

Standard **Blue Leaf**



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1. Introduction

The commitment to sustainability in the generation, renovation and management of all types of facilities has become a trend from which no sector is exempt, as is the case in the tourism sector. For some years now, many owners and managers of holiday resorts have been trying to align their facilities with the sustainability standards applicable in the fields of architecture, operations or governance, as well as obtaining one of the various existing certifications in the field for greater differentiation of their tourism product and increase of their value proposition.

In this sense, the industry is demanding specific solutions to implement greater sustainability and efficiency in terms of outdoor spaces of holiday resorts, since they are the facilities that have a much more intensive use during periods of high seasonality and generate a greater negative impact -water, acoustic, light...-, in the municipalities where they are located. Mature holiday coastal destinations.

Sustainability in outdoor spaces, swimming pools and their hydraulic equipment involves designing, building, managing and maintaining these areas in a way that minimises environmental impact, promotes efficiency and guarantees long-term durability.

This practice considers environmental, social and economic aspects at all stages, from planning and design to operation and maintenance.

From an environmental perspective, sustainability in this standard is mainly applied in the use of design practices that reduce the consumption of natural resources, such as water and energy. In addition, rainwater harvesting and reuse systems are proposed, as well as water-efficient

technologies, such as advanced filtration and recirculation systems. Sustainable and low environmental impact materials are also considered in the construction and maintenance of these areas.

In terms of social aspects, sustainability relates to the well-being and safety of the people who use these spaces. Accessibility for people with disabilities is ensured, safe and clean areas are provided, and appropriate safety practices are promoted.

In terms of economic aspects, sustainability involves considering long-term aspects and allowing the viability of the business in balance with zero impact of the activity on the environment and stakeholders. Energy efficiency and savings in water consumption are taken into account, and whether proper maintenance is carried out to extend its useful life. Initial investment in sustainable technologies can lead to significant savings in long-term operating costs.

2. The Fun Lab

The Fun Lab (TFL Consultoría y Proyectos de Ocio S.L.) is the engineering firm behind the development of this standard. We have a team of qualified professionals, with extensive experience in the sector of swimming pools, recreational areas and hydraulic and environmental projects, mainly for leading companies in the tourism sector.

At the same time, The Fun Lab is an independent inspection entity accredited by the ISO/IEC 17020 standard by ENAC (National Accreditation Entity), for the inspection and certification of aquatic leisure areas following European and American regulations.



In addition, the company is part of the Technical Body CTN 147/SC 2/GT 1 work team, belonging to the Spanish Association for Standardization (UNE), CEN/TC 136/WG, the European Committee for Standardization (CEN) and the ASTM F24 Committee, all of which are responsible for reviewing, updating and modernizing the UNE, EN and ASTM standards focused on swimming pool and aquatic leisure areas.

For all these reasons, we have the mission as an organisation to help our clients generate and promote safer, more sustainable and innovative leisure spaces.

3. Blue Leaf Standard

In a generalized way, at an international level, hotel companies with holiday assets currently manage and measure their level of integration of sustainability policies taking as a reference various certification and sustainable management systems of tourism companies that provide tools for the evaluation, management and improvement of the global operations of an organization in environmental matters.

Meanwhile, international sustainable architecture standards provide a guide and indicators to certify good environmental practices in the design and construction of sustainable buildings and facilities.

However, the problem that arises in all these cases is that either little attention is paid to what is related to the outdoor common spaces of these complexes, or the standards are very generic and do not allow an easy tangibilization in specific actions and guidelines for this type of spaces.

As a result of this context, the **Blue Leaf – Leverage for Efficiency in Aquatic Facilities standard** was born, a *framework* that aims to develop the first planning and management model that brings together a list of good sustainable management guidelines in these outdoor spaces and, in addition, is a vehicle to accompany with actions and indicators those holiday resorts that wish to commit to the integration of sustainability in their day-to-day strategies and activity.

As the *core* of the project, a theoretical model has been created that has more than 70 indicators and/or specific actions for the management of outdoor areas and that are currently organized among the following thirteen pillars:



3.1. Objectives

The development of this standard aims to provide the holiday tourism sector with an operational guide of actions to incorporate sustainability and efficiency in the management of its outdoor facilities, reducing the consumption of natural resources, minimising the generation of waste and promoting environmentally friendly practices.

In addition, the *Blue Leaf Standard* specifically aims to:

- Reduce water consumption in outdoor areas and pools by implementing water-saving and reuse technologies, as well as adopting responsible use practices by staff and guests.
- Minimize energy consumption in outdoor areas and swimming pools, using efficient lighting, energy-efficient filtration equipment, as well as renewable energy sources when feasible.
- Promote responsible waste management by establishing waste separation and recycling programs in outdoor areas and pools, and educating staff and guests on the importance of reducing, reusing, and recycling.
- To promote the conservation of biodiversity and the protection of the natural environment, through the use of native species in the design of gardens and the adoption of sustainable gardening practices, avoiding the use of chemicals harmful to the environment.
- Improve accessibility and comprehensive safety in outdoor areas and swimming pools, ensuring that they are adequately adapted for people with reduced mobility and complying with established safety standards.
- Establish monitoring and measurement indicators to evaluate the environmental performance of outdoor spaces, swimming pools and their equipment, and carry out regular monitoring to identify areas for improvement and take corrective actions.

