

Conserving

WATER

As we face summer after another dry winter with decreasing water reserves, some restrictions against water use must come into effect soon. Where water is supplied from the public mains there could be significant reductions in water quotas and/or restricted hours for watering. *

To date there has been little effort in conserving water during the warmer summer months, with the generally accepted practice throughout the summer in the absence of rain being to water daily. Many accept this as the best method of keeping the optimum water levels and maintaining good vigorous turfgrass cover; and indeed some authorities even recommend this approach.

If the condition of the plant is examined and the water content of the rootzone inspected then there may be no need to apply water quite so frequently. The prevailing weather, the extent of the root growth and the vigor of the grass sward will all determine the amount of water that is used by the plant. Furthermore, by applying a light watering there is no possibility of any deep penetration of the water into the rootzone and the upper 25-50mm of soil is maintained at a level above or close to field capacity, often at the expense of a good supply of air. Grass roots are readily supplied with water and succulent growth results. There becomes no need for roots to move in search of water and deeper root growth is not encouraged.

In considering the actual amounts of water involved, a sprinkler system consisting of four pop-up sprinklers around a green generally applies water at the rate of approximately 25-40mm per hour if part circle sprinklers are used. The duration of watering each night varies from 4-10 minutes. In six minutes 4.2mm could be applied on a daily basis and accordingly 29.4 is applied in a week.

Understanding the extent of water loss

If evaporation is measured from an open water surface in the South East during the hottest months of June through August, it can be seen that generally 26-32mm of water is lost in a week. Considering losses from the turfgrass plant – firstly, water lost from the plant can only pass out of the plant stomata. Secondly, water loss from the soil will not be consistent but will reduce steadily as the top layers dry out and water has to move up to the surface by capillary action. It therefore becomes fairly logical to accept that the total amount of water lost by evaporation and transpiration (evapotranspiration) is a good bit less than the amount lost from an open water surface over the same period.

In the warm day that follows the daily irrigation, evaporation from the soil surface is at maximum rate – being adequately supplied with water – until the soil surface begins to dry out. Whatever application is made the previous night a good majority of this amount is soon lost by evaporation and the ready transpiration of a well watered grass sward.

No actual water losses have been measured but formulae have been derived to estimate this total loss and depending on weather, soil and plant conditions as well as the height of cut, the amount can be in the region of 60-80% of the water loss from an open water surface.

With the weekly amount of water applied by way of daily watering, the loss each day must initially be at maximum, reducing during the day. Notwithstanding this fact, the

weekly amount applied (29.4mm) is far in excess of the amount needed (20.3mm = 70% of 29mm average).

by GORDON
JAABACK

Conserving water in the rootzone

If watering is not applied daily during the hottest months, but every 3-7 days, and sufficient water is given to meet the rootzone only, it can be readily seen that the total of the daily amounts applied is not necessary; and if applied will be in excess of the water holding capacity of the rootzone. (It was interesting to read in the April issue of Les Adams's account on water requirements in South Africa). In programming less frequent watering it must naturally be borne in mind that the grass cover is never put under any undue stress and this can be readily gauged by the firmness in the leaves – in other words the resistance of the grass cover to spring back after walking over it.

Not only does the soil dry out a little in the surface layers but roots are encouraged to go deeper into the rootzone for moisture. Annual meadow grass, although having the potential for deeper root development, will confine its root growth to the surface layers when moisture is readily made available. By drying out the surface, meadow grass growth can be discouraged.

The overall benefit of infrequent watering is a better water use rate. The grass plant is less succulent, less water is utilized and there is a better possibility of sustaining an adequate air supply in the rootzone.

Practical implications

Many will scoff at this suggestion. There is the inconvenience in the case of earlier automatic controllers. With the rate of application generally higher than the infiltration rate of the soil, recycling will have to be practised.

It is important to note that it is not being stated that watering is necessarily left to one application per week. In view of the time needed to repeat the cycle once or twice, it may not be possible to complete the watering in one night. Much will depend on the permissible flow rate, the type of equipment installed and reducing the application rate, but obviously it would be preferable to complete all the greens in one night than to water only half the greens and tees in a night. To the observant greenkeeper it soon comes apparent what interval is best suited to his rootzone mixture and the condition of the turfgrass cover.

If sound management practices are followed, the greenkeeper will be assessing his programme daily, based on the weather conditions experienced and the rain, if any, that has fallen. It will be found that by establishing an interval between irrigations and securing deeper penetration into the rootzone, the quantity applied will be 20-40% less than the cumulative amount applied on a daily basis – and most important of all the turfgrass plant will become more drought hardy.

