During improvements made to the Brabazon Course, in preparation for the Ryder Cup, water management was a prime concern. There is a requirement to irrigate three golf courses, including greens, green surrounds, approaches, fairways, carry areas and tees. No summer abstraction of water is allowed, so a large quantity of water is required to be stored over the winter.

The irrigation storage reservoir at The Belfry, already one of the largest of its kind in this country, was extended to accommodate the storage of 15 million gallons of water. In addition each feature lake within the Brabazon and PGA National Courses was extended to accommodate more storage.

Low level discharge pipe work was installed within each lake, together with pre-cast concrete pumping chambers and submersible pumps. A network of underground pipes was installed throughout the courses, to enable the movement of water around the site as required.

Designing and planning water storage facilities can be carried out by experienced contractors such as MJ Abbott, who will take into account ecological and aesthetic issues. This makes a dramatic difference. It ensures the functional requirement is met, and that the project enhances the environment.

It is critical to understand the viability of the proposal.

Feature lakes within the golf course need to retain their water levels to be aesthetically pleasing. Therefore the usable amount of water stored within feature lakes should only be the top 200-400mm in depth.

If more is used, when the water level goes down the side of the banks will turn into mud making them unattractive.

Often a preferred option is the construction of a reservoir within an area out of play. Generally therefore there would be a requirement for a pumping system, in accordance with the example given in the Belfry.

Any new lake or reservoir construction is conditional on planning permission at the local authority Generally the most economic solution is the method of cutting and filling. The first operation is the removal of the topsoil. The lining system is sandwiched by another layer of geotextile and secured around the perimeter of the reservoir by a key trench. The final operation is to spread a protective layer of topsoil at a minimum depth of 150 mm over the geotextile. This acts to protect it and enables growth of indigenous plant species.

We generally allow three million gallons of water storage for a typical 18 hole greens, tees and approaches. To accommodate full fairway watering systems five to ten million gallons is required.

Lining lakes

There are two possible options for lining lakes and reservoirs. If the indigenous subsoil is clay, it may be possible to puddle the clay to form an impermeable layer. If the subsoil itself is permeable it will be necessary to install a man-made lining system.

Typically a geotextile underlay is used over the subsoil surface, followed by a polyethylene lining system. The lining system is sandwiched by another layer of geotextile and secured around the perimeter of the reservoir by a key trench. The final operation is to spread a protective layer of topsoil at a minimum depth of 150mm over the geotextile. This acts to protect it and enables growth of indigenous plant species.

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Water-wise

With increased legislation, it is likely borehole extraction licences will become more difficult to secure. Trying to save water by installing a water storage facility on site is likely to be looked on more favourably by the Environment Agency. Clubs benefit by saving water - and having drier fairways.

Nigel Wyatt is Contracts Director at MJ Abbott who can be contacted on 01722 716361, email: Nigel.Wyatt@mjabbott.co.uk website: www.mjabbott.co.uk

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Castlerock is yet another example of what the Irish do very well - golf courses and in Charlie Edgar it has a Head man who knows how to keep it looking its finest.

**KING OF THE CASTLE**

Castlerock is a member of the fine stable of courses on the northerly coast of Ireland and as a result welcomes travelling golfers from all corners of the world.

And those who ensure an itinerary, which inevitably will include Royal Portrush and Portstewart, is also bolstered by Castlerock Golf Club, in County Londonderry, will invariably put each other on the back and congratulate themselves for not having that extra Guinness the night before and booking a tee time instead.

When they arrive on the 1st tee of Castlerock, with their heads only slightly fuzzy, the challenge that faces them is more than enough to ensure that their senses are at their sharpest for the next four hours or so.

Charlie Edgar is Head man and a man who thoroughly enjoys the challenges which the 18 hole and nine hole courses throw up to him and his team.

The club enjoyed its centenary last year but having 100 years on the clock has not stopped amendments and refinements being carried out to the Castlerock courses.

The club decided that the main course needed some extra length if it were to be able to host professional events and Charlie was heavily involved in this work.

"We put in some new tees and reshaped three holes so there was different angles. On the 13th we actually moved the tee up and the new line has improved the hole no end. The new tee had originally been built 25 years ago but because the carry required from the tee was too difficult it hadn't been used for many years and had become overgrown."

"In this case the new technology has actually improved the hole rather than the reverse because the carry is makeable and becomes a real challenge," explained Charlie, who was previously Bernard Findlay's Deputy at Portstewart.

The bunkers now really stare you in the face," he added.

Those bunkers themselves have also come in for some attention at Castlerock having suffered for many years from erosion.

