



**10.1 COUNCIL PARKS & OPEN SPACE MAINTENANCE -
HERBICIDE APPROACH**

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1. PURPOSE

- 1.1 This report seeks Council approval to proceed to a 28 day consultation period through Council's "Have Your Say" platform to seek feedback on the proposed reintroduction of the selective use of Glyphosate for the treatment of weeds at low risk locations when required.

2. EXECUTIVE SUMMARY

- 2.1 Council resolved to enter into the current Open Space Maintenance contract at its meeting on 4 July 2018. As part of awarding the contract, Council acknowledged that the contract specifically prohibited the use of the herbicide, Glyphosate, to manage weeds across the City, including in parks, open spaces, alongside roads and in laneways. This provision in the tender and the resulting contract reflected the emerging approach across the open space maintenance sector in response to concerns about the safety of Glyphosate at the time.
- 2.2 Since that time, Council's contractors have used a variety of alternatives to Glyphosate including steam and Glufosinate (retail name Basta). The effectiveness of these alternatives, particularly during the recent year when growing conditions for weeds have been considerably favourable, has been low contributing to major weed growth across the City. This has resulted in a significant increase in requests from the community for the removal of weeds (370 requests in 2022/23 year-to-date, verses a total amount of approximately 30 in financial year 2021/22).
- 2.3 Since the awarding of the initial contract in 2018, industry and academic advice and guidance on the use of Glyphosate has evolved significantly.
- 2.4 Deakin University and Municipal Association of Victoria (MAV) commissioned research investigated the environmental impacts of chemicals including Glufosinate; Picloram; Imazapyr; Prodiamine; Nonanoic Acid; Acetic Acid; Clove Oil; Sodium Chloride; Glyphosate; and Pine Oil, along with steam. Based on a multifaceted criterion of cost, availability, ease of use, any known off-target toxic effects, and known hazards for use, storage and negative environmental impacts were assessed through the research. The report concluded 'based on the results of field trials, and taking into consideration cost, safety information and off-target impacts, Glyphosate is considered to be the most effective weed management strategy of the different approaches scrutinised by this study'.
- 2.5 The Municipal Association of Victoria's (MAV) current position on Glyphosate is guided by the Australian Pesticides and Veterinary Medicines Authority (APVMA) and Worksafe state that APVMA approved products containing Glyphosate can continue to be used safely following the directions in the Safety Data Sheet and labels.



- 2.6 According to global health and research institutions, Glyphosate represents no greater risk to applicators or the public than mobile phone use or the consumption of red meat, so long as the product is used in accordance with the directions in the Safety Data Sheet and labels.
- 2.7 Whilst Council and its contractors have been implementing a broad range of integrated weed management practices, the overall amenity of Council's open spaces has declined, with many community complaints received. The proposed change to permit the use of Glyphosate, along with increased contract management assurance and supplementary resourcing, will help to address this poor amenity outcome across the City.
- 2.8 This report seeks Council endorsement to engage with the community, seeking feedback, on the proposal to reintroduce the use of Glyphosate in select areas including along road sides whilst continuing to prohibit its use in high-risk areas such as at childcare centres, near playgrounds and open spaces and in all areas where run-off may enter waterways.

3. RECOMMENDATION

That Council:

- 3.1 Notes that in 2018, Council entered into an open space maintenance contract that specifically prohibited the use of the herbicide, Glyphosate, as a weed control product in recognition of community concern at the time.
- 3.2 Notes that since that time, the technical and evidence base has evolved with the Municipal Association of Victoria (MAV) now recommending the use of Glyphosate in select situations.
- 3.3 Notes that the reintroduction of the use of Glyphosate in select situations, such as road sides and laneways, whilst continuing to prohibit its use in higher-risk situations such as in childcare centres, open spaces, in and around playgrounds, and in all areas where run-off could potentially enter waterways, is likely to significantly help address community concern with weed management across the City.
- 3.4 Endorses the commencement of an engagement period of 28 days wherein members of the community are invited to provide feedback to Council on the proposed reintroduction.
- 3.5 Notes that the findings of the consultation and a recommendation on the proposed reintroduction of the use of Glyphosate, in select areas, will be presented to Council for consideration in the coming months.

