Stratford Park Lido, Stroud, Gloucestershire

Condition Survey

For the attention of:

Stroud District Council

Executive Summary

Over the past few years, I have invested considerable time in reviewing and understanding the lido, and more recently I have reflected in detail on its current and potential future use. In my professional opinion, the facility does have the potential to be sensitively and successfully brought back into operation as an excellent and efficient use of water space. With the right vision, it could once again become a vibrant community asset. However, this would only be achievable with significant capital investment, sustained commitment, and careful stewardship to preserve and enhance this historic lido as an outstanding example of an English open-air swimming facility.

The timescale required to deliver such a project should not be underestimated. It would necessitate further detailed research, comprehensive feasibility work, and long-term strategic planning, alongside extensive construction and refurbishment activities. These would need to address not only the visible fabric of the site, but also the underlying infrastructure, plant, and operational systems required for modern, compliant, and sustainable use.

In its current remit and condition, it is my opinion that the facility is neither suitable nor sufficient to be viably opened to members of the public in a safe and responsible manner. To do so at this stage would fail to adequately account for the health and safety risks to which users would be exposed, including those arising from the physical environment, water quality, and operational limitations. Proceeding to open in its present state would also present a material risk to the reputation of the facility, its operators, and any associated stakeholders, particularly if foreseeable hazards were not properly controlled.

Any decision to progress should therefore be contingent upon a clear, costed, and phased plan of remedial works and operational improvements, underpinned by robust risk assessment and compliance with relevant standards and guidance.

Introduction

Project brief and methodology

The management of Stroud District Council has commissioned a condition survey of Stratford Park Lido in Stroud.
It was agreed that the review would include:

- Consultant to conduct a site visit and meet with representatives of Stroud District Council
- Review and assess the physical environment and risks to employees and non-employees against current UK legislation, industry guidance and best practice, offering advice on potential improvements.

The onsite review was undertaken on the 1st of April, 2026, by Ian Ogilvie, a Health and Safety expert with extensive experience in swimming pool safety and pool plant operations.

Previously the consultant had been to the site on four separate occasions over the past fours years and was familiar with the facility and its mechanical operation.

1. Purpose of the Survey

    - Assessing current condition of assets or infrastructure
    - Identifying defects, deterioration, or compliance gaps
    - Informing refurbishment, replacement, or investment decisions

2. Scope of Works

    - Building fabric (internal/external)
    - Mechanical and electrical systems
    - Pool plant and water treatment systems
    - Life safety systems
    - Accessibility and regulatory compliance

3. Survey Methodology

    - Visual inspection
    - Non-intrusive survey methods of the facility
    - Sampling, testing, or measurement of surveys
    - Review of existing documentation
    - State any standards or guidance to be followed (e.g., PWTAG, HSG 179, SFG20, British Standards).

Conditions of Service

The safety consultancy service provides recommendations based on professional expertise and industry standards. While every effort is made to identify and mitigate risks accurately, it is important to note:

- Assessments are based on the information available at the time of evaluation and may not account for unforeseen changes or events that may occur afterwards.
- Recommendations are provided as guidance and should be implemented at the discretion and responsibility of the client.
- The audit will provide health and safety recommendations based on current best practices and regulatory requirements. However, the client is responsible for ensuring compliance with all applicable health and safety laws and regulations.

Legislation and guidance

This section examines the legislation that imposes statutory duties on Stroud District Council's for the management of aquatic activities during the use of the facilities, ensuring the safety and well-being of all residents using the swimming pool.

There are regulations, acts and guidance that should be considered:

HSG179 Health and Safety in Swimming Pools (fourth edition published 2018)
Health and safety in swimming pools - HSG179 (hse.gov.uk)
This publication guides those who have any involvement with the operation and management of health and safety in swimming pools. It provides practical guidance on how to comply with the law regarding the management of health and safety in swimming pools. It covers both workers (www.hse.gov.uk/workers) and bather safety. Following the advice will help you prevent or reduce accidents and ill health.

BS EN15288 – 2 Safe Supervision of a Swimming Pool
BS EN 15288-2 - Swimming pools for public use. Safety requirements for operation (bsigroup.com)
The standard provides a framework for enhancing user protection and confidence by identifying hazards and putting controls in place to manage them, demonstrating compliance to customers and suppliers. The standard can help reduce swimming pool accidents and illnesses by providing a means to review and assess the hazards associated with public swimming pools, as well as their monitoring and assessment.

ING02 Managing in Non-Lifeguarded Swimming Pools – Guidance for Operators
ING02 Managing in Non-Lifeguarded Swimming Pools – Guidance for Operators (rlss.org.uk)
Industry guidance for operators of swimming pools where a suitable and sufficient risk assessment determines that lifeguard supervision is not required. This document provides clear guidance on the controls available to help pool operators ensure they implement reasonably practicable controls in non-lifeguarded swimming pools

CIMSPA GN014 – Parental and Operator Guidance for Children's Supervision Policies in Swimming Pools
parental-and-operator-guidance-for-child-supervision-policies-in-swimming-pools-gn014.pdf (nationalwatersafety.org.uk)
This provides practical advice for parents and operators for the adoption of a common-sense approach to the development of measures and policies to support the safe supervision of children in swimming pools

BS EN 13451 Swimming Pool Equipment Parts 1-11
BS EN 13451 - Swimming pool equipment (bsigroup.com)
British standards specify general safety requirements and test methods for equipment used in classified swimming pools as specified in EN 15288-1 and EN 15288-2.