3.2. Scope

The *Blue Leaf Standard* has been developed with the purpose of being adaptable to any holiday resort or sports centre that has outdoor areas for swimming pools, leisure and their surroundings and that wishes to evaluate, measure and improve its performance in terms of sustainability, among which we can find:

- Hotels & Resorts
- Campsites
- Water and/or theme parks
- Summer swimming pools in leisure and sports centres

The model is suitable to be implemented in any complex that wishes to carry out ad-hoc action, a new construction or a complex in the process of renovation of its facilities.

3.3. Relationship with the SDGs

The Sustainable Development Goals (SDGs) are a United Nations initiative that seeks to address the most pressing global challenges, including environmental, social and economic sustainability. When considering the sustainability indicators in outdoor spaces of holiday resorts, it is possible to relate them to several relevant SDGs mentioned below:

SDG 6: Clean water and sanitation: Work can be done on efficient water management, the implementation of recycling and reuse systems for swimming pool water, as well as the reduction of water consumption in the irrigation of outdoor spaces.

SDG 7: Affordable and clean energy: The promotion of sustainable energy technologies, such as efficient lighting and renewable energies such as solar contributes to this goal.

SDG 11: Sustainable cities and communities: When designing and managing a hotel's outdoor spaces, swimming pools and water equipment, accessibility, safety, inclusion and quality of life for users can be prioritised.

SDG 13: Climate action: The implementation of climate change mitigation and adaptation measures, such as reducing greenhouse gas emissions and sustainable water management, can contribute to this goal.



3.4. Structure

The *Blue Leaf Standard* is divided into three main components. First, we have the Pillars, which are the fundamental dimension or thematic area that is considered crucial to achieve sustainable development, these being the ones discussed above.

Secondly, we have the Criteria, which are a standard or set of requirements established to evaluate sustainable performance in a certain area. The criteria can be specific to each pillar of sustainability.

Finally, we have the Indicators, which are a qualitative parameter used to evaluate performance or progress in relation to a specific criterion. Indicators are tools for measuring and monitoring the impact of actions or practices in terms of sustainability.

3.5. Evaluation Model

In the first instance, any resort that wishes to submit to the Blue Leaf Standard will have to do so honestly and impartially in each of the points, in order to be able to make a correct evaluation of each of the main Pillars. To ensure good practices in sustainability issues, all indicators set out in the Standard must be answered, as long as there is applicability in the complex.

When evaluating compliance with each indicator of the Standard, the following conclusions can be reached:

3.5.1. Yes (Complies)

This conclusion indicates that a specific indicator or requirement has been fully satisfied and has been fully met. It means that the necessary actions have been implemented and the standards set out in the sustainability standard have been reached. Compliance reflects that the desired objective in terms of sustainability for that particular indicator has been achieved.

In some cases, evidence of certain relevant points of the Standard may be requested, in order to corroborate the information provided in the questionnaire and ensure an accurate assessment of the facilities.

3.5.2. No (Not Compliant)

This conclusion is reached when a specific indicator or requirement has not been satisfied or has not been met in its entirety. It means that the necessary actions have not been properly implemented or the standards required in the sustainability standard have not been reached. Non-compliance indicates that there are deficiencies or areas for improvement that need to be addressed in order to meet the established requirement.

3.5.3. N/A (Not Applicable)

The "Not applicable" option will be available for certain indicators, allowing them to be excluded from the evaluation when the tourist complex does not have the related service, area or feature. This ensures that the final score is not unfairly affected, facilitating a more accurate assessment aligned with the reality of the complex.

3.5.4. Single selection

This conclusion applies when an indicator or question offers several options, from which only the one that corresponds to the situation evaluated should be selected. This allows you to accurately capture specific characteristics, such as the type of filter media used in a pool or the system implemented in a facility.

3.6. Pillar Scoring

The *Blue Leaf Standard* assesses a total of 73 indicators distributed among different pillars, each with a maximum value of 1 point. The total score reflects the number of indicators that have been satisfactorily met.

The final score is calculated as a percentage, which is obtained by dividing the number of indicators met by the total number of indicators available and multiplying by 100. This percentage reflects the degree of overall compliance of the tourist complex.

The breakdown of the number of indicators for each pillar is as follows:

Pillar	Number of indicators
Engine room	10
Venues and equipment	7
Leisure facilities	3
Consumption control	3
Renewable energies	4
Resource optimization	3
Accessibility	4
Comprehensive pool safety	9
Noise pollution	5
Waste and circular economy	6
Irrigation and green areas	8
Technology	2
Pools	9

Each pillar has a set number of indicators, reflecting the importance of each area within the sustainability framework. The calculation of the final percentage allows the level of compliance to be assessed objectively, without the need to weigh the different pillars, since each indicator has the same relative value in the overall assessment. The table of indicators by pillar provides a detailed view of the elements assessed in each area, and the final score clearly reflects the degree of sustainability achieved.

3.7. Sustainability Report & Certificate

Once the organization finishes completing the indicator questionnaire and it is sent, the work team will have 72 hours to submit a Sustainability Report where a summary of each of the Pillars will be found with its respective assessment, as well as a comparison with other tourist complexes, in order to evaluate the relevant actions to be carried out in the short or medium term. It is worth mentioning that, within this period, the accrediting entity may request evidence in some of the indicators as mentioned above, which must be submitted as soon as possible.

The aforementioned report will also include some recommendations with the aim of providing guidance and advice to resorts to improve their sustainable performance. These recommendations are based on recognised best practices and approaches in the field of sustainability and are designed to help resorts identify areas for improvement and take concrete actions.

