



GEO Certified® Report

Dalian Red Flag Valley Golf Club

Prepared by independent verifier Juming Zhang

Certified by GEO Foundation: 2024
Recertification due: 2027



“Dalian Red Flag Valley Golf Club features rolling hills, a vast area of native vegetation, and a large elevation difference, making it the most impressive mountain type golf course in China. With the full protection and utilization of native vegetation, the continuous use of local plants, and the implementation of more natural and low carbon practices in the golf course maintenance, the habitat environment for wild animals and birds will be greatly improved, and the biodiversity will become more abundant. It can be expected that the golf course becomes green, sustainable and more natural, and is perfectly blended into the nature, not only providing sports and leisure functions for golf enthusiasts, but also creating environmental and ecological benefits for the public and society.”

Jumming Zhang
(GEO accredited independent verifier)



Introduction

GEO Foundation is pleased to confirm that Dalian Red Flag Valley Golf 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.

Dalian Red Flag Valley Golf 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 (CIP) set for the future and Critical CIP's (CCIPs) to be reviewed at recertification, Dalian Red Flag Valley Golf Club should be awarded GEO Certified® status.

For the certification period stated above, Dalian Red Flag Valley Golf 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

Carole Kerrey
Director, Certification and Credibility,
GEO Certification Ltd.



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 – 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	• 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	General knowledge of the wildlife and habitats on the site	The golf course is a 36-hole membership golf club, located in the core area of the National Forest Park in the western suburbs of Dalian city, with temperate marine climate and beautiful scenery. The entire golf course is perfectly integrated into the nature, making it a very challenging and excellent mountain type golf course. The course team has recognized the golf course has a significant ecological value to the city and environment. CCIP: Please conduct an ecological survey for the golf course and develop a plan to protect wildlife and its habitats.
	N1.1.2 Knowledge of legal designations for protected areas, habitats and species	Identify rare, protected or endangered species found on the golf course; Understand legal responsibilities for landscape protection and special area designations, if applicable	Wild birds occasionally appear in woodland on roughs. The club has installed bird's nests on the trees in woodland on roughs. The club understands the government's policies and legal responsibilities for the protection of wild animals, plants, and the ecological environment. CCIP: As per N1.1.1 above - please identify rare, protected or endangered species and take protective measures, such as migration corridors, designated protected areas etc.
	N1.1.3 Sound understanding and respect for cultural heritage	Protect any archaeological, historical or cultural designations on the site, if applicable	No archaeological, historical or cultural designations have been found on the site.
N1.2 Opportunities to naturalise the golf course	N1.2.1 Measures taken to identify and minimise the required area of managed turfgrass	Monitor patterns of play to identify underutilised areas of turfgrass	The club has reduced maintained areas under the guidance of the architect, and keep the basic turf areas for playing. The shaded areas under trees were covered with pine needles collected from woodland of the course. The vegetation in steep slope areas on roughs are naturalised without any maintained practices.