BS EN 20380 Public swimming pools. Computer vision systems for the detection of drowning accidents in swimming pools. Safety requirements and test methods
https://knowledge.bsigroup.com/products/public-swimming-pools-computer-vision-systems-for-the-detection-of-drowning-accidents-in-swimming-pools-safety-requirements-and-test-methods
BS EN 20380:2020 specifies safety requirements, performance criteria, and test methods for computer vision systems (CVS) used in public swimming pools to detect drowning accidents.

BS EN 7010 Graphical symbols. Safety colours and safety signs. Registered safety signs
https://knowledge.bsigroup.com/products/graphical-symbols-safety-colours-and-safety-signs-registered-safety-signs-3
BS EN ISO 7010 is the British and European adoption of the international standard ISO 7010, which defines graphical symbols, safety colours, and safety signs used to convey safety information in

workplaces and public areas. The standard aims to ensure that safety signs are consistent and easily understood, regardless of language or location.

Duty of Care
The organisation has a ‘duty of care’ responsibility through common law to take reasonable care to avoid acts or omissions which can be reasonably foreseen as likely to cause injury. A certain level of risk is acceptable, and it is expected that safety measures will be applied ‘as far as is reasonably practicable’, balancing the reduction of risk against what it costs to achieve it (cost is in terms of time, money, and effort).

Background

Description of the Facilities

Stratford Park Lido in Stroud is a historic, seasonal outdoor swimming pool located within 56 acres of parkland, operating roughly from May to September. It features a large 50-metre by 17-metere unheated pool, a historic Grade II listed diving platform (Decommissioned for diving), and a sunbathing area, typically operated by the adjacent leisure centre.

Accident history/data

Stroud District Council maintains accident and incident records for its swimming facilities. Historical records held by the Council relate only to the period of its direct management; earlier records remain with the previous contractor.

Findings and Recommendations

This section presents the findings at the time of the visit, and at the end of each section, a list of recommendations is provided based on these findings. For this section, guests, members and residents will be referred to as users.

Following the physical inspections conducted at site, it has become evident that a combined report is warranted. This decision is based on several key factors observed during the site visit, including shared operational characteristics, overlapping compliance considerations, and recurring themes in risk management and facility standards. By addressing the location within a unified framework, the report can more effectively highlight comparative findings, identify systemic issues, and support consistent recommendations across the facility. This approach also ensures clarity for stakeholders and facility a more streamlined review process.

	Findings	Relevant Law, Guidance, etc.	Recommendations
Swimming Pool Tank			
1	The swimming pool walls are what appear to be a concrete block construction applied to the based structure. Evidence shows that this has been coated and painted several times over the years. The blocks show significant signs of movement with large areas of cracks on the joints demonstrating movement. The current integration of the blocks application to the structure is in doubt and certainly the reliability for the block to stay in place is not guaranteed. It is clear that the swimming pool tank is suffering with water loss, causing movement of the structure and the surround poolside paving and coping stones.	BS EN 15288-1 (Swimming Pool Safety Requirements) Part 1: Safety requirements for design HSG 179 Managing Safety in Swimming Pool v4 Sport England Design Guidance	Given the evident structural movement within the concrete block wall construction, the extensive cracking along mortar joints, and the uncertainty regarding the continued integrity and adhesion of the blockwork to the primary pool structure, it is recommended that the pool tank is subject to a full structural assessment by a suitably qualified structural engineer. The pattern of cracking and the confirmed water loss indicate ongoing movement of both the tank and the surrounding poolside paving and copings, suggesting that the current construction is no longer performing as a stable retaining structure. Remedial works should therefore prioritise establishing the root cause of water loss, stabilising the tank shell, and determining whether the existing blockwork can be retained or requires full removal and reconstruction.

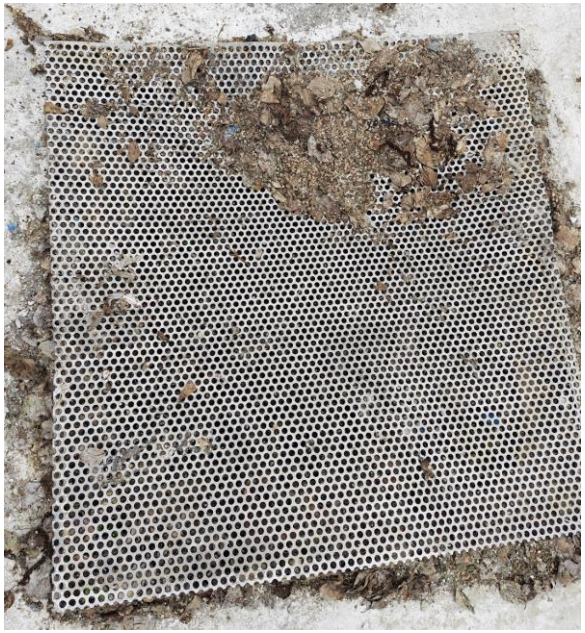
			Until such investigations and corrective actions are undertaken, the reliability of the wall system cannot be assured, and continued operation of the pool presents a material risk of further deterioration.

