



Environmental Stewardship Policy

L I M A S S O L G R E E N S



Introduction

Welcome to the Environmental Stewardship Booklet for Limassol Greens Golf Resort. We believe that our commitment to protecting natural resources and human health is fundamental to creating a sustainable and enjoyable golfing experience. Our dedication to environmental management and the implementation of innovative practices and technologies is reflected in every aspect of our operations.

Our Environmental Policy outlines our pledge to adhere to all applicable legal and compliance requirements related to the Limassol Greens Golf Resort. We take proactive measures to prevent pollution, reduce emissions and waste, and apply the principles of Reduce, Reuse, and Recycle (RRR). Additionally, we strive to minimize our consumption of water, energy, and other resources, while ensuring the rational use and management of fertilizers and pesticides.

Employee engagement and awareness are key to our success. We provide comprehensive training and encourage environmentally responsible practices among our staff. Our commitment extends to our suppliers, subcontractors, and partners, promoting the adoption of sustainable practices throughout our supply chain. We also invite our visitors and club members to participate in our environmental initiatives, encouraging the reduction of water use and proper recycling.

This booklet provides a detailed overview of our environmental initiatives, including water conservation, smart irrigation systems, energy efficiency, biodiversity preservation, aquatic biology management, integrated pest management, nutrient management, organic fertilizer use, soil sustainability, and waste management. Each section outlines our strategies and practices designed to protect the environment and promote sustainability.

By sharing our Environmental Policy and practices, we aim to foster a culture of environmental stewardship among all stakeholders. Together, we can ensure that Limassol Greens Golf Resort remains a model of sustainability and a place where nature and recreation coexist harmoniously.

Thank you for joining us on this journey towards a greener future.

Environmental Policy

Limassol Greens is committed to protecting both natural resources and human health by promoting environmental management and implementing innovative environmental practices and technologies. Through management leadership, employee participation, and professional environmental support, Limassol Greens is committed to:

- Comply with the applicable legal and other compliance requirements related to the environmental aspects of the development “Limassol Greens Golf Resort”.
- Take all-necessary measures to prevent pollution, reduce emissions and produced wastes - apply the principles of Reduce, Reuse and Recycle, also known as “RRR”.
- Take all-necessary measures to minimize water, energy, and other resources consumption.
- Take all-necessary measures (a) to minimize the use and (b) for rational management of fertilizers and especially of pesticides, as part of the maintenance of the golf course.
- Train, raise awareness and encourage the employees of the development to perform their duties in an environmentally responsible and sustainable way.
- Encourage environmental protection between suppliers and subcontractors /partners by applying environmental practices.
- Encourage visitors /club members to use products and services in an environmentally sensitive way.
- Encourage visitors /club members to reduce water use and use recycling bins that are located at various points within the development.
- Cooperate with the local authorities.
- Cooperate with the Cyprus Golf Federation (CGF) and Cyprus Sports Organization (CSO).
- Reduce /eliminate the risk associated with social and environmental issues.
- Be part of environmental programs.



Natural Resource Conservation



WATER CONSERVATION

Water recycling Initiatives-Stormwater Management

Limassol Greens Golf and Landscape design irrigation utilizes a combination of treated wastewater and harvested storm water. Irrigating Limassol Greens Golf Course and landscape areas with treated wastewater, also known as recycled water, is a sustainable practise where there are concerns about conserving potable water. The Golf Course and the landscaped areas are designed with irrigation systems that are tailored to deliver the recycled water efficiently to the plants. Benefits of using treated wastewater for irrigation include, conservation of potable water, cost savings and environmental benefits. Harvesting stormwater runoff from Limassol

Greens and redirecting it back to Golf lakes is a beneficial practise in terms of water conservation and management. Collection system by culverts, channels, and drains to capture rainwater. Before the collected stormwater is redirected to the golf lakes and used as needed, it is treated to remove pollutants and debris. This involves oil-water separators, settling ponds, and filtration systems. This water can be used to replenish the lakes and maintain their water levels. By capturing and reusing stormwater runoff, the project can reduce its reliance on freshwater sources. It can also help to mitigate flooding. Overall implementing a stormwater harvesting system to redirect runoff back to golf lakes can be a sustainable and environmentally responsible approach to water management.

