



GEO Certified[®]

GEO Certified[®] Report Gleneagles Golf Courses & Estate

Prepared by Independent Verifier, Stuart Rennie

Certified by GEO Foundation: December 2019
Valid until: December 2024

GEO Certified[®]

 **GEO
Foundation**
Sustainability in and through golf

Sustainability and environmental stewardship is at the forefront of Gleneagles' way of thinking across all aspects of the resort. The golf courses highlight numerous naturalisation projects and activities ongoing for many years which bring benefit to the landscape. New management structures within the course and estates staff have identified further areas of improvement, while the overall facilities team continues to improve its responsible management of resources, infrastructure and social initiatives.

Stuart Rennie

GEO accredited Independent Verifier



Introduction

GEO Foundation is pleased to confirm that Gleneagles Golf Courses & Estate 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.

Gleneagles Golf Courses & Estate 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, Gleneagles Golf Courses & Estate should be awarded GEO Certified® status.

For the certification period stated above, Gleneagles Golf Courses & Estate 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 golf courses manager and extended staff have a resolved understanding of the entire estate at Gleneagles. A very detailed Ecological Assessment and Habitat Recommendations report has been compiled in 2016 which has helped drive some key projects.

		surveys	
	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	There are a number of key designations such as the gardens being a designated Inventory of Gardens and Designed Landscapes where there are no specific tree preservation orders. There is a small SSSI (white water mire) on the Kings course which is a key project where the area has been cleared out and managed for its abundance of species, this work has been undertaken under supervision and guidance from ecological consultants and Scottish Natural Heritage. The facility also works closely with the forestry commission when undertaking tree management.
	N1.1.3 Understanding and respect for cultural heritage	(Course management) Protect any archaeological, historical or cultural designations on the site	Management and maintenance of the historical Gleneagles estate is encompassed within the day to day running of the Gleneagles business.
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	The 3 main courses at Gleneagles have distinct characters and are managed slightly differently in areas to provide different playing experiences. i.e. The Kings Course is managed to play firm and fast, the Queens is promoting its heathland characteristics and the PGA is set up to be a tough championship course with thick roughs and heavily stripped fairways and greens. GPS is used for spraying product to minimise the overlap and maintain a consistent area of managed turfgrass. Rough management throughout is discussed by the head greenkeepers and management staff with differing solutions on each course but generally there is a drive to reduce the dominant broad leaf grasses in long roughs specifically on the Kings and Queens.
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	There are a number of key projects happening across the 3 courses to remove non-native species, protect and manage the SSSI, remove larch trees which are impacting maintenance air flow and light and heathland restoration trials.
N1.4 Conserve key species	N1.4.1 Practical conservation measures for priority species		Any new planting is native species which is all identified within the ecological report.
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	The golf courses are predominantly Poa annua/bent, bent grasses are promoted due to the short growing season for Poa due to the altitude and geographical location of Gleneagles. All bent grasses have longer roots and are able to chase leaching nutrients and moisture deeper through the soil profile. This allows Gleneagles to save on nutrient inputs and irrigation applications.
	N2.1.2 Practices to		Gleneagles has an intensive all year round aeration program for all

	maintain good soil structure and condition		<p>courses in the form of maintenance closures. In the summer it is mainly top dressing and solid-tining with coring and zeolite applications front and back end of season. Soil amendments are added through their SAS program which is based around organics.</p> <p>The Sub-Air system on the PGA course promotes dryness and firmness to the playing surfaces by controlling moisture levels. By controlling moisture levels it has been found to produce a less favourable condition for disease development.</p> <p>Soils are tested by both the STRI and an independent source.</p>
	N2.1.3 Careful and responsible fertiliser application throughout the year to avoid over-fertilisation	(Course management) Soil tests and nutrient analysis	GPS is used for application of fertiliser on the main playing surfaces to minimise overlap which has been a significant cost saving. There are also buffers from key protected areas such as the SSSI, water bodies and other unmanaged areas such as the Heuch-o-Eule small valley.
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	By using good working practices such as training and equipment maintenance the green staff can maximize the efficiency and quality. This allows them to implement effective cultural practices to create better and healthier playing surfaces which have less disease and weed pressure.
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	<p>Soil tests help tailor the fertilizer programs in the form of amendments to nutrient contents in the rootzone.</p> <p>The bulk of fertilizing is delivered through foliar applications and is mostly organics with low N totals.</p> <p>Daily inspections of playing surfaces are carried out by trained staff which allows them to monitor any disease or pest occurrences. These can be reviewed daily and dealt with if long term damage is expected.</p>
	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	All staff using chemicals have achieved formal qualifications and training. Spillages if any are dealt with a containment kit using foams and sand to minimize impact.
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.	Buffer zones are a legal compliance when spraying around wetlands/water. The staff always observe buffer zones and know the dangers off target spraying could have on the environment.
	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	Recycling at Gleneagles is a huge part of the business from the hotel to the courses. Recycling happens across the board with a designated recycle yard on site and composting/topsoil screening area. An external contractor removes all recycled waste from the facility. There are compartment bins on the courses for different recycled products and the likes of wooden forks, knives & plates are used and paper cups rather than plastics at the half way house on the courses.
	N3.1.3 Practical measures to ensure pollution risks are minimised from maintenance facility operations	(Course management) 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	All chemicals are stored in secured containers and are only handled by trained staff. Mixing and preparation for use is done on hard non porous surfaces which are not linked to any water courses.
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	All hazardous materials are stored in secured rooms and Go stores (lockable containers). They have COSSH and Health and Safety assessments which contain all procedures for spillage and accidents. The assessments are reviewed frequently by the health and safety committee which is made up of staff members from all departments.
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)	Gleneagles has recently upgraded their maintenance facilities to bring all the teams into the same facility as part of a wider cultural plan to enable teams to work closely and provide higher quality facilities for all staff. The new wash bay is called Clear Water and works on 100% recycled water. This is achieved by microorganisms regularly added to breakdown hydrocarbons and toxins in the used water together with aerators. The underground tank holds 10,000 L and is continually recycling.