2.	Several of the coping stones around the swimming pool edge are loose and were moving by simply walking on them or being able to lift the coping stone. Previously, last year, there was a coping stone that fell into the swimming pool but did not cause an injury to an individual.	Health and Safety at Work Act 1974 Section 2, 3 and 4 Management of Health and Safety at Work Regulation 1999 Regulation 3	It is recommended that immediate action is taken to secure or replace the loose coping stones around the swimming pool edge, as several were found to move under foot pressure or could be lifted by hand. This presents a foreseeable and significant risk of injury, particularly given the previous incident last year in which a coping stone fell into the pool, fortunately without causing harm. Access to the affected areas should be restricted until the coping stones have been stabilised and the integrity of the surrounding structure has been assessed. A full inspection of the pool edge construction should then be undertaken to identify any underlying causes of loosening, followed by appropriate remedial works to ensure the long-term safety and stability of the pool perimeter.
3.	Surface water collection system is of an older design and flows straight to waste. Traditionally a swimming pool system which is an overflow channel system/scum channel system would remove approximately 10% of the water from the surface for recirculation. The top 30cm of swimming pool water is the dirtiest part of the water. From previous experience of the lido the water level is kept about 15cm below the channels to stop the water removal.	BS EN 15288-1 (Swimming Pool Safety Requirements) Part 1: Safety requirements for design PWTAG Swimming Pool Water 2017	It is recommended that the surface water collection system be fully reviewed and redesigned to meet modern operational standards, as the current arrangement, an older overflow system discharging directly to sewage/waste is inefficient and inconsistent with contemporary pool management practice. A properly functioning scum channel should remove approximately 10% of the surface water for recirculation, ensuring effective removal of contaminants from the upper 30cm of the pool, which is recognised as the dirtiest layer.

	Previous visual surveys which I was party to in the previous year confirmed that the system flows straight to the drainage system. 		The historic practice of maintaining the water level approximately 15cm below the channel has prevented the system from operating as intended and may have contributed to water quality and hydraulic inefficiencies. Given that previous visual surveys have confirmed that the existing system drains directly to the sewer, a detailed engineering assessment is required to determine the feasibility of reinstating a compliant overflow and recirculation arrangement, improving water quality, reducing wastage, and ensuring the system aligns with current industry guidance.
4.	The swimming pool tank floor is displaying significant damage and evidence of previous repairs. Large sections of base concrete are moving and can be removed by walking and by hand. Damage to the base of the swimming pool will cause two major issues with the swimming pool system. Firstly, again the pool tank floor doesn't appear to be water tight which is the same case as walls. Secondly the loose debris and failing floor structure will cause a loss in turbidity with water clarity.	Managing Health and Safety at Work Regulations 1999 Regulation 3 HSG 179 Managing Safety in Swimming Pools v4	The current surface is not in suitable and sufficient condition to be walked on by swimmers in the water. A significant repair to the swimming pool structure is required to the entire pool tank to be in a suitable and sufficient condition. A failed filtration system which results in a loss in water clarity and turbidity from the swimming pool tank debris. This would result in a failed Lifeguard Visibility Zone Test and an inability for the lifeguards to provide constant supervision of the swimming pool.

			
5.	Outlets covers are flexible and have not been fixed to the swimming pool base. No fixing attachments are on the base of the swimming pool to prevent a swimmer lifting the outlet covers. The apertures are greater than 0.8cm which may put non-employees at risk of finger entrapment.	Managing Health and Safety at Work Regulations 1999 Regulation 3 BS EN 13451	It is recommended that new outlets are installed in accordance with current design expectations, ensuring that a minimum of two outlets are provided to achieve safe and effective hydraulic performance. These outlets should be manufactured from a durable and corrosion-resistant material, such as 316-grade stainless steel, to ensure long-term reliability in a chlorinated aquatic environment.

			As part of the manufacturing process, the outlet apertures must be designed to ensure that no opening exceeds 0.8cm, in line with recognised safety requirements to prevent entrapment and ensure safe operation. These upgrades will improve system performance, enhance user safety, and bring the installation into alignment with modern standards.
6.	Deep end inlet/outlet has no cover which can cause leg or arm entrapment to the swimmer. Additionally, the fixings are heavily corroded. At this stage the outcome of this inlet/outlet pictured below is unknown and may be a drainage point for winter periods.	Managing Health and Safety at Work Regulations 1999 Regulation 3 BS EN 13451	New inlet/outlet are required. New inlet/outlet to be manufactured using suitable material such as stainless steel 316. New apertures to be part of the manufacture to ensure no greater than 0.8cm.

