



GEO Certified[®]

GEO Certified[®] Report Golfclub Markgräflerland

Prepared by independent verifier, David Bily

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

GEO Certified[®]

 **GEO
Foundation**
Sustainability in and through golf

'The Golfclub Markgräflerland has extensive grass meadows and a number of interesting small landscape structures which offer good habitats for a number of indigenous bird and animal species. The greenkeeping team is maintaining healthy turf surfaces through strong cultural practices and minimal chemical inputs. Having already removed all plastic bottles and bags from the golf course I look forward to seeing further sustainability initiatives in the future, especially in the areas of energy and waste management.'

David Bily

(GEO accredited independent verifier)



Introduction

GEO Foundation is pleased to confirm that **Golfclub Markgräflerland** 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.

Golfclub Markgräflerland 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, **Golfclub Markgräflerland** should be awarded GEO Certified® status.

For the certification period stated above, **Golfclub Markgräflerland** 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			
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 golf club generally has a good understanding of the surrounding nature and landscape value of the site. An initial basic survey was done regarding on-site biodiversity but only by interested members, greenkeeper and local residents.

			A more formal survey should be done in the near future, to include mapping of landscape components, to help further develop habitats for local priority species (CIP)
	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	The club has knowledge of legal designations on site. The golf course land lays within a biosphere reserve and Natura 2000 birds directive area.
	N1.1.3 Understanding and respect for cultural heritage	Protect any archaeological, historical or cultural designations on the site	No archaeological or historical designations on the site. The club has established 'orchards' with different varieties of fruit trees, some old varieties, throughout the golf course. The fruit from these trees is made into juice for sale in the clubhouse.
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 club has tried to minimise the area of managed turfgrass based on golfer play and feedback. The course has a lot of wild grass meadow roughs, which are cut only once or twice per year and receive no inputs whatsoever. The greenkeeper is encouraging the spread of a local wildflower through spreading of cuttings. Consider more drought-tolerant native plants for some of the ornamental planting areas around the buildings (CIP)
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	Bird of prey poles have been put up near semi-rough areas so buzzards and hawks can hunt mice. Bird and bat boxes are found throughout the golf course. Old dead trees are not cut down completely but instead kept on site as habitat points for birds like woodpeckers, and insects. (They are simply pruned back for golfer safety) Bees are found in one corner of the site and managed by a local bee farmer for honey production. A number of microhabitats are found throughout the site including brush piles and hedgerows.
N1.4 Conserve key species	N1.4.1 Practical conservation measures for priority species		The club has a good understanding of many of the flora and fauna species on the site, especially regarding bird species.
N2 Turfgrass			
	N2.1.1 Appropriate turfgrass varieties	Select appropriate grass species for climate	Classic cool season turfgrass varieties are used for this climatic zone.

N2.1 Maintain optimum turf and soil health	adapted to climatic and other geomorphological factors		<p>Greens are a traditional mix of bent grass with some percentage of Poa annua.</p> <p>Fairways and tees are a mix of Lolium perenne and Poa pratensis.</p>
	N2.1.2 Practices to maintain good soil structure and condition		<p>The greenkeeper uses good cultural / mechanical practices to maintain the turfgrass surfaces.</p> <p>A courser split sand / gravel is applied as well to some surrounds and fairways to stabilise the soil in areas prone to erosion or slippery slopes.</p> <p>Regular aeration and verticutting / tining are done to de-compact the variety of green constructions found throughout the golf course.</p> <p>Regular sanding is done on playing surfaces throughout the year.</p>
	N2.1.3 Careful and responsible fertiliser application throughout the year to avoid over-fertilisation	<p>Undertake soil tests and nutrient analysis</p>	<p>The greenkeeper has recently switched to using mostly organic fertilisers as of 2022. He applies a low regular dose to avoid over-fertilisation.</p> <p>Soil testing and nutrient analysis informs the fertilisation programme.</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>The greenkeeper works with a non-chemical pest, disease and weed management throughout the golf course.</p> <p>Only a couple of fungicide applications are used on greens to mitigate dollar spot disease.</p> <p>They have their own sharpener and sharpen all mower blades in-house.</p> <p>Green mowers are sharpened about 10x per year.</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 experienced greenkeeper only applies chemicals when necessary to cure fungal problems on greens.</p>
	N2.3.2 Application of chemicals with full safety precautions	<p>Use only legally registered and approved products;</p> <p>Ensure staff are fully qualified and licenced to use pesticides;</p> <p>Regularly calibrate and test applicators;</p> <p>Use appropriate protective equipment;</p> <p>Dilute and dispose of leftover product on untreated areas of turf</p>	<p>Only legally registered products are used.</p> <p>Staff are fully qualified to use any pesticides, though very few are applied.</p>
N3 Pollution Prevention			

