Pollution Incident Response Management Plan

Goulburn Wastewater Treatment System

Licence 1742

Licensee: Goulburn Mulwaree Council

Address: Locked Bag 22, Goulburn NSW 2580

Telephone: (02) 4823 4444

Email: council@goulburn.nsw.gov.au

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1.0 Introduction

This pollution management response has been written for the Goulburn Water Treatment System 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 controlling the system, the Environment Protection Authority (EPA), Water NSW, NSW Health, Goulburn Mulwaree Council and Fire and Rescue.
- 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

2.0 Purpose

The purpose of the plan is to:

- Outline how the risk of a pollution incident will be minimise 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.

3.0 Scope

The licence is for the Goulburn Wastewater Treatment System. This system includes:

- sewer pumping stations
- the network from the pump station back to the treatment plant
- Wastewater Treatment Plant
- Effluent Irrigation Area

The Wastewater Treatment Plant is located at 54-70 Ross Street Goulburn. It is located on the confluence of the Wollondilly and Mulwaree Rivers.

The effluent irrigation area extends between Gorman Road, Murray Flats Road and Taralga Road. The Wollondilly River flows through the site.

Figure 3.1 shows the location of the Wastewater Treatment Plant.

Figure 3.2 – Effluent Irrigation Area

4.0 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.*

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 on the Goulburn Wastewater Treatment System, 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

Any incident that may cause or threaten material harm to the environment shall be communicated to the following agencies immediately by the Water Treatment supervisor or another staff member present or the on-call staff member (for after hours):

1. **EPA Environment Line** **131 555**
2. **Water NSW Incident Line** **1800 061 069**
3. **NSW Health** **4824 1842 or 0407 060 237**
4. **GMC Environmental Services** **4823 4454**
5. **Fire and Rescue** **1300 729 579**
6. **Workcover (for a notifiable incident)** **131050**

The responsible officer calling in the incident must ensure the Supervisor and Senior Engineer are also advised of the incident.

The EPA and SCA both have a centralised incident number where a call centre receives the call and the incident gets reported to the appropriate officer. Generally the officer will call back and seek further information.

The information to be reported to the call centre includes:

- The time and date of the incident
- The nature of the incident and the expected duration of the event
- The location of the incident and the place where the pollution is occurring or likely to occur;
- The estimated quantity or volume of any discharge and the concentration of any pollutants involved;
- The circumstances in which the incident occurred;
- The action(s) taken or proposed to deal with the incident and any resulting pollution or threatened pollution; and
- Name and contact details of the person reporting the incident
- Any other information requested.

This information is asked for by the phone operator.

A written report must be submitted to the EPA within 7 days about the incident as required by the licence.

For NSW Health – the contact person is Tabitha Holliday.

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

For WorkCover, a notifiable incident is the death of a person; serious injury or illness of a person; or a dangerous incident.

4.4 Stakeholder Communication

The aim of stakeholder communication, following a pollution incident, is to ensure that people who may be potentially affected by the incident are notified. The aim is to advise potentially affected people of the event, what it means and how to avoid being affected by the incident. Mention will also be made of how Council has addressed the problem.

The requirement to notify downstream users and the method will be determined at the time of the event by Senior Council staff depending on the nature of the event. The EPA could direct Council to advise downstream users. Other regulatory organisations may also suggest that council communicate specific events to the public.

Communication will be coordinated by Council's communications section. This may be by in the form of media releases, radio interviews, signs, door knocking/letter box drops (for isolated areas) or notices on Council's website.

5.0 Description and Likelihood of Hazards

5.1 Chemicals Stored at the Site

The following bulk chemicals are stored at the site:

Storage Identifier	Storage Facility Type	UN Number	Proper shipping name	Class / Division	Packing Group	Max Capacity onsite	Typical Quantity	Tank Diameter
Sodium Hydroxide (Caustic Soda)	Above ground tank	1824	Sodium Hydroxide Solution	8	II	25 000 L	25 000 L	3.0m
Sodium Hypochlorite	Above ground tank	1791	Hypochlorite Solution	8	II	25 000 L	25 000 L	3.0m
Sulphuric Acid >51%	IBC	1830	Sulphuric Acid with more than 51% acid	8	II	1000L	1000L	
Citric Acid Solution	IBC	N/A	Citric Acid Solution	-	-	1000L	1000L	
Alum	above ground tank	N/A	Aluminium Sulfate, hyrated	-	-	50 000L	50 000L	2 tanks, 3.0m

Other chemicals are stored onsite in smaller quantities. A comprehensive list of chemicals can be found on the hazardous chemical register.

