GEO Certified®

GEO Certified® Report
Carnoustie Golf Links

Prepared by Independent Verifier, Stuart Rennie

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

GEO Foundation
Sustainability in and through golf

“The Carnoustie Golf Links Management Committee maintains four links golf courses on dune land and back dune heath where environmental stewardship is at the core running of the facilities. The understanding of habitat and species present on the courses is exemplified within their Course Environment Guide which can be found on the website. The open arms policy allows a wide variety of community user groups to enjoy the facilities at the Carnoustie Golf Links all year round.”

Stuart Rennie

GEO accredited Independent Verifier

Introduction

GEO Foundation is pleased to confirm that Carnoustie Golf Links 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.

Carnoustie Golf Links 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, Carnoustie Golf Links should be awarded GEO Certified® status.

For the certification period stated above, Carnoustie Golf Links 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**

The Sustainability Agenda for golf covers the following themes and action areas:

THEMES	ACTION AREAS
Nature	• Habitats & Biodiversity • Turfgrass management • Pollution prevention
Resources	• Water • Energy • Materials
Community	• 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 Links Superintendent and individual course managers have a resolved understanding or the overall property at Carnoustie. There are 4 courses, practice facilities, pockets of scrub woodland and wetlands on the fore dunes and back dunes at Carnoustie which are all surveyed and

		surveys	managed by the Carnoustie Links Trust. Mapping is included within a Landscape Character Assessment Report and Gorse & Tree Management Plan.
	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 no legal designations or protected areas however Yellow Bartsia and Maiden Pink are rare to these sites. Course management numbers and monitors all bird boxes and habitat boxes that are put out onto the courses.
	N1.1.3 Understanding and respect for cultural heritage	**(Course management)** Protect any archaeological, historical or cultural designations on the site	There are no designations on the site although the championship course is an Open Championship venue which evolves to the requirements of the R&A to hold such an event.
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 overall area of cut fairways has been reduced over the past number of years where areas between the tee and fairway have been managed as either rough, semi-rough or translocated heath. The links trust are currently reviewing their machinery deal and looking to incorporate new GPS spraying equipment into their new fleet. The current fleet has an element of electric and low fuel dependency machinery. The roughs are being managed to reduce rank species and create more biodiverse wildflower lighter roughs.
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	Gorse management, rough management, reducing spraying areas out-with play, working with local schools to create wild flower areas around the courses. The trust are following a number of habitat and landscape plans along with continual review from the R&A and their golf course architect.
N1.4 Conserve key species	**N1.4.1 Practical conservation measures for priority species**		No particular measure for priority species but they are trying to manage the rough to get rid of rogue grasses, this is favouring fescue and bent grasses and they are trying to make the rough more playable with less maintenance at the same time. Wild flower within the seed bank is coming through in areas.
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	Trying to promote fescue but also have bent and poa in play areas and rye grass on walkways. Maintenance measures include verti-draining, top dressing and feeding to make sure that turf is in top condition at all times.
	N2.1.2 Practices to maintain good soil structure and condition		The links trust aerate as and if required, carry out less hollow-tining but more solid-tining due to organic matter content being within target (testing through R&A/STRI). This is backed up with top dressing programme.

	N2.1.3 Careful and responsible fertiliser application throughout the year to avoid over-fertilisation	**(Course management)** Soil tests and nutrient analysis	Feed if and when needed. Tend to use more organic fertilisers as well as seaweed sprays.
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	The Links superintendent adopts basic greenkeeping throughout, trying not to stress the plant, making sure that units are cutting properly with no damage to the plant.
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	There are certain areas on the course that can be prone to disease which they keep an eye on, if they keep these areas healthy they can limit the amount of application needed.
	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	Most of the staff have spraying certificates. Disposal of containers is done through an external company. Policies are in place for the safe use of chemicals and in the event of spillages.
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.	Protection buffers when spraying are of importance especially around burns, ponds and ditches.
	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	All chemicals are stored within a locked container which only managers have access to.