			
7.	Although inlet covers appear to be fixed to the walls, there are several sharp edges along the sides of the covers. The design appears to be a retro fit on to the swimming pool tank walls.	Managing Health and Safety at Work Regulations 1999 Regulation 3 BS EN 13451	New inlet covers are required to be manufactured in suitable material such as stainless steel 316. New integral apertures should not exceed 8mm.

			
8.	The swimming pool step ladders are constructed from timber decking boards, which is not an acceptable material for this type of installation and does not comply with the relevant British Standards for swimming pool access equipment. Purpose-designed pool ladders must be manufactured from corrosion-resistant materials, incorporate compliant handrails, and meet defined dimensional and load-bearing requirements to ensure safe ingress and egress for users. The structural integrity of the existing timber steps can be verified as inadequate this has been caused by inappropriate materials and construction deterioration has been accelerated	Managing Health and Safety at Work Regulations 1999 Regulation 3 BS EN 13451	It is recommended that the existing timber step ladders be removed from service without delay, as they do not comply with the relevant British Standards for swimming pool access equipment and their structural integrity and load cannot be verified. A compliant replacement ladder system, constructed from suitable corrosion-resistant materials and designed specifically for swimming pool use, should be installed to ensure safe ingress and egress for all users. A full inspection of the fixing points and surrounding pool wall should also be undertaken once the timber structure is removed, to confirm that no hidden

	by water exposure and potential biological growth and they are now at the point of failure. I am unable to confirm their load capacity, or the extent of any hidden decay or weakening of the fixings or supporting structure. This presents a foreseeable and significant safety risk to users. 		deterioration has occurred. These actions are necessary to eliminate the foreseeable risk of failure and to restore the installation to an acceptable safety standard.
9.	Inspection of the swimming pool tank indicates that the structure does not appear to be watertight in its current state. Visible defects,	PWTAG Swimming Pool Water	A significant level of investment will be required to restore the swimming pool tank to a watertight condition. The current defects and

	including deterioration of internal surfaces and potential failures at joints or penetrations, suggest that the tank may be unable to retain water without leakage. Any uncontrolled loss of water from the pool has the potential to alter the ground conditions surrounding the structure. Prolonged or repeated leakage can lead to softening of the supporting soils, changes in bearing capacity, and differential settlement, all of which may compromise the stability of the pool tank and adjacent structures. These risks warrant further investigation to determine the extent of leakage and to identify appropriate remedial measures.		areas of deterioration indicate that substantial remedial works potentially including resurfacing, joint reconstruction, or full-scale structural refurbishment will be necessary to ensure long-term integrity. Any ongoing loss of water from the tank presents a material risk to the stability of the surrounding ground. Persistent leakage can alter soil moisture content, reduce bearing capacity, and lead to differential settlement, all of which may contribute to further movement of the pool structure. If left unaddressed, these conditions could accelerate structural degradation and increase the scale and cost of future interventions.
10.	Movement has been observed in the ground around the perimeter of the swimming pool, and this may be attributable to several underlying factors. The resulting ground displacement has caused the surrounding slabs to become uneven and misaligned. Potential contributing causes include changes in soil moisture content, loss of support due to water migration, deterioration of sub-base materials, or historic settlement associated with the age and construction of the facility. This localised movement not only affects the appearance and usability of the surrounding surfaces but may also indicate wider issues with ground stability that warrant further investigation.	Health and Safety at Work Act 1974 Management of Health and Safety at Work Regulations 1999 Regulation 3 BS EN 15288-1 (Swimming Pool Safety Requirements) Part 1: Safety requirements for design	A detailed ground survey is required around the perimeter of the swimming pool to assess the extent and causes of the observed ground movement. This investigation should evaluate soil stability, moisture levels, sub-base condition, and any evidence of voiding or settlement. The survey will help determine whether water loss from the pool, changes in drainage patterns, or natural ground behaviour are contributing to the displacement of surrounding surfaces. The findings will be essential in identifying appropriate remedial measures and ensuring the long-term stability of both the pool structure and the adjacent paved areas.

Swimming Pool Poolside			
11.	The paving and surrounding ground levels around the swimming pool show noticeable variations in depth along multiple sections of the pool perimeter. These irregularities have resulted in uneven and displaced slabs, creating an inconsistent surface profile. As previously highlighted, the pattern of deformation is consistent with underlying ground movement. This may be associated with changes in soil moisture, loss of sub-base support, or localised settlement, potentially exacerbated by water migration from the pool structure. The extent and distribution of the uneven paving indicate that the ground movement is not isolated to a single point but is occurring around several edges of the pool, suggesting a broader issue with ground stability that requires further investigation. There is a significant risk to non-employees to injury when being exposed in this area.	Managing Health and Safety at Work Regulations 1999 Regulation 3	A detailed ground investigation should be undertaken around the swimming pool to establish the extent and cause of the observed ground movement and uneven paving. A structural assessment of the pool tank is also recommended to determine whether water loss is contributing to soil instability and sub-base failure. Immediate safety controls should be implemented to restrict access to the affected areas, as the uneven slabs present a significant risk of injury to non-employees. Once the underlying ground conditions have been assessed and stabilised, the displaced paving should be repaired or replaced, followed by a coordinated remediation plan to address any structural or drainage issues identified.

