



GEO Certified®

GEO Certified® Report Motala Golfklubb

Prepared by Independent Verifier, Kerstin Antonsson

Certified by GEO Foundation: September 2019
Valid until: September 2022

GEO Certified®

 **GEO
Foundation**
Sustainability in and through golf

In the last five years, Motala Golfklubb has built up finances, facilities, and operations after an earlier period of different challenges. With a new tenant's contract, positive investments in the facility and a great commitment by the board, club management, and employees, I look forward to seeing the club's development towards a positive sustainable future.

Kerstin Antonsson

GEO accredited Independent Verifier



Introduction

GEO Foundation is pleased to confirm that Motala Golfklubb 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.

Motala Golfklubb 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, Motala Golfklubb should be awarded GEO Certified® status.

For the certification period stated above, Motala Golfklubb 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	(Course management) Map all habitats and vegetation types on the site; Regularly update landscape / biodiversity	The landscape is a distinctive farmland with gently hilly terrain. There are a municipal plan and map description for the land area where the facility is located. The plan contains area restrictions for land use. The

		surveys	<p>inner part of the golf course is an inaccessible forest with a geological formation of interest. This habitat is managed by the municipal.</p> <p>The club use a GIS software program to map the facility.</p> <p>The digital satellite course overview map should be supplemented with drawn habitats and vegetation types for the areas located between the holes even though they are very limited in addition to the documented fescue heath and ponds.</p>
	N1.1.2 Knowledge of legal designations for protected areas, habitats and species	(Course management) Understand legal responsibilities for protected landscapes and species; Record and monitor protected, endangered, or rare species found on the site	<p>A digital satellite map of the facility is developed. Mammals, reptiles, fungi, trees, flowers, and aquatic plants are inventoried and documented by names, Latin names and indicated on which holes on the course they are located. The inventory should be extended in the future.</p> <p>Salamander (<i>Salamandridae sp.</i>) is found in ponds at holes 9, 10 and 18. Most likely, they are also found in other ponds on the course. Salamander is protected in Sweden, and it is forbidden to destroy its breeding grounds or resting places.</p> <p>Birds have been inventoried by ornithologists.</p>
	N1.1.3 Understanding and respect for cultural heritage	(Course management) Protect any archaeological, historical or cultural designations on the site	The area has undergone archaeological settlements. There are several permanent archaeological remains that are documented in the municipal plan. However, no known objects within the golf course.
N1.2 Opportunities to naturalise the course	N1.2.1 Measures taken to identify and minimise the required area of managed turfgrass	(Course / club management) Observe, track and / or monitor golfer play	<p>Managed turfgrass areas that have been returned to the nature are documented on the course overview map.</p> <p>A managing plan for the course is developed for short, medium and long term. In the short-term action plans, discussions on which additional surfaces can be left will be held in 2019.</p> <p>A software was installed during the Spring and has functions that allow monitoring of golfer's play.</p>
N1.3 Actively manage habitats for wildlife	N1.3.1 Projects to manage habitats in the best way for wildlife and golf	(Course management) Regularly review and follow a habitat management plan; Prioritise native species when planting and landscaping	<p>See N1.1.1. and N1.2.1</p> <p>A new updated long-term master plan will be created in the coming years. This plan will also include an improved habitat management plan by collaboration with the municipal ecologist.</p> <p>Nesting boxes have been placed in the area as a cooperation with the municipality.</p>

