



**GEO Certified<sup>®</sup>**

# GEO Certified<sup>®</sup> Report Singapore Island Country Club Bukit Course

Prepared by independent verifier, Brad Revill

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

*“The Bukit Course at Singapore Island Country Club is situated in a beautiful location on the MacRitchie reservoir and offers a unique opportunity in Singapore to showcase the natural beauty of the native forests, plants and animal species present there. With more community involvement, the efforts of the dedicated maintenance team could be better established with the wider community. I look forward to seeing the results of the large naturalisation project on my next visit.”*

**Brad Revill**

*(GEO accredited independent verifier)*



# Introduction

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GEO Foundation is pleased to confirm that **Singapore Island Country Club – Bukit Course** 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.

**Singapore Island Country Club – Bukit Course** 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, **Singapore Island Country Club – Bukit Course** should be awarded GEO Certified® status.

For the certification period stated above, **Singapore Island Country Club – Bukit Course** 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

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## 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](http://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](http://www.isealalliance.org)



# Verifier's Report

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

THEMES	ACTION AREAS
<b>Nature</b>	<ul style="list-style-type: none"> <li>• Habitats &amp; Biodiversity</li> <li>• Turfgrass management</li> <li>• Pollution prevention</li> </ul>
<b>Resources</b>	<ul style="list-style-type: none"> <li>• Water</li> <li>• Energy</li> <li>• Materials</li> </ul>
<b>Community</b>	<ul style="list-style-type: none"> <li>• Partnerships &amp; Outreach</li> <li>• Golfing &amp; Employment</li> <li>• Advocacy &amp; Communications</li> </ul>

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	A wildlife survey had been completed with a number of different species identified and presented in a folder.  <b>CIP</b>

			Improve the existing habitat map to clearly illustrate and identify the habitat types located on the property. These maps could then also be made available to members and visitors.
	<b>N1.1.2 Knowledge of legal designations for protected areas, habitats and species</b>	Understand legal responsibilities for protected landscapes and species; Record and monitor protected, endangered, or rare species found on the site	The club fully understands the legal responsibilities to protect the wildlife and natural habitats surrounding the property. The course is located next to a national reservoir and so they get audited regularly.  One critically endangered species has been identified on site (Malayan Pangolin - <i>Manis javanica</i> ) and one protected species (Purple Heron - <i>Ardea purpurea</i> ).
	<b>N1.1.3 Understanding and respect for cultural heritage</b>	Protect any archaeological, historical or cultural designations on the site	A WW2 bunker is located on the property and is protected and maintained by the club. Signage also provides information to guests about the history of the site.
<b>N1.2 Opportunities to naturalise the course</b>	<b>N1.2.1 Measures taken to identify and minimise the required area of managed turfgrass</b>	Observe, track and / or monitor golfer play	Regular internal meetings are undertaken to discuss and identify any out of play areas that can be transitioned to native areas.
<b>N1.3 Actively manage habitats for wildlife</b>	<b>N1.3.1 Projects to manage habitats in the best way for wildlife and golf</b>	Regularly review and follow a habitat management plan; Prioritise native species when planting and landscaping	A new project to create a large forest and wetland habitat on adjoining holes 17, 18, 9 and 3 is planned for late 2022. The project aims to encourage more bird and insect life onto the course while reducing maintenance.  The informal policy is to utilise native and low maintenance plants in all new projects.
<b>N1.4 Conserve key species</b>	<b>N1.4.1 Practical conservation measures for priority species</b>		The property has been designated as a national tree conservation area. No dead tree can be removed without an arborist report. Any tree greater than 1m in height cannot be removed without an arborist report.
<b>N2 Turfgrass</b>			
<b>N2.1 Maintain optimum turf and soil health</b>	<b>N2.1.1 Appropriate turfgrass varieties adapted to climatic and other geomorphological factors</b>	Select appropriate grass species for climate	The turf species on the greens is "Serangoon" ( <i>Digitaria didactyla</i> ); the tees are <i>Zoysia matrella</i> ; and the fairways and rough are predominantly "Cow Grass" ( <i>Axonopus compressus</i> ).  All turf species present are well suited to the climate and are some of the most low input species available.

	<b>N2.1.2 Practices to maintain good soil structure and condition</b>		Regular solid and hollow tine coring and topdressing practices are in place to maintain soil structure and bulk density.
	<b>N2.1.3 Careful and responsible fertiliser application throughout the year to avoid over-fertilisation</b>	Undertake soil tests and nutrient analysis	Regular soil testing is taking place every 6 months.  The strategy for fertilisation is based on the turf visual appearance as well as the current growth rate to avoid over-fertilisation.
<b>N2.2 Prioritise mechanical maintenance</b>	<b>N2.2.1 Non-chemical pest, disease and weed management</b>	Sharpen mowing blades; Remove surface moisture; Hand weeding	The team utilise large fans to improve air movement around problem greens, to reduce fungicide use.  They also employ hand weeding to reduce herbicide use as well as diligent hand-watering to reduce over-watering and reduce the chance of disease.
<b>N2.3 Use chemicals responsibly</b>	<b>N2.3.1 Application of chemicals only when necessary to prevent or cure defined / identified turf health issues</b>	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	Closely monitor weather conditions to determine windows for possible disease development.  Investigate all other possibilities i.e. tree roots, poor drainage etc as well as taking samples for analysis before applying pesticides for control.  No chemical will be applied without symptoms in place for at least 3 - days.  <b>CIP</b> Formalise the pest and disease thresholds in a document to be added to the integrated pest management plan. Could also add scouting reports and disease identification reports to this same folder.
	<b>N2.3.2 Application of chemicals with full safety precautions</b>	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	Equipment calibration checks are scheduled regularly.  Any leftover product in the spray tank is sprayed on higher profile areas for an additional boost.  All appropriate PPE is provided and used by the team.
<b>N3 Pollution Prevention</b>			
	<b>N3.1.1 Practical measures to ensure</b>	Document procedures for emergency spill responses;	Emergency spill response plan in place.

