

Making the Most of your H₂O

Roland Taylor gives some sound advice on making the most of water features

The recent coverage of the US Masters at Augusta demonstrated how effective water features could be in enhancing the ambience of a course.

Filming showed a triple arched bridge with sunlight behind it and perfectly reflected in a golden pool, an ideal place to relax from the stresses of modern living. The lakes adjacent to the greens reflect the surrounding vegetation and golfers, thus creating an extra dimension to the scene.



Some readers may scoff at these notions, but developing the right image is a factor that should be given careful consideration if any changes to a course's design are being contemplated.

This could be important if a club is looking to stage some high profile competitions in the future and there is a chance of television coverage. Every course management team's priority is to develop quality surfaces that are a challenge to the players.

At the same time it should be a place of relative tranquillity and to a certain degree have scenic qualities. The overall aim should be to create a haven that everyone enjoys playing in and wants to come back too. Water features will make a contribution to this ideal

Water features are in two forms natural or artificial, each has its own impact. If done correctly, the latter will eventually become established and form part of the natural landscape.

NATURAL WATER

This could be a pool, fed by a spring that was originally on the site before the course was built. It will have evolved over several years and developed its own ecology. Alternatively, it could be a wet area that, with a little input from man, has developed into a nature conservation site.

In both cases some management is necessary to avoid aggressive and dominating plant species taking over. Where a site has been neglected it will have become choked up with rotting organic matter, dead branches and silt.

If it is decided to create a wildlife pond then ideally it should have shallow water because species such as frogs, newts and toads reside in this form of habitat. This will also attract other wild life including insect, birds and mammals.

Where it is necessary to carry out work the aim should be to achieve a gradual division between dry land and water and ideally an adjacent area of wild flowers should be established. Any overhanging branches should be removed to allow light to penetrate and stop debris and leaves falling into water.



This type of pond can be built artificially and if one is considering this exercise then it might be worth contacting the local nature conservation organisations for advice.

LARGER EXPANSES OF WATER

These are either ornamental or a source of water for irrigation. Depending on where they are located will govern the type of water features. If it is close to the clubhouse then fountains or cascades may be appropriate. Close to greens the water's reflective qualities will be the main feature.

For this water to remain clear oxygenating plants should be introduced and it is likely that some form of aeration system will also have to be introduced.

On any large area of water the surface can be broken up with water lilies and around the edges reeds and marginal plants add to the overall picture. The additions of banks of colourful shrubs, reflected in the water, will double their effect. If the soil conditions are right for azaleas and rhododendrons they can be planted for spring colour and acers for an autumn blaze.

STREAMS, DITCHES AND WATER COURSES

Most golf courses will include one or all of these and depending on where they are located and the water levels; will determine what can be done to make them attractive.

If there is a regular flow of water then this can be harnessed to make a series of features along its length.

Firstly, look at its shape and decide if by changing its contour and its approaches it can be visually improved. The introduction of dams creates pools along the streams length. This increases the water movement and enhances its appearance.

Dams need not be sophisticated structures, but consideration should be given to ensure they harmonise with the existing landscape. In woodland areas secured logs or railway sleepers will adequately suffice but will look

out of place in locations where natural rock predominates and here the use of boulders or stone is more appropriate. The introduction of some stone or wooden bridges with pools on one side and a waterfall on the other will add to the ambience.

In the case of ditches and watercourses there is less likely to be a constant supply of water, however the soil will probably remain moist for long periods and with these the right type of planting is the answer.

They are a haven for ferns and other damp-loving plants such as hostas and reeds. The banks can be planted with colourful shrubs and spring flowers. Many of these types of plants are ground covering so the level of maintaining these areas can be reduced, especially if mulches are regularly applied.

PLANTS

These fall into various categories, submerged (oxygenators), deep water, floaters, marginal and bog plants.

OXYGENATORS

In nature, submerged plants play a significant role in the well being of the underwater eco system, so it is important that the balance is right.

The formation of algae is one of the most common problems found in ponds and lake. Minute spores of algae thrive and multiply on a readily supply of mineral salts, carbon dioxide and sunlight in the water. Within a short space of time the water turns greens and if the algae is unchecked heavy pollution occurs and the pool or lake becomes unsightly. An adequate supply of oxygenators will reduce the algae spores and in small areas of water clear them completely.

The foliage of oxygenating plants is soft with very fine segments through which the water passes freely without damaging the leaf segments. Nature has also ensured that these plants can deal with virtually any type of water movement even fast flowing currents. Like other plants

these need carbon dioxide for photosynthesises and the product of this process is oxygen, which is released into the water.

