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Greening the pool hall

The old joke with the punchline "If I was going there I wouldn't leave from here" is applicable to leisure facilities and environmental sensitivities: if you wanted to create a lowimpact, multi-use facility you would not start by filling a big hole with chemically treated water and heat it. However, swimming is one of this nation's favourite active leisure pursuits and the challenge is unlikely to go away. Mick Owen looks at some of the issues involved in making the pool hall green.

There has been a great deal of debate around the importance of swimming to the British nation. Duncan Goodhew, vice president of the Youth Sport Trust has gone on record to suggest that when it comes to the promised 2012 legacy of one million people more active "nothing other than swimming will do it". He may be slightly biased but since the Victorians built public baths, often as acts of patriarchal, or just patronising, philanthropy, the nation has made a habit of swimming for health, hygiene, competition, a sense of community and fun. As the stock of facilities declines and the drive to save energy, resources and money increases the challenges offered to an ecologically motivated manager seem ever more difficult.

Before considering how to save money in and around a swimming pool it is worth asking yourself if you are making the most of what you have and whether you should be looking for something different to offer your customers? Estelle Michaels of Swim Pools makes the case: "Most swimming pools fail to realise their financial capabilities and are often just sitting looking pretty but not bringing in enough revenue. Pool managers need to think laterally and find new ways to encourage people into the water." Michaels has brought the Archimede range of exercise and fitness machines to the UK market, which allows walking, running and cycling in water and offers the astute pool manager the opportunity to turn a pool into a gym and so increase throughput and income. Her argument is well-made: "You'll never believe just how different, easier and relaxing it is to get fit using the buoyancy, resistance and gentle movement of water. There's none of the pounding that you get on land. The water is cushioning your every move but it is also providing resistance." Seeing a pool as more than just for swimming is the first step towards a better return and as Michaels points out, "This type of exercise is especially good for people with joint problems or for people who choose to supplement their regular land-based exercise with water exercise because it reduces the chance of muscle or joint injury." And her final argument? "Alternate forms of activity such as aquabiking will benefit the whole family, from the youngest to the eldest and you don't even need to know how to swim." More users may mean more chemical treatment required but a pool in use for just one additional hour each weekday could generate over £7,500 extra revenue and, from an environmental perspective, help justify the investment in heating and treating costs. For many operators the management of users is the start point for ecological and economic improvements. As Chris Hayes of SPATA said in last month's article on greening the plant room: "With a concerted effort to get more pre- bathing showers we can reduce the amount of pollution on bathers' bodies and the need for disinfection. The ideal would be nude showering, which would make the whole body as clean as possible." He is joined by Robbie Phillips of the STA whose stance has not changed: improve the human resource and you will make all your resources work better. "Lack of knowledge leads directly to an unnecessary use of chemicals as poor fault identification and a limited awareness of potential solutions lead to poor practice," he said. Even with the best trained managers and customers in the world there are still a myriad of areas in which pools can be managed with the environment in mind and the people with the greatest opportunity to exert influence are those involved at the specification and design stage.

Starting below the ground, the degree to which a pool shell is insulated will ensure heat is not wasted and have direct repercussions on fuel costs. A well-constructed pool shell that meets the requirements of the Building Regulations Part L may have additional insulation in the pool shell but managers of existing pools might need to be aware that where there is running water outside the pool shell this can, and most likely will, affect the thermal loss of the water temperature to the soil. With new pools, of course, running water outside of the pool shell will be designed out by the installation of a permanent dewatering system. Insulation of the building is also crucial and effective systems exist which make use of any extra heat to warm cooler parts of the venue.

Whenever the state of British competitive swimming is reviewed the failure to do better at international level is often blamed on the dearth of Olympic-sized pools. www.theleisurereview.co.uk



Covering environmental issues: a pool cover in action

"Even with the best trained managers and customers in the world there are still a myriad of areas in which pools can be managed with the environment in mind."



