



**GEO Certified<sup>®</sup>**

# GEO Certified<sup>®</sup> Report Golf Club Klosters

Prepared by Independent Verifier, David Bily

Certified by GEO Foundation: August 2021  
Valid until: August 2024



*“Minimalism is at the heart of Klosters’ management. In fact, there is so much nature on this piece of land that golf could be considered a secondary role. The course construction used minimum cut and fill and tailored the layout to fit the existing topography of this traditional Swiss alpine meadow landscape. These non-input alpine meadows account for about 60% of the golf club area, providing diverse habitats and acting as strong corridors to the surrounding habitat patches. Course management also uses a minimalist attitude in the inputs of pesticide, fertiliser and water. Overall, this compact golf facility demands few resources during their 6 months of operation but provides maximum year-round multi-functionality for all members of the community.”*

*David Bily*

*GEO accredited Independent Verifier*



# Introduction

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GEO Foundation is pleased to confirm that Golf Club Klosters 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 Klosters 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 Klosters should be awarded GEO Certified® status.

For the certification period stated above, Golf Club Klosters 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

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## 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](http://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](http://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"> <li>• Habitats &amp; Biodiversity</li> <li>• Turfgrass management</li> <li>• Pollution prevention</li> </ul>
Resources	<ul style="list-style-type: none"> <li>• Water</li> <li>• Energy</li> <li>• Materials</li> </ul>
Community	<ul style="list-style-type: none"> <li>• Partnerships &amp; Outreach</li> <li>• Golfing &amp; Employment</li> <li>• Advocacy &amp; Communications</li> </ul>

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 greenkeeper has an intimate understanding of the site and its landscape value.

			<p>The golf course has a detailed map of all existing landscape and vegetation types. This was done following construction about 15 years ago and is continually referred to for maintenance purposes. Flora and fauna surveys are done regularly for biodiversity statistics and to inform on maintenance practices.</p> <p>CIP These surveys are not done as often as previously and should be updated yearly to more accurately inform on the habitat management</p>
	<p><b>N1.1.2 Knowledge of legal designations for protected areas, habitats and species</b></p>	<p>Understand legal responsibilities for protected landscapes and species; Record and monitor protected, endangered, or rare species found on the site</p>	<p>The club understands the legal issues and protection of areas and elements within the golf course property.</p> <p>Two strips of glacial moraine traversing the golf course are protected and remain in their existing state following construction.</p> <p>Surveys are done regularly to monitor protected, endangered and rare species on the site. Interest has been shown within the membership and a number of members will soon be helping to count flora and fauna species under the guidance of the greenkeeper and habitat specialist.</p>
	<p><b>N1.1.3 Understanding and respect for cultural heritage</b></p>	<p>Protect any archaeological, historical or cultural designations on the site</p>	<p>There are many old hay barns dotted throughout the golf course which were protected and are still used by the local farmers. They are important cultural landscape elements and also provide habitat for different animal species including birds, bats, fox and other smaller animals. These barns also add to the playing experience and strategy of the golf course.</p> <p>The architect did an exceptional job to sensitively fit the golf holes into the existing topography and ski resort; producing a very successful golf course and creating a multi-recreational site. Some areas were hardly touched if only to provide some drainage lines in low areas. This strategy has allowed the rolling alpine meadows to retain their former contours and remain a typical vernacular Swiss landscape.</p> <p>The club consults with both Pro Natura and WWF Graubünden on landscape and cultural heritage and follows a detailed maintenance plan restricting inputs and haying practices on different zones of the course. Late haying of the hard rough alpine</p>

			meadows is a management strategy to maintain a high level of biodiversity and conserve the colour and texture of the traditional Swiss alpine grasslands.
<b>N1.2 Opportunities to naturalise the course</b>	<b>N1.2.1 Measures taken to identify and minimise the required area of managed turfgrass</b>	Observe, track and / or monitor golfer play	Absolute minimum areas of turf grass are maintained to allow for golf. These managed turf areas are squeezed in between the vast alpine wildflower meadows maintained by local farmers, surfaces which haven't received any inputs for the last 20 years.
<b>N1.3 Actively manage habitats for wildlife</b>	<b>N1.3.1 Projects to manage habitats in the best way for wildlife and golf</b>	Regularly review and follow a habitat management plan; Prioritise native species when planting and landscaping	<p>The club has a solid understanding of the various habitats present throughout the golf course and makes it a priority to properly look after these areas to optimize the biodiversity.</p> <p>Besides the wildflower meadows, managed habitats include ruderal areas, rough pasture, small woodlands, forest, wetlands and dry hillocks and stone piles. The old stone piles from previous agricultural use are protected and now contribute to a wide diversity of flora and fauna.</p> <p>Wood piles were left behind the clubhouse building to provide habitat for various insects.</p>
<b>N1.4 Conserve key species</b>	<b>N1.4.1 Practical conservation measures for priority species</b>		<p>The club has large areas of wildflower meadow cut once or twice a year, after the 15 July and sometimes in mid-September. These typical alpine meadows have over 160 different plant species including protected anemone and orchid species. They provide food and habitat for numerous species of insect, bird and animal in the valley including over 91 different species of flying insects. The meadows are inspected and photographed regularly to evaluate their evolution and propose any maintenance modifications.</p> <p>The existing stone heaps from previous agricultural practices which have been protected for their micro-habitat value.</p> <p>Two constructed wetland areas also provide different aquatic plants and edge conditions interesting for native frog and salamander species as well as habit for certain local bird species.</p>