N1.3 Actively create and manage habitats for wildlife	N1.3.1 Projects to create and manage habitats in the best way for wildlife and golf	Prioritise native species of varying size and structure when planting Prioritise native trees and shrubs when planting Prioritise native aquatic species of varying size and structure when planting Establish mowing buffer zones next to water bodies and wetlands	Natural vegetations on roughs are preserved well to create habitats for wildlife and support biodiversity. Local plants have been planted, such as black pine, Mongolian oak, wild chrysanthemum, wild silvergrass on roughs. CIP: Please install more birds' nests over the course and establish protective areas for wildlife habitats.
N1.4 Conserve key species	N1.4.1 Practical conservation measures for priority species	Follow local best practice to protect or attract endangered, protected or rare species found on site	The golf course is located within the national forest park. It is observed that wildlife, vegetation, and habitats around the golf course have been strictly protected. Highlight: The vast majority of vegetations on roughs has been well protected, creating a natural landscape and excellent habitats for wildlife.
N2 Turfgrass			
N2.1 Maintain optimum turfgrass and soil health	N2.1.1 Appropriate turfgrass varieties adapted to climatic and other geomorphological factors	Select appropriate grass species for the climate	The course is located in the temperate marine climate region, where cool-season turfgrasses perform well. A1 and A4 creeping bentgrasses are planted and reseeded on greens over time, Kentucky bluegrass is planted on tees and fairways on one 18-hole course whereas creeping bentgrasses are planted on fairways on the other 18-hole course. Kentucky bluegrass is used on roughs while fine fescue is on slope areas of roughs in all 36 holes.
	N2.1.2 Practices to maintain good soil structure and condition	No specific international requirement, however, identify course management and agronomic activities and look for continual improvements	Cultivation practices, such as coring, vertical cutting and topdressing are taken as required to keep the soil healthy. Wetting agents are used on greens as needed. Clippings from fairways and roughs are recycled onsite. Highlight: In contrast to conventional coring carried out in late spring or early summer in the same climate region, the course team performs coring practice in late autumn, resulting in better turf quality.

	N2.1.3 Careful and responsible fertiliser application throughout the year to avoid over-fertilisation	Test and monitor soil pH; Follow legal requirements when timing fertiliser applications Ensure staff are fully qualified to use fertilisers Ensure staff use appropriate protective equipment Regularly calibrate and test applicators	The soil samples are taken from greens, tees and fairways and tested annually by a professional soil lab. Fertilizers are applied according to the soil test report and turfgrass performance. The application is carried out by trained staff with protective clothing, using calibrated equipment and detailed record-keeping.
N2.2 Prioritise mechanical maintenance	N2.2.1 Non-chemical pest, disease and weed management	Sharpen mowing blades; Remove surface moisture; Change hole locations frequently	All mechanical equipment was observed and maintained in good condition. Practices including sharpening blades, adjusting mowing heights, removing surface moisture by pulling a power cable, and changing hole locations are carried out as needed. Mowing heights were adjusted according to season, turfgrass performance and usage intensity. CIP: Please make IPM plan and carry it out in the golf course maintenance.
N2.3 Use chemicals responsibly	N2.3.1 Application of chemicals only when necessary to prevent or cure defined / identified turf health issues	Identify and track pest and disease hotspots, including sensitive areas Scout the course daily for early signs and symptoms Accurately diagnose to determine the cause of weeds, pests and diseases	The pests and diseases control programme is made according to the climate, turfgrass species and pest occurrence pattern over different seasons and carried out accordingly. The greenkeeper scouts the course daily to find early signs of pests and diseases with paying more attention on greens. Only minimal chemicals are used at an early stage of pests and diseases occurrence.
	N2.3.2 Application of chemicals with full safety precautions	Use legally registered and approved products; Prefer products for the specific weed, pest or disease; Follow legal requirements; Ensure staff are fully qualified to use pesticides;	The chemical product inventory is checked. Documents for registered, approved and licensed chemicals are checked. The staff operation training program is checked. Staff are trained and qualified for spraying pesticides. Protective clothing and equipment for spraying pesticides are seen in good condition.

