City of Newcastle

Pollution Incident Response Management Plan

EPL 5583: Application of Herbicides

Licensee: City of Newcastle

Address: 12 Stewart Avenue (PO Box 489)
Newcastle NSW 2300

Telephone: (02) 4974 2000

Email: mail@ncc.nsw.gov.au

Version History

Version Number	Date	Description of Amendments	Authorisation
1	01/09/2012	Development of PIRMP	Barry Bourke
2	10/10/2014	Update to reflect Reorganisation (staff and titles) and new versions of forms and current SDS's	Barry Bourke
3	21/05/2018	Update staff roles and titles Contacts and numbers SDS's Risk Assessment's Relevant Acts	Dean Semit Rachael Evans
4	18/09/2018	Update staff roles and titles Contacts and numbers Update corporate name	Dean Semit Rachael Evans
5	22/09/2020	Update Contacts and numbers Update Corporate logo	Dean Semit Rachel Evans

Distribution

A hard copy of this plan will be retained by Pest and Noxious Weeds Management Officers and additional copies will be located on each of the weed spray vehicles and in the chemical storage shed. The controlled copy will be retained in ECM, City of Newcastle's (CN) document management system, where it can be accessed by all personnel as necessary. A public version of this Management Plan will also be placed on CN's website.

Terms and Definitions

EPA	Environment Protection Authority
EPL	Environment Protection Licence
Immediately	Promptly and without delay
Notifiable Incident	A pollution incident causing or threatening material harm (actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial, or results in actual or potential loss or property damage of an amount, exceeding $10,000)
PIRMP	Pollution Incident Response Management Plan
POEO ACT	Protection of the Environment Operations Act 1997
Pollution Incident	Pollution incident means an incident or set of circumstances during or as a consequence of which there is or is likely to be a leak, spill or other escape or deposit of a substance, as a result of which pollution has occurred, is occurring or is likely to occur.
Relevant Authority	Environment Protection Authority, NSW Health (Public Health Unit), WorkCover, The City of Newcastle and Fire and Rescue NSW
SDS	Safety Data Sheet

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1.0 Introduction

Under the *Biosecurity Act 2015* City of Newcastle (CN) is responsible for the management and control of weeds on all land that is under the City's care and control. To meet this requirement, CN implements an integrated weed management approach for the removal and control of weeds.

One of the primary techniques utilised is the application of herbicides, although in most cases the negative impacts of herbicide can be prevented, by exercising due care and carrying out the control programs in an environmentally responsible manner. In some circumstances CN is required to apply herbicides directly to aquatic weeds which have the potential to result in pollution of waters and impact on non-target species.

As a result, CN currently holds an Environment Protection Licence* under the *Protection of the Environment Operations Act 1997* (POEO Act) for the application of herbicides to the waterways of the CN Local Government Area (LGA). The licence contains conditions which aim to minimise the environmental impacts of herbicide application, prevent water pollution and ensure the implementation of best practice weed management.

Under part 5.7A of the POEO Act, licensees are required to prepare *Pollution Incident Response Management Plans*. These plans are designed to ensure that pollution incidents are minimised through the identification of risks and the development of planned actions to minimise and manage those risks and to ensure that emergency response procedures are developed and implemented in the event that an incident occurs.

This plan has been prepared in accordance with the requirements contained in section 153C of the *Protection of the Environment Operations Amendment Act 2011* and the details prescribed by the *Protection of the Environment Operations (General) Regulation 2009*.

* See Appendix 1 for a copy of the Environment Protection Licence (EPL) 5583.

2.0 Objectives

The objectives of this plan are to ensure:

- The effective management of noxious and environmental weeds to reduce the negative impacts of weeds on the environment.
- That the risks associated with this activity are mitigated, to ensure the protection of workers, the community and the environment.
- That CN's weed management practices are ecologically, socially and financially sustainable.
- That a comprehensive and timely response to all pollution incidents occurs, including the effective communication of the incident to the relevant authorities and those who may be affected by the impacts of the incident.
- Compliance with all legislative requirements.

3.0 Scope

This plan applies to all waterways within the CN LGA including the waters of the Hunter River and its tributaries, where the application of herbicides either by or on behalf of the City occurs*. This includes all ancillary activities associated with the application of herbicides including storage, handling, transportation and disposal.

CN's Annual Invasive Weed Control Program identifies the types of weeds and the waterways which will be targeted each financial year*.

* See Appendix 2 for a list of the waterways to which this plan applies and maps of these locations.

4.0 Legal Requirements

4.1 Pesticide Act 1999

Under the POEO Act, CN has a responsibility to:

- Only use pesticides which are registered by the Australian Pesticides and Veterinary Medicines Authority (APVMA)
- Take all reasonable steps to determine all the risks involved in using a pesticide and taking appropriate action to avoid and minimise those risks
- Only use pesticides in accordance with the label instructions unless an APVMA off-label permit is obtained and complied with or a lower application rate is used than recommended on the label (unless the label instructions or an EPA pesticide control order specifically prohibits use at lower rates)
- Store pesticides in a container appropriate to the chemical being stored with an approved label
- The *Pesticides Regulation 2009* makes it compulsory for all people who use pesticides for commercial or occupational purposes to make a record of their pesticide use. The record must be made within 24 hours of use and kept for three years. The record needs to contain information about:
    - who applied the pesticide
    - what was applied
    - when, how and where it was applied
    - what it was applied to
    - the quantity that was applied
    - outdoor application by spray equipment: an estimate of wind speed and direction.
- Ensure that all staff who use pesticides as part of their job, are trained in the use of such. This training must be renewed every five years. The minimum level of competency in pesticide use required under the Regulation is Australian Qualifications Framework Level 3 (AQF3).

4.2 Protection of the Environment Operations Act 1997

Under the POEO Act, the City has a responsibility to:

- Prevent pollution relating to air, water, land, noise and waste disposal
- Immediately notify the Relevant Authorities (EPA, CN, Public Health Unit, WorkCover Authority, and Fire & Rescue NSW) of pollution incidents which involve actual or potential material harm to the health or safety of people or to the environment
- Obtain an Environment Protection Licence for the carrying out of non-scheduled activities for regulating water pollution which may result from the activity and comply with the conditions outlined in the licence
- Prepare a Pollution Incident Response Management Plan for the licensed premise, to be publicly displayed on CN's website
- Complete an Annual Return for the licensed premises.

