



Pollution Incident Response Management Plan

Goulburn Water Treatment Plant

Licence 1649

Licensee: Goulburn Mulwaree Council
Address: Locked Bag 22, Goulburn NSW 2580
Telephone: (02) 4823 4444
Fax: (02) 4823 4456
Email: council@goulburn.nsw.gov.au

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Annual Review of PIRMP

Date of Review	Changes Made	Name
01/05/2017	Incident reporting contact details updated	
01/05/2018	No changes required	
15/05/2019	Minor spelling changes	
21/05/2020	Reviewed	
09/12/2020	Reviewed and Updated	
16/12/2021	Flowchart added, Reviewed and Updated	
21/12/2021	Change filtration to treatment, minor structural changes	
02/11/2022	Annual Review of document	TS
13/12/2022	Update contact details for EPA	TS

1 Introduction

This pollution management response has been written for the Goulburn Water Treatment Plant to fulfil the requirement of preparing and implementing a pollution incident response management plan.

Under Part 5.7A of the *Protection of the Environment Operations Act 1997 (POEO Act)*, there is a requirement to prepare, keep, test and implement a pollution incident response management plan.

The objectives of the plan are to:

- Ensure comprehensive and timely communication about a pollution incident to staff at the premises, the Environment Protection Authority (EPA), the Water NSW, NSW Health, Goulburn Mulwaree Council and Fire and Rescue. Also, other people located near the facility who may be affected by the impacts of the pollution incident will be contacted.
- minimise and control the risk of a pollution incident at the facility by requiring identification of risks and the development of planned actions to minimise and manage those risks
- ensure that the plan is properly implemented by trained staff, identifying persons responsible for implementing it, and ensuring that the plan is regularly tested for accuracy, currency and suitability

2 Purpose

The purpose of the plan is to:

- Outline how the risk of a pollution incident will be minimised and controlled through the identification of risks and the development of planned actions to minimise and manage those risks.
- Document the notification protocol to ensure comprehensive and timely communication about a pollution incident is provided to all relevant stakeholders.
- Ensure the risks associated with the activity are mitigated, to ensure the protection of workers, community and the environment.
- Ensure compliance with all legislative requirements.

3 Scope

The Goulburn Water treatment Plant is located at 233-235 Wheeo Road on the Western side of town on the edge of the City area. In close proximity to the plant is a retirement village, Trinity Secondary College and a number of rural residential properties.

The main entrance to the plant is located directly opposite River Street. There is another entrance to the plant approximately 120 metres past the first entrance, on Wheeo Road. The EPA Licence for this facility is 1649. The site is shown below in Figure 3.1. Figure 3.2 shows the location of the site