			<p>High stumps and cut trees are saved to create good habitats to favor insects.</p> <p>Creates and maintains natural corridors between habitat areas.</p>
N1.4 Conserve key species	N1.4.1 Practical conservation measures for priority species		Special consideration is given to the salamander in ponds at holes 9, 10 and 18.
N2 Turfgrass			
N2.1 Maintain optimum turf and soil health	N2.1.1 Appropriate turfgrass varieties adapted to climatic and other geomorphological factors	(Course management) Select appropriate grass species for climate	<p>A work plan for the course is developed for short, medium and long term. The short plan contains actions to prevent areas affected by heavy rainfall. A deeper investigation of climate impacts on the three different parts of the course is planned to be held 2026 onwards.</p> <p>There are plans and extra fescue will be seeded.</p>
	N2.1.2 Practices to maintain good soil structure and condition		<p>Normally occurring activities such as adjustment of cutting heights and patterns, aeration, dressing, and return of clippings, etc.</p> <p>Soil structure test is implemented once a year.</p>
	N2.1.3 Careful and responsible fertiliser application throughout the year to avoid over-fertilisation	(Course management) Soil tests and nutrient analysis	<p>A macro nutrient evaluation analysis has been carried out. The detailed information on levels of available and targets for nutrients will help to avoid overfertilization.</p> <p>The use of fertilizers tends to be slightly too sparingly compared to the recommended optimal nutrient levels according to the results of the analysis.</p>
N2.2 Prioritise cultural management	N2.2.1 Non-chemical pest, disease and weed management	(Course management) Sharpen mowing blades; Remove surface moisture; Hand weeding	<p>There are well documented and planned maintenance programs for each hole on the course. Surface aeration, dressing, flattening, increase of organic material, remove surface moisture are some of the preventive measures.</p> <p>Mowing blades are sharpened several times during the season.</p> <p>Iron is added to the fertilizer.</p> <p>Leaves are removed from the greens several times per week in the autumn.</p>

N2.3 Use chemicals responsibly	N2.3.1 Application of chemicals only when necessary to prevent or cure defined / identified turf health issues	(Course management) 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	Five indicator sites for early disease control are plotted on the course's overview map. Daily visual inspections of pests and diseases are carried out for early signs. If signs, a routine is followed to manage the health issue. Course consultants and software apps are contacted when there are doubts or difficulties. Applications of pesticides are used restrictively and are well documented in the IPM templates for safe plant protection.
	N2.3.2 Application of chemicals with full safety precautions	(Course management) 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	License to use pesticides is valid. Turf areas for disposal of leftovers are plotted on the course overview map. Two areas are protected from the disposal of leftovers because of closeness to ecological cultivation. Personal protection equipment as clothing, boots, protective goggles and gloves are handled by the club. Chemical risk analyzes for health and occupational safety is implemented. Safety data sheets are available. The spraying equipment is calibrated and controlled.
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	(Course management) 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.	An emergency spill response plan is available for pesticides. It gives instructions on how to act with small and large spills of chemicals, personal accidents, and when the club is obligated to contact authorities. Buffer zones (normally 6 meters) are plotted on the course overview map. When spraying, the safety distances are adjusted according to the circumstances of the day and for which areas. The distances are documented in the spraying journal in a separate template for safe plant protection.
	N3.1.2 Practical measures to ensure pollution risks are minimised from clubhouse operations	(Club management) Ensure all hazardous materials are safely and securely stored; Ensure compliance with all required standards and systems for hazardous waste and waste water discharge	Contracts are signed with Stena Recycling for collecting hazardous waste. Waste water is taken care of and purified in municipal sewage treatment plants.
	N3.1.3 Practical measures to ensure pollution risks are	(Course management) Ensure wash areas are on impermeable, leak-free surfaces; Mixing and loading of pesticides and	The brand-new built wash area for machines and equipment has an impermeable and leak-free surface. It has a waste area for grass spills before the washing water is led to an oil separator. The roof has not yet