<p>N3.1 Prevent pollution across the entire site</p>	<p>N3.1.1 Practical measures to ensure pollution risks are minimised from golf course operations</p>	<p>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.</p>	<p>A basic emergency spill response plan is in place.</p> <p>A more comprehensive plan could be drafted and employees informed / updated (CIP)</p> <p>A mowing buffer exists around all water and ecologically sensitive areas. Spraying and spreading buffer zones are practiced throughout the course.</p> <p>The club should create a map showing the buffer zones, no-spray and no-spread areas on the course. This can be done on top of the habitat and vegetation map to be produced (CIP as per N1.1.1)</p> <p>The club should consider doing an annual water test of the water in the lakes and of any water that is leaving the maintenance area or golf course property (CIP)</p>
	<p>N3.1.2 Practical measures to ensure pollution risks are minimised from clubhouse operations</p>	<p>Ensure all hazardous materials are safely and securely stored; Ensure compliance with all required standards and systems for hazardous waste and wastewater discharge</p>	<p>There is a wastewater discharge licence in place for the clubhouse.</p>
	<p>N3.1.3 Practical measures to ensure pollution risks are minimised from maintenance facility operations</p>	<p>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</p>	<p>There is a wastewater discharge licence in place. The wash area is on an impermeable, leak-free surface. Mixing and loading of pesticides and fertilizers is done over an impermeable surface.</p>
<p>N3.2 Safely manage hazardous substances</p>	<p>N3.2.1 Legal compliance in the storage, handling, application and safe disposal of all hazardous substances</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>The club has a register of hazardous materials, which are stored safely in a locked metal cabinet in the greenkeeping barn. The space has impermeable flooring and emergency wash area and fire extinguisher in the immediate area. Fuel storage tanks have a secondary containment over an impermeable surface. Used oil storage barrels are sitting on spill proof grates and recuperated by a registered company when full. Regular inspection is done by local authorities regarding storage tanks, work areas and property safety.</p>

<p>N3.3 Responsibly manage waste / storm water</p>	<p>N3.3.1 Appropriate wastewater usage and discharge licences</p>	<p>Wastewater discharge licence; Appropriate treatment of machinery wash water (impermeable surface, oil / grease / clipping separation)</p>	<p>The wash bay has an impermeable surface with a clipping and oil separator. The waste product is cleaned out annually and removed by a registered third party. There is a waste discharge licence in place. All water from the wash bay runs from the clipping and oil/grease separator to a retention area near to the maintenance shed where it is partially filtered. From there the water is pumped up to the clubhouse area where it is discharged via the sewer lines to the municipal wastewater treatment facility.</p>
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<h2>RESOURCES</h2>			
<h3>R1 Water</h3>			
Objectives	Requirements	Mandatory Practices	Verifier Notes
<p>R1.1 Minimise water demand</p>	<p>R1.1.1 Measures to reduce the need to consume water</p>	<p>Target irrigation to essential playing surfaces only</p>	<p>The club keeps irrigation to essential playing surfaces. Fairway irrigation system is in place but is only used occasionally and when water volumes get lower irrigation is kept to greens and tees. They are studying how to change the irrigation of some large tee boxes to be more water efficient. Some punctual hand-watering is done in dry areas instead of watering entire surfaces.</p>
<p>R1.2 Maximise water efficiency</p>	<p>R1.2.1 Practical measures to use water more efficiently on the golf course</p>	<p>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</p>	<p>The club has an efficient irrigation system to avoid wasting water. The greenkeeper inspects the main playing surfaces daily to know if they need water. A weather station is occasionally consulted but the greenkeeper seems to know where to check and at what time in the day he needs to check greens for signs of stress. Perhaps a more quantitative process could be developed to assist future course managers at the club to understand when and where irrigation is necessary (CIP)</p>