* *Written in April, this prediction has proved prophetic.*

Gordon Jaaback was born and graduated in South Africa. He spent five years in Canada and New Zealand before returning home to operate his own reclamation and construction company for 18 years. Settling in Britain in 1986, he consults in agronomy and soil science and is a member of the American Society of Agronomy, The International Turfgrass Society and the British Institute of Professional Soil Scientists.



Letters to the editor are always welcome. They should be signed and carry the writer's address and telephone number. The editor reserves the right to edit letters for length, clarity, label and good taste. Please send letters to: The Editor, Greenkeeper International, 13 Firle Close, Seaford, East Sussex BN25 2HL

■ Greenkeepers' environmental responsibilities ■ Pricey problems

■ Working into the night to save greens from the drought brings home to the greenkeeper what the environment really is and what changes to it can mean. Greenkeepers have to cope not only with members of committees, who vary in their ignorance and inclination to interfere, but with even less controllable elements like drought, downpour, frost and the many ills that grass is akin to. Taken together, greenkeepers look after more than a quarter of a million acres of Britain's open space. A big responsibility and one that goes beyond answering just to the chairman of green at your Club. Yes, you manage a sizeable piece of the environment, our environment.

Even so, I am prompted to ask – is golf doing enough to be green, in image and reality? You wouldn't think so through reading the non-golfing press, which often puts up golf as an enemy of conservation. You may say that they have got this all wrong, but per-

ception is reality to a lot of people. Golf has got to fight back and to start projecting what it is doing to conserve and enhance our environment.

Greenkeepers are, aren't they? BIGGA have included conservation in their training syllabus. Seventy four Sites of Special Scientific Interest are maintained on courses in England. English Nature (successor to the Nature Conservancy Council as the government body for nature conservation) has issued to every Club in the country a booklet on conserving golf's natural heritage, along with advice on how to prepare a conservation management plan.

Well, I know this and you know this, but who else is aware of the efforts being made? Probably not even your own members, who complain about that scruffy bit of long grass which, for them, is just a black hole for golf balls but which, come spring, will show a glorious display of flowering meadow plants and you don't

intend to cut the grass until the plants have set seed.

The message needs to be got across at all levels. And greening can extend into all sorts of areas beyond the management of rough and fairway, for example in the use of environment-friendly materials and the economical use of heat and light in the club house. The literature on a green policy for business exists (as does a British Standard – BS7750) and the industry that is golf and the individual businesses that are golf Clubs can implement a green policy. This will not only win golf friends – it will be truly helping the environment.

I suggest that the R&A and the Home Unions put together a guidance note on green management of golf towards meeting BS7750, for implementing as circumstances dictate by golf Clubs. Let's also start at home by having a regular feature in Greenkeeper International on greening golf. A good example is worth publishing – so let's hear stories about what individual greenkeepers are doing for the environment. These can be added to by articles about greening in general. Together we'd be contributing to a sustainable future – for our game and our environment.

Governments and governing bodies can and should lead – a message given at the Earth Summit in Rio. But Rio also gave the message back: that individuals and their actions matter too. Ultimately, they matter most.

IAN DAIR

Director of Communications and Corporate Affairs, English Nature

■ In the June issue, Sam Morrison expresses an understandable and quite justifiable complaint when he wrote about his difficulty in acquiring up-to-date prices to assist him in preparing annual budgets.

As distributors, we offer what we feel are the main reasons for his problem.

1 First and foremost, cost. Any company producing a catalogue detailing products offered would be unwise to quote prices alongside them. In recent years these have altered too frequently for the printed matter to remain accurate and the wasting of existing catalogues and the re-printing of new ones becomes impossibly expensive.

2 A price list accompanying a cat-

alogue is a way of helping this situation, being cheaper to reprint, but again several up-dating reprints in a year would be required for it to be as accurate as possible.

3 The products sold by distributors to the Sports and Amenity trade cover a very considerable range from numerous manufacturers and producers who historically have altered their prices at differing times of the year – well known ones in January, April, June, July, September, October and November. That pattern of change presents a considerable problem to the distributor when an attempt is made to produce an up-to-date price list.

The only way Mr Morrison could obtain the information for producing his budget would be to telephone for prices, but even then, for planning a budget a year ahead, the prices are just not available from the manufacturers until much nearer the time of supply.

As a compromise between offering an expensive catalogue and a separate price list, our small company produces a combined product and price guide. The most recent, although up-to-date in March, alas now requires numerous amendments.

J D COLLIER

Collier Turf Care (Distributors) Ltd, Norwich, NR10 4PR

■ I write to express my concern over what seems to be a lack of interest in BTEC's National Diploma in Golf Course and Sportsground Management.