4.3 Work Health and Safety Act 2017 (WH&S)

Under the WH&S Act, the City must ensure that:

- Risks to health and safety associated with using, handling, generating or storing hazardous chemicals at a workplace are identified and managed
- All hazardous chemicals used, handled or stored at the workplace are labelled correctly
- A current safety data sheet (SDS) for a hazardous chemical is readily accessible to a person at the workplace
- A register of hazardous chemicals used, handled or stored at the workplace is prepared and kept at the workplace and is regularly maintained to ensure the information in the register is up to date
- A manifest is prepared and maintained if the quantity of the hazardous chemicals or group of hazardous chemicals used, handled or stored at the workplace exceeds the manifest quantity.CN must also ensure that written notice is given to the regulator
- A hazardous chemical used, handled or stored at the workplace does not become unstable, decompose or change (and in the process creates a new hazard or significantly increases the risk)
- Appropriate safety signage is displayed
- Where there is a risk from a spill or leak of a hazardous chemical, provision is made in each part of the workplace where the hazardous chemical is used, handled, generated or stored for a spill containment system.

5.0 Roles and Responsibilities

Works Coordinator - City Presentation is responsible for ensuring that:

- Adequate resources are provided for the implementation of this plan
- Staff are trained and competent in undertaking their roles
- The relevant Authorities are notified in the event of a pollution incident
- This plan is authorised, along with all subsequent amendments
- This plan is initiated in the event of an incident (as the 24-hour contact).

Pest and Noxious Weeds Management Officer is responsible for:

- Ensuring that staff carry out activities in accordance with the procedures outlined in this plan
- Undertaking site assessments to determine the methodology and herbicide required
- Providing written notification at least 7 days prior to the application of the herbicide
- Completion of the Annual Return and renewal of the EPL.

Plant Operators – City Presentation are responsible for:

- Carrying out activities in accordance with the procedures outlined in this plan
- Participating in the testing and review of this plan
- Participating in training as required.

6.0 Risk Management

6.1 Hazard Identification

The hazards and risk associated with the application of herbicides are identified in CN's Work Health Safety Management System (WHS Risk Management). This System identifies the hazards, risk, inherent risk rating, control measures and residual risk rating. **Table 1** below provides an extract of the hazards which are associated with this activity.

Table 1 – Description and Likelihood of Hazards

Hazard	Impact	Likelihood (with controls in place)
Chemical spill or leak	Contamination of water	Rare: May happen in exceptional circumstances
	Land contamination	Possible: Might occur at sometime
	Harm to non-target species	Unlikely: Not likely to occur
Incorrect application (herbicide type, quantity or method)	Contamination of water	Rare: May happen in exceptional circumstances
	Land contamination	Rare: May happen in exceptional circumstances
	Harm to non-target species	Rare: May happen in exceptional circumstances
Generation of noise	Excessive noise generation resulting in reduction in amenity and disturbance to the community	Possible: Might occur at sometime
Spread of weeds	Increased competition and biodiversity impacts	Rare: may happen in exceptional circumstances
Exposure to persons through contact with skin, inhalation or swallowing	Death	Rare: may happen in exceptional circumstances
	Injury	Unlikely: Not likely to occur
	illness	Possible: Might occur at sometime

The following methods may be utilised to identify additional hazards/risks:

- Use of the *WHS Risk Assessment Form (FM 3.6.1))*. This form is completed by the Supervisor prior to works commencing and identifies the hazards and controls implemented in accordance with standard work procedures. A copy of this form is provided in Appendix 3.

- Use of the *WHS Management System Form – Temporary Workplace Risk Assessment/ Induction Form (FM 3.2.10)*. This form is to be completed by any CN employee reporting a hazard prior to work starting, which cannot be effectively controlled immediately. A copy of this form is provided in Appendix 4.

6.2 Hierarchy of Controls

When determining how to control risks in the workplace the following hierarchy of control must be applied:

1. **Eliminate** the hazard altogether.
2. **Substitute** the hazard with a safer alternative.
3. **Isolate** the hazard from anyone who could be harmed.
4. Use **engineering** controls to reduce the risk.
5. Use **administrative** controls to reduce the risk.
6. Use **personal protective equipment** (PPE).

7.0 Training

7.1 Herbicide Mixing, Application, Transport and Storage

- All staff who mix or apply herbicides or calibrate equipment used to apply herbicides must hold Australian Qualifications Framework Level 3 (AQF 3) or above. AQF 3 requires the following units of competency to be attained:

    - *AHCCHM303A (Prepare and Apply Chemicals), and*
    - *AHCCHM304A (Transport, Handle and Store Chemicals).*

- Proof of training must be carried by all staff at all times, as it may be requested to be produced by an Authorised Officer of the EPA. This may include:

    - a certificate or statement of attainment issued by the registered training organisation in accordance with the Australian Qualifications Framework (AQF)
    - a card that has been approved by the EPA as being an equivalent record of evidence to the above forms of proof – currently this applies to cards issued by ChemCert NSW, SmartTrain and RuralBiz training, Local Government Training Institute or;
    - a permit or licence held by groups such as pest technicians and aerial applicators, who are subject to separate mandatory qualification requirements.

- A refresher course must be completed every 5 years to ensure competency.

7.2 Induction Training

- All CN staff are required to participate in a formal Induction Training Program relating to the role of a CN employee and responsibilities regarding Environmental Management and Work Health and Safety.

- Site induction training is undertaken by the Pest and Weeds Management Officer.
  Training involves the detailed review and acceptance of documented procedures relevant to each staff member, to ensure that staff are aware of their roles and responsibilities and any site-specific safety procedures.

- All staff that apply or mix herbicides in or around waterways will be required to undertake training in relation to the procedures outlined in this plan, to ensure that staff are aware of their roles and responsibilities. The objectives of providing training and updates will be to:

    - Create awareness of the potential hazards associated with the activity which may cause harm to staff, the community and the environment and the controls implemented to minimise the risk.

    - Ensure staff understand the procedures which must be implemented in the event of a pollution incident.

    - Ensure staff understand the internal and external reporting requirements.

7.3 Record Keeping

- A record of training attendance and competencies for each staff member is maintained, updated and recorded by the WHS Training Officer. This system provides an alert to the relevant Supervisor when staff are required to undertake refresher training.

8.0 Procedure

Step 1 – Undertake a site assessment

In most instances a site assessment is required prior to implementing weed management techniques in order to determine the methodology and herbicide to be utilised. This will be undertaken by the Pest and Noxious Weeds Management Officer and the following aspects should be considered:

- Identify the type of weed/s
- Establish the exact location and extent of the weed/s
- Identify any hazards/risk associated with the site.

