



ANNUAL GOLF REVIEW ROEHAMPTON CLUB

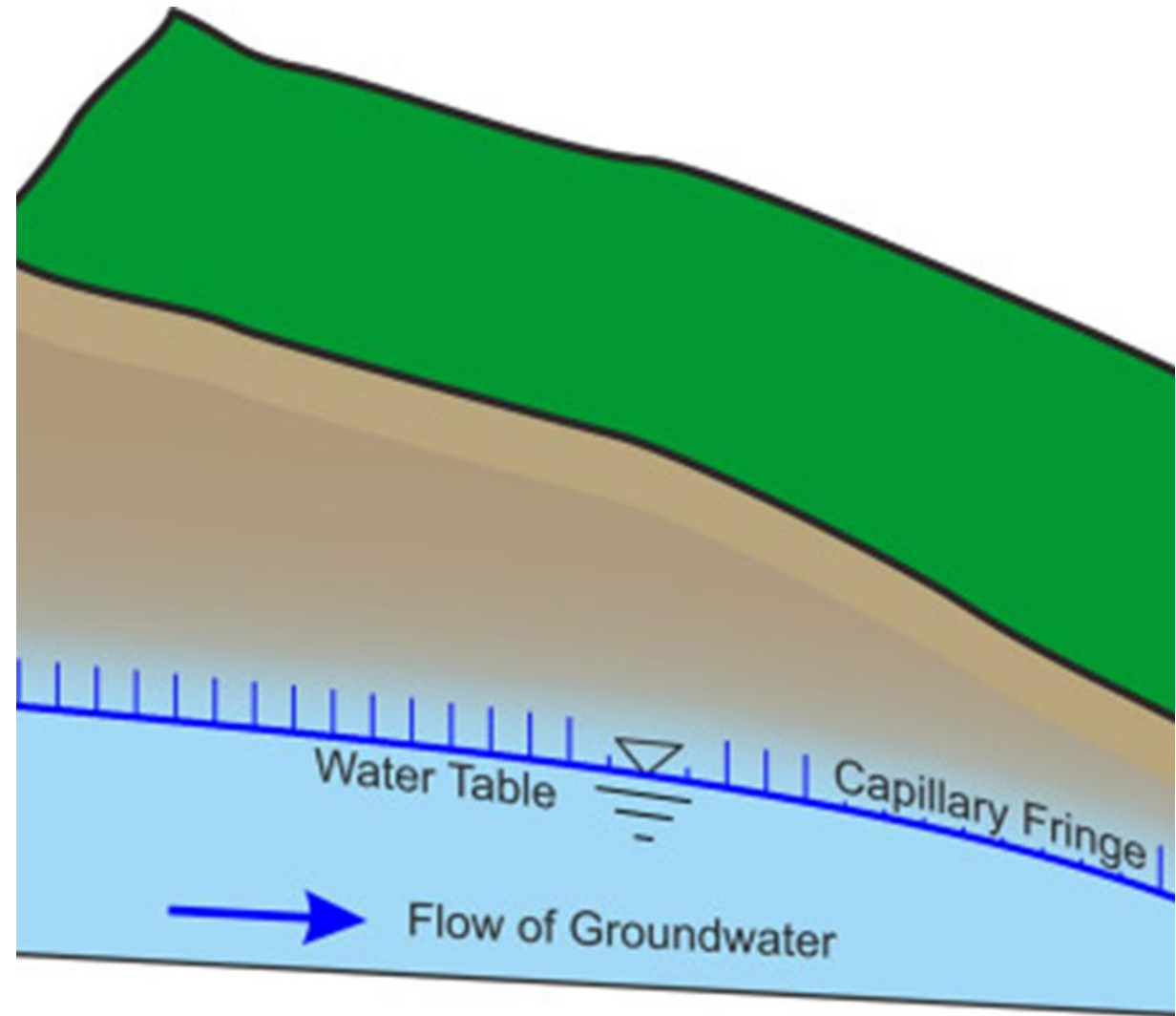
a presentation by Peter Bradburn

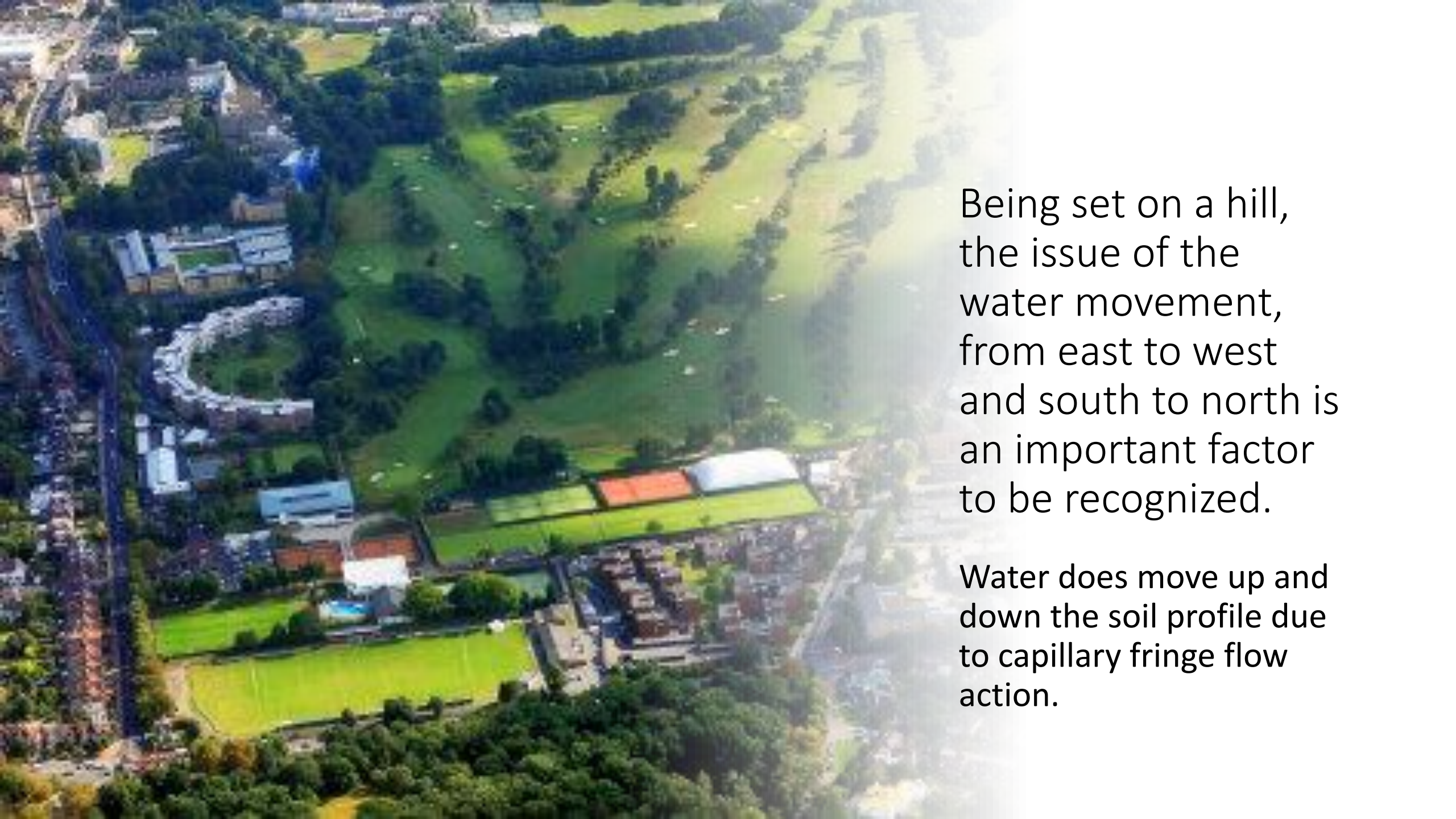
WINTER 2022 SPRING 2023

Golf annual review

An important factor to recognize in the dynamics of how water moves across a slope of a hill. Not just vertically down but lateral movement also. The 'capillary flow' will also have a bearing on the rise and fall of the water table.

