YASS SEWERAGE SYSTEM

EPA LICENCE 1730

POLLUTION INCIDENT RESPONSE MANAGEMENT PLAN (PIRMP)

JUNE 2023

YASS VALLEY COUNCIL

yass valley council

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Foreword

The Pollution Incident Response Management Plan (PIRMP) for the Yass sewerage System is a document that has been developed to be used by Yass Valley Council in the operation and management of incidents at the Yass Sewage Treatment Plant (STP) and the sewage collection system. Purpose of the PIRMP is to ensure that, where possible, pollution incidents are avoided but if they do occur they are managed appropriately to minimise the impacts on the environment and to human health.

This PIRMP addresses the requirements under the *Protection of the Environment Legislation Amendment Act (*POELA Act) 2011.

The objectives of the plan are to:

- communicate in a timely manner and with sufficient detail about a pollution incident to relevant authorities and people outside the facilities who may be affected by the impacts of the pollution incident;
- minimise and control the risk of any pollution incident occurring at the facilities by identification of risks and the development of planned actions to minimise and manage those risks; and
- 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.

This PIRMP is to be continually updated and reviewed by the Water and Wastewater Engineer, Yass Valley Council.

PIRMP was last updated on the 22 June 2023.

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1 Introduction

The township of Yass is located 282 km south west of Sydney on the Hume Highway adjacent to the Yass River. Yass has a population of approximately 6,800 people in 2022.

Yass town lies within the Yass Valley Local Government Area (LGA). Yass Valley Council owns and operates the Yass sewerage System that includes a sewage treatment plant (STP) and the reticulation system servicing the town.

1.1 Sewage Treatment Plant and Collection System

The Yass STP comprises the following treatment /process units:

- A septage receival and pumping station;
- Inlet works:- Inlet well, screening, grit removal, flow measurement, alum dosing and storm bypass;
- Two stormwater detention tanks;
- An Intermittently-Decanted Extended Aeration (IDEA) reactor;
- An alum storage and dosing facility;
- A catch/balance pond;
- Three sludge Lagoons;
- Two sludge drying beds;
- A Dewatering facility (hardstand and geotubes);
- An UV disinfection system; and
- An amenities building with a package pumping station.

The Yass sewage collection system comprises the following:

- Gravity mains;
- North Yass Industrial Sewage Pumping Station (SPS)
- BP SPS;
- Petit Street SPS;
- Hatton Park 1 SPS
- Hatton Park 2 SPS;
- Hatton Park 3 SPS;
- Willow Creek SPS;
- Primary School SPS;
- Ford Street SPS;
- Laidlaw Street SPS;
- River Bank SPS;
- Wellington Road SPS and;
- Rising mains (from each SPS).

Yass STP is located on the northern side of town. Access to the STP is off Faulder Avenue close to its junction with Yass Valley Way. The plant is designed for 6,800 EP (Equivalent Population). Final treated effluent is discharged to an unnamed creek that finally flows into Yass River.

The STP and the reticulation system operate under Environmental Protection Licence (EPL) No. 1730 granted by the NSW Environment Protection Authority (EPA).

Map of the Yass Sewerage System is shown in **Figure 1.1**. A schematic of sewage pumping station is shown in **Figure 1.2** and the location map of Yass Sewage Treatment Plant is shown in **Figure 1.3**.

1.2 Scope of the PIRMP

The scope of the plan is as follows:

- Description and likelihood of hazards;
- Pre-emptive actions to be taken;
- Inventory of pollutants;
- Safety equipment;
- Contact details;
- Communicating with neighbours and the local community;
- Minimising harm to persons on the premises and neighbours;
- Maps showing location of scheme components;
- Actions to be taken during or immediately after a pollution incident; and
- Staff training.

Figure 1.1 Map of Yass Sewerage System

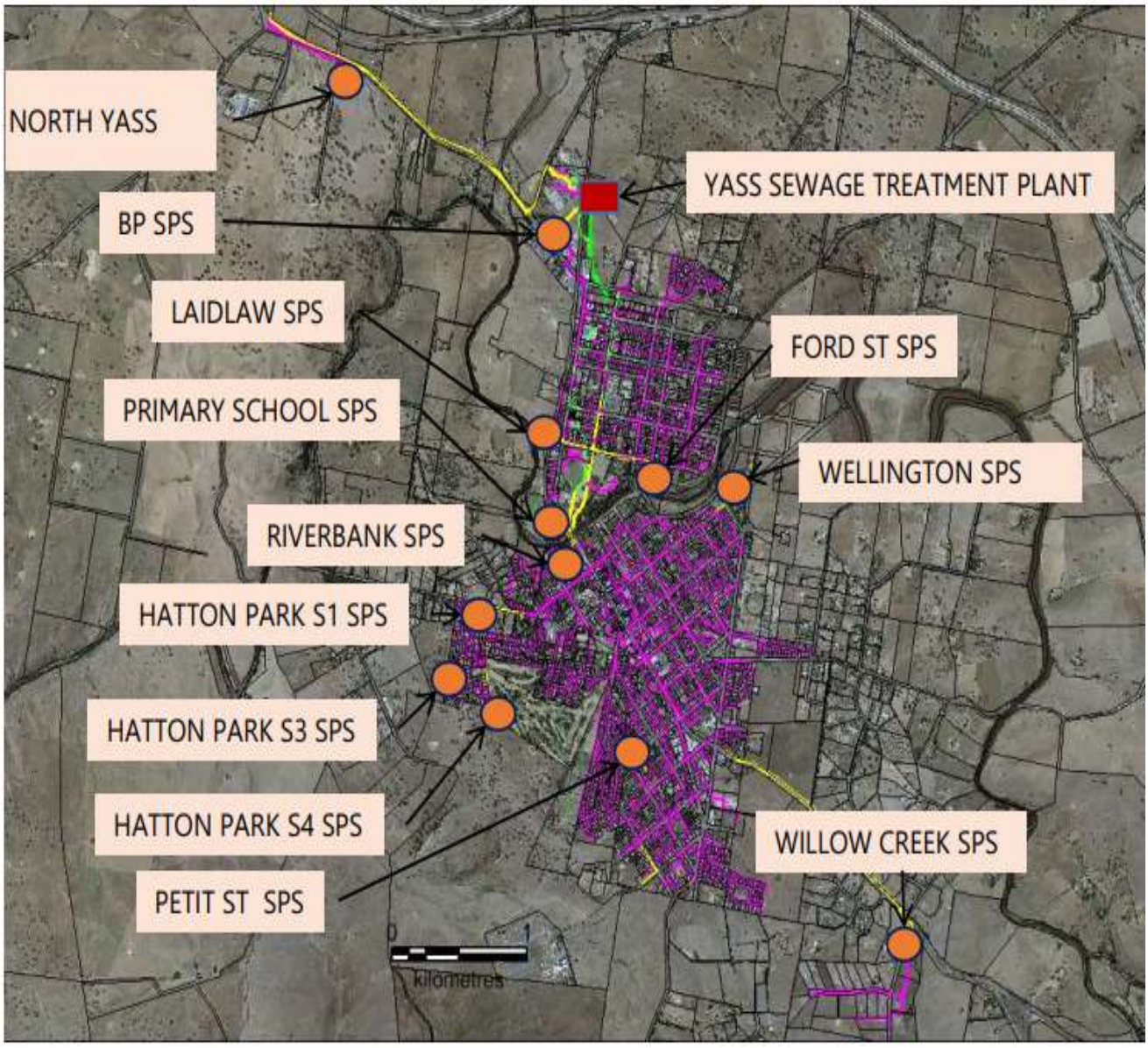


Figure 1.2 Schematic of SPSs in Yass Sewerage System

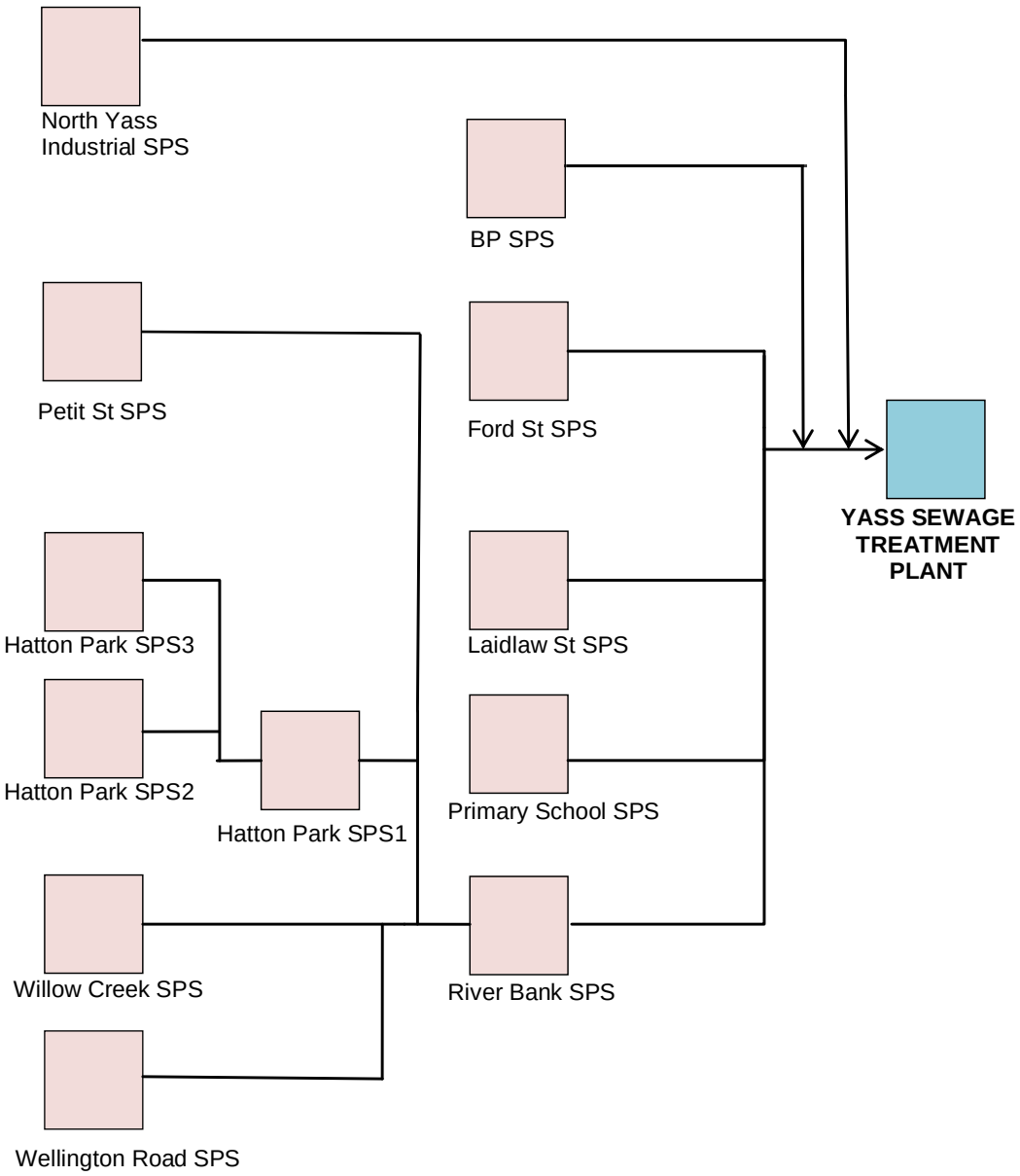


Figure 1.3 Location Map of Yass Sewage Treatment Plant

2 Context of the Assessment

2.1 Background

Under the *Protection of the Environment Legislation Amendment Act* (POELA) 2011 is the requirement to prepare, keep, test and implement a pollution incident response management plan for each environmental protection licence that Council holds.