		Ensure staff use appropriate protective equipment; Regularly calibrate and test applicators; Dilute and dispose of leftover product on untreated areas of amenity turfgrass	
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 ; Retain no-spray/no-spread buffer areas next to water bodies and wetlands; Retain no-spray/no-spread buffer zones in and around ecologically sensitive areas	Documented procedures for emergency responses to pollution risks were confirmed. The cement ground for washing equipment and mixing chemicals was checked on the site. Isolation plastics cloths for spraying are available. Natural vegetations with no spray on roughs were observed. CCIP: Please establish buffer zones along lakes and small streams, where possible.
	N3.1.2 Practical measures to ensure pollution risks are minimised from clubhouse operations	Formal wastewater discharge agreement, if applicable	The wastewater discharge agreement with the local authority was confirmed. Hazardous substances including waste oil, chemical packaging materials, waste batteries were classified, labelled and stored accordingly in designated storage bins. The kitchen at the clubhouse is equipped with a ventilation system and a cooking fume and exhaust gas treatment system, which is inspected by the local government regularly.
	N3.1.3 Practical measures to ensure pollution risks are minimised from maintenance facility operations	Wash machinery over an impermeable, leak-free surface; Mix and load pesticides and fertilisers over an impermeable, leak-free surface; Triple rinse pesticide containers and applicators	The cement surface for washing machineries at the maintenance department complex was checked. The discharged wastewater from washing machineries is collected, then discharged into the waste pipes connecting with the municipal wastewater pipeline network. Pesticides mixing and rinsing and the disposal of pesticide containers are operated by trained staff according to safety procedures. The storage bins for different hazardous substances are checked on the site.

N3.2 Safely manage hazardous substances	N3.2.1 Legal compliance in the storage, handling, application and safe disposal of all hazardous substances	List of hazardous substances, made available to authorised staff; Product and material data safety sheets; Well ventilated concrete or metal building; Impermeable, leak-free flooring; Sufficient storage capacity; Spill containment kits; Secondary containment e.g., bunds or drip trays; Emergency wash area, as per local requirements (body shower and / or eye wash station); Hazardous substances safely collected by a registered company or body ; Follow any additional legal requirements	The contract with the professional company approved by the local authority for handling hazardous materials was checked. List of hazardous substances, product and material data safety sheets were confirmed. The hazardous substance storage tanks and room were checked and safety attention signs were observed. Safety facilities, equipment and their operation manuals and emergency plan were checked. The eye washing equipment at the maintenance department complex was checked.
	N3.2.2 Legal compliance in the storage and handling of fuels and gases	Tank secured to a horizontal, flat, non-combustible surface; Secondary containment of fuel in the event of spills e.g. bunds and drip trays; Inspection of storage tank(s) at least quarterly, if required; Fire extinguisher in the immediate area	The club's fuel storage room approved by the local authority are equipped with fire extinguisher. Fuel tanks and secondary containment of fuel are compliant with safety and environmental regulations. Staff are trained for refuelling and familiar with the emergency procedures. CCIP: Please try to inspect the fuel storage room and tanks monthly, and at least quarterly.
	N3.3 Responsibly manage waste / storm water	Impermeable, leak-free surface; Treatment as per local requirements (oil, grease and / or clipping separation); Formal discharge agreement, if applicable	The wastewater discharge licence issued by the local authority was confirmed. The machinery washing is operated on cement ground. Wastewater from machinery washing is discharged into sewage lines connecting with the municipal wastewater pipeline network.

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	Select appropriate grass species for the climate e.g., drought and disease tolerance; Target irrigation to essential playing surfaces; Prioritise native, drought tolerant species for landscaping and planting	The golf course is located in northeastern China with temperate marine climate, which is suitable for the growth of cool-season turfgrass. Varieties of Bentgrass used on greens and fairways, Kentucky bluegrass on tees, fairways, and roughs are drought-resistant. Irrigation water is not enough from the lakes of the course collecting from rainfall due to the mountainous terrain with steep slope and is supplemented from the nearby reservoir. Only playing areas of greens, tees, and fairways are regularly irrigated. Kentucky bluegrass on roughs is irrigated when needed, while native vegetations on roughs are not irrigated. CCIP: Please explore the feasibility of gradually replacing the Kentucky bluegrass on roughs with native warm-season zoysiagrass. This has much better drought resistance.
R1.2 Maximise water efficiency	R1.2.1 Practical measures to use water more efficiently on the golf course	Schedule irrigation based on informed assessment of soil moisture and weather forecasts; Evaluate new irrigation technologies e.g., central control, precision sprinklers etc.; Provide staff training on efficient irrigation practices; Adjust sprinklers to playing surfaces only	Irrigation schedule is made based on soil moisture and weather forecasts. Soil moisture is checked onsite using TDR soil moisture tester. The pumping system, sprinklers and control systems were checked routinely. The staff responsible for watering receive technical training in energy-saving and water-saving. Temporary water intake points along fairways were observed, using movable hoses to replenish water as needed.
	R1.2.2 Practical measures to use water more efficiently in buildings	Monitor and record water consumption (bills, flow meter etc.); Encourage water conservation practices amongst players and staff	Water consumption records were checked. Water-saving facilities such as water saving toilet, water-saving faucet were installed at the clubhouse. Signs of water saving were posted at water outlet.