Roehampton Club has all these factors in play.





Being set on a hill, the issue of the water movement, from east to west and south to north is an important factor to be recognized.

Water does move up and down the soil profile due to capillary fringe flow action.



Winter 2022 started with a high quantity of rain.




Which evolved into snow by December as temperature plunged below zero

By January, ice had formed to depth on the course. The temperatures remained well below zero. Subsequently even if the surface thawed, the frozen subsoil impeded the movement of water. Consequentially, this resulted in more greens being placed on temporary greens to protect the course but remain functioning for play.



SPRING 2023 SUMMER 2023

Golf annual review



The spring turn around was unusually rapid, which helped recovery from a very demanding winter. The summer generated the optimum circumstances for turf conditioning. Plentiful rain when required, cool temperatures and very little high temperature spikes that would stress the surfaces.

In all, the perfect season to present a golf course to its optimum.





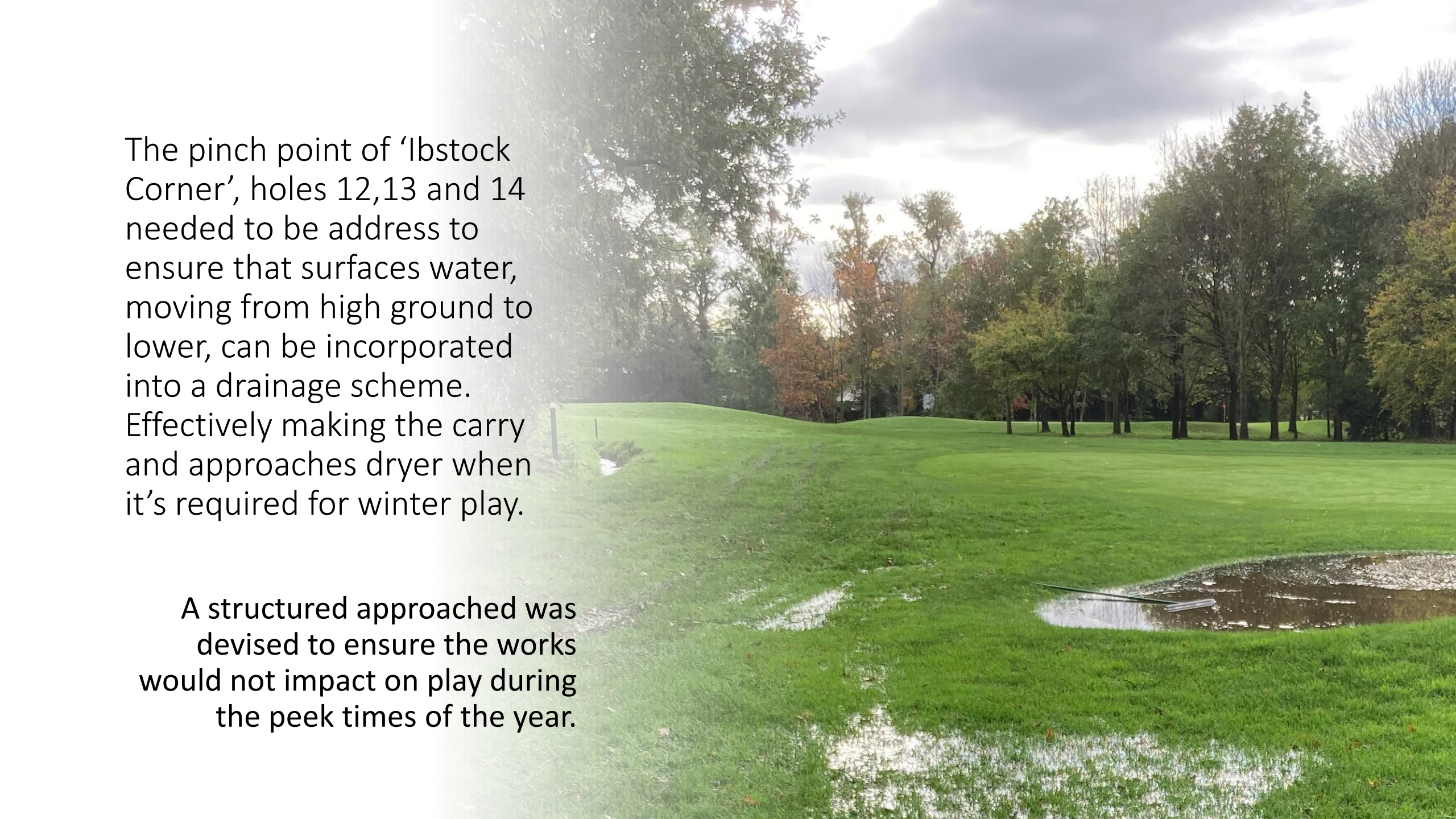
PRINCIPLES FOR IMPROVEMENT

Develop a strategic plan for surfaces and have a multitasking approach to works.

Incremental improvements over the last ten years, to allow the course to remain functioning

Drainage and sward improvement have been the key facets to the plan

Mitigation measures to reduce the impact of global climate change are part of the process.

A photograph of a golf course landscape. In the foreground, a grassy slope descends from the left towards a drainage ditch. The ditch runs horizontally across the middle ground, leading to a small pond on the right. The pond has a dark, reflective surface and a gravelly edge. In the background, there is a line of trees with some autumn-colored foliage. The sky is overcast with grey clouds. The overall scene is a typical golf course setting during a transitional season.

The pinch point of 'Ibstock Corner', holes 12,13 and 14 needed to be address to ensure that surfaces water, moving from high ground to lower, can be incorporated into a drainage scheme. Effectively making the carry and approaches dryer when it's required for winter play.

A structured approach was devised to ensure the works would not impact on play during the peak times of the year.



Working with one of the country's leading sports drainage contractors, a system of lateral drainage channels are plugged into field drains that direct the excess water away from play surfaces. Regular sand top dressing will further assist in moving water from the turf surface to direct it towards the channels. This interconnected approach has proven in sports turf to be the most effective method to drain critical areas.


The areas were back in play within days with little impact on golf play.

