

5.5. GLYPHOSATE REDUCTION STRATEGY

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DEPARTMENT	Infrastructure

RECOMMENDATION

That Council resolves to adopt the Glyphosate Reduction Strategy.

EXECUTIVE SUMMARY

Open Spaces are highly valued by residents and visitors to Douglas Shire and contributes significantly to the region's character, lifestyle, health biodiversity and economy.

Council's Open Spaces Team is responsible for the grounds maintenance of all parks reserves within Douglas Shire. The team ensures that the 2,257 hectares of green space is maintained to a standard whereby users can enjoy and have pride in these community spaces.

The use of glyphosate to control weeds and vegetation within these areas has been common practice for many years. Usage is in line with strict internal procedures and advice given by the regulator.

The Douglas Shire Council is aware of recent international decisions concerning glyphosate. Concerns have been raised about human exposure to the common herbicide glyphosate.

In response to these concerns, Officers have developed a *Glyphosate Reduction Strategy* to guide grounds management practices and resource planning into the future. Preparing this Strategy provided an opportunity for Officers to review current open space procedures and best practise methodology in maintaining assets; including a review of the level of service, standard of service and consideration of future budget / resourcing requirements.

The *Glyphosate Reduction Strategy* provides direction for operational staff responsible for grounds maintenance tasks in Council managed parks & urban areas and includes advocacy and education opportunities with key stakeholders.

BACKGROUND

The development of a Glyphosate Reduction Strategy is the result of an operational initiative in the 2019/2020 Operational Plan, which, in summary, directed Officers to develop alternatives to glyphosate products. The Strategy framework was presented at the Special Council Workshop held on 15 January 2020.

Glyphosate is a broad-spectrum herbicide that works by inhibiting an enzyme found in plants; this enzyme is not found in humans. There are around 500 products containing glyphosate registered for use in Australia. Glyphosate has been registered for use in Australia for over 40 years.

COMMENT

Concerns have been raised about human exposure to the common herbicide glyphosate, after a 2015 International Agency for Research on Cancer (IARC) assessment, which has classified glyphosate in a group of chemicals that is 'probably carcinogenic to humans' based on a strength-of-evidence assessment.

The Australian Pesticides and Veterinary Medicines Authority (APVMA) is the national regulator for agricultural chemicals. Products containing glyphosate are registered for use in Australia, and APVMA approved products containing glyphosate can continue to be used safely according to label directions. Australian law requires appropriate warnings on product labels, which include relevant poisons scheduling, first aid, and safety directions detailing personal protective equipment when handling and using products containing glyphosate.

In 2016, following the IARC assessment, the APVMA considered glyphosate and found no grounds to place it under formal reconsideration. Glyphosate is registered for use in Australia, and APVMA approved products containing glyphosate can continue to be used safely, in accordance with label directions.

However, glyphosate is a hazardous chemical that poses health risks if safety precautions are not taken. As with all hazardous chemicals, particularly those which may cause cancer, worker exposure must be minimised, including skin contact, breathing in vapour and mists, and accidental ingestion through poor hand hygiene.

The Glyphosate Reduction Strategy aims to eliminate the use of such products and implement environmentally sensitive solutions for managing open spaces.

PROPOSAL

That council adopts the Glyphosate Reduction Strategy

FINANCIAL/RESOURCE IMPLICATIONS

The current cost to manage weeds and vegetation using glyphosate in parks and urban areas is \$94,500 per annum (playgrounds not included). A detailed comparison of associated costs, if using alternative products and methodology, is summarised in the table below:

Table 1.

Product	Frequency Sprays per Year	Additional Labour per Year (FTE)	Additional Labour Cost per Year \$	Total Cost per Year \$
Glyphosate	15	0	-	94,500.00
Slasher	20	0.3	31,333.00	133,733.00
Bio Oil	20	0.3	31,333.00	140,000.00
Brush Cut	18	0.5	75,200.00	169,200.00
Steam Weeding	20	4.4	407,333.00	645,333.00

To implement the Glyphosate Reduction Strategy an additional budget allocation of \$106,000 per year would be required to employ one additional (FTE) and change to organic herbicide.

This will allow for a combination of alternative options to be implemented on a site specific basis. For example brush cutting of all bollards in park areas, hand weeding of garden beds and using organic herbicide rather than using glyphosate.

If an additional FTE and budget is not included in future budget allocations, savings in the public spaces operational budget will need to be found.

A reduction in the level of service is one way of achieving this within the current budget. For example, reducing the number of mowing cycles in parks or not trimming oil palms in Port Douglas will provide the necessary budget to support the strategy.

