



GEO Certified®

GEO Certified® Report Suzhou Jinji Lake International Club

Prepared by Independent Verifier, Bingxiang Zhao

Certified by GEO Foundation: March 2021
Valid until: March 2024

“Jinji Lake Golf Club has well maintained the high standards initiated a decade ago. According to the GEO certification standard the ecology of the three nine-hole courses is stable in a natural state; the application of new energy in electric mowers and transport vehicles is increased; the club has continuously replaced the facilities and equipment which save water and electricity resources in terms of lighting, air conditioning and water use; and has held influential events such as the PGA Tour China for two consecutive years. The concept of environmental and community action has been well developed and I look forward to seeing the formation of a special working group on sustainability, as well as updated blueprints for natural ecological buffer zones.”

Bingxiang Zhao

GEO accredited Independent Verifier



Introduction

GEO Foundation is pleased to confirm that Suzhou Jinji Lake International Club 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.

Suzhou Jinji Lake International Club 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, Suzhou Jinji Lake International Club should be awarded GEO Certified® status.

For the certification period stated above, Suzhou Jinji Lake International Club 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.isealliance.org



Verifier's Report

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	I accepted the verification task of Jinji Lake Golf Club on December 11, 2020. To prepare for it I carefully checked the GEO OnCourse data of 2020 and the certification record of 2017. On December 21st, I went to the club for on-site inspection and

			communication. Arriving at the club at 9AM, I mainly had a discussion with Mr. Zhenghui Bao, the course superintendent. During the discussion, Mr. Jiawen Gao, the club's general manager, came to have a conversation and Mr. Hong Gu, the club's vice GM of administration also participated. After the discussion, I checked several areas of the clubhouse, include the 27 holes of the golf course, the maintenance facility, the fertilizer warehouse, the pesticide warehouse, the mechanical maintenance department, the car wash yard, the oil depot, the dangerous waste storage warehouse, the sand field, the branch crushing field, the parking lot, the sprinkler irrigation pump station of the golf course, the lake in the golf course and other key places and the relevant facilities. From 2018 to 2020, no new buildings were added to the club, no new construction was carried out on the course, and no trees, shrubs and grass plants were newly planted. The area distribution was relatively stable. The shrubs replaced by planting and natural vegetation restored when reducing a large area of grass three years ago were in good growth state. The style of the three 9-hole 'links', 'wetland' and 'forest' remained unchanged, but the area of pampas and lotus flowers in the 'wetland' area increased. On the 'links', white thatch, a local plant, occupies 90% of the long grass area of the landscape. The club is using physical methods, such as land reclamation, to reduce the area of this plant, and is preparing to plant more suitable varieties of the long grass area, such as tall fescue. Outside the club, separated by a road, there are new villa property development.
	N1.1.2 Knowledge of legal designations for protected areas, habitats and species	Understand legal responsibilities for protected landscapes and species; Record and monitor protected, endangered, or rare species found on the site	The club is owned by the local government and the environmental procedures are updated; The lease of the land has been extended for 20 years and the life of the course has been extended. When I visited, it was already winter. The water was clear, the evergreen trees and shrubs were luxuriant, and the Bermuda grass was dormant and yellow. The overall environment is well maintained and protected. No rare protected species were found in the course area, and the hunting of small animals and birds in the course is strictly prohibited. Their habitat is well protected.
	N1.1.3 Understanding and respect for cultural heritage	Protect any archaeological, historical or cultural designations on the site	There are no monuments or heritage buildings in the course area.

N1.2 Opportunities to naturalise the course	N1.2.1 Measures taken to identify and minimise the required area of managed turfgrass	Observe, track and / or monitor golfer play	The area of Bermudagrass requiring more manual maintenance has been significantly reduced three years ago. The main areas of reduction are the edge and undergrowth of the trees between holes, around tees and behind greens, as well as in the fairways and grass areas far away from ball landing area. In these areas, there is no Bermudagrass at all. Instead, the 'forest' areas are mainly holly, rhododendron shrubs and camphor trees. 'Wetland' is populated with pampas grass, miscanthus grass and wild flowers, while 'Links' is mainly composed of white thatch. Plenty of bark and sawdust were laid on the pitch to cover the bare ground; Bark and wood chips come from the branches and other wastes produced by the annual pruning of the golf course, which are crushed and reused.
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	The long grass area of 'links' has become very natural, but the white thatch grows very fast and even invades the grass around the bunkers and greens; The natural plant species in the long grass area is relatively unitary. The course has taken measures to reduce and control the rapid growth of white grass, and plans to plant tall fescue, increase the diversity of natural plants, and reduce the golf's level of difficulty. I discuss with superintendent Bao to suggest planting more gramineous plants in the long grass area of 'links', such as buffalo grass, creeping bentgrass, zoysia, festuca, wild bermudagrass, etc., and increase the plant diversity of 'links' rough grass area, because the natural growth of the grass height is different, and different cold and heat resistance in different seasons can reduce the density of natural grass weeds. This kind of long grass area is closer to the 'links' desired style. Although it looks hard to play with long grass, it is easier to find the ball and keep pace.
N1.4 Conserve key species	N1.4.1 Practical conservation measures for priority species		Protection of tall fescue grass in 'links' course and pampas grass in 'wetland' course has been increased.
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 grass species of the course has not changed in the past three years, nor has the grass species of the annual winter overseeding. The tees of 'links' course were dyed to reduce the area of overseeding ryegrass; Tall fescue from 'links' and ryegrass