ILLUSTRATION OF
INCREMENTAL
IMPROVEMENTS TO THE
COURSE

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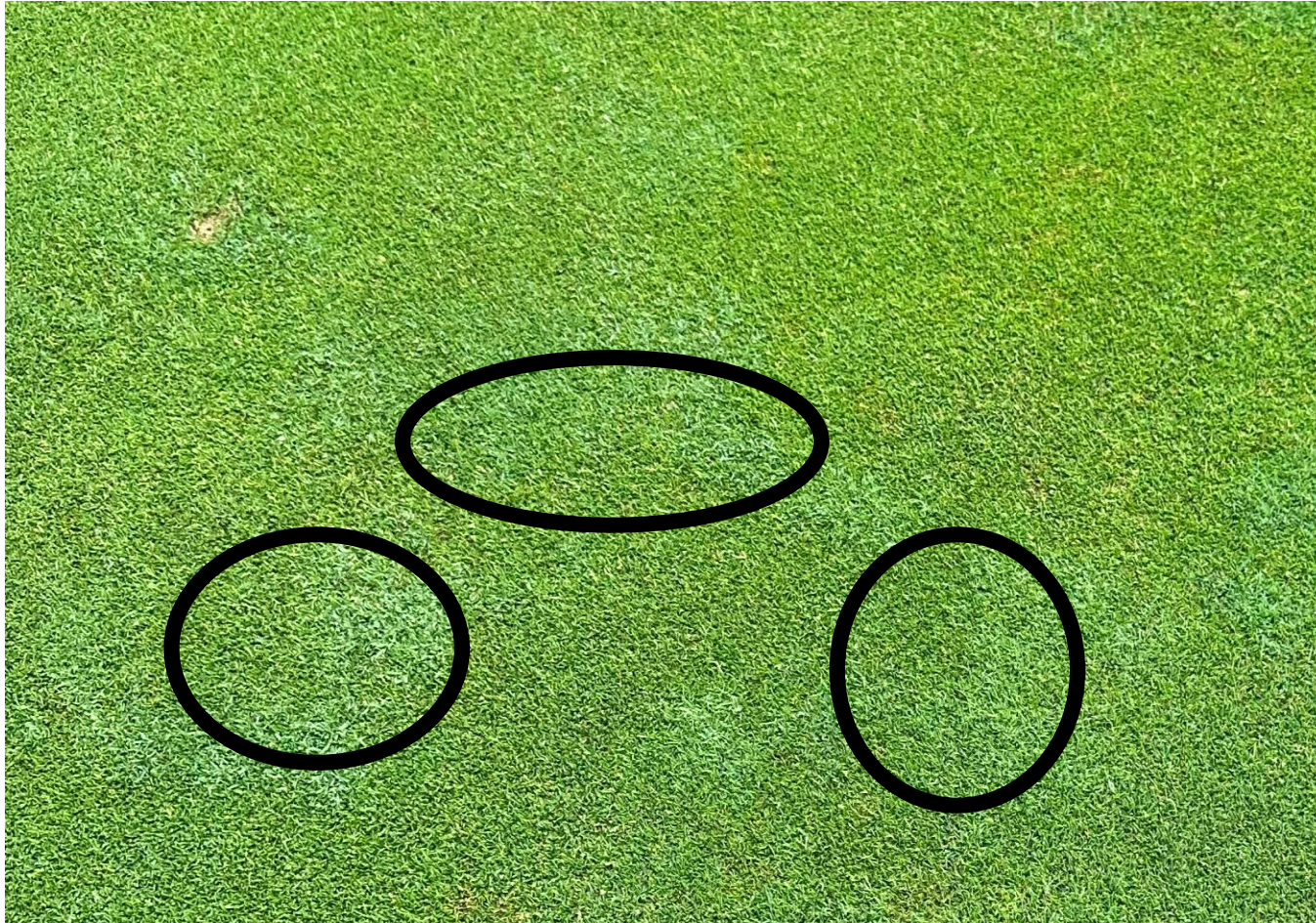
Firm fast playing
surface.
Good uniformity
and quality of the
sward.





We have created quality approaches through over-seeding and intensive maintenance over the last few years.

The surface of the green is in the image background and the line of cores is on the perimeter of the 10th green.




- Over seeding with Creeping Bent grass on the greens is now reaching the critical point where the established plants are starting to coalesce together. We have been working with our agronomist, Sylvain Duval on this task for several years now and we are pleased with the progress of the stratagem.
- We shall continue to over seed in the summer months in the coming years, when the conditions are most favourable for germination. Again, all this work is completed without disrupting play or the Members' enjoyment of the course.



Fairway conditioning has been part of the improvement plan for the last ten years. Through consistent top-dressing spring and autumn, we have been able to ameliorate the profile of the fairways and improve the fairways through sand incorporation. We have been changing the composition of the sward over the last six year by inter-seeding in the autumn time. By using the very best seed varieties, we have managed to make the surface denser and more uniform.

Members and have expressed that they are the best fairway surfaces they have played on.