The objectives of these plans are to:

- communicate in a timely manner and with sufficient detail about a pollution incident to relevant authorities and people outside the facilities who may be affected by the impacts of the pollution incident;
- minimise and control the risk of any pollution incident occurring at the facilities by requiring identification of risks and the development of planned actions to minimise and manage those risks; and
- 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.

The NSW EPA defines a 'pollution incident' as follows;

> *"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. It includes an incident or set of circumstances in which a substance has been placed or disposed of on premises, but it does not include an incident or set of circumstances involving only the emission of any noise."*

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 POELA Act 2011 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."*

Industry is now required to report pollution incidents *immediately* to the EPA, NSW Health, Fire and Rescue NSW, SafeWork NSW and the local council. 'Immediately' has its ordinary dictionary meaning of promptly and without delay. These strengthened provisions will ensure that pollution incidents are reported directly to the relevant response agencies so they will have direct access to the information they need to manage and deal with the incident in as fast a time as is practical.

The NSW EPA requires a plan to be implemented for all existing licences.

2.2 Council Commitment

Yass Valley Council is committed to protecting the health and safety of the public, the environment and its workers. The Tablelands Regional Community Strategic Plan 2016-2036 (TRCSP) in which Yass Valley Council is a member addresses the long term needs particularly in relation to protecting the natural environment.

Strategic Pillar:

Environment is one of the strategic pillar on which TRCSP is based on and states *"We appreciate our range of rural landscapes and habitats, and acts as custodians of the natural environment for the future generations".*

NSW Local Government Legislation

The *Local Government Act 1993* contains a Charter for Local Government which describes the approach to supplying services and activities. It charges local government with a number of responsibilities including, but not limited to, the following:

- to provide directly or on behalf of other levels of government, after due consultation, adequate, equitable and appropriate services and facilities for the community and to ensure that those services and facilities are managed efficiently and effectively;
- to exercise community leadership;
- to properly manage, develop, protect, restore, enhance and conserve the environment of the area for which it is responsible, in a manner that is consistent with and promotes the principles of ecologically sustainable development;
- to bear in mind that it is the custodian and trustee of public assets and to effectively account for and manage the assets for which it is responsible;
- to engage in long-term strategic planning on behalf of the local community; and
- to keep the local community and the State government (and through it, the wider community) informed about its activities.

2.3 Regulatory and Formal Requirements

The regulatory and formal requirements applicable to the Yass sewerage System are shown in **Table 2.1**. These legislative, licensing requirements and guidelines are to be met to ensure the protection of environment and public health as well as satisfy Work Health and Safety (WHS) requirements. This PIRMP addresses how these requirements are to be met.

Table 2.1 Formal and Regulatory Requirements

Parameter	Instrument	Administered by
Overall Scheme Operation	*Water Management Act 2000*	NSW Office of Water
	Local Government Act 1993	Office of Local Government
	Catchment Management Authorities Act 2003	Murrumbidgee Catchment Management Authority (CMA)
Public Health	*Environment Operations Act 2011*	NSW EPA, NSW Health
Environmental Health	*Section 55 Protection of the Environment Operations Act 2011* Environment Protection Licence No.1730	NSW EPA
Work Health and Safety	*Work Health and Safety Act 2011 (WHS Act) and the WHS Regulation 2017*	SafeWork NSW
Plumbing	All pipe work associated with recycled water schemes is to be installed in accordance with AS/NZS 3500 (Plumbing and Drainage Code: Standards Australia 1996-2003)	Yass Valley Council

The Engineer, Water and Wastewater of Yass Valley Council is responsible for the review and evaluation of this PIRMP.

2.4 NSW EPA Licence

Yass STP is operated under the Environment Protection Licence No 1730. From July 2014, the licence restricts the effluent discharge from downstream of the UV system to 90 and 100 percentile limits as shown in **Table 2.2**.

Table 2.2 Effluent Quality Limits as at May 2023

Parameter	Unit	90th percentile limit	100th percentile limit
Biochemical Oxygen Demand, BOD_5	mg/L	10	15
Faecal Coliforms, FC	CFU/100 mL	200	600
Ammonia Nitrogen, NH_3-N	mg/L	2	N/A
Total Nitrogen, TN	mg/L	10	15
Oil and grease, O&G	mg/L	2	N/A
pH		N/A	6.5 - 8.5
Total Phosphorus, TP	mg/L	0.3	0.5
Total Suspended Solids, SS	mg/L	15	20

Treated effluent from UV System is discharged to an unnamed creek that flows into Yass River.

Licence was revised from 8 June 2023 and following limits will apply for the next annual return period.

Table 2.2a Effluent Quality Limits as from June 2023

Parameter	Unit	90th percentile limit	100th percentile limit
Biochemical Oxygen Demand, BOD_5	mg/L	10	15
Faecal Coliforms, FC	CFU/100 mL	200	600
Ammonia Nitrogen, NH_3-N	mg/L	2	5
Total Nitrogen, TN	mg/L	10	15
Oil and grease, O&G	mg/L	2	10
pH		N/A	6.5 - 8.5
Total Phosphorus, TP	mg/L	0.3	0.5
Total Suspended Solids, SS	mg/L	15	20

3 Assessment of the Risks

3.1 Risk Assessment Methodology – Yass STP and Collection System

An initial risk assessment was undertaken at the Yass STP on the 7th of October 2012. The objective of the assessment was to:

- identify the hazards,
- identify hazardous events
- assessment of the likelihood of the event and other factors that may increase the likelihood
- assess the impacts
- assess the overall risk.

The risk assessment is reviewed as part of the annual update of the PIRMP.

Definition of likelihood, impact and risk criteria used in the assessment are shown in **Table 3.1**, **Table 3.2** and **Table 3.3**.

As can be seen in **Table 3.4**, the identified hazard events relating to the STP are all assessed to be of low risk. The identified SPS hazard events are all rated as moderate risk.

Table 3.1 Definitions of Likelihood

Level	Likelihood	Description
A	Almost certain	- The event is expected to occur often (several times per year)
B	Likely	- The event will probably occur often (once every 1-3 years)
C	Possible	- The event might occur at some time (once every 3 to 10 years)
D	Unlikely	- The event could occur at some time (once every 20 years)
E	Rare	- The event may occur only in exceptional circumstances (once every 100 years)

Table 3.2 Definitions of Impact

Level	Classification	Description
1	Catastrophic	The overflow is likely to drain to a local sensitive environment* and: - Where the overflow reaches waters, the volume of sewage likely to enter the waterways is very high with regard to the volume and flow of receiving waters, or - Where the overflow discharges to land, the public exposure risk is high given the maximum response time**
2	Major	The overflow is likely to drain to a local sensitive environment* and: - Where the overflow reaches waters, the volume of sewage likely to enter the waterway is high with regard to the volume and flow of receiving waters, or - Where the overflow reaches land, the public exposure risk is likely given the maximum response time**
3	Moderate	The overflow is likely to drain to a local sensitive environment* and: - Where the overflow reaches waters, the volume of sewage likely to enter the waterways is moderate with regard to the volume and flow of receiving waters, or - Where the overflow reaches land, it may travel to an area where public exposure is low within the maximum response time**
4	Minor	The overflow is unlikely to drain to a local sensitive environment* and: - Where the overflow reaches waters, the volume of sewage likely to enter the waterways may be minor with regard to the volume and flow of receiving waters, or - Where the overflow reaches land, it is likely to be contained in an area where the public exposure is minimal given the maximum response time**
5	Insignificant	The overflow is extremely unlikely to drain to a local sensitive environment* and: - Where the overflow reaches waters, the volume of sewage likely to enter the waterways is low with regard to the volume and flow of receiving waters, or - Where the overflow reaches land, it is likely to be contained in an area with little chance of public exposure within the maximum response time**

* A sensitive environment includes: a drinking water catchment or domestic groundwater source, or shellfish growing area, or protected water bodies, ecological communities or conservation areas defined by legal an non-legal instruments, such as local environment plans (LEPs), State environmental planning policies (SEPPs), national parks, and class P or class S waters, or waterways used for primary contact recreation, or a recreational area or other area with high public exposure or associated health risk.

** Maximum response time should be based on the length of time taken for the licensee to detect the overflow, or for the overflow to be reported, and the time taken for the licensee to attend the site and secure against public contact

Table 3.3 Risk Analysis Criteria

Likelihood	**Impacts**				
	Catastrophic **1**	Major **2**	Moderate **3**	Minor **4**	Insignificant **5**
Almost Certain – **A**	Very High	Very High	High	Moderate	Low
Likely – **B**	Very High	Very High	High	Moderate	Low
Possible – **C**	Very High	High	Moderate	Moderate	Low
Unlikely – **D**	Very High	High	Moderate	Low	Low
Rare – **E**	High	Moderate	Low	Low	Low

Table 3.4 Risk Register

	Contaminant	Description of the Hazardous Event	Human Health (Public Health) Risks	Environmental Risks	Likelihood Almost certain - several times per year Likely - once every 1 - 3 years Possible - once every 3 - 10 years Unlikely - once every 20 years Rare - once every 100 years	Events or Circumstances that would exacerbate or increase likelihood	Impact Insignificant Minor Moderate Major Catastrophic	Assessed Risk Low Moderate High Very High	Pre-emptive Actions (Existing Controls) In addition to Operator training, SWMS	Residual Risk Low Moderate High Very High
	STP									
1	**Sewage**	**Septage inhibits the process**		**X**	Rare	Illegal dumping of septage into sewer line and trade waste	Minor	LOW	Trade waste policy. Routine plant monitoring.	LOW
2	**Sewage / Effluent**	**Overflows**	**X**	**X**	Unlikely	Heavy rainfall	Minor	LOW	Plant designed to handle Peak Wet Weather Flow (PWWF). Existing Pasveer channels serve as storm detention tanks. Telemetry system.	LOW
3	**Sewage / Effluent**	**Overflows**	**X**	**X**	Unlikely	Blockages at channels/pipes	Minor	LOW	Routine plant monitoring. Telemetry system.	LOW