One way in which resorts can demonstrate their commitment to sustainability is through obtaining certificates based on the *Blue Leaf Standard*. These certificates validate compliance with certain internally established sustainable criteria and practices.

By obtaining a certificate, resorts can demonstrate to their guests, collaborators and other stakeholders their commitment to environmental protection and sustainable development. These certificates can also be used as marketing tools to attract an increasingly conscious and demanding audience in terms of sustainability.

Once the overall score has been obtained, the minimum requirements have been met and the report has been made, a certificate can be obtained based on the total score obtained, only if it exceeds 50% and taking into account the minimum requirements mentioned above, and which varies from the C Certificate, when meeting the minimum

necessary to demonstrate the commitment to sustainability, and then going through Certificate B, Certificate A and Certificate A+, which is awarded to establishments with an exceptional commitment to environmental sustainability.

3.7.1. C Certificate

This certificate is awarded to resorts that have achieved a minimum score on the sustainability standard. It is an initial recognition that demonstrates the commitment to sustainability and compliance with the minimum requirements established. Resorts with this certificate may be in the process of implementing additional measures to improve their sustainable performance.

3.7.2. Certificate B

This certificate is awarded to resorts that have achieved a significant score on the sustainability standard. It demonstrates a stronger commitment to sustainable practices and improved performance in key areas such as waste management, energy savings, water conservation, and accessibility. Resorts with this certificate are moving towards higher levels of sustainability.

3.7.3. Certificate A

This certificate is awarded to resorts that have achieved an outstanding score in the sustainability standard. It demonstrates outstanding sustainable performance in various areas, such as reducing carbon emissions, protecting biodiversity, and implementing innovative practices. Resorts with this certificate are sustainability leaders in their sector.

3.7.4. A+ Certificate

This certificate is awarded to resorts that have achieved an exceptional score on the sustainability standard. It is a recognition of outstanding achievements and continued commitment to sustainability in all

operational areas. Resorts with this certificate are role models in terms of sustainable practices and have a significant positive impact on the environment and the local community.

A summary table is presented with the minimum overall scores required to obtain each of the aforementioned certificates.

Blue Leaf Certified	Overall Score (%)
A+ Certificate	≥85
Certificate A	≥70
Certificate B	≥60
C Certificate	≥50
Non-certifiable	<50

4. Blue Leaf Bioscore Certification

The Blue Leaf Bioscore Certificate has been created by Bioscore, a technology company that has a digital platform dedicated to sustainability certification for tourism companies, which aims to become a vehicle to accompany those holiday resorts that wish to commit to the integration of sustainability into their strategies and day-to-day activity with actions and indicators.

As explained in points 3.6 and 3.7, and according to the final score obtained by the facility, the organization will be awarded one of the following certificates (ordered from highest to lowest degree of compliance):



Note: The Blue Leaf Bioscore Certificate, in its various versions, is owned by The Fun Lab and Bioscore and is protected by the corresponding industrial and intellectual property rights, and may not be used for any purpose other than that described in this document.

5. Blue Leaf Standard Indicators

1	ENGINE ROOMS
1.1	Equipment
1.1.1	What type of engine room do you have?
	<ul style="list-style-type: none"> • Aerial
	Definition <i>Engine room located above ground level, usually in an enclosed but elevated space, with easy access for maintenance.</i>
	<ul style="list-style-type: none"> • Buried
	Definition <i>Engine room partially below ground level, combining accessibility features of the overhead with the advantages of the underground ones.</i>
	<ul style="list-style-type: none"> • Buried
1.1.2	Does it have a natural or mechanical ventilation system?
	<ul style="list-style-type: none"> • Natural
	Definition <i>Ventilation that is carried out through openings or ducts that allow the flow of air passively, using natural currents to renew the air inside the machine room.</i>
	<ul style="list-style-type: none"> • Mechanic
	Definition <i>Ventilation that uses equipment such as fans or extractors to force air circulation and renewal in the engine room.</i>
1.1.3	Do the facilities take advantage of natural lighting as a complement to artificial lighting?
	Definition <i>This refers to whether the hydraulic machine room of a facility or building has natural light from the outside. Natural lighting refers to sunlight entering a space through windows, skylights, or other openings.</i>
1.1.4	Do the facilities have LED lighting?
	Definition <i>It refers to whether the facilities in question are equipped with lighting systems that use LED (light-emitting diode) technology. LED lighting is an efficient form of lighting that uses less energy and has a longer lifespan compared to conventional light sources, such as incandescent or fluorescent bulbs.</i>

