

7 Presentation of officer reports

7.6 Outcomes of Gardiners Creek No Glyphosate Trial

Executive Summary

Purpose

The purpose of this report is to present the outcomes of the Gardiners Creek No Glyphosate Trial which ran from the beginning of December 2022 to the end of November 2023.

Background

At the Council meeting on 22 August 2022 Council carried the following motion:

1. Resolve to continue to implement a weed management approach that enhances the appearance of public spaces and biodiversity, including a variety of approaches and seeks to minimise the use of herbicides and any potential negative impacts on human health and the environment, including
 - a. Ceasing the use of glyphosate for a trial period of 12 months along the Gardiners Creek corridor (adjoining open space), commencing at the start of Summer 2022 and concluding at end of Spring 2023.
 - b. Ceasing the use of Fluroxypyr within a specific trial site (Winton Rd Reserve and behind properties along Gardiners Creek from Winton Rd to Solway St, Ashburton), commencing at the start of Summer 2022 and concluding at end of Spring 2023.
2. Publish on our website the weed control site methods and practices, and the dates and locations for yearly weed management activities.
3. Bring a report on the findings of the 12-month trial to a future Services Delegated Committee.

Key Issues

- The Gardiners Creek No Glyphosate Trial finished at the end of November 2023, although the practices have continued into 2024.
- Overall, the asset condition rating of the sites in the trial area showed a small decrease in site condition.
- The total volume of herbicide used at biodiversity sites across the trial area decreased by 27,475.15ml (from 36,355.75ml to 8,880.6ml).
- The total number of hours spent on the management of biodiversity sites across the Gardiners Creek trial area increased by 348.5 (from 2,719.5 hours to 3,068 hours).
- Based on the increased hours and reduced chemicals spent in maintaining the biodiversity sites across trial area, an extra cost of \$29,280 has been identified for the trial period.
- Sections of the trial area included goat grazing at a cost of \$9,000 over the trial period (included in the amount above).

Next Steps

Continue the trial through to the end of Spring 2024 to enable more data collection.

Officers' recommendation

That Council resolve to:

1. Continue to implement a weed management approach that enhances the appearance of public spaces and biodiversity, including a variety of approaches and seeks to minimise the use of herbicides and any potential negative impacts on human health and the environment, including:
 - a. Ceasing the use of glyphosate for an additional trial period of 12 months along the Gardiners Creek corridor (adjoining open space), commencing at the start of Summer 2022 and concluding at end of Spring 2024.
 - b. Ceasing the use of Fluroxypyr within a specific trial site (Winton Rd Reserve and behind properties along Gardiners Creek from Winton Rd to Solway St, Ashburton), commencing at the start of Summer 2022 and concluding at end of Spring 2024.
2. Publish on our website the weed control site methods and practices, and the dates and locations for yearly weed management activities.
3. Receive a further report on the findings of the two-year trial period to a future Services Delegated Committee.

Responsible director: Daniel Freer, Director Places and Spaces

1. Purpose

The purpose of this report is to present the outcomes of the Gardiners Creek No Glyphosate Trial which ran from the beginning of December 2022 to the end of November 2023.

2. Policy implications and relevance to community plan and council plan

This report aligns with the following themes and strategies in the Boroondara Community Plan (2021-31):

- Theme 2, Parks and Green Spaces
 - Strategy 2.1: Parks and green spaces enable sport and recreation opportunities by maintaining and improving recreation spaces and equipment; and
 - Strategy 2.3: Parks and green spaces are accessible and appealing through maintaining, improving and increasing amenities; and
 - Strategy 2.4: Green spaces are maintained and increased through management practices and investigating opportunities to acquire or modify existing land.
- Theme 3, The Environment
 - Strategy 3.6: Our biodiversity is conserved and maintained through improving the way we manage our diverse plants, animals and natural spaces.

This report also aligns with delivering the actions of the Climate Action Plan including:

- 2.1: Increase the area managed for biodiversity by 10 hectares from the current 51 hectares
- 2.2: Enhance habitat for biodiversity

3. Background

At the Council meeting on 22 August 2022 officers presented a report to Council on Boroondara's weed management practices with consideration of the findings of the Deakin University report, '*Weed Management options for Victorian councils - Alternatives to glyphosate*', and the current position of relevant Australian authorities.

