AGRONOMIST'S REPORT

BROCKWELL PARK, LAMBETH

Grass and Soil Recovery at Brockwell Park

in Relation to

the Brockwell Live 2026 Event Programme

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AGRONOMIST'S REPORT

INDEPENDENT OPINION

for

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February 2026



Prepared by Peter Jones MSc., MBPR, RIPTA

Independent Agronomic Opinion
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Executive agronomic opinion

Based on agronomic principles and review of the submitted evidence, the proposed pattern of early-season, high-intensity events repeated annually at Brockwell Park would not be expected to allow consistent full recovery of grass and soil between seasons. While grass cover may be restored following individual events, the timing, repetition, and intensity of use would be expected to result in cumulative degradation of soil structure and sward resilience, and a progressive decline in the quality of the parkland sward over time, particularly where recovery is interrupted or events proceed in wet conditions.

In agronomic terms, impacts described as temporary in isolation should therefore be expected to function cumulatively under the proposed regime.

This view is consistent with Agrostis' own earlier post-event assessments of Brockwell Park 2023-2025 (attached), which document recovery outcomes over multiple seasons and explicitly identify continuing deterioration under repeated use and the likely need for substantial intervention to arrest decline. Those conclusions are not carried through to, or addressed within, the agronomy report submitted in support of the current planning application, which instead treats impacts as temporary and fully reversible.

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1. Purpose and scope

This report provides an independent agronomic opinion on the conclusions and assumptions set out in the Agrostis agronomy report submitted in support of planning application 25/03733/RG4 for the Brockwell Live 2026 event programme at Brockwell Park. It also has regard to Agrostis' own earlier post-event assessments of Brockwell Park, which provide longitudinal evidence of recovery outcomes following repeated large-scale events.

The purpose of this opinion is not to re-survey the site or to challenge the competence of the Agrostis assessment. Rather, it is to consider, from an agronomic perspective, whether the recovery outcomes relied upon in that report can reasonably be expected to occur in practice, having regard to:

- the timing of the proposed events within the growing season;
- the scale and intensity of use;
- the annual repetition of events;
- the repeated use of the same areas of the park;
- and the constraints imposed by grass biology, soil recovery processes, and weather variability.

In particular, this report addresses whether impacts described as temporary when considered in isolation can reasonably be expected to remain temporary when events of this nature are repeated annually with limited recovery windows, or whether cumulative degradation of soil condition and sward performance should be expected over time.

The opinion is based on established agronomic principles, professional experience of grass and soil recovery under intensive use, and review of the submitted Agrostis report together with associated ground protection and management documentation. It does not provide an alternative management specification and does not assess planning policy compliance.

2. Agronomic context and governing constraints

The Agrostis report correctly identifies late summer and early autumn as the most reliable period for renovation and reseeding, reflecting well-established agronomic principles relating to soil temperature, moisture availability, and grass growth rates.
However, it is equally well established that:

- reseeding in late summer does not, of itself, guarantee full functional resilience by the following spring;
- structural recovery of compacted soils is significantly slower than surface re-establishment of grass cover;
- recovery outcomes are sensitive to soil condition at the time of renovation, weather during establishment, winter dormancy, and the length of the post-winter growing window.

From an agronomic standpoint, early-season, high-intensity use places the greatest stress on grassland that has not yet completed structural recovery, regardless of the apparent success of visual re-establishment. These constraints form the baseline against which the conclusions of the Agrostis report must be understood.

3. Historical context and change in intensity of use

Brockwell Park has a long history of hosting events, most notably the Lambeth Country Show, which took place annually from the 1970s, alongside a limited number of other occasional events. The Country Show was traditionally held later in the summer, typically in late July, aligning more closely with peak grass growing conditions. From an agronomic perspective, however, the historic pattern of use does not provide a meaningful comparator for the current proposal.

The Lambeth Country Show was traditionally a single-weekend event, with relatively short build and de-rig periods, limited fixed infrastructure, and largely unwalled layouts that allowed crowd dispersal across a wider area of the park. This pattern of use allowed substantially longer recovery periods and coincided with the most favourable part of the growing season for grass repair and regeneration.

By contrast, the Brockwell Live programme introduced from 2018 represents a material change in loading regime, characterised by multiple large-scale events per season, extended periods of ground occupation, repeated use of the same footprints, and earlier seasonal timing that materially shortens recovery windows. From an agronomic standpoint, this constitutes a step change in **intensity, frequency, and concentration of use**, with corresponding implications for soil compaction, recovery reliability, and cumulative effects.

Historic event use at the park therefore cannot be relied upon as evidence that the grassland can sustainably accommodate the current proposed pattern of events without long-term change in soil condition and sward performance.

4. Recovery under repeated annual events

The Agrostis report concludes that grass cover can be restored following events, subject to appropriate reinstatement and late-summer renovation. That conclusion is reasonable when considered in the context of recovery following an **individual event**.

However, under a regime of large-scale events repeated annually, recovery should not be expected simply to repeat single-event outcomes. In my professional opinion, repeated annual loading of this intensity would be expected to limit opportunities for full soil structural repair and deep rooting development. Over time, recovery would become increasingly dependent on mechanical intervention, reseeding, and surface repair rather than natural regeneration.

This pattern is characteristic of **cumulative stress**, rather than a stable cycle of temporary impact followed by full recovery, even where reinstatement is undertaken after each event.

5. Timing of events and duration of damage

The Agrostis report identifies late summer / early autumn as the point at which effective renovation can occur. The proposed events, however, take place earlier in the growing season.

In practice, this creates a prolonged interval after events during which meaningful biological recovery cannot realistically commence. During this period, areas remain in a degraded condition, with limited scope for grass growth or soil structural improvement.

From an agronomic perspective, this prolongs the duration of damage and increases reliance on later intervention rather than progressive recovery through the growing season.

6. Reliability of recovery before the following season's use

The Agrostis report implicitly assumes that grass reseeded at the first viable opportunity in late summer will develop sufficient resilience to withstand high-intensity use by the following spring; this assumption is examined here in relation to the year-to-year interval between successive event seasons.

In my professional opinion, that assumption is optimistic when applied to an early-season, high-intensity event regime repeated annually. A substantial proportion of recovery must occur during autumn establishment, followed by winter dormancy, and within a relatively short post-winter window before events return in May.

Under these constraints, grass should not be expected to consistently achieve full functional resilience - in terms of rooting depth, soil strength, and resistance to compaction and shear - across a normal range of weather conditions. While visual grass cover may be present, this should not be equated with structural recovery. Early re-use before recovery is complete would be expected to interrupt recovery trajectories and contribute to cumulative degradation.

7. Repeated use of the same footprints and layouts

The application proposes repeated use of broadly identical event footprints and circulation routes. The Agrostis report recognises compaction and shear as key damage mechanisms.

From an agronomic standpoint, repeated loading of the same areas concentrates stress, limits recovery opportunities, and accelerates decline relative to more dispersed or rotational use. Over time, this would be expected to lead to persistent weak points, uneven sward performance, and increasing intervention requirements.

8. Wet-weather operation and agronomic consequences

The submitted ground protection and wet-weather documentation indicates that events may proceed in wet or marginal ground conditions, with ground protection measures intended to reduce, but not eliminate, damage.

From an agronomic perspective, soil damage incurred under wet or saturated conditions is typically more severe, penetrates deeper into the soil profile, and recovers more slowly. If events proceed under such conditions, damage would be expected to persist beyond a single growing season.