1.1.5	Do the pumps have variable frequency drives?	
<p>Definition <i>A variable frequency drive is an electronic device used to control the speed and power of pumps, adjusting the frequency and voltage supplied to the pump motor. This allows the pump's operating speed to be regulated and adapted to the specific needs of the moment. This mainly helps to have better system efficiency, energy savings and less wear and tear on the pump.</i></p>		
1.1.6	What type of water disinfection is used in swimming pools?	
	<ul style="list-style-type: none"> • pH - Chlorine 	
	<p>Definition <i>Treating a pool with pH and chlorine refers to the process of adjusting and maintaining proper pH and chlorine levels in the pool water to ensure effective disinfection and a safe environment for bathers.</i></p>	
	<ul style="list-style-type: none"> • Saline Chlorination 	
	<p>Definition <i>Treating a pool with salt chlorination is an alternative method to traditional chlorine in which a chlorine generator is used to produce chlorine from the salt dissolved in the pool water.</i></p>	
	<ul style="list-style-type: none"> • Ozone 	
<p>Definition <i>Ozone pool treatment is a disinfection method that uses ozone as a disinfectant in pool water. Ozone is a gas composed of three oxygen atoms that is generated from oxygen in the air by an ozone generator. Ozone disinfects pool water by removing bacteria, viruses, algae, and other contaminants present in the water. Unlike chlorine, ozone leaves no chemical residue and does not produce unpleasant odors.</i></p>		
<ul style="list-style-type: none"> • Other 		
<p>Definition <i>In addition to pool treatment with pH-chlorine, ozone and salt chlorination, there are other methods and technologies of disinfection and water treatment used in swimming pools such as UV treatment, chlorine dioxide treatment, bromine treatment and others.</i></p>		
1.1.7	Do you have an automatic or semi-automatic dosing system for chemical products?	
<p>Definition <i>An automatic or semi-automatic dosing system administers chemicals such as chlorine or pH correctors for water treatment. Automatic systems operate autonomously, while semi-automatic systems require partial operator intervention. Both maintain optimal levels precisely and reduce the need for manual dosing.</i></p>		
1.1.8	What types of filter media are used?	
	<ul style="list-style-type: none"> • AFM 	
	<p>Definition <i>The AFM (Active Filter Media) filter is a type of filter media used in swimming pool filtration systems. AFM is a state-of-the-art filter material that is used as an alternative to traditional media, such as sand or glass and AFM is made from recycled and specially processed glass. Unlike conventional sand or glass, AFM has a modified surface structure that gives it superior filtration and particle retention properties.</i></p>	

	<ul style="list-style-type: none"> • Glass <p>Definition Glass pool filter is a type of filter media used in swimming pool water filtration systems. The glass filter is a more modern and efficient alternative to sand, as it offers several advantages. The glass used in the filter is an inert, non-porous, high-purity material that provides more effective filtration and greater water clarity.</p>
	<ul style="list-style-type: none"> • Flint Sand <p>Definition Flint sand filter is a type of filter media commonly used in swimming pool filtration systems. It consists of a layer of flint sand, which is a type of sand composed mainly of silica, placed inside the pool filter.</p>
	<ul style="list-style-type: none"> • Other <p>Definition It refers to any other type of filter media other than those mentioned above, such as zeolite filters, cartridge or advanced technology that fulfill specific filtration functions according to the needs of the system.</p>
1.1.9	Does the facility have a separate room for chemicals?
	Definition A separate chemical room is a separate, enclosed space designed specifically for the safe storage of chemicals. This room must have adequate ventilation that allows constant air circulation and prevents the accumulation of harmful chemical gases or vapors, ensuring a safe environment.
1.1.10	Do the chemicals have separate cuvettes?
	Definition It refers to whether the chemicals used in the treatment of pool water are stored in separate and independent containers or buckets. The use of separate chemical cuvettes is a recommended safety measure in environments where chemicals are handled. Each bucket is intended for a specific chemical and is used to safely store, transport, and handle that particular product.

2	VENUES AND EQUIPMENT
2.1	Changing rooms and toilets
2.1.1	Do all faucets, showers, and water devices (changing rooms, toilets, and showers) have water timers?
	Definition It refers to the presence of timing systems in faucets, showers and water devices to limit the time of water flow automatically. These systems shut off the supply after a pre-established period, contributing to the saving and efficient use of water.
2.1.2	Do all taps, showers and water devices (changing rooms, toilets and showers) have perlizers or flow reducers to optimize water use?
	Definition It refers to the installation of perlizers or flow reducers in taps, showers and other water devices. The perlizers mix air with the water to reduce consumption while maintaining the sensation of flow, while the reducers limit the flow of water without affecting functionality, achieving a more efficient use.

2.1.3	Do the toilets have dual flush systems or similar water-saving technologies?
Definition <i>It refers to the incorporation of dual flush mechanisms in toilets. This system allows you to choose between two volumes of water, one reduced for liquid waste and another larger for solid waste, optimizing water consumption for each use.</i>	
2.1.4	Does the lighting in the changing rooms and toilets use LED technology to minimise energy consumption?
Definition <i>It refers to the use of LED lighting in changing rooms and toilets. LED (Light Emitting Diode) technology is highly energy-efficient and has increased durability, reducing electricity consumption and maintenance costs.</i>	
2.1.5	Have motion sensors been installed to control lighting in low-use areas such as changing rooms or toilets?
Definition <i>It refers to the implementation of motion sensors for the automatic switching on and off of lighting in low-use areas. These devices help reduce energy consumption by ensuring that the lights are only on when needed.</i>	
2.1.6	Do the changing rooms and toilets have natural or mechanical ventilation systems to maintain good air quality?
Definition <i>It refers to the existence of ventilation systems in changing rooms and toilets. Ventilation can be natural (opening windows or grilles) or mechanical (extractors or fans) and is essential to ensure adequate air quality, eliminating humidity and bad odours.</i>	
2.1.7	Do the areas have educational signage to promote water and energy savings?
Definition <i>It refers to the installation of posters or signage in changing rooms and toilets that encourage responsible practices in the use of water and energy, educating users about their importance and promoting sustainable behaviour.</i>	

3	LEISURE FACILITIES
3.1	Water games
3.1.1	Do water games have an activator to turn on the effect of the games?
Definition <i>It has to do with whether water games, such as fountains or interactive water jets, have a device or mechanism that allows the effect of the games to be activated. In water games, the trigger is a key component used to turn on or control the different effects of games. This activator can take different forms depending on the design and technology used in each particular water game. Some common examples of triggers include: Buttons or proximity sensors or switches.</i>	
3.1.2	Do water games have a timer for the effect of the games?
Definition	

It corresponds to whether the water games are equipped with a timing device or mechanism that controls the duration or time in which the effect of the games is activated and maintained. The timer in water games is a component used to program and regulate the duration of effects, such as water jets, lights, or other interactive elements present in the game. This timer can be set to turn the effects on and off automatically at predetermined intervals or according to a specific schedule.