	Contaminant	Description of the Hazardous Event	Human Health (Public Health) Risks	Environmental Risks	Likelihood Almost certain - several times per year Likely - once every 1 - 3 years Possible - once every 3 - 10 years Unlikely - once every 20 years Rare - once every 100 years	Events or Circumstances that would exacerbate or increase likelihood	Impact Insignificant Minor Moderate Major Catastrophic	Assessed Risk Low Moderate High Very High	Pre-emptive Actions (Existing Controls) In addition to Operator training, SWMS	Residual Risk Low Moderate High Very High
4	**Effluent**	**Poor quality**	**X**	**X**	Rare	Vandalism	Minor	LOW	Locked gates. Locked building. Telemetry system.	LOW
5	**Effluent**	**Poor quality**	**X**	**X**	Unlikely	Extended power failure	Minor	LOW	Reliable power system – backup generators. Long outages would be planned. Units will provide some treatment. Lightning protection.	LOW
6	**Effluent**	**Poor quality**		**X**	Unlikely	Equipment malfunction.	Minor	LOW	Standby capacity. Maintenance and renewals. SPS storage if required. Telemetry system. Operator attendance in less than 1hr.	LOW
7	**Alum**	**Tank leak or failure**	**X**	**X**	Unlikely	Bund sump stop valve left open.	Minor	LOW	Bunding. Alarms. Inspection and maintenance.	LOW

	Contaminant	Description of the Hazardous Event	Human Health (Public Health) Risks	Environmental Risks	Likelihood Almost certain - several times per year Likely - once every 1 - 3 years Possible - once every 3 - 10 years Unlikely - once every 20 years Rare - once every 100 years	Events or Circumstances that would exacerbate or increase likelihood	Impact Insignificant Minor Moderate Major Catastrophic	Assessed Risk Low Moderate High Very High	Pre-emptive Actions (Existing Controls) In addition to Operator training, SWMS	Residual Risk Low Moderate High Very High
8	**Screening and grit**	**Washed off site**	**X**	**X**	Unlikely	Trench for burying screening and grit left to overload.	Minor	LOW	Buried in trench within the STP premises.	LOW
	North Yass Industrial SPS, Petit St SPS, Shantalla SPS, Hatton Park SPS 1, Hatton Park SPS 2, Hatton Park SPS 3, Willow Creek SPS, Laidlaw St SPS, BP SPS, Primary School SPS and Wellington Road SPS									
9	**Sewage**	**Overflow**	**X**	**X**	Unlikely	Power/pump failure. Wet weather event.	Minor	LOW	Standby pump. Reliable power system. Long outages would be planned. 8 hours ADWF emergency storage. Provision for connection of a power generator. Operator response less than 1 hour.	LOW

	Contaminant	Description of the Hazardous Event	Human Health (Public Health) Risks	Environmental Risks	Likelihood Almost certain - several times per year Likely - once every 1 - 3 years Possible - once every 3 - 10 years Unlikely - once every 20 years Rare - once every 100 years	Events or Circumstances that would exacerbate or increase likelihood	Impact Insignificant Minor Moderate Major Catastrophic	Assessed Risk Low Moderate High Very High	Pre-emptive Actions (Existing Controls) In addition to Operator training, SWMS	Residual Risk Low Moderate High Very High
	Other SPSs									
11	**Sewage**	**Ford St SPS – overflow to Yass river**	**X**	**X**	Likely	Power/pump failure. Wet weather event.	Moderate	HIGH	Standby generator available. Standby pump. 2 – 4 hours ADWF emergency storage. Operator response less than 1 hour.	MODERATE
12	**Sewage**	**River Bank SPS – overflow to Yass River**	**X**	**X**	Likely	Power/pump failure. Wet weather event	Moderate	HIGH	Standby generator available. 2 – 4 hours ADWF emergency storage. Operator response less than 1 hour.	MODERATE
	Gravity System									
13	**Sewage**	**Overflow**	**X**	**X**	Possible	Blockages in channels. Wet weather event	Minor	MODERATE	Operator to call tanker. Operator response less than 1 hour. Install bypass pump if by pass or diversion if necessary Small volumes.	LOW

	Contaminant	Description of the Hazardous Event	Human Health (Public Health) Risks	Environmental Risks	Likelihood Almost certain - several times per year Likely - once every 1 - 3 years Possible - once every 3 - 10 years Unlikely - once every 20 years Rare - once every 100 years	Events or Circumstances that would exacerbate or increase likelihood	Impact Insignificant Minor Moderate Major Catastrophic	Assessed Risk Low Moderate High Very High	Pre-emptive Actions (Existing Controls) In addition to Operator training, SWMS	Residual Risk Low Moderate High Very High
14	**Sewage**	**Discharge**	**X**	**X**	Unlikely	Pipe break – ground movement/ earthquake.	Moderate	MODERATE	Install emergency pump for bypass/ diversion.	LOW
15	**Sewage**	**Discharge**	**X**	**X**	Unlikely	Pipe break – excavation works.	Moderate	MODERATE	Dial before dig. Maintain up-to-date plan records. Install bypass pump for bypass/ diversion.	LOW
	Rising Mains									
16	**Sewage**	**Discharge**	**X**	**X**	Unlikely	Pipe break – poor pipe condition or high pressure. Wet weather event.	Moderate	MODERATE	Flow/pump monitoring. Telemetry system.	LOW

	Contaminant	Description of the Hazardous Event	Human Health (Public Health) Risks	Environmental Risks	Likelihood Almost certain - several times per year Likely - once every 1 - 3 years Possible - once every 3 - 10 years Unlikely - once every 20 years Rare - once every 100 years	Events or Circumstances that would exacerbate or increase likelihood	Impact Insignificant Minor Moderate Major Catastrophic	Assessed Risk Low Moderate High Very High	Pre-emptive Actions (Existing Controls) In addition to Operator training, SWMS	Residual Risk Low Moderate High Very High
17	**Sewage**	**Discharge**	**X**	**X**	Unlikely	Pipe break – ground movement/ earthquake.	Moderate	MODERATE	Flow/pump monitoring. Telemetry system.	LOW
18	**Sewage**	**Discharge**	**X**	**X**	Unlikely	Pipe break – excavation works.	Moderate	MODERATE	Flow/pump monitoring. Telemetry system. Dial before you dig. Maintain up-to-date plan records.	LOW

3.2 Major Findings

From the risk register outlined in **Table 3.4**, the following were identified:

a) Identified hazard events relating to the STP were assessed to be of LOW risk.

b) Assessment of overall environmental and/or health risks posed by overflows at SPSs ranged from LOW to HIGH.

c) The following SPSs were assessed as presenting HIGH environmental/health risks, should an overflow occur:

- Ford St SPS – sewage overflow during dry and wet weather events
- River Bank SPS - sewage overflow during dry and wet weather events

With the controls they are assessed as MODERATE.

d) The gravity systems and the rising mains pose MODERATE environment/health risks during overflow and discharge events.

4 Preventative Actions to be undertaken

The preventative actions or measures to manage and minimise the risk to human health and the environment involve a multiple barrier approach. The multiple barriers, in order of preference, are as follows:

- Elimination;
- Substitution;
- Isolation;
- Engineering means;
- Administrative; and
- Personal protection equipment (PPE).

These are readily broken down to the following classification of management strategies:

- Appropriate design of the facilities;
- Appropriate operation and monitoring; and
- Appropriate education and training.

The identified current preventative actions are shown in this section. Photos of River Bank SPS, Ford ST SPS and BP SPS are provided in **Photo 4.1**, **Photo 4.2 and Photo 4.3** respectively.

4.1 Collection System

Collection system overflows can principally occur from four main causes. They are:

- Power/mechanical failure at pumping stations;
- Reticulation system blockage/leakage;
- Rising main breakage (leaks or major failure), and
- Excessive inflows during wet weather.

4.1.1 Gravity Sewer System

Overall the Yass reticulation system is in good condition and has sufficient capacity and the number of overflows or incidents per kilometre of pipeline per year would be considered low by industry standards. Council uses Rodding Machine to clear blockages. Blockages in reticulation mains occur infrequently. The main cause is tree root intrusions but can also occur due to foreign objects lodging in the pipelines.

Council implements a program of sewer main cleaning. Approximately 3 to 4 kilometers of sewer mains are cleaned annually with high pressure jetting machine. The Trunk Sewer Mains serving the Comur Street area are cleaned annually and other sewer mains that have a history of clogging are cleaned regularly or scheduled for relining/repair. Cleaning and assessment/CCTV surveys are also carried-out in sewer mains annually to identify assets for renewal.

In FY2021-22, 124m of 150mm VC (Vitreous clay) pipe was relined. Cleaning and CCTV Survey/assessment were carried out for another 3.9 km of trunk and other mains. In FY2022-23, lining of approximately 2.5km of sewer mains including 246m of DN400 trunk mains were caried out. This includes sewer mains in the BP SPS catchment.

Apart from minor seepages due to blockages in pipelines, no major overflow events have occurred in the reticulation system since Yass STP was commissioned in 2010.

Manhole covers found to be cracked are replaced regularly to avoid excessive stormwater inflow into the sewers. In FY22-23, 12 manholes covers in BP SPS area was replaced with gatic covers. However, during extreme rainfall events, excessive inflows exceeding the design capacity of the pumps may occur and may result in overflows such as during a 1 in 100 year storm event.

Other possibilities for sewer overflows include illegal connection of storm water pipes and low lying gullies or boundary traps.

Since Yass Sewerage System was commissioned in March 2010, no overflows due to wet weather has occurred.

4.2 Pumping Stations

The likelihood of overflows from SPSs can be minimised by the provision of the following;

- Adequate pumping capacity;
- Reliable power supply;
- Service response time to address abnormal operating conditions such as power failure, pump failure, etc.; the detention time provided in the pumping station before overflow occurs;
- Availability of standby pumps (to handle pump failure) and/or portable generators (to handle power supply/electrical failure);
- Implementation of an effective emergency plan/operational procedures for attending to failures and breakdowns within the system.

4.2.1 Adequate Pumping Capacity

All of the SPSs within the Yass sewerage System have recently been upgraded and have sufficient pumping capacity for present and projected future requirements.

4.2.2 Reliable Power Supply

Council has reported that Yass has a relatively reliable power supply. Generally, power outages in the Yass area have been less than 4 hours in duration. While not common, power failures of extended duration are possible but are usually planned outages.

4.2.3 Provision of Emergency Storage or Standby Power Supply

A sewerage system must have sufficient capacity to store sewage, which continues to flow from the catchment during extended mechanical breakdowns or electrical failures. Currently three SPSs have inadequate storage capacity during power or pump failure. The Council plans to install standby generators to address this issue. Stand-by generator at River Bank SPS was installed in 2018. Emergency Storage Tank (12.9 kL) was installed and improvements to the covers to avoid infiltration was also completed at BP SPS in May 2020. Installation of generators for Ford ST SPS was completed in October 2021.