5.2 Types of Hazards / Risks

5.2.1 Pump Station Overflows

Pump stations could overflow in the event of:

- Pump failure
- Pump blockages
- Blockages in the main
- Power Outages

Most of the Goulburn Sewer Pump Stations discharge to an adjacent river. The exceptions to this are the three newest pump stations - Ducks Lane and Hume Highway.

Each pump station is configured with a series of alarms that are activated upon the filling of the well beyond normal operating levels. A series of alarms are activated by the telemetry to the operator giving time for the operator to visit the site and repair, unblock or replace the pump at the site before any sewage leaves the station. The only time sewage is discharged from the station under these circumstances is when the telemetry system is not functioning correctly and alarms have not been received by the operator.

Pump failures are dealt with by either unblocking the pump or arranging the immediate replacement of the pump with a spare pump that is stored for the majority of pump stations.

The recreation pump station only has one pump and a spare pump is stored in the pump station. In the event of a problem with the pump, the pump is quickly replaced by the electrician.

Power outages are another issue that can lead to station overflows. Most of the larger pump stations have generators on site. These stations include Bradley Street, Kenmore Bridge, Avoca Street, Marys Mount, The Avenue, Copford Road, Recreation Area, North Goulburn, Ducks Lane and Hume Highway. These all turn on automatically when the power supply is lost at the site.

For the other pump stations without generators, a mobile generator is taken out to the site or a tanker is arranged to pump out the well.

5.2.2 Loss of Power and/or Gas at the Wastewater Treatment Plant

Power is required at the current wastewater treatment plant to ensure treated effluent is transferred to the storages at Gorman Road and internally at the Wastewater Treatment Plant.

In the event of a power failure at the plant, a diesel generator will engage and provide power to keep the site running.

5.2.3 Storages Reaching Capacity

GMC has approximately 40ML of storage at the Wastewater Treatment Plant and 740 ML of storage at Gorman Road. Unfortunately during severe wet weather events, this is not enough storage and overflows may be required.

There is no overflow point at Gorman Road so overflows need to be managed from the storm flow pond at Ross Street when required.

5.2.4 Break in the Rising Mains

A break in a rising mains could occur from any of the pump stations or in either of the mains between the treatment plant and the farm.

There are two rising mains from Ross Street to Gorman Road. The original main is a 375mm AC main and the newer main is a 375mm DICL. Two mains are used in unison to pump to the farm. One line could be turned off during dry weather for Council Crews to repair the break. During wet weather, a combination of turning off one main and pumping to the Ross Street storage dam would allow repairs to be performed.

The other rising mains around town would be dealt with by turning off the pump station in order to drain the main for repairs. A tanker would be arranged to pump sewage out of the station while the Council Crew repaired the main.

5.2.5 Sewer Overflow in Reticulation System

Sewer chokes and blockages in the reticulation system can cause overflows if not acted on quickly. Council carries out a maintenance program to clean and inspect sewer (gravity) mains to ensure that chokes and blockages can be avoided or detected before they become an issue.

Where blockages are unavoidable, Council staff attend to the emergency to unblock the main as quickly as possible to restore service to the main. Council staff are also available out-of-hours if an issue occurs. Where sewerage has overflowed, Council staff use disinfectant to sterilise the site to ensure the site is safe to the public.

5.2.6 Chemical Spill at WWTP

A chemical spill could occur at the Wastewater Treatment Plant due to failure of the fittings or structural failure of the tanks. For fitting or structural failure, the chemical storage area is surrounded with concrete bunding to contain the stored chemicals until clean up occurs. There are also smaller spill kits to use for any smaller spills onsite. There are numerous emergency showers onsite for use. All spills must be cleaned up in accordance with the MSDS for the chemical.

Version Control

Date	**Changes**	**Comments**
20/05/2020	Updated following test run of chemical spill	Info on WWTP hazardous chemical register added.
18/09/2019	Reviewed	New Wastewater treatment plant nearing completion, PIRMP will need to be reviewed after commissioning.
18/09/2018	Changed	Wastewater treatment plant section updated to reflect new plant.