

**Manchester City Council  
Report for Resolution**

**Report to:** Neighbourhoods and Environment Scrutiny Committee - 3  
January 2017

**Subject:** Use of Glyphosate for weed control and alternative options

**Report of:** Deputy Chief Executive Growth and Neighbourhoods

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**Summary**

The report sets out the current position regarding the use of Glyphosate for controlling weeds in Manchester and the alternative options considered.

**Recommendations**

That the Neighbourhoods and Environment Scrutiny Committee notes and comments on the report.

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**Wards Affected:** All

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**Background documents (available for public inspection):**

The following documents disclose important facts on which the report is based and have been relied upon in preparing the report. Copies of the background documents are available up to 4 years after the date of the meeting. If you would like a copy please contact one of the contact officers above.

## 1.0 Introduction

- 1.1 Manchester City Council use the herbicide Trustee Amenity to spray target weeds in public areas. Trustee Amenity is used because it provides outstanding levels of control of key target weeds, has a wide range of uses, is considered non-hazardous, is fully biodegradable, does not accumulate in the soil, is inactivated once in contact with the soil and can be used on or near water courses. Glyphosate is the active substance in many herbicides (weedkillers) and is widely used around the world. Glyphosate has been on the market since 1974 and used in the UK since 1976.
- 1.2 On 29/07/15, the International Agency for Research on Cancer (IARC) published their study classifying Glyphosate as “Probably Carcinogenic to Humans”. Conversely, on 12/11/15, the European Food Safety Authority (EFSA) published a risk assessment concluding that “Glyphosate is unlikely to pose a carcinogenic hazard to humans” based on a “large body of evidence”, including key industry studies not considered by IARC that remain unpublished (the industry recently offered to provide some limited access).
- 1.3 In October 2015, the EU Commission extended the authorisation of Glyphosate by six months in order to leave the EFSA time to take into account the IARC report. Based on the EFSA risk assessment, the Commission proposed a draft regulation to renew authorisation of Glyphosate for 15 years. A vote on the Standing Committee’s opinion scheduled for March 2016 was postponed as a result of divisions among Member States.
- 1.4 On 22/03/16, the EU Parliament ENVI Committee adopted a motion objecting to the EU Commission draft on the ‘precautionary principle’ and the need to ensure a high level of protection of health and environment. It urges the Commission to withdraw its draft implementing regulation and calls on the Commission and EFSA to disclose all the scientific evidence used in the risk assessment. Parliament voted on the non-binding resolution in April 2016, also stating that Glyphosate should not be approved for use in, or close to, public parks, playgrounds and public gardens.
- 1.5 On 18/05/16 the EU Standing Committee on Plants, Animals, Food and Feed failed to agree on a qualified majority vote and the matter has been referred back to the European Commission.
- 1.6 The European Commission ultimately provided an 18 month extension until a new ruling is provided by the European Chemical Agency due by the end of 2017.
- 1.7 The MCC risk assessment review decided that Trustee Amenity is safe to use with the existing engineering controls (method used to control and apply the product) for the individual user and members of the public in the vicinity of its use. As a precautionary measure and to reassure staff using herbicides the personal protective equipment worn by the user was reviewed to include: paper type FFP3 mask; goggles; gloves; impermeable waterproof leggings; and boots, principally to protect against the remote possibility of breathing in

the product as an atomised mist or mist entering the eye. These risk control measures are suitable if the IARC reclassification is substantiated and Glyphosate is found to be potentially carcinogenic to humans.

- 1.8 Employees carrying out weed spraying work to a 'safe system of work' involving training, instruction and guidance. The system includes: route planning and timing to avoid spraying activity at busy times around schools, shopping areas and high density pedestrian areas; all works to cease when members of the public are in the vicinity of weed spraying works; maps to identify no spray zones; spraying to cease if wind may cause drift; and the work area is left in a safe condition with all waste removed.

## **2.0 Background**

- 2.1 Weed spraying, using Glyphosate, is undertaken by Grounds Maintenance operatives and subcontractors of the street cleansing and waste collection contractor. Spraying is undertaken in parks, playgrounds, open spaces and streets either once or twice a year depending on the requirements. Glyphosate based products are highly effective at controlling weeds, are biodegradable and can be used near watercourses.
- 2.2 All City Council staff involved in weed spraying have received the appropriate training and Personal Protective Equipment (PPE) in order to undertake the work as per the outcome of the risk assessment.
- 2.3 Given the licensing issues with Glyphosate a number of the more common alternative options have been considered by the Grounds Maintenance team, including through the use of limited trials, in the spring and summer of 2016.
- 2.4 The purpose of this review was to identify those that merited further investigation including through more significant on site trials in the future. The alternative considered are detailed in section 3.

## **3.0 Alternative Weed Treatments**

- 3.1 Five potential alternative treatments have been considered either through limited trials or on a desktop basis. This is addition to the potential of manually removing weed which would not be feasible based on the current level of resources.

### **Hot Foam**

- 3.2 A limited trial was undertaken within a park environment. The product when applied showed very good initial results against mosses and initially against weeds. Visible degradation of the weeds started almost immediately. The weeds however quickly returned, and within three weeks were re-established. The application process which was undertaken by trained individuals was time consuming. It was estimated that the delivery of the hot foam application was between eight and ten times slower than that of a standard chemical application. A more significant trial would be required across a number of

topography's to better test the standard set up and delivery times, and subsequent cost increases.

- 3.3 The product would require a capital investment in respect of the purchase of equipment prior to delivery. Its use would increase delivery time scales and costs and be less effective than the current product.
- 3.4 It does however have the advantage of not being classified as a herbicide and therefore does not need a chemical certificate to deploy. It can also be applied in poor weather and sensitive environments.

### **Natural Vinegar**

- 3.5 The City has previously trialled the use of vinegar concentrate solutions to undertake weed control within children's play facilities in parks. The natural weed control approaches including acetic acid control weeds by destroying the leaf cuticle or causing cell leakage that rapidly leads to death.
- 3.6 Unfortunately because this approach kills only the green part of the plant it comes into contact with, it does not provide long term control of weeds. This was evidenced in the trials, when the weather was dry and the contact maximised, and the weed was small the success rate was increased. Changes to the weather and the size of the weed affected the success rate significantly. The process then required a significant number of repeat applications, resulting in increased costs. Generally this approach was more successful in managing broad leaf weeds and grass, with a more limited impact on moss and no discernible impact on algae.
- 3.7 The advantages of the approach are that there would be no additional capital costs, it doesn't require a chemical certificate for use and it can be used in sensitive environments.

### **Chikara**

- 3.8 Chikara weed herbicide is a systemic, pre-emergent and early post-emergent herbicide. Chikara combines both a contact and residual mode of action to control annual and perennial weeds on natural surfaces not intended to bear vegetation, and permeable surfaces over-lying soil.
- 3.9 Chikara has been selectively used across the city with very good results, it is also simple to apply and would not require any additional capital investment to use.
- 3.10 However, it still requires a chemical certificate to apply, it is more costly than the current approach and has a limited spectrum of use. It is also unsuitable for non permeable areas, green areas, or near water courses.

### **New Acetic Acid solutions**

- 3.11 This solution have not yet been trialled within the City and so far has only been subject to a desktop evaluation.
- 3.12 The success rate of the products appear good and there would be no additional capital costs in relation to the use of the product. It can also be used within sensitive environments.
- 3.13 However, the solutions are contact application only and therefore does not provide long term control of the weeds. It would therefore requires repeat applications increasing the delivery costs considerably. The application rate is also significantly higher than Glyphosate which would lead to significant increases in purchase costs. There have also been some complaints in places where it has been used regarding the smell of the acetic acids.

**Low pressure boiling water.**

- 3.14 This solution have not yet been trialled within the City and so far has only been subject to a desktop evaluation.
- 3.15 The success rate of the products appear good and it does not require a chemical certificate to apply.
- 3.16 However, as with a number of the alternatives it is contact application only and not translocated, therefore it will require repeat applications to achieve similar results to Glyphosate. The investment required in the machinery and equipment required to heat, move and store water is also likely to be significant and there is limited evidence, currently, of this approach being used anywhere on a significant scale.

**Fire Lances**

- 3.17 This solution have not been trialled within the City, the use of flames to burn weeds is discounted as an option on safety grounds.

**4.0 Summary**

- 4.1 Weed control currently continues to be delivered through the use of Glyphosate taking full account of the advice received to date from Health and Safety. The position will continue to be kept under review until the position with Glyphosate is fully resolved, this will include assessing any other alternative treatments that become available.
- 4.2 The options considered as potential alternatives to the current use of Glyphosate have a number of drawbacks in comparison, usually in relation to the long term effectiveness of the treatment and cost. The adoption of any of these alternatives on a large scale as a form of weed control in the City may lead to significantly increased costs.