Figure 3.1 – Goulburn Water Treatment Plant Layout

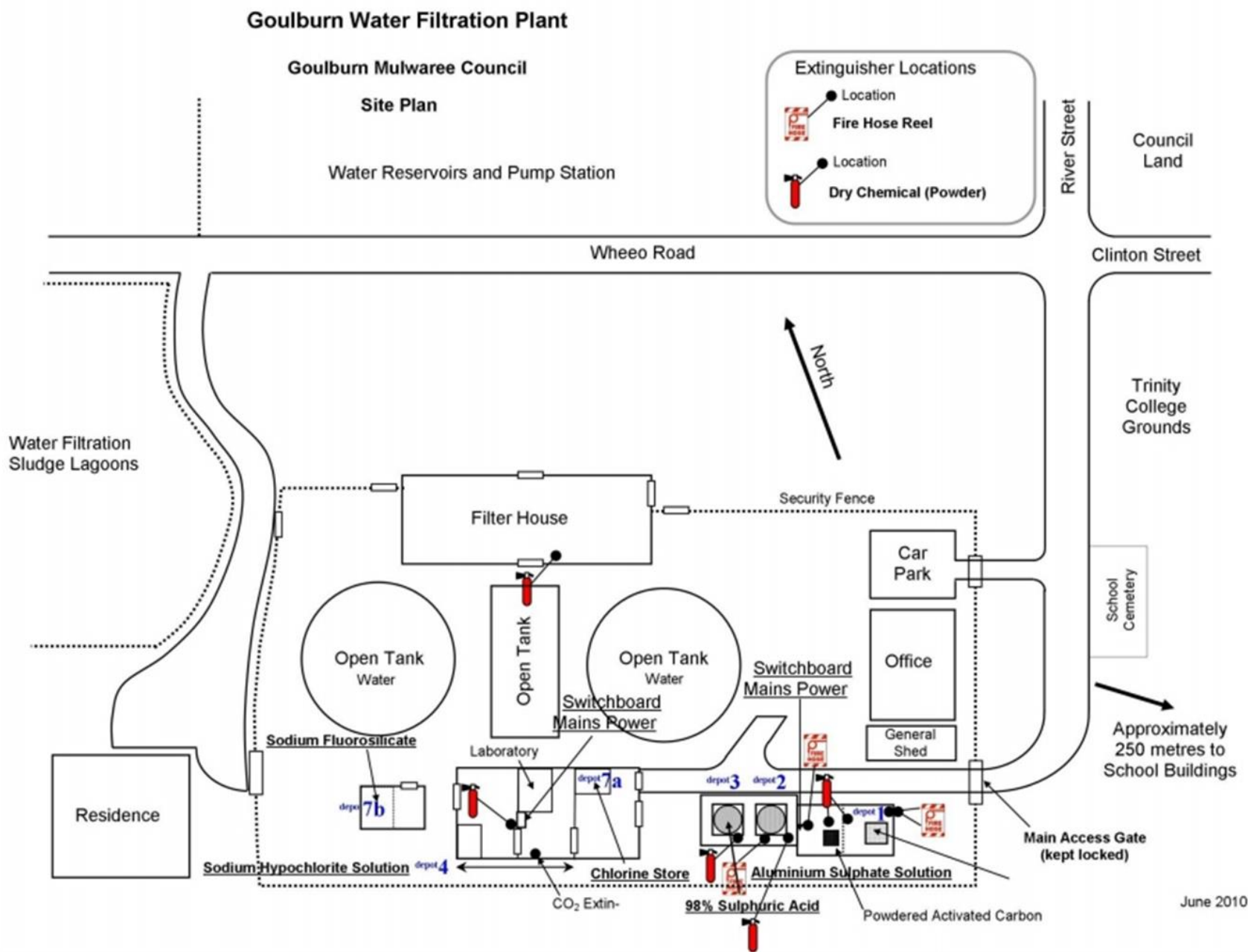
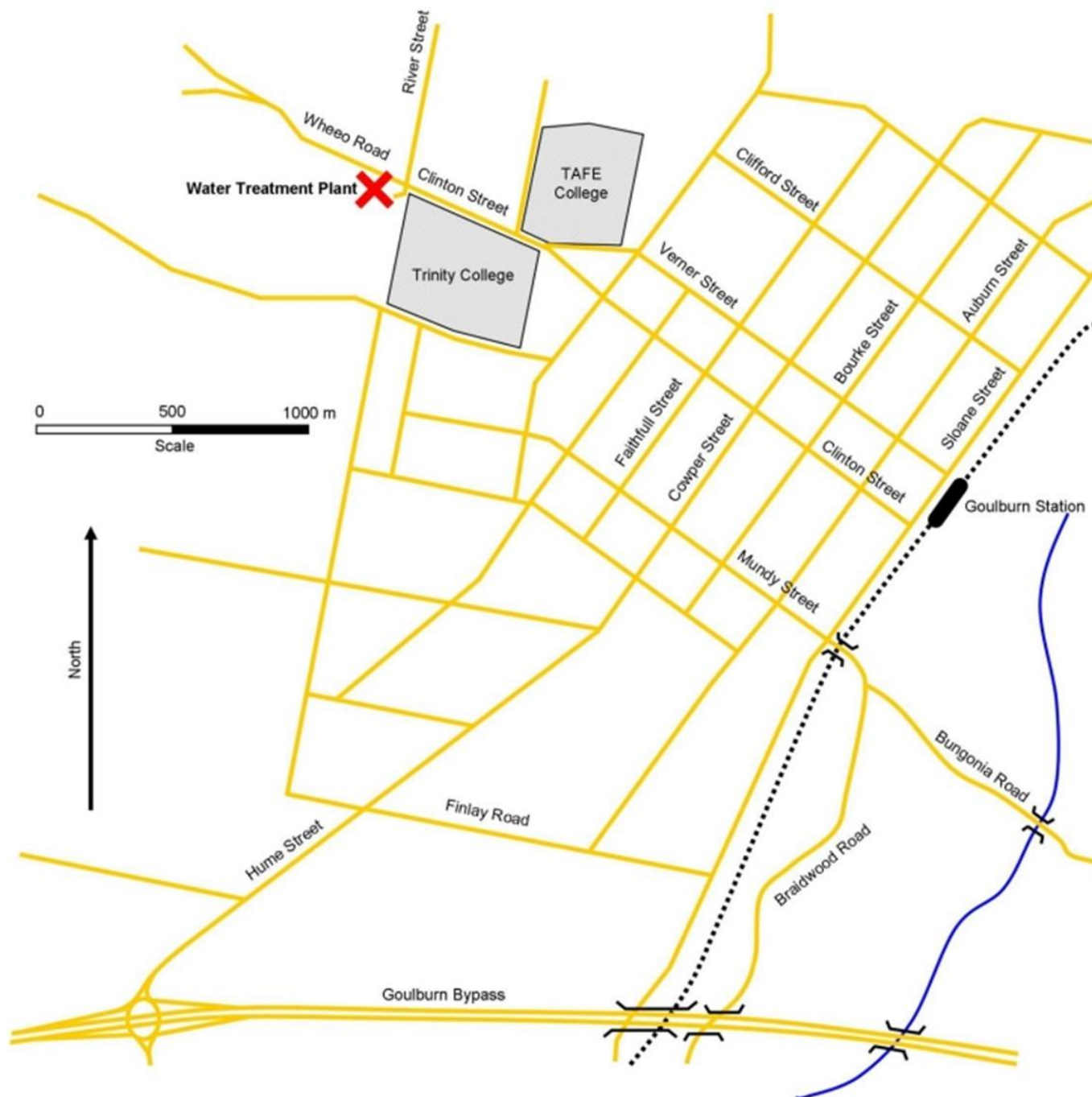


