GEO Certified® Report
Dolder Golfclub Zürich

Prepared by independent verifier, Felix Rusterholz

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

“The Dolder Golf Club is located in a unique elevated position in the city of Zurich. Adjacent to the city forest, the golf course connects the settlement area with the natural environment and is also part of a popular community recreation area.

For the Dolder GC it is a privilege that the City of Zurich, as the lessor of the green space, has launched several funding projects that should support the measures recommended in the report. Particularly noteworthy is the upgrading of ecologically valuable habitats, and the production of solar energy.

Following my visit I am confident that the GC Dolder can make a visible contribution to more sustainability in golf with responsible management in place and a desire to look for operational improvements.”

Felix Rusterholz

(GEO accredited independent verifier)

Introduction

GEO Foundation is pleased to confirm that **Dolder Golfclub Zürich** 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.

Dolder Golfclub Zürich 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, **Dolder Golfclub Zürich** should be awarded GEO Certified® status.

For the certification period stated above, **Dolder Golfclub Zürich** can therefore claim a position as a leader in advancing sustainability in golf – making important contributions in protecting nature, conserving resources and strengthening communities.

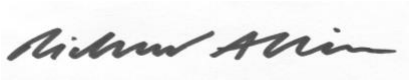
The GEO Certified® Report that follows comments on the actions undertaken against the criteria, as observed by the independent verifier during the assurance process.

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**	Map all habitats and vegetation types on the site; Regularly update landscape / biodiversity surveys	The city of Zurich has a large database that provides information about habitat types, habitat potential and occurrence of species. Furthermore, the GC Dolder owns a versatile software called Golfview: This excellent tool provides an overview of the complex with its multitude

				of habitats and subsequent optimization of the latter. Continuous monitoring is planned with the upcoming start of the project.
		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 golf course is partly located in the groundwater protection area (*Au*) as well as in the groundwater protection zone. The people in charge for the site are aware of the increased responsibility that any groundwater contamination would endanger the city's drinking water.
		N1.1.3 Understanding and respect for cultural heritage	Protect any archaeological, historical or cultural designations on the site	Regarding construction measures the GC Dolder is closely monitored and controlled by the city administration. The exchange with the city, in particular with the nature conservation department of Grün Stadt Zürich (GSZ), is encouraged and valued at least by the golf club.
	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	Those responsible for the course are aware of the required playable area. A further reduction in the green space used for golf is not realistic. The aim is to upgrade the remaining areas in terms of design and, above all, ecology.
	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	It is a stated goal to better understand the floristic habitats and with them the wildlife habitats in order to be able to exploit their potential. In addition to recording the habitats, the locations of large trees are also digitized. The Golfview software is used as a management tool. External specialists and the site managers should use fauna data from GSZ as data basis.
	N1.4 Conserve key species	**N1.4.1 Practical conservation measures for priority species**		The measures to promote biodiversity at GC Dolder are aimed at holistic habitat protection. Ecologically valuable species, including those threatened with extinction, should benefit from this.
	N2 Turfgrass			
	N2.1 Maintain optimum turf and soil health	**N2.1.1 Appropriate turfgrass varieties adapted to climatic and other geomorphological factors**	Select appropriate grass species for climate	The head greenkeeper endeavours to promote drought and disease resistance of the turfgrasses by selecting a suitable variety. *Agrostis* is used in particular.
		N2.1.2 Practices to maintain good soil structure and condition		The prevailing soil conditions, the ecological goals of the club and the legal restrictions on the use of plant protection products ask for a professional soil care. Spiking every two weeks and aeration and sanding about twice a year will allow for a 70-80% reduction of pesticide use compared to just a few years ago. Furthermore plant strengthening agents are used as a supplement.

		N2.1.3 Careful and responsible fertiliser application throughout the year to avoid over-fertilisation	Undertake soil tests and nutrient analysis	Fertilizer planning is based on the results of the annual soil analysis carried out by Swissgreen, a specialized greenkeeping company. Fertilization is done by the head greenkeeper.
	N2.2 Prioritise mechanical maintenance	**N2.2.1 Non-chemical pest, disease and weed management**	Sharpen mowing blades; Remove surface moisture; Hand weeding	Preventive plant protection measures are taken. The former are of increased interest since the water protection law allows for less curative plant protection.
	N2.3 Use chemicals responsibly	**N2.3.1 Application of chemicals only when necessary to prevent or cure defined / identified turf health issues**	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	The demand for pesticides is decreasing continuously. The software Punctus is used to keep a log of the measures taken.
		N2.3.2 Application of chemicals with full safety precautions	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	Safety precautions appear to be in place. Plant protection measures are almost exclusively carried out by the head greenkeeper. According to his statements accruing residue is spread out in a controlled manner on planted green areas. It is agreed that, in the future, leftovers ought to be professionally stored in a tank yet to be purchased and handed over to a specialized disposal company.
	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**	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.	Public authorities regularly take groundwater samples on the GC Dolder site. Pesticides are only used on the greens and possibly on the fairways. ⇨ Reduce applications further ⇨ Promote mowing buffers or edges ⇨ According to N1.3, habitats are to be digitized in the future.
		N3.1.2 Practical measures to ensure pollution risks are minimised from clubhouse operations	Ensure all hazardous materials are safely and securely stored; Ensure compliance with all required standards and systems for hazardous waste and wastewater discharge	As the fertilizer store has a permeable wooden floor, it needs to be altered in order to prevent liquid fertilizers from leaking into the subsoil. Liquid fertilizers are to be stored in a tub. ⇨ Purchase new tub(s) to store liquid fertilizers.