	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 club is aware of their overall water use in the golf course buildings. The shoe and cart cleaning area uses the non-potable irrigation water. The club could categorise and track water consumption and undertake a more rigorous water audit. The club could be more demonstrative in encouraging water-saving practices amongst staff and visitors. The club could install some water saving appliances like low-flow toilets or motion sensors on taps (CIPs)
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 golf club gets their potable water from the local municipality. The water for golf course irrigation is entirely from surface water collection. The golf course sits in the bottom of a small watershed where water collection is optimal. The club has constructed a number of ponds / lakes which serve as retention basins for all the rainwater run-off. When there is no more water in the lakes, the club must wait for rain.
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	The club is doing a good job of minimising managed turf. Large area of rough are kept between fairways which are only cut once or twice a year and receive no inputs. Some research could be done through GPS mapping / aerial imagery to see if further reduction of managed turf is possible through naturalisation and still keep the course playable (CIP)
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	There is gas heating in the clubhouse with hot water solar panels on the roof which help to provide hot water for the showers. However, the clubhouse building including restaurant, proshop and changing rooms is small and compact. A building from 1991 could possibly be improved through better insulation and alternative heating in the future (CIP) The greenkeeper is using hybrid green mowers at the moment and the plan is to purchase full electric green mowers in the near future. Motion sensors are in place in some areas of the clubhouse including locker rooms. Could do an energy audit to find ways of being more energy efficient within the buildings (CIP)

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 club uses electricity from the local renewable grid in Germany. The club has considered possibilities for harnessing solar energy in the future with one possibility of installing solar panels on the caddy master building – to be extended/enlarged in the coming years.
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	The club has removed all reusable plastic bottles and bags from the site. Members and visitors are encouraged to use re-usable containers. Could undertake a waste audit at the club, for all areas of club management (CIP)
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	At the moment the greenkeeper works almost exclusively with local suppliers and contractors. The restaurant is leasing the building and the club is therefore less influential on the purchasing for the restaurant. However, the restaurant does try to buy locally and offer seasonal menus. The club could try to work together with the restaurant manager to put together an ethical / environmental purchasing policy focusing on local, organic, fairtrade products (CIP)
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	There is good waste separation and recycling in the maintenance area. All main recyclable materials are collected and either brought directly to a recycling point or picked up by the municipal service. Difficult to track the quantity / weight of recycling as it is done internally, but it would be good to try to get a handle on this in the future in order to better track the waste management and have some concrete data (CIP) A 3-container recycling bin system will soon be in place throughout the golf course and at the clubhouse. The greenkeeper uses the older greens mowers for the tees in order to keep the machines longer.
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 golf club uses an authorised waste and recycling contractor for all waste. Grass clippings and other green waste from the golf course are collected and brought to a local farmer adjacent to the golf course where it is composted.

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		There are some walking paths crossing the golf course and people from the local community enjoy using this space for walking dogs and sledding in the winter. The clubhouse is often used for social gatherings like weddings.
C1.2 Provide for volunteering and charity	C1.2.1 Opportunities available for volunteering and support of charities and good causes		Some volunteering is done for tournaments and a number of charity events take place at the club every year.
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'	A sustainability working group is composed of the manager, greenkeeper and an engaged committee member. This working group could possibly be expanded to include a member of the surrounding community or an expert on biodiversity, for example. Regular meetings should take place and work from an environmental management plan with action plans for every year (CIP)

C2 Golfers & Employees

C2.1 Improve health and wellbeing	C2.1.1 Benefits to human physical and mental health from golf and facility activities		
C2.2 Be open and inclusive	C2.2.1 Inclusivity and diversity in membership and visitor policies	Demonstrate inclusive policies for members and visitors	There is a good mix of male, female and junior members. Visitors are welcome. No tee times are specified for either members or visitors. First come, first serve.
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	The club follows good best practice for all employees. Many of the employees have been at the club for many years, including the manager and greenkeeper, a good sign that the club offers a good work environment. The golf club also encourages and supports CPD for employees.

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	<p>The club seems to inform members and visitors about their sustainable commitments on social media etc. The club has included information about the flora and fauna on site in their birdie book.</p> <p>They should continue to inform about the continued commitment and sustainability initiatives and propose members to get involved. Signs or other communication could be done to encourage members and visitors on water and energy savings, recycling and other (CIP)</p>
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 is a sustainability page on the club's website with information on nature, environment and social initiatives.

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