			overseeding annually are transitional cold season grasses in this area, which better balance the needs of playing golf.
	N2.1.2 Practices to maintain good soil structure and condition		The plenty times of coring in the fairway alleviates soil compaction and improves soil structure.
	N2.1.3 Careful and responsible fertiliser application throughout the year to avoid over-fertilisation	Undertake soil tests and nutrient analysis	Conduct soil tests twice a year to test the pH value, the content of organic matter, the content of large amount of nutrients and some trace nutrients to determine the annual fertilizer dosage according to the results of the tests. Uses a certain amount of lime each year to reduce soil acidity.
N2.2 Prioritise mechanical maintenance	N2.2.1 Non-chemical pest, disease and weed management	Sharpen mowing blades; Remove surface moisture; Hand weeding	More physical operations such as coring, slicing, thatching and topdressing are carried out on the golf course every year. Efforts are made to reduce the use of chemical agents. Chemical agents are not used when diseases occur in small areas. The blade of the turf cutting machine uses Bernhard knife grinder to keep the blade sharp and reduce the probability of the infection of the cutting wound; Ten workers are employed every year to manually remove weeds in the landscape area.
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 annual diseases mainly occur on the greens and mainly in July and August. The course superintendent and managers pay close attention to the occurrence of the greens, take a small amount of fungicide in time, and focus on physical operation for prevention; In recent years 'spring dead spot' was found in Bermudagrass fairway, which was mainly in autumn and spring. The management of the turf prevented the disease in advance according to the regularity of the disease, and the dosage of fungicide was kept to a minimum amount. Other diseases of tee and fairway turf, such as brown spot and dollar spot, occur with rainfall, flexible treatment according to the weather conditions, basically adhere to the obvious symptoms before the use of fungicide.
	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	All pesticides purchased by the club have three certificates: production license, pesticide registration certificate and product qualification certificate; Plant protectors are trained every year and the operation is strictly in accordance with the pesticide use standard. The supervisor and the above personnel have the safety management qualification certificate. Using the TORO spray machine and regularly calibrating the nozzle pressure and flow to ensure the accuracy of spraying; Equipped with protective clothing and other equipment for spraying operators, cleaning

			equipment after spraying; Pesticide cart cans and pesticide containers are thoroughly cleaned after each use, and the cleaning wastewater is poured into the designated turf area away from the living area and the water on the golf course.
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.	The club has formulated an emergency treatment plan for oil leakage during mechanical operation; The turf mowers of the fairway have been replaced with electric machines to avoid hydraulic oil leakage; Many ornamental grasses were planted along the lake bank of the course to replace the turf that was originally attached to the water side, which enlarged the buffer zone without spraying chemicals. After communicating with Superintendent Bao, I suggested him to increase the mowing height of the turf of 1 to 2 meters width on the lakeside slope to form a buffer zone and reduce the surface runoff potential of pesticides and fertilizers into the lake; At the same time, I suggested to make a distribution map of the ecological buffer zone for overall management.
	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	The club has set up a special storage warehouse for dangerous goods and materials, which will be cleaned and disposed regularly by a qualified company; The company's warehouses at all levels are equipped with safety explosion-proof boxes to prevent safety and pollution accidents; The garbage is classified into dry, wet and recyclable garbage and stored separately. Sewage from cleaning vehicles and machinery goes into the club sewer line, and the club sewer discharge pipe goes into the municipal sewer line.
	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	The mixing of fertilizers, pesticides, and others for course maintenance is carried out in the relevant application machinery; The floor of the warehouse for storage of waste oil and other items are under strict anti-seepage treatment; Pesticide packaging containers shall be regularly removed and disposed by professional companies; After communicating with Superintendent Bao, I suggested to increase pallets in the temporary storage area during the oil transfer process to prevent oil contamination.
N3.2 Safely manage hazardous substances	N3.2.1 Legal compliance in the storage, handling, application and safe	Maintain a register of hazardous materials available to authorised staff; Safe storage in secure and ventilated concrete or metal building;	The local environmental protection department inspects the club several times a year, and the club does self-inspection every month. The safety management of dangerous goods is strictly required; Waste oil and pesticide packaging shall be regularly

	disposal of all hazardous substances	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	removed and disposed by professional companies; The oil used for the course maintenance machinery is stored in the oil depot designed and built by a formal professional company. The oil tank is placed underground, protected strictly and supervised by special personnel. No secondary contamination of oil storage was found. First aid kits are available in every department of the club, as are patrol cars, and heart defibrillators are planned for the clubhouse.
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 sprinkler irrigation on the course uses lake water, not use of treated wastewater; The sewage of the club is mainly domestic sewage, which is discharged into the municipal sewage pipe network. The cleaning site of the vehicle has an impermeable surface. There are no plans to build sewage treatment facilities. The grass clippings are scattered into the long grass area of the landscape for fertilizer circulation; Branches crushed stacked fermentation sterilization after laying under woods.