3.1.3 Do water games have an inspection certificate in accordance with UNE regulations?

Definition

It refers to whether the water games have a certificate issued by an accredited entity that guarantees compliance with the applicable UNE regulations. This certificate verifies that the water games have been inspected and comply with the safety, design and operation standards required by current regulations.

4 CONSUMPTION CONTROL

4.1 Flow meters

4.1.1 Is the installation a sectorization of the hydraulic networks with independent water meters?

Definition

It refers to whether the outdoor areas of the hotel have divided the hydraulic network system into different sectors or zones, and whether each sector has independent water meters. The sectorization of hydraulic networks involves the subdivision of the water supply system into smaller areas or sections within the hotel's exterior facilities. Each sector is supplied independently and may have different water consumption needs. The presence of independent water meters in each sector allows water consumption to be monitored and controlled more accurately in each sector, which can help manage and optimize the use of water resources.

4.2 Detectors

4.2.1 Is there a leak alarm system?

Definition

A leak alarm system is a set of devices and sensors designed to constantly monitor pipes, ducts, or equipment for potential leaks. These devices are connected to a centralized detection system that, upon detecting a leak, emits an alarm signal to alert the personnel responsible for the safety and maintenance of the site.

4.2.2 Do you have an alarm system in place at peak consumption?

Definition

A peak consumption alarm system is a set of devices and sensors designed to monitor water or energy consumption in real time. These devices are connected to a centralised system that analyses the data and, when a predefined threshold is exceeded, triggers an alarm to alert the staff in charge of managing and controlling consumption.

5 RENEWABLE ENERGIES

5.1 Solar Energy Support

5.1.1 Is the operation of the equipment in the engine rooms supported by solar energy?

Definition

<i>It corresponds to whether solar energy is used as a source of power support for the equipment and devices found in the machine rooms. In the context of engine rooms, this involves using systems or devices that capture solar energy and use it to power the equipment present in those rooms.</i>	
5.1.3	Does the engine room lighting have a solar energy support?
Definition <i>It refers to whether the engine room uses solar energy as a source of power support for the lighting of that area. In the context of solar energy, it is possible to use this renewable energy source to provide lighting in different spaces, including the machine room.</i>	
5.1.4	Does the lighting in outdoor spaces have a solar energy support?
Definition <i>It refers to whether the lighting of outdoor areas, such as gardens, patios, parking lots, or other outdoor spaces, is done using solar energy as a source of power support. In the context of solar energy, it is possible to use this renewable energy source to provide lighting in outdoor spaces.</i>	
5.1.4	Is surplus energy from renewable sources stored in batteries for later use?
Definition <i>It refers to whether energy generated by renewable sources, such as solar panels, which is not used immediately, is stored in battery systems for later use. This storage allows the accumulated energy to be used at times when generation is not possible, such as at night or on cloudy days, thus optimising the use of renewable sources.</i>	

6	RESOURCE OPTIMIZATION
6.1	Reuse of water resources
6.1.1	Is rainwater reused in different spaces of the outdoor facilities?
Definition <i>The reuse of rainwater involves collecting and storing the water that falls during rainfall to later use it in different activities, such as watering gardens, cleaning outdoor areas or recharging fountains and ponds.</i>	
6.1.2	Do the outdoor facilities have a greywater reuse system?
Definition <i>Greywater refers to water generated by domestic or commercial activities that is not contaminated with sewage. These can include water from sinks, showers, washing machines, and other similar sources. Greywater reuse involves collecting and treating this type of water for use in different non-potable applications, such as watering gardens, washing outdoor areas, or recharging fountains and ponds.</i>	
6.1.3	Is water from pool filter washes reused?
Definition <i>During regular pool maintenance, it is common to wash the filters to remove impurities and accumulated debris. Instead of discarding the water used in this process, a reuse system can be implemented that allows that water to be collected and treated for use again in the pool or in other non-potable applications.</i>	

7	ACCESSIBILITY
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7.1	Access to facilities
7.1.1	Do the facilities have accessibility ramps to the outdoor spaces?
<i>Definition</i> Accessibility ramps are architectural elements designed to replace or complement stairs, allowing people with wheelchairs, walkers, or other mobility limitations to enter and exit outdoor spaces safely and unimpeded. These ramps are built with a suitable slope, non-slip surfaces, and support railings to ensure the comfort and safety of users.	
7.1.2	Do the accesses to the facilities have automatic doors or doors that are easy to open for users with disabilities?
<i>Definition</i> It refers to the presence of automatic doors or easy-to-open mechanisms designed to facilitate access to the facilities for people with disabilities. These systems must guarantee comfortable and safe access, promoting inclusion and complying with accessibility regulations.	
7.1.3	Is there an enabled access or hydraulic lift equipment to access the pool basin?
<i>Definition</i> It refers to the existence of specific solutions so that people with reduced mobility can access the pool basin. This includes ramps with adequate slope or hydraulic lifting equipment that complies with accessibility and safety regulations.	
7.1.4	Does the flooring in outdoor spaces have a Class III certificate for non-slip?
<i>Definition</i> Class III slip is a classification used to evaluate a surface's ability to provide traction and reduce the risk of slips and falls. If the flooring in outdoor spaces complies with Class III anti-slip, it means that it has been evaluated and certified as a surface that provides an adequate level of slip resistance, even in wet or humid conditions. This is especially important in outdoor areas, such as patios, decks, paths, and pool areas, where there may be a higher risk of slipping due to the presence of water, rain, or other wet conditions.	