Repeated annual use in wet conditions would therefore be expected to accelerate cumulative degradation of soil structure and sward resilience, increasing reliance on intensive remediation to maintain surface condition.

In agronomic terms, this approach accepts that damage will occur and seeks to manage it through post-event repair, rather than avoiding damage by restricting or suspending use when ground conditions are most vulnerable. Where such an approach is applied repeatedly over successive years, it materially increases the risk that soil structure and sward condition will deteriorate faster than they can recover.

9. Implications for grass selection and sward character

In considering the implications of the proposed event regime, it is relevant to establish what constitutes an acceptable recovery outcome for parkland grass at Brockwell Park.

In their March 2025 post-event assessment, Agrostis explicitly articulate the standard that should be aspired to for a public park, stating:

"The open areas of the site tend to be used for casual play, sunbathing, dog exercising etc. Sunbathers are perhaps the most selective in terms of on what quality of surface they are prepared to place themselves. This speaks to the quality of surface that users of the park may be expecting. Without thinking about it necessarily, such users will be seeking out the areas of dense, fairly vigorous swards of uniform height. It is this quality of surface, therefore, that should be aspired to."

Agrostis further note in the same report that, without adequate recovery, *"regular events will most likely lead to a continual deterioration in the overall quality of the surfaces,"* and describe this aspirational standard as a reasonable definition of the type of sward that should be expected in a public park. From an agronomic perspective, this establishes a clear distinction between the mere presence of grass cover and the restoration of a dense, even, and resilient parkland sward suitable for normal informal recreational use.

The implications of the proposed event regime for achieving and sustaining this standard are considered below.

If grass is required to be fit for very high-intensity use by the spring following late-summer reseeding, this necessarily constrains what can be achieved in terms of root development and soil recovery. The requirement for early-season use limits the time available for grass plants to develop depth of rooting and for soils to recover structural strength following compaction and shear.

Where recovery is repeatedly interrupted and reseeding becomes a routine response, the grassland would be expected to remain in a continual establishment phase, dominated by relatively young plants with limited rooting depth and limited contribution to long-term soil stability.

In agronomic terms, this represents an arrested sward development, in which resilience is derived from repeated renewal rather than from the maturation of plants and soil structure.

In practice, sustaining the proposed event regime would be expected to favour grass species and management approaches that prioritise rapid establishment and tolerance of intensive wear, rather than deeper rooting, longer-term resilience, or the characteristics typically associated with established parkland grassland. Over time, this represents a functional shift in the nature of the grassland towards a more intensively managed, event-tolerant surface.

Such a trajectory is inconsistent with the characteristics ordinarily associated with established parkland grassland, where resilience and amenity value are derived from stable soils, established rooting systems, and continuity of vegetation cover rather than frequent intervention. Instead, the grassland would be expected to function increasingly as a managed event surface, maintained through regular repair to tolerate intensive use.

10. Evidence from previous Agrostis post-event assessments

The evidence summarised below is drawn from Agrostis' own post-event assessments of Brockwell Park and provides important context for the conclusions reached in this report.

The conclusions set out in this report are consistent with, and supported by, observations recorded in earlier Agrostis post-event assessments of Brockwell Park following large events. In particular, reports prepared in June 2023, June 2024, and March 2025 provide longitudinal evidence of how the site responds to intensive use, recovery attempts, and adverse weather conditions.

10.1 Persistence of soil impacts beyond visual grass recovery

Across the earlier assessments, Agrostis consistently distinguishes between the return of grass cover and the condition of the underlying soil. In the March 2025 post-event assessment, Agrostis note that although grass cover had largely recovered, the footprint of event structures and activities remained clearly discernible, indicating that soil conditions continued to carry the legacy of the event, most likely in terms of soil structure and hydraulic behaviour. This observation supports the conclusion in this report that visual recovery of grass should not be equated with full functional or structural recovery of the soil.

10.2 Recovery timing and extended periods of damage

The June 2023 report records that, where recovery relied on reseeding, meaningful grass recovery would not have commenced until late September at the earliest, with significant damage remaining visible for several months following the event. This aligns with the analysis in Sections 5 and 6 of this report regarding the mismatch between early-season event timing and the biological constraints on recovery, and the resulting extension of the period during which ground damage remains evident.

10.3 Wet-weather damage and recovery constraints

The June 2024 post-event assessment provides particularly clear evidence of the role of wet ground conditions in exacerbating damage. Agrostis identify that the most disruptive impacts arose where vehicle movements and footfall occurred on wet soils, resulting in localised but significant surface disruption and the formation of compacted layers within the upper soil profile. The report further notes that damage under such conditions penetrates below the grass cover and is therefore slower to recover.

These observations directly support the conclusions in Section 8 of this report that events proceeding in wet or marginal conditions are likely to cause deeper, longer-lasting soil damage, increasing reliance on intensive remediation and extending recovery times beyond a single growing season.

10.4 Dependence on narrow recovery windows and intensive intervention

Across all three earlier reports, Agrostis emphasise the critical importance of late summer and early autumn as the only reliable window for renovation and reseeding, and the risks associated with attempts to recover damaged areas outside that period.

The June 2024 report, in particular, sets out extensive and intervention-heavy remediation measures, including cultivation, decompaction, and repeated overseeding, with outcomes explicitly dependent on favourable weather conditions. This reinforces the conclusion in this report that recovery under the proposed event regime is not automatic or assured, but contingent on narrow seasonal windows and significant intervention, and that repeated disturbance is likely to interrupt recovery before full structural resilience is achieved.

10.5 Implications for cumulative effects

Taken together, the earlier Agrostis assessments demonstrate that while grass cover can be reinstated following individual events, soil structural impacts persist, recovery is slow and conditional, and damage incurred under wet conditions is particularly problematic. When viewed longitudinally, these findings support the conclusion that repeated annual events of the scale proposed are likely to result in cumulative degradation of soil condition and sward resilience, rather than a stable cycle of temporary impact and full recovery.

11. Conclusions

The Agrostis report provides a competent assessment of damage mechanisms and post-event reinstatement following individual events; however, it does not carry through or address the conclusions and advice set out in Agrostis' own earlier post-event assessments for Brockwell Park, which identify continuing deterioration under repeated use and the likely need for substantial intervention to arrest decline.

When the implications of those earlier assessments are considered in the context of the proposed timing, intensity, annual repetition, repeated footprints, and wet-weather operation, a different outcome should be expected in practice.

Although impacts may be described as temporary when considered in relation to an individual event, agronomically such impacts cannot be regarded as temporary where they recur annually before full recovery has occurred.

Under the proposed regime, grass and soil recovery at Brockwell Park is likely to be incomplete and increasingly reliant on intervention. While grass cover may be restored between events, full functional resilience should not be expected to be consistently achieved year on year. The likely outcome is a progressive decline in soil condition and sward performance, rather than a stable cycle of temporary impact and full recovery.

In practical terms, the effects of this event regime would not be confined to a short period of post-event reinstatement. Instead, recovery would need to be managed as an ongoing process extending across successive seasons. Areas subject to cultivation, reseeding, and establishment would require protection from wear while recovery is taking place, including temporary restrictions on access, managed circulation around treated ground, and periods during which normal recreational or sporting use could not reasonably be accommodated. This pattern of management is consistent with the recovery outcomes recorded in Agrostis' earlier post-event assessments. Over time, the need for repeated protection and managed recovery would result in parts of the park being intermittently

unavailable or constrained in their use as a routine feature of the annual programme, representing a functional change in how the parkland is managed and experienced.