			Products prone to frost must be protected from sub-zero temperatures in order to maintain product efficacy.
	N3.1.3 Practical measures to ensure pollution risks are minimised from maintenance facility operations	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	Since the renovation of the work yard in 2017, infrastructure has been continuously improved. For example, a concrete washing area is now available to the greenkeeping team. Accumulating wastewater from the washing area is fed to the wastewater treatment plant. Cleaning outside the washing area is prohibited. An existing former septic tank is to be dissolved in accordance with law or, if suitable, to be used as a retention basin.
N3.2 Safely manage hazardous substances	**N3.2.1 Legal compliance in the storage, handling, application and safe disposal of all hazardous substances**	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	The parties responsible are aware of the applicable safety regulations and endeavour to comply with them. ⇨ Protective and fire-fighting equipment are to be properly provided. ⇨ First-aid kit is to be kept up to date ⇨ New eye wash is to be procured
N3.3 Responsibly manage waste / storm water	**N3.3.1 Appropriate wastewater usage and discharge licences**	Wastewater discharge licence; Appropriate treatment of machinery wash water (impermeable surface, oil / grease / clipping separation)	The drainage concept has been improved as part of the depot conversions so that the applicable laws are now observed. However, there is still surface work to be done. Asphalting of the majority of the area around the depot is planned. ⇨ It is recommended to check whether the covering areas, apart from the washing area, could be constructed in a manner that would allow for surface drainage.

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**	Target irrigation to essential playing surfaces only	There is no knowldege of unnecessarily irrigated turf areas. However, there are measures being discussed with which surplus water from the topsoil layer could be collected and used for irrigation. ⇨ Improve water intake in the area of lanes 2, 3 and 4. ⇨ Create a retention basin to the west of today's tee 4. ⇨ Model terrain in immediate vicinity and raise position of the future discount 4 to reduce the removal of soil material. ⇨ Extend course of the Klosbach in order to use it as an overflow for the retention basin. ⇨ Develop temporary channel into a valuable habitat for both flora and fauna. ⇨ Check whether a former septic tank near the washing area could be converted into a retention basin.
R1.2 Maximise water efficiency	**R1.2.1 Practical measures to use water more efficiently on the golf course**	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	Space is irrigated using a new irrigation control system. According to the head greenkeeper, water consumption can be reduced by 20-25% and the duration of one irrigation cycle can be almost halved. It is recommended to record water consumption using for instance the software Punctus.
	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 clubhouse has modern infrastructure available. Consider optimization of fittings. It is recommended to monitor water consumption in all different areas of the golf course (golf courses, decorative discounts, restaurant/club building, work yard).
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	Catchment of surface water and collection in retention basins → connection to irrigation cycle
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	According to those involved, the mowing regime has been altered in recent years. This reduces the frequency of cuts, which saves fuel in particular. To promote biodiversity, set aside additional areas as edges or tree canopy overhang and only mow 1 to 3 times a year in late autumn / either side of winter season.

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	The clubhouse has modern infrastructure available. Consider optimization of fittings. It is recommended to monitor water consumption in all different areas of the golf course (golf courses, decorative discounts, restaurant/club building, work yard).
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	Check whether roof areas of the clubhouse and work yard could be equipped with photovoltaics.
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	In order to enable long-term resource planning and analysis, all material use is to be reported and periodically evaluated. This concerns machinery materials, fertilisers, plant treatment products, top dressing / substrates, sand and green waste.
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	⇨ Check origin or dumping site of the materials produced for sustainability ⇨ Check product origin both in greenkeeping and in gastronomy.
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	Consistently implement the waste separation system for employees as well as for members and guests.
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	Only consider qualified waste companies.

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**		According to statements by the managing director, GC Dolder is an active association that primarily meets the needs of its members. The facility is also open to guests for games, for example members' acquaintances at the game or guests of the Hotel Dolder. No other public relations work is carried out.
C1.2 Provide for volunteering and charity	**C1.2.1 Opportunities available for volunteering and support of charities and good causes**		Active groups of seniors support the greenkeeping team in the upkeep of the facility for specific tasks (e.g. gather windthrown lumber).
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'	As the lessor, the City of Zurich has a wide range of specialist departments dedicated to the topic of sustainability. In order for the GC Dolder to be able to benefit from knowledge, projects, funding and contacts, open and regular dialogue is to be encouraged.
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	Public communication enhances goodwill of the lessor and the population. The forthcoming projects pose an excellent opportunity to present goals and values of the GC Dolder to the public.
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	No information about employment conditions is known. A new position for 2022 has been created within the greenkeeping team following a high workload of the employees in 2021.
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	Use mailings, homepage and lectures to bring different actors of the golf course together. Provide a guided tour of the golf course with the help of a city ecologist, followed by a BBQ and such.
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	⇨ Bring sustainability forward as a topic ⇨ Launch funding projects ⇨ Celebrate project successes and communicate them across club boundaries.

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