At this meeting, Council carried the following motion:

1. Resolve to continue to implement a weed management approach that enhances the appearance of public spaces and biodiversity, including a variety of approaches and seeks to minimise the use of herbicides and any potential negative impacts on human health and the environment, including
 - a. Ceasing the use of glyphosate for a trial period of 12 months along the Gardiners Creek corridor (adjoining open space), commencing at the start of Summer 2022 and concluding at end of Spring 2024.
 - b. Ceasing the use of Fluroxypyr within a specific trial site (Winton Rd Reserve and behind properties along Gardiners Creek from Winton Rd to Solway St, Ashburton), commencing at the start of Summer 2022 and concluding at end of Spring 2024.

2. Publish on our website the weed control site methods and practices, and the dates and locations for Yearly weed management activities.
3. Bring a report on the findings of the 12-month trial to a future Services Delegated Committee.

This trial is now complete although the practices have continued in 2024.

4. Outline of key issues/options

The results of the Gardiners Creek No Glyphosate trial are as follows:

Condition rating of sites

The biodiversity sites across the Gardiners Creek trial area were assessed using the Asset Condition Rating methodology set out in the Biodiversity Asset Management Plan (BAMP 2013-2023), which was developed in line with Boroondara Asset Management standards and the Department of Sustainability and Environment (now known as the Department of Energy, Environment and Climate Action) vegetation quality assessment guidelines. This method assesses sites on their indigenous plant species diversity, weed coverage, structure/composition, canopy cover, recruitment of native species, presence of disturbance, and presence of organic litter. A suitably qualified consultant was engaged to undertake these assessments at the commencement and end of the trial period.

Thirteen sites were assessed in January 2023 and again in December 2023. Asset Condition Ratings are determined on a scale of 0-4, where 0 is highest quality and 4 is lowest quality. In a typical 12-month period we would expect to see an improvement in quality at each site as we work towards having all sites at a high quality standard.

- Five sites showed a slight decrease in Asset Condition Rating (average decrease of 0.142), representing an improvement in site condition.
- Five sites showed a slight increase in Asset Condition Rating (average increase of 0.368), representing a decline in site condition.
- The Asset Condition Rating of three sites remained the same.

Overall, the Asset Condition Rating of the sites in the trial area showed a slight increase in Asset Condition Rating (average increase of approximately 0.086), representing a small decline in site condition. The table below shows the Asset Condition Ratings at the 13 assessed sites at both time periods.

Site	Asset Condition Rating		
	January 2023	December 2023	Difference
Burke to Tooronga	1.43	1.57	0.14
Clifford Close	1.86	1.71	-0.15
Dorothy Laver Reserve East	1.57	2.14	0.57
Dorothy Laver Reserve West	1.57	1.43	-0.14
Dunlop St	1.29	1.71	0.42
Eric Raven Reserve	1	1	0
H.A Smith Reserve	1.41	1.41	0
June Crescent	1.14	1	-0.14
Lewin Reserve	1.43	1.29	-0.14
Markham Reserve	2.29	2.29	0

Nettleton Park	1	0.86	-0.14
Patterson Reserve	1.29	1.57	0.28
Ryburne Avenue Reserve (Fluroxypyr also not used here or Winton Rd Reserve)	1	1.43	0.43
Total	1.406154	1.493077	0.086923

Volume of herbicide

The total volume of herbicide used at biodiversity sites across the trial area decreased by 27,475.15ml (from 36,355.75ml to 8,880.6ml).

Hours spent at sites

The total number of hours spent on the management of biodiversity sites across the Gardiners Creek trial area increased by 348.5 (from 2,719.5 hours to 3,068 hours).

Costs

Based on the increase of 348.5 hours spent in maintaining the biodiversity sites across the Gardiners Creek trial area, an extra cost of \$20,959 attributed to labor cost, has been identified for the trial period. The cost of herbicides used in the area during the trial period decreased from \$1,603 to \$923, representing at \$679 reduction in cost. Sections of the trial area included goat grazing at a cost of \$9,000 over the trial period. This makes the total cost extra costs associated with the trial \$29,280.

OH&S

There was one reported incidence of an injury to a worker attributed to the No Glyphosate Trial. This was a repetitive stress injury due to an increase in brush cutting undertaken during the trial. This incident occurred early in the trial period and measures were put in place with both staff and contractors to avoid these types of repetitive use injuries.

Options

Undertake a Gardiners Creek No Glyphosate Trial for an additional year.

This is the officer recommendation.