This three year course is demanding and advanced, yet nevertheless all adverts in Greenkeeper International and other trade magazines for available greenkeeping positions make no reference to it. Instead, they require prospective employees to have gained City & Guilds certification and ignore BTEC.

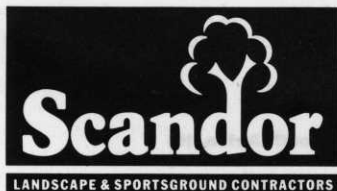
Being a mature student who gave up a good well paid job to gain a position in the golfing industry, I now find myself worrying that the BTEC Diploma is not being recognised and that I have subsequently wasted three years of hard work. Further, in the June issue of Greenkeeper International, the Annual Report makes no mention of BTEC, concentrating instead on the new NVQs and HND/Degree level courses.

Both me and my fellow students

Golf Course Construction

- New Golf Courses
- Alterations
- Drainage
- Irrigation
- Sand Slitting

Our best advertisement is our work



Scandor
Hensting Lane
Fishers Pond
Nr Eastleigh
Hampshire SO5 7HH
Tel: (0703) 692422
Fax: (0703) 601555



■ Is BTEC Diploma still worthwhile? ■ MGC flies the greenkeeping flag

at Sparsholt College would be interested to learn of any response from BIGGA's education committee, as well as the industry at large.

Three years is a long time to (hopefully) gain a worthwhile qualification. I feel BTEC Golf Course and Sportsground Management is being overlooked.

D A MATHIE Farnham, Surrey

■ As someone who has recently successfully completed all stages of the Master Greenkeeper Certificate I feel the need to respond to John Philp's letter (July issue).

I was rather saddened to read, from someone who as yet has not gone through the rigours of the MGC, such a thinly veiled attack on its validity. I was dismayed at an article littered with such derogatory innuendo as 'seemingly worthy qualification', 'concerned about the adequacy of the criteria' and 'a hollow and totally meaningless qualification', all designed to cast doubt on the qualities of current and future MGC holders.

On closer reading it was obvious what the real message implied: Both the time-honoured tradition of relegating the importance of academic qualifications in favour of the skilled application of long-standing maintenance practices, and the equally nauseating contention that true professional greenkeeping can only be practiced on a traditional links type course, anything else being somewhat inferior.

The statement that 'large numbers of greenkeepers can achieve 200 credits' belittles the great effort of those who have done so or are progressing towards it. Ten years of experience will earn 40 credits leaving 160 to be obtained largely by academic achievement. This is something that large numbers will not easily attain and certainly not without the desired aim of greatly increasing the knowledge of future course managers.

The statement that 'no doubt many will possess the capabilities to pass the Stage 3 Examination' was quite frankly an insult, especially to the unfortunate 75% of well prepared candidates who tried unsuccessfully to do so. I am sure they will not thank John for his kind words of comfort.

I for one found it very difficult indeed to acquire the academic qualifications necessary to reach 200 credits, having to gain passes

in the IoG Intermediate Diploma, the EIGGA Diploma in Golf Management, City & Guilds Phase III and IV. I know Laurence Pithie to be similarly qualified and though I do not personally know my two other fellow MGC's I would bet they are equally well certificated.

I think all this disproves the theory that we may have been brain-dead for the last 20 years and have not quite grasped the basic principles expounded by Jim Arthur. To suggest that anyone who has earned the MGC might be simply 'going through the motions of change...' with little real commitment and purpose, probably fuelled by a lack of the required understanding to achieve the correct progression' is tantamount to libel and shows a complete lack of comprehension of what the MGC is all about.

If the academic stages are so relatively easy to attain and the only true professionals are those providing fescue or fescue/bent turf, why is it that as yet there is no MGC holder from a links or a major event course. I would suggest there can be only one of four reasons:

- 1 None have reached 200 credits – I would think this highly unlikely considering the experience and technical capabilities of those in charge of our top courses.
- 2 None have passed the course

assessment – Again highly unlikely on such well maintained and professionally managed courses.

3 None have passed the stage 3 exam – a slightly worrying prospect.

4 None feel they have anything to prove – a far more worrying prospect.

If the managers of Britain's top courses are unwilling to put themselves forward then they do BIGGA and British golf a great disservice. We need the managers of our best courses to be masters of their profession and fly the flag for British greenkeeping.

I think I break no confidences when I say that a major part of the examination this year was based on the presentation of a links course for a major PGA event. Whilst this would have suited John down to the ground, I have experience of neither and had to draw on my academic knowledge and experience gained at conferences and seminars (some of which were given by John Philp) to formulate an acceptable answer.