	 ***Structural crack in the access drain by the diving platform***		
12.	Several areas of the site contain low walls with unprotected edges, exposing individuals to a foreseeable risk of falling from height. There are no protective barriers, guarding, or physical controls in place, and verbal accounts indicate that falls from these edges have occurred previously. Movement of the walls is also present with large cracks through the stone work as illustrated below. In addition, the coping stones along the tops of these walls are loose and can be displaced either by foot pressure or by hand, further increasing the likelihood of an incident. The	Health and Safety at Work Act 1974 Management of Health and Safety at Work Regulations 1999 Regulation 3 Working at Heights Regulations 2005	It is recommended that immediate protective measures are implemented to prevent access to the unprotected wall edges, given the foreseeable risk of falls and the evidence of previous incidents. The loose coping stones should be secured or removed without delay to eliminate the risk of displacement under foot or hand pressure. A full assessment of the wall structures should then be undertaken to determine the extent of deterioration and to identify appropriate long-term remedial works. These actions are necessary to ensure the safety of all individuals on site and to bring the

	combination of unprotected drops and unstable coping stones presents a significant and immediate safety hazard to all users of the site, requiring prompt remedial action. 		area back into compliance with relevant health and safety requirements.

			
13.	The diving board structure itself appears to be in generally good order, with no immediate defects observed on the platform or supporting frame. However, there are significant structural cracks present within the concrete and paving that surround the diving board installation. These defects indicate localised deterioration of the surrounding slab and may compromise the stability of the adjacent surfaces. As highlighted previously, the cracked pool wall blocks shown		It is recommended that a detailed structural assessment is undertaken of the diving board surrounds to determine the extent of cracking and any associated deterioration of the supporting slabs. Given the proximity of previously identified damaged pool wall blocks and the likelihood of water egress contributing to ground movement, a targeted investigation into potential leakage pathways should also be carried out. Immediate measures should be

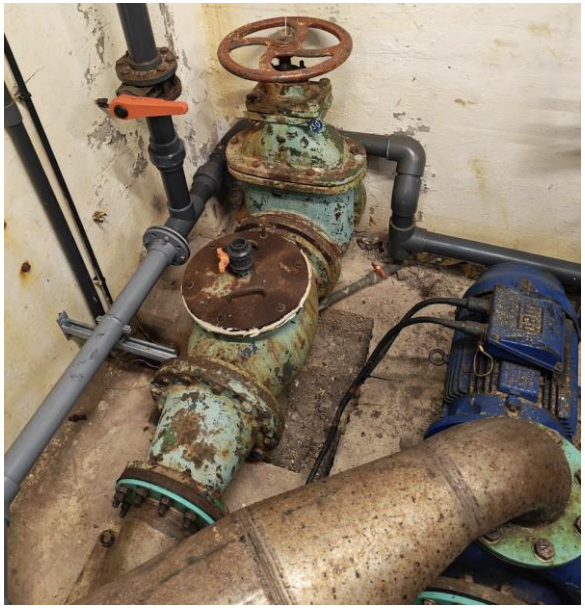
	in Section 1 are located immediately adjacent to the steps leading to the diving platform. This proximity suggests a plausible pathway for water to migrate from the pool tank into the surrounding ground. Such water egress can soften the supporting soils, reduce bearing capacity, and contribute to the ground movement now evident around the diving board area. The combined presence of structural cracking and potential water infiltration warrants further investigation to determine the extent of deterioration and the associated risks to users.		taken to restrict access to the affected area until the stability of the surrounding surfaces is confirmed. Following the results of these investigations, appropriate remedial works should be implemented to restore structural integrity, prevent further water migration, and ensure the long-term safety of users.
14.	Aeration of water was key in the building of swimming pools in the past. The reasons are clear, as when oxygen is added to water, it enhances the treatment of disinfection and stability of pH control by the chemical process of adding the dissolved oxygen as part of the circulation system. Also, it enhances the clarity of pool water through oxygenation. Until the late 1960`s, most pools ran with slow rate filtration which meant that turnover times of 4 to 8 hours plus were commonplace. This meant that the disinfection process of adding chlorine to the water was inhibited as to contact time, with the pollution of the water by the atmosphere (in outdoor pools) and the bathers who traditionally did not shower before bathing.		The fountain aerator is an important component of the original system and should be retained as a historical feature of the site. Its preservation will help maintain the heritage value and operational narrative of the facility. However, the associated pipework serving the aerator, along with the structural elements of the fountain area itself, are in a severely deteriorated condition and require urgent repair. The pipework shows signs of significant ageing and potential failure, while the surrounding concrete and structural surfaces exhibit extensive cracking, spalling, and general degradation. Without intervention, these defects will continue to worsen, potentially compromising

			both the functionality of the aerator and the safety of individuals accessing the area.