			Extensive surveys on flora and fauna were undertaken and the club works regularly with Pro Natura, WWF and a private environmental consultant.
<b>N2 Turfgrass</b>			
<b>N2.1 Maintain optimum turf and soil health</b>	<b>N2.1.1 Appropriate turfgrass varieties adapted to climatic and other geomorphological factors</b>	Select appropriate grass species for climate	The L-93 greens have relatively good disease resistance at altitude. It still has to prove its sustainability over the long run and may demand overseeding with other seed mixes over time. A mix of Fescue and Perennial Ryegrass on the rest of the course is well chosen.
	<b>N2.1.2 Practices to maintain good soil structure and condition</b>		A minimum chemical input and maximum use of mechanical methods has proven that this golf club can still achieve very high-quality playing surfaces with minimum impact to the environment.
	<b>N2.1.3 Careful and responsible fertiliser application throughout the year to avoid over-fertilisation</b>	Undertake soil tests and nutrient analysis	Fertiliser is used in small quantities and mostly for the greens. The alpine meadow rough areas which are cut by local farmers are designated pesticide and fertiliser free areas.
<b>N2.2 Prioritise mechanical maintenance</b>	<b>N2.2.1 Non-chemical pest, disease and weed management</b>	Sharpen mowing blades; Remove surface moisture; Hand weeding	The greenkeeper uses nearly zero chemicals for pest management. Only an occasional application of insecticide is used on the greens or fairways against the Garden Chafer. Ravens regularly feed on the larvae causing some damage to the fairway surfaces.  Otherwise the greenkeeper uses alternative methods to manage these insects, like pheromone traps and even vacuuming them with a customized industrial vacuum cleaner. Sound-emitters used in turfgrass areas to disturb moles and mice and push them into rough areas.
<b>N2.3 Use chemicals responsibly</b>	<b>N2.3.1 Application of chemicals only when necessary to prevent or cure defined / identified turf health issues</b>	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	Pesticides are only applied as needed and never used in a preventative manner.



	<b>N2.3.2 Application of chemicals with full safety precautions</b>	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	Almost no chemicals are applied, but the products used are legally registered and staff are trained and qualified for the application.
<b>N3 Pollution Prevention</b>			
<b>N3.1 Prevent pollution across the entire site</b>	<b>N3.1.1 Practical measures to ensure pollution risks are minimised from golf course operations</b>	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.	Although minimal chemical products are used in the golf course, appropriate mowing, spraying and spreading buffer zones are maintained around all water and ecologically sensitive areas.  All on-site runoff is filtered through grassy swales before running into an underground evacuation system and treated in retention areas.  Each green is equipped with a visible outflow pipe which allows all the water running from the greens to be checked regularly before draining into grassy swales and filtered before running into an underground drainage system. The water tests prove to be as clean or cleaner than the water flowing onto the golf course.
	<b>N3.1.2 Practical measures to ensure pollution risks are minimised from clubhouse operations</b>	Ensure all hazardous materials are safely and securely stored; Ensure compliance with all required standards and systems for hazardous waste and wastewater discharge	No hazardous products in very minimalist clubhouse. Wastewater discharge licence in place for clubhouse.
	<b>N3.1.3 Practical measures to ensure pollution risks are minimised from maintenance facility operations</b>	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 few hazardous materials including any pesticides and fertilizers are safely and securely stored in dry rooms.  Mixing and loading of pesticides and fertilizers is done over an impermeable surface.  Washing of vehicles is also done over on an impermeable surface.

