READING BOROUGH COUNCIL

REPORT BY DIRECTOR OF ECONOMIC REGENERATION AND NEIGHBOURHOOD SERVICES

TO:	**HOUSING, NEIGHBOURHOODS AND LEISURE COMMITTEE**		
DATE:	**6 JULY 2021**	**AGENDA ITEM:**	
TITLE:	**GLYPHOSATE – UPDATE ON ITS USE AND POSSIBLE ALTERNATIVES**		
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1. PURPOSE OF THE REPORT AND EXECUTIVE SUMMARY

1.1 Glyphosate is a non-selective, non-residual translocated herbicide which kills actively growing plants but will not stop new weeds from growing. It is widely available under the trade name 'Round-up' and is licensed for use until December 2022.

1.2 As well as its widespread use in agriculture it is commonly used by Local Authorities to control all types of weeds as it provides a cost effective and efficient means of control and helps the Council to comply with its statutory duty to "keep specified land clear of litter and refuse".

1.3 There are however, serious concerns about the potential harmful effects of glyphosate on human health, particularly its potential as a carcinogen. As a result; a growing number of local authorities are reviewing or have stopped its use altogether in favour of alternative methods of weed control.

1.4 This report updates members on:

1. The current use of Glyphosate as a means of weed control in Reading.
2. The regulatory and legal status of Glyphosate use.
3. Benchmarking with other UK local authorities.
4. Alternatives to Glyphosate.
5. Financial implications
6. Recommended Action.

2. RECOMMENDED ACTION

2.1 That Glyphosate use is continued in order to control weed growth but that its use is minimised to the level we are able to find acceptable substitutes.

2.2 That alternative methods of weed control are trialled in the 2022 growing season with a view to reducing Glyphosate use and creating an integrated weed control strategy.

2.3 That a report on the results of the trial are brought back to the Committee in November 2022 with a set of recommended actions.

2.4 That a trial Community opt-out scheme from Glyphosate application is prepared and expressions of interest sought.

3. POLICY CONTEXT

3.1 In February 2018 the Council declared a climate emergency, and, together with partners from all sectors (public, business, voluntary, education), has been working on a range of initiatives and policies to attempt to address this.

3.2. In November 2020 the Reading Climate Change Partnerships' Reading Climate Emergency Strategy (RCES) was adopted by the Council. Within the 'Nature' theme of the strategy is a wide-ranging requirement to improve the urban environment and its bio-diversity.

3.3 Earlier in the year, the Council consulted on the Biodiversity Action Plan. The plan is focused on promoting natural solutions to climate challenges, such as improving habitats to help wildlife and people adapt to the impacts of climate change. It sets out priority objectives and actions for the protection and enhancement of biodiversity within Reading one of which is the reduction in the use of Glyphosate.

3.4 The use of Glyphosate is currently legal in the UK and is an approved active substance on the EU pesticides database until 15th December 2022. It is not clear whether further approval for its use as an herbicide will be granted or whether the UK will be subject to EU law in 2022.

4. THE PROPOSAL

4.1 The current use of Glyphosate and the need for weed control.

4.1.1 Weed control is an important element of the maintenance of the public realm for the following reasons:

- weed growth causes damage to infrastructure, exploiting joints or areas of damage in particular, channels, kerblines, and pot holes resulting in higher maintenance and resurfacing costs.

- Lack of, or poor weed control creates a perception of neglect and environmental degradation in the built environment.

- Uncontrolled weed growth generates complaints from residents.

- It is also essential in the control of notifiable invasive species such as Japanese Knotweed which cause structural damage if not treated.

4.1.2 The total area of the Borough is just over 4000 Ha with 400 km of roads and a further 1100 km of footpaths and estate alleyways together with associated parking areas, drying areas etc. (but excluding private access alleyways). The grass verges and housing estate grassed areas have a total of 125 km of margins, approximately 10,000 trees, and a large number of miscellaneous obstructions. Glyphosate is currently used to control weed growth on the majority of these land types including in public parks.

4.1.3 Application is carried out on the basis of applying the minimum amount of Glyphosate required to effect control. Application is weather dependant and as such is usually carried out between March and October when temperatures are high enough for active weed growth. Glyphosate will kill all plants it touches in sufficient volume and as such, application is controlled to prevent damage to non-target plants by use of a controlled droplet application. Application is carried out under the requirements of the Plant Protection Products (Sustainable Use) Regulations 2012.