4. KEY POINTS/ISSUES

- 4.1 Since the time that Council entered into the current open space maintenance contract in 2018, there has been a considerable evolution of the research and industry practice pertaining to the popular herbicide, Glyphosate.
- 4.2 The following sections outline the research and guidance material that form the basis of the proposal to reintroduce the use of Glyphosate at select sites across the City as part of a weed management approach.



Product Research & Guidance

- 4.3 Research undertaken by Deakin University and MAV has investigated chemicals and alternatives for weed control, including Glufosinate; Picloram; Imazapyr; Prodiamine; Nonanoic Acid; Acetic Acid; Clove Oil; Sodium Chloride; Glyphosate; and Pine Oil, along with steam.
- 4.4 The research looked at a multifaceted criterion of cost, availability, ease of use, any known off-target toxic effects and known hazards for use, storage and negative environmental impacts.
- 4.5 The research report is in Attachment 1. Findings indicate Glufosinate is as effective as Glyphosate but is twice the cost; in some climatic conditions Glufosinate requires additional applications; with Glufosinate and Glyphosate have similar impacts on soil profile and microbial populations.
- 4.6 The Municipal Association of Victoria’s (MAV) current position on Glyphosate is guided by the Australian Pesticides and Veterinary Medicines Authority (APVMA) and Worksafe stating that APVMA approved products containing Glyphosate can continue to be used safely following the directions in the Safety Data Sheet and labels.

Benchmarking

- 4.7 The use of Glyphosate as a weed control option has been considered by many other local government authorities across Victoria. Below is a summary:

Council	Currently banned the use of glyphosate and not looking to change that position	Have reduced the use of glyphosate but not looking to ban altogether	Still using glyphosate but reviewing its future use	Currently banned the use of glyphosate but looking to reintroduce
Nilumbik		√	√	
Yarra City		√		
Whittlesea			√	
Casey		√	√	
Bayside		√	√	
Boroondara		√	√	
Macedon Rangers		√		
Hobsons Bay		√	√	
Monash		√		
Maribyrnong				√
Moreland		√	√	

- 4.8 In addition, further details about the use of glyphosate by other councils:

City of Greater Dandenong

Uses Glyphosate as part of a comprehensive weed control approach which includes mechanical weeding, hand weeding, weed steaming and other chemical controls.

City of Casey

Uses Glyphosate in selected locations. They have used the MAV and Deakin University trial results to inform decision making.



Cardinia Shire Council

Both the council and its contractors use Glyphosate. As a semi-rural LGA they also offer weed control grants, and the purchasing of herbicides is eligible for funding.

Kingston City Council

Uses Glyphosate in selected locations. They have used the MAV and Deakin University trial results to inform decision making.

Monash City Council

Uses Glyphosate and reaffirmed its continued use on 27 July 2021 on the basis of the MAV and Deakin University trials.

Mornington Peninsula Shire

Uses Glyphosate as a weed control option along with other non-herbicide approaches including hand weeding, motorised weed control (particularly along roadsides), gas burner and steam weeding, using herbicides where necessary and under strict controls.

Frankston City Council

Frankston rescinded its ban on Glyphosate in February 2021, now using it in non-high risk locations very similar to what is proposed in this report.

Health Research

- 4.9 Whilst the MAV and Deakin University research focused on the impacts of chemicals on soil biota, arthropods and microbial populations, there is much existing evidence and research on human health.