When John has reached his 200 credits, laid bare his management systems and practices to the eagle eye of one such as Jack McMillan, and reaches the stage 3 examination as undoubtedly he will, then I hope he is not unfortunate enough to be asked to set down a conser-

vation policy for a chalk downland, a structured financial plan for the development on a pay and play in Surrey or a CCT document for a municipal in Barnsley, all of which are possibilities under the present syllabus. He will no doubt realise that there is more to golf course management than the narrow preparation of a major links course.

I have nothing but admiration and respect for the managers of our Open Championship courses. It takes great skill and courage to work under the intense spotlight and to prepare a course for The Open is the greatest honour any course manager can achieve. To achieve the MGC is, in my view, a close second.

When it is John's turn to host the great event, as no doubt it will, I will wish him and his team every success. When the final round is completed and John celebrates the fact that it's over, I hope he does not pick up the morning paper to find that an ill-informed sports writer has 'voiced concern' over the condition of the course.

If John can imagine this scenario he will have some idea how I felt on reading his article – this after 20 years of effort had culminated in my receiving the Master Greenkeeper Certificate.

KERRAN DALY Course Manager, Salisbury and South Wilts GC.

Health and Safety Executive's new ruling

The Health and Safety Executive (HSE) has decided to extend indefinitely the period of validity for current approval certificates for respiratory protective equipment (RPE). The majority of these certificates were due to expire on 1 July.

At present, all RPE which is used in the UK to protect workers from substances hazardous to health must be either type-approved by HSE or meet the requirements of standards approved by HSE. However, this is likely to change in the near future with the introduction by the DTI of new Regulations which would implement in the UK the Personal Protective Equipment (PPE) Directive (89/686/EEC).

The Directive was due to come into force on 1 July this year, which explains the current approval certificates for RPE expiring on that date. However, although the DTI are expected to issue a consultative document soon, their Regulations could not be in force by 1 July. Moreover there are no facilities yet formally available anywhere in the Community

for the manufacturers of RPE, or indeed of any other PPE, to have their products EC type-tested and approved for CE-marking. (The CE mark implies conformance with the Directive's requirements.)

The extension of the validity of current approval certificates will therefore enable manufacturers to continue producing (and employers to purchase) RPE which satisfy the specific approval requirements of health and safety legislation such as the Control of Substances Hazardous to Health Regulations 1988 (COSHH).

RPE already in the supply chain, and in use before the Directive is implemented, can still legally be used after the implementation date as long as it is maintained in good working order and is suitable for its intended use.

Once there is sufficient capacity available to manufacturers to have their equipment CE-marked, HSE intends to cease issuing certificates of approval. However, HSE will still continue to ensure that RPE (and other PPE) give the required level of protec-

tion by enforcing the Regulations which will implement the Product Directive, and the relevant Regulations (such as COSHH) requiring that RPE be properly selected for both the work and the person.

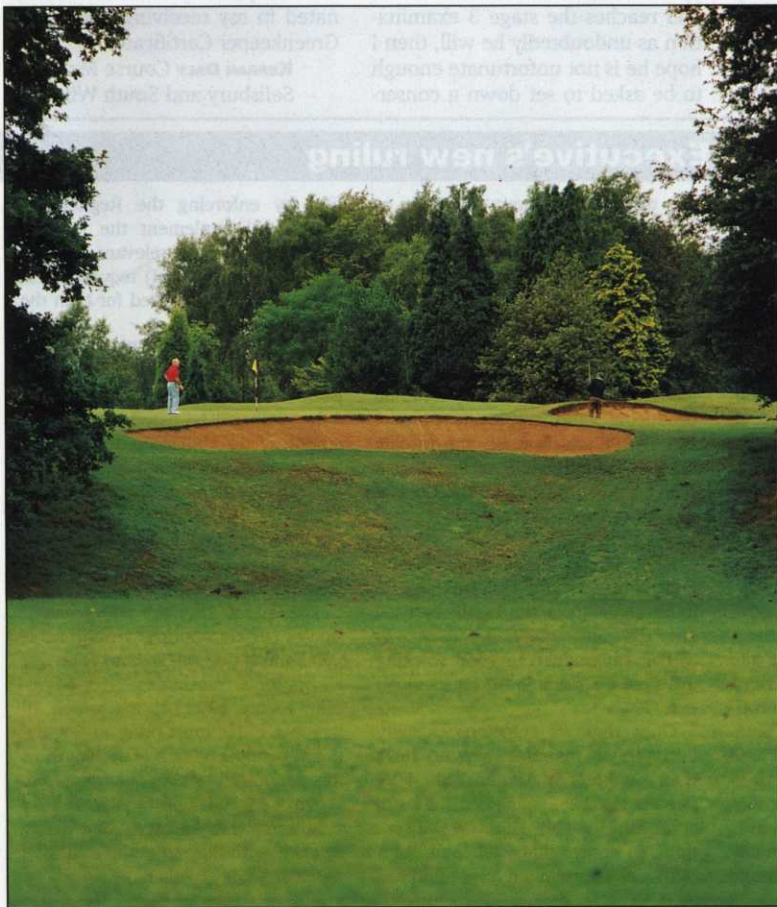
UK-manufactured RPE for which current certificates of approval have been extended by the HSE beyond 1 July 1992 will be listed in the third edition of the HSE document "Respiratory Protective Equipment: Legislative Requirements and Lists of HSE Approved Standards and Type Approved Equipment" due to be published this autumn. It will be available from HMSO.