The action plan steps out a process to review alternatives in road corridors and the additional operational costs are to be included in the 2020/2021 budget as required. Below is the timeframes as set out in the Strategy:

Table 2.

Description	By When
Draft Glyphosate Reduction Strategy	15 January 2020
Formal adoption of Glyphosate Reduction Strategy by Council	21 January 2020
Complete phase out of glyphosate in parks	21 January 2020
Review of rural road maintenance options including herbicide treatment of guideposts	May 2020
Total phase out of glyphosate products including budget allocations to support new strategy (excluding Biosecurity)	July 2020

RISK MANAGEMENT IMPLICATIONS

Local Councils around Australia are banning the use of glyphosate, phasing it out or conducting reviews of its use because of health and safety concerns.

The bans and reviews come after chemical giant Monsanto was ordered to pay more than \$300 million to a dying man in California who used Roundup, which contains glyphosate, during his job as a school groundsman.

Sydney firm LHD Lawyers is also considering a class action against Bayer (which owns Monsanto) and personal injury firm Maurice Blackburn is evaluating individual cases after it has fielded hundreds of inquiries mostly over exposure to glyphosate in the workplace.

Workplace Health and Safety Queensland has released new guidance on pesticides and the Australian Pesticides and Veterinary Medicines Authority has released a review of glyphosate use.

The current assessment by the AVPMA indicates that products containing glyphosate are safe to use according to the label instructions.

Douglas Shire Council currently follows strict procedures when using herbicides including glyphosate to mitigate the potential risk as follows:

- obtaining the Safety Data Sheet (SDS) for hazardous chemicals used;
- understanding and following all the safety instructions on the SDS;
- using engineering, isolation or substitution as the primary control measures, particularly for decanting and diluting tasks;
- providing personal protective equipment (PPE) or respiratory protective equipment (RPE) to use in combination with higher order controls;
- ensuring respirators have the appropriate particulate and/or vapor filter (if you need assistance with this talk to your PPE supplier);
- providing all workers, including mobile workers, with personal hygiene facilities;
- training workers to use the product and minimise exposure; and
- Health monitoring of high use operators (Biosecurity team).

SUSTAINABILITY IMPLICATIONS

Economic: Glyphosate is undoubtedly the most cost effective herbicide to manage weeds. Many council's including Douglas have turned to using steam where possible in sensitive areas such as playgrounds and near schools.

To achieve the outcomes of the strategy will cost more in maintenance costs within our public areas. This additional cost will either have to be absorbed in the budget through reduced levels of service or through increased budget allocation.

Environmental: Council is committed to the environment and strives to protect our natural assets. Whilst we continue to seek alternatives wherever possible, there are still instances where we need to use glyphosate to fulfil our legal obligations in Biosecurity matters.

One example of this is treating the highly invasive water weed *Salvinia Molesta*. Weedmaster Duo herbicide which contains glyphosate is the only registered chemical approved to be used in waterways to treat salvinia.

To ban the use of glyphosate completely without a viable alternative, poses a significant risk that our native areas may become infested with invasive weeds, the second biggest threat to biodiversity behind land clearing.

Social: The use of alternative weed control methods such as steam weeding has been received very positively within the community. Additionally, Council staff also have been approached on numerous occasions by members of the public, who are concerned about glyphosate spraying in parks and urban areas.

The *Glyphosate Reduction Strategy* aims to address these concerns by eliminating glyphosate from parks and urban areas.

CORPORATE/OPERATIONAL PLAN, POLICY REFERENCE

This report has been prepared in accordance with the following:

Corporate Plan 2019-2024 Initiatives:

Theme 3 - Leading Environmental Stewardship

Our visitors and residents deeply value the unparalleled environment in which we live. We recognise our responsibility in protecting and preserving our natural world for generations to come. We understand the strong link between the environment and the economy: they are interdependent. Douglas Shire will be at the forefront of environmental protection by developing strategies, setting policies, and working with all stakeholders to become the envy of and to inspire locations across Australia and the World.

Goal 1 - We will protect our sensitive environment and plan for the impact of climate change.

Operational Plan 2019-2020 Actions:

3.1.4 - Develop alternatives to glyphosate products.

COUNCIL'S ROLE

Council can play a number of different roles in certain circumstances and it is important to be clear about which role is appropriate for a specific purpose or circumstance. The implementation of actions will be a collective effort and Council's involvement will vary from information only through to full responsibility for delivery.