Over time, this regime would be expected to maintain the grassland in a largely juvenile or early successional state, rather than allowing the development of a mature, structurally resilient, parkland sward, whose ecological value depends on the long-term stability of soils and the persistence of established plant communities rather than repeated disturbance and renewal.

Boundary statement

This opinion is based on agronomic principles and professional experience of grass and soil recovery under intensive use. It assumes that events proceed broadly in accordance with the management framework described in the application and does not assess operational decision-making or planning policy compliance.

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APPENDIX 1 – INTERNET IMAGE FOR REFERENCE – BROCKWELL PARK

Fig.1. Internet Image Showing in Particular the Soil & Grass Condition - Post Brockwell Live Event

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APPENDIX 2 – AGROSTIS AGRONOMY REPORTS REFERRED TO IN THIS REPORT
(attached)

[redacted]

BROCKWELL PARK

Brockwell Park 23-05-17.Docx

***Agrostis* Sports Surface Consulting**

[redacted]

01 June 2023

TAL

Agrostis Turf Consultancy Ltd. Registered office: Eldo House, Kempson Way, Bury St Edmunds, Suffolk, IP32 7AR.
Company No: 6675140. VAT Reg No: 889 4960 43.

1 CONDITIONS

The site was visited on 17 May 2023. A plan of the site is provided in Figure 1-1 for reference.

Figure 1-1 Plan of the site

At the time of the visit an event was being installed and approximately 50% of the perimeter fencing had been put in place. A good deal of trackway had also been incorporated.

Figure 1-2 Trackway, installations and fencing being installed in Red Gate area

Grass growth across the park at the time of the visit was generally vigorous. This was indicated in part by the profusion of grass clumps in the surface following a recent mowing operation and the generally taller and dense vegetation in particular around trees and in the perimeters.

Figure 1-3 Vigorous growth in perimeters and an area of profuse grass clippings

On the football pitch in the southern field (white outline in Figure 1-1) only the goalmouth and the football pitch showed significant ground cover losses with typical patches of bare ground about 1 metre across.

Figure 1-4 Eastern and western goal mouth areas of football pitch

The trackway being laid down obscured the condition of the ground beneath but, on revisiting those locations noted during my last visit on 5 July 2022, it was apparent that a very substantial recovery had been achieved.

Figure 1-5 Area affected by trackway installation in July 2022 (left) and May 2023

Over such a large area and diversity of species is inevitable, but the main grass compenent of the sward was typically perennial rye grass. This grew in a dense and vigorous fashion in almost all areas. Sward height at the time the visit in areas obviously subject to mowing was around 75 to 100 mm. Few other grass species were noted amongst the perennial ryegrass. Broadleaf species included plantain and dandelion which were frequent.

Figure 1-6 Typical appearance of the sward in un-renovated area

2 DISCUSSION AND RECOMMENDATIONS

Brockwell Park would appear to be established on a deeper and more mature soil profile than many other London parks, including Clapham Common, which tend to have shallower and less fertile soils. The soils at Brockwell are significantly more fertile and water retentive. This has encouraged vigorous grass growth and also the development of the splendid assemblage of mature trees. It is not unlikely that the soil profile is that of the original landscape prior to urbanisation.

Even considering these favourable ground conditions, I was extremely surprised at the degree of recovery that has been achieved following what appeared to be the devastation of the event last July. I'm not sure what renovation methods were used but even if much of the area had been restored with much more costly turf, the success of the reinstatement has been considerable. Recovery from seed only to the extent noted would have been spectacular and congratulations are due in some direction.

If the recovery was achieved with turf this will have necessitated the laying of the material much later in the season, perhaps in October, so that the significant damage noted in July 2022 will have remained visible for several months afterwards. From seed, areas would not have begun to recover until late September at the earliest. The perception of these processes and their implications amongst the users of the Park would be of interest.

Unlike Clapham common which has a generally low nutrient status on which enhanced biodiversity might more easily be achieved, the fertile conditions at Brockwell suggest that a more monocultural community of species may be expected. Accordingly, renovation work in the aftermath of events and using either turf or seed should consist of the use, predominantly, of perennial ryegrass. This is the most rapidly and readily germinating of the grasses and it is very tolerant of wear. Areas established with this species would also be more compatible with those not requiring treatment and so the uniformity and consistency of the surfaces overall may be continued. Conversely, in areas where greater biodiversity may be aspired to, the removal of topsoil would be one of the most rapid and effective means of achieving this.

It was noted that the football pitch had been verti-drained at some point during the early spring. This will be beneficial and will further increase its resilience in relation to usage. However, the pitch is sloping across the direction of play by a substantial degree. Its development as anything other than a casual playing surface would therefore require much more substantial earthworks to be undertaken.

The land as a whole should, therefore, be maintained in the manner of pasture, the mower replicating as far as possible the grazing of animals such as sheep and deer. This contrasts with the circumstances at Clapham Common where a meadow vegetation should be aspired to.

Signed:

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1 June 2023

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BROCKWELL PARK - JUNE 2024

Brockwell Park June 2024.Docx

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A*grostis* Sports Surface Consulting aims to assist clients in matters concerning sports surfaces. All recommendations are offered free of bias. A*grostis* has no commercial connections or obligations to any manufacturer, supplier or contractor.

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20 June 2024 TAL

BROCKWELL PARK - JUNE 2024

1 INTRODUCTION

1.1 Objectives

An advisory visit was undertaken to assess the general ground and surface conditions from an agronomic perspective of part of Brockwell Park in the aftermath of a series of outdoor events that had taken place during the preceding weeks.

Agrostis' client is:

London Borough of Lambeth

Represented by:

[redacted]
Events Services Manager

Environment and Streetscene
Residents' Services
Civic Centre
3rd Floor, 6 Brixton Hill,
London
SW2 1EG

Tel: [redacted]

1.2 The assessment

The assessment of the site took place on 17 June 2024. At the time, the perimeter fence was still in place but all of the structures and surfaces incorporated into the Event had been removed and the last of the materials was being collected and taken off site.

The assessment of ground conditions was undertaken by means of a walk-over of the area of the Event, noting and photographing features of the ground cover and other possible influencing factors. Aerial imagery was also obtained using a UAV (drone).

The approximate outline of the event site, around which the fence was incorporated, is shown in Figure 1-1, superimposed on the Google Earth image of the site form 2020.

Figure 1-1 Approximate outline of the event site

2 POST-EVENT CONDITIONS

Rough photogrammetric images, taken from around 80 metres altitude of 4 sections and covering the site, are shown in Figure 2-1 to Figure 2-4.

Figure 2-1 Eastern section

Figure 2-2 Central section

Figure 2-3 Western section

Figure 2-4 Southern section

Oblique images of parts of the site are shown in APPENDIX I – OBLIQUE AERIAL IMAGES OF THE SITE.

The effects of the event on the ground cover may be categorised as that caused by the following:

- Trackway
- Installations (marquees, stands, stages etc)
- Footfall

These types of may be seen in the example image of the eastern section reproduced in Figure 2-5.

Figure 2-5 Various forms of surface damage

Closer views of the nature of these effects are shown in Figure 2-6.

Figure 2-6 Examples of damage types

In addition, smaller areas of more substantial disruption of surface levels had come about at scattered locations, typically as a result of vehicle movement on what will have been wet ground.

Figure 2-7 Examples of more substantial surface disturbance

An examination of the soil profile of a trackway area showed a distinct area of more compacted soil in the immediate surface. This overlay the native topsoil which was a well-structured sandy loam with increasing clay content beyond around 175 mm.

