

5.2. GLYPHOSATE REDUCTION STRATEGY 2021

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DEPARTMENT Infrastructure

RECOMMENDATION

That Council resolves to adopt the Glyphosate Reduction Strategy 2021.

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 substantially reduced in recent years. Usage is in line with strict internal procedures and advice given by the regulator.

The Douglas Shire Council is aware of international decisions concerning glyphosate. Concerns have been raised about human exposure to the common herbicide glyphosate. In response to these concerns, Officers developed a Glyphosate Reduction Strategy to guide grounds management practices and resource planning into the future. A review of the strategy was conducted in 2021, thus providing an opportunity for Officers to review current open space procedures and best practice 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 2021 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 was the result of an operational initiative in the 2019/2020 Operational Plan, which, in summary, directed Officers to develop alternatives to glyphosate products. The Glyphosate Reduction Strategy was formally adopted by council at the Ordinary Council meeting 21 January 2020. A review of the Glyphosate Reduction Strategy was undertaken in March 2021. The findings were presented at the Council Workshop held on 11 May 2021.

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.

Since 2016, following the IARC assessment, the APVMA have reviewed 1375 scientific studies on 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.

In March 2021 Council officers conducted a review of the progress / outcomes since the implementation of the Glyphosate Reduction Strategy in January 2020. The review identified the following key operational issues:

- Reduction in service standards
- Lost productivity - Organic products efficacy
- Public backlash from alternative organic products
- Increased use of selective herbicide
- Increased manual handling injuries to staff
- Increased cost to DSC

Minor amendments have been made to the Glyphosate Reduction Strategy 2021 that include allowing restricted use of glyphosate in specific locations under strict internal procedures.

The aim of the Glyphosate Reduction Strategy 2021 remains to eliminate the use of glyphosate products and implement environmentally sensitive solutions for managing open spaces where feasible.

PROPOSAL

That Council adopts the Glyphosate Reduction Strategy 2021

FINANCIAL/RESOURCE IMPLICATIONS

Currently it costs Douglas Shire Council an additional \$133,000.00 per annum to be glyphosate free in Open Spaces. To implement the Glyphosate Reduction Strategy 2021 will create potential savings of approximately \$11,200.00.

RISK MANAGEMENT IMPLICATIONS

Some 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.

In November 2020, The Wet Tropics Management Authority (WTMA) responded to concerns over glyphosate use in the World Heritage Area with a media release supporting the use of glyphosate following recommendations from the Invasive Species Council. The media release stated: "Glyphosate is the main chemical used to control environmental weeds in Australia, so a ban would have serious consequences for nature conservation. Though there may be impacts associated with the use of herbicides, the proliferation of invasive weeds is often a far greater threat to the integrity of the Outstanding Universal Value of the Area."

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
- 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 alternative chemical free methods such as steam where possible in sensitive areas such as playgrounds and near schools.

To achieve the outcomes of the strategy costs more in maintenance expenses within our public areas. However, the recent amendments will help to slightly reduce this additional cost. The additional costs have to date been 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 2021 continues to address these concerns by eliminating glyphosate from parks and implementing risk mitigation control measures in specific areas

CORPORATE/OPERATIONAL PLAN, POLICY REFERENCE

This report has been prepared in accordance with the following:

Corporate Plan 2019-2024 Initiatives:

Theme 1 - Celebrating Our Communities

Douglas Shire Council embraces the diversity of our communities and values the contribution that all people make to the Shire. We recognise that it is a core strength of the region. We acknowledge our past so that it may guide us in the future. We recognise the wrongs done to our Indigenous community and we actively seek to reconcile so that we may all benefit from and enjoy our Shire. We acknowledge early European settlers who forged an agricultural base for our economy and we welcome all new arrivals as part of our broader community.

Goal 2 - We will deliver programs and services that protect and enhance the liveability of our beautiful Shire.

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 11 May 2021;
- 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 2021 [4YYQ] [5.2.1 - 12 pages]

GLYPHOSATE REDUCTION STRATEGY 2021

[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 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 following targets:

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



Scope of the Strategy

The Glyphosate Reduction Strategy was prepared with the focus on Parks and Open Spaces. The strategy will be used to provide clear direction to on ground staff responsible for 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. In total, 103 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, restoration of natural Areas.
- Road vegetation maintenance operations – Including kerb and channel treatments from the street sweeper machine, road infrastructure and furniture maintenance e.g. guideposts, signs, culverts etc
- Drainage easements / flood mitigation measures that involve treatment of waterways.
- Central Business District (CBD) pavement areas (restricted use only as per conditions of use)
- Rural areas / low pedestrian zones (See list in Appendix A)
- Pathways

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)
- Wet Tropic Management Authority (WTMA)

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
- 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 childcare facilities.
- Glyphosate is not to be used in sensitive areas north of the Daintree River wherever possible. Mechanical weed management is the preferred method of weed control in the Daintree Lowlands. Herbicide is only to be used where mechanical methods are not economical or practical.
(Does not include biosecurity tasks)
- Selective herbicides (non-glyphosate products) are to be used on a case-by-case site specific basis. For example, Semptra 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, 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 in high pedestrian zones 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 high pedestrian urban areas are required to be treated with organic non glyphosate products or by mechanical methods such as brush cutting.

Action Plan

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.
- 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"

Restricted Use of Glyphosate

The restricted use of glyphosate is only permitted to be applied outside of high pedestrian time periods and only in areas as highlighted in Appendix A below.

Conditions of Use

- Early morning / daybreak treatment of paved CBD areas.
- Warning signage and a spotter must be in place.
- Only permitted in specific locations as listed in Appendix A

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 (Restricted Use)
Wangetti (West of Cook Hwy) (Restricted Use)
WANGETTI RESERVE (Restricted Use)
Mowbray River Environment Area (Restricted Use)
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 (Restricted Use)
4 Mile Beach Esplanade
Sands Street
YACHT CLUB PARK
No. 9 Ribbon Avenue
BULURU PARK
ST CRISPINS AVENUE RESERVE (Restricted Use)
Coolalinga Reserve
Island Point Lookout
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 (Restricted Use)
FOREST CREEK SES PARK
DE MEIO DRIVE RESERVE
DAINTREE MOUTH RESERVE EAST
Rocky Point Esplanade (Restricted Use)
Jimal Park
Phil Lunn Park
Wonga Community Park (Restricted use gardens only)
New Wonga Esplanade
Wonga Beach Caravan Park
Bells Park
MOSSMAN RESERVE (Restricted Use)
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 (Restricted Use gardens only)
UPPER DAINTREE RESERVE
Daintree Town Boat Ramp Area (Restricted Use)
Daintree Sports Oval
Daintree Toilets
Pioneer Park
STEWART CREEK RESERVE
DAINTREE RESERVE
MOWBRAY RESERVE
4 Mile Beach Esplanade
BULURU/ULSSES AVENUE
Willy Pye Memorial (Teamsters) Park

Reynolds Park
PORT DOUGLAS MARINA RESERVE (Restricted Use)
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
Rocky Point 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
Port Douglas Sailing Club
REEF STREET RESERVE
BULURU/ULSSES AVENUE
Surf Club
Tennis & Basketball Courts
Port Douglas Sports Reserve
Port Douglas Ses
Daintree Ferry Area
Aboretum (Restricted Use)
ANZAC PARK
DAINTREE MOUTH RESERVE WEST