The following areas outline where Council has a clear responsibility to act:

Custodian Council owns and manages infrastructure, facilities, reserves, resources and natural areas. In fulfilling its role as custodian, Council will be mindful of the community, the economy, the environment, and good governance.

CONSULTATION

Internal: In developing the Strategy, consultation was undertaken with:

- Councillors, at the workshop held 15 January 2020;
- Team Leader Biosecurity;
- The two Team Leaders in the Public Spaces Unit;
- Team Leader Civil Assets Maintenance.

External: FNQROC – Natural Asset Management Advisory Committee

COMMUNITY ENGAGEMENT

Nil

ATTACHMENTS

1. Glyphosate Reduction Strategy [5.5.1 - 13 pages]

GLYPHOSATE REDUCTION STRATEGY

*Operational Plan Initiative 2019-
2020*

[Abstract]

15 January 2020



*Engaging, Planning, Partnering
Muruku Kirraji - Eastern Kuku Yalanji
Nganyji pina ngunda-lum ... Ma:lnyjirri-yngku - Yirrganydji*

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Chemical Free Parks

Introduction

Douglas Shire Council region contains some of the most complex ecosystems. Our parks, reserves and natural areas provide critically important habitats for a diverse range of species. Management of these habitats is vital for maintaining our rich and diverse biodiversity.

Open Space is a highly valued asset by residents and visitors to Douglas Shire and contributes significantly to the regions character, lifestyle, health biodiversity and economy.

Council's Open Spaces Team is responsible for the grounds maintenance of all parks reserves, which includes public parks, natural reserves and foreshore areas, within Douglas Shire. The team ensures that our 2257 hectares of green space is kept in a manner people can take pride in. The use of glyphosate to control weeds and vegetation within these areas has been common practice for many years. Concerns have been raised about human exposure to the common herbicide glyphosate, therefore we seek to use alternatives wherever possible.



Background

Glyphosate is a broad-spectrum herbicide that works by inhibiting an enzyme found in plants; this enzyme is not found in humans. There are around 500 products containing glyphosate registered for use in Australia. Glyphosate has been registered for use in Australia for over 40 years.

The Australian Pesticides and Veterinary Medicines Authority (APVMA) is the national regulator for agricultural chemicals. Products containing glyphosate are registered for use in Australia, and APVMA approved products containing glyphosate can continue to be used safely according to label directions. Australian law requires appropriate warnings on product labels, which include relevant poisons scheduling, first aid, and safety directions detailing personal protective equipment when handling and using products containing glyphosate.

The Douglas Shire Council is aware of recent international decisions concerning glyphosate. Concerns have been raised about human exposure to the common herbicide glyphosate, after a 2015 International Agency for Research on Cancer (IARC) assessment, which has classified glyphosate in a group of chemicals that is 'probably carcinogenic to humans' based on a strength-of-evidence assessment.

In 2016, following the IARC assessment, the APVMA considered glyphosate and found no grounds to place it under formal reconsideration. Glyphosate is registered for use in Australia, and APVMA approved products containing glyphosate can continue to be used safely according to label directions.

Aims of the Strategy

The aim of the Glyphosate Reduction Strategy is to meet the targets as outlined in the Operational Plan 2019-2020 being:

- Develop alternatives to glyphosate products
- Implement environmentally sensitive solutions for managing open spaces
- Seek the complete removal of glyphosate products



Scope of the Strategy

The Glyphosate Reduction Strategy was prepared with the initial focus on Parks and Open Spaces. The strategy will be used to provide clear direction to on ground staff responsible to the grounds maintenance of our green areas. The Glyphosate Reduction Strategy covers all council controlled parks, reserves and open space areas within the Douglas Shire. 133 parcels are included in the scope. See Appendices Table 1.

Out of Scope

Douglas Shire Council is committed to environment and safety and strives to protect our natural assets. Whilst we continue to seek alternatives wherever possible, there are still instances where we need to use glyphosate to fulfil our legal obligations in Biosecurity matters. One example of this is treating the highly invasive water weed *Salvinia Molesta*. Weedmaster Duo herbicide which contains glyphosate is the only registered chemical approved to be used in waterways to treat salvinia.

To ban the use of glyphosate completely without a viable alternative, poses a significant risk our native areas becoming infested with invasive weeds, the second biggest threat to biodiversity behind land clearing.