4.1.4 Applications to the highway are carried out from quad bikes which provide the optimum coverage whilst being able to access restricted areas such as footways on terraced streets. As part of the spraying process a 150 mm (max) 'mowing' margin is created around all obstructions on grassed areas such as trees, bollards, utility apparatus, lamp columns and sign poles etc. These mowing margins are designed to protect vulnerable items from damage by the grass cutting machines and help speed up the grass cutting service.

4.1.5 The frequency of application varies in different situations. There are currently 4 applications per annum to all highway areas and in other areas this varies from 2 to 4 applications a year. The herbicide is diluted from a concentrated form and applied using a controlled droplet technique which reduces spray drift and helps adhesion to leaves. The combined amount of Glyphosate used in routine weed sprays and ad–hoc treatments per year is 63kg in 525l of controlled droplet carrier solution. The estimated cost of the application to all land types of Glyphosate is £60k pa.

4.1.6 As detailed in the report to the committee in November 2020 rewilding of large highway verges and some parks grass areas has now been established to increase biodiversity through more diverse habitats following a trial in 2020. Whilst the Council is committed to expanding rewilded areas, there remains a need to control weed species in certain areas by the use of herbicides or suitable alternatives.

4.2 **The regulatory and legal status of Glyphosate use.**

4.2.1 In March 2015, the International Agency for Research on Cancer (IARC) report re-evaluated the herbicide Glyphosate, as classification group 2A, being "probably carcinogenic to humans" (WHO, 2015). The evidence in humans came mostly from studies carried out on agricultural workers (Hortweek, 2015). However, a subsequent peer-review of the IARC assessment in September 2016 concluded that Glyphosate is "unlikely to pose a carcinogenic risk to humans"

(Williams, et al., 2016). Other national and international organisations such as Food and Agricultural Organisation of the United Nations, FAO, and US environmental Protection Agency, EPA, have following the IARC report re-evaluated glyphosate status and found it unlikely to be carcinogenic (Appelby, 2016).

4.2.2 Prior to EU re-licensing of Glyphosate in July 2016, the European Food Safety Authority (EFSA) also reviewed Glyphosate's toxicological profile finding it "unlikely to pose a carcinogenic hazard to humans" (EFSA, 2015). The licence was renewed for 18 months awaiting European Chemicals Agency (ECHA) evaluation. In March 2017 ECHA's Committee for Risk Assessment (RAC) "concluded that the available scientific evidence did not meet the criteria to classify Glyphosate as a carcinogen, as a mutagen or as toxic for reproduction" (ECHA, 2017).

4.2.3 The use of Glyphosate is currently legal in the UK and it is an approved active substance on the EU pesticides database until 15th December 2022. It is not clear whether further approval for its use as a herbicide will be granted or whether the UK will be subject to EU law in 2022. Local Authorities cannot be criminally prosecuted for using this product, but they must abide by the restrictions placed on them (storage, risk assessment etc.) by the Plant Protection Products (Sustainable Use) Regulations 2012.

4.2.4 Recent United States court rulings against Monsanto, the manufacturer of the world's leading Glyphosate based herbicides, Roundup, has led to the awarding of millions of dollars of compensation to plaintiffs who claim to have contracted cancer as a result of prolonged use of Glyphosate based products. There are a further 18,400 lawsuits proceeding through the US courts and this has led many users to reconsider the safety of Glyphosate and the possibility of court cases against them. These concerns have led to a number of UK local authorities joining a growing group of organisations and countries which have banned the use of Glyphosate and Glyphosate based products.

4.2.5 Since the European Chemicals Agency (ECHSA) risk analysis dictating glyphosate as not carcinogenic, the debate between industry and campaigners is still ongoing. For example, the Crop Protection Association states the following:
"Glyphosate is, and always has been safe. This ruling is another reminder this debate has never really been about safety, it has been hijacked and politicised to force a wider debate on modern agriculture. It's right that we're having that debate, but it's wrong to use health scares to get there." (Appleby, 2017).
…and one of the campaign organisations, Greenpeace, states the following:
"ECHA has gone to great lengths to sweep all evidence that glyphosate can cause cancer under the carpet. The data vastly exceeds what's legally necessary for the EU to ban glyphosate, but ECHA has looked the other way" (Neslen, 2017).

4.2.6 There are opposing camps in relation to the safe use of Glyphosate: those who see it as a cheap effective, readily available herbicide essential to grounds maintenance services and global agriculture and those who see it as a potentially dangerous, carcinogenic substance whose use should be banned.