Figure 3.2 –

Location of Goulburn Water Treatment Plant



4 Incident Reporting

4.1 Incident Definition

A pollution incident is required to be notified if there is a risk of 'material harm to the environment', which is defined in section 147 of the POEO Act as:

- a) harm to the environment is material if:
 - (i) *it involves actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial, or*
 - (ii) *it results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding \$10,000 (or such other amount as is prescribed by the regulations), and*
- b) loss includes the reasonable costs and expenses that would be incurred in taking all reasonable and practicable measures to prevent, mitigate or make good harm to the environment.

WHS Notifiable Incident

Some pollution incidents may also be classified as 'notifiable incidents' under WHS Law requiring Safe Work NSW to be notified. An incident can still be classified as a 'notifiable incident' even if the pollution is contained within the site without causing harm to the environment.

Under WHS Law a 'notifiable incident' is:

- a) The death of a person;
- b) A 'serious injury or illness'; or
- c) A 'dangerous incident';

arising out of the conduct of a business or undertaking at a workplace.

'Notifiable incidents' may relate to any person – whether an employee, contractor or member of the public.

Only the most serious health or safety incidents are notifiable, and only if they are work related. They trigger requirements to preserve the incident site pending further direction from the regulator.

The WHS Law requires:

- a) A 'notifiable incident' to be reported to Safe Work Australia immediately after becoming aware it has happened
- b) If the regulator asks – written notification within 48 hours of the request, and
- c) The incident site to be preserved until an inspector arrives or directs otherwise (subject to some exceptions)

Failing to report a 'notifiable incident' is an offence and penalties apply.

Dangerous incidents including 'near misses'

Some types of work related pollution incidents are classified as dangerous incidents and must be notified even if no-one is injured. Safe Work NSW must be notified of any pollution incident in relation to a workplace that exposes any person to a serious risk resulting from an immediate or imminent exposure to an uncontrolled escape, spillage or leakage of a substance.

If you are unsure about whether Safe Work NSW should be notified of a particular incident contact Councils WHS Leader or Safe Work NSW for advice and further guidance. Contact details are provided below.

4.2 Legal Duty to Notify

It is the responsibility of all employees and contractors of Goulburn Mulwaree Council, who are engaged in any work activity at the Goulburn Water Treatment Plant, to notify the Site Supervisor (or their delegate) of all environmental incidents and hazards that may result in an environmental incident, regardless of the nature or scale of the incident.