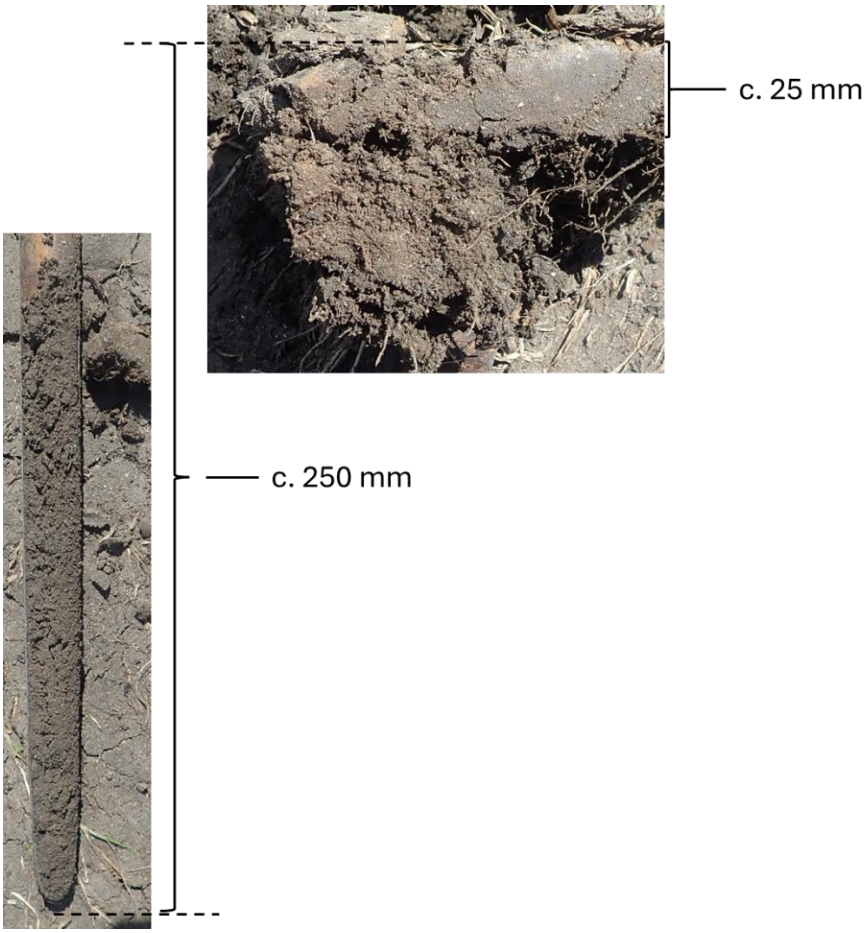


Figure 2-8 Features of the soil profile

3 DISCUSSION

The consequences of the three causes of damage to the site as described above are very diverse. This is particularly the case in relation to footfall, the intensity of which will have varied greatly from place to place and depending on the degree of ground protection, if any, that was provided.

Similarly, the installations varied in their effects. This variability tends to be related to the amount of time over which the installation was in place and the exact form of the ground/flooring interface, a feature of the flooring design. The ability for air to circulate immediately above the living ground cover, as well as the extent of light penetration, is usually found to be fundamental in this respect.

The trackway, as has been noted both here and at other event locations, is usually in place for an extensive period of time and generally leads to a complete loss of ground cover.

These features are common to all events of this type. On this occasion, however, the circumstances were complicated, and the effects made generally more damaging, by wet weather that occurred during the events as they took place and subsequently. At the time, this had necessitated the incorporation of geotextile covered in bark chippings over the areas of greatest anticipated footfall, in front of stages and in key access pinch-points for example. The consequent softening of the ground by the wet weather also made the disruption of levels by vehicle tracking in the break down or ongoing maintenance work on the site more substantial.

There are, therefore, 3 main factors with which we are concerned, the extent of each of which varies across the site. These are:

- Loss of ground cover
- Damage to soil structure
- Disruption of surface levels

The loss of ground cover has been indicated here by the photographs, the aerial images being particularly informative.

The trackways and other forms of ground protection will have been most effective in reducing the extent of potential soil structural damage. In this respect, the impact of footfall will have been the most substantial, a factor made considerably worse by the wet conditions when this was taking place. The bark/geotextile solution will have provided only a little protection against this, its primary purpose being to ensure that surface conditions did not deteriorate to the extent of being un-useable *during the events themselves*.

The localised effects of machinery movement on wet ground has been the most disruptive in terms of soil structural damage and loss of surface levels. However, these tend to be in quite discrete and relatively small areas so resolving these effects should be relatively straightforward to specify.

4 RENOVATION RECOMMENDATIONS

4.1 Trackway

In these areas the surface should be disturbed to some extent prior to the incorporation of seed. Such disturbance need not be particularly deep but the procedure will significantly improve the effectiveness of over-seeding work. Use a power harrow for this purpose to thoroughly cultivate the top 50 mm of the soil profile.

A pre-seeding fertiliser should then be distributed over the treated areas at a rate of 35 g/m^2. Such fertilisers typically have an N : P : K analysis of 7 : 7 : 7 but variations on this will be suitable.

Seed should then be sown using a dimple seeder (as opposed to a disc seeder). A seed rate of 50 g/m^2 should be achieved by making two passes with the machine set to deliver at around 25 g/m^2 with each pass. Note that three passes at 18 g/m^2 would normally be undertaken in varying directions but the usually linear nature of the trackway areas will make this very difficult to accomplish.

Ideally, areas treated in this way should be protected from footfall during the period of establishment. Some of the more expansive areas may lend themselves to being fenced off, for example with chestnut paling. For the many metres of more linear surface affected in this way this may not be practicable. However, given the profusion of metalled pathways around the Park to which most of the trackways have been laid parallel, pedestrians may not be too inclined to walk over the renovated areas and so damage may ultimately be fairly minimal.

To a large extent the success of this seed incorporation will depend on the timing of the works. Ideally, all grass seed should be sown during the period from mid-August through to the end of September. At that time heat intensity from the sun will have reduced though the soil will be very warm. Also, rainfall can be expected to occur with reasonable confidence and in quantities likely to have an impact on the moisture available to developing grasses. Earlier attempts at over-seeding run a serious risk of failure due to heat/drought stress affecting the developing seedlings. The majority of this renovation work should therefore and if possible be delayed until August.

4.2 Structures

Some of the structures had an impact on the grass that is likely to recover with sunlight, rain and fertiliser so the necessity or otherwise to treat these areas will become apparent by the time of sowing. Where a significant quantity of grass leaf persists, chain harrowing will probably accelerate the recovery.

Again, the application of a pre-seeding fertiliser should be undertaken on these areas where over-seeding is to be carried out.

Over-seeding of these areas should be accomplished with a disc seeder incorporating seed directly into the soil surface. Smaller versions (say 1.2 m width) will be more versatile in negotiating the

varying shapes and sizes of the treatment areas. The discs should deposit the seed around 8 mm below the surface.

4.3 Footfall

Over these areas, efforts to re-establish ground cover should be accompanied by compaction relief processes, principally verti-draining. Some such work had been undertaken in the southern section at the time of the site examination and this appeared to have been quite successful in terms of achieving a satisfactory depth of tine penetration. This has probably been made possible by the generally wet weather we have experienced throughout the spring. Other areas may not respond quite so well to the treatment, however, and a return visit during the autumn may therefore be necessary to achieve a comprehensive effect. In fact, a second treatment at that time would be generally beneficial, not least because of the more than usually extensive nature of the footfall compaction that has come about.