North Yass Industrial SPS, Hatton Park SPS 1, Hatton Park SPS2, Hatton Park SPS3, Laidlaw Street SPS, BP SPS, Wellington Road SPS and Willow Creek SPS have generator connection points. Council has two mobile generators. These generators can be used for all SPSs except Riverbank SPS and Ford Street SPS. Riverbank and Ford Street SPSs have onsite standby generators.

4.2.4 Telemetry System

All the SPSs in the Yass sewerage System are monitored via a telemetry system. Instances of power outages, mechanical failure, and high level alarms are transmitted to the Operators for immediate attention [Operator response time will be within one (1) hour of notification].

4.2.5 Standby Pumps

All SPSs have duty and standby pumps installed.

Details of various parameters relating to the SPSs including planned works for improving resilience and mitigation of risks are summarised in **Table 4.1**.

Table 4.1 Summary of Sewage Pumping Stations

SPS Name	Pumping Capacity	Detention Time / Emergency Storage	Power Supply	Telemetry System	Standby Pumps	Standby Power Supply	Work Planned
North Yass Industrial SPS	13 L/s	Adequate	Reliable	Available	Available	Connection point	N/A
BP SPS	4.3 L/s	Adequate	Reliable	Available	Available	Connection point	N/A
Petit Street SPS	6.2 L/s	Adequate	Reliable	Available	Available	No Connection point	N/A
Hatton Park SPS3	2.35 L/s	Adequate	Reliable	Available	Available	Connection point	N/A
Hatton Park SPS2	5.5 L/s	Adequate	Reliable	Available	Available	Connection point	N/A
Hatton Park SPS1	15 L/s	Adequate	Reliable	Available	Available	Connection point	N/A
Willow Creek SPS	4.2 L/s	Adequate	Reliable	Available	Available	Connection point	N/A
Primary School SPS	5.14 L/s	Adequate	Reliable	Available	Available	Connection point	N/A
Ford Street SPS	21.5 L/s	4 hrs (year 2007) 2 hrs 15 min (year 2030)	Reliable	Available	Available	Standby Generator on site	N/A
Laidlaw street SPS	4.8 L/s	22 hrs 21 min (year 2007) 12 hrs 30 min (year 2030)	Reliable	Available	Available	Connection point	N/A
Wellington Road SPS	10.0 L/s	Adequate	Reliable	Available	Available	Connection point	N/A
River Bank SPS	51.1 + 65.4 L/s	3 hrs 40 min (year 2007) 2 hrs 5 min (year 2030)	Reliable	Available	Available	Standby Generator on site	N/A

Note: River bank SPS has four pumps (2 dry well and 2 wet well). One dry well pump and one wet well pump operate together. All other pumping stations have two pumps (duty/standby)

Photo 4.1 River Bank SPS

Riverbank SPS Dry Well

Photo 4.2 Ford Street SPS (October 2021)

Photo 4.3 Wellington Road SPS (December 2021)

4.3 Sewage Treatment Plant Overflows

The Yass STP is a modern STP, commissioned in March 2010, which is currently operating below its design capacity of 6800 EP.

At present gravity flows from the township and supernatant flows from the sludge/septage lagoons, North Yass Industrial SPS, BP SPS and storm return flows are received at the plant Inlet Works. All inflows can be fully treated at the design capacity of the STP. Inflows in excess of 7 x ADWF is diverted to storm detention tanks; hence overflows are not expected at the STP during wet weather events.

Equipment failure may occur at the plant, however unused old maturation pond has several days of storage capacity and flows can be diverted into this facility through storm detention tank temporarily.

The STP is a well-designed and operated plant. The plant has a SCADA and telemetry system. This means that the STP is monitored outside business hours. Alarms triggered by the SCADA system alert the Operator via the telemetry system in the form of an automatic phone message. The Operator then responds to the alarm by attending the STP within an hour. The Operators live locally to the STP which provides ready response to any treatment problem events.

4.3.1 Dry Weather

Unless malfunction of systems due to mechanical/ electrical failure or blockages occur, overflows at the STP in dry weather flow conditions are extremely unlikely.

No dry weather overflow events (or even near events) have been recorded since March 2010.

4.3.2 Wet Weather

All inflows can be fully treated at the design capacity of the STP. Inflows in excess of 7 x ADWF is diverted to storm detention tanks; hence overflows are not expected at the STP during wet weather events.

The storm detention tanks have capacity to store sewage for 30.3 hrs at an ADWF of 17.3 L/s. A storm return pump enables pumping flows back into the inlet works during dry weather inflow conditions.

Unless malfunction of system due to mechanical/ electrical failure or blockages occur, overflows at the STP during wet weather flow conditions are unlikely.

No overflows due to wet weather events have been recorded.

4.4 Sewage Treatment Plant Chemical Spills

The Yass STP has an alum-based chemical dosing system for phosphorus removal. Alum tank has a capacity of 35,000L and is within a bunded area in compliance with current legal requirement. The delivery area also has a road (hump type) bund to contain small spills during filling. Drainage sump and pits with valved drainage pipework allow for containment and transfer of chemical spills and for direction of any accumulated rainfall with the bund areas to ground discharge.

A safety shower and eyewash facility is provided in the event of direct human contact with alum chemical.

Figure 4.5 STP - Alum Storage Tank, Bund and Delivery Area Bund

5 Inventory of Pollutants and Treatment Chemicals

5.1 Inventory of Treatment Chemicals

The chemicals stored and used on-site for wastewater treatment comprise alum for phosphorus removal. Alum details are as listed in **Table 5.1**.

A safety data sheet (SDS) for the alum solution used at the STP is included in **Appendix A**.

Table 5.1 List of Chemicals Stored in STP Premises

Item	Description
Chemical	Alum Solution
Location	Yass STP
Chemical Name and Formula	Aluminium Sulphate [$Al_2(SO_4)_3.14H_2O$]
Use	Phosphorus removal and improved settlement
Maximum Storage Amount	35,000 L

5.2 Other Pollutants – Sewage and Effluent

The other potential pollutants are:

- Sewage – within the collection system and at Inlet Works of the STP.
- Effluent – produced at the STP and discharges to a local watercourse that flows to Yass River.
- Sludge (including WAS and stabilised and/or dewatered biosolids) produced at the STP. Dried sludge is either spread as per the EPA biosolids disposal guidelines on Council's land.
- Supernatant – produced at the sludge lagoons is re-treated via the IDEA tank.
- Screenings and grit – produced at the STP Inlet Works are captured by the screening system and grit removal, respectively, then transferred and stored in a wheelie bin for subsequent off-site disposal.

Records of effluent sampling results from 14 May 2021 – 14 April 2022 (90 and 100 percentile values as required by the Licence) are summarised in **Table 5.2**.

Table 5.2 Summary of Effluent Quality

Parameter	Unit	Minimum	90 percentile Value	Maximum (100 percentile values)
		1 May 2022 – 30 Apr 2023		
Biochemical oxygen demand (BOD_5)	mg/L	2.0	6.2	26.0[a]
Faecal Coliforms (FC)	CFU/100mL	1	943[b]	1,860[b]
Ammonia Nitrogen, NH_3-N	mg/L	0.4	1.72	21.2[c]
Total nitrogen (T-N)	mg/L	2.3	12.0[c]	17.8[c]
Oil and grease	mg/L	0	0	0
pH		6.86	7.90	8.01
Total phosphorus (TP)	mg/L	0.10	0.34[d]	0.86[d]
Suspended solids (SS)	mg/L	6	14[d]	37[e]

Notes:

a BOD_5: Accumulation of sludge in the Catch Balance Pond due to recurring wet weather caused exceedance.

b. Faecal Coliforms: Malfunction of UV lamps caused exceedance.

c. Ammonia Nitrogen and Total Nitrogen: Operational measurements of Ammonia, T-N were below the limits. However, intermittent failure of aerators at the STP may have resulted in the exceedance of Ammonia, and Total Nitrogen.

d. Total Phosphorous: Exceedance was due to sloughing off from UV channel and Catch Balance Pond.

6 Safety Equipment

Safety equipment and other devices that are provided on-site will minimise the risks to human health or the environment and contain or control a pollution incident. These will include any PPE, SDSs, monitoring devices and spill containment facilities/equipment.

6.1 List of PPE Equipment Available

The following PPE safety equipment is available to operators:

Table 6.1 List of PPE Equipment Available

Personal Protective Equipment	Location
Protective gloves	STP Amenities building & Operator Truck
High Visibility Vests	Each operator to collect at stores
Dust mask	STP and Operators Truck
Hearing protection	STP and Operators Truck
Safety glasses	STP and Operators Truck
Safety apron	STP and Operators Truck
Safety harness	STP Amenities building and Riverbank SPS
Sun screen	Operators Truck
Gumboots	Operators Truck

6.2 List of Monitoring Devices

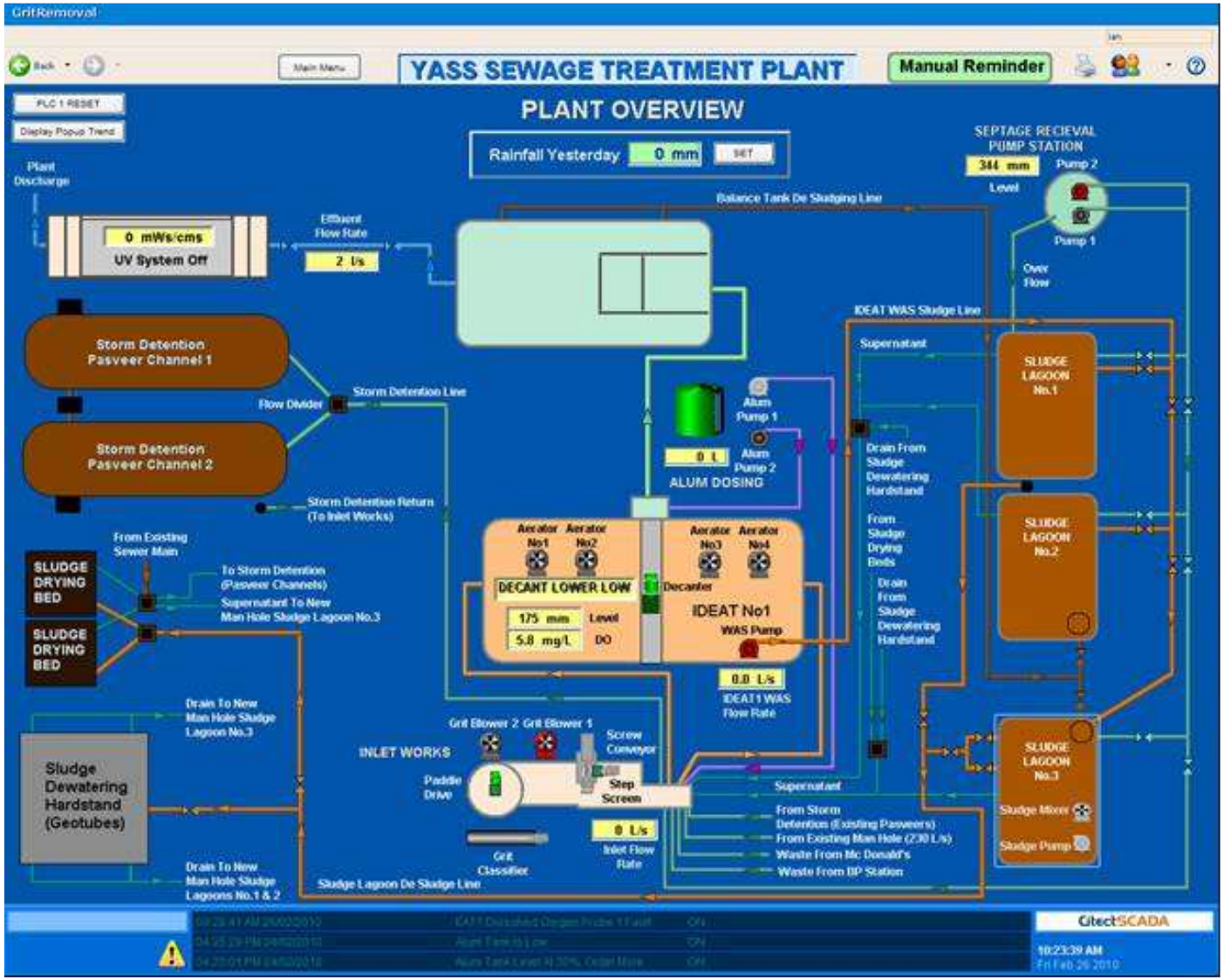
The following monitoring devices are present onsite:

Table 6.2 List of Monitoring Devices

System	Monitoring Devices	Devices Alert
STP	SCADA and telemetry system monitors - Septage PS (pump/s and level sensor) - Inlet works (step screen, grit removal system and screw wash press) - IDEA tank (aerators, decanter, pump, DO probes, level sensors) - Alum dosing system - UV system (lamps and wipers) - Sludge lagoon (pontoon pump and pontoon mixer)	Text Message is sent to Sewer-on-Call
SPSs	High Level alarm at SPS Power failure at SPS Mechanical failure at SPS	

A screen print of the STP SCADA screen is shown in Figure 6.1

Figure 6.1 STP SCADA Screen



7 Roles, Responsibilities and Contact Details

7.1 Stakeholder Responsibilities and Engagement

Council has committed to operating its STP and collection system in a responsible manner. Effective stakeholder engagement is necessary to fulfil this commitment. **Table 7.1** presents the stakeholders involved in the operation of the STP and collection system, sets out their roles and the communication expected to occur to achieve safe operation of the plant and collection system. Further information on the operation of the system and communication protocols are addressed in Section 7.3 and in Chapter 8.

Table 7.1 Stakeholder Responsibilities and Engagement

Stakeholder	Responsibility	Communicates with	Reason
Yass Valley Council **Director Infrastructure and Assets**	Overall scheme operation/ responsibility	Manager Water and Wastewater	Management of operations staff
		NSW Health	Health advice, reporting incidents
		NSW EPA	Reporting on Licence compliance, reporting incidents
		Community of Yass	Advice where required during incidents
		State Cover &/or SafeWork NSW	Reporting of injuries, accidents and incidents as required.
Manager Water and Wastewater	Management of scheme operation and maintenance, emergency response	Water & Wastewater Coordinator, Council operators and Director Infrastructure and Assets	Management of operations staff, reporting issues regarding operation, maintenance and compliance to Council
Operations Engineer Water and Wastewater	Operation and maintenance, emergency response	Manager Water and Wastewater, Water & Wastewater Coordinator and Council operators	Technical support to operations staff, reporting issues regarding operation, maintenance and compliance to Council
Coordinator Water and Wastewater	Operation and maintenance, emergency response	Council operators, water, wastewater engineers, Manager Water and Wastewater and Director Infrastructure and Assets	Management of operations staff, reporting site issues regarding operation, maintenance and compliance to Council
	Construction works near water pipelines	Construction companies	Council approval needed for any excavation in road reserves to minimise risks to pipelines
Council Sewer Operators	Day to day operation of STP and collection system, response to emergencies	Coordinator Water and Wastewater and engineers	Communicates issues regarding operation, maintenance and compliance
Police /Fire brigade/HAZMAT/ Ambulance/ SES	Response to emergencies	Director Infrastructure and Assets	Response to spills, injuries, accidents

7.2 List of Contact Details

The contact details of the stakeholders are listed below in **Table 7.2.** Contact information can be used in notifying the relevant authority in the event of a pollution incident.

Table 7.2 Stakeholder Contact Details

Organisation	Position and Contacts	Phone	Email
Yass Valley Council	After hours contact number (Duty Officer)	02 6226 1477	council@yass.nsw.gov.au
	Business hours contact number	02 6226 1477 1300 553 652	council@yass.nsw.gov.au
	Director Infrastructure and Assets Nathan Cooke	02 6226 1477	NCooke@yass.nsw.gov.au
	Manager Water and Wastewater Kuga Kugaprasatham	02 6226 1477	KKugaprastham@yass.nsw.gov.au
	Engineer Water and Wastewater Vacant	02 6226 1477	
	Operations Engineer Water and Wastewater Vacant	02 6226 1477	
	Coordinator Water and Wastewater Aaron Shepherd	02 6226 1477	AShepherd@yass.nsw.gov.au
	Sewer-on-Call	02 6226 1477	council@yass.nsw.gov.au
NSW EPA	Pollution Line	13 15 55	
Ministry of Health	Public Health Unit Goulburn	1300 066 055	
NSW Office of Water	Water and Sewerage Inspector Chris Carlon	0419 624 576 02 4224 9732	
Fire and Rescue NSW		1300 729 579	
HAZMAT		000	
Poisons Information Line		13 11 26	
State Emergency Service (SES)	Police, Fire Brigade, Ambulance, HAZMAT	000	
SafeWork NSW		13 10 50	

7.3 Council Procedures for Contacting Staff to Respond to a Possible Incident

STP Operator

All SPS and STP telemetry alarms are transmitted by text message to the SEWER On-Call (Duty Operator).

The Operator will attend to an alarm within an hour and report to the Coordinator, Water and Wastewater.

Any blockages reported within the sewage collection system are attended to by the Operators – cleared with Rodding machine using rigid rods or flexible rods. All works are undertaken to comply with the relevant Safe Work Method Statement(s) and appropriate action report forms are to be completed.

Yass Residents

The following procedure is followed when an incident is noticed by a resident.

During normal office hours – 8.30am to 4.30pm Monday to Friday

Residents contact the Yass Valley Council Office on 02 6226 1477 (or 1300 553 652). The Customer Service Officers collect the details of the incident (including contact details of the person making the report) and immediately notify the relevant officers on their mobile telephone. For Yass Sewerage System the following hierarchy is used for notification.

Customer Service Officer → SEWER On-Call → Coordinator Water and Wastewater → Operations Engineer Water and Wastewater → Manager Water and Wastewater→Director Infrastructure and Assets.

The Customer Service Officers call those on the list until an officer answers and takes the incident details. The Officer then responds immediately to the incident.

After hours – 4.30pm to 8.30am weekdays and all day Saturday and Sunday

Residents contact the Yass Valley Council Office on 02 6226 1477 (or 1300 553 652). The Duty Officer collects the details of the incident (including contact details of the person making the report) and immediately notifies the relevant officers on their mobile telephone. For Yass Sewerage System the following hierarchy is used for notification.

Duty Officer → SEWER On-Call → Coordinator Water and Sewer → Operations Engineer Water and Wastewater → Manager Water and Wastewater→ Director Infrastructure and Assets.

Duty officer calls those on the list until an officer answers and takes the incident details. The Officer then responds immediately to the incident.

8 Incident Classification and Notification

To determine the appropriate communication strategy for an incident, the incident needs to be categorised. Once categorised, the prescribed communication strategy can be deployed.

8.1 Incident Classification

- **Minor Risk Incident**: managed by routine procedures/work practices.
    - Incident affects small area only AND
    - Incident is easy to clean up without additional assistance AND
    - There is no risk of material harm to humans or the environment.
- **Moderate Risk Incident:** further investigation may be required and assessment of management options; in the short term, operations and maintenance adjusted to reduce the consequences, likelihood and exposure.
    - Incident affects more than one property OR
    - There is a risk of pollution or material harm to the environment BUT
    - Clean up can be completed without assistance AND
    - There is no catastrophic danger to humans.
- **Major Risk Incident & catastrophic:** further detailed investigation and assessment of management options is required; immediate review and adjust operations and maintenance to reduce the consequences, likelihood and exposure; clean-up and notification procedures become high priority.
    - Potential or actual harm to humans and the environment AND/OR
    - Assistance is required with clean-up from other agencies

The following examples are shown;

- Minor Risk Incidents – incidents with a low risk to health and the environment such as;
    - Reticulation system blockages
    - Short term power failure or electrical failure
    - Minor spills to the ground
- Moderate Risk Incident - an incident with a medium risk to health and the environment such as;
    - Major spills to the ground and or to a sensitive environment
    - Sewage spills to a waterway
    - Extended power failure
- Major Risk Incident - an incident with a high risk to health and the environment such as;
    - Major sewage spill to a waterway
    - Extended power failure wet weather
    - Earthquake or structural collapse causing significant damage

8.2 Notification Process

The following incident notification process will be undertaken for the identified incident levels;

- **Minor Risk Incident**
  - The operator will report MINOR incidents to the Coordinator Water and Wastewater ASAP.
  - The Coordinator Water and Wastewater to report to the Manager Water and Wastewater Monthly.
  - The Manager Water and Wastewater will report MINOR incidents to the Director Infrastructure and Assets Quarterly.
  - The Operations Engineer Water and Wastewater will record MINOR incidents in the PIRMP.
- **Moderate Risk Incident – Notifiable**
  - The Sewer operator will report MODERATE incidents to the Coordinator Water and Wastewater – IMMEDIATELY.
  - The Coordinator Water and Wastewater will report MODERATE incidents Manager Water and Wastewater - IMMEDIATELY.
  - The Manager Water and Wastewater will report MODERATE incidents to the Environmental Health Officer, Engineer Water and Wastewater, Director Infrastructure and Assets and General Manager- IMMEDIATELY.
  - The Manager Water and Wastewater will report MODERATE incidents to the NSW EPA, NSW Health and SafeWork NSW (if required) – IMMEDIATELY.
    - If overflows occur - The Director Infrastructure and Assets will report SIGNIFICANT OR HIGH RISK incidences IMMEDIATELY to NSW EPA
    - If public affected call 000 emergency services and NSW Health
    - Notify neighbours
  - The Operations Engineer Water and Wastewater will record MODERATE incidents in the PIRMP.
- **Major Risk Incident - Notifiable**
  - The Sewer operator will report MAJOR incidents to the Coordinator Water and Wastewater
  - – IMMEDIATELY.
  - The Coordinator Water and Sewer will report MAJOR incidents to the Manager Water and Wastewater - IMMEDIATELY.
  - The Coordinator Water and Sewer will report MAJOR incidents to the neighbours.
  - The Manager Water and Wastewater will report MAJOR incidents to the Environmental Health Officer, Engineer Water and Wastewater, Media and Communications Officer, the Director Infrastructure and Assets and General Manager – IMMEDIATELY.
  - The Manager Water and Wastewater will report MAJOR incidents to Emergency Services, the EPA, NSW Health and SafeWork NSW (if required) - IMMEDIATELY.
    - If overflows occur - The Director Infrastructure and Assets will report SIGNIFICANT OR HIGH RISK incidences **IMMEDIATELY** to NSW EPA, NSW Health and SafeWork NSW
    - If public affected call 000 Emergency Services
  - The Operations Engineer Water and Wastewater will record MAJOR incidents in the PIRMP.

