

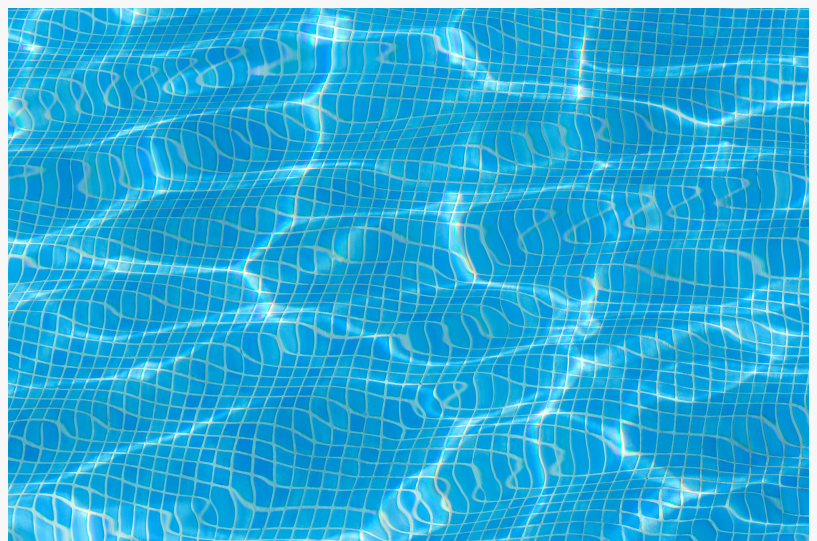
The Critical Function of Drainage Systems in Protecting Long-Term Pool Infrastructure

METAIRIE, LA, UNITED STATES, March 25, 2025 /EINPresswire.com/ -- Proper drainage is a frequently overlooked component in pool construction, yet it plays a critical role in preserving structural integrity and ensuring the long-term usability of both residential and commercial pools. [William Gunzburg](#), owner of [Kingfish Pools Inc.](#) in Metairie, Louisiana, highlights the necessity of drainage systems as part of the core design strategy—not as an afterthought.

According to Gunzburg, many issues associated with premature pool wear and tear can be directly traced to improper or inadequate drainage. “What’s happening underground often determines the longevity of the entire pool system,” he explains. “Managing how water flows around and away from the structure is essential to preventing hydrostatic pressure, shifting soil, and costly structural failures.”

In-ground pools are subject to environmental forces that most owners never see. Heavy rain, rising groundwater, and improper surface grading can all introduce moisture beneath and around the pool shell. Without appropriate sub-surface drainage systems—such as French drains, deck drainage channels, or hydrostatic relief valves—this moisture can build up, creating pressure on the walls and floor of the pool. Over time, this can lead to cracks, heaving, or even full structural compromise.

Hydrostatic pressure is a particular concern in areas like Louisiana, where fluctuating water tables are common. A well-placed hydrostatic relief valve, often installed at the pool’s deepest point, helps mitigate the upward force of trapped groundwater. These valves open when external pressure exceeds internal pressure, allowing water to enter the pool instead of forcing





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the shell upward.

Deck drainage also plays a critical role. Pool decks are typically pitched slightly to direct water away from the pool. However, if drainage grates and trenches are not properly positioned or maintained, water can collect and seep beneath the deck. This moisture can destabilize the soil and lead to voids or settlement that ultimately stress the structure.

Another key factor involves managing runoff from surrounding areas. In many suburban settings, landscaping, irrigation systems, and rooflines all contribute to water flow around the pool area. Integrating yard drainage solutions such as swales or dry wells can help redirect this flow before it undermines the pool’s support system.

Gunzburg notes that many failures result from attempting to retrofit drainage systems after problems have already occurred. “It’s much easier and more cost-effective to install the right drainage solutions during the initial construction phase,” he says. “Retrofitting often involves demolition, excavation, and repair, which adds complexity to what could have been avoided with proper planning.”

Pool longevity also hinges on understanding the relationship between drainage and materials. For example, improperly drained pool decks made of pavers or poured concrete are vulnerable to freeze-thaw cycles, erosion, and surface spalling. Moisture that remains trapped beneath tile or coping can lead to delamination and surface damage over time.

Additionally, water trapped behind retaining walls or other hardscape features can apply lateral force, increasing the risk of displacement or cracking. Drainage systems such as weep holes or perforated pipe backdrains help to relieve this pressure, protecting both the pool structure and the surrounding amenities.

As regulatory standards evolve, many municipalities are beginning to require engineered drainage plans as part of pool permit applications. This reflects a growing recognition of drainage as a core safety and performance issue rather than an optional add-on.

Seasonal maintenance is equally important. Drains must be kept clear of debris, and hydrostatic valves should be inspected for function. Left unchecked, clogged or malfunctioning components can result in unexpected water accumulation, structural damage, or costly remediation.

In addition to physical concerns, drainage systems play a role in preserving water quality. Proper runoff management helps reduce the introduction of contaminants such as mulch, fertilizer, or pet waste, which can disrupt the chemical balance and strain filtration systems.

The long-term success of any pool installation depends not just on visual appeal or mechanical equipment, but on the unseen systems that manage water movement above and below ground. Drainage infrastructure is one of the most essential—and least appreciated—elements of a well-constructed pool environment.

Kingfish Pools Inc. continues to emphasize drainage design as a fundamental element of pool construction in the Gulf South region. Projects are evaluated not just for aesthetics or layout, but also for how the site will manage stormwater, surface runoff, and soil saturation throughout the lifespan of the pool.

About Kingfish Pools Inc.

Kingfish Pools Inc., based in Metairie, Louisiana, offers comprehensive pool construction and renovation services throughout Southeast Louisiana. Led by William Gunzburg, the company integrates structural engineering, drainage planning, and detailed craftsmanship into each project to ensure durable and functional pool environments.

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