8	COMPREHENSIVE POOL SAFETY
8.1	Security and surveillance
8.1.1	Are there clear signs indicating the rules for the use of the pool, schedules, use or not of a lifeguard and other important information for the user?
<i>Definition</i> It refers to the presence of visible informative signs indicating the rules of use of the pool, the hours of operation, the presence or absence of a lifeguard and any other relevant information for users. These signs must be clear, understandable and located in strategic places, ensuring that all users are informed of safety rules and procedures.	
8.1.2	Are basic water parameters such as pH, residual disinfectant and temperature clearly displayed to the user on information posters in each pool?
<i>Definition</i> This refers to the availability of visible signs or information panels in each pool that show key water parameters, such as pH level, residual disinfectant, and temperature. This allows users to know the state of the water, guaranteeing its safety and complying with current regulations.	
8.1.3	Do you have visible signage on water depth at different points around the pools?

Definition	
<i>It refers to the presence of clearly visible signs around pools that indicate depths at different points. These signs are essential to warn users about deeper or shallow areas, helping to prevent accidents.</i>	
8.1.4	Is there basic rescue equipment (poles, buoys, first aid kit) available and visible near the pool?
Definition	
<i>It refers to the availability of basic rescue equipment located in a visible and accessible place near the pool. This equipment includes poles, life buoys and a first aid kit, essential to respond to emergencies immediately.</i>	
8.1.5	Are there clear protocols for evacuation in case of emergency?
Definition	
<i>This involves determining whether the facility has procedures in place to evacuate users in a safe and orderly manner in the event of an emergency. Protocols should be clearly defined and communicated, including specific instructions for different types of emergencies, such as fires or accidents.</i>	
8.1.6	Is there an alarm or emergency warning system that is audible and visible to all users?
Definition	
<i>It refers to the existence of an alarm system that combines audible and visual signals to alert users in the event of an emergency. This system must be effective and accessible, ensuring that all people, including those with hearing or visual impairments, receive the alert.</i>	
8.1.7	Do you have operational safety protocols for first responders?
Definition	
<i>It refers to whether the facility has implemented specific rules and procedures that first responders must follow to ensure the safety of users. These protocols include preventive actions, emergency reactions, and measures to maintain a safe environment in the pool.</i>	
8.1.8	Is there surveillance/security of outdoor spaces?
Definition	
<i>It refers to whether the tourist complex in question has surveillance or security personnel in charge of supervising and guaranteeing security in the outdoor areas of the complex, such as gardens, outdoor recreational areas, parking lots, among others. Outdoor surveillance or security personnel have the responsibility of monitoring the environment, preventing suspicious or dangerous activity, responding to emergencies, and maintaining compliance with safety rules and regulations.</i>	
8.1.9	Do the pools have an inspection certificate in accordance with UNE regulations?
Definition	
<i>It refers to whether the pools have an inspection certificate issued in accordance with the applicable UNE regulations. This certificate guarantees that the pools comply with the safety, water quality and operating conditions standards established by these regulations.</i>	

9	NOISE POLLUTION
9.1	Noise prevention and mitigation
9.1.1	Are any soundproofing methods implemented in the machine rooms?

Definition	
<i>It corresponds to whether measures or techniques are used in the machine rooms that are located in the outdoor spaces to reduce or control the noise generated by the machines and equipment present in these areas. The main purpose of soundproofing is to mitigate the effects of noise on the environment, protect people working in engine rooms, and minimize the transmission of noise to other nearby areas.</i>	
9.1.2	Is there equipment in low-noise machine rooms?
Definition	
<i>In the context of hydraulic engine rooms, low-noise equipment refers to the presence of machinery, components and systems that have been specifically designed and manufactured to minimise noise emission. This equipment is designed to operate quieter compared to conventional equipment, which contributes to reducing noise levels in the engine room and the surrounding environment. This equipment can be low-noise motors and pumps or vibration isolation systems.</i>	
9.1.3	Is there a control of operating times in high-noise equipment?
Definition	
<i>The control of operating times in high-noise equipment refers to the adoption of measures to limit or regulate the hours or periods during which these equipment can operate and generate high noise levels. These measures can be implemented with the aim of minimizing noise disturbance for people in the environment and complying with local regulations and standards related to noise pollution.</i>	
9.1.4	Is the use of noisy machinery or tools limited?
Definition	
<i>The limitation of the use of noisy machinery or tools refers to the implementation of measures to control or reduce the acoustic impact generated by this equipment. These measures are usually aimed at minimizing noise nuisance or disturbance, protecting people's hearing health, and complying with regulations and standards related to noise pollution. This limitation can be carried out through strategies such as establishing restricted schedules or zoning the use of certain machinery with a high acoustic impact.</i>	
9.1.5	Are activities such as the use of machinery or different activities that generate noise during rest hours limited?
Definition	
<i>The limitation of noisy activities during rest hours refers to the adoption of measures to control or reduce the acoustic impact generated by such activities during times when a quieter environment is expected and conducive to people's rest and well-being.</i>	