This is shown schematically in **Figure 8.1**. This procedure will form part of the operator training and awareness program. Incident reporting includes communicating the incident and also documenting the incident as required by Council procedures.

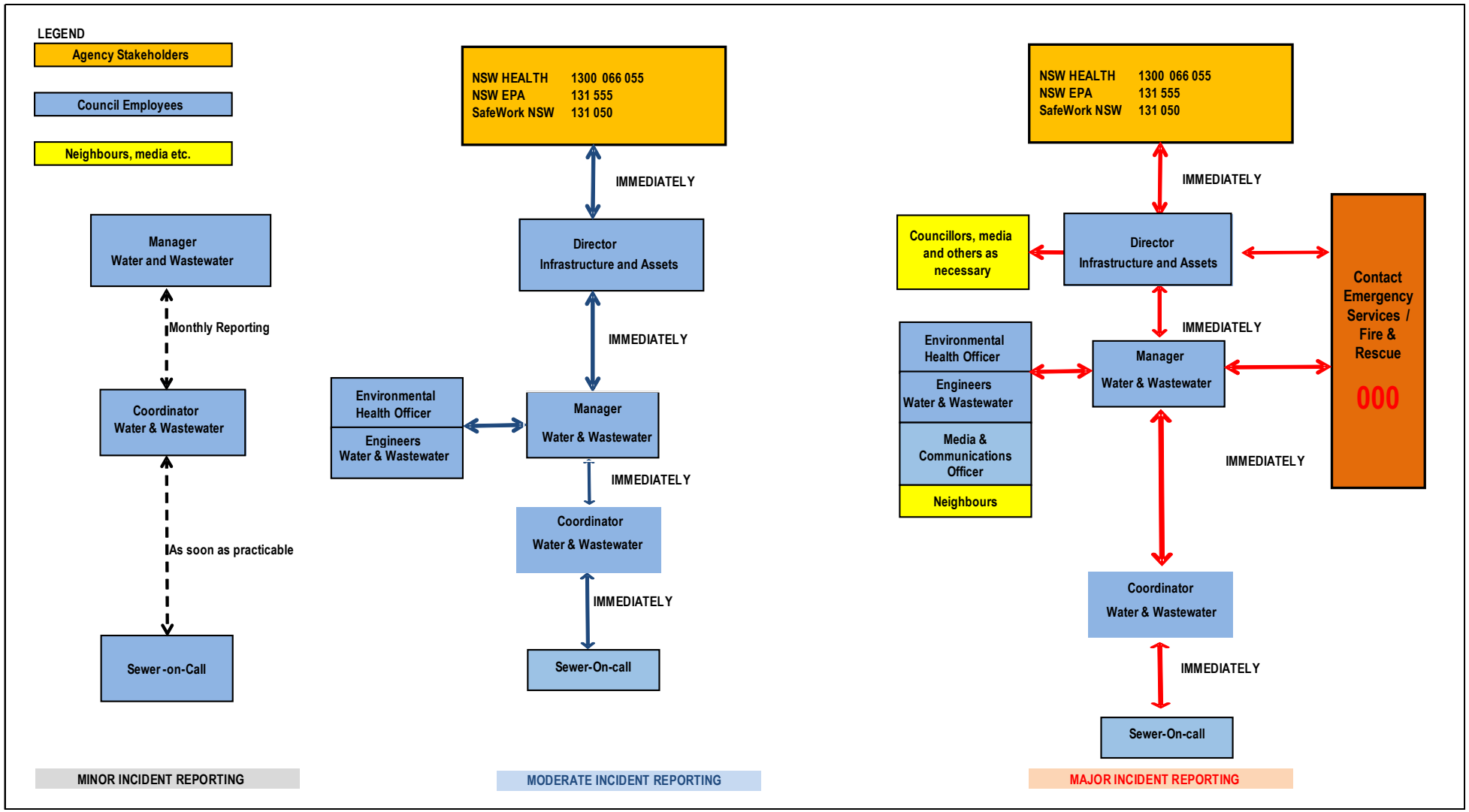
8.3 Workplace Incidents

The following incidents and injuries must be reported to SafeWork NSW:

- incidents involving a fatality or a serious injury or illness
- incidents involving a fatality or serious injury or illness to other people at your workplace
- incidents that present a serious risk to health and safety at your workplace (dangerous occurrence)

All incidents involving an injury to staff must be reported to StateCover.

Figure 8.1 Incident Communication Protocols



8.4 Investigation of Incidents and Emergencies

Following any incident or emergency situation, including any "near misses", an investigation will be undertaken and all involved staff debriefed to discuss performance and address any issues or concerns.

The investigation will consider factors such as:

- What was the initiating cause of the problem?
- How was the problem first identified or recognised?
- What were the most critical actions required?
- What communication problems arose and how were they addressed?
- What were the immediate and longer term consequences?
- How well did the protocol function?
- What action or further mitigation strategies need to be considered or implemented?

8.5 Environmental Incident Notification Report

The *Environmental Incident Report* references the new requirements under Part 5.7 of the POELA Act and provides councils with a generic form/template to use when notifying a pollution incident. This template is available on the Water Directorate webpage and a copy is provided in ***Appendix E***.

8.6 Notification to Neighbours

Irrespective of whether EPA directs Council to notify neighbours and depending on the circumstances of the particular pollution incident, Council may at their own discretion voluntarily choose to notify neighbours.

9 Minimising Harm to Persons on the Premises

9.1 Attendance Register

An attendance register is in place at the STP. All visitors are signed in and out of the site.

9.2 Site Induction

All visitors must report to the site office where they are inducted to the site by the STP Operator prior to access to treatment areas of the site. No person who is not an employee or inducted contractor will be allowed to do work at site. A copy of the Site Induction Register is shown in ***Figure 9.1***.

9.3 Staff Training

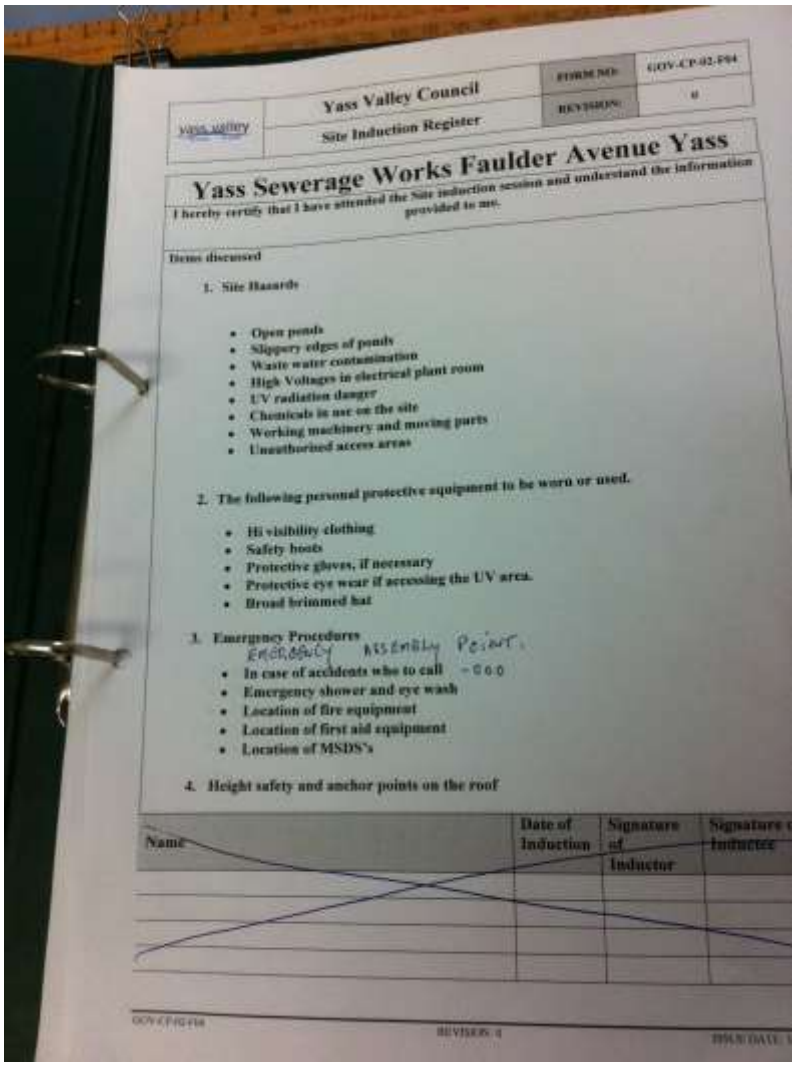
All staff should receive sufficient/appropriate training to enable them to undertake assigned duties in competent and safe manner. Training records such as for confined space entry, first aid etc. are maintained by Council's Organisation Development Division.

All Sewer Operations staff are trained on PIRMP and whenever it is updated. Typical Record of Training on PIRMP is shown in Appendix C.

A toolbox meeting is carried-out every working day to discuss any issues related to safety and/or incidents among other issues. Record of the Tool Box meeting is reviewed by the Coordinator Water and Wastewater.

All contractors working on site will be required to have all necessary licenses and/or training required to undertake the activities they have been engaged to complete.

Figure 9.1 Site Induction Register



Yass Valley Council

Site Induction Register

FORM NO: GOV-CP-02-F04

REVISION: 0

Yass Sewerage Works Faulder Avenue Yass

I hereby certify that I have attended the Site induction session and understand the information provided to me.

