



GEO Certified[®]

GEO Certified[®] Report Golf Club Arosa

Prepared by Independent Verifier, Hector Forcen

Certified by GEO Foundation: October 2021

Valid until: October 2024

GEO Certified[®]

 **GEO
Foundation**
Sustainability in and through golf

“Golf Club Arosa is a beautiful course seamlessly integrated into the surrounding Alpine landscape. Numerous unique plant species thrive in the roughs and surroundings. Examples of integration and sustainability where every evening it is possible to enjoy the presence of deer, marmots, young foxes or hares. Arosa is an interesting facility different from conventional golf clubs which actively attracts and promotes golf in the region.”

Hector Forcen

GEO accredited Independent Verifier



Introduction

GEO Foundation is pleased to confirm that Golf Club Arosa 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 Arosa 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 set for the future, Golf Club Arosa should be awarded GEO Certified® status.

For the certification period stated above, Golf Club Arosa 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



Verifier's Report

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

| THEMES | ACTION AREAS |
|------------------|--|
| Nature | <ul style="list-style-type: none"> • Habitats & Biodiversity • Turfgrass management • Pollution prevention |
| Resources | <ul style="list-style-type: none"> • Water • Energy • Materials |
| Community | <ul style="list-style-type: none"> • Partnerships & Outreach • Golfing & Employment • Advocacy & Communications |

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

| NATURE | | | |
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| 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 | Golf Club Arosa is a mountain course in the alpine region, one of the highest 18 golf courses in Europe dominated by the panorama of the mountains and the surrounding nature. |

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| | | | <p>With an area of approximately 31,7 hectares, at the beginning, the hills and the beautiful flower meadows were used as summer pastures for the peasants, respectively for their cows. The forest also runs along the fairways.</p> <p>Because of the protection of the landscapes there is only one bunker on the course for 75 years.</p> <p>Outside the fairway there is a good chance of finding chanterelles or mushrooms in the rough.</p> <p>In the evening we can regularly see deer, marmots, young foxes or hares around the golf course.</p> <p>CIP Biodiversity / landscape assessment in summer 2022, to include species inventories and mapping of habitat zones with buffer / no-spray no-spread areas. Upload to GEO OnCourse account and submit resulting Highlights to club's directory page.</p> |
| | 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 | <p>The club follow the regulations and recommendations of Swiss law, cooperates closely with local authorities and associations.</p> <p>There are several natural areas in the rough with local species of high ecological value.</p> <p>The Swiss government has experimental plots for the cultivation of different edible plant species.</p> |
| | N1.1.3 Understanding and respect for cultural heritage | Protect any archaeological, historical or cultural designations on the site | No object that presents an archaeological, historical, artistic, scientific or educational interest has been found. |
| 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 | <p>Lot of rough areas on the course have been naturalised with carried grasslands and wildflower meadows.</p> <p>An external company is carrying out a monitoring project of the surfaces using drones.</p> <p>Sheep and cows graze in the roughs of the golf course.</p> <p>Agreements with the local government that come from before the construction of the course. The greenkeepers perfectly manages the movements of the cattle in the field.</p> |
| 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 | <p>The whole golf course is very well integrated in the natural mountains landscape.</p> <p>Some new trees are being planted on holes 16, 17 and 18 using native species like Larix Decidua and Sorbus Aucuparias.</p> |