Step 2 – Determine the methodology

Using the information obtained from the site assessment, the appropriate method of weed control must be determined. An integrated weed management approach is the most effective method used to control weeds. It involves a sustainable approach to long-term management of weeds using a combination of the following techniques:

- Weed prevention
- Mechanical control
- Chemical control
- Biological control

Where the use of chemicals is considered, the hierarchy of control must be implemented in-line with *WHS Risk Management* protocols as outlined below:

1. **Elimination:** Where possible, alternative weed control methods should be utilised.
2. **Substitution:** Where possible replace the chemical with a less toxic chemical.
3. **Minimisation:** Minimise the amount of chemical used (eg by increasing efficiency, dilution, or recycling of the chemical).
4. **Engineering controls:** Reduce the risk of chemicals or their by-products entering the environment or affecting the health and safety of staff and the community (e.g. through PPE, staff training, safe work procedures).

When scheduling works, where possible, schedule outside of the peak times, to minimise potential impacts on the community.

Step 3 - Selection of herbicide

- Only herbicides registered by the Australian Pesticides and Veterinary Medicines Authority for use in aquatic environments will be used to control weeds in and around waterways, unless an "Off Label " Permit is obtained from the Australian Pesticides and Veterinary Medicines Authority for the product to be used for a purpose or in a manner that is not included on the approved label

- The herbicide utilised will be based on the type of weed
- CN currently uses three chemicals in waterways:
    - Glyphosate (Aquatic approved variants) *
    - Carfentrazone-ethyl (Shark Aquatic Herbicide) *
    - Metsulfuron Methyl*

These chemicals are utilised for their non-residual and low toxicity properties. In-line with *WHS Risk Management* protocols, ongoing investigation and research will be undertaken to identify and trial more environmentally sensitive chemicals or alternative techniques for weed control.

** See appendix 5 for Safety Data Sheet (SDS) for Glyphosate*
** See appendix 6 for SDS for Carfentrazone-ethyl*
** See appendix 7 for SDS for Metsulfuron Methyl*

Step 4 – Notification

- At least 7 days prior to the application of the herbicide(s) in the waters, the Pest and Weeds and Management Officer will provide written notification to any occupier of the waters or any occupier of land adjacent to the waters into which herbicide(s) are to be applied (see appendix 7). This notification will include the following details:

    - what herbicide(s) is to be applied
    - when the herbicide(s) is to be applied
    - a warning not to use, drink or swim in the water until further notice
    - that further information can be obtained from CN
    - contact person and phone number.

- At least 7 days prior to the application of the herbicide(s) to the waters, the Pest and Noxious Weeds Management Officer will also publish a notice in the local newspaper, notifying the intention to apply herbicide(s) to the waters. This notification will include the following details:

    - what herbicide(s) is to be applied
    - when the herbicide(s) is to be applied
    - a warning not to use, drink or swim in the water until further notice
    - that further information can be obtained from CN
    - contact person and phone number.

Step 5 – Quantity of herbicide applied

Herbicides, if mixed incorrectly can have a significant impact on the environment. To minimise the risk of this occurring the following controls must be in place at all times:

- All herbicides must be mixed in accordance with the instructions on the label (unless an Off Label Permit is obtained from the Australian Pesticides and Veterinary Medicines Authority)
- If the herbicide has not been used previously, a minimum of two staff must read the label and the SDS prior to mixing. A copy of the SDS's for *Glyphosate* and *Metsulfuron Methyl* have been provided in Appendix 5 and 6
- The required amount of herbicide will be calculated and mixed accordingly to minimise waste. If any herbicide is left after the job is complete, where possible the mixed herbicide will be stored in a bunded area and applied to the next job
- If the herbicide is mixed and the weather conditions are not suitable for spraying, mixed herbicide will be stored in a bunded area until conditions become suitable.

Prior to decanting the herbicide into the spray truck, the Operator must complete a full inspection of the spray equipment, to identify any potential faults in hoses or connections and complete a Temporary Workplace Risk Assessment / Induction Form.

When decanting the herbicide into the spray vehicles, a spill kit will be readily accessible to be used in the event of a spill.

Step 6 - Transportation of Herbicides

- The quantity of herbicide transported will be limited to the amount used each day

- Spill kits will be located on each of the weed spray vehicles and must be inspected regularly to ensure they are complete. The spill kits must be appropriate to the capacity of potential spills

Step 7 - Application of Herbicides

Prior to Use

- Prior to the application of herbicides, undertake a site-specific risk assessment, including an assessment of weather conditions to identify any site-specific controls (weed spraying will not occur in unsuitable conditions). These details are to be recorded on the Pesticide Application Log. A copy of this Log is provided in Appendix 8
- Warning signs must be displayed near the application area (at access points) and attached to the spray vehicle
- Weed spraying must not be undertaken adjacent to certified organic farms registered with CN, unless the property owner has not controlled the noxious weed/s. These farms will have their boundaries marked as organic farms at all times
- Warning signs must be in plain English and must include:
    - Purpose of use (e.g. weed/s being treated)
    - Chemical being used
    - Contact details of CN (During and after business hours)
- The signs will be regularly monitored to ensure they remain in place and are visible to the public until the water is safe.

During Use

- Herbicides must be applied in accordance with the directions on the label (unless an 'Off Label' Permit is obtained from the Australian Pesticides and Veterinary Medicines Authority).
- Appropriate PPE must be worn at all times when applying herbicides, such as the following items in accordance with the risk assessment and herbicide label directions:
    - Cotton or disposable overalls
    - Impervious boots and PVC gauntlet gloves
    - Half face respirator
    - RQ2000 respirator fitted with RC86 cartridges or equivalent
    - Lifejacket (if applying using a boat)
    - Washable hat
    - Sunglasses/goggles
    - Sunscreen
- Staff must work in pairs whilst applying herbicide to waterways.

After Use

- Remove all clothing and boots that were worn whilst applying the herbicides and place in a plastic bag
- Wash any contaminated clothing separately at your place of residence.

Step 8 - Records of herbicides applied

- The Pesticide Application Log must be completed after each individual job
- The completed Pesticide Application Log must be returned to the Pest and Noxious Weeds Management Officer at the end of each shift or no later than the following working day
- The Pest and Noxious Weeds Management officer will audit and review the following:
    - Herbicide and quantity applied
    - Weed treated
    - Location
    - Weather conditions
    - Time taken for treatment
    - Date of treatment
    - Any complaints made

- The forms must include the following details:
    - Location of where the herbicide(s) was applied, and the area of water covered by the application
    - Date of herbicides(s) application
    - Type of weeds(s) treated
    - Name of herbicide (s) applied and formulation /mixing details of the herbicide(s)
    - Amount of herbicide(s) used
    - Wind speed (m/s) and direction at the time of the herbicide(s) application
    - Air temperature (degrees Celsius) at the time of the herbicide(s) application
    - Tide (if applicable) low tide or high tide at the time of the herbicide application
    - Humidity (where applicable)
    - Rainfall (mm) over the 24-hour period immediately prior to and following the herbicide(s) application
    - Names of person(s) applying the herbicide(s) and supervisor
    - Date and time of any query by any person in relation to the herbicide(s) application
    - Method by which any such query was made
    - Name and contact details of the person making any such query
    - Nature of any such query
    - Action taken by the Licensee in relation to any such query.
- The Pesticide Application Log must be kept for at least 3 years after the herbicide(s) application to which they relate was undertaken.