It can be difficult for the policy makers to decide a course of action with this divergence of views. However, the legal requirement for weed control on

public areas, public perception and protection does require weed control to be carried out.

Whilst Glyphosate currently remains an approved pesticide in the EU, in light of the successful prosecutions around the world and the growing concerns about Glyphosate it is prudent to consider the scale of Glyphosate use, the likely risks arising from its use, the potential to limit the reliance on the use of Glyphosate products and the ability to find a suitable alternative product to prepare for the future.

Local authorities should also consider the possibility that future civil claims could be made against them by persons exposed to Glyphosate based herbicides.

4.3 **Benchmarking with other UK local authorities.**

A number of Local Authorities have banned the use of Glyphosate based products and accepted the increased revenue costs associated with the use of alternatives.

Bristol – Recognised the concerns about Glyphosate use and instigated a trial of alternative weed control methods in relation to public perception and efficacy of alternative control measures.

London Borough of Hammersmith and Chelsea have banned Glyphosate use in public areas. It was the first council in London to halt the use of potentially harmful sprays in parks and open spaces. Spraying of Glyphosate stopped in June 2016 and moved to a hot water and manual removal based system. Reasons for introducing non-chemical spraying was to create a bio diversity as well as protecting London's habitat against any long-term chemical effect containing glyphosate.

Croydon, Lewes, Trafford, Glastonbury, Vale of Glamorgan and Wadebridge have banned the use of Glyphosate in public areas. Lewisham is trialling Foamstream which is a herbicide free system which uses heat and a biodegradable foam to kill weeds, in its parks in response for calls to ban Glyphosate use.

Hampshire County Council is looking into alternatives, as have Wirral and Richmond who have recently commenced trials of alternative solutions.
Glastonbury has moved to the Foamstream system for removing weeds in its open spaces.

4.4 **Alternatives to Glyphosate.**

There are a number of alternatives to the use of synthetic herbicides such as Glyphosate. They are listed below and more details and their pro's and con's are shown in Appendix 1. Methods such as these have been trialled or are currently used by other Local Authorities used but they are all more expensive than Glyphosate.

- Thermal: (Flame, hot water, steam, hot water and steam)
- Acetic acid, or vinegar
- Fatty acids - Pelargonic acid

- Essential oils
- Manual - hand and machine removal of weeds
- Flazasulphuron

4.5 **Financial implications.**

The Association of Public Service Excellence (APSE) advise that use of alternatives to Glyphosate will add to revenue costs for weed control. Bristol Waste Company, who carry out weed treatment in Bristol, estimated that one Glyphosate treatment cost £60k, whilst Acetic Acid cost £216k and Hot Foam cost £391k per treatment.

Table 1 below shows the existing highways and non-highways weed control budgets.

	Cost per application (000's)	No of applications/year	Annual budget (000's)
Highways Herbicide treatment	£10	4	£40
Non Highways treatments	£5	4	£20
Current spend pa			£60

Table 1

	Estimated Cost per application (000's)	Estimated No of applications/year	Potential Annual budget (000's)
Thermal treatment	£30	3-6	£90 - £180
Manual treatment	£65	4	£260

Table 2

Table 2 shows the potential cost of 2 alternative treatments as a means of showing the potential budget growth required if non-herbicide treatments are used. This is provided only as a means of indicating the scale of revenue investment required. Final costings will not be available until trials have been carried out but it is clear that alternative methods will have a significant future revenue implication.

4.6. **Recommended Action**

Local Authorities should take the opportunity, whist the use of Glyphosate remains lawful, to identify the most cost-effective solution for an integrated weed control strategy using potential alternative products and approaches to ensure the financial implications of not using Glyphosate can be appropriately managed if possible. A trial of these alternatives was planned for the 2020 growing season but the Covid 19 pandemic forced its postponement. The pandemic also halted forward action of a full-scale trial this year in 2021. It is proposed to review whether the proposed methodology is still appropriate or whether an alternative would be more effective.

4.6.1 That Glyphosate is used for the next growing season.

4.6.2 The Council commits to a series of weed control trials in the 2022 growing season with the aim of identifying the most effective alternative methodology and approach to Glyphosate use and the potential cost implications associated with an integrated weed control strategy for the different areas and land types managed by the Council.