Items discussed

1. Site Hazards
   - Open ponds
   - Slippery edges of ponds
   - Waste water contamination
   - High Voltages in electrical plant room
   - UV radiation danger
   - Chemicals in use on the site
   - Working machinery and moving parts
   - Unauthorised access areas
2. The following personal protective equipment to be worn or used.
   - Hi visibility clothing
   - Safety boots
   - Protective gloves, if necessary
   - Protective eye wear if accessing the UV area.
   - Broad brimmed hat
3. Emergency Procedures
   - In case of accidents who to call – 000
   - Emergency shower and eye wash
   - Location of fire equipment
   - Location of first aid equipment
   - Location of MSDS's
4. Height safety and anchor points on the roof

Name	Date of Induction	Signature of Inductor	Signature of Inductee

GOV-CP-02-F04 REVISION: 0 ISSUE DATE:

9.4 Evacuation Procedure

Emergency evacuation procedures are described in Council Procedure – RM-OP-19. The objective of this procedure is to ensure that Council staff and any visitors (including contractors) are evacuated safely from the STP in the case of an emergency.

9.5 Emergency Assembly Point

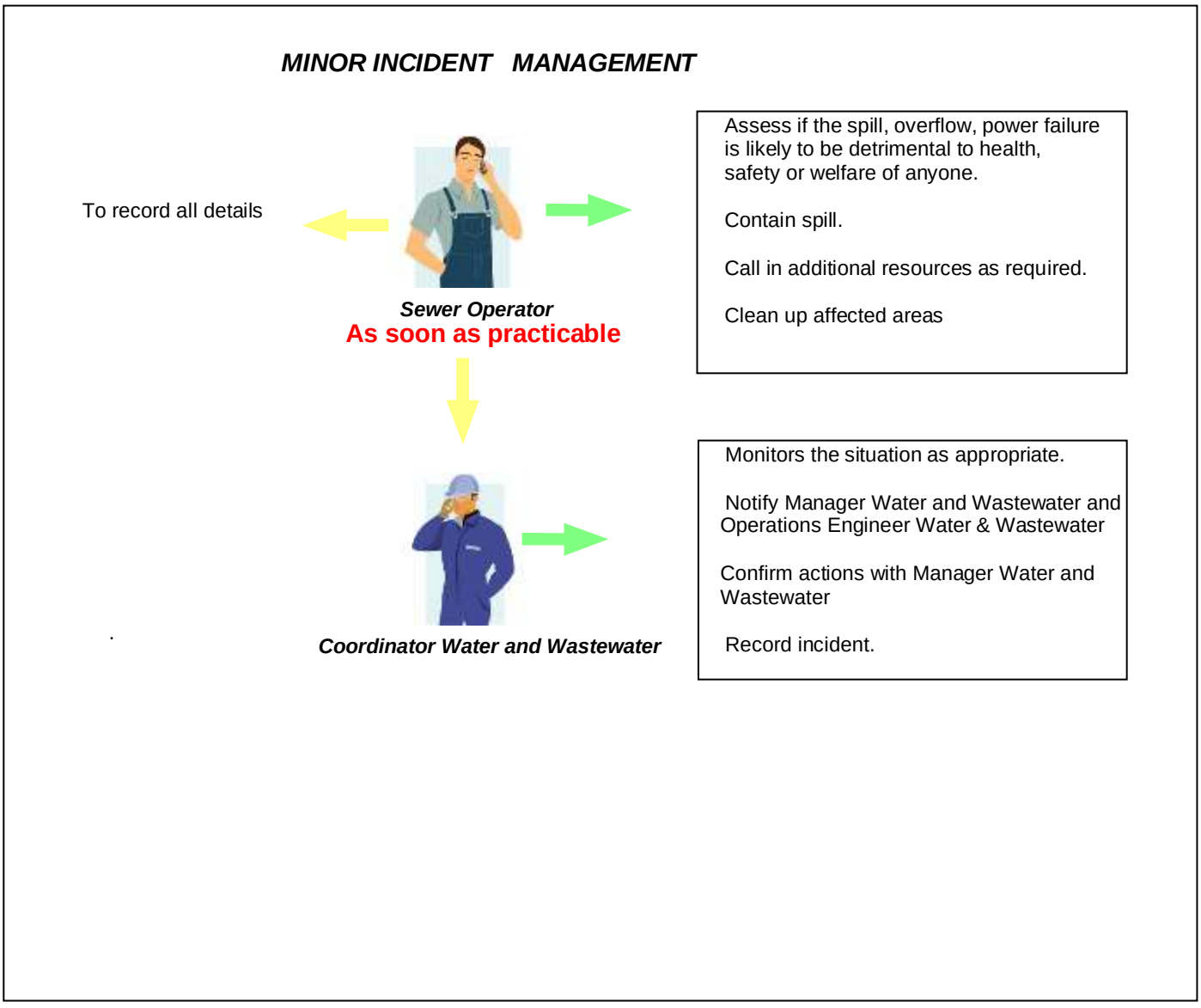
The assembly point, in the event of an emergency, is adjacent to the main entrance/exit gate on Faulder Avenue.

10. Actions to be Undertaken During or Immediately After a Pollution Incident

10.1 Minor Incident Action Plan

The action plan for the following minor incidents is shown in **Figure 10.1**.

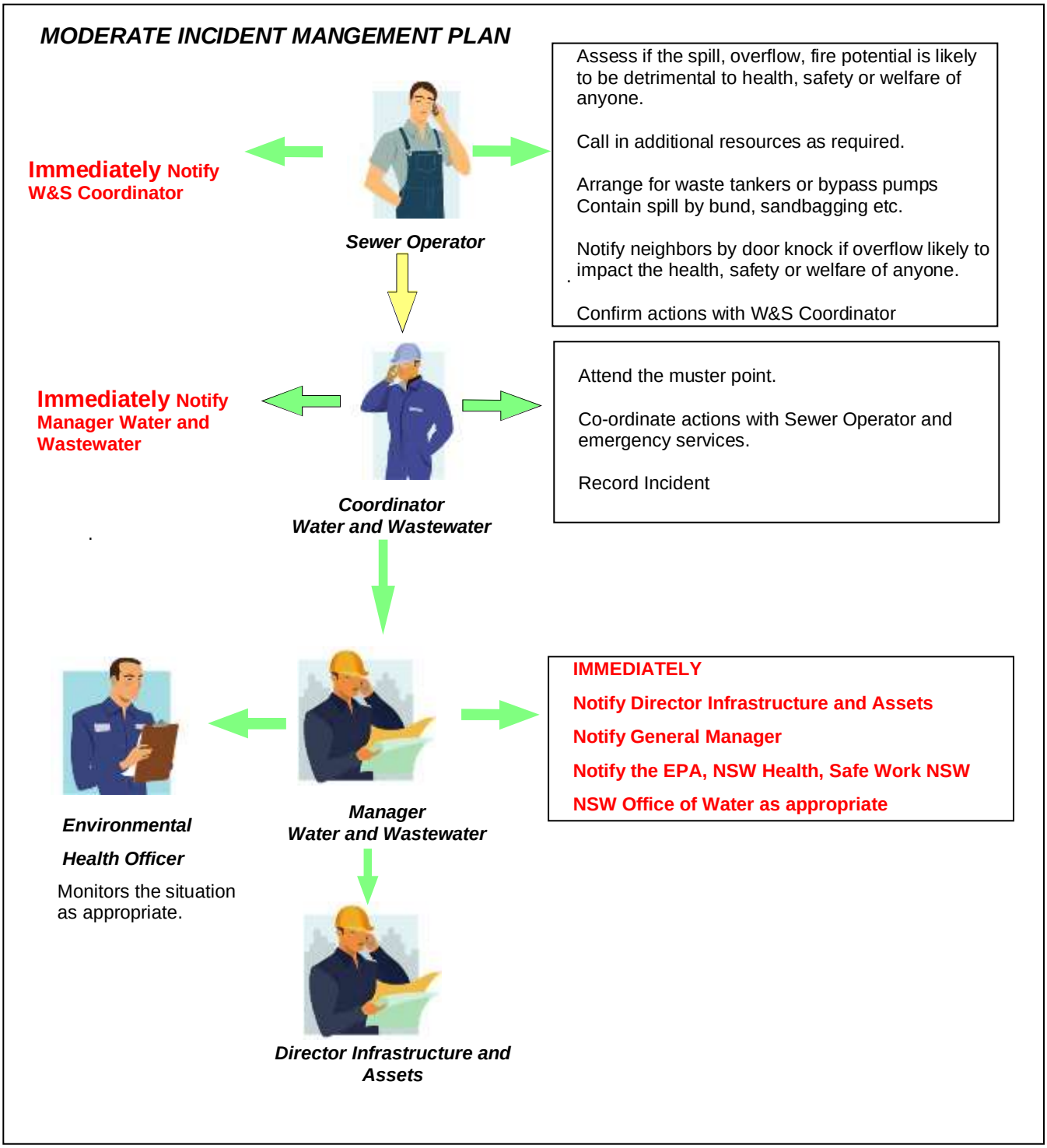
Figure 10.1 Minor Incident Action Plan



10.2 Moderate Incident Action Plan

The action plan for the following significant incidents is shown in **Figure 10.2**.

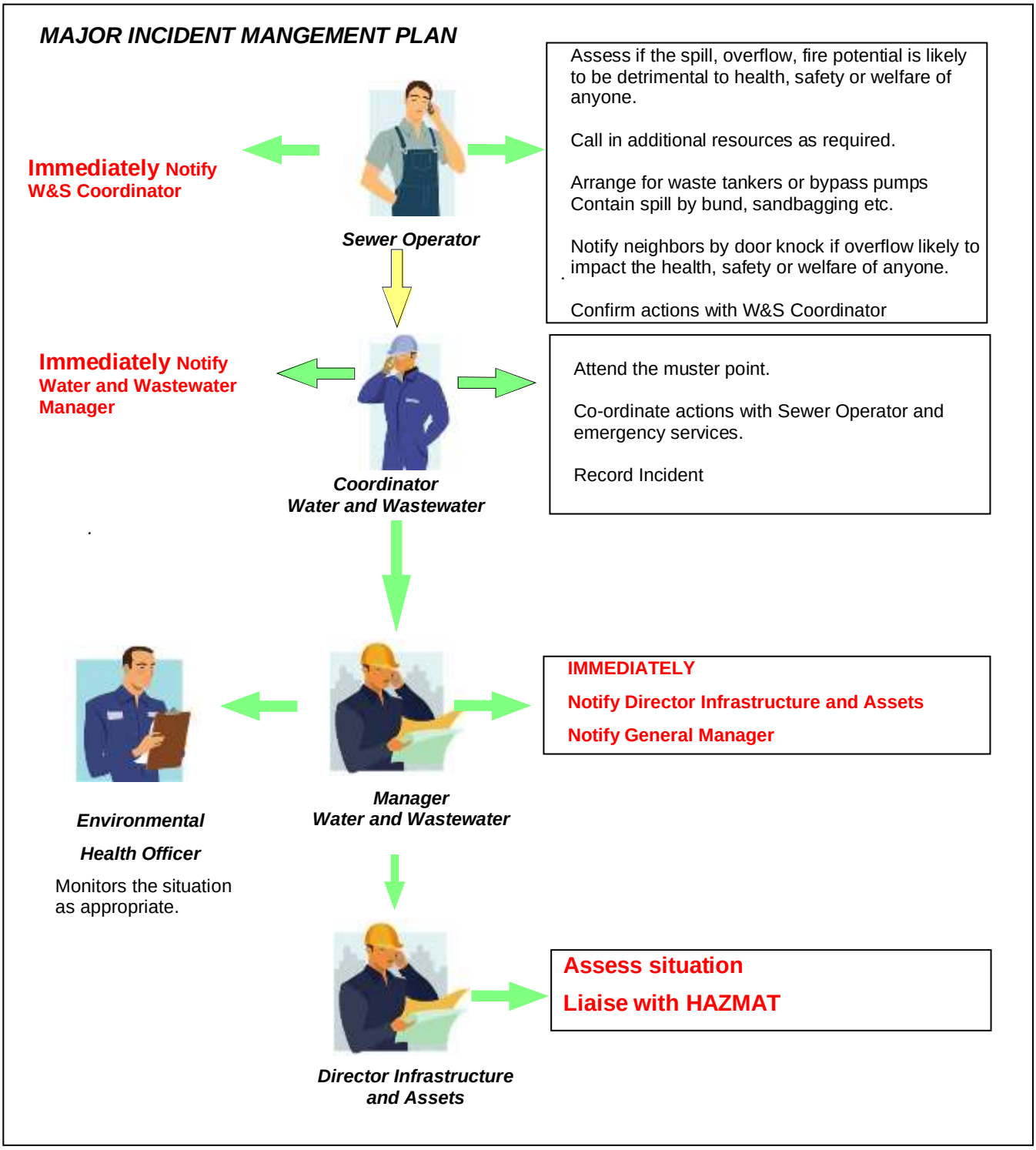
Figure 10.2 Moderate Incident Action Plan



