendent. It is therefore very committed in creating the best possible habitat for the healthy growth of the turf through all available cultivation operations (coring, forking, air injections, spiking).
		N2.1.3 Careful and responsible fertiliser application throughout the year to avoid over-fertilisation	Undertake soil tests and nutrient analysis	The superintendent carries out soil analyzes on a regular basis and sets the fertilization program on them. The distribution of nutrients takes into account the needs of the dominant species and the seasonal growth curve. For some years now, the staff is using special natural organic fertilizers (which follow a cold working procedure). So they are able to provide the organic matter indispensable for a regular growth of the turf, but also a strong presence of soil microorganisms responsible for the decomposition of the organic matter itself.
	N2.2 Prioritise mechanical maintenance	**N2.2.1 Non-chemical pest, disease and weed management**	Sharpen mowing blades; Remove surface moisture; Hand weeding	All the listed operations are carried out with the right frequency
	N2.3 Use chemicals responsibly	**N2.3.1 Application of chemicals only when necessary to prevent or cure defined / identified turf health issues**	Establish patterns and levels of risk for pests and diseases; Scout the course daily for early signs of pests and disease; Accurate pest and disease identification; Map and track pest and disease hotspots; Establish pest and disease thresholds	Due to the presence of PAN, National Action Plan which prohibits the use of chemicals on golf courses, great importance is given to the prevention especially of fungal diseases. In the three previous years only one treatment per year was carried out for the control of Digitaria spp thanks to an exemption, applicable to all lawns, provided for by the Ministry of Health. In addition, the presence of Agrostis stolonifera, very sensitive to diseases, exacerbates the problem. In the last three years they sprayed 2 products/year, again thanks to a national exemption by the Government. However, the continuous use of natural organic fertilizers, which allows for a strong presence of competing organisms of the main fungal diseases, is considerably limiting this negative fact.

			In terms of weeds, *Agrostis stolonifera* is very competitive and tends to prevail over the vast majority of other grasses (with the sole exception of *Poa annua*).
	N2.3.2 Application of chemicals with full safety precautions	Use only legally registered and approved products; Ensure staff are fully qualified and licenced to use pesticides; Regularly calibrate and test applicators; Use appropriate protective equipment; Dilute and dispose of leftover product on untreated areas of turf	No chemicals are used to control pests (with the above exceptions). A few biological products are under observation and tested on greens.
N3 Pollution Prevention			
N3.1 Prevent pollution across the entire site	**N3.1.1 Practical measures to ensure pollution risks are minimised from golf course operations**	Document procedures for emergency spill responses; Maintain mowing buffer zones around water and all ecologically sensitive areas; Maintain spraying and spreading buffer zones around water and all ecologically sensitive areas; Create a map / aerial visual reproduction, drawing etc of the course showing buffer zones and no-spray, no-spread areas.	The club has no operational protocols to manage these emergency situations, but this is explained by the legal impossibility of using pesticides. The liquid distribution operations are reserved for some foliar action fertilizers and in this case the staff follows precise indications, keeping a few meters from the water bodies. Same goes for solid fertilizations. These buffer zones have become areas with low maintenance intensity and practically only a rough mow is made in them.
	N3.1.2 Practical measures to ensure pollution risks are minimised from clubhouse operations	Ensure all hazardous materials are safely and securely stored; Ensure compliance with all required standards and systems for hazardous waste and wastewater discharge	As regards the clubhouse and maintenance facility, the storage and distribution of potentially dangerous materials (fuels, lubricants and more) takes place in full compliance with the legislation in force. The same for wastewater discharge.
	N3.1.3 Practical measures to ensure pollution risks are minimised from maintenance facility operations	Ensure wash areas are on impermeable, leak-free surfaces; Mixing and loading of pesticides and fertilisers over an impermeable surface; Triple rinse pesticide containers and applicators	The machine washing area is waterproof and equipped with all the legal devices.
N3.2 Safely manage hazardous substances	**N3.2.1 Legal compliance in the storage, handling, application and safe disposal of all hazardous substances**	Maintain a register of hazardous materials available to authorised staff; Safe storage in secure and ventilated concrete or metal building; Sufficient storage capacity; Impermeable flooring;	The storage and use of potentially hazardous substances takes place in accordance with the law. The club has its own plan to manage emergency situations and the necessary devices are in place for rapid intervention before the arrival of external help. There are containment kits for liquid spills.