The trials should include the use of:

1. Hot water and steam and manual removal.
2. Manual removal only.
3. Acetic acid spray.
4. Fatty acid (Pelargonic Acid) spray.
5. Foamstream.

The trial areas will be chosen to cover a range of street types and Parks. The areas treated with Glyphosate as part of the regular treatment cycle will form the control. The trials will be used to measure the following:

- How effective are the proposed alternatives compared to glyphosate as an herbicide?
- How is the public responding to visual changes in parks and streets?
- What are the costs of alternative weed control?
- Will further reduction on herbicide application effect infrastructure?
- How and where can herbicide use be reduced without damage to infrastructure or increasing public concern?
- When can a date be identified for stopping the use of Glyphosate for weed control other than for invasive weeds species such as Japanese Knotweed in Reading?

A detailed trial proposal will be brought to the November meeting and the trial results will be presented in late 2022.

4.7 Alternatives being used in Parks

The Parks and Open Spaces department have reduced the amount of Glyphosate used in Parks gradually over a number of years and have recently carried out weed control under fences around Children's Play Grounds using gas powered flame guns. The flames killed the top growth and the sites are being monitored to determine the frequency of re-treatment. It is estimated that the cost of gas would be £60-100 per day and the carbon footprint of such an operation needs to be assessed.

4.8 Community volunteers – Manchester Community Opt-out.

Manchester City Council created this initiative in response to a rising number of complaints from residents who were concerned about the potential adverse health effects of Glyphosate, which is used as the primary means of weed control in the city. The scheme operates as follows:

- Streets or areas can opt-out of the highways Glyphosate spray regime on the understanding that residents control weeds on the highway.
- The street cleansing service continues as normal.
- The Council retains the right to clear weeds should they become an issue.

- If issues or complaints are received Manchester sends a Highways inspector to check the site and decide on a course of action.
- Manchester carry out an annual inspection using Highways inspectors and then residents who have opted out are contacted to see if they want to continue. If there is no contact they remain opted -in which means weeds are left uncleared by the Council. This strategy has meant that only committed groups opt-out.

Officers from Manchester report that:

- they have not received any formal complaints in 3 years
- generally groups take responsibility for their area and everyone in the group is aware what they have taken on.
- Committed groups are doing a better job than the chemical would.
- lots of opt outs are just small areas outside a house etc. which are not onerous and are easily maintained.
- If overgrowth happens manual methods of removal are employed rather than using Glyphosate.

It is recommended that a proposal to introduce a similar scheme on a trial basis in a limited number of areas. This will allow an estimate of the resource required to run and administer the scheme and its long term viability before a decision is made to roll out the scheme boroughwide.

5. CONTRIBUTION TO STRATEGIC AIMS

5.1 The proposals contained in this report are in line with the following Corporate Plan priorities:

- Keeping Reading's environment clean, green and safe
- Promoting health, education, wellbeing and culture
- Ensuring the Council is fit for the future

5.2 In addition, the Council has adopted a Strategic Framework (March 2020) which sets out the Council's key priorities including:

- To keep social care services running for the children and adults who need them;
- To support vulnerable and isolated people during the crisis;
- To support business and the economy, which will secure the long-term recovery of Reading.

6. COMMUNITY ENGAGEMENT AND INFORMATION

6.1 Once the trial area is agreed information will be distributed to all properties informing them of the intended action and how to feed back their views.

7. EQUALITY IMPACT ASSESSMENT

7.1 Under the Equality Act 2010, Section 149, the Council must, in the exercise of its functions, have due regard to the need to:

- Eliminate discrimination, harassment, victimisation and any other conduct that is prohibited by or under this Act.

- Advance equality of opportunity between persons who share a relevant protected characteristic and persons who do not share it.
- Foster good relations between persons who share a relevant protected characteristic and persons who do not share it.

7.2 The Council has reviewed the scope of the project as outlined within this report and considers that the proposals have no direct impact on any groups with protected characteristics.

8. LEGAL IMPLICATIONS

8.1 Application of herbicides is carried out under the requirements of the Plant Protection Products (Sustainable Use) Regulations 2012.

9. FINANCIAL IMPLICATIONS

Please see section 5 above.

10. ENVIRONMENTAL AND CLIMATE CHANGE IMPLICATIONS

10.1 The reduction in use of synthetic herbicides and pesticides will reduce the possibility of run-off and pollution of ground water and water courses.

11. BACKGROUND PAPERS

None