



**GEO Certified<sup>®</sup>**

# GEO Certified<sup>®</sup> Report Golf Meggen

Prepared by independent verifier, Felix Rusterholz

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

**GEO Certified<sup>®</sup>**



 **GEO  
Foundation**  
Sustainability in and through golf

*'Golf Meggen is situated in an impressive landscape and offers visitors a unique experience of nature. The course architecture and operation serve to support this, which is due to the hilly topography, the diverse green spaces, the individual waters and the impeccable condition of the infrastructure.'*

*Operationally, the greatest potential seems to lie in habitat diversity and quality. This potential could be continuously developed through selective meadow enhancements, more differentiated maintenance and additional structural elements (habitats).*

*Strategically, the value of the site could be improved in the long term by integrating the area into an overarching connectivity concept, because nature does not follow plot boundaries or zoning.'*

Felix Rusterholz

*(GEO accredited independent verifier)*



# Introduction

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GEO Foundation is pleased to confirm that **Golf Meggen** 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 Meggen** 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 Meggen** should be awarded GEO Certified® status.

For the certification period stated above, **Golf Meggen** 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
<b>Nature</b>	<ul style="list-style-type: none"> <li>• Habitats &amp; Biodiversity</li> <li>• Turfgrass management</li> <li>• Pollution prevention</li> </ul>
<b>Resources</b>	<ul style="list-style-type: none"> <li>• Water</li> <li>• Energy</li> <li>• Materials</li> </ul>
<b>Community</b>	<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	Every year, vegetation analyses and bird mapping are carried out and sightings of other animal groups are recorded in writing and published along with the annual report.

			<p><b>CIP:</b> To help visualise landscape development, recurrent aerial photography is recommended.</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>There are various bodies of water and a small nature reserve on the site. They require special protection against disturbance, pollution and alteration. The expert committee on nature-environment-recreation discusses the handling and development of these habitats and defines corresponding goals.</p> <p><b>CIP:</b> Advises against opening the nature reserve to the public, as the site has no other biotopes of comparable size and quality that are worthy of protection. Information about the nature reserve and images can be provided to the public in alternative ways.</p> <p>Structural elements are to be encouraged, but excessive dumping of cuttings is to be avoided.</p> <p><b>CIP:</b> Reapply for integration into the municipal ecological connectivity concept. The structural diversity and the development potential, some of which has not yet been tapped, are ideal.</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>The club regards the landscape and the existing buildings as a part of the cultural landscape worthy of protection, attending to strengthen the latter, for example through the targeted planting of fruit trees and indigenous individual trees.</p>
<p><b>N1.2 Opportunities to naturalise the course</b></p>	<p><b>N1.2.1 Measures taken to identify and minimise the required area of managed turfgrass</b></p>	<p>Observe, track and / or monitor golfer play</p>	<p>There is no special mapping of land use that would favor extensification of use or maintenance. Rather, consideration is given to making the course optimally accessible to the public by means of its own hiking trails and seating areas.</p>
<p><b>N1.3 Actively manage habitats for wildlife</b></p>	<p><b>N1.3.1 Projects to manage habitats in the best way for wildlife and golf</b></p>	<p>Regularly review and follow a habitat management plan; Prioritise native species when planting and landscaping</p>	<p>Whether detailed plans exist that provide information on the quality and ecological development potential of individual areas, is unknown. However, such a digital plan is recommended, as the containing data could be used as a valuable tool for maintenance planning, development and communication, supporting both greenkeepers and the nature-environment-recreation committee in their work.</p> <p>Despite considerable existing biodiversity, the golf course is pursuing further ways to promote species richness without hindering golfing or incurring significant additional costs. More specialized maintenance practices conserve sub-habitats, allow plants to spread more successfully and animals to complete their life cycles.</p> <p>The more extensive green spaces are managed by external farmers. Many of these areas are of poor ecological quality, indicated by the high</p>

			<p>proportion of grass, the presence of blackgrass or other nutrient indicator plants. Targeted support measures such as strip seeding or staggered mowing would have a considerable positive impact on biodiversity. In addition, visitors would enjoy the increased flower diversity.</p> <p>Individual ponds show signs of eutrophication, indicated by an increased algae population. Whether an adapted maintenance regime of the surrounding areas and / or a biological purification by means of soil filters and suitable water plants could have a positive effect needs to be examined.</p>
<b>N1.4 Conserve key species</b>	<b>N1.4.1 Practical conservation measures for priority species</b>		Golf Meggen has the expert committee Nature, Environment, Leisure, which writes an annual report. The report is primarily written by the biologist Erwin Leupi, who as an external consultant who deals intensively with the topics of nature and the environment. Part of this work is the periodic faunistic and floristic monitoring of the course premises.
<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	Greenkeeper Urs Gehrig maintains a regular exchange of expertise with colleagues, suppliers and specialists. The goals of the exchange of experience are the continuous, mutual transfer of knowledge in order to find and use suitable grasses for the site and to create optimal site conditions for the existing grass communities.
	<b>N2.1.2 Practices to maintain good soil structure and condition</b>		To improve soil conditions and maintain soil fertility, targeted soil cultivation measures are taken as needed.
	<b>N2.1.3 Careful and responsible fertiliser application throughout the year to avoid over-fertilisation</b>	Undertake soil tests and nutrient analysis	In order to reduce the amount of fertiliser, the use of a GPS-controlled sprayer is suggested as a significant optimisation measure. The amount of annual pure nitrogen on greens in the previous year was 9.5 g/m <sup>2</sup> .
<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	Most of the machine maintenance is done internally, ensuring a high standard of maintenance. Due to the location, a lot of surface moisture occurs on the lawns. This is wiped off manually by means of cables, a preventive plant protection measure.
<b>N2.3 Use chemicals responsibly</b>	<b>N2.3.1 Application of chemicals only when necessary to prevent or</b>	Establish patterns and levels of risk for pests and diseases;	The use of chemical plant treatment products is kept to a minimum, for example the use of fungicides.