A photograph of a soil profile taken from a fairway. The top layer is a light-colored, sandy soil, approximately 8 inches (20mm) deep. Below this is a darker, more textured soil layer. A Motorola radio is placed vertically on the right side of the profile to provide a scale. The radio is black with 'MOTOROLA' and 'ROEHANPTOK CLUB II' visible on it. The background shows a concrete curb and some green grass at the bottom of the profile.

A sample taken from a fairway visibly illustrates the consistent presence of sand for 8" (20mm) of the profile depth. Root density has increased dramatically, the drainage potential of the fairways has improved, and we have found that the surface is less prone to the effects of heat stress.

The four key principles for the fairways have worked in tandem over the last tens years...



Fairway Improvement - the four key principles
Sand top dressing and aeration



Fairway Improvement - the four key principles
Inter-seeding and fertility



Working with contractors, to outsource some key tasks has the advantage that they will, with multiply units of plant machinery, complete some key operations in record time with minimum fuss.

This enables the greenkeeping team to concentrate on maintenance activities that directly affect our membership.

WHAT IS PLANNED FOR THE COMING YEAR?

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KEY POINTS 2023

- Continue strategic plan for surfaces, using the four principles of maintenance.
- Complete drainage installation on greens 3, 6 & 14 adopting System 25.
- Review drainage on approaches fairways and roughs with aim of playability in winter.
- Improve event presentation for key Club golf events*.
- Mitigation measures to reduce the impact of global climate change are part of the processes.
- * Budget approval pivotal to this goal

The Club's greens were rebuilt in the 1950's, when the only methods for construction relied on using indigenous soils and shaping these mounds into greens shapes was the de rigueur. Colloquially known as 'push up' greens they have served the Club well, but the silt loan material inheritably has a poor drainage potential and a compromised ability to release water.

In the 1960's, a great deal of resources were invested by several of the American State Universities in improving sport surfaces. Soil science was born as an extension of agricultural departments of these establishments and as consequence the USGA specification for greens construction was created. This has become the universal standard for greens construction worldwide.





Members may compare the Club's greens with courses built with USGA greens, especially in wintertime, and look on with envy. To improve the drainage potential of the greens without the misery of a rebuild process, the drainage issue must be address as the next principle for course improvement. Greens 3, 6 and 14 are to undergo an intensive drainage procedure, this summer, which will involve cutting channels 250mm deep with half meter centers across the entirety of the green. A carrier drain will meet the channels to the side of the green and convey the drainage water into the existing pipe network on the course. This method, branded as 'System 25', has been successfully used to rejuvenate push up greens within the UK for many years. To reduce the impact on play we shall be removing the turf from the surface before the work is initiated (in July) so the channel is below the surface. Once the work on the green is completed, we will replace the turf so by early autumn, the greens are full back in play.

Improving the play conditions for Members to enjoy the course throughout the entirety of the year is one of the principle goals that we endeavor to accomplish.