The Swim Pools solution

This not only ignores the fact that medals are won by people who train in all manner of facilities but also implies that Olympic glory is more important than the environment. Depending on what a pool is to be used for, the length breadth and depth can all be varied. However, length has become standardised with 25-metre pools being installed by most local authorities, health clubs and other providers with little acknowledgement of community use by swimming clubs specifying pools of 20 metres or less.

The depth of a pool tank will depend on whether diving or any other activities that require deeper water, such as sub aqua, octopush or water polo, are likely to be on the pool programme. Where deep water is not needed many specifiers may want a shallow end between 0.9 and 1 metre in depth, depending on whether young children are to be encouraged into the pool. If a deep end is required, as opposed to a constant depth, then keeping it to between 1.2 metres and 1.35 metres will ensure that the water is not too deep for swimmers should they get into difficulty. These depths will also satisfy the relatively new legislation (2008) on design and operation of (commercial) swimming pools. Lifeguards are required for pools above 1.5 metre water depth depending on the activity taking place and your own risk assessment but regardless of these and in time we can expect to see the mimimum depth figure lowered to 1.35 metres. Where pools are not expected to host competitions or even generate high loads of fitness swimmers the width can be reduced thus saving both on building and running costs.

Once built, the pool must be managed and whenever the issue of reducing waste is raised the use of pool covers comes under the spotlight. Pools lose energy in a variety of ways but evaporation is by far the largest source of energy loss for swimming pools. Covering a pool when not in use will minimise evaporation and bring savings of up to 50-70% on an annual bill according to some commentators. There are a number of manufacturers producing covers made from a variety of materials such as UV stabilized polyethylene, polypropylene or vinyl designed specifically for swimming pools. They can be transparent or opaque, light or dark in colour, but they need to be deployed and removed easily. Buying a pool cover that requires an electric motor to reduce your carbon impact is clearly counterproductive but staffing costs and restrictions are such that this is often what happens. The final word on pool covers is that if they can conserve water by reducing the amount of make-up water needed by 30-50%, reduce chemical consumption by 35-60% and cut cleaning time by keeping dirt and other debris out of the water then, as Chris Whitten from the U.S. Department of Energy has been quoted as saying, "It is highly recommended that the first step to cutting energy loss be the evaluation of the economics of using a swimming pool cover."

In recent articles The Leisure Review has looked at the newly renovated Marshall Street Baths, an art deco palais de las natation, and the older but less sensitively refurbished Castleton Baths in Rochdale. The latter has had its vaulted roof obscured by a false ceiling which, by reducing the amount of air to be heated, has reduced prospective heating bills. At Marshall Street the barrel-vaulted ceiling has had its majestic lines preserved and natural light floods in to augment the building's artificial supply. In Rochdale the swimmers plough their water-borne furrows as if underground but at least its cheap. The artificial versus natural light debate is not only about cost or aesthetics; the final wrinkle to be ironed out is that of algae which thrives on natural light and must be removed.

Temperature in a pool hall, or rather temperatures, are key to the bather experience. Complaints about low water temperature are often caused by the temperature of the air above the water rather than by the absolute water temperature. If the body feels warmer out of the water so the water will feel cold, and vice versa. Steve Franks of Water Babies, who teach 23,000 babies and toddlers across the UK each week, explained what his client group requires: "Our minimum water temperature for teaching purposes is 30 degrees and the air temperature should be at least one degree above the temperature of the water." The very young, the very old and people with mobility problems will all need warmer water than serious swimmers but without proper ventilation the higher air temperature can be problematic for lifeguards and other non-swimmers in the pool hall.

The good news about swimming pools and the green agenda is that there are plenty of areas where progress can be made and since green approaches often offering economic benefit environmental change can be very attractive.

Mick Owen is the managing editor of *The Leisure Review*. He has served his time on the poolside and in the plant room, and is also a holder of several swimming distance badges.

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