Step 9 - Wash down of spray trucks

- Spray tanks are to be triple rinsed and cleaned thoroughly using clean water or a registered tank leaner on a weekly basis or prior to a change in chemical used.
- Apply a neutralising agent in accordance with the relevant SDS, where required.
- All areas within the vehicle that may have been exposed to chemicals (such as handles, vinyl seats, steering wheel, and any knobs) are to be cleaned with de-contamination wipes once a week.

Step 10 - Disposal of Herbicides

All empty containers must be triple rinsed as soon as they are empty. Containers which cannot be recycled will be damaged to prevent re-use and disposed of at Summerhill Waste Management Centre.

Step 11 - Storage of Herbicides

- Herbicides must be stored:
  - In the original container
  - In containers that are labelled correctly in accordance with WHS: GHS - Labelling of Workplace Hazardous Chemicals
  - In an area protected from the weather and with adequate ventilation
  - In a bunded area which is appropriate to the herbicide being stored and greater than the capacity of chemicals stored. The bund must be regularly monitored to ensure it is free from contamination
  - With appropriate Hazchem signage displayed where the herbicide is stored to identify the potential risks
  - Separately from non-compatible hazardous chemicals
- The volume of herbicides stored should be kept to a minimum, taking into consideration usage and shelf life
- Current SDS's must be easily accessible where herbicides are stored
- If the volume of herbicides stored exceeds manifest quantities the quantity and type of chemical stored must be detailed in CN's Manifest.

Step 12 - Maintenance of Plant and Equipment

- All plant and equipment will be maintained and serviced regularly in accordance with CN's Fleet Management System
- All equipment used to apply herbicides will be calibrated as required.

9.0 Emergency Response

9.1 Pollution Complaints

- Complaints can be made by phoning City of Newcastle on 4974 2000. This number can be obtained from the signage displayed whilst applying the herbicide as well as the public notifications
- Records must be kept of all complaints made in relation to pollution arising from any of the activities associated with the Environment Protection Licence. The record must include details of the following:
    - Date and time of the complaint
    - Method by which the complaint was made
    - Personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect
    - Nature of the complaint
    - Action taken in relation to the complaint, including any follow-up contact with the complainant
    - If no action was taken, the reasons why no action was taken.
- The record of a complaint must be kept for at least 4 years after the complaint was made.
- The record must be produced to any authorised officer of the EPA who asks to see them.

9.2 Emergency Response

It is not feasible to provide comprehensive instructions on the precise actions to be taken for every possible pollution incident. Each situation will need to be assessed and responded to in a manner which is appropriate for the circumstances of the incident, using the process steps outlined below.

The Works Coordinator - City Presentation is responsible for activating this plan in the event of an incident and can be contacted on 0413 128 456.

In the event of an incident occurring, the first step is to undertake a risk assessment of the site to determine if there is a risk to people, property and/or the environment and implement immediate corrective actions to prevent further harm in accordance with the relevant SDS.

In general, the primary control which should be implemented is to eliminate the pollution source through isolation. Once this is completed the spill kit must be utilised to contain the spill and once contained the contaminated material should be disposed of at an approved waste management facility.

9.3 Incident Reporting and Investigation

All incidents require some form of notification. The two different types of reporting include External and Internal Reporting. Staff who are involved in or witness the incident are required to immediately assess whether the incident is of a notifiable nature – that is any incident resulting in actual or potential material harm to the health or safety of human beings or the environment that is not trivial, or results in actual or potential loss or property damage exceeding $10,000.

If unsure as to whether it is a reportable incident, consult with the Emergency Management Coordinator (+61249742903) **IMMEDIATELY**. If the incident occurs outside of standard operating hours when the Emergency Management Coordinator is not available for consultation - **IMMEDIATELY** contact the relevant Authorities identified below.

External Reporting

Environmental incidents which require external notification are required to be notified **IMMEDIATELY**. Where adequate resources are available to allow for concurrent notification and immediate response to an environmental incident, notification to the relevant Authorities must be given 'immediately'. The decision on whether to notify should not delay immediate actions to ensure the safety of people or contain a pollution incident, however the notification to the relevant Authorities should be made as soon as it is safe to do so.

If the pollution incident presents an immediate threat to human life or property '000' must be called first. If the incident does not present an immediate threat to human life or property or once '000' has been called then the other relevant Authorities listed below must be notified **IMMEDIATELY** in the following order:

	Relevant Authority	**Phone Number**
1	EPA – Environment line	131 555 (24 hours)
2	Work Cover	13 10 50 (24 hours)
3	City of Newcastle	4974 2000 (24 hours)
4	Fire and Rescue NSW	000 (24 hours)
5	NSW Police	000 (24 hours)
6	Hunter New England Health	4921 3000 (24 hours)

When notifying the relevant Authorities, state that you are calling to advise of a pollution incident and provide the following information (if known):

- Time, date, nature, duration and location of the incident
- Location of the place where pollution is occurring or is likely to occur
- Nature, the estimated quantity or volume and the concentration of any pollutants involved
- The circumstances in which the incident occurred (including the cause of the incident, if known)
- Action taken or proposed to be taken to deal with the incident and any resulting pollution or threatened pollution
- Other information prescribed by the regulations.

Any required information that is not known when the incident is notified must be notified to the relevant Authorities immediately once it becomes known.

When each of the relevant Authorities are notified, the following must be recorded:

- Time of the call
- Date of the call
- Incident/reference numbers given by the relevant Authority
- The name of the operator
- Information provided
- If further notification is required

These details must be recorded in the *Incident Management System* and forwarded to the Emergency Management Coordinator **IMMEDIATELY**.

Internal Reporting

All incidents and near misses must be reported via the *Incident Management System*. An investigation will be undertaken with the relevant staff, to determine the cause of the incident and identify corrective and preventative actions to ensure that the incident does not re-occur.

All corrective and preventative actions will be reviewed within 3 months of the implementation to determine if the actions were 'effective' or 'ineffective'. Where the action is determined to be 'not effective', additional corrective/preventative actions will be identified and implemented.

Communication

The objective of communication is to ensure that those potentially affected by a pollution incident know what has happened, how they may be affected by the incident, what they can do avoid potential harm, and to explain what CN is doing to rectify the incident. The mechanisms used and the information provided to stakeholders will depend on the circumstances of the pollution incident.