CLIMATE CHANGE

THE CONSEQUENCES
ON A LOCAL SCALE

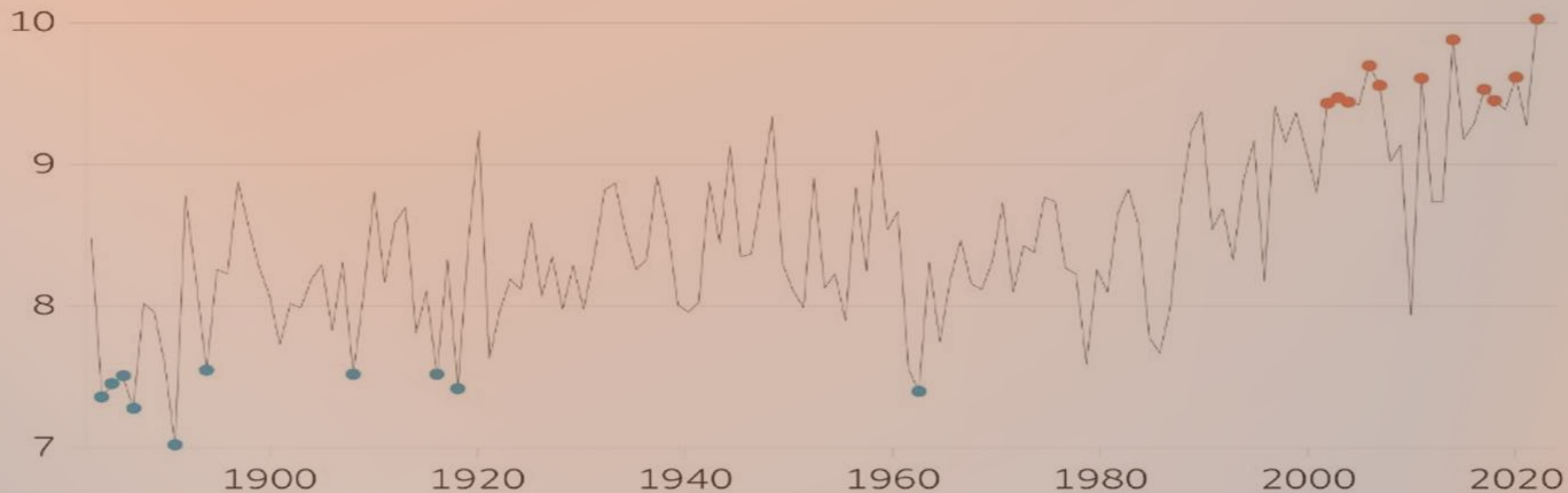
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The effects of climate change are already impacting our environment. In the last ten years has seen the highest temperatures and hottest summer recorded in the British Isles. We are also observing flash flooding more frequently and at any time of the year. The sense of a usual four seasons is being lost and anomalies in weather patterns are being seen more frequently. The unusual is becoming the normality. The work to improve the course now and in the future will need to reflect these changes, so the Club is well prepared in the future and able to continue to function with minimum impact on the sports surfaces.

Above Royal Mid Surrey in 2021

Hottest and coldest UK years (°C)



Data: HadUK Grid mean annual UK temperature

The Daily Telegraph

London flooding: Tube and rail networks suspended after months' worth of rain falls in a day.

**London
Evening
Standard**

Review launched into extreme flash flooding that hit London in July.



Flash Floods: Parts of London receive months rain in one day.



Boris gets feet wet leaving No.10 -it's just weather!