"When I started here a lot of erosion had taken place in the bunkers. The sides had begun to come in and they were just cut back and back until we had big wide open bunkers which were no good for keeping our dune sand in - the wind would just whip it out."

To remedy the situation the team has redone all the bunkers over the last six years revetting them and making them into smaller pot bunkers.

"We did the same job when I was working at Portstewart. They had big, wide open bunkers and Bernard (Findlay) instituted a rolling programme of reshaping and revetting so that the bunkers would hold in the sand."

It was always the club's aim to do something with the bunkers but the basic design and shape was left to Charlie.

"Where we had one big bunker we'd maybe split it into three wee pot bunkers while some of them may have been very close to the aprons of the green with all the problems of sand splash so we'd bring them back. It helped us to give a little more definition around the greens," explained Charlie, who can now look with pride on 70 fine bunkers.

Some members want coarser grittier sand which had been brought in. "Thankfully I had enough members on my side who listened to me when I said that it's been that way for a hundred years and we would be messing with the ecosystem if we were to change it.

"That's the way it was when these courses were built - if they had a blow out they'd say that's a good place for a bunker - that's basically where the bunkers came from and at the present time most of the committee agree," explained Charlie.

"The men enjoy bunker restoration. It's different. You're never short of work on a links course because you can get on the greens 365 days a year."

Having carried out the work Charlie and his team can see the longer lasting benefits of the work they have done.

"Obviously with golfers hitting out of the sand we are always going back to the bunkers but we are more or less clearing back to the original soil face again so we have something to go back to rather than just being edged up and edged up."

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Right: Attractive golfing country, to be sure!
Below: The Castlerock team has spent a lot of time on bunker renovation

"There is a world of work needing done to the nine which I'm really looking forward to doing. There are no bunkers on the nine but it doesn't really need them, it is lovely ground and very tight," he explained.

Ironically it is the highest point on the course which causes the Castlerock team the most problems. "Our highest point is the 16th and for some reason the good Lord decided he would drop clay and stones on this hump and it affects five holes in total. The biggest problem it causes is in the bunkers in winter time which can get very hard and don't have drainage."

Speaking with Charlie you very much get the impression that here is a man who knows what he is doing, and what's more, is good at it. He has an upbeat personality and you can easily tell why he is a former Irish Young Greenkeeper of the Year.

"Links courses are a kind of day-to-day thing, I walk around the course at least twice a week just checking things and I can see if it looks hungry and needs a feed. If it looks fine I just leave it alone ... get away from this green image."

"It is all about the simple things like fertilising, bunker maintenance, aeration and spiking. I enjoy watching The Open now as that's the way they should be. As far as links courses are concerned you have to be natural. If they are green it is because it has happened naturally," he said.

Charlie was 19 before he got into greenkeeping. When he left school he started at the local council bowling green before a job came up as a trainee greenkeeper at Portstewart.

"I actually took a pay cut to go to Portstewart but it was well worth it - training and education was not a problem."

He also picked up many management skills from Bernard Findlay which have stood him in good stead since his move to Castlerock, which although it is a few miles by car from Portstewart is only a short distance by boat.

"Bernard had a particular style of management. Nothing was left to chance. He was always well prepared and he'd always done his homework. When you did a job everything was there when you needed it to be there and if there was a possibility that something might happen a contingency plan was there to cover it."

"Budgeting was another thing I learned and putting jobs out to tender. It used to be you'd go with who you had the best relationship with but now committees are putting more pressure on to find the best price and you may have to get three prices for every job," said Charlie, who honed many of his management skills on BIGGA's Supervisory Management Courses at Aldwark Manor.

"I did the first week when I was still at Portstewart and when I came for this job I said I wanted to carry on and do the other weeks as well. It was very beneficial and I really enjoyed it."

"It is that word "enjoy" which seems to come to the fore at Castlerock. Charlie Edgar and his team enjoy preparing the course for its members and guests while those who play it certainly enjoy the challenge."
The BIGGA Golf Experience scaled new heights in 2002 with what proved to be the most successful week in the history of the Harrogate week.

With a new three day format and a new show - the Golf Club Show - visitors flocked to the town in record numbers and exhibitors were rewarded with busy stands and good business. The three day attendance figure was 8,629, which is 10.1% up on last year’s two and a half day show thus vindicating the decision, taken jointly between the trade and the Association, to amend the format. Every day was busy with Wednesday being singled out as one of the busiest days in the history of the Show.

In addition there were record numbers attending the Education Conference and workshops on the Monday and Tuesday showing that there is a real thirst for knowledge among the BIGGA membership. One of the biggest draws was legendary American agronomist Dr James Beard, who gave two lectures during the week, while Olympic medalist Roger Black MBE delivered an inspirational key note speech on the Wednesday. Those who attended the Thursday night banquet will never forget Brahms and Liszt, who brought stage diving to BTME for the first time!

