Appendix

Glyphosate

Glyphosate is a widely used herbicide that plays a crucial role in maintaining the cleanliness and aesthetics of the Borough. All herbicides are subject to rigorous scrutiny by Government regulations and glyphosate has been approved for use in the UK until at least 2025. This is due to the need to develop the UK's post-Brexit herbicides regulatory regime. In December 2023, the EU approved the use of glyphosate until 2033.

Glyphosate longevity post-spraying

Microbes present in the soil are responsible for the breakdown of glyphosate. Various studies have explored the persistence of glyphosate in the environment, with findings suggesting that glyphosate degrades at a relatively rapid rate in most soils, with a half–life estimated between seven and 60 days (Source: Alferez, Batuman,Gairhe, Kanissery, Kadyampakeni 2019: Glyphosate: Its Environmental Persistence and Impact on Crop Health and Nutrition). However, some studies have shown that its duration in the soil can extend up to a year. This duration is influenced by factors such as the weather and soil composition.

Progress update since September 2021

Table 1, summarises the recommendations from the September 2021 report and the actions that have taken place to date.

Proposed Action	Update
To consult with the chemical manufacturers and look to increase the dilution rate where appropriate, in line with manufacturers guidelines. This will reduce the volume of chemical used.	The teams have increased the dilution rate for glyphosate by 67% (from 300ml per 15 litres, to 100ml per 15 litres). This has not adversely affected the effectiveness of the weed control treatment. On average it takes up to 10 days for glyphosate to kill most perennial weeds. Increasing the dilution still achieves the desired outcome; however, the process takes approximately 50% longer (15 days). This is subject to weather conditions and weed species.
Do not spray around mature trees.	For larger specimen mature trees no chemical is applied. Where appropriate, grass is left to grow under mature trees and is cut at the end of the growing season. As part of the Climate Change and Green Future Strategy, mulch around the base of trees has been identified

Proposed Action	Update
	as a possible alternative to spraying. This is currently being trialled at Cator Lane park, Beeston on a recently planted community orchard.
Do not spray edges of tarmac paths where the width can be maintained by mechanical means. Continue to spray the edges of stone surfaced paths where necessary, to prevent encroachment.	This is now standard practice where the condition of the path surface is good and the width can be maintained by mechanical means.
Look to increase sweeping frequencies on Parks car parks to supress weed germination.	Hotspot locations across Borough park sites are swept on a regular basis. The Parks and Open Spaces team also undertake regular site checks. This information is fed back to the cleansing team so appropriate action can be taken.
On Local Nature Reserves do not spray around the base of young trees or along fence lines allowing the grass to grow long and then cut back once in the Autumn. On sites where this approach is adopted, signage will be displayed explaining the reasons behind this revised maintenance regime. There may be property boundaries where weed control is necessary and these will be assessed on a site by site basis.	Glyphosate is no longer sprayed around the base of newly planted trees. On sites/areas where a relaxed mowing regime has been adopted, Bee Friendly signage has been erected to inform residents.
Continue to replace bark play areas which are a problem for weeds, with rubber surfacing avoiding the need to spray.	25 sites across the Borough have now had the bark area either removed completely or reduced in size. This material has been replaced with durable rubber surfacing. A programme of replacement continues and will be complementary to the revised Play Strategy in 2025.
Additional employee training to highlight these changes and to emphasise the importance of spraying minimal widths around obstacles.	Environment teams have regular tool box talks about appropriate methods of weed control. They also participate in regular refresher training courses.

Table 1: Update on recommendations from the glyphosate report (September 2021)

Highway weed control

The County Council fund two weed-killing applications each growing season to cover the highways across the Borough. The initial application occurs in May followed by a second application towards the end of the summer, the timing of which is weather dependant. These applications typically take two to three weeks to complete, with the programme generally commencing in the south, moving north, concluding in Brinsley. It is specified in the contract that glyphosate is the only approved herbicide for use on the highways.

Additionally, the County Council also funds the Town centre spraying programme, which commences in July.