			
Pool Plant Room and Equipment			
15.	The circulation pump appears to be in reasonable visual condition; however, it is difficult to reliably assess its operational performance given that the system has not run since last season. When pumps remain idle for extended periods, there is a significant risk of bearing seizure, internal corrosion, and mechanical stiffening, all of which may only become evident once the pump is placed under load. Furthermore, the installation relies on a single-pump configuration, which is no longer considered a viable or resilient method for ensuring continuous circulation throughout the swimming season.	Provision and Use of Work Equipment Regulations 1992 PWTAG Swimming Pool Water 2017	It is recommended that the circulation pump be fully serviced and tested prior to the start, with particular attention given to the condition of the bearings and internal components, as prolonged inactivity increases the likelihood of seizure or mechanical failure. Given that the system currently relies on a single pump, a duty-and-standby arrangement should be introduced to provide operational resilience, maintain continuous circulation, and ensure compliance with modern expectations for reliability and water quality management. The installation of a secondary pump will reduce the risk of unplanned downtime and

	Modern operational standards typically require duty-and-standby arrangements to maintain water quality, provide redundancy in the event of pump failure, and ensure uninterrupted operation. The current setup therefore presents both reliability and compliance concerns that should be addressed as part of the wider system refurbishment. 		help ensure that the pool can operate safely and consistently throughout the season.
16.	The swimming pool strainer is not accessible, as the strainer lid has been permanently sealed to the housing using silicone. This prevents routine opening of the strainer basket, meaning physical debris cannot be removed before it reaches the circulation pump impellor. Without the ability to carry out this essential maintenance task, the system is unable to operate safely or efficiently. Accumulated debris within the strainer would progressively reduce flow rates, impairing circulation and filtration	Provision and Use of Work Equipment Regulations 1992 PWTAG Swimming Pool Water 2017	It is recommended that the existing strainer assembly be removed and replaced with a properly designed, fully accessible unit that allows routine opening and cleaning of the strainer basket. The current arrangement where the lid has been sealed to the housing with silicone prevents essential maintenance and creates a foreseeable risk of reduced flow, pump damage, and system blockages.

	performance, and increasing the risk of pump cavitation. Cavitation is the rapid formation and violent collapse of vapor bubbles within a liquid, occurring when local static pressure drops below the liquid's vapor pressure. Often found in hydraulic machinery like pumps and propellers, this phenomenon causes bubbles to implode near hard surfaces, creating high-energy shock waves that cause erosion, noise, reduced efficiency, and potential mechanical failure. More critically, an obstructed strainer can allow debris to pass further into the system, leading to blockages within the pipework. Such blockages can generate excessive pressure differentials, which in turn may cause fractures or failures in the system's pipework and fittings. The current arrangement therefore presents a foreseeable and preventable risk of mechanical damage and operational failure.		A compliant strainer with a secure but serviceable lid should be installed to ensure that debris can be removed before reaching the impellor, thereby maintaining hydraulic performance and preventing pressure build-up within the pipework. Once replaced, the system should be pressure-tested to confirm that no damage has occurred as a result of previous blockages or restricted flow. These actions are necessary to restore safe operation and protect the wider circulation system from avoidable mechanical failure.

			
17.	Approximately one year ago, an independent survey of the grounds was undertaken to establish the depth, alignment, and routing of all pipework within the area. This was necessary due to the presence of former swimming pool structures on the site and the absence of any reliable historical records identifying the location or condition of the existing services. The survey findings indicated that much of the pipework is likely to be original cast-iron construction, which is consistent with the visual condition and age of the installation. Cast-iron systems of this era are prone to corrosion, joint failure, and leakage, particularly where ground conditions have changed over time.	PWTAG Swimming Pool Water	It is recommended that a comprehensive condition assessment of the existing cast-iron pipework be undertaken, informed by the findings of the previous ground survey. Given the age of the system, the absence of historical records, and the known susceptibility of cast-iron pipes to corrosion and joint failure, targeted excavation and inspection should be carried out to confirm their structural integrity and identify any active or latent leaks. Any sections found to be deteriorated or displaced should be replaced with modern, durable materials that meet current standards. In addition, the surrounding ground conditions should be monitored for signs of softening or