10.3 Major Incident Action Plan

The action plan for the following significant incidents is shown in **Figure 10.3**.

Figure 10.3 Major Incident Action Plan



11 Evaluation, Audit and Review for Continuous Development

11.1 Evaluation and Review

A systematic review of the plan will be undertaken by the Water and Sewer Engineer annually or within one month of an incident occurring at the plant. The evaluation will:

- Assess the relevance of the risk assessment against the current state of the plant
- Identify any emerging problems and trends
- Assess the communication between Council, Council's operational staff and regulators
- Assist in determining priorities for improving procedures
- Assessment of incidents and responses determined
- Determine when and what is to be audited in the next six months, including any results from the investigation after a pollution incident.

Evaluation of results described above will be documented and the plan updated.

Evaluation will be reported to Council and stakeholders.

11.2 Auditing

Auditing of the pollutant inventory is to be done annually **(Appendix C)**.

An audit may also be triggered by the following:

- A significant incident;
- Change in process chemical;
- Major change in treatment process; and
- Major expansion of sewerage system

12 References

1. Yass Valley Council, Yass Valley Local Emergency Plan, 2016

2. Department of Finance and Services, Yass STP Operation and Maintenance Manual, March 2010.

3. Yass Valley Council, Council Procedures Emergency Evacuation – Sewage Treatment Works, RM-OP-19, 28 September 2010.

4. NSW Environment Protection Authority, Environment Pollution Licence No.1730, October 2015.

5. Goulburn Mulwaree Council, Upper Lachlan Council and Yass Valley Council, Tablelands Regional Community Strategic Plan 2016-2036, 2016

13 Appendices

Appendix A – SDS

NOWCHEM
NOWRA CHEMICAL MANUFACTURERS PTY LTD

Safety Data Sheet

Section 1 Identification of Product and Supplier

Product Name: **ALUMINIUM SULPHATE (NORMAL)**

Production No: **4608**

Other Names: Alum; Liquid Aluminium Sulphate; Al2SO4 solution approx 45% commercial solid alum

Use: Flocculating Agent

Manufacturer: Nowra Chemical Manufacturers P/L Phone: 02 4421 4099 Fax: 02 4421 4932
112 Albatross Rd Nowra NSW 2541 email: sales@nowchem.com.au

Section 2 Hazards Identification

Hazardous according to the criteria of NOHSC

R36 Irritating to eyes

Poisons Schedule : n/a

Section 3 Composition / Information On Ingredients

Ingredients:	CAS No:	Proportion:
Water	7732-18-5	55%
Aluminium Sulphate with approx 14 moles water (normal commercial solid alum)	10043-01-3	45%

Section 4 First Aid Measures

For advice, contact a Poisons Information Centre on 131 126 or a doctor

Swallowed: Do NOT induce vomiting. Give a glass of water to drink. Seek Medical Advice.

Eyes: Hold eye open and flush with running water for 15 minutes. If necesary seek Medical Advice.

Skin: Wash thoroughly in water. Remove contaminated clothing and launder before re-use.

Inhaled: Not Applicable

Advice to doctor: Product is a strong astringent

Section 5 Fire Fighting Measures

Extinguishers: Not applicable

Combustion Products: Product is not flammable so will not produce any products of combustion.

Fire PPE: No special requirements are needed.

NOWCHEM
NOWRA CHEMICAL MANUFACTURERS PTY LTD

Safety Data Sheet

Hazchem Code: n/a

Section 6 Accidental Release Measures

Emergency Procedure: Prevent spillage from spreading by damming with an inert material such as sand or soil. If necessary, notify Emergency Services.

Spills and Disposal: Contain all spills, absorb with inert material and store in labelled drums. Dispose of in landfill. Residues may be washed to sewage system

Section 7 Handling And Storage

Storage and Transport: No special requirements needed.

Safe Handling: Take care handling drums as they may be heavy.

Section 8 Exposure Controls / Personal Protection

Exposure Standards: None apply for this product

Engineering Controls: No special ventilation required

Personal Protection: Wear safety glasses and PVC or rubber gloves while handling

Section 9 Physical And Chemical Properties

Appearance:	Pale, straw colour liquid	
Odour:	None	
pH:	(2%) 3.5	
Vapour Pressure:	46 mm Hg @ 60 deg C	
Vapour Density:	Unknown	
Boiling Range:	100 deg C	
Melting Point:	Less than 0 deg C	
Solubility:	100 % in Water	
Specific Gravity:	1.315	
Flash Point:	n/a deg C	Product is not Flammable
Flammability Limits:	n/a	
Autoignition Temperature:	n/a	
Volatile Component:	55 %	
Viscosity:	Less than 50 cSt	
Other Properties:		

Section 10 Stability And Reactivity

Chemical Stability: This product is expected to be completely chemically stable

Conditions to avoid: Avoid very cold (less than 0 deg C) or very hot conditions (over 80 deg C)

Incompatible Materials: Incompatible with mild steel, aluminium, galvanised iron or brass. Also incompatible with alkaline materials.

NOWCHEM
NOWRA CHEMICAL MANUFACTURERS PTY LTD

Safety Data Sheet

Hazardous Decomposition Products: None

Hazardous Reactions: None.

Section 11 Toxicological Information

Acute (short term):

Swallowed: May be harmful if swallowed. May cause gastric irritation. May result in nausea, vomiting and diarrhoea

Eye: Will cause mild short term irritation

Skin: May cause irritation in some individuals. Repeated or prolonged contact may cause irritant contact dermatitis

Inhalation: Not an irritant due to low vapour pressure

Chronic (long term): No information available.

Toxicological Data: Oral LD50 (mouse) = 6207 mg/kg

Section 12 Ecological Information

Ecotoxicity: Avoid contaminating waterways.

Section 13 Disposal Considerations

Disposal of Containers: Containers should be thoroughly rinsed before disposal to land fill or recycling. In addition labels should be defaced to indicate that container has been cleaned.

Section 14 Transport Information

UN No: n/a **UN Name:** n/a

D. G. Class: n/a **Sub Risk:** n/a **Pack. Grp:** n/a **Hazchem Code:** n/a

n/a = not applicable (not a dangerous goods according to ADG Code)

Section 15 Regulatory Information

Hazardous according to the criteria of NOHSC

Hazard Category: Xi: Irritant

R36 Irritating to eyes

Poisons Schedule : n/a

This material, or its ingredients, are listed on the Australian Inventory of Chemical Substances (AICS)

Section 16 Other Information

NOWCHEM
NOWRA CHEMICAL MANUFACTURERS PTY LTD

Safety Data Sheet

Literature References:

Sources Of Data:

Extra Data:

Abbreviations:

ARDG	Australian Guidelines for Transport of Dangerous Goods by Road and Rail
NOHSC	National Occupational Health and Safety Commission
n/a	Not Applicable
TWA	Time weighted average of airborne concentration over an eight-hour working day, for a 5 day working week over an entire life.
STEL	Short Term Exposure Limit - the average airborne concentration over a 15 minute period which should not be exceeded at any time during a normal 8 hour working day. According to current knowledge this concentration should neither impair the health of, nor cause undue discomfort to, nearly all workers.

The information in this Material Safety Data Sheet relates only to the specific material designated herein and does not relate to its use together with any other material or in any process.

Contact Phone: (02) 4421 4099
ask for technical assistance

Appendix B – Incident Reporting Form

Incident Notification
for sewerage spill or overflow

yass valley council
the country the people

DATE

Dear

Overflow at EPA Ref #

EPA Licence # of Sewerage Scheme.

Following our initial telephone call, we are advising you in writing (Refer to R4 of Licence) of more details of a sewage spill or overflow that Council experienced at am/pm on

The overflow was caused by

Once Council staff became aware of the overflow, the EPA and were notified immediately and corrective measures were put in place.

(Refer to Condition M9) of Licence: requires that Council record the following details in relation to each observed or reported overflow from the reticulation system and from the sewage treatment plant:

a) The location of the overflow:

b) The date, the estimated start time and estimated duration of the overflow:

c) The estimated volume of the overflow (litres):

d) A description of the receiving environment of the overflow:

e) Classification as a dry or wet weather overflow:

f) The probable cause of the overflow:

g) Any actions taken to stop the overflow happening:

h) Any action taken to clean up the overflow:

i) Any actions taken to prevent the overflow happening again:

Additionally, sampling was undertaken at and the results of these samples are attached.

Yours faithfully,

NAME SIGNATURE DATE

APPROVED BY	GROUP	DOCUMENT ID	VERSION
ISSUED	REVISED	STATUS	PAGE

Appendix C - PIRMP Training Register

PIRMP Training Details	Person(s) responsible	Personnel	Signature	Date
Refresher PIRMP June 2023	Aaron Shepherd	Ronald Witt		
	Ronald Witt	Xavier Macken		
	Ronald Witt	Logan Hardy		
	Ronald Witt	Alex Scorgie		

Appendix D – Audit Log Form

Auditor/ reviewer comment (System deficiency and non-compliances)	Scheme response	Corrective actions to prevent reoccurrence	Timetable for corrective/preventive action	Person(s) responsible	Completion Date

The report or form must be signed by the Manager Water and Wastewater