In areas of the most severe loss of ground cover, the same power-harrowing operation as described for the trackway areas may be necessary. How extensive such areas will be may be determined to a large extent from the photograms but a good deal of subjective assessment of the surfaces' requirements at any particular location will need to be applied as the work is taking place.

Seeding should be accomplished, again following the application of a pre-seeding fertiliser, using a disc seeder. A 'triage' approach to the rate of seeding should be adopted, setting the machine to deliver seed at a rate of 18 g/m^2. Areas which have retained the most ground cover will benefit from the incorporation of seed following just one pass with the machine. Thinner areas should receive two passes and very thin areas three passes, achieving rates of 18, 36 and 54 g/m^2 respectively. Seeding should take place from August through to the end of September.

4.4 Severe surface disruption

Some discussion took place on site concerning the incorporation of fencing around these areas which may represent trip hazards, very much to be avoided. Although the time of year would not normally be considered appropriate, the still moist ground conditions may allow a more substantial cultivation of these areas, down to around 150 mm say. This would allow the surface to be restored and a tilth created into which seed may be incorporated, probably distributing by hand over such small areas.

If a hot and dry period follows such treatments through July, it may become necessary to repeat the sowing but August approaches and there is no sign of a heatwave yet so an attempt at some early seeding work may prove effective with the aim of generally accelerating the recovery process for the whole site.

4.5 Seed selection

A number of factors indicate that a different approach to amenity grass maintenance may be appropriate, and the present circumstances are such that this approach could very effectively commence now. Those factors include the costs and general demands of maintenance and the impact of climate change. Generally speaking, prolonged hot and dry periods imply that a different range of grass species would be better adapted to these conditions.

Therefore, for all of the sowing proposals described above a suitable seed mixture of species composition (by weight) close to that indicated in Table 4-1 would be suitable for the site as a whole.

Smooth-stalked meadow grass	Slender creeping red fescue	Strong creeping red fescue
40	30	30

Table 4-1 Seed species and percentage (by weight) of each within the mix.

All cultivars should be suitable for use in sports turf. The mix contains a substantial inclusion of smooth-stalked meadow-grass which is replacing the perennial ryegrass of earlier mixes. SSMG is more tolerant of drought and has a lesser fertiliser requirement which makes it more suitable for low maintenance situations. SSMG is, however, significantly more costly than ryegrass but the longer-term advantages of its substantial establishment will become apparent during the years ahead.

Note that SSMG requires warm soil temperatures for its successful establishment. If the sowing is delayed for any reason beyond the end of September, it may be more appropriate to revert to a ryegrass-rich mixture.

Such a seed mix will be expensive, due to the cost of SSMG in particular. It would also need to be customised by a seed merchant as no proprietary mixes contain this proportion of species. An alternative mix would therefore contain lesser SSMG and some perennial ryegrass. This will establish more rapidly, a factor which may be more appropriate in this case anyway. Such an alternative is 'Parks' from DLF. For more examples, contact Agrostis.

4.6 Verti-draining

Verti-draining should be undertaken, over the footfall areas only, when soil conditions allow the full penetration of tines, to around 300 mm, but when ground conditions are sufficiently firm to allow the passage of the tractor without inducing excessive surface damage. These conditions are likely to develop by late October or November and the extent to which they persist through the winter will depend almost entirely on the level of rainfall that is received. Satisfactory conditions are also likely to develop by late March but the autumn treatment is very much to be preferred.

When verti-draining, use the largest available machine fitted with 25 mm solid tines at the closest centres the machine will allow and set to achieve maximum heave action. Any excessive disruption to the surface should be made good by hand by which means any very large stones or other debris that may be brought to the surface by the action of the verti-drain should be removed.

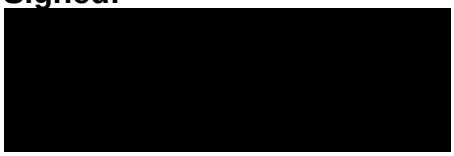
4.7 Preparing for future events

It may be appropriate to identify in advance where, during future events, the highest degree of footfall is to be expected. Obvious examples would include the areas in front of stages and anticipated pedestrian traffic routes between event features. Such areas should respond well to pre-preparation work although it is questionable to what extent treatment of the trackway and structure areas themselves would benefit from this. As costs will undoubtedly need to be minimised, verti-draining, if it is to be carried out, would most effectively be confined to these areas of anticipated high footfall. Top dressing with sand and a general stimulation of more vigorous growth during the period leading up to the event will also be beneficial. Generally allowing the sward height to be maintained at a greater level, say 35 mm, would also be advantageous. During the weeks leading up to future summer events, the extent of ground cover retention would be improved by not mowing at all, allowing the sward to reach up to 100 mm in height.

4.8 Contracting

This report was not drawn up with the aim of mapping the areas and quantifying their extents of the various areas that should be subject to the different renovation procedures described here. The awarding of contracts to undertake these procedures may, however, require such quantification to take place in which case the data now available with Agrostis would make this possible. It depends upon the intentions of those responsible for the restoration of the grounds.

Signed:



Consultant

Agrostis
SPORTS SURFACE CONSULTING

20 June 2024

5 APPENDIX I – OBLIQUE AERIAL IMAGES OF THE SITE


Brockwell Park
2020
Google Earth


Brockwell Park
2020
Google Earth


Brockwell Park
2020
Google Earth


Brockwell Park
2020
Google Earth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Google Earth

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BROCKWELL PARK - MARCH 2025

Brockwell Park March 25.Docx

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Company No: 6675140. VAT Reg No: 889 4960 43.

27 March 2025 TAL

BROCKWELL PARK - MARCH 2025

1 INTRODUCTION

1.1 Obj,ectives

An advisory visit was undertaken to assess the general ground and surface conditions from an agronomic perspective of part of Brockwell Park. The assessment followed the reinstatement works following a major outdoor event, the immediate aftermath of which was reported on in June 2024..

Agrostis' client is:

London Borough of Lambeth

Represented by:

[redacted]

Environment and Streetscene
Residents' Services
Civic Centre
3rd Floor, 6 Brixton Hill,
London
SW2 1EG

[redacted]

1.2 The assessment

The assessment of the site took place on 7 March 2025.

Aerial imagery of the entire affected area was obtained using a UAV (drone).

The surface and soil profile were examined in detail at three contrasting and representative locations within the site. Measures of soil texture, structure and hydraulic conductivity were taken from samples obtained from these locations.

Volumetric soil moisture content was measured at over 300 locations across the entirety of the site using a FieldScout TDR Moisture Meter linked to GPS to enable mapping of the data.

2 GROUND COVER

2.1 General

A single composite image, with component photos taken from around 50 metres altitude across the entire site, is shown in Figure 2-1. This is placed alongside the equivalent image from June 2024 in the immediate aftermath of the last major event to take place on the area.