The reason why the HSE's extension of current approval certificates is indefinite is that the Product Directive allows for a transition period, beginning 1 July 1992, during which all member states must bring in Regulations to implement it. The length of this period has not yet been finalised. When it is, HSE will then issue new certificates with an expiry date set to coincide with the end of the transition period.

In the



DAVID WHITE visits Coventry Golf Club and meets the man “with the longest temporary job in the Midlands” – head greenkeeper JOHN BAYLISS (pictured)



First impressions count. The occasional visitor to Coventry Finham Park, coming upon the course for the first time, could not fail to be impressed by the prettiness of the place. Located just a couple of miles from the city centre and almost in the shadow of the Warwick/Kenilworth by-pass, the course is a haven of very well kept trees, hundreds and hundreds of them, many of mature age. There are large and venerable oaks, mature beeches and chestnuts, plus others of more recent vintage: conifers, silver birch, evergreens, acers, cherry and whitebeam. It is a veritable haven of arboriculture and the knowledgeable will be struck by the great care taken in their upkeep, the mature specimens neatly strimmed at their bases, younger brethren properly cleared and given breathing space to grow and prosper.

Granted, prettiness alone cannot turn an inferior golf course into a good one or make it a proper test of golfing skills, but at Finham Park the care is apparent in presenting this delightful parkland setting as a very proper golfing examination: a layout where thinking and plotting will bring hugely satisfying results. There is room on many occasions for the player to open his shoulders, with five par fives and nine par fours, and the aforementioned trees, along with natural ponds at the 6th, 7th and 14th holes and the meandering river Sowe are, to say the least, strategic rather than penal. That stated, Finham Park is not a place to wander too far off line, for therein lies the devil in waiting...

Who do we have to thank for all this strategic magnificence? Obviously the original course architect, Tom Vardon, brother of the great Harry, must have seen the cunning and logic in utilising Finham Park's natural contours, streams and original trees. Add to this the divine inspiration of six times Open Champion Harry Vardon in planning all the bunker locations (after all, who better than he in deciding where a bunker should or shouldn't be?), plus a concerted programme of tree planting in the fifties and donated saplings (memorials to deceased members) adding to the total that continues to grow, both in number and intensity.

Further, there is more than a touch of Fred Hawtree's magic in the layout, for it was he who designed the new 9th and 10th holes that replaced those lost to the Kenilworth by-pass in 1964, along with a general re-designing to bring the 9th and 18th greens back in close proximity to the new elevated and balconied clubhouse.

Those fortunate to have battled through the ranks of qualifying into the final of the Iseki Tournament will be in no doubt that Coventry Finham Park is a fitting place for a very grand, grand finale. It is to head greenkeeper John Bayliss and his dedicated crew of eight – including two part-timers and a talented full-time gardener – that much of the credit must be awarded.

John has seen a few changes in his 22 years at the Club, a job he took at the age of 17 as a temporary 'fill-in' – “the longest temporary job in the Midlands”, as he now describes it. He has been the head greenkeeper for four years, answerable to a green committee of six or so with, naturally enough, the occasional contentious 'demand' from the rank and file – “but we have a course management policy document that is pretty well set to be the bible”, he said, “and though this is in draft stage right now, once established it will provide all that is necessary to ensure that a programme once scheduled will be implemented without diversion”.

I understand the Coventry policy document came as a direct result of green committee members attending a recent seminar, which extolled the virtues of both policy making and continuity. It is to the Club's credit that they have chosen to take this first step to an enlightened route. To illustrate a point on earlier 'about turn' directives, resulting through changes in committee (and therefore opinion), John pointed to the case of a bunker that was first ordered to be levelled, then raised to a grassy hollow, then back to a bunker and yes, you've guessed it, now it's a grassy hollow again. “I hope it stays that way”, he grinned.

Rightly so, John attends every green committee meeting and presents a monthly progress report for comment and approval.

DRIVING seat

He's computerised and keeps all his records, charts and irrigation data on his own Omega – in a nutshell, one could say he is on-the-ball!