Smart Irrigation System

- Smart irrigation systems for golf courses leverage technology to optimize water usage, enhance irrigation efficiency, and promote sustainability. These systems utilize various sensors, controllers, and data analytics to ensure that water is applied precisely where and when it is needed. Here is an overview of key components and benefits of TORO 2-Wire smart irrigation system Limassol Greens use:
- Soil moisture sensors: These sensors measure the moisture content in the soil and provide real-time data to the irrigation system. They help prevent over-irrigation by ensuring that water is applied only when the soil moisture levels drop below a specified threshold.

- Weather Station: Integration with weather stations allows the system to adjust irrigation schedules based on current weather conditions, including temperature, humidity, wind speed, and rainfall. This, helps in avoiding unnecessary watering during or after rain, optimizing water usage.
- Flow Sensors: Flow sensors monitor the flow rate of water through the irrigation system, detecting leaks or other issues. They help prevent water wastage by identifying and addressing problems promptly.
- Evapotranspiration (ET) Controllers: ET controllers calculate the amount of water lost to evaporation and plant transpiration, adjusting irrigation schedules accordingly. This ensures that the irrigation system compensates for environmental factors affecting water loss.
- Centralized Control System: This system provides a centralized platform for managing and monitoring irrigation across the entire golf course. Golf course manager can access the system remotely, adjusting based on real-time data and forecasts.

Benefits of smart irrigation system:

- Water Conservation: Optimizes water usage by applying irrigation only when and where it is needed. Reduces water wastage and promotes sustainable water management practices.
- Cost savings by preventing over-irrigation and detecting leaks early, smart irrigation systems can lead to significant cost savings in water bills and maintenance.
- Minimizes the environmental impact of irrigation by aligning water application with actual needs.
- Supports, green initiatives and compliance with water conservation regulations.
- Ensures consistent and appropriate moisture levels for turf and plants, contributing to healthier and more visually appealing golf course conditions.

Water Quality Management

- Establishing robust monitoring and quality control measures to ensure that recycled water meets health and environmental standards.
- Regulatory test the water sources used for irrigation. This includes testing for pH, salinity, nutrient levels, and potential contaminants.
- Understand the water quality standards and regulations set by local authorities.
- Water conservations play a vital role in achieving sustainable water management, especially in regions facing water scarcity and increasing water demand. These efforts contribute to a more resilient and efficient water supply system while minimizing the environmental impact of wastewater discharge.

ENERGY EFFICIENCY

Energy efficiency refers to the ratio of useful energy output to the total energy input in a system or process. It is a measure of how effectively an energy source is utilized to perform a specific task or provide a certain service. Improving energy efficiency is crucial for several reasons, including environmental sustainability, cost savings, and reducing dependence on finite energy resources.

Renewable Energy Sources

Transitioning to renewable energy sources, such as solar, is a fundamental aspect of enhancing energy efficiency. These sources produce energy with lower environmental impact and often have higher efficiency compared to traditional fossil fuels.

Energy efficient Buildings and Appliances

Design new buildings with energy-efficient features, such as improved insulation, energy-efficient windows, and energy-efficient appliances. Installation of solar and photovoltaic panels on all buildings, clubhouse, maintenance building, and other suitable areas to harness solar energy.



BIODIVERSITY PRESERVATION

Biodiversity preservation in golf courses is a crucial aspect of sustainable and responsible land management. Traditional golf course practices can have environmental impacts, but there are various strategies that can be implemented to promote biodiversity while still maintaining the quality and playability of the course.

Natural Habitat Protection

Designate and maintain natural areas within the Limassol Green golf course where native vegetation and wildlife can thrive. These areas can serve as wildlife corridors, allowing animals to move freely across the course. Install bird boxes and other structures to enhance wildlife habitat on the golf course. This can attract beneficial species that contribute to pest control and overall ecosystem health.

Turfgrass and Native Plant Landscaping

Limassol Greens will plant Bermuda Tahoma variety on fairways, tees and roughs. Bermuda grass is a type of grass specifically developed for use on Golf courses. This variety of grass forms a dense turf and has a fine texture, providing a smooth playing surface that enhances ball roll and overall playability. It can

withstand heavy use and traffic including cart traffic and foot traffic from players. It is known for its drought and heat tolerance, which is beneficial for maintaining quality playing surfaces during the summer months. It has good resistance to many common turf diseases and pests, reducing the need for chemical treatments. The specific variety generally requires less maintenance compared to other grass species commonly used on golf courses.