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| N1.4 Conserve key species | N1.4.1 Practical conservation measures for priority species | | <p>Every year at the end of the season, a tree inspection is carried out with the local forestry services and the necessary actions are taken to promote the health of the trees on the golf course.</p> <p>Some cut wood is piled up in natural areas creating shelter for mammals and amphibians.</p> <p>Meadows and rough are not fertilized to maintain the natural flora.</p> |
| N2 Turfgrass | | | |
| N2.1 Maintain optimum turf and soil health | N2.1.1 Appropriate turfgrass varieties adapted to climatic and other geomorphological factors | Select appropriate grass species for climate | <p>The head greenkeeper has extensive experience and perfectly knows the specific conditions of the course, the sward is 70% Agrostis, 15% Poa annua and 15% Poa Supina.</p> <p>The greens are overseeded with new varieties more performant and tolerant.</p> |
| | N2.1.2 Practices to maintain good soil structure and condition | | <p>The greens were built using the USGA recommendations.</p> <p>Mechanical practices like aeration and verti-cutting are done to keep the soil in good condition. The club keeps investing in new machinery more efficient and productive for the greenkeeping department.</p> |
| | N2.1.3 Careful and responsible fertiliser application throughout the year to avoid over-fertilisation | Undertake soil tests and nutrient analysis | <p>Soil tests are carried out at the end of the season to know physical properties and need of nutrients.</p> <p>In terms of fertilization the applications are made mainly granular.</p> |
| N2.2 Prioritise mechanical maintenance | N2.2.1 Non-chemical pest, disease and weed management | <p>Sharpen mowing blades;</p> <p>Remove surface moisture;</p> <p>Hand weeding</p> | <p>Mower cylinders and blades are sharpened once a year by an external company. The greenkeepers undertake 'back lapping' during the season, which helps to maintain the sharpness of the blades.</p> <p>Dew moisture is removed to keep the turf as dry as possible.</p> <p>Standard good practises (daily inspections, local weeding etc) are used to help reduce chemical to zero</p> |
| N2.3 Use chemicals responsibly | N2.3.1 Application of chemicals only when necessary to prevent or cure defined / identified turf health issues | <p>Establish patterns and levels of risk for pests and diseases;</p> <p>Scout the course daily for early signs of pests and disease;</p> <p>Accurate pest and disease identification;</p> <p>Map and track pest and disease hotspots;</p> <p>Establish pest and disease thresholds</p> | <p>The club has high tolerance for disease and the use of pesticides is kept to zero.</p> <p>It is mainly snow mold & dollar spot the diseases on the greens, but the greenkeeper team know very well how to manage using the best greenkeeping practices to keep as a minimum damage on the surfaces.</p> <p>Visual inspections and checks are carried out daily in the course.</p> |

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| | 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 | Zero pesticide management The presence of broadleaf weeds in fairways confirms the fact that a zero pesticide policy is implemented. |
| 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 is perfectly respecting the Swiss law in terms of pollution prevention and emergency spill responses. CIP Confirm updated emergency spill response plan prior to summer 2022 |
| | 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 | Contracts for disposal of hazardous waste from the facility are established with external local companies that are specialists in waste management. The club will invest in wastewater management, a new system in the washing area will be installed improving efficiency in the near future. |
| | 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 | In the workshop all drums with oils for machinery maintenance have their corresponding anti-spill containment system. |
| N3.2 Safely manage hazardous substances | N3.2.1 Legal compliance in the storage, handling, application and safe | Maintain a register of hazardous materials available to authorised staff; Safe storage in secure and ventilated concrete or metal building; | The club is perfectly respecting the Swiss law in terms of storage, handling, application and safe disposal of all hazardous substances. |

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| | disposal of all hazardous substances | Sufficient storage capacity; Impermeable flooring; 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 | |
| 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) | CIP New maintenance facility is being built and due to be completed prior to GEO certification renewal. Particular attention to wastewater area and disposal. |

| RESOURCES | | | |
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| 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 | Only irrigates when is necessary based on the head greenkeeper experience. The club has an automatic irrigation system with sprinklers only on greens. Fairways and tees have hose intakes and are watered punctually during the summer months if necessary. |
| 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; Ensure irrigation schedules are informed by weather patterns and soil moisture analysis | The club have an automatic irrigation system with block sprinkler control in greens, quick valves for watering fairways. The pumping is by gravity descending the water from an upper lake with considerable savings in electricity consumption. CIP The club should incorporate a soil moisture meter. CIP |

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| | | | Consider water & irrigation audit. |
| | 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 clubhouse is very well equipped. Equipment of the latest technology and quality have been installed. Water saving activities are in place. Low-flush toilets and taps have been installed. |
| 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 club has appropriate water abstraction permit. The water consumption is read and reported to the municipality that is the supplier of freshwater to the clubhouses. |
| 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 | Due to the original contracts between the club and farmers, there is the right to pasture the rough areas and links to the golf course by local farmers, assuming this a great saving in the use of rough machinery for the club. |
| 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 | The property complies with the Swiss directives in terms of energy. They have an efficient heating system for the facilities as well as a good insulation system that allows reducing energy losses. The club is switching from more traditional energy consuming lighting to LED lighting and in coming years hopes to be fully equipped with LEDs. The course can be played with electrical buggies. CIP The club should consider track energy consumption in greater detail. |
| 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 energy is supplied by the local distributor, being practically all of hydro-power origin due to the Alpine situation of the golf course. In the near future they plan the renovation of the roof of the clubhouse in which they will integrate a system of solar panels. Chargers for electric cars are also intended to be installed soon. |
| R3 Materials | | | |