We touched on relationships with the Club: were they good to work for? "It would be untrue if I didn't say there were communication problems back in the earlier days of my career here", he said, "but from a period of 'them and us' in the seventies we've come full circle to a wonderful and totally open situation where communication is all – The secretary, Mr Jarman, is quite splendid in that respect and we are never left in the dark – yes, they're a grand membership and I'm very happy".

Coventry Golf Club and John Bayliss are no strangers to the big event, for this popular venue has hosted many professional tournaments – including the Teachers Seniors, the Coca-Cola Young Professionals and the WPGA Carlsberg Tournaments – along with the larger motor trade jamborees staged by local manufacturers Jaguar and Peugeot. In addition, the course regularly attracts golfing societies and 'company days' and these groups take to the tee about twice a week.

Unlike many Midland Clubs, Coventry has no water problems. Quite apart from a spring in the pond at the third, from which the Club is licenced by the NRA to extract a maximum of 8,000 gallons a day (restricted at present), they are perhaps most blessed in being within 2,000m of pipeline from a Severn Trent Water Authority re-cycling plant. They buy such treated water – which goes through an ultra violet process to eliminate nasty microbes – at an advantageous price and the deal provides for upwards of a million gallons a year. With full tees and greens Watermation TW3 irrigation, together with the natural location of the course in a sheltered and sometimes humid valley, growth is rarely other than lush. This is one course where green is the predominant colour.

Greenkeepers competing in the Iseki final will certainly not be disappointed with the Coventry Golf Club. When their round is over they will find added pleasure in watching other competitors pull up the eighteenth, a lovely finishing hole with a fairway that leans gently to the right, coaxing pulls and slices into the silver birches – all this may be viewed from the elevated first floor lounge, high up on the course and perfectly placed for armchair critics.

COVENTRY GC PREPARES FOR ISEKI FINALS



MAJOR MACHINERY IN THE COVENTRY STABLE

- 4 Massey Ferguson Tractors
- 1 Iseki Compact Tractor
- 2 Toro Triplex's (GM3 and GM3000D)
- 1 Jacobsen Triplex
- 6 Ransomes Auto Certes hand mowers
- 1 Ransomes mounted 5 gang mower
- 1 Lloyds mounted 5 gang mower
- 1 Toro Scarifier reel unit
- 1 Toro Greens cutting unit
- Sisis Sprayer attachment
- Sisis Grader/slitler
- Sisis mole plough
- Muratori rotavator
- Royer Soil shredder
- Modus 'T' Spreader for Iseki
- Ryan Turfcutter/Mataway scarifier

ENVIRONMENTAL ASSESSMENTS:

LAW OR

Golf course developers and owners could be forgiven for being confused over the whole issue of Environmental Assessments (EA). Without some analysis of the environmental impact of a proposed course, planning permission may be difficult if not impossible to achieve. Yet, under the terms of EC Directive 85/337, adopted here in 1988, golf courses are not included in the list of sites requiring EA as a condition of development.

In most cases, the local planning authority is only likely to call on developers or owners to undertake a full EA where the proposed site is in or near an area with special landscape designation such as an Area of Outstanding Natural Beauty (AONB) or a Site of Special Scientific Interest (SSSI). This is also likely to apply where additional development, for example, a hotel complex, is planned as part of the scheme.

The situation does however vary between councils. In many cases, local plans will include a catch-all policy which gives general guidance on environmental considerations without requesting an actual assessment. For example, the Coventry Unitary Development Plan states that 'proposals for the development of outdoor sport and recreation facilities will normally be permitted provided that - any associated development maintains the existing character of the landscape; the activity is compatible with, and sympathetic to the immediate locality, and it is managed to achieve a balance between the needs of the activity and nature conservation.' In contrast both New Forest and Salisbury District Councils seek some form of evidence that there will be no adverse impact, or that the impact will be mitigated. This is effectively a requirement to produce a form of EA, although this may not be the full assessment as defined by the EC Directive.

Benefits

It is important to remember that EA should not be viewed merely as a means of gaining planning permission. It should also provide the basis for environmentally-responsible design; as the most successful courses, in both commercial and environmental terms, are those which emerge from the recommendations of the EA.

There are also financial implications. The EA will often highlight the need for essential work. By identifying, at an early stage, landscape or wildlife features that will have to be considered, it may even save money. Consider the alternative - if, for example, design work has been carried out prior to EA it may be rendered obsolete by the results. The design philosophy of the course could then require a radical rethink.

The EA may also offer benefits in terms of the developer's relationship with the local community. The assessment might include a dialogue with local residents and representatives of nature conservation groups who are



Incorporation of existing trees and natural water bodies into the design enhances the environmental value of the course as in this example on Meon Valley Golf and Country Club

likely to be aware of special plants or wildlife on a site. By undertaking this consultation process, the developer will allay fears about the development and reduce the risk of planning appeals.