10	WASTE AND CIRCULAR ECONOMY
10.1	Waste management and environmental impact
10.1.1	Is there a waste management manual that includes all materials?
Definition	
<i>A waste management manual that includes all materials refers to a document that provides guidelines, procedures and best practices for the proper management of all types of waste present in a specific location. This manual aims to facilitate the correct separation, storage, transport, treatment and final disposal of waste, ensuring its safe and environmentally friendly handling. The waste management manual that includes all materials can cover a wide range of waste, such as organic waste, solid waste, hazardous waste, construction and demolition waste, electronic waste, among others.</i>	
10.1.2	Are recycled materials used in the facilities?

Definition	
<i>The use of recycled materials in the facilities of the tourist complex refers to the incorporation of materials that have been transformed from previously used products or materials, instead of using virgin materials or materials of non-recycled origin. This practice aims to reduce the demand for natural resources, minimize waste generation and contribute to environmental sustainability. For example, in this practice we can find the use of bricks, blocks, tiles, beams, panels or insulators made from recycled materials such as glass, plastic, wood or metal or on the other hand, the use of furniture, accessories and decorations made from recycled materials such as recycled wood, recycled plastics, recycled textiles or recycled glass.</i>	
10.1.3	Are materials obtained from sustainable resources used in the facilities?
Definition	
<i>The use of materials obtained from sustainable resources in facilities refers to the choice of materials that are responsibly extracted, produced, or grown and that have a lower environmental impact compared to conventional materials. These materials are sourced from renewable sources, sustainably managed throughout their life cycle, and acquired through ethical and environmentally friendly practices. Examples of materials obtained from sustainable resources that can be used in the facilities are: certified wood, recycled materials, plant-based products (such as bamboo, cork or hemp) and others.</i>	
10.1.4	Are suppliers located nearby to reduce the environmental impact of transporting materials?
Definition	
<i>Locating nearby suppliers to reduce the environmental impact of transporting materials means finding and selecting suppliers that are located in the geographical proximity of the resort. This is done with the aim of minimizing the distances traveled during the transportation of materials, which in turn reduces greenhouse gas emissions and other environmental impacts associated with transportation. This also helps to streamline supply management and stimulate the local economy.</i>	
10.1.5	Have accessible recycling stations been implemented in all common areas?
Definition	
<i>The recycling stations accessible in all common areas refer to the installation of strategic and visible points for the collection of recyclable waste in the tourist complex. These stations must be located in high-traffic areas and be easily accessible to all users, encouraging the correct separation of waste and facilitating participation in the sustainable management of recyclable materials.</i>	
10.1.6	Is a composting program carried out with the organic waste generated in the facilities?
Definition	
<i>A composting program with organic waste involves the implementation of a system to transform the organic waste generated in the tourist complex, such as food scraps or vegetable waste, into organic fertilizer. This process reduces the amount of waste sent to landfills, contributing to sustainability by reusing the waste to improve the soil or perform other agricultural uses in or around the complex.</i>	

11	IRRIGATION AND GREEN AREAS
11.1	Equipment installed
11.1.1	Does the irrigation system have pressure limiters?
Definition	
<i>Pressure limiters are devices designed to control and regulate the water pressure in an irrigation system. These devices can be pressure regulating valves, pressure reducers, or automatic controllers that adjust and maintain water pressure in a predetermined range.</i>	

11.1.2	Does the irrigation system have diffusers?
Definition <i>Diffusers are components of the irrigation system that are used to distribute water in an even and controlled manner in the area to be irrigated. These devices are installed in sprinklers or irrigation emitters and are responsible for dispersing the water in the form of dew or fine droplets, allowing it to be distributed evenly over the irrigation surface. This system helps to distribute water evenly over the ground while generating water savings due to more precise application of water, avoiding over-irrigation.</i>	
11.1.3	Are there a separate water meter in each assigned irrigation area?
Definition <i>A separate water meter in each assigned irrigation zone refers to a metering device that is installed in the water supply network of each specific irrigation area. These meters allow you to record and control the consumption of water used exclusively for irrigation in that particular area. Having this zoning allows for greater control and management of the water resource, in addition to helping to detect leaks in the network and monitor water consumption.</i>	
11.1.4	Does the facility have rain sensors?
Definition <i>Rain sensors are devices designed to detect the presence of rain and automatically suspend irrigation when a certain level of precipitation is reached. These sensors are placed in a strategic location, usually in an open area exposed to the weather, and are designed to detect rain and send a signal to the irrigation system's controller to stop scheduled irrigation.</i>	
11.1.5	Is an automatic irrigation controller implemented?
Definition <i>An automatic watering controller, also known as a watering controller or timer, is an electronic device used to automatically schedule and control the on/off of the irrigation system. This device allows you to establish schedules, frequencies and durations of watering according to the needs of the green areas.</i>	
11.2	Vegetation
11.2.1	Are native plants used in vegetation?
Definition <i>Native plants are those that originate and adapt naturally to a certain ecosystem or geographical region. These plants have the advantage of being adapted to the climatic conditions, soil, and environmental factors specific to the area in which they naturally grow. By using native plants in the vegetation of a tourist complex, various benefits can be obtained: adaptability, biodiversity conservation, water saving, among others.</i>	
11.2.2	Have trees with low water needs been planted?
Definition <i>It involves determining whether trees that require less water for their growth and survival have been used in the resort. Trees with low water needs, also known as drought-tolerant trees or drought-resistant trees, are plant species that have the ability to adapt and grow under water-scarce conditions. These trees have evolved mechanisms to conserve water, such as small leaves or waxy covers, deep root systems, or the ability to store water in their tissues.</i>	
11.2.3	Are organic plant protection products used in vegetation?
Definition <i>Plant protection products are substances used to protect plants from pests, diseases, and weeds. Organic plant protection products are characterized by being of natural origin, biodegradable and less toxic to the environment and non-target organisms. These products are typically based on ingredients derived from plants, minerals, or beneficial organisms, and are designed to control pests and diseases more selectively and sustainably.</i>	