The condition of the audited biodiversity sites at the end of the trial period was similar to before the trial began, and a large reduction in herbicide use was observed. It should be acknowledged that over time the condition of sites may deteriorate due to a potential build-up of weed-seed bank and that Council is aspiring to progressively improve the quality of these biodiversity sites. However, given the generally stable condition over the past year, undertaking a trial for an additional year appears warranted.

The increased funds associated with the trial period were reallocated from other works in biodiversity areas. The cost for an additional trial year would be expected to be similar to the current trial (\$29,280), however this could potentially increase if the condition of the sites deteriorate. To understand the impacts of reducing works in other areas we will need to expand the quality assessment auditing to cover all biodiversity sites.

There was one OHS incident attributed to the trial. With an additional trial period, officers would continue to monitor any OHS issues that can be attributed to the trial, and this would inform future recommendations.

Officers would collect data and monitor changes in site condition over the trial period. A report and updated recommendations would be prepared at the conclusion of the new trial period.

Return to normal practices.

This option would involve a return to the use of glyphosate in the Gardiners Creek trial area. However, officers would continue to implement a weed management approach that reduces the use of herbicides where possible, utilising a range of alternative techniques, whilst enhancing the appearance of public spaces and biodiversity.

5. Consultation/communication

Boroondara was part of the Deakin University a '*Weed Management options for Victorian councils - Alternatives to glyphosate*' study, and consulted with 11 other Melbourne metropolitan local governments to understand any trends regarding weed management and to gain their input in the field of herbicide application, management, notification and alternative products and methods used for weed control. Of these local governments, all currently used glyphosate in some capacity.

One Council completely ceased usage of glyphosate for two years before reintroducing its use in response to increased presence of weeds and increased complaints from the community. Like Boroondara, six of these local governments have stopped using glyphosate in sensitive areas such as playgrounds and childcare centres.

Communication of Council's weed management practices ensure the community is well informed on how Council manages weeds and why particular methodologies are being implemented. This communication has included informing the community of the Gardiners Creek No Glyphosate Trial.

6. Financial and resource implications

Expenditure on these biodiversity during the 2022/23 financial year was \$164,231. During the trial period this increased to \$193,511 representing an increased costs associated with not using glyphosate during the 12-month period of \$29,280. This is associated with an increase in hours worked at the sites within the trial area, the addition of goat grazing, and reduced chemicals spent in maintaining the biodiversity sites across trial area. If the trial were to be undertaken for an additional year, it can be expected that at least this additional amount would be required.

7. Governance issues

No officers involved in the preparation of this report have a general or material conflict of interest requiring disclosure under chapter 5 of the Governance Rules of Boroondara City Council.

The recommendation contained in this report is compatible with the Charter of Human Rights and Responsibilities 2006 as it does not raise any human rights issues.

8. Social and environmental issues

This report supports Council's desire to continue to maintain and improve our natural and urban environment in a sustainable way and proactively manage the ongoing maintenance and management of Council's assets and facilities to meet our community's current and future needs.

The products selected for use are suitable for the environment in which they are used and are chosen to minimise potential environmental impacts. Products that translocate through soil are not utilised near waterways and products that sterilise the soil are not utilised in native vegetation areas.

Council has comprehensive occupational health and safety practices in place which ensures staff are suitably trained in chemical storage and handling, wear appropriate personal protective equipment and utilise products in accordance with their safety data sheets.

9. Evaluation and review

Council's performance in maintaining public areas is measured through the annual Community Satisfaction Survey with a question on satisfaction with appearance of public areas. This is one of the highest rated services of Council. Should there be a drop of performance in this area the services would be reviewed to understand the causes and, if necessary, the weed management approach re-evaluated.

Council monitors news and reviews on the impacts of herbicides from across the world and considers this, along with advice from the APVMA, in developing its weed management approach.

If the trial were to be undertaken for an additional year, officers will collect data and monitor changes in site condition over the trial period. A report and updated recommendations would be prepared at the conclusion of the new trial period.

10. Conclusion

On the basis that there hasn't been a significant decline in the condition rating of biodiversity sites in the trial area and the costs associated with the trial are currently manageable, it is recommended to undertake a Gardiners Creek No Glyphosate Trial for an additional year and reassess the outcomes and future direction upon presentation of a report at the conclusion of the new trial period.

**Manager and
report officer**

**David Shepard, Manager Environmental Sustainability & Open
Spaces**