CLIMATE CHANGE

THE EFFECTS TO OUR
LANDSCAPE NOW

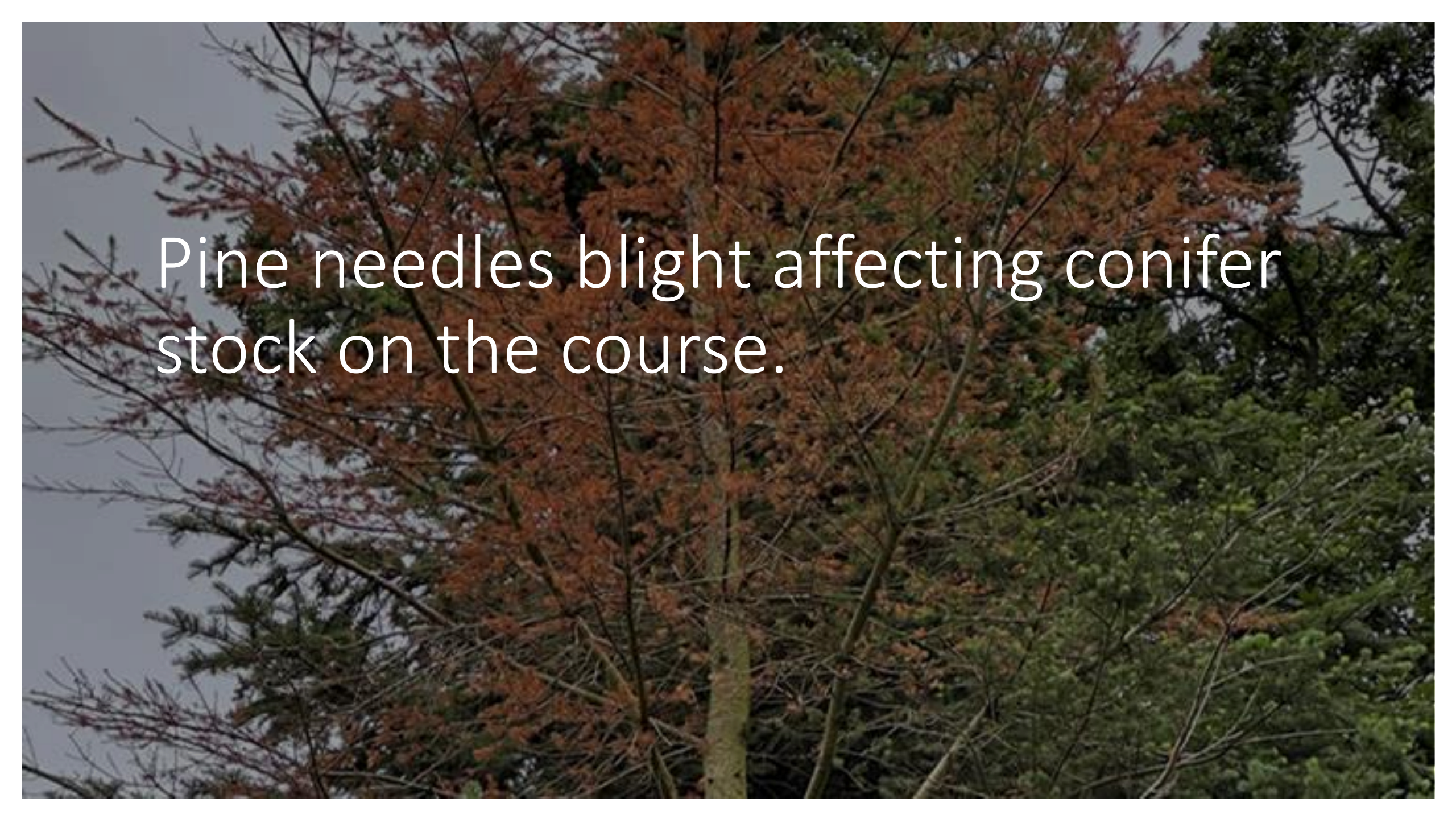
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The tree stock on the estate is an indicator expression for what is happening across the southeast of England. The previous hot summer followed by severe winter took its toll on several shallow rooted species such as birch, cherry and mountain ash. Meanwhile, pest and diseases transported into the UK are now affecting trees, as did Dutch Elm disease some 40 years ago. To compensate for losses, we are working with advisors to look towards replanting in the future with species that are more robust and able to adjust to adjust to climatical changes in the temperature and better disease resistance.



Heat Stress to Birch Trees

A photograph of a pine tree showing signs of blight. The upper portion of the tree's branches is heavily laden with brown, dead needles, while the lower portion remains green. The text is overlaid in white on the brown needles.

Pine needles blight affecting conifer stock on the course.

The environmental factors governing climate change will form the largest transformation to Roehampton Club and the golf course in its history. These changes have already begun and mitigating the negative consequences form part of the maintenance strategy for the future. Physical works, such as drainage and alteration of the surfaces will be necessary for years to come, to alleviate the issues surrounding flash flooding and high temperature spikes.

We have the ability and the tools for the job are available, but we also need the will to change and the patience to persist and get the job done.

SUMMARY



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