Limassol Greens incorporate native plants into the landscape design. Native vegetation provides habitat for local wildlife and is adapted to the local climate, requiring less water and maintenance. Cyprus has a very rich variety of indigenous plants which can be used to form attractive landscaped areas. Xerophytic plants with low water needs, and maintenance cost were selected, to promote local landscape and create a harmonious integration with the natural landscape.

AQUATIC BIOLOGY AND MANAGEMENT OF LAKES

Managing lakes on golf courses involves understanding aquatic biology and implementing effective strategies to maintain water quality, aesthetics, and ecological balance. Here are some key considerations for aquatic biology and management of golf course lakes:

Aeration of Lakes: Install aeration systems to enhance oxygen levels in the lake, which supports fish and other aquatic life. Aeration can also help prevent the stratification of water, improving overall water quality.

Algae Control: Implement measures to control excessive algae growth, such as nutrient management and the use of algaecides.

Water Quality Monitoring: Regularly test and monitor water quality parameters such as pH, dissolved oxygen, nutrient levels (nitrogen and phosphorus), and turbidity.

Fish population management: Maintain a balanced fish population to control unwanted species and promote a healthy ecosystem.

Aquatic plant management: Identify and monitor aquatic plants in the lake. Some plants may be beneficial for water quality.

Shoreline Stabilization: Prevent soil erosion by stabilizing the lake's shoreline with vegetation or other erosion control measures.



INTEGRATED MOSQUITO MANAGEMENT

Integrated Mosquito Management (IMM) in golf resorts involves a comprehensive approach to controlling mosquito populations while minimizing environmental impact. Mosquitoes can be a nuisance and a potential health risk due to the diseases they may transmit. Here are some strategies for an integrated approach to mosquito management in Limassol Greens:

Site Assessment and monitoring. Conduct regular surveys to identify mosquito breeding sites, such as stagnant water bodies, ponds, or areas with poor drainage. Monitor mosquito populations using CO2 magnet traps and surveillance techniques to assess the effectiveness of control measures.

Habitat modification. Eliminate or modify mosquito breeding sites by improving drainage, filling in low-lying areas, to disrupt stagnant water. Maintain golf course irrigation systems to prevent the creation of standing water.

Biological Control. Introduce natural predators of mosquitoes, such as certain species of fish (e.g., aphanious), dragonfly larvae, to control mosquito larvae. Use biological larvicides containing bacteria like *Bacillus thuringiensis israelensis* (BTI), which specifically target mosquito larvae.

Chemical Control. Use larvicides or adulticides only when necessary and in accordance with local regulations.

Golf Lakes Management. Proper aeration and circulation of lakes can help improve water quality and make the environment less favourable for mosquito breeding. Introduce mosquito-eating fish like aphanious (mosquito fish) into the lakes. These fish feed on mosquito larvae and help control mosquito populations. Implement larvicides that target mosquito larvae. These can include bacterial larvicides like *Bacillus thuringiensis israelensis* (BTI) or insect growth regulators. Install CO2 mosquito traps around the golf course, especially near water bodies.

Cultural Practices. Encourage practices that discourage mosquito breeding, such as routine maintenance of vegetation, ensure that golf course facilities are well-maintained to prevent the accumulation of debris and other items that can collect water and become breeding grounds for mosquitoes.

Community Engagement. Collaborate with local health departments, environmental agencies, and communities to raise awareness about mosquito-borne diseases and the importance of mosquito control. Implement community-wide efforts to manage mosquito habitats and reduce breeding sites.

Golf Course Management

INTEGRATED PEST MANAGEMENT

Integrated Pest Management (IPM), is a holistic approach to managing pests, including weeds, insects, and diseases in a sustainable and environmentally responsible manner. In Limassol Greens where maintaining pristine turf and landscaping is crucial, IPM plays a vital role in minimizing the use of synthetic pesticides. Here are some key components of integrated pest management in Limassol Greens Golf course.