4.3 Incident Reporting

Firstly, call 000 if the incident presents an immediate threat to human health or property. Fire and Rescue NSW, the NSW Police and the NSW Ambulance Service are the first responders, as they are responsible for controlling and containing incidents.

If the incident does not require an initial combat agency, or once the 000 call has been made, Any incident that may cause or threaten material harm to the environment shall be communicated to the following agencies immediately by the Supervisor Water Treatment, or another staff member present, or the on-call staff member (for after hours):

The responsible officer calling in the incident must ensure the Business Manager of Water Operations, Business Manager Infrastructure and Director Utilities are also advised of the incident. For notifiable incidents Councils WHS Leader must also be notified.

The following information must be recorded and reported to the relevant call centres:

1. The time and date of the incident
2. EPA Licence number of the facility, for Goulburn WFP the licence number is 1649
3. The nature of the incident and the expected duration of the event (chemical spill, sludge lagoon overflow etc)
4. The location of the incident and the place where the pollution is occurring or likely to occur;
5. The estimated quantity or volume of any discharge and the concentration of any pollutants involved;
6. The circumstances in which the incident occurred (flood, power failure, human error etc);
7. The action(s) taken or proposed to deal with the incident and any resulting pollution or threatened pollution;

8. Details of any samples collected from the incident (all discharges to the environment will require collection and testing of samples);
9. Name and contact details of the person reporting the incident; and
10. Any other information requested.

Following initial calls to the required agencies a call back will usually be received within the following day from the EPA, Water NSW and NSW Health requesting an email with further details of the incident.

For NSW Health – the contact person is Tabitha Holliday.

For GMC Environmental Services, Sarah Ainsworth (Business Manager Environment and Health) is the primary contact.

4.3.1. Environmental Incident

Any incident that may cause or threaten material harm to the environment shall be communicated to the following agencies immediately by the Water Treatment Plant Supervisor (or their delegate) or the water treatment plant on-call staff member in the Water Treatment Plant Supervisors absence.

- | | |
|-------------------------------|------------------------------|
| 1. EPA Environment Line | 131 555 |
| 2. Water NSW Incident Line | 1800 061 069 |
| 3. NSW Health | 1300 066 055 or 0407 060 237 |
| 4. GMC Environmental Services | 4823 4454 |

For calls to Water NSW please ensure the operator is advised that the incident is within the Warragamba catchment where appropriate.