<p><b>N3.1 Prevent pollution across the entire site</b></p>	<p><b>pollution risks are minimised from golf course operations</b></p>	<p>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.</p>	<p>Buffer zones are identified, mapped, and communicated to the team.</p>
	<p><b>N3.1.2 Practical measures to ensure pollution risks are minimised from clubhouse operations</b></p>	<p>Ensure all hazardous materials are safely and securely stored;  Ensure compliance with all required standards and systems for hazardous waste and wastewater discharge</p>	<p>A new chemical storage unit with clear and safe access has been installed with sufficient ventilation, impermeable shelving, spill containment and emergency washing station, prior to the determination of this audit.</p> <p><b>CIP</b>  Keep copies of the chemical MSDS and emergency spill response plan at the unit.</p>
	<p><b>N3.1.3 Practical measures to ensure pollution risks are minimised from maintenance facility operations</b></p>	<p>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</p>	<p>Impermeable concrete surface.</p> <p>There is a solids filter in place to trap sand, grass clippings and other debris.</p> <p>There is no oil and water separator in place, but the wastewater flows directly into a holding tank which is regularly pumped out and disposed of by certified contractors.</p> <p>All used chemical containers are triple rinsed and punched before being disposed of.</p> <p><b>CIP</b>  Consider oil / water separator unit as an additional step to minimise pollution risks.</p>
<p><b>N3.2 Safely manage hazardous substances</b></p>	<p><b>N3.2.1 Legal compliance in the storage, handling, application and safe disposal of all hazardous substances</b></p>	<p>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</p>	<p>As per comments on point N3.1.2 for chemical storage.</p> <p>Fuel storage is on an impermeable concrete base with bunding. Fire extinguishers and spill containment kit in place.</p> <p>Fuel storage tanks are checked every year and re-certified every 2-years by government authorities.</p> <p>A storm drain within the fuel storage bunding has been isolated to prevent contaminated water entering. Oily water can also be pumped out safely, if required. This point was also taken care of prior to the determination of this audit.</p>



			<p><b>CIPs</b> Store emergency spill containment kit closer to the fuel storage area.</p> <p>Install secondary containment (bunding) around old fuel / oil drum storage to prevent run-off and contamination.</p>
<b>N3.3 Responsibly manage waste / storm water</b>	<b>N3.3.1 Appropriate wastewater usage and discharge licences</b>	Wastewater discharge licence; Appropriate treatment of machinery wash water (impermeable surface, oil / grease / clipping separation)	As per 3.1.3

<b>RESOURCES</b>			
<b>R1 Water</b>			
<b>Objectives</b>	<b>Requirements</b>	<b>Mandatory Practices</b>	<b>Verifier Notes</b>
<b>R1.1 Minimise water demand</b>	<b>R1.1.1 Measures to reduce the need to consume water</b>	Target irrigation to essential playing surfaces only	The irrigation system design does not allow irrigation of out of play areas.
<b>R1.2 Maximise water efficiency</b>	<b>R1.2.1 Practical measures to use water more efficiently on the golf course</b>	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	<p>No permanent soil moisture probe present, but portable soil moisture probes are used on a regular basis.</p> <p>Toro Site-Pro irrigation software in place.</p> <p>Nigh time irrigation programs are rarely used. Instead, a focus has been placed on hand-watering with portable soil moisture probes as the climate provides regular rainfall to take care of most irrigation requirements.</p>
	<b>R1.2.2 Practical measures to use water more efficiently in buildings</b>	Audit water use regularly; Review bills frequently and look for irregularities; Encourage water-saving practices amongst staff and visitors; Categorise and track water consumption	<p>Water usage is tracked, however water use cannot be accurately tracked for their golf course as they share the irrigation pumps and irrigation system with another golf club.</p> <p>No formal system auditing is currently taking place.</p> <p><b>CIP</b></p>