Following a pollution incident, the occupiers of neighbouring premises will be notified via a letterbox drop/door knock. An assessment of who should be notified will be undertaken by the Works Coordinator - City Presentation in consultation with the Emergency Management Coordinator

In most cases, a pollution incident will be confined to a location and notification to stakeholders can be handled by the erection of warning signage. Where the incident is not confined to an area and/or may have a significant impact upon the environment the following types of communication mechanisms are to be considered when selecting an appropriate means of providing stakeholder notification:

- Phoning stakeholders
- Emailing stakeholders
- Issuing of media releases, and
- Posting of notices on CN's website.

The EPA may also issue a direction to notify any other person of the incident that the EPA considers necessary.

10.0 Testing & Review

This plan will be reviewed and tested annually prior to submission of the Annual Return to ensure that the plan is accurate and up-to-date, and that the plan is capable of being implemented in a workable and effective manner.

In addition, the plan will be reviewed and tested:

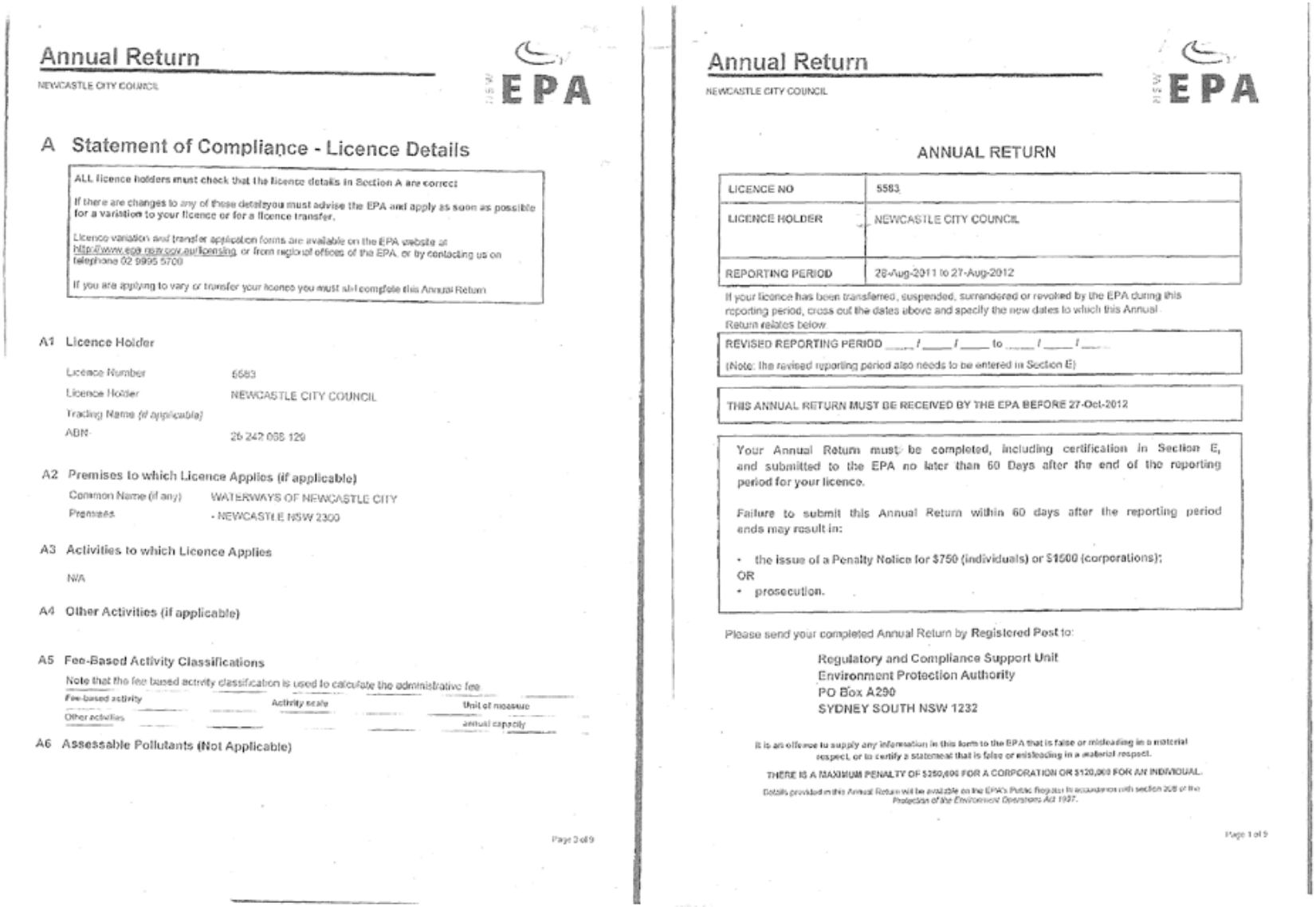
- within one month of any pollution incident (or near miss) occurring
- when legislative requirements are changed, or
- when there is a change in work processes.

The scenarios tested will be obtained from the hazards identified in 6.1 (**Table 1**) of this plan and those with the highest risks will be tested as a priority. Two methods will be utilised which include undertaking desktop simulations and practical. The results of these tests will be recorded in ECM.

Testing History

Test Number	Date	Testing Method (simulation / practical)	Authorisation
1	11/11/2014	Desktop Simulation	Barry Bourke
2	21/11/2014	Practical (in conjunction with Depot evacuation drill)	Rachael Evans Barry Bourke
3	19/08/2016	Practical (in conjunction with Depot evacuation drill)	Rachael Evans Barry Bourke
4	11/10/2017	Practical drill	Dean Semit Geoff Weaver
5	20/06/2018	Desktop Simulation	Dean Semit Geoff Weaver
6	20/06/2019	Practical Simulation	Dean Semit Luke Parker
7	21/06/2020	Desktop Simulation	Dean Semit

Appendix 1 – EPA Licence



Annual Return

NEWCASTLE CITY COUNCIL

NSW EPA

A Statement of Compliance - Licence Details

ALL licence holders must check that the licence details in Section A are correct

If there are changes to any of these details you must advise the EPA and apply as soon as possible for a variation to your licence or for a licence transfer.