			Spill containment kits present; Emergency wash area; Fire extinguisher in the immediate area; Secondary containment for fuel, either externally constructed, or integrally manufactured; Regular inspection of storage tanks	The devices are verified according to the law.
	N3.3 Responsibly manage waste / storm water	**N3.3.1 Appropriate wastewater usage and discharge licences**	Wastewater discharge licence; Appropriate treatment of machinery wash water (impermeable surface, oil / grease / clipping separation)	The discharge of wastewater takes place in accordance with the law- The machines washing platform located at the maintenance facility is equipped with an organic material separator (clipping) and oil / grease separator The sewage water is conveyed to a consortium purifier in the area, but there is no use of the wastewater by the municipality.

RESOURCES

R1 Water

Objectives	Requirements	Mandatory Practices	Verifier Notes
R1.1 Minimise water demand	**R1.1.1 Measures to reduce the need to consume water**	Target irrigation to essential playing surfaces only	The superintendent is well aware of the importance of reducing water consumption. The presence of Agrostis stolonifera does not allow to reduce the water supply too much, but this has stabilized in the last two years (average 174,000 m3). In consideration of the considerable irrigated area (38.42 ha) the quantity is to be considered suitable. The comparison between water consumption per hectare of the golf course compared to that of the surrounding crops (rice fields) is to be considered extremely favorable.
R1.2 Maximise water efficiency	**R1.2.1 Practical measures to use water more efficiently on the golf course**	Conduct regular irrigation performance checks; Provide staff training on efficient irrigation practices; Ensure effective application of water to target areas;	In principle, all precautions have been taken to reduce irrigated surfaces, to optimize irrigation rates both in terms of quantity and frequency. There are no problems in terms of knowledge, on the part of the staff, of the need to study all possible strategies to reduce the large water requirement. The system is computerized and allows you to best dose the watering of each individual area. The system can also be easily controlled from a mobile phone. There is a rain sensor and in any

			Ensure irrigation schedules are informed by weather patterns and soil moisture analysis	case the superintendent is always in contact with the Weather Channel via a special app.
		R1.2.2 Practical measures to use water more efficiently in buildings	Audit water use regularly; Review bills frequently and look for irregularities; Encourage water-saving practices amongst staff and visitors; Categorise and track water consumption	The director has strict control of consumption both through supply bills and through the use of devices aimed at saving water (push-button or sensor taps). The awareness-raising policy towards users has been very positive: in 2021 there was a significant reduction in drinking water consumption (- 42% compared to 2019 and - 30% compared to 2020).
	R1.3 Source water responsibly	**R1.3.1 Measures towards alternative, lower quality sources of water**	Ensure appropriate water abstraction permit and reporting, as required	The presence of the irrigation consortium allows in winter to store all the water necessary for the growing season in the water basins and therefore there is no competition with the surrounding agricultural crops. With very rare exceptions, there are no withdrawals from the groundwater even in the presence of wells.
	R2 Energy			
	R2.1 Reduce energy demand	**R2.1.1 Measures to reduce the amount of energy consumed in course maintenance**	Minimise areas of managed turf to reduce mowing, irrigation, and turf inputs	In 2021, from the point of view of fuel consumption, there was a significant reduction in the consumption of diesel (- 11%) and petrol (- 3.7%) compared to the average of the previous two years.
	R2.2 Maximise energy efficiency	**R2.2.1 Measures to use energy and fuels more efficiently in buildings**	Audit energy use regularly; Regularly review bills; Categorise and track energy consumption	Confirmed.
	R2.3 Source energy responsibly	**R2.3.1 Measures to source alternative, renewable forms of energy**	Determine potential sources of renewable energy in the area and on-site, through renewable energy providers	The recent solar photovoltaic system has made it possible to reach a share of 25% of renewable energy with respect to the total consumed. 15 of the 16 golf cars present are equipped with electric powers.
	R3 Materials			
	R3.1 Reduce materials demand	**R3.1.1 Products and materials selection based on necessity, including opportunities for recycled, reused and locally sourced alternatives**	Undertake a review of materials consumed	Confirmed. The amount of total waste produced has been stable for some years. The % of recycled waste (46%) is also stable and in line with the plans of the municipality and the region. **CIP**