- Regular monitoring of pest populations, disease outbreaks and weed infestations with various techniques such as visual inspections, traps and scouting to identify problems accurately.
- Cultural practises and mechanical control like proper irrigation, mowing, aeration, pruning, and fertilization help maintain healthy turfgrass and plants, which can resist pests and disease more effectively.
- Biological control by encouraging natural predators and parasites can be an effective strategy. Use of biological control agents, also known as biopesticides. These substances derived from natural materials such as animals, plants, bacteria, and certain minerals.
- Chemical control by using synthetic pesticides is used only when necessary and as a last resort. This practice is an integral part of golf course maintenance, as it helps to ensure that the playing surfaces are healthy, attractive, and playable for golfers. When pesticides, herbicides, fungicides, and soil amendments are applied, they are selected in accordance with local regulations and best management practices to minimize environmental impact and ensure the safety of golfers, course staff and nearby communities.

By incorporating these principles into management practices Limassol Greens minimizing environmental impacts and promoting long-term sustainability.

NUTRIENTS MANAGEMENT

- Managing nutrients on Golf courses is crucial for maintaining turf health, promoting optimal growth, and minimizing environmental impacts such as runoff and pollution. Here are some key strategies for effective nutrients management on Limassol Greens Golf course.
- Soil testing helps determine the nutrient levels present in the soil. This information guides decisions on fertilization schedules and the types of fertilizers to use.
- Fertilization program. Develop a targeted fertilization program based on soil test results and the specific needs of different areas of the golf course. Use slow-release fertilizers to provide nutrients gradually and minimize the risk of leaching.
- Fertilizer selection. Choose fertilizers that contains the necessary nutrients in the right proportions. Use of products with controlled-release formulations to reduce nutrients loss through leaching and volatilization.
- Timing of application based on turf growth patterns and environmental conditions. Avoid fertilizing during periods of heavy rainfall or when the turf is dormant.
- Grass clipping management. Leave grass clippings on the turf to decompose and recycle the nutrients back into the soil.
- Calibration of fertilizer applications equipment regularly to ensure accurate and uniform distribution of nutrients across the Golf course.
- Monitor Environmental impacts of nutrient runoff and its potential impact on water quality of groundwater and in nearby water bodies.

ORGANIC FERTILIZER USE

Organic fertilizers are typically made from natural materials such as compost, manure, or plant-based materials. They contain fewer synthetic chemicals and are less likely to leach into groundwater or runoff into nearby water bodies, reducing the risk of pollution. Organic fertilizers can improve soil structure and fertility over time. This can promote healthier turfgrass growth and root-development, leading to better water retention and nutrient uptake.

SOIL SUSTAINABILITY

Understanding the soil composition of the Golf course site is essential for managing stability. Erosion can occur to water runoff, wind, or foot traffic. Implementing erosion control measures such as retaining walls, grassed waterways, vegetative buffers, and proper drainage systems can help prevent soil erosion and maintain stability. Compaction can lead to decreased soil porosity and increased runoff. Practices such as aeration, verticutting, and topdressing help alleviate soil compaction and improve water infiltration. Regular maintenance activities on Golf courses, such as bunker raking, cart traffic management, and equipment operation, can impact soil stability.



Waste Management

An effective waste management requires collaboration among government agencies, business, communities, and individuals to minimize waste generation, maximize recycling and reuse, and ensure the right handling and disposal of waste materials in a manner that protects human health and environment.

RECYCLING PROGRAMS

- The project shall establish recycling programs with waste collection points for different type of waste, including paper, plastic, glass, metal and hazardous materials like batteries and chemicals. Clearly labeled bins or containers for each type of waste shall be provided to facilitate easy segregation by golfers, residents, staff, and visitors.
- On-site shall be established composting facilities to process organic waste generated from golf and landscape maintenance and food waste from Clubhouse restaurants and commercial area and produce nutrient-rich compost or use in landscaping and turf management.

WASTE REDUCTION STRATEGIES

- Implementing waste reduction strategies in Limassol Greens, is essential for minimizing environmental impact and promoting sustainability. Some effective strategies are encouraging the use of reusable items among golfers, staff, and visitors. Adopt environmentally responsible purchasing policies that prioritize the procurement of eco-friendly products, materials, and equipment recycled content. Establish comprehensive recycling programs and ensure proper disposal.



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