Licence variation and transfer application forms are available on the EPA website at http://www.epa.nsw.gov.au/licensing, or from regional offices of the EPA, or by contacting us on telephone 02 9995 5700

If you are applying to vary or transfer your licence you must still complete this Annual Return

A1 Licence Holder

Licence Number	6583
Licence Holder	NEWCASTLE CITY COUNCIL
Trading Name *(if applicable)*	
ABN	25 242 658 129

A2 Premises to which Licence Applies (if applicable)

Common Name (if any)	WATERWAYS OF NEWCASTLE CITY
Premises	- NEWCASTLE NSW 2300

A3 Activities to which Licence Applies

NA

A4 Other Activities (if applicable)

A5 Fee-Based Activity Classifications

Note that the fee based activity classification is used to calculate the administrative fee

Fee-based activity	Activity scale	Unit of measure
Other activities		annual capacity

A6 Assessable Pollutants (Not Applicable)

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Annual Return

NEWCASTLE CITY COUNCIL

NSW EPA

ANNUAL RETURN

LICENCE NO	6583
LICENCE HOLDER	NEWCASTLE CITY COUNCIL
REPORTING PERIOD	28-Aug-2011 to 27-Aug-2012

If your licence has been transferred, suspended, surrendered or revoked by the EPA during this reporting period, cross out the dates above and specify the new dates to which this Annual Return relates below

REVISED REPORTING PERIOD ____ / ____ / ____ to ____ / ____ / ____

(Note: the revised reporting period also needs to be entered in Section E)

THIS ANNUAL RETURN MUST BE RECEIVED BY THE EPA BEFORE 27-Oct-2012

Your Annual Return must be completed, including certification in Section E, and submitted to the EPA no later than 60 Days after the end of the reporting period for your licence.

Failure to submit this Annual Return within 60 days after the reporting period ends may result in:

- the issue of a Penalty Notice for $750 (individuals) or $1500 (corporations); OR
- prosecution.

Please send your completed Annual Return by **Registered Post** to:

Regulatory and Compliance Support Unit
Environment Protection Authority
PO Box A290
SYDNEY SOUTH NSW 1232

It is an offence to supply any information in this form to the EPA that is false or misleading in a material respect, or to certify a statement that is false or misleading in a material respect.

THERE IS A MAXIMUM PENALTY OF $250,000 FOR A CORPORATION OR $120,000 FOR AN INDIVIDUAL.

Details provided in this Annual Return will be available on the EPA's Public Register in accordance with section 308 of the *Protection of the Environment Operations Act 1997*.

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Appendix 2 – CN Aquatic Weed - Control Public Notice

PUBLIC NOTICETREATING OF AQUATIC WEED INFESTATIONS
(Conditions Permitting)

The City of Newcastle intends to treat aquatic weed infestations between Monday 21 September 2020 and Friday 28 May 2021

The following sites are to be treated for Alligator Weed:

- Sections of unformed drain leading to *Ironbark Creek from Col Curran Oval, Wallsend to Maryland Reserve, Maryland*
- Sections of drain at *Grange Avenue Reserve to Bill Elliot Oval, Maryland*
- Sections of unformed drain leading to *Ironbark Creek from Watkins Road, Elermore Vale to Croudace Road, Elermore Vale*
- Sections of Ironbark Creek:
    - *From Federal Park, Wallsend to Dark Creek, Birmingham Gardens*
    - *From Dark Creek, Birmingham Gardens north to Main Northern Rail Line bridge*
- Sections of Viney Creek:
    - *From Beresfield Golf Course to Rail Line*
- Sections of unformed drain crossing *Woodlands Close, Tarro*
- Water body adjacent to Tarro Sporting Complex, Anderson Drive, Tarro
- Sections of unformed drain in Rasberry Gully Reserve from Vista Parade to Lake Macquarie City Council boundary
- *Waterbody bounded by Minmi Rd and Boscawen Street, Wallsend*

The following sites are to be treated for Water Hyacinth:

- Waterbody bounded by *Rural Drive, Jersey Avenue and Friesian Close, Sandgate*
- Waterbody between the *Regional Produce Markets, Sandgate and the Main Northern Rail Line*
- *Waterbody bounded by Kekul Street and Katal Street, Fletcher*
- Waterbody bounded by Prospero Street and Katal Street, Fletcher

The following sites are to be treated for Cabomba:

- Waterbody on *Viney Creek at Beresfield Golf Club*
- *Sections of Viney Creek from Beresfield Golf Club to Rail Line*

During the treatment period, at sign posted areas, residents are advised not to use, drink or swim in the water.

The herbicides, Weedmaster Duo (active ingredient Glyphosate 360g/L), Metmac (active ingredient 600g/kg metsulfuron-methyl) and Shark Aquatic Herbicide (active ingredient 240g/L Carfentrazone-ethyl) are being used by qualified staff under the terms and conditions of EPA Licence 5583 and APVMA Permits PER83083, PER14734.

WHS Risk Assessment

Process / Task: _____

Site Location: _____

Date of Assessment:
(Date that the RAF was first completed or was Biennially Reviewed) _____

Assessment completed by: _____

Approved by: _____ (print name) _____ (signature)

The Higher the Residual Risk, the higher the priority for implementation of Controls		
HIGH Residual Risk (25-20)	**MEDIUM** Residual Risk (19-11)	**LOW** Residual Risk (10-1)
Eliminate or control the risk immediately. Written work procedure required. E.g. SWMS. Communicate & train all employees then begin job.	Eliminate or control the risk before work commences. No formal written work procedure required. Communicate & train all employees then begin job.	No formal written work procedure required. Communicate & train all employees then begin job.

Either a signature / ECM 'Note' must be used to indicate approval ☐ Note in ECM? ☐ Signature

Worker's consulted during the development of this RAF: _____

Legislation / Codes of Practices / Standards / Chapters & Clauses referenced: _____

Evaluation of available information (e.g. Safety Data Sheets, Manufacturers Manuals, other risk assessments): _____

Level of supervision required: ☐ Continuous ☐ Intermittent ☐ Infrequent ☐ Not required

WHS Safety Signs: Copy and paste in any applicable Safety Signs from FM 3.6.3 WHS Safety Signs

Hazard / Danger Signs:

PPE Required Signs:

Minor Reviews or Updates: minor corrections, small additions or updates. *All changes should be added in italics* so that they are readily identifiable in the RAF.