	minimised from maintenance facility operations	fertilisers over an impermeable surface; Triple rinse pesticide containers and applicators	been assembled. Mixing of pesticides and fertilizers is made in field. Empty containers are rinsed three times.
N3.2 Safely manage hazardous substances	N3.2.1 Legal compliance in the storage, handling, application and safe disposal of all hazardous substances	(Course management) 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	Hazardous materials and chemicals are registered and provided with digital and printed safety data sheets. Chemicals are held to a minimum. They are handled and stored orderly and in appropriately cabinets and on leakage trays. The doors into storage with pesticides must be added with appropriate hazard red and white pictogram signs. Documented risk assessment for the management of chemical pesticides is exemplary and contains chemical hazards, protective measures and protective equipment (first aid and personal protection). Fire extinguishers are placed on machines and in locations with fire risks. The fuel tank has a secondary containment. It is time for regular inspection and the new protocol can usefully be uploaded in OnCourse. Small jeep cans with petrol should be placed on their own drip trays or lifted into the secondary containment for the large tank.
N3.3 Responsibly manage waste / storm water	N3.3.1 Appropriate waste water usage and discharge licences	(Course management) Waste water discharge licence; Appropriate treatment of machinery wash water (impermeable surface, oil / grease / clipping separation)	The brand-new built wash area for machines and equipment has an impermeable and leak-free surface. It has a waste area for grass spills before the washing water is led to an oil separator. The roof has not yet been assembled.

RESOURCES

R1 Water

Objectives	Requirements	Mandatory Practices	Verifier Notes
R1.1 Minimise water demand	R1.1.1 Measures to reduce the need to consume water	(Course management) Target irrigation to essential playing surfaces only	Irrigation is only made on essential playing areas. Storm water is used for irrigation.
R1.2 Maximise water efficiency	R1.2.1 Practical measures to use water more efficiently on the golf course	(Course management) 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	An initial investment of a more efficient pump that pumps surface water from Lake Vättern to the course makes it possible to start monitoring of water consumption during 2019. The irrigation steering system is old and managed by a computer. Individual sectorized sprinklers are used on greens. Irrigation is made during night time.
	R1.2.2 Practical measures to use water more efficiently in buildings	(Club management) Audit water use regularly; Review bills frequently and look for irregularities; Encourage water-saving practices amongst staff and visitors; Categorise and track water consumption	Low flush toilets and showerheads, and water-saving washing-machine are installed. Bills are reviewed. The amount of drinking water use is listed and reported to the municipality.
R1.3 Source water responsibly	R1.3.1 Measures towards alternative, lower quality sources of water	(Course / club management) Ensure appropriate water abstraction permit and reporting, as required	The use of irrigation water is listed. There is no permission needed to use crude water. Storm water is led to the ponds at holes 9 and 18 and is used for irrigation.

R2 Energy

R2.1 Reduce energy demand	R2.1.1 Measures to reduce the amount of energy	(Course management) Minimise areas of managed turf to reduce	Semi-rough has been released to rough to save maintenance hours and thus fuel costs and emissions.
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	consumed in course maintenance	mowing, irrigation, and turf inputs	<p>Uses rechargeable vehicles to minimize fossil fuels.</p> <p>New rechargeable vehicle fleet for 2018 with four vehicles and seven new golf carts has reduced the consumption of fossil fuels</p>
R2.2 Maximise energy efficiency	R2.2.1 Measures to use energy and fuels more efficiently in buildings	<p>(Club management) Audit energy use regularly; Regularly review bills; Categorise and track energy consumption</p>	<p>Automatic timers, LED lighting, and motion detectors are installed. Heating and cooling are adjusted by season.</p> <p>More than 50% of the kitchen appliance has energy class A or equivalent.</p>
R2.3 Source energy responsibly	R2.3.1 Measures to source alternative, renewable forms of energy	<p>(Club management) Determine potential sources of renewable energy in the area and on-site, through renewable energy providers</p>	<p>Geothermal heating is used for the facility.</p> <p>No renewable electricity is used but a change is planned.</p>
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	<p>(Club management) Undertake a review of materials consumed</p>	<p>The order of purchases is made to keep the number of shipments down to minimize emissions.</p> <p>Consumption and waste data are exemplary listed and reported.</p> <p>There are instructions for responsible chemical handling and purchase.</p>
R3.2 Purchase responsibly	R3.2.1 Practical use of an ethical / environmental purchasing policy	<p>(Club management) 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>	<p>A purchasing policy with eight key areas is developed.</p> <p>FSC and KRAV-labelled products and food, and environmentally friendly cleaning chemicals are purchased.</p> <p>The restaurant has seasonal menus and uses local produce.</p>
R3.3 Reuse and recycle	R3.3.1 Waste stream separation for maximum recycling and re-use opportunity	<p>(Club management) Demonstrate waste separation, reuse and recycling; Track how much waste goes to landfill, or is reused / recycled</p>	<p>There are instructions for waste management in what and where waste is collected and separated. Bins and containers are well signed.</p> <p>Waste is separated into 20 different fractions for maximum opportunities for recycling. Waste data are exemplary listed.</p>