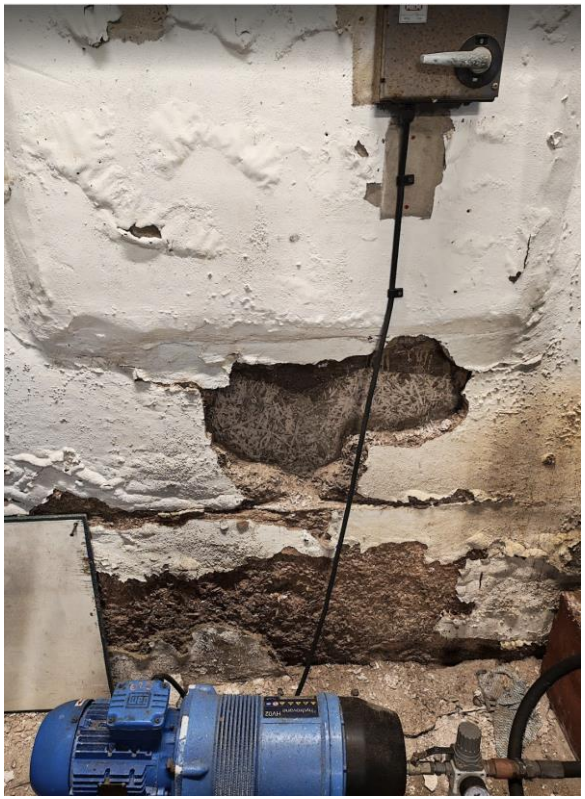
	Any leakage from these pipes has the potential to soften the surrounding soils, leading to ground movement and further stressing the pipework. This creates a cyclical deterioration mechanism in which leaks contribute to subsidence, and subsidence in turn increases the likelihood of pipe fractures or displacement.		subsidence, as leakage from ageing pipework may contribute to ongoing ground movement. These actions are necessary to prevent further deterioration, reduce the risk of pipe fractures, and ensure the long-term stability of the infrastructure, or due to the age of the pipework and the long-term viability of the swimming pool. A full replacement for UPVC class “E” is recommended surrounded in pea shale gravel.
18.	Approximately one year ago, previous inspections were carried out on the filter vessels, which are constructed from mild steel. Ultrasonic thickness testing undertaken at that time recorded wall thicknesses generally in the region of 6–8 mm. These results indicate that, despite their age, the vessels remain structurally viable and are suitable candidates for refurbishment rather than full replacement. However, it should be assumed that the internal surfaces have experienced corrosion over time and will require full preparation and recoating as part of any refurbishment programme. Records also show that the filter media has not been replaced since 2011. Based on this, and without opening the vessels, it is reasonable to estimate that the media currently in use is silica sand graded 16/30. The typical operational lifespan of sand media in a swimming pool filter is approximately seven years, after which the grains become rounded,	Provision and Use of Work Equipment Regulations 1992 PWTAG Swimming Pool Water	It is recommended that the filter vessels undergo a full internal refurbishment, including abrasive preparation and recoating, to address the corrosion expected on the mild-steel internal surfaces. Although ultrasonic testing has confirmed that the vessel walls retain sufficient thickness for continued use, refurbishment is essential to ensure long-term structural integrity. The filter media should be completely removed and replaced, as the existing sand last changed in 2011 will now be significantly beyond its effective lifespan. Media of this age will have become rounded, compacted, and unable to provide the fine particulate capture required for acceptable water clarity, particularly given the increased debris load associated with the damaged pool tank. Once refurbished, the vessels should be recharged with appropriate modern filter media

	compacted, and significantly less effective at trapping particulate matter. Given the age of the media, combined with the known damage to the swimming pool tank and the likelihood of increased debris load, I would not be confident that the existing media could achieve the level of filtration necessary to maintain good water clarity. 		and recommissioned in accordance with current industry standards to restore effective filtration performance.
19.	At least ninety percent of the above-ground pipework is constructed from cast iron, and visual inspection shows clear signs of corrosion consistent with the age and exposure of the installation. Cast-iron systems of this era are particularly vulnerable to external oxidation, internal scaling, and joint deterioration, all of which can compromise hydraulic performance and increase the likelihood of leaks or structural failure over time. Approximately one year ago, the building and associated pipework were inspected for asbestos, as asbestos-containing materials were historically used to form gaskets, flange seals,	PWTAG Swimming Pool Water	It is recommended that the corroded above-ground cast-iron pipework be incorporated into a planned replacement or refurbishment programme, as the extent of visible corrosion indicates that the system is approaching the end of its serviceable life. A detailed inspection should be undertaken to identify sections where wall loss, joint deterioration, or external oxidation present an immediate risk of leakage or failure. Although the previous asbestos survey confirmed that no asbestos-containing gaskets or flange materials were present, all intrusive works should still be carried out using appropriate