Last updated on:
Last updated by:
Previous version ECM No:

Records of past incidents, illness & disease from this process / task in past 3 years: _____

Potential emergency situations from this process / task: _____

Activity	Hazard	Initial Risk Rating		Can you Eliminate the Hazard?	Hierarchy of Control Measures If 'No', work through the controls sequentially. Tick and provide further detail on the control selected: Substitution, Isolation, Engineering, Administration, Personal Protective Equipment. Add the applicable WHS Safety Sign in the table on page 1	Residual Risk Rating		Person/s Responsible
		H/M/L	#			H/M/L	#	
				☐ Yes ☐ No	☐ Sub ☐ Iso ☐ Eng ☐ Admin ☐ PPE			
				☐ Yes ☐ No	☐ Sub ☐ Iso ☐ Eng ☐ Admin ☐ PPE			
				☐ Yes ☐ No	☐ Sub ☐ Iso ☐ Eng ☐ Admin ☐ PPE			
				☐ Yes ☐ No	☐ Sub ☐ Iso ☐ Eng ☐ Admin ☐ PPE			

*** Note: To put an 'X' in the boxes: Double click the box then select 'checked' ***

Risk Rating Matrix		CONSEQUENCE					CONSEQUENCE	LIKELIHOOD
		Catastrophic	Major	Moderate	Minor	Insignificant		
Likelihood	Almost Certain	25 H	23	20	16	11	**Catastrophic**: Single or multiple fatalities.	**Almost certain**: Is expected to occur in most circumstances. (common)
	Likely	24	21	17	12	7	**Major**: Hospitalisation with potential to result in permanent impairment.	**Likely**: Will probably occur in most circumstances (Has happened).
	Possible	22	18	13 M	8	4	**Moderate**: Person unable to resume normal duties in the short-medium term.	**Possible**: Might occur at some time (Could happen).
	Unlikely	19	14	9	5 L	2	**Minor**: First aid or precautionary medical attention only. Person likely to immediately resume normal duties.	**Unlikely**: Could occur at some time (Not likely).
	Rare	15	10	6	3	1	**Insignificant**: No injury / Minor first aid treatment only.	**Rare**: May occur only in exceptional circumstances (Practically impossible).
Implementation Priorities: High – 2 weeks, Medium – 1 month, Low – 3 months. Monitor and review risk control								

Appendix 4 – Temporary Workplace Risk Assessment

Section 1: General Site Information			
Site Location:	Date / Time:	Activity:	Evacuation Point:

Section 2: Workplace hazard / Inspection

☐ Traffic	☐ Manual Handling	☐ Environment (Eg Sun / Dust)	Permit to Work Completed:
☐ Pedestrian	☐ Mobile Plant	☐ Overhead Powerlines	☐ Hot Work ☐ Working at Heights
☐ Asbestos	☐ Hazardous Substances	☐ Tool / Power Tool	☐ Confined Space ☐ Excavation
☐ Water hazards	☐ Public	☐ Work At Heights	Underground Utilities:
☐ Other: eg Safety Data Sheet			☐ Gas ☐ Electricity ☐ Water
			☐ Fuel Line ☐ Telecommunication

Have the above hazards been covered in a RAF / SWMS? ☐ Yes ☐ No *If not complete Section 7

NB Supervisor is ultimately responsible for all control measures implemented on site.

Section 3: List of Generic Risk Assessments / SWMS used for Activity / Job	
1.	4.
2.	5.
3.	6.

Section 4: Additional Comments

Section 5: Worker Sign Off

Name (print) Signature	Name (print) Signature	Name (print) Signature	Name (print) Signature

Section 6: Responsible Person Signoff (*Responsible Person - Is the person who makes out the Permit / Temporary Workplace Risk Assessment / Induction /Toolbox and supervises the works underway in accordance with the requirements of the Permit/ Temporary Workplace Risk Assessment / Induction and its supporting risk assessment/SWMS eg Ganger, Coordinator or Tradesman in charge of work tasks)

Name (print)	Signature	Date

Section 7: Site Specific Risk Assessment

Activity	Hazard	Initial Risk Rating		Can you Eliminate the Hazard?	Hierarchy of Control Measures If 'No', work through the controls sequentially. Tick and provide further detail on the control selected: Substitution, Isolation, Engineering, Administration, Personal Protective Equipment.	Residual Risk Rating		Person/s Responsible
		H/M/L	#			H/M/L	#	
				☐ Yes ☐ No	☐ Sub ☐ Iso ☐ Eng ☐ Admin ☐ PPE			
				☐ Yes ☐ No	☐ Sub ☐ Iso ☐ Eng ☐ Admin ☐ PPE			
				☐ Yes ☐ No	☐ Sub ☐ Iso ☐ Eng ☐ Admin ☐ PPE			
				☐ Yes ☐ No	☐ Sub ☐ Iso ☐ Eng ☐ Admin ☐ PPE			

Risk Rating Matrix		Consequence				
		Catastrophic	Major	Moderate	Minor	Insignificant
Likelihood	Almost Certain	25	23	20	16	11
	Likely	24	H 21	17	12	7
	Possible	22	18	M 13	8	4
	Unlikely	19	14	9	L 5	2
	Rare	15	10	6	3	1

Implementation Priorities: High – 2 weeks, Medium – 1 month, Low – 3 months and review risk control

Emergency Procedure: anything not already covered in the generic emergency plan. Provide detail below. Eg Smith Street to be blocked off.

Appendix 5 – Nufarm Weedmaster Duo - SDS

Chemwatch: 5055-90

Chemwatch Hazard Alert Code: 3

MINI SDS

HAZARDOUS CHEMICAL. DANGEROUS GOODS. According to the WHS Regulations and the ADG Code.

Nufarm Weedmaster Duo Dual Salt Technology Herbicide

INGREDIENTS	CAS NO	%	8HR OEL
glyphosate acid	1071-83-6	30.534	-
water	7732-18-5	balance	-

GHS

DG

UN No: 3082
Hazchem Code: •3Z
DG Class: 9
Subsidiary Risk: Not Applicable
Packing Group: III
Poisons Schedule: S6

HEALTH HAZARD INFORMATION

Signal word:	Danger	
Hazard statement(s):	H316	Causes skin irritation.
	H318	Causes serious eye damage.
	H335	May cause respiratory irritation.
	H411	Toxic to aquatic life with long lasting effects.

PRECAUTIONS FOR USE

Appropriate engineering controls:	Local Exhaust Ventilation recommended.
Glasses:	Consider chemical goggles.
Gloves:	1.NEOPRENE 2.PE/EVAL/PE 3.PVA
Respirator:	Type A Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)
Storage and Transportation:	Store in cool, dry, protected area. Restrictions on Storage apply. Refer to Full Report. Dispose of this material and its container at hazardous or special waste collection point. Keep out of reach of children.
Fire/Explosion Hazard:	Attacks metals to liberate hydrogen. Dispose of this material and its container at hazardous or special waste collection point.
Environment:	Toxic to bees. The initial, and still integral, toxicity test is the adult honey bee acute contact study. This lab study determines the amount of pesticide that kills 50% of a test group of bees, or LD50. (LD=Lethal Dose). May cause long-term adverse effects in the environment.Use appropriate container to avoid environmental contamination. Avoid release to the environment. Refer to special instructions/Safety data sheets.

PROPERTIES

Liquid. Mixes with water.Does not burn.