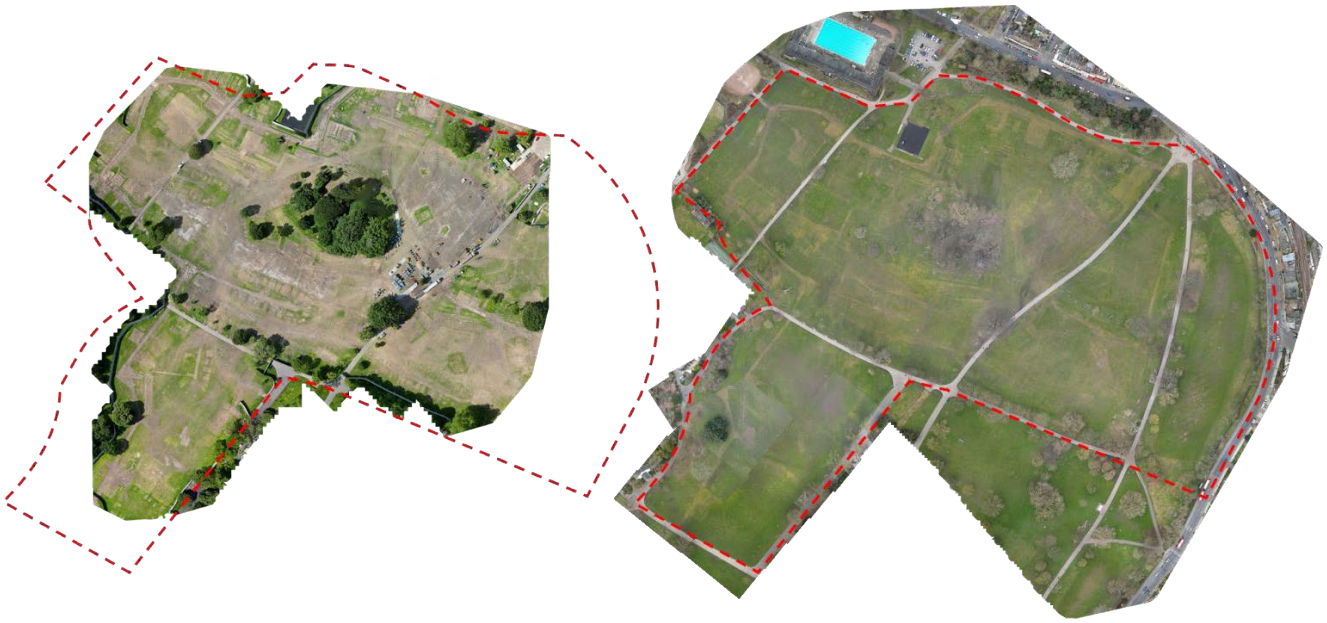

Figure 2-1 Entire site in March 2025 (right). Equivalent area from June 2024 on the left

A general restoration of ground cover is apparent across all of the affected areas although the form of that ground cover continues to indicate the areas of greatest ground cover loss.

2.2 Main areas

Lido area

The area to the west I refer to as the Lido area. The pattern of vegetation growth and establishment across this area is indicated in Figure 2-2.

Figure 2-2 Lido area

Entrance area

The Entrance area to the north is shown in Figure 2-3.

Figure 2-3 Entrance area

Football area

The area north of the central woodland I have referred to as the Football area, a football pitch being frequently marked out here (although it was not at the time of the investigation). The aerial image of this area is shown in Figure 2-4.

Figure 2-4 Football area

Eastern area

The area to the east was not used intensively during the 2024 event but it is to be incorporated into the events proposed for 2025. This area is shown in Figure 2-5.

Figure 2-5 Eastern area

South-western area

The south-western area is shown in Figure 2-6. Note that the photogrammetry was less successful than elsewhere for this section on this occasion.

Figure 2-6 South-western area

2.3 Sward characteristics

A detailed assessment of the sward characteristics across such a large area would be beyond the scope of this exercise (and of questionable merit anyway). An assessment of these characteristics was undertaken in the vicinity of the 3 soil profile examinations described below.

Football area

A reasonably full ground cover had been retained on the football area although a general thinning of the sward was apparent in places.

Figure 2-7 Images of Football area ground cover

Entrance area

In the entrance area ground cover had been affected by persistent surface water retention. Numerous areas of ponding were apparent at the time of the investigation and it was clear from the sward characteristics that these had been significantly more extensive during the winter period.

Figure 2-8 Images of the sward in the entrance area

South-western area

It appeared that the upper section of this area had been used for football or other sporting purposes, either organised or otherwise (there were no line markings present). This had brought about some thinning of the sward although these features were not apparent elsewhere where ground cover was quite substantial.

Figure 2-9 Images of ground cover from the south-western area

3 SOIL CHARACTERISTICS

3.1 Soil profiles

Football area

Excavation in the football area revealed a topsoil of sandy loam texture that extended to around 250 mm. This became increasingly stony beyond 250 mm.

The subsoil was of a similar sandy loam and contained numerous stones, chiefly in the form of rounded pebbles.

The excavation was made to a depth of 600 mm through which it was fairly dry, no ground or surface water being present.

Figure 3-1 Features of the soil profile of the football area

Entrance area

Two excavations undertaken in the lower, entrance, area indicated that some modifications may have been made to the soil profile over time. The topsoil was generally very hard and stony despite the presence of extensive surface water over the area. What may have been a gravel layer was encountered at around 100 mm. This was causing a distinct break in the depth of grass roots that was achievable. Excavation by hand was impossible beyond around 200 mm due to the presence of a very stony, possibly old macadam, layer.

Figure 3-2 Features of the soil profile of the entrance area

South-western area

A soil profile essentially similar to that of the Football area was encountered in the south-western area. Here a sandy loam topsoil extended to around 250 mm with a slightly finer and possibly greater clay content in the subsoil beyond this. An increasing quantity of stones were encountered at around 350 mm.

Figure 3-3 Features of the soil profile of the south-western area

3.2 Soil texture

Samples of topsoil and subsoil were taken for analysis of particle size distribution and organic matter content, the components of soil texture. The results are shown in Table 3-1.

	Football		South-west	Entrance
	Topsoil	Subsoil	Topsoil	Topsoil
	%	%	%	%
Sand	69	65	73	59
Silt	17	20	15	23
Clay	14	15	12	18
Organics	5.8	4	6	6.1
Textural class	Sandy Loam	Sandy Loam	Sandy Loam	Sandy Loam

Table 3-1 Textural characteristics of topsoil from the 3 areas and subsoil from the Football area

These data indicate the different characteristics of the soil from the Entrance area which has a lower sand content and higher clay content. The better quality of the topsoil of the South-west area is supported by the slightly greater sand and slightly lesser clay content. The organic content of all samples was fairly typical.

3.3 Soil structure and hydraulic conductivity

Hydraulic conductivity was measured using intact cores (50 mm diameter, 50 mm depth), taken from varying depths through the soil profile of the three excavations.

Total porosity (Total P) was calculated from soil dry weight and organic content. Air-filled porosity (AFP) was also determined for each of the core samples after the application of 300 mm tension for 24 hours. From these data, total water content at field capacity (Field cap) was determined. The moisture content (Field VMC) of the soil at the time of sampling was also calculated.

The results, with conductivity measures adjusted to 10 ºC, are shown in Table 3-2.

	Depth (mm)	Hyd Cond (mm/hr)	AFP 300 (%)	Total P (%)	Field cap (%)	Field VMC (%)
Football	35	9	3.92	45.64	41.72	40.07
Football	100	5	2.95	41.32	38.37	37.53
Football	200	21	8.52	39.18	30.66	27.53
Football	350	0	5.57	34.65	29.08	26.81
Football	400	0	10.33	50.91	40.57	39.15
Football	500	0	4.01	37.69	33.69	32.18
Entrance	0	0	6.76	42.92	36.16	35.04
Entrance	50	2	5.60	49.86	44.26	44.64
Entrance	50	7	4.66	50.81	46.15	46.27
Entrance	150	25	4.08	40.24	36.16	34.98
South-west	50	5	9.56	51.87	42.31	40.88
South-west	50	20	5.38	51.81	46.43	43.38
South-west	150	20	6.19	44.02	37.83	35.00
South-west	150	2	3.32	42.88	39.56	37.33

Table 3-2 Hydraulic conductivity and porosity from intact cores at varying depths

The average values for topsoil and subsoil are shown in Table 3-3.