		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	There is a policy in place for any spillages on the golf course and in any of the buildings.
	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	Chemicals stored in locked container and fertilisers stored neatly on racking. Spraying tanks have mixing attachments to take out the risk of pollution also have buffers in place so as not to be in close proximity to wetland/water areas.
	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)	There is a waste-to-water treatment area at the maintenance facilities (Hydroscape System). Recycling of water used for washing down machines. Water goes through filters, which have to be cleaned out every now and then, the filters pick out any grass clippings, contaminants etc.

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	Consumption figures provided. Signage around all buildings to turn off taps, push down taps in buildings to minimise consumption. Toilets have small flush/big flush mechanism.
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	Irrigation consumption is measured via the borehole meter, which is linked to the abstraction licence from SEPA. The amount of water consumption can vary especially during an Open Championship year where water has a wider use. It would be good to start documenting the consumption fully to see any improvements between Open Championships. No leaks detected after a pressure test. They are looking at a new system down the line with better efficiencies. Regular testing on the greens with a Pogo moisture meter to keep levels of moisture at the 20% mark.
	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 club have had a water/energy audit carried out by Orchard Energy. Water fountains at various points around the course. Vegware compostable products used in the kiosk.
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	Borehole abstraction although looking at the potential for an irrigation reservoir to be built in the future where water could be topped up from rainwater harvesting.

R2 Energy

	R2.1 Reduce energy demand	**R2.1.1 Measures to reduce the amount of energy consumed in course maintenance**	**(Course management)** Minimise areas of managed turf to reduce mowing, irrigation, and turf inputs	Reducing the overall mown fairway area.
	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 club have had a water/energy audit carried out by Orchard Energy and have been working with Zero Waste Scotland.
	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	Not yet being considered, but an area for improvement planning 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**	**(Club management)** Undertake a review of materials consumed	Recycle all turf/soil from works as well as gorse, grass clippings, leaves etc. to turn in to compost to re-use on the course. During the construction of the new clubhouse facilities the following have been initiated: push down taps, using natural light, under floor heating, toilets fitted with motion sensor lighting and 2 flush facility.
	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	All food that is served in The Rookery is locally scoured from the area, something they pride themselves on. The Links Trust has interestingly asked suppliers to reduce sending packaged goods and are seeking goods to arrive without which companies were initially confused by but now buying into this idea. Topdressing sand does come from Kings which is obviously not nearby.
	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	Recycling - Separate bins for recycling (cardboard, food, glass, general waste, oil/fat), always looking at ways to reduce waste. Water Usage – always looking into ways to cut costs/usage (shower heads to reduce water rate) Electricity – motion sensor lights, LED lights, natural lighting. Use an external company for both (Binn Group for cooking oil and James Finlayson for engine oil.

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, all recycling is done through own initiative, with no support from local authority.

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**		The links trust are trying to make golf and Carnoustie Golf Links open for anyone. They have schools coaching as well as classes for the elderly and those who have disabilities.
C1.2 Provide for volunteering and charity	**C1.2.1 Opportunities available for volunteering and support of charities and good causes**		They have a Dementia Friends Group where 'Food is Free' help out when they do events/projects with the schools.
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'	Dementia Friends, Fireworks Displays, Christmas Light Nights and working at various events like The Open, Dunhill etc.
C2 Golfers & Employees			
C2.1 Improve health and wellbeing	**C2.1.1 Benefits to human physical and mental health from golf and facility activities**		Dementia Group with focus on historical artefacts, drop in sessions and education. Disabled golf groups where the pro has developed clubs to assist wheelchair users in the new simulator practice bays.
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	As above. The Carnoustie Links Trust is open and inclusive.

	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 a dedicated HR Department and HSE Department that makes sure the Carnoustie Links Trust can cater for all needs.
	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 an extremely well documented environmental policy on the website with copies available in the clubhouse. There is an exceptional amount of information provided demonstrating the various course managers understanding and input.
	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	The Carnoustie Trust is a registered charity and provides support whether that is money or benefit in kind to user groups throughout the community. As a charity they give away golf vouchers and prizes which are handed out by the Community Benefits Department.

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