Process

So what does an Environmental Assessment entail? Essentially, it is a means of ensuring that the likely impact of a new development on the environment is fully understood before the development is allowed to proceed. A full assessment will look at a broad range of issues surrounding the impact of a proposal, at a level of detail which matches the scale of likely impact of the development. It usually describes and analyses the site, the development and its likely effects, and suggests measures that could be taken to mitigate any negative

impacts. It also usually highlights positive environmental benefits.

Among the aspects covered are the impact of the proposed development on vegetation, wildlife, soil, water, air, climate, human beings and cultural heritage, and the interaction between these.

Historic landscapes in particular are threatened by golf course development, and the EA will concentrate on historical research and field study, often with professional advice from organisations such as English Heritage, to ensure that such concerns are fully addressed.

Such a comprehensive survey is time-consuming and therefore may seem costly for smaller developments, or those which are outside areas of particular landscape importance. In such cases it is often possible to undertake a more restricted assessment. The Institute of

RESPONSIBILITY?

Environmental Assessment is able to provide names of specialists to advise on the level of assessment which would be suitable for a particular site.

There is no doubt though that some form of assessment, even if a full EA in accordance with EC Directives is not required, will significantly ease the path of an application through the planning system, as local authorities will in practice be better disposed towards a development when briefed on the likely environmental impact.

It is also a case of the earlier the better. Environmental considerations must be taken into account at an early stage in the design process, if the right balance is to be achieved between conserving the environment and meeting the needs of golfers.

Principles

Whilst it is difficult to generalise on the recommendations that an EA will make, there are some general principles that environmentally conscious golf course developers should consider:

- retain and where possible enhance natural features such as streams and ditches.
- avoid the creation of artificial topography.
- avoid use of bunkers if possible or locate them where they will be unobtrusive.
- consider the visual impact of the design from nearby roads, footpaths or houses, and respect these views.
- retain the planting type that has developed on the site and plant native species of trees and shrubs.
- ensure that there is a gentle transition between the edge of the course and surrounding countryside, by allowing more space than might be absolutely necessary.

Over recent years, developers of golf courses have argued vigorously for planning permission on the grounds that golf courses are environmentally friendly, in that they have a nature conservation role and open up previously private land for public enjoyment.

In many cases this is true, particularly where environmental considerations have been taken into account not only in the design but in other aspects such as maintenance, where for example, by keeping the mowing of roughs to a minimum, reducing the use of fertilisers and ensuring that chemicals do not contaminate water bodies, the ecological value of a course can be enhanced.

One thing is certain, developers of new courses, or those planning to extend existing ones, should be wary of complacency about the environmental status of the site. Experience suggests that while an EA may not be formally required, developers who fail to undertake some study of environmental impact will probably live to regret it.

■ **LATE NEWS:** The Government has just announced proposals which would require formal environmental assessments for golf courses if the proposal is in a national park, an



Utilisation of natural contours enables the golf course to blend into the surrounding countryside, as in this example on Meon Valley Golf and Country Club



Letting the rough grow wild encourages a diverse habitat for both flora and fauna as in this example on Meon Valley Golf and Country Club

AONB, an SSSI or a heritage coast. Golf courses proposed in so-called 'historic landscapes' may also require environmental assessment. At this stage, the proposals are included in a consultation paper issued by the D of E but they are expected to be included in regula-

tions to be issued after the consultation period.

● The authors are Martin Hawthorne, director of Fareham-based HGP Planning Consultancy Limited, Assessor Members of the Institute of Environmental Assessment, and Chris Driver, director of Hyland Edgar Driver, Landscape Architects and Environmental Consultants.



Winner Nick Faldo with the BIGGA Support Team at the 18th



Ken Ramsbottom smooths Faldo's damage



BIGGA chairman Roy Kates with Ian Woosnam



Tension mounts over the last few holes...

BIGGA at The Open

It was a coming together of the greatest: Nick Faldo regained his position as number one in the world, winning The Open over the acknowledged greatest British course and breaking a ninety year old Muirfield jinx in achieving a great double victory over the same links, last achieved by James Braid way back in 1901/06.

For the week of The Open there were accolades flying thick and fast for course manager Chris Whittle and his splendid team, and certainly during Open week he was the greatest greenkeeper of them all, producing surfaces that were, quite simply, exceptional. In his modest way Chris would credit the Great Greenkeeper in the Sky for more than a little help, with blessed rain falling in just the right amount and, save a brief shower during play over the final eighteen, always at the right time.

Finally, throughout The Championship the team of BIGGA greenkeepers made onlookers increasingly aware that they were the backbone of the championship, caring quietly for the greatest bunkers on the greatest course with the greatest of skill.