R1.3 Source water responsibly	R1.3.1 Measures towards alternative, lower quality sources of water	Water abstraction permit, if required; Report water consumption to environment agency, if required	Water abstraction permit approved by the local authority was confirmed. CIP: Please explore alternative, lower quality sources of water for green spaces.
R2 Energy			
R2.1 Reduce energy demand	R2.1.1 Measures to reduce the amount of energy consumed in golf course maintenance	Naturalise non-playing areas to reduce mowing and other energy intensive inputs	Naturalised non-playing areas were observed on roughs to reduce the amount of energy consumption. Highlight: Most of the roughs within the golf course are natural vegetation without any maintained practice.
R2.2 Maximise energy efficiency	R2.2.1 Measures to use energy and fuels more efficiently in buildings	Monitor and record energy consumption (bills, meters etc.)	Energy consumption and bills were checked. Energy-saving signs are posted at clubhouse and offices.
R2.3 Source energy responsibly	R2.3.1 Measures to source alternative, renewable forms of energy	Understand the energy mix of your electricity supplier; Explore possible greener energy providers	LED lights are used at the clubhouse and office buildings. Solar energy is used for lighting of the cart path. Electric power is used on greens mowers and golf carts. CIP: Please try to increase the vehicles and equipment driven by electric power. CIP: Please explore more forms of greener energy providers.
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	No specific international requirement, however, identify activities to reduce the demand for materials and look for continual improvements	The club has established a strict materials management and utilization system for conserving materials and eliminating waste. The use of recycled, reused materials and organic materials are put priority whereas disposable materials and materials with pollution potential are not used in the club.
R3.2 Purchase responsibly	R3.2.1 Commit to sustainable purchasing practices	Favour responsible, lower impact products	The procurement of materials adopts an audit system with a series of processes including application, review, discussion, and decision-making in brand, quantity and quality. Locally sourced and eco or certified products are given priority to be purchased.

R3.3 Reuse and recycle	R3.3.1 Waste stream separation for maximum recycling and re-use opportunity	Put in place a recycling separation system, according to local rules and availability; Clear, simple and visible bin signage; Monitor and record weight of waste for each stream e.g. invoices, bills etc.	Waste sorting bins have been placed at buildings, facilities and the course. Waste transfer station and record keeping were checked. It is observed that discarded tires have been collected and used as the steps of some tee boxes. CIP: Please set up more classified waste bins at more places. CIP: Please collect fallen leaves and branches from a large area of woodland on roughs, crushing and then using them to cover the bare ground under the shade of trees or on the slope.
R3.4 Demonstrate legal compliance	R3.4.1 Compliance with all local and regional waste management regulations	Authorised waste collector for general, hazardous, industrial and green waste, if required	The contracts between the club and the professional company with waste collecting and processing licences approved by the local authority were confirmed.

COMMUNITY

C1 Health & Wellbeing

Objectives	Requirements	Mandatory Practices	Verifier Notes
C1.1 Improve health and wellbeing	C1.1.1 Benefits to human physical and mental health from golf and facility activities	Plans in place to respond to incidents and emergencies	All rules and regulations with labour protection, safety, hygiene, and welfare are well-established and posted on the wall of related departments. The club provides staff living rooms with the necessary facilities with recreational functions to increase staff daily life quality and improve their health level. Plan for responding to incidents and emergencies was checked. All employees are required to be trained on emergency procedure and operation.
C1.2 Be open and inclusive	C1.2.1 Inclusivity and diversity in membership and visitor policies	Membership policies free from discrimination across age, gender, sexual orientation, religion, and ethnic background	It is confirmed that there is not any discrimination to anyone in membership and visitor policies of the club.