	Hyd Cond (mm/hr)	AFP 300	Total P	Field capacity (%)	Field VMC
Football					
Topsoil	**12**	**5**	**42**	**37**	**35**
Subsoil	**0**	**7**	**41**	**34**	**33**
Entrance	**8**	**5**	**46**	**41**	**40**
South-West	**12**	**6**	**48**	**42**	**39**

Table 3-3 Average soil structural and hydraulic conductivity values of topsoil and subsoil

Values of hydraulic conductivity reasonable for the topsoil of the Football and South-west areas though they were reduced for the Entrance area.

The zero value of hydraulic conductivity obtained from the subsoil of the Football area will almost certainly apply in the Entrance area also from where the stoniness of the subsoil prevented satisfactory samples from being taken.

Air-filled porosity often provides a more consistent indication of the likely conductivity and in all cases this was low. Values greater than around 10 % would indicate a free-draining and well-aerated soil.

3.4 Soil moisture content

The results of the soil moisture mapping exercise from 7 March 2025 are shown in with contours at 2.5 % VMC (Volumetric Moisture Content) intervals are shown in Figure 3-4.

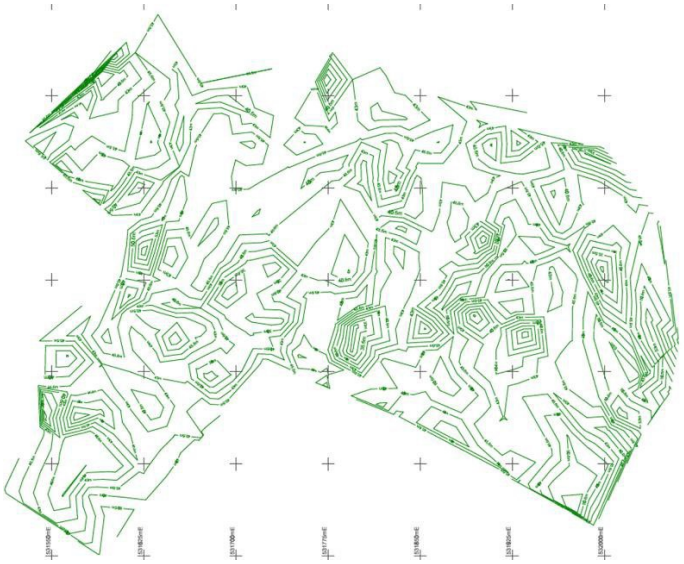

Figure 3-4 VMC (%) across the site. Contours at 2.5 % intervals

Values ranged between 58.9 % and 26.1 % and the average of 331 samples was 44.4 %. This corresponds with the values of total porosity shown in Table 3-3 and indicates that the soils were generally at or just below saturated at the time of the assessment.

The areas of VMC greater than 50 % are shown shaded in Figure 3-5.

Figure 3-5 VMC contours on Google Earth image of site. Areas over 50 % shaded

4 DISCUSSION

The restoration of ground cover following the event of 2024 has, in general, been very successful. Almost all areas of previously bare ground now support a grass cover. However, the condition of that ground cover, reflecting the health and density of the grass, continues to reflect the disruption that it has undergone. The pattern of the event structures and activities may still be discerned quite clearly in the aerial imagery. This implies that the soil conditions, as opposed to the grass cover on that soil, continue to carry the legacy of the event most probably in terms of its structure and hydraulic behaviour.

The fullest and healthiest ground cover at the moment may be seen in the area to the east. This was largely unaffected by the 2024 event but it also coincides with what are generally sheltered areas on low, moist, ground.

The moisture measurement did not pick up the extremely wet area of the Entrance field, north of the wood. This is possibly because most of the water to be seen in this area sits in the surface, the deeper layers of soil where the measure was taken being of similar moisture content to other areas of the Park. This discrepancy is almost certainly related to the very poor soil structure, and low hydraulic conductivity, that prevails in this area.

We know that there are pipe drains incorporated into the Lido area to the west. There may also be some pipes in the Entrance field though their functionality is questionable. Elsewhere, the natural drainage properties of the soil profile determine the hydrological behaviours across the site. Away from the Entrance field, those natural and intrinsic properties are probably quite satisfactory to serve the 'purpose' of the site as public open space and, essentially, an ornamental parkland. If and when the site is to be used for more intensive purposes, such as organised sport or the hosting of major events, then these areas will require appropriate enhancement in terms of both construction and maintenance in order to meet those challenges.

On this and during previous observations of the Park, the persistence of surface water and evidence of poor drainage is relatively rare, apart from on the Entrance field area north of the wood. The factor most strongly influencing the pattern of grass growth, apart from the events themselves, is almost certainly the extent of drought. Although the phenomenon is not as prominent at Brockwell as it is at other London parks, this condition limits growth and recovery. A general observation might be that areas most exposed to sunshine tend to display the slowest recovery from wear damage or installation placement during events. This assessment is supported by the generally more vigorous growth that occurs along the shaded and more moist eastern areas.

The open areas of the site tend to be used for casual play, sunbathing, dog exercising etc. Sunbathers are perhaps the most selective in terms of on what quality of surface they are prepared to place themselves. This speaks to the quality of surface that users of the park may be expecting. Without thinking about it necessarily, such users will be seeking out the areas of dense, fairly vigorous swards of uniform height. It is this quality of surface, therefore, that should be aspired to. The presence of broadleaved species may not be relevant. Indeed, a diverse vegetation may be desirable in that it provides interest in itself while simultaneously contributing to biodiversity more generally. It is this general objective that I think it is important to consider in relation to the overall maintenance and development of the site.

5 RECOMMENDATIONS

5.1 Area north of the central woodland (part of the 'Entrance' area)

Two factors combine to make this area especially poor, both as an area of public open space and for its deployment for any other purpose. One is the very poor structure of the soil and the make-up of the profile as a whole. The other, which may be related to this, is the tendency for ground water from the higher ground to the south to emerge at the surface. This makes the area more or less inaccessible, certainly over the winter months. This phenomenon is not, however, a consequence of the events.

Considerable improvement is likely to be achievable by incorporating a catchwater drain along the lower edge of the woodland. This should be as deep as possible, possibly up to 1000 mm, and may be made to discharge into low ground somewhere north of the perimeter track or into an existing surface water collection feature if one can be located. The profile of such a drain is shown in Figure 5-1.

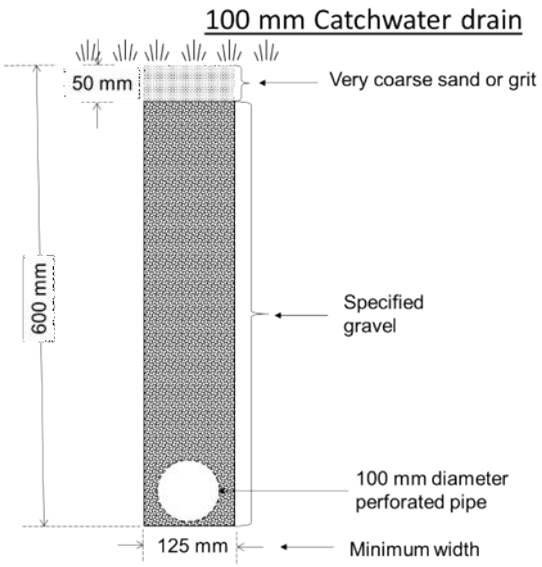

Figure 5-1 Section through a catchwater drain

The area itself requires a substantial reconstructive effort to bring it in line with the rest of the park. At around 10 000 m^2, or 1 hectare, the size of two football pitches, the work involved is by no means unusual in the world of natural turf construction in which similar projects of much larger scale are regularly undertaken.