The GRS does not cover the following areas of council operations:

- Biosecurity Matters – Including any invasive species listed as Prohibited or Restricted Matter listed in the Biosecurity Act 2014 or any priority species listed in the Douglas Shire Biosecurity Management Plan
- Revegetation Projects – Riparian restoration, stream bank stabilisation, erosion control works.
- Road vegetation maintenance operations – Including Kerb and Channel treatments from the Street Sweeper Machine, road infrastructure and furniture maintenance eg guideposts, signs, culverts etc
- Drainage easements / flood mitigation measures that involve treatment of waterways.

Objectives of the Strategy

Objective 1 - To develop alternatives to glyphosate

Council will continue to investigate any new assessment reports or studies regarding glyphosate and any possible alternative options. Council will advocate and educate best practice alternative options to key land managers as follows:

- Agricultural Sector
- Queensland Parks & Wildlife Service (QPWS)
- Landscaping industry

- Department of transport and Main Roads (DTMR)

Objective 2 - Implement environmentally sensitive solutions for managing open spaces

Council will implement the alternative options into its parks and open spaces grounds maintenance procedures as follows:

- Steam weeding on playgrounds
- Steam weeding treatment of assets in high pedestrian zones / public areas such as pathways and drains in CBD areas, retail areas, near restaurants etc.
- Use of organic herbicides where suitable. Products such as Slasher and Bioweed Oil.
- Hand weeding of high profile garden beds
- Mechanical weeding (loop weeders)
- Brush cutting around assets
- Maintain Herbicide free register
- Flame weeding where appropriate

Objective 3 – Seek the removal of glyphosate products

- Glyphosate is banned for use in all playgrounds, areas near schools or child care facilities.
- Glyphosate is banned for use on footpaths in CBD zones and retail areas
- Glyphosate is not to be used in sensitive areas north of the Daintree River wherever possible (Does not include biosecurity tasks)
- Selective herbicides (non-glyphosate products) are to be used on a case by case site specific basis. For example Sempra is the registered herbicide for Navua Sedge and may be used to maintain nuts grass and sedge on sport fields

Operational Actions

Douglas Shire is located in the Wet Tropics Bioregion. Our tropical climate creates optimum growing conditions for many plants and weed species. Council takes great pride in its green open spaces.



Grass and Turf Maintenance

On average we service our lawn / grass areas an average of 18 times per year depending on the seasonal conditions. Glyphosate was historically used to treat many assets in conjunction with the mowing runs. Some examples of assets are sign posts, bollards, path edges etc. These assets will be treated site specific either by brush cutting or organic herbicide depending on the location.

Garden bed Maintenance

Council has 102 landscaped / garden beds of a variety of sizes. Keeping these areas free of weeds is a major challenge. Gardens are to be treated by mechanical methods such as hand removal, chipping, grubbing or organic herbicides in conjunction with mulching.



Playground Maintenance

Council ceased the use of glyphosate on playgrounds in 2016 following extensive trials with alternative methodology such as steam weeding. Council purchased a steam weeding machine in 2018 specifically for use in sensitive areas. The use of glyphosate in playgrounds is not permitted. All weed control tasks must be complete using chemical free methodology.

Footpath Maintenance

Council's foot path network consists of 65 kilometres of pathway. Path edges need to be maintained for asset protection and aesthetics. Edges in urban areas are required to be treated with organic non glyphosate products or by mechanical methods such as brush cutting.

Action Plan

Description	By When
Draft Glyphosate Reduction Strategy	15 th January 2020
Formal adoption of Glyphosate Reduction Strategy by council	21 st January 2020
Complete phase out of glyphosate in parks	21 st January 2020
Review of rural road maintenance options including herbicide treatment of guideposts	May 2020
Total phase out of glyphosate products including budget allocations to support new strategy (excluding Biosecurity)	July 2020

Risks

Pesticides, including herbicides, insecticides and fungicides, are hazardous chemicals and are a health risk if safety precautions are not taken. As with all hazardous chemicals, particularly those which may cause cancer, worker exposure must be minimised, including skin contact, breathing in vapour and mists, and accidental ingestion through poor hand hygiene. The following measures are embedded in council's operations when using herbicide to minimise the risk of exposure to workers:

- obtaining the Safety Data Sheet (SDS) for hazardous chemicals used
- understanding and following all the safety instructions on the SDS
- using engineering, isolation or substitution as the primary control measures, particularly for decanting and diluting tasks
- providing personal protective equipment (PPE) or respiratory protective equipment (RPE) to use in combination with higher order controls
- ensuring respirators have the appropriate particulate and/or vapour filter (if you need assistance with this talk to your PPE supplier)
- providing all workers, including mobile workers, with personal hygiene facilities

- training workers to use the product and minimise exposure.