They also absorb any mineral salts, thus starving the algae of their vital requirements and so restricting their development. If a sufficient quantity of oxygenators are present then algae soon disappears.

DEEP WATER PLANTS

Water lilies act as sunshades and help with the control of algae plus their stems and roots attract myriads of aquatic insects for any fish to feed upon.

FLOATERS

Some plants such as duckweed float around a pond without any anchorage. Large colonies can form on the surface that then present problems.

MARGINAL PLANTS

Most of these species require shallow water. The leaves and flowers are above the surface whilst the roots remain submerged. These add an architectural and colourful aspect to the margins of a lake, pond or stream. They are often highly ornamental with attractive flowers and foliage and will break a flat outline, making it more interesting and eye appealing.

BOG PLANTS

This category is generally made up of plants that like wet conditions without having to have their roots continually in water. There are a number of species worth considering for ditches or watercourse that are less likely to contain water all the year round.

A point that should be taken into account, when considering plants in relation to a natural pool, lake or stream, is that the chosen species are indigenous to the area.



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PLANTING AN EXISTING BANK

Immediately the vegetation is removed from an existing bank erosion will quickly set in because the roots of the native growth have in the past retained the soil. One method of dealing with this problem is to spray the bank with a systemic herbicide. This gets rid of the top growth, which then decomposes into the soil.

Once this process begins to take place plenty of mulch, in the form of well-rotted manure or compost to smother any weed seedlings, should be applied. The old root systems will continue to bind the soil together. Planting can take place during the winter or spring following the spraying and the new plants roots will then take over in holding the bank together.

FISH

If the introduction of fish is being considered then specialist advice should be sought.

KOI CARP

These are highly fashionable at present so the investment is likely to be considerable.

Because of their habit of happily eating large quantities of oxygenating plants, a filtration system is essential if the water is to remain clear and healthy. They share most of the characteristics of wild carp and can withstand fluctuations in water quality and temperature, but because of their inbreeding they are not as resilient as their wild counterparts.

Some Koi can grow to over three foot in length and have a life expectancy of between 20 and 50 years. They are best suited to locations close to the clubhouse because of their value and protection from predators such as herons and man needs is essential.

TROUT

Where there is a relatively large area of water away from any direct line of play it could be worth considering introducing rainbow and brown trout for any fly fishing members. Alternatively, there maybe local enthusiast of this sport who would be happy to rent the waters from the club, stock it and maintain it. This could be bring in additional revenue from an area that at present yields none

Natural species of fresh water fish such as carp and bream could also be introduced to help maintain the eco system.

SAFETY

Any water, regardless of its depth is dangerous so safety is paramount. A lake with sloping sides of 45 degrees makes it virtually impossible for anyone, even a good swimmer, to get out. Sheer sides are easier to reach and hold onto. An alternative solution is a build a beach area with the water gradually deepening. The rest of the lake or pool could be fenced off using reed beds to make it inconspicuous.

Having a wide planting area of dense vegetation is also another good safety measure. Creating thick barriers of shrubs, such as bamboo, planted



on dry ground up to the waters edges is also relatively effective. Deep-water notices must always be clearly displayed.

MAINTENANCE

An open expanse of water attracts a lot of debris, so for it to remain looking good and healthy requires some management. Left to its own devices algae growth accelerates and dominant plant species take over. Sludge builds up, the volume of water decreases and it begins to smell leading to unwanted insects congregating around it.

If it has reached this point then expert advice should be sought. It may be necessary to remove the sludge build up using a dredger and the introduction of aerators might be suggested.

These units circulate the water whilst introducing large volumes of oxygen, which encourage colonies of aerobic bacteria to form for dealing with the breakdown of organic waste. This type of clean up will have a positive effect on the any pump or filtration systems, as they are less likely to become clogged.

By this stage many readers will probably be saying they do not have the time to implement this. However, ponder this thought. How much time annually is taken clearing ditches and watercourse of natural vegetation?

If these were planted with marginals and flowering shrubs would the same amount of time have to be spent clearing away unwanted vegetation? The overall landscape quality of the course would certainly be improved. Likewise if pools and lakes already exist then their appearances have to be maintained to the highest standards.

Players join a particular club or visit a course for a round of good golf, if they also enjoy the ambience then they are likely to visit more and tell their friends of the pleasant surroundings.

Golf comes under the heading of sporting entertainment, so it is important the venue plays well, looks good and the customer goes away happy and satisfied. Today, they have plenty of courses to choose from so make sure it is yours they want to come back to.

See page 48 for more companies who specialise in lakes.