International Agency for Research on Cancer (IARC)

- 4.10 In 2015 the International Agency for Research on Cancer (IARC), an agency affiliated with the World Health Organisation (WHO), classified Glyphosate as a Group 2A agent 'probably carcinogenic to humans'. The IARC assessment looked at the intrinsic toxic potential or 'hazard' of the chemical Glyphosate as a cancer causing agent. The IARC assessment does not consider how risk can be mitigated or if risk from likely exposure scenarios is low. Indoor emissions from burning wood and high temperature frying, shift work, mobile phone use, and consumption of red meat are also classified as Group 2A agents 'probably carcinogenic to humans'. According to IARC items considered 'carcinogenic to humans' include bacon, red wine, sun exposure and tobacco.

Joint Meeting on Pesticide Residues (JMPR)

- 4.11 The JMPR is a joint expert taskforce comprising scientists from the WHO, national governments and universities. In 2015 the taskforce reviewed the information considered by the IARC and recommended a full risk-based, weight of evidence re-evaluation of Glyphosate. The JMPR met in May 2016 in Geneva, Switzerland at WHO headquarters to discuss their assessment. In May 2016 the JMPR published the following findings:

- While there was some evidence for a positive correlation between occupational Glyphosate exposure and non-Hodgkin lymphoma in some studies, the only well-designed large cohort study found no association at any exposure level.



- Overall weight of evidence indicates that Glyphosate and Glyphosate based formulations are not genotoxic in mammals, even at high oral doses, and is unlikely to be genotoxic to humans at likely levels of dietary exposure.
- Glyphosate is unlikely to pose a carcinogenic risk to humans from exposure through the diet.

Australian Pesticides and Veterinary Authority

- 4.12 The Australian Pesticides and Veterinary Authority (APVMA) is the Australia Government agency responsible for registration of agricultural and veterinary products. Before a chemical product can be sold or manufactured in Australia it must first go through scientific assessment by the APVMA to check its safety and whether it works as expected and claimed by the manufacturer. These checks are designed to protect the health and safety of people, animals and the environment.
- 4.13 As part of the regulatory process undertaken by the APVMA and pesticide regulators in other countries, a hazard assessment such as that undertaken by the IARC is just one part of the overall risk assessment required to determine the risk of using a registered chemical product. Risk assessments also include estimating the exposure magnitude, frequency and duration as well as population exposed and potential exposure pathways.
- 4.14 The APVMA evaluated the IARC report and other contemporary scientific assessments and concluded that Glyphosate does not pose a carcinogenic risk to humans and there are no grounds to place it under reconsideration. The APVMA's position is aligned with other international regulators and the Joint FAO/WHO Meeting on Pesticide Residues, including recent comprehensive reviews of Glyphosate conducted by the US and Canada.
- 4.15 The APVMA continues to monitor any new scientific information about Glyphosate and remains satisfied products containing Glyphosate can continue to be used safely according to label directions.

Legal cases

- 4.16 In 2018 a California school grounds keeper won a legal case against the manufacturer Monsanto claiming that Glyphosate caused cancer and that Monsanto had failed to warn consumers of the risk.
- 4.17 In 2019 two more successful legal cases were tried against Monsanto in the US, awarding multimillion-dollar outcomes to the plaintiffs. Regulatory authorities maintained their position that Glyphosate is safe to use in accordance with the label, however significant media interest at the time led to heightened concern within the community.
- 4.18 In June 2020 a federal judge in California stated, 'that every government regulator of which the court is aware, with the exception of the International Agency for Research into Cancer, has found that there was no or insufficient evidence that Glyphosate causes cancer.'

Options

- 4.19 It is recommended that Council endorse a proposal to a change in practice to allow the selective use of Glyphosate in low-risk locations other than playgrounds, childcare centres, preschools and maternal child health centres. It is recommended that in



playgrounds, childcare centres, preschools and maternal child health centres, organic chemicals, manual or steam weed control will continue to be used.