			Suggest an independent irrigation consultant to conduct a system audit and determine a possible solution to separate the use of the 2 clubs, to allow each club to accurately track water consumption independently.
<b>R1.3 Source water responsibly</b>	<b>R1.3.1 Measures towards alternative, lower quality sources of water</b>	Ensure appropriate water abstraction permit and reporting, as required	Water abstraction permit confirmed. Water use capped.
<b>R2 Energy</b>			
<b>R2.1 Reduce energy demand</b>	<b>R2.1.1 Measures to reduce the amount of energy consumed in course maintenance</b>	Minimise areas of managed turf to reduce mowing, irrigation, and turf inputs	Same mowing height used for fairways and rough to conserve time and energy.  Naturalisation project planned as per point N1.3.1
<b>R2.2 Maximise energy efficiency</b>	<b>R2.2.1 Measures to use energy and fuels more efficiently in buildings</b>	Audit energy use regularly; Regularly review bills; Categorise and track energy consumption	Internal energy use records in place. The new clubhouse plans to have energy audits regularly.  <b>CIP</b> Suggest separating the clubhouse, GCM facility and any other external buildings when tracking energy consumption.
<b>R2.3 Source energy responsibly</b>	<b>R2.3.1 Measures to source alternative, renewable forms of energy</b>	Determine potential sources of renewable energy in the area and on-site, through renewable energy providers	They are currently working with consultants to possibly utilise solar with their new clubhouse.
<b>R3 Materials</b>			
<b>R3.1 Reduce materials demand</b>	<b>R3.1.1 Products and materials selection based on necessity, including opportunities for recycled, reused and locally sourced alternatives</b>	Undertake a review of materials consumed	Waste auditing procedure will be in place after the new clubhouse has been constructed. Food waste could possibly be sent to the digester at the 'Island' location.
<b>R3.2 Purchase responsibly</b>	<b>R3.2.1 Practical use of an ethical / environmental purchasing policy</b>	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	Specific items could not be observed due to the incomplete construction of the clubhouse.  It was mentioned that an additional step will be added to their purchasing process which will require the approval by a designated environmental officer to ensure the most sustainable products are sourced.

<b>R3.3 Reuse and recycle</b>	<b>R3.3.1 Waste stream separation for maximum recycling and re-use opportunity</b>	Demonstrate waste separation, reuse and recycling; Track how much waste goes to landfill, or is reused / recycled	Waste / recycling is measured and tracked.  Could not observe waste disposal facility or labelled bins as it is still under construction.
<b>R3.4 Demonstrate legal compliance</b>	<b>R3.4.1 Compliance with all local and regional waste management regulations</b>	Use authorised waste and recycling contractor for general, hazardous, industrial and green waste	Authorised contractors confirmed.

<b>COMMUNITY</b>			
<b>C1 Outreach</b>			
<b>Objectives</b>	<b>Requirements</b>	<b>Mandatory Practices</b>	<b>Verifier Notes</b>
<b>C1.1 Diversify access and provide multi-functionality</b>	<b>C1.1.1 Social and recreational activities at the facility</b>		A member's club with regular social events and activities.
<b>C1.2 Provide for volunteering and charity</b>	<b>C1.2.1 Opportunities available for volunteering and support of charities and good causes</b>		Annual golf event to generate money for charity. Last year a total of SGD\$1.8m was generated.
<b>C1.3 Establish active community partnerships</b>	<b>C1.3.1 Positive and constructive engagement with neighbours, the local community and other groups</b>	Create a 'sustainability working group'	The club has close partnerships with local environmental authorities.  No formal sustainability working group or meeting minutes.  <b>CIP</b> Create a "sustainability working group" which meets regularly to discuss ways the club can engage with the local community and other groups to further the sustainability initiative.
<b>C2 Golfers &amp; Employees</b>			

<b>C2.1 Improve health and wellbeing</b>	<b>C2.1.1 Benefits to human physical and mental health from golf and facility activities</b>		The club hosts regular course walks with members to discuss the environment.  <b>CIP</b> Look into more ways to actively promote physical and mental wellbeing from golf and other activities
<b>C2.2 Be open and inclusive</b>	<b>C2.2.1 Inclusivity and diversity in membership and visitor policies</b>	Demonstrate inclusive policies for members and visitors	The club has no barriers to entry and the public are able to play with an invitation.
<b>C2.3 Employ fairly and safely, and provide career opportunities</b>	<b>C2.3.1 Ethical and legal employment, working conditions and professional development</b>	Follow all relevant national legislation and best practice for employment, health & safety etc	WHS and sustainability policies are explained to new hires as part of the onboarding program.
<b>C3 Communications</b>			
<b>C3.1 Engage golfers and members</b>	<b>C3.1.1 Communications activities that raise awareness and understanding amongst members and visitors</b>	Provide information on the facility's sustainability commitments, actions, or achievements	The club has a monthly newsletter which does include information regarding their sustainability initiatives.  The bi-weekly team meetings include sustainability talks.  There is a committee in place which includes sustainability issues.  <b>CIP</b> Record meeting minutes from team meetings and sustainability committee meetings.
<b>C3.2 Celebrate and promote sustainability</b>	<b>C3.2.1 Activities that raise awareness and engage people in the wider community</b>	Provide evidence of external communications and community engagement	The club is working with sustainability consultants and is engaging with solar power vendors.  <b>CIP</b> Consider forming more relationships with local educational establishments, charities and organisations to raise awareness about the environment and sustainable practices.

## 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](http://www.sustainable.golf)