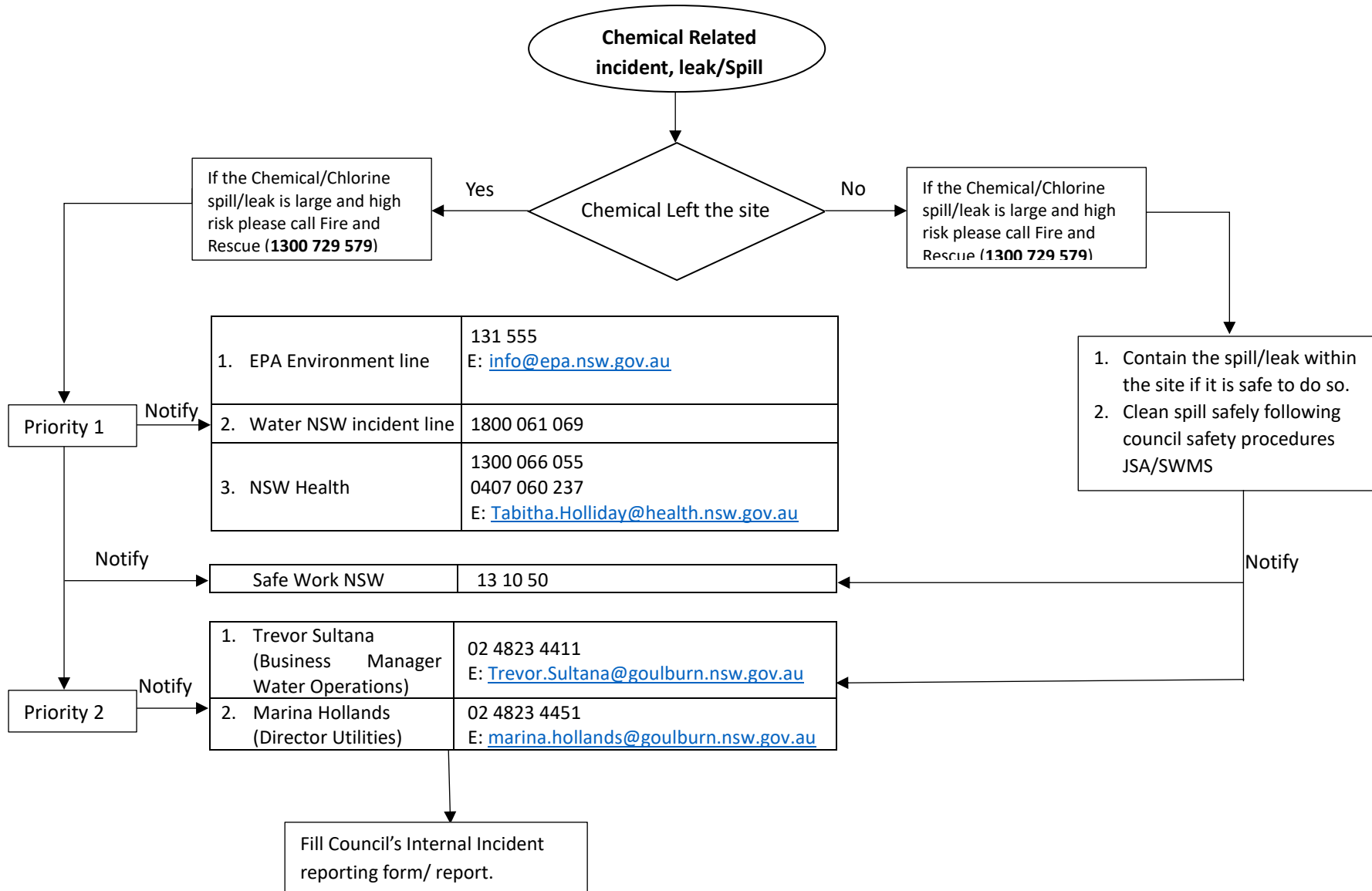
If unable to contact NSW Health through the above provided number an email should be sent as soon as possible by the Council officer calling in the incident to tabitha.holliday@health.nsw.gov.au advising of the incident.

4.3.2. WHS Notifiable Incident

Any incident that may result in a WHS notifiable incident shall also be communicated to the following agencies immediately by the Water Treatment Plant Supervisor (or their delegate) or the water treatment plant on-call staff member in the Water treatment Plant Supervisors absence:

- | | |
|---|--------------|
| 1. SafeWork NSW (for a WHS notifiable incident) | 131 050 |
| 2. Fire and Rescue (for large chemical spills) | 1300 729 579 |

5 Chart – 1 Chemical Related incidents Flow Chart



6 Description and Likelihood of Hazards

6.1 Chemicals Stored at the Site

The following dangerous goods are stored at the site in the following quantities

Chemical	Class	UN	Storage Capacity	Typical Quantity Stored
Hypochlorite Solution (liquid chlorine)	8	UN 1791	2,000 litres	1,500 litres
Chlorine (Gas chlorine)	2.3	UN 1017	2,760 kg	2,760 litres
Sodium fluorosilicate (Fluoride)	6.1	UN 2674	2,000 kg	1,500 kg

The following additional chemicals are stored at the site:

Chemical	UN	Storage Capacity	Typical Quantity Stored
Aluminium Sulphate (Alum)	1760	50,000 litres	Up to 45,000 litres
Soda Ash	None	50 tonne	35 - 40 tonne
Powdered Activated Carbon (PAC)	None	3 tonne	2 tonne
Potassium permanganate	1490	300 kg	50 - 300 kg
Polymer - Flopam	None	300 kg	200 kg

6.2 Types of Hazards

6.2.1. Chlorine

The chlorine gas is stored in 920 kg cylinders in a specifically built chlorination unit. This unit is fitted within the chemical building (the main colourbond building). The unit allows two chlorine cylinders to be connected with one online and the other in standby mode. The dosing equipment is fitted with a vacuum regulator on the changeover unit that is mounted on each cylinder. The chlorine delivery lines work under negative pressure. This means that if the line breaks, the cylinder shuts off preventing the release of chlorine gas.

The room is fitted with black heaters, a ventilation fan (that extracts air and releases it immediately through the wall and out of the building) and a chlorine gas detector. The gas detectors fitted in the drum storage room and the rotometer room detect any chlorine fumes, triggering a siren and light that is audible and visible throughout the plant with notification being made to operators by the telemetry system.