Additional measures recommended for implementation include:

- fit testing tight-fitting respirators for each worker who is required to wear one
- Health monitoring of works where there is a significant risk. For example Biosecurity staff, spray tractor operator etc.
- Mobile signage notifying the community that “herbicide spraying in use”

APPENDIX A

Table 1 - List of Parks and Reserve Areas included in the Glyphosate Reduction Strategy

ELLIS BEACH SOUTH RESERVE
Wangetti Sports Field
Cook Hwy Reserve
Wangetti (West Of Cook Hwy)
WANGETTI RESERVE
Mowbray River Environment Area
Mowbray River Environment Area
Mowbray River Environment Area
DOWNING STREET RESERVE
MITRE STREET RESERVE
NAUTILUS STREET RESERVE
Warri Park
4 Mile Beach Esplanade
Bruno Reidwig Park
4 Mile Park
4 Mile Beach Esplanade
BALE DRIVE PARKS
ULYSSES AVENUE PARK
Willy Pye Memorial (Teamsters) Park
Hutchings Park
BIRDWING LANEWAY
BROLGA LANEWAY
PORT DOUGLAS ROAD PARK
Jalumbu Park
Community Hall
4 Mile Beach Esplanade
Sands Street
K. Caravan Park
YACHT CLUB PARK
No. 9 Ribbon Avenue
BULURU PARK
BULURU PARK
ST CRISPINS AVENUE RESERVE
CAPTAIN COOK HIGHWAY RESERVE
Coolalinga Reserve
Island Point Lookout
ISLAND POINT ROAD RESERVE
ISLAND POINT RESERVE

MACROSSAN STREET RESERVE
Market Park
Island Point Nature Reserve
Rotary Park - Port Douglas
WHARF STREET
Diwan Sports Reserve
DAINTREE RIVER MOUTH RESERVE
THORNTON BEACH RESERVE
BLOOMFIELD ROAD RESERVE
CAPE TRIBULATION RESERVE
Daintree Ferry Area
Daintree Ferry Area
FOREST CREEK SES PARK
DE MEIO DRIVE RESERVE
DAINTREE MOUTH RESERVE EAST
Rocky Point Esplanade
Jimal Park
Phil Lunn Park
Wonga Community Park
New Wonga Esplanade
Wonga Beach Caravan Park
Bells Park
MOSSMAN RESERVE
Lou Prince Park
Newell Boat Area/Boating Club
SOMERSET DRIVE RESERVE
BOUGAINVILLIA STREET RESERVE
Kubirri
Shepherd Valley
Cassowary Soccer Grounds
George Davis Park
Caravan Park & Pool - Mossman
Unnamed Reserve
Manjal Dimbi (Middlemiss Park)
David Jack Park
North Mossman Park
Rotary Park (Mossman)
Coronation Park/Show Grounds
MOSSMAN GEORGE RESERVE
GWENDOLYN REX PARK
UPPER DAINTREE RESERVE
Daintree Town Boat Ramp Area
Daintree Sports Oval
Daintree Toilets

Pioneer Park
STEWART CREEK RESERVE
DAINTREE RESERVE
Wangetti Esplanade
MOWBRAY RESERVE
4 Mile Beach Esplanade
4 Mile Beach Esplanade
Hutchings Park
BULURU/ULSSES AVENUE
Willy Pye Memorial (Teamsters) Park
Hutchings Park
4 Mile Beach Esplanade
Reynolds Park
PORT DOUGLAS MARINA RESERVE
Island Point Nature Reserve
Clink Theatre
Julan Park
Public Toilets
Rex Smeal Park
Court House Museum
BLOOMFIELD ROAD RESERVE
CAPE TRIBULATION RESERVE
Daintree Ferry Area
Daintree Ferry Area
Rocky Point Esplanade
New Wonga Esplanade
New Wonga Esplanade
Old Wonga Esplanade
Newell Beach Esplanade
Cooya Beach/Mossman River
Jim Holdsworth Park
Shepherd Valley
Coronation Park/Show Grounds
FOXTON AVENUE RESERVE
FOREST GLEN PARK
DAINTREE BOAT RAMP
Wangetti Esplanade
MOWBRAY RESERVE
Port Douglas Sailing Club
REEF STREET RESERVE
BULURU/ULSSES AVENUE
Hutchings Park
Surf Club
Tennis & Basketball Courts

Port Douglas Sports Reserve
Port Douglas Ses
BLOOMFIELD ROAD RESERVE
Daintree Ferry Area
Aboretum
ANZAC PARK
DAINTREE MOUTH RESERVE WEST