- 4.20 Under this proposal, Glyphosate will be used selectively as weed control method in other locations, including public roads, laneways, garden beds and lower profile, lower usage horticultural sites. Additionally, practices will be implemented to ensure that Glyphosate is not used near water bodies, including standing water in gutters.
- 4.21 The use of Glyphosate would be utilised in accordance with the MAV's current position that it can continue to be used safely following the directions in the Safety Data Sheet and labels. This position is guided by the Australian Pesticides and Veterinary Medicines Authority (APVMA) and Worksafe.
- 4.22 The reintroduction of Glyphosate in select areas, would likely assist in ensuring approved amenity within open spaces across City of Port Phillip and will meet community expectations of clean, safe and appealing streets parks and reserves.
- 4.23 Alternatively, Council can continue to utilise the alternative herbicide, Glufosinate as currently specified in the existing open space maintenance contract.

5. CONSULTATION AND STAKEHOLDERS

- 5.1 Council's Sustainability Team have been consulted on this report and provided input on the practical reintroduction including prohibiting use near waterbodies.
- 5.2 Officers have undertaken extensive discussions with other councils and bodies to assess current practice and in the formulation of the proposal to reintroduce the select use of Glyphosate for weed control.
- 5.3 Officers have meet with a number of engaged environmental community groups including Port Phillip Emergency Action Network (PECAN) to inform them on the intent of this report. Other community groups will be consulted during the 28 day community feedback period.

6. LEGAL AND RISK IMPLICATIONS

- 6.1 Subject to Council decision, the proposed reintroduction of the selective use of Glyphosate would be undertaken in accordance with industry best practice including guidelines from the Australian Pesticides and Veterinary Medicines Authority (APVMA) and Worksafe.
- 6.2 Furthermore, and in recognition of community concern and in-line with other councils, it is proposed that Council limit the reintroduction of Glyphosate to low-risk areas and not use the herbicide in the vicinity of playgrounds, at childcare centres, etc.

7. FINANCIAL IMPACT

- 7.1 Whilst the cost of using organic sprays is approximately double that of using Glyphosate, and that the rate of application is approximately four times higher for both chemical and water additives used in organic sprays, there is likely to be very little financial impact from the change due to the quantum of weed spraying costs and the nature of the existing contract.

8. ENVIRONMENTAL IMPACT

- 8.1 Whilst the MAV and Deakin University research focused on the impacts of chemicals on soil biota, arthropods and microbial populations the information contained on the



Safety Data Sheet for the Round-up Bioactive which is proposed to be used (subject to ongoing availability) covers some other ecological information.

8.2 Eco Toxicity

The Globally Harmonized System of Classification and Labelling of Chemicals (GHS) is a system developed by the United Nations for standardising and harmonising the classification and labelling of chemicals globally. Specifically, it seeks to:

- Define the physical, health and environmental hazards of chemicals and harmonise classification criteria
- Standardise the content and format of the chemical labels and Safety Data Sheets.

8.3 Acute aquatic toxicity data and chronic aquatic toxicity data are essential for determining the environmental hazard classification of a chemical substance under the GHS.

8.4 Aquatic toxicity is defined as the study of the effects of chemical substances to aquatic species which is usually determined on organisms representing the three trophic level i.e. vertebrates (fish), invertebrates (crustaceans as Daphnia) and plants (algae).

8.5 Below summarises how study results are given.

- Acute toxicity to fish (96hrs, LC50 in mg/l): The acute toxicity is expressed as the median lethal concentration (LC 50) that is the concentration in water which kills 50% of a test batch of fish within a continuous period of exposure which is usually 96hrs.
- Long term toxicity (28days, NOEC in mg/l): The chronic toxicity is expressed as number of observed effect concentrations (NOEC) that is the concentration in water which below an unacceptable effect is unlikely to be observed.

Daphnia

8.6 Acute toxicity to Daphnia (48hrs, EC50mg/l): the acute toxicity is expressed as the medium effective concentration (EC 50) for immobilisation. This is the concentration which immobilises 50% of Daphnia in a test batch within a continuous period of exposure which is usually 48hrs.