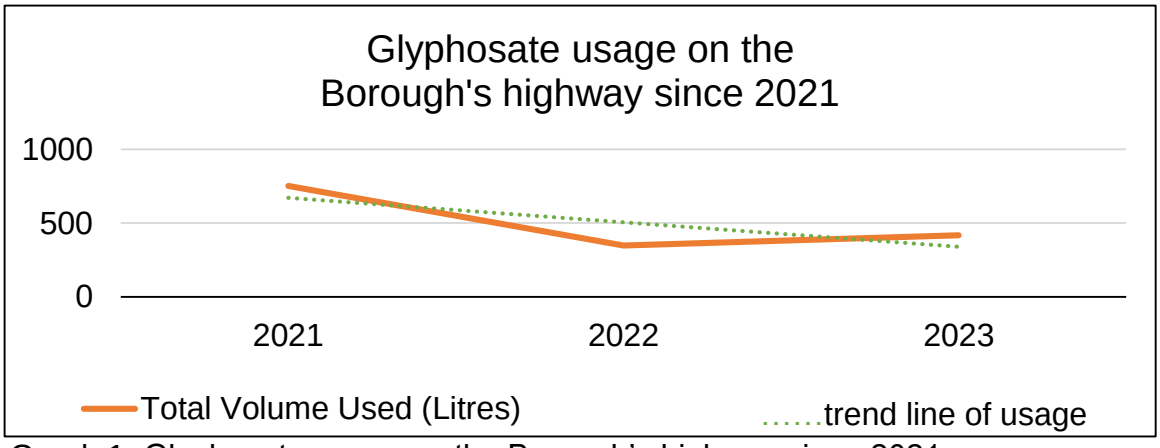
A contractor is engaged to spray the adopted highway. They will only spray where weeds are present and will not blanket spray a whole area. Additionally, the Environment team conducts extra monitoring of the treated areas, reporting any issues identified for rectification by the contractor.

In areas identified as weed hotspots, the Environment team has invested in machinery capable of mechanical weed and moss removal without the need to use glyphosate. While effective, this equipment is suitable for treating only small areas. Furthermore, a reactive team approach is currently being developed to address problem areas; focusing on mechanical weed removal rather than glyphosate application.

Table 2 and graph 1 highlight glyphosate usage since 2021. In 2022, glyphosate usage reduced by 54% compared to the previous year. This significant reduction was not only due to the increased levels of dilution but also as a consequence of the extreme hot weather experienced, which slowed weed growth.

Year	Total Volume Used
2021	750 Litres
2022	348 Litres
2023	417 Litres

Table 2: Volume of glyphosate used for highway spraying since 2021.



Graph 1: Glyphosate usage on the Borough's highway since 2021.

Parks, green spaces and cemeteries weed control

In addition to highways, glyphosate is also used across parks, green spaces and cemeteries for the following:

- Around the base of young trees to prevent damage by mowers or strimmers.
- Around obstacles such as litter bins, lamp columns and the base of fence lines. This is to prevent damage to obstacles and machinery.
- On hard surfaced areas such as the base of pavilions and edge of footpaths and car parks.
- Pre and post planting for the establishment of new planting areas.
- The control of invasive and pugnacious weeds (Japanese Knotweed, Himalayan balsam, Giant hogweed and Ragwort).
- Around memorials to prevent damage to the headstones by machinery.

Since 2018, there has been a notable shift in the amount of glyphosate used on parks, green spaces and cemeteries. The dilution rate has increased from 300ml per 15 litres to 100ml of chemical per 15 litres. Concurrently, the usage of glyphosate has decreased from 205 litres in 2018 to 150 litres in 2023, resulting in a 27% reduction.

Local Authority Case Studies

In recent years a number of local authorities have explored different approaches to weed control without the need to use glyphosate. These have had varying degrees of success.

Brighton and Hove City Council

In 2019, the Council made the decision to discontinue the use of glyphosate in its parks and on hard surfaces, opting instead for manual weed removal methods. However, this approach proved to be unsuccessful, leading to negative publicity in the national press regarding the city's deteriorating condition due to uncontrolled weed growth. Recently, the Council reversed its decision and approved the use of glyphosate, planning to resume application in 2024.

(Source: https://www.brighton-hove.gov.uk/rubbish-recycling-and-streets/streets/managing-weeds referenced 19 May 2024)

East Sussex County Council

The County Council Highways team trialled several alternative maintenance techniques for weed control including, foam stream, reactive maintenance (only dealing with safety issues) and collaboration with district council road sweeping and strimming teams. They also considered other options including, Acetic acid, flame guns, weed rippers and manual pulling.

The option of not controlling weeds at all was considered, but there was considerable evidence around the negative impact this would have on the highway infrastructure and the ability of the County Council to provide a safe and useable highway network for the public.

The trial highlighted that at present, effective and affordable alternatives to weed control had not been identified. The County Council though still continue to work with partners, sharing knowledge and best practice.

(Source: https://live.eastsussexhighways.com/services/services-vegetation referenced 19 May 2024)

Next Steps

Moving forward, the Council is committed to exploring and implementing new strategies and practices for weed control management in line with our Climate Change and Green Futures Strategy.

The Council will continue to evaluate alternative methods and innovations to ensure that the Council is able to adapt and evolve in line with best practice. The following outlines the key initiatives that will be undertaken:

- Regularly assess and research alternative methods of weed control to reduce glyphosate usage.
- Evaluate new practices in the market and benchmark with other districts for best practices.
- Enhance communication with residents about weed control methods and Council actions.
- Increase the number of ‘No-Mow’ sites across the Borough, erecting appropriate signage to inform residents.
- Update Members on changes in glyphosate usage and working practices.