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	The club eliminated the sprinkler facilities in the long rough and landscape areas of the course, replaced the sprinkler heads at the edge of the fairways with adjustable sprinklers, and only irrigating turf areas of the course;
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	The irrigation facilities on the course are the Toro Site-pro automatic sprinkler irrigation system, equipped with an automatic weather station and TDR soil moisture tester. The irrigation manager determines the time and amount of watering according to the weather conditions, soil moisture and the state of turfgrass to improve the efficiency of sprinkler irrigation; In addition, they adhere to the use of wetting agent and reduce water consumption. I discussed with Superintendent Bao that the turf

			in East China should focus on water control, promote the growth of turfgrass root system, and provide dry and hard green and fairway turf for golfers in off-rainy season. This can not only save water resources, but also increase the fun of golf.
	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 water source of the club is municipal tap water. After checking the club's annual water bill provided by Superintendent Bao, the water consumption has not changed much in three years. All taps in the club are quick to close type, and signs are posted in the water intake area to promote water conservation.
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	Rainwater collected from the golf course is used for turf irrigation.
R2 Energy			
R2.1 Reduce energy demand	R2.1.1 Measures to reduce the amount of energy consumed in course maintenance	Minimise areas of managed turf to reduce mowing, irrigation, and turf inputs	The reduction in turf area has been maintained; In winter, the area of overseeding is reduced. 'Links' course's tee area adopts turf coloring agent. Growth regulators used in the season of vigorous turf growth to reduce cutting. 'Links' course retains a large area of natural area to save energy consumption of course maintenance;
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	Superintendent Bao provided the bill of electricity consumption of each year from 2017 to 2020; The lighting in the clubhouse has been replaced with LED light source. The central air conditioning of the club was replaced with a split air conditioning; In together, the maintenance cost and electricity were saved.
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	All fairway mowers were changed to electric ones and transporters were replaced with electric versions too; No other new energy resource was used.
R3 Materials			
R3.1 Reduce materials demand	R3.1.1 Products and materials selection based on necessity, including opportunities for recycled, reused and locally sourced alternatives	Undertake a review of materials consumed	The club has a comprehensive procurement plan which is strictly implemented; The products purchased are localized, such as for pesticides, fertilizers, machinery accessories, etc. Clubhouse materials, such as guest items can be recycled as far as possible, avoid using disposable items.

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	Shop around for all purchases; The main purchases are seasonal products, and off-season products are reduced as far as possible.
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	Strict classification of dry, wet and recyclable wastes are implemented; The grass clippings are returned to the course and the branches are crushed and piled up and laid under the forest as mulch.
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	Garbage disposal and the disposal of harmful substances will be handled by qualified professional companies certified by environmental protection. Superintendent Bao provides the processing contract during our discussion.

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 club is a membership club, which only opens to members and their accompanying guests; In the past three years, they have carried out youth training activities, during which students can come to play golf. In addition they have carried out fellowship activities with clubs in Shanghai, Nanjing, Hangzhou, Beijing and other places. And members of these clubs can also play and enjoy service in the club within a certain limit.
C1.2 Provide for volunteering and charity	C1.2.1 Opportunities available for volunteering and support of charities and good causes		The club holds a charity sale every year to donate for education; The club organizes Suzhou Youth Golf Competition every year,

			which supports youth golf and about 50 persons attended each time.
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'	I suggest the club to set up a Sustainable Development Working Group
C2 Golfers & Employees			
C2.1 Improve health and wellbeing	C2.1.1 Benefits to human physical and mental health from golf and facility activities		The Covid-19 pandemic in early 2020 did not reduce the number of appointments for the whole year. And it even increased by 10% compared to last year.
C2.2 Be open and inclusive	C2.2.1 Inclusivity and diversity in membership and visitor policies	Demonstrate inclusive policies for members and visitors	In the past three years they have carried out youth training activities, for which students can come to play golf. In addition they have carried out fellowship activities with clubs in Shanghai, Nanjing, Hangzhou, Beijing and other places. And members of other clubs can also play golf in the club within a certain limit.
C2.3 Employ fairly and safely, and provide career opportunities	C2.3.1 Ethical and legal employment, working conditions and professional development	Follow all relevant national legislation and best practice for employment, health & safety etc	The club pays social insurance for all employees and provide them with annual medical examination services; For special workers, such as plant protection, electrician, fire protection and security, special work certificate training is arranged.
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	The club updated the GEO OnCourse publicity wall in the clubhouse; Besides, the concept of environmental protection and sustainable development of Oncourse is promoted via the WeChat platform.
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	In August 2019, they held a GEO OnCourse sharing meeting to interact with members and their guests to promote GEO; In September 2018 and June 2019, the PGA Tour China Tour was held twice. The event attracted visitors, and many volunteers participated in the organization of the event. The GEO certified golf club's environmental protection and sustainable development concept was promoted.

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