It really does whet your appetite for Harrogate 2003.
Plaque for Walton Heath

Clive Osgood presented Findlay Picken, Chairman of Green, at Walton Heath Golf Club, with a plaque as thanks for the support given to him by the club during his year as Chairman.

Neil Thomas reports on a fantastic week in Harrogate, picking out some of the selected highlights from a very hectic schedule indeed.

A TOTAL GOLF EXPERIENCE

Sunday, January 20th

Earlier start this year with the change of opening dates. Sunday is now a build-up day. Down to the halls and the early arrivals are already busy. Slow start indicates many companies have delayed arriving until the 'morrow. Prepare for a hectic Monday. Up to the Majestic for Conference/Workshop registration and delegates are already booking into the hotel. Catastrophe, the hotel in its wisdom has removed Sky Sports coverage. Mass exodus occurs to find a screen elsewhere to watch the football. Relaxed evening as delegates and speakers meet for an informal dinner.

Monday, January 21st

Our numbers for the Conference and Workshops are our best ever and this is reflected when Clive opens the Conference with the room packed to hear the first session with Dr James Beard. We are indebted to Jim for undertaking a strenuous schedule at the BTME bearing in mind that he has not been well recently. With the workshops and STRI course also underway there is a buoyant atmosphere in the hotel and all are looking forward to the week ahead. Back down to the halls which are now a hive of activity. On to the Exhibitor’s Reception now traditional on the eve of the show opening. Back at the hotel I complete preparations for the Conference Dinner which proves to be the best attended of all time. An excellent evening proceeds. Did we ever have a better after-dinner speaker than Dr Kevin Jones, Consultant Chest Physician at the Royal Bolton Hospital. His tales of the NHS and insight into a Consultant’s mind were hilarious. His subject was one to which we all can relate. Best summed up - if you are going into hospital, make sure you’re dead first!
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Whatever the weather...

Well known former BBC Weather man, Bill Giles, below was one of the visitors to the show on the opening day. Bill, with his colleague Simon Strong, have formed a new company, The Weather Index which will provide bespoke weather forecasts for golf clubs accurate enough to enable Course Managers and Head Greenkeepers to plan ahead with confidence. “We have looked at the market and expect to be able to offer a daily emailed or faxed forecast for around £500 per annum,” said Bill.

Nostalgic exhibition prompts poet to take up his pen!

Brand new for this year’s show was a dedicated exhibition of items which captured the history of turfcare in years gone by.

Well received by the thousands of visitors who were interested in the display, one contributor to the exhibition, Peter Hampton, put some of his thoughts together in a poem about the exhibition.

**Heritage!**

Don’t put our heritage in a skip Mr Greenkeeper
Don’t put our heritage in a skip.
The machine’s a dog and very old
It’s obsolete so you’ve been told,
It stops when hot and won’t start cold
And you’re now due for your watch of gold
Don’t put our heritage in a skip.

Don’t put our heritage in a skip Mr Greenkeeper
Don’t put our heritage in a skip.
You’ve followed it for years and years
Through all the highs and all those tears,
So now retire it to pastures new
For all your friends to admire and view
Don’t put our heritage in a skip.

Don’t put our heritage in a skip Mr Greenkeeper
Don’t put our heritage in a skip.
It’s given all its life to you
So please now take the longer view,
People are here that think it’s great
To fix it up and show your mates
Don’t put our heritage in a skip.

I beg you Please Mr Greenkeeper,
“Don’t put our heritage in a skip”

Peter Hampton, UK Territory Manager,
Bernhard and Company Ltd

A TOTAL GOLF EXPERIENCE

Neill Thomas reports on a fantastic week in Harrogate, picking out some of the selected highlights from a very hectic schedule indeed
Irrigation companies gain Merit Certificates

The BT Lia announced that five contracting members have attained the prestigious BT Lia Certificate of Merit.

"The award of a Certificate of Merit should be the goal of all contracting members of the BT Lia. It represents the pinnacle of customer service and professionalism. As Chairman, I am particularly pleased that five members have attained the Award this year. It is indicative of the greater awareness that the BT Lia has gained in recent years and demonstrates the commitment of the Association and the Award winners to the raising the standards of irrigation provision in the UK," said Graeme Francis, BT Lia Chairman.