	<b>cure defined / identified turf health issues</b>	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	The range of available products is constantly being reduced by legislation, necessitating alternative methods. Plant strengthening agents are increasingly employed.
	<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	The greenkeeper confirms that the necessary protective measures are taken and the regulations are complied with regarding the application of pesticides.  For the application of the spray and the cleaning of the equipment, designated and officially approved areas are available.
<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.	Groundwater protection zones are known and respected. Buffer zones are clearly marked in the adjacent water body area. They must not be sprayed or fertilised.  <b>CIP:</b> The potential of ecologically valuable transition areas, so-called fringes, is not exhausted. On the one hand, they prevent negative impacts on ecologically valuable and sensitive areas and, on the other hand, they are species-rich habitats and feeding areas that are also used for reproduction and hibernation of different animal species.
	<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	Confirmed
	<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 washing and preparation area has been created in compliance with law and has been officially inspected.
<b>N3.2 Safely manage hazardous substances</b>	<b>N3.2.1 Legal compliance in the storage, handling, application and safe</b>	Maintain a register of hazardous materials available to authorised staff; Safe storage in secure and ventilated concrete or metal building;	Confirmed



	<b>disposal of all hazardous substances</b>	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	
<b>N3.3 Responsibly manage waste / storm water</b>	<b>N3.3.1 Appropriate wastewater usage and discharge licences</b>	Wastewater discharge licence; Appropriate treatment of machinery wash water (impermeable surface, oil / grease / clipping separation)	Waste is disposed of separately. This means that the greenkeeping team sorts the collected material after emptying the waste bins and disposes of separated recyclables. The recyclable materials are also disposed of separately in the operations building. Since the fleet of machines is as good as new, no hydraulic oil has accumulated so far that would have had to be disposed of. Nevertheless, it is confirmed that hazardous goods and environmentally harmful substances are also handled in a modern and legally compliant manner in the workshop area. Machine wash water, for example, is kept separate in order to be able to pump out suspended solids and deposits.

<b>RESOURCES</b>			
<b>R1 Water</b>			
<b>Objectives</b>	<b>Requirements</b>	<b>Mandatory Practices</b>	<b>Verifier Notes</b>
<b>R1.1 Minimise water demand</b>	<b>R1.1.1 Measures to reduce the need to consume water</b>	Target irrigation to essential playing surfaces only	Golf Meggen has an interesting water management system in the form of several ponds as well as tanks that retain rainwater and groundwater to irrigate the playing areas.
<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;	Moisture and weather data are measured centrally and serve as basis for the manually controlled irrigation.  <b>CIP:</b> Decentralised soil moisture sensors are not used. However, it is suspected that wireless sensors would enable a more demand-oriented water supply, which would improve energy balance and plant vitality.

		Ensure irrigation schedules are informed by weather patterns and soil moisture analysis	
	<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	Water demand is not currently analysed in more detail. However, the data collected will be compared between the individual years in the future.
<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	So far, it has been possible to work without mains 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	The maintenance regime could be further differentiated / extensified, which would increase the proportion of valuable habitats and promote a more structurally rich appearance.
<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; Categorise and track energy consumption	Energy consumption is recorded and will be analysed in more detail in the future.
<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	A solar energy project is underway, with other options being explored. Golf Meggen shows great interest in renewable energy production.
<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	Confirmed

<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	Procurement is based on selected criteria: regional origin, environmentally friendly, economical.
<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	The invoices are recorded. It is not known whether a detailed analysis of the flow of recyclables is carried out. The separation is carried out by the staff.  <b>CIP:</b> According to the team, separation systems are not used correctly by visitors. This may indicate an opportunity for better signage, bin labelling, public notification and ultimately education of the customer.
<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	Confirmed

<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>		Golf Meggen is an attractive local recreation area that has been made accessible to the public. The restaurant and seminar facilities are also open to the public.
<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>		Golf Meggen makes an annual presentation to the local school, which also visits the golf park from time to time on its own initiative.

<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'	The expert committee Nature, Environment, Recreation consists of representatives of different contact groups. The periodic exchange of opinions should serve as a partnership to ensure acceptance and synergies.
<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	Inclusion is implemented by the majority on the site. The extent to which inclusion, diversity and solidarity are regulated in the guidelines is not known.
<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	Employees are hired primarily on the basis of their professional skills. Recruiting new greenkeepers is difficult (a worldwide issue), as hardly any suitable candidates are available.
<b>C3 Communications</b>			
<b>C3.1 Engage golfers and members</b>	<b>C3.1.1 Communications activities that raise awareness and understanding amongst members and visitors</b>	Provide information on the facility's sustainability commitments, actions, or achievements	Sustainability projects are communicated via newsletters. However, it seems that this could be intensified in order to make visitors more aware. In the terrace area and along the path network, ecological support measures are available and partly described.
<b>C3.2 Celebrate and promote sustainability</b>	<b>C3.2.1 Activities that raise awareness and engage people in the wider community</b>	Provide evidence of external communications and community engagement	In order to develop Golf Meggen as sustainably as possible, a broad support of the members as well as a great commitment of all employees is required. The benefits of sustainable development must be made visible, which sometimes leads to greater appreciation of the work done and the entire staff. Doing good and talking about it, as well as celebrating successes, are principles that have a multiplier effect on the public.

## 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)