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	Gleneagles monitor water consumption monthly and have records in the form of readings. They save the most amount of water through careful use of irrigation (monitoring moisture levels) and the wash bay system.
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	The irrigation systems are both over 20 years old. The Kings and Queens system is still operating effectively because of its HDPVC piping and regular maintenance. The irrigation on the PGA course will be replaced after the summer mainly because of the PVC pipe works becoming brittle and in need of constant repair. This will be done at a considerable cost but will considerably more sustainable moving forward. Pogo readings undertaken to monitor moisture readings.
	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	The new wash bay is the biggest water saver but they also have sensor taps in the club house and are also going to start using the borehole for water use within the club house which will reduce the use of mains water. Use a number of recycled products throughout the whole resort and provide taps to refill bottles on course at the half way houses.
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 the bore hole will reduce the requirement to use mains water in the clubhouse.

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	There are regular audits covering all energy and water use which is carried out by the Facilities team.
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	consumed in course maintenance	mowing, irrigation, and turf inputs	
R2.2 Maximise energy efficiency	R2.2.1 Measures to use energy and fuels more efficiently in buildings	(Club management) Audit energy use regularly; Regularly review bills; Categorise and track energy consumption	The new maintenance facility has been constructed with energy in mind by installing insulation in walls, ceilings and doors. Also new energy efficient appliances and a hot water drinking taps together with eco shower heads. The energy efficient radiators have sensors to detect open windows and will turn themselves off automatically. The most visual addition is the sensor lighting system.
R2.3 Source energy responsibly	R2.3.1 Measures to source alternative, renewable forms of energy	(Club management) Determine potential sources of renewable energy in the area and on-site, through renewable energy providers	Biomass boiler within the resort
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	(Club management) Undertake a review of materials consumed	Local produce is sourced for both foods and materials. Gleneagles likes to give their guests unique experience and local produce goes with that theme.
R3.2 Purchase responsibly	R3.2.1 Practical use of an ethical / environmental purchasing policy	(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	Gleneagles operate on a three bid system for purchasing and local suppliers are more than often sourced
R3.3 Reuse and recycle	R3.3.1 Waste stream separation for maximum recycling and re-use opportunity	(Club management) Demonstrate waste separation, reuse and recycling; Track how much waste goes to landfill, or is reused / recycled	All the wet waste is removed by licensed contractors and all the dry waste is removed for recycling by a local recycling company.

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;	Yes as above. There is a designated water/recycle yard where composting is also carried out. External contractors have a number of compacting facilities on site which are removed when filled.
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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>Social and recreation is part of the core business at Gleneagles for their guests but there are also a number of external local clubs that play golf here, carry out tennis coaching and horse riding.</p> <p>The Gleneagles staff awards are called the spirit of the glen awards. Staff members nominate other staff members for their outstanding contributions to the key business values. The values are all about promoting wellbeing and a sense of supporting each other and the business by making a difference.</p>
C1.2 Provide for volunteering and charity	C1.2.1 Opportunities available for volunteering and support of charities and good causes		The head green keeper of the Kings Course works closely with a disability school in Perth where he takes sensory materials along for the children. The business also promotes charity golf days
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'	The business has an open policy towards the local community and supports local charities and fundraising events.
C2 Golfers & Employees			
C2.1 Improve health and wellbeing	C2.1.1 Benefits to human physical and mental health		Runs clinics for young golfers and works closely with Visit Scotland to achieve the promotion of wellbeing.

	from golf and facility activities		
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	No policy statement as such but all are welcome at Gleneagles. Three separate golf clubs play at the facilities.
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	There is an open view on employing full time and part time employees. They do not discriminate over race, religion, nationality or sexuality and will employ the right candidate for the job on merit.
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	There is no clear information on the website relating to the environmental sustainable aspects across the Gleneagles business, this could be championed with a dedicated page on the website.
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	Staff are encouraged to volunteer for projects in the local community. A good example is the support of the Anchor House project in Perth, volunteers helped decorate and landscape a boarding house for young supported adults.

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