The procedure would retain all of the useable topsoil, though this would need to be stripped and set aside while the underlying subsoil is graded. With the subsoil surface suitably reformed the topsoil would then be replaced. Into this surface pipe drainage would then need to be incorporated, ideally with laterals at 5 metre centres. The profile of one of one such drain is shown in Figure 5-2.

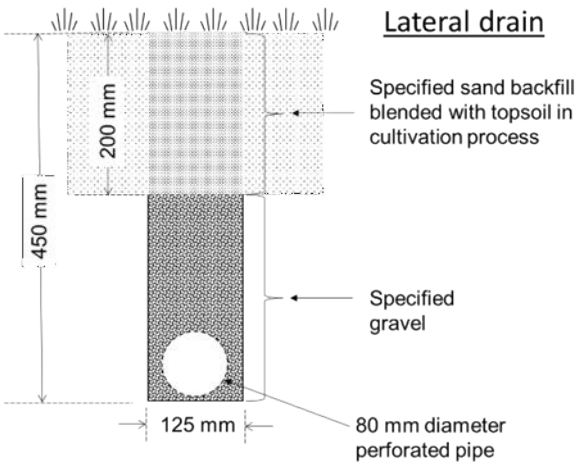

Figure 5-2 Profile of lateral drain

The construction should be finished with a sand carpet, typically 50 mm deep into which the new grass seed should be sown.

In the process of this, there should be space to provide 1, possibly 2 full-size football pitches or whatever other sports may be called for by the local community. This would alleviate the pressures placed on the areas to the south of the woodland and at the top of the south-western area where sport provision is probably considered less than ideal. The cross-slope on the 'Football' field is certainly not satisfactory for more formal games.

Were this process to be considered, a cost estimate based on similar operations carried out in the south-east of England recently could readily be provided. For the improvement of parkland this would not be cheap but as an alternative, for example, to the installation of an artificial sports pitch, this approach would be considerably less expensive, perhaps only 30 % or so of the costs for twice the playing area.

5.2 Other Event areas

The substantial enhancements of the area described above will also improve its capacity to sustain and recover from major events. Elsewhere in the Park, more consistent ground conditions prevail and the capacity to sustain and recover from events here may be determined chiefly by the intensity with which these areas are maintained throughout the year.

Aeration

In this respect, operations that enhance soil structure are likely to be most effective. Verti-draining should be undertaken across all relevant areas when soil conditions allow the full penetration of tines, to around 300 mm. Ground conditions need to be sufficiently firm to allow the passage of the tractor without inducing excessive surface damage but such operation should become routine and undertaken typically between November and late April or May. During this period, up to 4 treatments would not be excessive.

When verti-draining, use the largest available machine fitted with 25 mm solid tines at the closest centres the machine will allow and set to achieve maximum heave action. Any excessive disruption to the surface should be made good by hand by which means any very large stones or other debris that may be brought to the surface by the action of the verti-drain should be removed.

Fertiliser

At the appropriate stages of the growing season, fertiliser applications should be made in order to sustain suitably vigorous growth.

Mowing

That growth must be regulated by appropriately frequent mowing. The combination of growth and regular mowing is key to achieving the dense and attractive swards that are expected of parklands and which is best able to withstand and recover from the impacts of the events.

Generally allowing the sward height to be maintained at a greater level, say 35 mm, would also be advantageous. During the weeks leading up to future summer events, the extent of ground cover retention would be improved by not mowing at all, allowing the sward to reach up to 100 mm in height where this may be acceptable in relation to other perceptions of the Parks' usage.

5.3 Seed selection

A number of factors indicate that a different approach to grass species selection would be appropriate. Those factors include the costs and general demands of maintenance and the impact of climate change. Generally speaking, prolonged hot and dry periods imply that a different range of grass species would be better adapted to these conditions.

Specifically, seed mixes should contains a substantial inclusion of smooth-stalked meadow-grass and fescues. Both these species are more tolerant of drought and have a lesser fertiliser requirement which makes it more suitable for low maintenance situations. SSMG seed is, however, significantly more costly than ryegrass but the longer-term advantages of its substantial establishment will become apparent during the years ahead. Fescues and SSMG also combine to produce a very attractive sward.

Note that SSMG requires warm soil temperatures for its successful establishment. If the sowing is delayed for any reason beyond the end of September, it may be more appropriate to revert to a ryegrass-rich mixture.

5.4 Top dressing

Sports pitches invariably benefit from the application of sand top dressings. If the area north of the woodland is to be developed as suggested, this would certainly merit annual dressings. As part of the preparation for events, those areas likely to be subject to the most damaging footfall wear would also benefit from such treatment.

6 EVENT APPROVAL

Determining the suitability or otherwise of the site to support a particular event is inevitably a subjective decision in the final analysis. Objective data can, however, inform that decision and throughout this assessment I have tried to identify what form that data should take.

The existing state of the ground cover may readily be quantified at the largest scale by means of the aerial imagery employed here right down to the detailed assessments of quadrat data collected from as many points around the site as is considered necessary. However, there needs to be a general appreciation of the baseline or target sward characteristics that are being aspired to. It is that state which will need to be restored, in good and reasonable time, in the aftermath of events. Without this, the regular events will most likely lead to a continual deterioration in the overall quality of the surfaces. In the discussion above I refer to the expectations of sun-bathers. I believe this is a reasonable definition of the kind of sward that should be aspired to for public parks. In achieving this, however, the intensity of maintenance work and investment will be directly proportional to the intensity of extra pressure being placed on the surfaces by events. The more damaging the event, the more work needs to be put into the maintenance.

Sports represents another use to which areas of the park may be put. Here the expectations regarding the form of surface will differ but the relationship between the intensity of maintenance and of usage, for both sport and events, will still apply. Due to their nature, however, sports surfaces as described here would be better able to tolerate and recover from events, their maintenance already being enhanced.

The other major factor determining the impact of events, other than the size of the event itself, is the weather or, more precisely, the moisture content of the soil and surface at the time of the event. Invariably, the most damaging occurrences have coincided with heavy or persistent rain bringing about wet surfaces during the event itself. At the time of the assessment, the site as a whole was certainly unsuitable for such events due to the moisture content of the soil. So, the data presented here represents an objective description of a state that would fall well outside the 'suitable for events' condition. The VMC values will inevitably fall as the spring and summer progress and there will come a point where the site would be considered suitable for an event in relation to the soil conditions. Over time, therefore, continuing to monitor soil moisture levels while simultaneously observing the suitability or otherwise of the site to sustain events will lead to a point at which it should be possible to state at what VMC level the cut-off point is reached. VMC measurements need not be as extensive as was carried out here but a selection of test areas may be identified for regular monitoring.

As I have pointed out, the decision to go ahead or otherwise is ultimately a subjective one but that decision may be informed by a generally accepted objective methodology covering the points addressed here.

[redacted]

[redacted]

Consultant

Agrostis SPORTS SURFACE CO SUITING

27 March 2025