If further proof were needed, it came from those in TV and radio whose job it was to



Course Manager Chris Whittle meets Viscount Whitelaw; BIGGA Education Officer David Golding, centre, looks on

entertain and inform the golf hungry world – for they also were generous in praise for Muirfield, for Chris Whittle and for the BIGGA Support Team – yes indeed, 'Great Golf Courses Need Great Greenkeepers'. At Muirfield for the 121st Open Championship it was plain for all to see that they have them.



With thanks: BIGGA chairman Roy Kates hands plaques in appreciation of continued support for the Association to Jacobsen's René Orban (left); Hardi's Colin Gregory (centre) and Ransomes' Richard Bishop



Nick Faldo's caddy, Fanny, with members of the support team

**Pictures by
DAVID WHITE**



A time for posing: with Willie Aitchison, long-time caddy for Lee Trevino



Happy faces at the finish



A past Open Champion, Mark Calcavecchia, with Swedish greenkeeper Jan Jonsson

Removing the SCAR

If you walk out of Hetton le Hole on the south side and turn onto the footpath to Easington you skirt a small lake on your right and find yourself walking through a smooth green landscape which stretches into the distance, rising and falling gently, evenly covered in fresh young grass. Not so long ago this was the site of the Elemore colliery spoil heap, a seventy five foot high hog's back type formation which has dominated the local landscape for nearly 30 years since the mine was closed down in 1960. Over the years the spoil had become covered in scrubby grass and shrubs giving the broken land some dignity as nature slowly took it over again, but it has had the bleak look of wasteland for so long now that its regeneration is likely to be welcome.

The transformation is due to ambitious plans by Sunderland City Council to reclaim such land left derelict by the activities of the mineral extraction industries and give it a new lease of life by officially restoring it to public use, although at Elemore local people and dog-owners have used the network of footpaths heavily for years. The City bought the land from British Coal in 1987 and since then, while the initial job of clearing the colliery buildings was going ahead, has put together various studies and policy documents analysing the potential

of the site. The intention was, broadly speaking, to provide "opportunities for countryside recreation facilities... within a woodland setting".

A golfing facility was always a popular option for the site which covers 55 hectares. As has been well publicised, golf has seen a dramatic increase in the numbers of people playing the game or wanting to take it up in the last five or ten years. As its image has gradually changed, its appeal has broadened considerably so that it is no longer the exclusive preserve of the higher income groups and we are seeing more women and juniors playing than ever before.

These are factors that have put

great strain on the recreational facilities of local authorities such as those within Tyne and Wear where the demand-to-supply ratio is more overbalanced than in surrounding areas. A local paper, The Evening Chronicle, published a survey showing most private golf clubs to have waiting lists that are either closed or between two and ten years long with subscription fees that cash in on the popularity of the sport. The article tells of the serious wear and tear on the overburdened municipal courses which see golfers queueing from the small hours at the week-ends just to get a starting time. Moreover, research done by the Northern Council for Sport and Recreation showed that the priority

area for new golf courses in the North East was Tyne and Wear, and Sunderland in particular which, to bridge the gap, was calculated to need eight new (9-hole) courses and additional year-round practice facilities.

There were other factors which made the choice of a golf course for the site the right one. The option of turning the land over to agriculture was inappropriate given the government's policies of taking agricultural land out of productive use. So-called "hard uses", further industrial or residential development, had been ruled out in line with a general increase in awareness of the value of urban fringe land. But as the site fell within the boundary of the pro-

EQUIPMENT CHEMICALS

chemicals, tools, fuel equipment, adhesives paint, solvents

KEEP THEM SAFE

KEEP THEM SITESAFE

See us on Stand B52-57 at the IOG

Cleveland Sitesafe Ltd, Park Farm, Dunsdale, Guisborough, Cleveland TS146RQ
Tel. 0642 475009 Fax. 0642 471036
 Please contact us for details of the full range of Sitesafe Storage Units

SOLVENTS PAINT ADHESIVES LPG PETROL

TOOLS DIESEL SOLVENTS PAINT PETROL

EQUIPMENT CHEMICALS

SHIBAURA GREEN CARE EQUIPMENT



Distributed in the UK by

FGM FARM & GARDEN MACHINERY LTD

Head Office: Hazelbrook, Malahide, Co. Dublin, Ireland.
 Tel: (010-353-1) 8461303/8463922 Fax: (010-353-1) 8461321
 UK Office: Swinton Mill Cottages, Coldstream, Berwickshire, TD12 4JS, Scotland.
 Tel: 089084-635 Fax: 089084-361

SEE US ON STAND G32-35 AT THE IOG