	and valve packing in older water systems. No asbestos-containing materials were identified during that inspection, which reduces the risk associated with future refurbishment or dismantling works. However, the underlying condition of the cast-iron pipework remains a concern, and ongoing corrosion will continue to weaken the system unless addressed as part of a planned upgrade or replacement programme.		controls due to the age and construction of the installation. Replacement pipework should utilise modern, corrosion-resistant materials that comply with current industry standards, improving hydraulic reliability and reducing the long-term risk of system failure. A phased approach may be appropriate to manage operational disruption while ensuring the system is progressively brought up to a safe and sustainable condition.
20.	Visual inspection of the valves indicated that several units have failed over time and have been replaced on an ad-hoc basis. This pattern of piecemeal replacement is typical of ageing cast-iron systems and suggests that the remaining original valves are likely to be approaching the end of their serviceable life. Many of the existing valves show signs of corrosion, wear, and deterioration around the flanges and operating mechanisms, all of which can compromise their ability to isolate sections of the system effectively. Should the pipework be replaced—as recommended—these valves will form an integral part of the refurbishment works. Retaining ageing or partially functional valves alongside new pipework would introduce avoidable weaknesses into the system and undermine the reliability of the upgraded installation. A coordinated replacement of both pipework and valves is therefore essential to ensure long-term operational integrity and compliance with modern standards.	Provision and Use of Work Equipment Regulations 1992 PWTAG Code of Practice	It is recommended that all existing valves be replaced as part of the wider pipework refurbishment programme, as several units have already failed and others show visible signs of corrosion and deterioration. Replacing the valves in isolation would not provide long-term reliability, and retaining ageing or partially functional valves alongside new pipework would introduce unnecessary weaknesses into the upgraded system. A coordinated approach—renewing valves, flanges, and associated fittings at the same time as the pipework—will ensure effective system isolation, reduce the likelihood of future failures, and bring the installation into alignment with modern standards for hydraulic control and operational safety. Selecting robust, corrosion-resistant valves suitable for swimming pool environments will further enhance system resilience and support reliable plant operation throughout the season.

21.	The pool plant building underwent a structural assessment last year, during which several areas of failed concrete were identified. These defects indicate progressive deterioration of the building fabric and suggest that the reinforced concrete elements have been exposed to moisture ingress and environmental degradation over an extended period. In addition to the concrete failures, there is clear evidence of water damage affecting the surrounding brickwork, including staining, spalling, and mortar deterioration. Such damage is consistent with long-term moisture penetration and may indicate compromised waterproofing, defective drainage, or leaks originating from the plant installation itself. The combined deterioration of both concrete and brickwork raises concerns regarding the ongoing structural integrity and environmental suitability of the building for housing sensitive mechanical and electrical plant.	Health and Safety at Work Act 1974	Areas of spalled, delaminated, or weakened concrete should be broken out, treated, and reinstated using appropriate repair mortars in accordance with recognised structural repair standards. The brickwork showing signs of water damage should also be assessed for compromised mortar joints, saturation, and potential loss of load-bearing capacity, with remedial works implemented as required. In parallel, the source of water ingress must be identified and rectified whether arising from defective waterproofing, inadequate drainage, or leaks associated with the plant installation to prevent further deterioration. These actions are essential to restore the structural integrity of the building and ensure it remains suitable for housing mechanical and electrical plant.

Appendix 1 – Consultant's profile

Ian Ogilvie MPWTAG CMIOSH MCIMSPA

Consultant – Swimming Pool & Leisure Safety Specialist
Ian Ogilvie is a highly experienced leisure-industry consultant with over 25 years' operational, managerial, and technical expertise spanning Local Government, the private sector, and leisure trusts. Since establishing his independent consultancy in 2013, Ian has become recognised nationally for his specialist knowledge in swimming pool safety, operational risk management, and plant-room compliance.
Ian's professional background includes extensive experience in leisure centre management, encompassing centre management, duty operations, technical management, and strategic oversight of safety-critical systems. This operational foundation is complemented by his transition into health and safety practice in 2007, enabling him to integrate practical leisure-industry knowledge with robust regulatory and risk-management principles.

He holds an HNC in Leisure Management, the OCR Level 5 NVQ in Occupational Health and Safety, and the NEBOSH General Certificate, alongside additional specialist qualifications including the NEBOSH Fire Certificate and ISO 9001:2015 Internal Auditor status. Ian is a Chartered Member of the Institution of Occupational Safety and Health (IOSH), a Member of the Chartered Institute for the Management of Sport and Physical Activity (CIMSPA), and is registered as an Occupational Safety and Health Consultant.
Ian has been an active member of the Royal Life Saving Society UK for more than two decades and is a qualified National Trainer Assessor. His contributions to sector development include authorship of multiple national publications for CIMSPA and RLSS, supporting the advancement of professional standards across the leisure industry.

He also serves on the British Standards Institution (BSI) working group responsible for the development of BS EN 15288, the emerging standard for drowning-detection systems—reflecting his specialist expertise in aquatic safety technology. In addition, Ian is a Director, Council Member, and the current Chair of the Pool Water Treatment Advisory Group (PWTAG), where he plays a leading role in shaping national guidance on pool water quality, plant operation, and regulatory best practice.

Qualifications
- OCR NVQ Level 5 in Occupational Health and Safety
- HNC in Leisure Management
- NEBOSH Occupational Health and Safety Management Certificate
- NEBOSH Fire Certificate
- ISO 9001:2015 Internal Auditor