A wind sock is located immediately outside of the plant room to enable the determination of wind direction in the case of emergency.

6.2.1.1 Action for a Chlorine Leak

The chlorine leak should be managed as per the Emergency Management Plan for the WTP, as lodged with the NSW Fire Brigade and also stored in at the Gate. This details the evacuation of the site, further investigation with breathing apparatus, how to slow the movement of the chlorine plume and the NSW Fire Brigade managing the incident.

6.2.2. Other Chlorine Emergencies that Could Occur

1. Fire – in the event of fire in the chemical building, the fire brigade should be called for specialist firefighting.
2. Explosions – the tanks can withstand certain pressure, however, a BA should be worn and if possible the chlorine tanks should be checked to determine any leaks.
3. Cylinder valve broken – Ixom should be called on 1800 033 111 for advice how to stop the chlorine from leaking.
4. Earthquake – may break the chlorine delivery line. Due to the negative pressure of the cylinder, this would shut down the cylinder and stop dosing.
5. Cylinder Impact – this may happen during delivery or being hit in the building while being stored ready for use. In the event of the cylinder being hit, staff are to remove themselves from the area, get the BA out from either the chemical building or the filter building and examine the cylinder. Specialist advice should be sought if there is damage to the cylinder.
6. Tampering with the cylinder – the site is locked however in the event of tampering, the BA should be worn and the cylinder investigated to determine the problem with the cylinder and the cylinder turned off. The scenario for a leak should be following if a leak is detected.

6.2.3. Other Chemical Spills

Minor spills at the water treatment plant are unlikely to pose a serious threat to the environment. However, all spills, whether major or minor, must be managed so as to minimise the potential for environmental harm.

- **Minor Spill:** either clean up manually ensuring suitable PPE is worn (gloves, disposable overalls, eye protection, waterproof boots), following the instructions in the MSDS.
- **Major Spills:** clean spill using the precautions of the MSDS and do not allow spillage to flow off the site.

In the event that spillage migrates off the site, activate the environmental reporting procedures.

6.3 Other Reportable Incidents

- Extreme Rainfall - During periods of extreme rainfall, additional stormwater may flow into the River Street Dam that could exceed the 200KL / day discharge limit from the licensed discharge point. In the event of the limit being exceeded, the EPA must be advised of flow exceedances.
- Discharge Exceeds Approved Limits - Given the nature of the backwash water and resulting stormwater that also enters the dam, it is unlikely that the discharge will exceed approved quality limits of discharge unless there has a major spill near the truck-fill point. In this case of a spill, the site should be cleaned to prevent materials from entering the da

7 Pollution Incident Reporting Form

**Goulburn Water Treatment Plant
EPA Licence Number 1649**

Time and date of incident	
Name and contact details of person reporting the incident.	
The nature of the incident (Sludge overflow, chemical spill etc)	
The location of the incident and the place where pollution is likely to occur (eg. Wheeo Road Potassium permanganate dosing point , KMnO4 leak, Creek nearby)	
The estimated volume of any discharge and the concentration of pollutants involved (If volume is unknown try and provide an estimate and advise of the pollutant type, Sludge, chemicals etc)	
Reason for the incident occurring (power /mechanical failure, flooding etc)	
Actions being taken or proposed to be taken to deal with the incident (restoration of power, containment of spill, wait for flood waters to recede etc)	
Details of samples collected for testing from the incident	

Notification Record

Agency / Officer Notified	Date and Time of Notification	Comments
NSW EPA 131555 info@epa.nsw.gov.au		
Water NSW 1800 061 069		
NSW Health 1300 066 055 or 0407 060 237 Tabitha.Holliday@health.nsw.gov.au		
GMC Environmental Services 4823 4454 sarah.ainsworth@goulburn.nsw.gov.au		
Safework NSW (only for a WHS notifiable incident) 131050		
Fire and Rescue (for large chemical spills) 1300 729 579		
Business Manager Water Operations Trevor Sultana 0418 480 557 trevor.sultana@goulburn.nsw.gov.au		
Director Utilities Marina Hollands 0417 140 204 marina.hollands@goulburn.nsw.gov.au		

Additional comments regarding the pollution incident:
