

Report to: Cabinet



Date of Meeting 30 March 2022

Document classification: Part A Public Document

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Review date for release N/A

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## **Chemical Review Audit (Herbicides) - Streetscene**

### **Report summary:**

The scrutiny around the use of pesticides and herbicides has increased massively in recent years, and there is more scientific evidence to prove that they are harmful to both human health and the environment.

- Herbicides are used in our district to control a range of weeds, mainly on hard surfaces, such as paths. More widely, they are used in schools, parks, gardens, playgrounds, hospitals and on our streets. These are all areas used on a daily basis by our residents and visitors – and often by those most vulnerable to the adverse effects of pesticides; elderly people, young children, pregnant women and those with underlying health conditions.
- Pesticide use can have serious human health impacts, harm biodiversity and contaminate water supplies. There is growing evidence that glyphosate – the most commonly-used ‘systemic’ weed-killer – is a higher health risk than previously assumed, with a growing understanding of the damages caused by other chemical weed killers and pesticides to health and the environment.
- In April 2015, the International Agency for Research on Cancer – which is part of the World Health Organisation – concluded that Glyphosate, the most widely used pesticide in our urban areas, is “...probably carcinogenic to humans”.
- Pesticide use has a negative effect on urban wildlife, and has been identified as a contributory factor in the decline of butterflies, bees, insects, birds, mammals and aquatic species.
- Pesticides sprayed onto the hard surfaces in towns and cities can rapidly run off into drains and sewers and find their way into water supplies. The cost for removing pesticides from our water supplies runs into millions of pounds per annum. Pesticides do not only pollute waterways; they leach into soil and kill susceptible microorganisms and earthworms, which reduces soil fertility and structure, creating an unhealthy monoculture.

### **Is the proposed decision in accordance with:**

Budget                      Yes ☒ No ☐

Policy Framework      Yes ☒ No ☐

### **Recommendation:**

1. Cabinet approve the ban of glyphosate based herbicides by September 2022 as set out in the report recommendation section along with banning the use of woody weed killers.
2. Cabinet endorse the replacement of glyphosate and other chemicals with an integrated weed management approach which includes the use of the RHS vinegar based weed control and manual control methods.

3. Cabinet endorse bids being placed in the 2023/24 capital programme for 2 x Hotfoam machines (circa £67k investment), required to supplement other integrated weed control methods.

### **Reason for recommendation:**

One of Streetscene's objectives this year, and included as part of its [service plan \(April 2021 – March 2022\)](#), was to undertake a review of chemical usage across our service, specifically herbicides that are used across the public realm and in our green spaces.

### **Streetscene Service Plan Objective 5 – Review of chemical usage**

- Investigate and trial more sustainable alternatives to herbicides for weed control.
- Reduce the use of glyphosate and other chemicals across sports pitches, green spaces and public realm areas.
- Produce a report to Cabinet on alternatives – to include withdrawing from weed spraying in some areas, including Highways around town centres, which we do although it is not in our remit.
- Cost physical alternatives and project resourcing requirements.

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Portfolio(s) (check which apply):

- ☒ Climate Action and Emergency Response
- ☒ Coast, Country and Environment
- ☐ Council and Corporate Co-ordination
- ☐ Democracy, Transparency and Communications
- ☐ Economy and Assets
- ☐ Finance
- ☐ Strategic Planning
- ☐ Sustainable Homes and Communities
- ☐ Tourism, Sports, Leisure and Culture

**Equalities impact** Low Impact

**Climate change** Medium Impact

The report details the energy use of the various methods and there is an impact from the required fuel or electricity for the various methods where hot foam or steam is used.

All of the alternatives are much less impactful on the environment for Biodiversity and Pollinators and this should be the driving factor for this change.

**Risk:** Low Risk; Continued use of herbicides risks damage to the environment, biodiversity and has possible links to impacts on human health including cancer, as outlined in the report. There is a risk that alternative methods will be less effective, require more time and cost more.

## Links to background information

- [Chemical Audit & Review \(Herbicides\) – Streetscene](#)

## Link to [Council Plan](#)

Priorities (check which apply)

- ☐ Better homes and communities for all
  - ☒ A greener East Devon
  - ☐ A resilient economy
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## Report in full

This brief report will outline:

- The rationale of why we need to change weed control practices to protect both human health and the environment.
- Provide data evidencing Streetscene's current herbicide usage.
- Outline alternative options for the future that have less impact on the environment and human health.
- Showcase evidence of initial trials that have been carried out with more eco-friendly options.
- Compare alternative options, detailing the impact on the service and possible budget implications.
- Present officer recommendations for approval by Cabinet.

## Human health and the Environment

- Herbicides are used in our district to control a range of weeds, mainly on hard surfaces, such as paths. More widely, they are used in schools, parks, gardens, playgrounds, hospitals and on our streets. These are all areas used on a daily basis by our residents and visitors – and often by those most vulnerable to the adverse effects of pesticides; elderly people, young children, pregnant women and those with underlying health conditions.
- Pesticide use can have serious human health impacts, harm biodiversity and contaminate water supplies. There is growing evidence that glyphosate – the most commonly-used 'systemic' weed-killer – is a higher health risk than previously assumed, with a growing understanding of the damages caused by other chemical weed killers and pesticides to health and the environment.
- In April 2015, the International Agency for Research on Cancer – which is part of the World Health Organisation – concluded that Glyphosate, the most widely used pesticide in our urban areas, is "...probably carcinogenic to humans".
- Pesticide use has a negative effect on urban wildlife, and has been identified as a contributory factor in the decline of butterflies, bees, insects, birds, mammals and aquatic species.
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## Baseline data

An audit of current chemical usage and where herbicides are applied was carried out in a 12 month period between March 2020 and March 2021 – see background link **Chemical Audit & Review (Herbicides) – Streetscene** for a list of the chemicals and data from the audit.

## Why does Streetscene use herbicides?

Herbicides are a broad class of pesticides that are used by Streetscene operatives to remove nuisance weeds, such as dandelions, bindweed and grasses. If left unchecked, annual weeds would seed and complete their life cycle, which would result in a glut of weeds in that area; all of which would do the same. Perennial weeds would also seed before becoming dormant, only to re-emerge the following year and re-seed. We have several ephemeral weeds that grow in the UK (e.g. hairy bittercress, fat hen and groundsel) that can germinate and then disperse their seeds within just a few weeks, i.e. between Streetscene operative visits. Weeds pose an exponential problem, which is why the consequences of the solution has traditionally been felt to be less than the consequences of allowing the weeds to take hold in our public realms.

Without the use of traditional herbicides to quickly, efficiently and selectively control weed growth, grounds operatives can very quickly become tied up in a particular area because of the time it takes to weed control manually. Then, they will be faced with needing to continue with manual weeding or to prioritise the other tasks that have dramatic consequences if left unchecked, such as lawn mowing.

The use of herbicides is thus a quick fix to what is otherwise an exponential problem, which enables operatives to move onto other tasks in the knowledge that the sprayed weeds will not pose any further problem, if sprayed prior to seeding, at least.

Streetscene operatives have used herbicides in parks and gardens, in car parks, on pathways and around bins and benches in public green spaces, in town centres shared with DCC, in children's play areas, on sports greens/pitches, in beds and borders, in Council-owned properties and in residential communal areas.

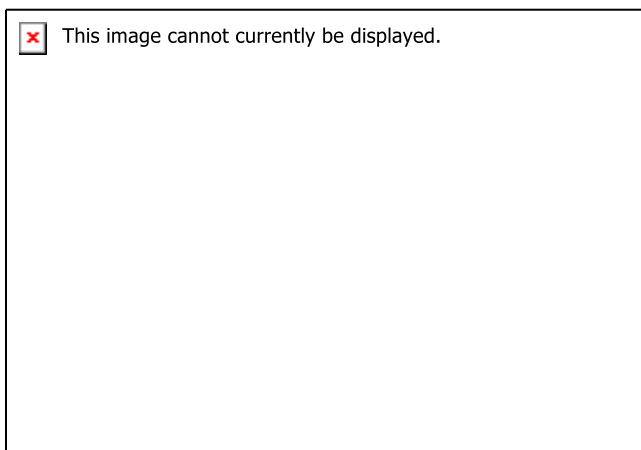
*Weeds in communal urban areas*



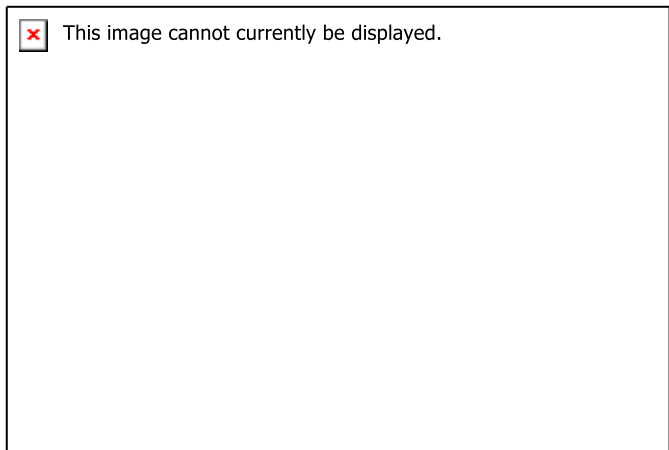
*Weeds in street paving*



### *Weeds in cemetery paths*



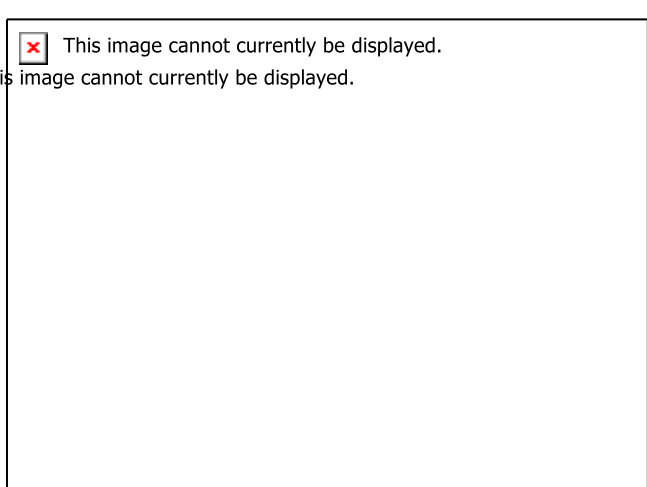
### *Weeds in green spaces' beds*



### *Weeds in green space paved pathways*



### *Weeds in EDDC-owed car parks*



## **What would happen if we stopped using herbicides without alternative weed control methods other than manual weed control?**

Weeds would very quickly become a major issue across the district, especially throughout extensive hard surfaces, such as town centres, car parks, schools, hospitals, paths and green spaces.

## **Environmentally friendly alternatives**

The alternatives to using glyphosate-based weed killers are manual weeding, hot foam weed killers, the use of steam as a weed killer, vinegar-based weed killers and flame weed killers. We have discounted weed control by the use of using a flame gun due to the high use of non-renewable fossil fuels, i.e. liquefied petroleum gas, which is estimated to be 61kg per hectare.

There are currently experimental methods of using a hydrogen-based flame equipment, which may well be the best weed control in the future but, until then, we will review manual, steam, hot foam and vinegar-based weed control as the 4 most appropriate alternative weed control methods across East Devon.

The 4 weed control methods have been reviewed and trialled and the results are shown in the background link **Chemical Audit & Review (Herbicides) – Streetscene**.

## **Advice from the Pesticide Action Network**

“When planning to reduce or stop the use of herbicides, the most critical first point is to be aware that there is no silver bullet – there is no like for like replacement. To make a successful transition away from herbicide use, the non-chemical alternatives deployed have to comprise of a mixture of techniques and approaches backed up by a sensible, achievable strategy and the political will to see the plan through over the long-term. With these key points in mind, this briefing will look at some of the main alternatives to herbicides for controlling unwanted vegetation.”

PAN are referring to Integrated Weed Management (IWM), which we can base on a combination of preventive, cultural, mechanical, and non-glyphosate-based chemical practices. For example, a single weed control measure is not feasible due to the number of different weed species and their highly diverse life cycles and survival strategies. In addition, controlling weeds with one or two methods provides the weeds a chance to adapt to those practices. The development of an IWM program is based on a few general principles:

- Use agronomic practices that limit the introduction and spread of weeds (preventing weed problems before they start.
- Help plants to compete with weeds.
- Use practices that prevent weeds from adapting.

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## **Financial implications:**

The report highlights a future bid to the capital programme which will be considered at that point.

## **Legal implications:**

The actions recommended are within the power of Cabinet to agree, otherwise there are no legal implications requiring comment.