The companies that have been awarded the Certificate of Merit for 2001 are: Irrigation Control Limited; Irriturf; M J Abbott Limited; Par 4 (Irrigation) Limited and SJS Irrigation

Happy Birthday

Mike Lincoln Smith, of Hayter, must have suspected something was up when Kim Macfie, cut short his normal eloquent address at the annual Hayter Dinner to give the floor to some of his colleagues. With his 60th birthday looming Mike was about to become the star of the show. His understanding colleagues presented him with a state-of-the-art walking stick, some sprays and ointments to make his advancing years comfortable... and a little bit more exciting and a blown up portrait of himself white still in his prime.

Deere’s Team Championship goes global

John Deere announced that its established Team Championship golf tournament is to become a worldwide event for the first time in 2002. Now in its 16th year, the Team Championship has previously been open only to teams from the USA and Canada. This year, invitations have been extended to Great Britain, Ireland, Germany and Australia to send teams to the world final taking place at the Grayhawk Golf Club in Scottsdale, Arizona, in November.

John Deere dealers in each participating country organise their own qualifying tournament with each team of four entered including a greenkeeper, two club officials, and the club’s professional. The winning teams from these regional qualifiers go through to the National Championship. "Extending the Team Championship to include Great Britain and Ireland, as well as the other countries taking part, is a major undertaking and underlines John Deere’s programme of continued support for our dealers," says Graham Williams, Commercial & Consumer Equipment Division Manager. "Teams in the Great Britain and Ireland regional qualifiers will compete for a place in the national final on the Brabazon course at The De Vere Belfry in August, just ahead of the Ryder Cup. "Two teams, one from Great Britain and one from Ireland, will qualify to travel to the USA in November to take part in the world final." John Deere will also be making a donation of £25 for every British and Irish team entered, to support the educational activities of BIGGA and GCSAI.

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Roger wows the audience at Harrogate

Key Note Speaker Roger Black delivered a superb motivational talk which inspired the full house in the Royal Hall. Roger took us through his career from his days as a young soon to be world beater who relied on talent rather than hard work, through the injuries he suffered and the later half of his career by which time he had rededicated himself to his sport and learned how to get the most from himself. He talked about his relationship with Kris Akibusi with whom he said one and one added up to four or five and not two.

"Without Kris I wouldn't have achieved half of what I did, and without me Kris wouldn't have achieved anything," he joked. At the end of the talk he walked down to the front of the stage, signed autographs, posed for pictures and let people hold and wear the two silver medals he won at the Atlanta Olympics in 1996. "You might see a silver medal," he said when holding up the individual medal he won in the 400 metres behind Michael Johnson. "But to me it will always be gold because I ran my perfect race that day," he explained.

Second Bernhards Scholarship takes off

The Second Bernhards Scholarship - to the GCSAA Conference and Show in Orlando this month - got off to a superb start with a reception in the Majestic Hotel at which nine of the 10 BIGGA delegates were presented with their tickets and had a chance to meet the delegates who had traveled on the inaugural trip to Canada last year.

Stephen Bernhard, Managing Director, promised the nine that they would have a wonderful time under the absolute most they could from the trip. "I would like to thank the Royal Hall. We have not other business activities which might conflict with their ability to provide advice and a chance to meet the delegates who had traveled on the inaugural trip to Canada last year.

Tommy Witt, President of the GCSAA told the delegates that they would be welcome at a reception in the Royal Hall. He had brought his medals with him and many of the audience took the opportunity for photographs with him.

The delegates are: Phil Gates, David Winterton, Tony Smith, Patrick McNair, Ronnie Bunting, Jim Paton, Ivor Sones, Jeff Mills, and Tony Dunstan. Ian Willett, who will also be part of the BIGGA delegation was unable to attend the reception.

A TOTAL GOLF EXPERIENCE

Wednesday, January 23rd

Quick tour of the halls and then to the Royal Hall to check on final preparations for the Awards Ceremony and the Keynote Speaker Session. At 9.30am we are underway. Having recognised our major achievers, including our new Master Greenkeepers, the Chairman introduces Roger Black. What an inspiring session this turns out to be as we learn of his motivation and dedication in winning an Olympic Silver Medal as well as World Championship Gold with the 400 metres relay team. He had brought his medals with him and many of the audience took the opportunity for photographs with him.

AGRONOMISTS SIGN UP FOR NEW REGISTER

The Register of Independent, Professional Turfgrass Agronomists was launched at the Show. The Register which is open to consultants who hold a recognised plant or earth science degree; have at least four years acting as an independent consultant in the turfgrass industry; no association or understanding, however informal, with any commercial organisation that could influence his or her independence; must have and maintain insurance including Professional Indemnity insurance that satisfies the requirements of the Register Administrator; have not other business activities which might conflict with their ability to provide advice and all those on the Register must abide by a written code of ethics. The Keeper of the Register is Jeff Perris, of the STRI, and it was launched with 17 agronomists on it, some of whom are pictured below.

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