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| 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 | The club works with a local waste management plant for recycling. All waste is stored according to legislation. They are composting some vegetable material, collected, and used by local farmers. |
| 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 | Mainly local distributors are used, and some furniture of the golf course has been built by local companies (like the wood benches). In the restaurant the use of local products are preferred and desired by members and visitors. CIP: The club should consider a more formal sustainable purchasing policy. |
| 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 | The club keeps internal bills and invoices of annual quantities of waste and recycled materials. Almost all waste is recycled or reused, including PET, aluminium, metals, glass, paper, and cardboard. Wood and vegetable materials are piled for compost. Materials from the kitchen and maintenance area such as detergents, oils, lubricants and batteries are collected and disposed by specialized company. The club dispose different points with labelled bins around the facility and waste receptacle areas. |
| 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 | The club complies with all Swiss waste management regulations. Authorized waste and recycling contractors are used for both housekeeping waste, industrial and hazardous waste. Waste is collected by the municipal contractor and the specialized recycling company. |

COMMUNITY

C1 Outreach

| Objectives | Requirements | Mandatory Practices | Verifier Notes |
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| C1.1 Diversify access and provide multi-functionality | C1.1.1 Social and recreational activities at the facility | | <p>Golf Arosa is an open club to new players who wish to start and practice the sport of golf. The club organizes golf initiations bringing many young people from local schools to the golf course.</p> <p>The club has agreements and discounts with the hotels in the area and the golf activity is promoted by giving free cards for the use of the practice facilities to clients who stay overnight in the station hotels. The restaurant is fully open to visitors who can use the facilities as well as organize events. Within the facility there are several public paths that are used by the citizens and visitors for walking or trekking.</p> |
| C1.2 Provide for volunteering and charity | C1.2.1 Opportunities available for volunteering and support of charities and good causes | | <p>The club provides staff with time and opportunities to volunteer, encouraging golfers to volunteer on tournaments, committees, and projects. The most popular charitable event is held at the end of the season and is a charitable tournament to raise funds for a nearby association that is dedicated to collecting bears from circuses and zoos giving them a second chance to live in the middle of nature.</p> |
| 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' | <p>The club communicates monthly with a newsletter as well as daily through its website, social media and the information panel of the clubhouse.</p> <p>CIP The club should formalize a sustainability working group / committee, open to interested staff.</p> |
| C2 Golfers & Employees | | | |
| C2.1 Improve health and wellbeing | C2.1.1 Benefits to human physical and mental health from golf and facility activities | | Seniors, ladies, and juniors enjoy the facilities weekly. |

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| | | | The club collaborates with the local tourist office and they provide initiation vouchers in the driving range to clients and visitors of the hotels and apartments in the station. |
| C2.2 Be open and inclusive | C2.2.1 Inclusivity and diversity in membership and visitor policies | Demonstrate inclusive policies for members and visitors | Golf Club Arosa regularly organizes introductory golf lessons and activities for young people. Everybody is welcomed to play. Proof of this is that when you stay in one of the hotels in town, they offer you a voucher for using the golf practice facilities for free. The restaurant is open to the public and many players and visitors use it to eat daily. The restaurant is open all year round and caters to many winter sports lovers. |
| 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 | Compliant with the extensive Swiss health and safety legislation for safe, ethical, equal, and legal working conditions. The club promote education and membership of the professional's associations. Continuous training and giving stability to employees. Personal protection equipment and working clothing are provided. |
| 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 | The club communicates monthly with newsletter as well as daily through its website, social media, caddie and the information panel of the clubhouse. Members are quite proactive, and the club encourage them to promote the facility in the community. The club truly promotes awareness within the employee community with respect to energy and safety aspects. The club should think about promoting sustainability activities via their website and social media, which is not done so far. CIP The club should communicate on sustainable objectives and success. The Communications resources accessed via the OnCourse dashboard provide some helpful guidance on effective outreach. |

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| <p>C3.2 Celebrate and promote sustainability</p> | <p>C3.2.1 Activities that raise awareness and engage people in the wider community</p> | <p>Provide evidence of external communications and community engagement</p> | <p>Golf Arosa is an open club that brings the sport of golf closer to the inhabitants of the area as well as to the many visitors and tourists who come every year to enjoy its alpine landscapes. Members and players are properly informed of all activities and actions carried out in the club.</p> |
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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