C1.3 Employ fairly, safely and provide career opportunities	C1.3.1 Ethical and legal employment, working conditions and professional development	Adopt an equal opportunity recruitment and hiring policy; Follow all relevant legislation and best practice for hiring and employment; Follow all relevant legislation and best practice for worker safety	The recruitment of employees of the club is open and carried out in accordance with relevant national regulations. The club provides employees with safety protective equipment as needed for their work. In summer, high-temperature subsidies are provided. Personal labour and safety insurance is purchased for all employees. Employee dormitories are equipped with necessary living and activity facilities, such as shower room, TV room and table tennis and snooker.
<u>C2 Outreach & Inclusion</u>			
C2.1 Diversify access and provide multifunctionality	C2.1.1 Social and recreational activities at the facility	No specific international requirement, however, identify multifunctional activities and look for continual improvements	Different golf matches for the public and local businessmen were checked on the billboard and social networking site of the club. The club provide the driving range to the public to hold outdoor entertainment activities, such as wedding events.
C2.2 Provide for volunteering and charity	C2.2.1 Opportunities available for volunteering and support of charities and good causes	No specific international requirement, however, identify activities to support volunteering and charity and look for continual improvements	The club take the social responsibility and organized many volunteering and charity activities. The Sino-Japanese Entrepreneurs Golf Charity Match raised RMB 130,000 and donated to the Dalian Guide Dog Base to support the breeding of guide dogs and help visually impaired people to travel. The "Precious Friendship" Charity Golf Invitational hosted by Xingqi Co. was successfully held at the golf course in 2025, raising funds to support youth golf development and limb correction surgeries for patients from impoverished families.
C2.3 Establish active community partnerships	C2.3.1 Positive and constructive engagement with neighbours, the local community and other groups	No specific international requirement, however, identify partnerships and community activities and look for continual improvements	The golf academy has been established at the club, providing golf training programmes for the public. The club receives students to experience golf tour. For example, MBA and MEM students from Dalian University of Technology visited the golf course in 2022. The students learnt facilities and maintenance knowledge of the golf course, as well as golf rules and basic golf playing techniques, promoting the sport of golf through this kind of activities. The club pays attention to its connection with the community. When temporary workers are needed, the club put priority to hiring local residents.

C3 Communications & Advocacy			
C3.1 Engage staff and golfers	C3.1.1 Communications activities that raise awareness and understanding amongst members and visitors	Involve staff and committees in sustainability efforts; Involve golfers in sustainability efforts; Post sustainability information in the clubhouse and / or on the golf course	Wechat platform and notice board for the communications among golfers, members and the club were checked. The club's sustainability commitments, projects, or repairing works are informed through notice boards or Wechat platform. CCIP: Please implement measures to further engage staff, members and visitors on sustainability (e.g. projects, recognition and tips to increase awareness of the benefits of the course to the environment and society).
C3.2 Celebrate and promote sustainability	C3.2.1 Activities that raise awareness and engage people in the wider community	Share at least 3 Highlights on sustainable.golf	The club have hosted many different golf promotion activities, such as student golfing experience and public golf matches. As such, the club has been awarded the title of China's Top 10 Golf Resorts and Top 10 Extraordinary Golf Courses for 8 consecutive years since 2018. CIP: Please share key projects as case studies on social platforms to promote sustainable golf.
C3.3 Follow a journey of continuous improvement	C3.3.1 Measures to help track, review and improve sustainability and climate action	Put measures in place to ensure that OnCourse can be updated annually	The sustainable measures were discussed with the green keeper to develop the best maintenance programme and carry it out in the golf course maintenance.

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