12	TECHNOLOGY
12.1	Control Software Implementation
12.1.1	Do you have software or a record to control energy consumption?
Definition <i>It refers to the availability of software or recording system aimed at monitoring, analyzing, and optimizing energy consumption in facilities.</i>	
12.1.2	Do you have hydraulic equipment control software?
Definition <i>It involves determining whether the resort uses a specialized computer system to monitor and manage the operation of hydraulic equipment, such as pumps, valves, filters, and other devices related to water and fluid systems.</i>	
13	SWIMMING POOL
13.1	Water Quality Control
13.1.1	Does each pool on the premises have a self-control procedure that includes water treatment, parameter control, maintenance, safety and good practices and others?
Definition <i>A self-monitoring procedure for each pool is a set of guidelines and procedures in place to ensure that water quality and safety are maintained at all times. This protocol includes proper water treatment, constant monitoring of physical and chemical parameters, preventive and corrective maintenance of equipment, safety practices, and the application of good operating practices, which guarantees an efficient and safe operation of the pool.</i>	
13.1.2	Are periodic analyses carried out and recorded that include all the physical-chemical and microbiological parameters of the water?
Definition <i>Conducting and recording regular analyses involves regular testing and measurement of the water to ensure that it meets quality standards. Physicochemical parameters include pH, alkalinity, residual chlorine, among others, while microbiological analyses evaluate the presence of bacteria, viruses and other microorganisms. These tests make it possible to detect any possible health risks and ensure that the pool water is in optimal condition.</i>	
13.1.3	Do the laboratories in charge of analysing the pool water have a quality assurance system and validated analysis methods?
Definition <i>A quality assurance system in laboratories involves the implementation of standardized and rigorous procedures to ensure that water test results are accurate, reliable, and consistent. Validated analysis methods ensure that the tests performed are scientifically recognized and efficient, ensuring the reliability of the results and compliance with health and safety regulations and standards.</i>	
13.1.4	Are there procedures in place to respond to health emergencies, such as biological contamination in pool pools?

Definition	
<i>A procedure for health emergencies is a set of procedures designed to quickly manage risky situations, such as biological contamination in swimming pools. This may include evacuating the pool, immediately treating the water, analyzing the source of contamination, and implementing corrective measures to ensure that the water is safe for use again.</i>	
13.2	Maintenance and operation
13.2.1	Is regular preventive maintenance carried out on the filtration, recirculation and water treatment systems?
Definition	
<i>Regular preventive maintenance of filtration, recirculation and water treatment systems consists of the periodic review and adjustment of the equipment responsible for purifying and maintaining water quality. This includes cleaning filters, checking pumps, checking disinfectant levels, and making sure systems are operating efficiently, avoiding issues that could affect water quality or user safety.</i>	
13.2.2	Are there procedures for cleaning and disinfecting the facilities to prevent water contamination?
Definition	
<i>Procedures for cleaning and disinfecting facilities include specific protocols for keeping pool surfaces, surrounding areas, and filtration systems clean. These practices help prevent contaminants or pathogens from entering the water, ensuring that it is kept in sanitary and safe conditions for users.</i>	
13.2.3	Is there an annual maintenance plan for the pool's technical equipment (pumps, filters, heating, etc.)?
Definition	
<i>An annual maintenance plan for the pool's technical equipment is a document that establishes the actions to be taken during the year to ensure that equipment such as pumps, filters, heating and disinfection systems are working properly. This plan includes regular check-ups, part changes when necessary, cleaning, and adjustments to ensure that all components operate efficiently and without interruption.</i>	
13.2.4	Is a daily visual inspection of the facility performed to detect leaks, damage, or potential hazards?
Definition	
<i>A daily visual inspection of the facilities involves a routine review of all areas of the pool, both in its structure and in its equipment, to identify possible leaks, damage or any other condition that represents a risk to the safety of users or the quality of the water. This inspection helps detect problems before they become serious situations and allows immediate corrective action to be taken.</i>	
13.2.5	Is good ventilation guaranteed in indoor or mixed pools, with temperature, relative humidity and CO2 controls?
Definition	
<i>Ensuring good ventilation in indoor or mixed pools involves making sure that there is an adequate air circulation system that controls the levels of temperature, relative humidity and carbon dioxide (CO2) in the environment. This is crucial to maintain a healthy environment for users, preventing moisture build-up that can encourage the growth of microorganisms and ensuring that CO2 levels are not dangerous. In addition, it regulates the temperature of the water and air for the comfort of bathers.</i>	