EMERGENCY

FIRST AID

Swallowed:	Give water (if conscious). URGENT MEDICAL ATTENTION.
Eye:	Wash with running water (15 mins). Medical attention.
Skin:	Remove contaminated clothing. Wash with soap & water.
Inhaled:	Fresh air. Rest, keep warm. If breath shallow, give oxygen. Medical attention.
Advice To Doctor:	Treat symptomatically.
Fire Fighting:	Keep containers cool. Keep surrounding area cool. Water spray/fog.
Spills and Disposal:	Pollutant. Prevent from entering drains. Contain spillage by any means. Absorb with dry agent. Stop leak if safe to do so. Dispose of this material and its container at hazardous or special waste collection point. This material and its container must be disposed of in a safe way. To clean the floor and all objects contaminated by this material, use water.

SAFE STORAGE WITH OTHER CLASSIFIED CHEMICALS

+	x	+	x	+	+	+

x — *Must not be stored together*
0 — *May be stored together with specific preventions*
\+ — *May be stored together*

Chemwatch: 5055-90
Print Date: 09/21/2020
Issue Date: 03/05/2020

Appendix 6 – Carfentrazone-ethyl - SDS

Section 1 - Identification of The Material and Supplier

FMC Australasia Pty Ltd
12 Julius Ave
North Ryde, NSW 2113

Emergency: 1800 033 111 (24 hours - Australia wide)
Freecall 1800 624 597 (business hours)
www.fmccrop.com.au

Chemical nature: Active ingredient is a fluorinated triazole derivative.
Trade Name: **Shark Aquatic Herbicide**
APVMA Code: 64095
Other Names: Carfentrazone - ethyl.
Product Use: Agricultural herbicide for use as described on the product label.
Creation Date: **July, 2020**
This version issued: **July, 2020** and is valid for 5 years from this date.
Poisons Information Centre: Phone 13 1126 from anywhere in Australia

Section 2 - Hazards Identification

Statement of Hazardous Nature

This product is classified as: Xn, Harmful. Not classified as hazardous according to the criteria of SWA.

Not a Dangerous Good according to Australian Dangerous Goods (ADG) Code, IATA or IMDG/IMSBC criteria. Combustible Liquid (C1).

SUSMP Classification: S5
ADG Classification: None allocated. Not a Dangerous Good according to Australian Dangerous Goods (ADG) Code, IATA or IMDG/IMSBC criteria.
UN Number: 3082

GHS Signal word: DANGER

Aspiration Hazard Category 1
Flammable Liquids - Category 4.
Hazard to the aquatic environment - Acute hazard: Category 1.

HAZARD STATEMENT:

H304: May be fatal if swallowed and enters airways.
H227: Combustible Liquid.
H400: Very toxic to aquatic life.

PREVENTION

P102: Keep out of reach of children.
P210: Keep away from heat/sparks/open flames/hot surfaces: - No smoking.
P261: Avoid breathing fumes, mists, vapours or spray.
P262: Do not get in eyes, on skin, or on clothing.
P271: Use only outdoors or in a well ventilated area.
P281: Use personal protective equipment as required.
P235+P410: Keep cool. Protect from sunlight.
P273: Avoid release to the environment

RESPONSE

P340: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P302+P350: IF ON SKIN: Gently wash with plenty of soap and water.
P304+P341: IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
P391: Collect spillage.
P370+P378: In case of fire, use carbon dioxide, dry chemical, foam, water fog.

Appendix 7 – Metmac 600 SDS

Chemwatch: 24-0630 | Chemwatch Hazard Alert Code: 2

MINI SDS

DANGEROUS GOODS. NON-HAZARDOUS CHEMICAL. According to the WHS Regulations and the ADG Code.

Macspread Metmac 600 WG Herbicide

INGREDIENTS	CAS NO	%	8HR OEL
metsulfuron methyl	74223-64-6	60	-

GHS

DG

UN No: 3077
Hazchem Code: 2Z
DG Class: 9
Subsidiary Risk: Not Applicable
Packing Group: III
Poisons Schedule: Not Applicable

PROPERTIES

Solid.Combustible.

EMERGENCY

HEALTH HAZARD INFORMATION

Signal word:	Warning
Hazard statement(s):	H410 Very toxic to aquatic life with long lasting effects.

PRECAUTIONS FOR USE

Appropriate engineering controls:	General Exhaust Ventilation adequate.
Glasses:	Safety Glasses. Consider chemical goggles.
Respirator:	Particulate. (AS/NZS 1716 & 1715, EN 143:2000 & 149:001, ANSI Z88 or national equivalent)
Storage and Transportation:	Store in cool, dry, protected area. Restrictions on Storage apply. Refer to Full Report. Dispose of this material and its container at hazardous or special waste collection point. Keep out of reach of children.
Fire/Explosion Hazard:	Toxic smoke/fumes in a fire. Dispose of this material and its container at hazardous or special waste collection point.

FIRST AID

Swallowed:	Give water (if conscious). Seek medical advice.
Eye:	Wash with running water.
Skin:	Remove contaminated clothing. Wash with soap & water.
Inhaled:	Fresh air. Rest, keep warm.
Advice To Doctor:	Treat symptomatically.
Fire Fighting:	Keep containers cool. Water spray/ fog.
Spills and Disposal:	Eliminate ignition sources. Pollutant. Avoid dust. Prevent from entering drains. Contain spillage by any means. Sweep shovel to safe place. Dispose of this material and its container at hazardous or special waste collection point. This material and its container must be disposed of in a safe way. To clean the floor and all objects contaminated by this material, use water and detergent.

SAFE STORAGE WITH OTHER CLASSIFIED CHEMICALS

+	x	+	0	+	+	+

x — *Must not be stored together*
0 — *May be stored together with specific preventions*
\+ — *May be stored together*

Appendix 7 - Notification Letter

TREATMENT OF AQUATIC WEED INFESTATIONS

(Conditions Permitting)

City of Newcastle intends to treat infestations of the declared noxious weed, *Alligator Weed* on the following dates and at locations as listed:

Treatment Dates: _____ through _____

Locations: Kotara

- *Sections of stormwater drain in Park Avenue Kotara from Howell Street, Kotara to Charlestown Road, Kotara*
- *Sections of unformed drain at Nerida Close, Kotara*
- *Sections of storm water drain from Raspberry Gully/ Nesbitt Park through to Vista Pde Kotara*

Residents are advised not to use, drink or swim in the affected waters listed above during the treatment period.

The herbicide Metmac 600 (active ingredient 600g/kg metsulfuron-methyl) is being used per APVMA Permit No PER14734 by qualified staff under the terms and conditions of EPA Licence 5583.
For more details call Dean Semit on 4974 6048.

Dean Semit
PEST AND NOXIOUS WEEDS MANAGEMENT OFFICER

newcastle.nsw.gov.au