<p><b>N3.2 Safely manage hazardous substances</b></p>	<p><b>N3.2.1 Legal compliance in the storage, handling, application and safe disposal of all hazardous substances</b></p>	<p>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;          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</p>	<p>All pesticides and fertilizers are safely stored in secure and ventilated concrete buildings.</p> <p>Oil barrels are sitting on spill proof bottom with grate.</p>
<p><b>N3.3 Responsibly manage waste / storm water</b></p>	<p><b>N3.3.1 Appropriate wastewater usage and discharge licences</b></p>	<p>Wastewater discharge licence;          Appropriate treatment of machinery wash water (impermeable surface, oil / grease / clipping separation)</p>	<p>The wash pad conforms to the highly demanding regulations of the canton and all wastewater running away from the wash pad area is treated via an oil separator and contained in impermeable underground retention areas which are regularly emptied by the local waste management company.</p> <p>CIP          The club intends to build a new wash pad within the next year which will filter all wash water through thick gravel and sand layers before it arrives at the retention areas.</p>

<h2>RESOURCES</h2>			
<p><b>R1 Water</b></p>			
<p><b>Objectives</b></p>	<p><b>Requirements</b></p>	<p><b>Mandatory Practices</b></p>	<p><b>Verifier Notes</b></p>
<p><b>R1.1 Minimise water demand</b></p>	<p><b>R1.1.1 Measures to reduce the need to consume water</b></p>	<p>Target irrigation to essential playing surfaces only</p>	<p>The golf course uses only potable water from the public mains but water is in great abundance in this area of the country.</p> <p>An on-site reservoir was refused by the municipality due to landscape protection issues.</p>

			The club nevertheless uses relatively little water for irrigation and a modern irrigation system keeps the low volumes as efficient as possible.
<b>R1.2 Maximise water efficiency</b>	<b>R1.2.1 Practical measures to use water more efficiently on the golf course</b>	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	Precipitation and weather conditions are monitored constantly to efficiently manage irrigation needs of the golf course.  De-compaction, evening irrigation scheduling, soil moisture analysis and use of wetting agents are just some of the cultural practices which help keep irrigation to a minimum.
	<b>R1.2.2 Practical measures to use water more efficiently in buildings</b>	Audit water use regularly; Review bills frequently and look for irregularities; Encourage water-saving practices amongst staff and visitors; Categorise and track water consumption	A water audit is done yearly, reviewing water bills. It appears that consumption is quite stable from year to year.
<b>R1.3 Source water responsibly</b>	<b>R1.3.1 Measures towards alternative, lower quality sources of water</b>	Ensure appropriate water abstraction permit and reporting, as required	At this mountain course there are few alternative water sources and the municipality refused any on-site water storage reservoir because of landscape protection reasons.  The golf course has a permit to use the public potable water.
<b>R2 Energy</b>			
<b>R2.1 Reduce energy demand</b>	<b>R2.1.1 Measures to reduce the amount of energy consumed in course maintenance</b>	Minimise areas of managed turf to reduce mowing, irrigation, and turf inputs	They are connected to the local green grid electricity supply, use biodiesel and have recently purchased new Easy-Go electric buggies with lithium batteries which are considerably more energy-efficient.  2 new Ventrac maintenance machines were purchased within the last few years for nearly all turf maintenance. These small, compact machines with multiple attachments have contributed to reduced energy use, cost and turf compaction.
<b>R2.2 Maximise energy efficiency</b>	<b>R2.2.1 Measures to use energy and fuels more efficiently in buildings</b>	Audit energy use regularly; Regularly review bills;	The club keeps track of their annual energy consumption with accounts of electricity, diesel, petrol and hydraulic oils.

		Categorise and track energy consumption	<p>The main building uses only electricity and is not heated (only used during summer months).</p> <p>No official energy audit has yet taken place, but the clubhouse/pro shop/greenkeeper office is very small and only open during 6 months of the year.</p> <p>During that time almost no energy is used for heating and lights are limited to very small areas.</p> <p>Exterior lights are on movement sensors. The maintenance shed uses almost no energy without any heating and minimal lighting. In the winter all facilities are closed.</p>
<b>R2.3 Source energy responsibly</b>	<b>R2.3.1 Measures to source alternative, renewable forms of energy</b>	Determine potential sources of renewable energy in the area and on-site, through renewable energy providers	<p>No alternative sources of energy are being investigated at this time but the energy used is very minimal for the buildings.</p> <p>CIP Hybrid or electric vehicles could be an option for the future and should be considered within fleet replacement programmes.</p>
<b>R3 Materials</b>			
<b>R3.1 Reduce materials demand</b>	<b>R3.1.1 Products and materials selection based on necessity, including opportunities for recycled, reused and locally sourced alternatives</b>	Undertake a review of materials consumed	<p>The maintenance team looks for local materials and works with Swiss companies for any golf course purchases.</p> <p>The clubhouse has minimal purchases but works locally for any drinks or snacks.</p>
<b>R3.2 Purchase responsibly</b>	<b>R3.2.1 Practical use of an ethical / environmental purchasing policy</b>	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	<p>The club tries to purchase locally when possible.</p> <p>CIP A more official sustainable environmental purchasing policy could be put into place, however there are very few materials purchased at this minimalist facility</p>
<b>R3.3 Reuse and recycle</b>	<b>R3.3.1 Waste stream separation for maximum recycling and re-use opportunity</b>	Demonstrate waste separation, reuse and recycling; Track how much waste goes to landfill, or is reused / recycled	Typical of the strict regulations in Switzerland, almost all waste is recycled including PET, glass, aluminium, metal, paper and cardboard.