8.7 Long term toxicity to Daphnia (21days, NOEC in mg/l): this chronic eco-tox study assesses the effect of chemicals on the reproductive output of Daphnia magna. Sometimes, the lowest observed effect concentration (LOEC) is given.

Algae

8.8 Acute toxicity to algae (72-96 hrs, EC50 in mg/l): EC50 is the concentration of test substance which results in a 50 percent reduction in either growth (EbC50) or growth rate (ErC50) relative to the control within 72 hrs exposure.

8.9 The Safety Data Sheet for the product Council is proposing to use has the following Eco toxicity information:

- 48hr EC50 (Daphnia magna): 243 mg/L
- 96hrs LC50 (rainbow trout): >1039 mg/L



- 8.10 Using a concentration of Roundup Bio 360 at 3.6g/L, contamination of waterways would have no known impacts to aquatic organisms subject to the waterway capacity.
- 8.11 This does not take into account the rate at which Glyphosate breaks down, nor the substances into which it breaks down (which are naturally occurring substances that are broken down by microbes). These factors would further reduce the toxicity risk to aquatic organisms.
- 8.12 In summary, it is prudent to consider limiting Glyphosate use in and around waterways, waterbodies, and near standing water, such as in kerb and gutters. It is recommended that any reintroduction include usage limitations for these situations.

9. COMMUNITY IMPACT

- 9.1 The use of Glyphosate became a sensitive topic since a highly media documented lawsuit in America in 2018, where frequent users of the Glyphosate based product. "Round up" pursued legal compensation with the company Bayer after they were diagnosed with non-Hodgkin's lymphoma. Studies have suggested that human and animal dermal absorption of Glyphosate is poor. Research has also shown that as Glyphosate is non-volatile, absorption from inhalation does not pose a threat and that Glyphosate is unlikely to pose a carcinogenic risk to humans from exposure through the diet.
- 9.2 The use of herbicide in public spaces is likely to be a topic of interested for engaged members of the local community. It is intended to consult with the community on the evidence base behind Council's proposed reintroduction of Glyphosate in select situations.
- 9.3 Further, any reintroduction would abide by Council's existing process is for signage to be displayed at the time of spraying in reserves and for dye to allow the applicator to ensure full coverage and the community to identify where spraying has occurred. Additionally, existing practices wherein Council contractors keep detailed records of locations of chemical applications, dilutions and amount applied will continue to be implemented.

10. ALIGNMENT TO COUNCIL PLAN AND COUNCIL POLICY

- 10.1 Liveable Port Phillip
 - 10.1.1 delivery of a high standard of amenity, ensuring compliance with planning and building requirements, legislation and local laws to support public health and community safety
- 10.2 Sustainable Port Phillip
 - 10.2.1 Port Phillip has cleaner streets, parks, foreshore areas and waterways where biodiversity flourishes.

11. IMPLEMENTATION STRATEGY

- 11.1 TIMELINE
 - 11.1.1 Create a "have your say page" and consult with community groups on the operation procedures for controlling weeds in our municipality (May 2023)
 - 11.1.2 Report back to Council on community feedback in June 2023.
 - 11.1.3 Update website information on weed spraying

MEETING OF THE PORT PHILLIP CITY COUNCIL

19 APRIL 2023



11.1.4 Notify contractor of any proposed changes to the contract terms and negotiate changeover period with new schedule program of works to improve city amenity

11.2 COMMUNICATION

11.2.1 Council's website will be updated with a "Have your Say" webpage seeking community feedback with links to relevant research documents.

12. OFFICER DIRECT OR INDIRECT INTEREST

12.1 No officers involved in the preparation of this report have any material or general interest in the matter.

ATTACHMENTS 1. **CERRF Deakin University Research Glyphosate** [↓](#)