			Request data from waste contractor(s) to establish more accuracy. Total uplifted and fractions recycled, gasification etc.
R3.2 Purchase responsibly	**R3.2.1 Practical use of an ethical / environmental purchasing policy**	Adopt a sustainable, or ethical / environmental purchasing policy to maximise the use of locally sourced goods and goods made from recycled, recyclable and certified materials	More than 70% of appliances A rated or equivalent. The club's policy is to replace appliances and / or systems with more energy efficient solutions as they come to an end of use.
R3.3 Reuse and recycle	**R3.3.1 Waste stream separation for maximum recycling and re-use opportunity**	Demonstrate waste separation, reuse and recycling; Track how much waste goes to landfill, or is reused / recycled	Confirmed.
R3.4 Demonstrate legal compliance	**R3.4.1 Compliance with all local and regional waste management regulations**	Use authorised waste and recycling contractor for general, hazardous, industrial and green waste	Confirmed.

COMMUNITY

C1 Outreach

Objectives	Requirements	Mandatory Practices	Verifier Notes
C1.1 Diversify access and provide multi-functionality	**C1.1.1 Social and recreational activities at the facility**		The property policy is to encourage staff and members to represent the facility in local community groups.
C1.2 Provide for volunteering and charity	**C1.2.1 Opportunities available for volunteering and support of charities and good causes**		The management is committed both from the point of view of volunteering and in terms of supported associations (3) and hosted events (3). In 2021 € 5,000 was raised to be donated to associations.

	C1.3 Establish active community partnerships	**C1.3.1 Positive and constructive engagement with neighbours, the local community and other groups**	Create a 'sustainability working group'	There are excellent relationships between the management and the surrounding community. The Municipality of Bubbano and the various associations in the area are often supported by the club in their initiatives. The club manager himself is the son of the current Mayor of the small town.
	C2 Golfers & Employees			
	C2.1 Improve health and wellbeing	**C2.1.1 Benefits to human physical and mental health from golf and facility activities**		The proximity to the golf of the residential area of the town of Bubbano allows the population to be frequented by non-golfers, even if only for walks in areas protected by the game.
	C2.2 Be open and inclusive	**C2.2.1 Inclusivity and diversity in membership and visitor policies**	Demonstrate inclusive policies for members and visitors	The club welcomes all visitors and patrons with courtesy and benevolence. There are no particular social and / or economic barriers to entering the club, except for the eventual balance of the green fee in the case of use of the golf course.
	C2.3 Employ fairly and safely, and provide career opportunities	**C2.3.1 Ethical and legal employment, working conditions and professional development**	Follow all relevant national legislation and best practice for employment, health & safety etc	Confirmed.
	C3 Communications			
	C3.1 Engage golfers and members	**C3.1.1 Communications activities that raise awareness and understanding amongst members and visitors**	Provide information on the facility's sustainability commitments, actions, or achievements	Confirmed via use of GEO OnCourse and application for certification.
	C3.2 Celebrate and promote sustainability	**C3.2.1 Activities that raise awareness and engage people in the wider community**	Provide evidence of external communications and community engagement	There are currently no collaborations in place with environmental movements, but there are numerous training, education and charity activities that are carried out with various local and municipal organizations.

Golf and Sustainability

Among all sports, golf has a particularly close relationship with the environment and communities, golf facilities can bring many benefits to people and nature - from the protection of greenspace and conservation of biodiversity; healthy recreation for all ages; local supply chains; and jobs, tourism and other forms of economic value.

Adopting a more sustainable approach is also good for golf. It's about presenting a high-quality golf course and providing a memorable experience in natural surroundings. It's about being as efficient as possible. And it's about supporting the community in a range of ways that bring increased recognition, respect and contact.

At a broader level, it's important that golf credibly demonstrates its commitment, and its social and environmental value – strengthening the sport's image and reputation for the long term.

Golf facilities that participate in OnCourse®, an international sustainability initiative assured by the non-profit GEO Foundation, are taking a comprehensive approach and striving to be leaders in the community.

Find out more at www.sustainable.golf