			<p>Organic waste from the golf course is collected by the town of Klosters to be composted and made available to the community residents. The club has not yet done a waste audit but considering the scale of the club this is not a major issue at Klosters.</p> <p>The greenkeeper used two fallen trees to make new benches for each tee box and flower boxes used for the fairway distance markers.</p> <p>The clubhouse, proshop and maintenance office are all housed in a building formerly used for the office of the tunnel construction.</p> <p>All maintenance buildings were former agricultural barns/buildings.</p>
<b>R3.4 Demonstrate legal compliance</b>	<b>R3.4.1 Compliance with all local and regional waste management regulations</b>	Use authorised waste and recycling contractor for general, hazardous, industrial and green waste	<p>The club complies with all regional waste management regulations.</p> <p>Authorised waste and recycling contractor for all hazardous and green waste from golf course.</p>

<b>COMMUNITY</b>			
<b>C1 Outreach</b>			
<b>Objectives</b>	<b>Requirements</b>	<b>Mandatory Practices</b>	<b>Verifier Notes</b>
<b>C1.1 Diversify access and provide multi-functionality</b>	<b>C1.1.1 Social and recreational activities at the facility</b>		<p>The golf club site is actually used for many different purposes, most specifically as a ski resort in winter.</p> <p>Walking paths are also criss-crossing the course and used by locals and visitors.</p>

			The golf course practice area was used to host a music concert open to everyone.
<b>C1.2 Provide for volunteering and charity</b>	<b>C1.2.1 Opportunities available for volunteering and support of charities and good causes</b>		The golf club hosts numerous tournaments every year, of which many are for charity causes.  Volunteers from the membership are interested in helping to count flora and fauna with the help of a biologist.
<b>C1.3 Establish active community partnerships</b>	<b>C1.3.1 Positive and constructive engagement with neighbours, the local community and other groups</b>	Create a 'sustainability working group'	A strong relationship exists with the local community for the use of the site and the continued protection of the landscape and ecology.  CIP A more official sustainability committee could be put together to regularly discuss the ongoing sustainability objectives of the club
<b>C2 Golfers &amp; Employees</b>			
<b>C2.1 Improve health and wellbeing</b>	<b>C2.1.1 Benefits to human physical and mental health from golf and facility activities</b>		
<b>C2.2 Be open and inclusive</b>	<b>C2.2.1 Inclusivity and diversity in membership and visitor policies</b>	Demonstrate inclusive policies for members and visitors	The golf club is very open to all golfers and non-golfers. Strong female membership and junior programme.  A high number of greenfee players especially from the many national and international visitors.  School groups are often invited to discover and practice golf on certain days of the week.
<b>C2.3 Employ fairly and safely, and provide career opportunities</b>	<b>C2.3.1 Ethical and legal employment, working conditions and professional development</b>	Follow all relevant national legislation and best practice for employment, health & safety etc	Staff is trained for emergencies with 4 staff trained to national level medical standards including defibrillators, and an emergency incident plan is in place.
<b>C3 Communications</b>			

<p><b>C3.1 Engage golfers and members</b></p>	<p><b>C3.1.1 Communications activities that raise awareness and understanding amongst members and visitors</b></p>	<p>Provide information on the facility's sustainability commitments, actions, or achievements</p>	<p>There are numerous information panels on the course explaining different aspects of environmental interest and management practices.</p> <p>Besides communicating environmental information via newsletters, display boards and these on-site interpretation panels, the golf club has printed out brochures to explain their interest in environment and sustainability.</p> <p>They are also regularly posting on Instagram to communicate their events, management and environmental objectives.</p> <p>CIP More targeted and focused postings on social media could further bring awareness to the great sustainable leadership at Klosters.</p>
<p><b>C3.2 Celebrate and promote sustainability</b></p>	<p><b>C3.2.1 Activities that raise awareness and engage people in the wider community</b></p>	<p>Provide evidence of external communications and community engagement</p>	<p>The club has also provided tours of the course to local residents keeping them informed of their environmental commitment.</p> <p>Klosters has appeared in a number of different local and national articles including the Journal of Swiss Entomologists for the diversity of insect species.</p> <p>Recently a number of national and international journalists have shown interest in Klosters with the intention of writing articles on their environmental achievements.</p>

## 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](http://www.sustainable.golf)