R3.4 Demonstrate legal compliance	R3.4.1 Compliance with all local and regional waste management regulations	(Club management) Use authorised waste and recycling contractor for general, hazardous, industrial and green waste;	Authorized waste and recycling contractors are used for both housekeeping waste, industrial and hazardous waste. Waste is collected by the municipal contractor and the professional entrepreneur of hazardous waste; Sita.
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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		<p>The club offers ski trails, nature trails boule and mini-tennis. There are also 9 holes for pay and play.</p> <p>The golf course area is used for outdoor teaching, health and physical activity for primary school pupils.</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 has cooperation with local municipality rehabilitation for stroke where the goal is to give stroke patients training and social interaction at the club.</p> <p>The club arranges competitions in favor of the Childhood Cancer Foundation.</p> <p>Members are volunteers at the world's largest bike challenge "Vätternrundan".</p>
C1.3 Establish active community partnerships	C1.3.1 Positive and constructive engagement with neighbours, the local community and other groups	(Club management) Create a 'sustainability working group'	<p>There is a designated sustainability group that works together with management and board representatives.</p> <p>The club has a good relation and communication with neighbours, local community and the municipality.</p> <p>Motala Golf club and Smedsby School have taken part in a pilot program by the Scandinavian Turfgrass and Environment Research Foundation (STERF). The project has been focusing on "a multifunctional golf course's educational use in society". Students and teachers from elementary school made regular visits to the golf course. The purpose of their visits was to conduct classes, out of the classroom and in nature, to stimulate learning and provide new experiences.</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		<p>As written above, the club has cooperation with local municipality rehabilitation for stroke where the goal is to give stroke patients training and social interaction at the club.</p> <p>As on most Swedish golf courses, players walk rather than go by cart. This behavior benefits excellent health.</p> <p>The brand-new modern machine hall has meant a lot of health and wellbeing.</p>
C2.2 Be open and inclusive	C2.2.1 Inclusivity and diversity in membership and visitor policies	(Club management) Demonstrate inclusive policies for members and visitors	Everyone is welcome to be members or visiting the club.
C2.3 Employ fairly and safely, and provide career opportunities	C2.3.1 Ethical and legal employment, working conditions and professional development	(Club management) Follow all relevant national legislation and best practice for employment, health & safety etc	An installed software (REDDIBO) supports and facilitates the operational work with planning, implementation, and monitoring of maintenance, work environment, and environmental requirements. The club manage a well performed occupational health and safety work. Safety representatives are appointed.
C3 Communications			
C3.1 Engage golfers and members	C3.1.1 Communications activities that raise awareness and understanding amongst members and visitors	(Club management) Provide information on the facility's sustainability commitments, actions, or achievements	The club has an environmental policy and an excellent and extensive environmental plan to create the conditions for sustainable management. These documents should be available and communicated to members and visitors to show the sustainability improvements.
C3.2 Celebrate and promote sustainability	C3.2.1 Activities that raise awareness and engage people in the wider community	(Club management) Provide evidence of external communications and community engagement	<p>External communication is held with the municipal ecologist and the local society for the conservation of nature to improve the awareness of nature and biodiversity.</p> <p>See C1.3.1 above.</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