Premise

Blayney Sewage Treatment Plant

Pollution Incident Response Management Plan & Supporting Statement

May 2023

ENGINEERING ENVIRONMENT AGRICULTURE WATER

POLLUTION INCIDENT RESPONSE MANAGEMENT PLAN

BLAYNEY SEWAGE TREATMENT PLANT

SUPPORTING STATEMENT

PREPARED FOR:

BLAYNEY SHIRE COUNCIL

MAY 2023

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Premise Australia Pty Ltd (**Premise**) and the authors responsible for the preparation and compilation of this report declare that we do not have, nor expect to have a beneficial interest in the study area of this project and will not benefit from any of the recommendations outlined in this report.

The preparation of this report has been in accordance with the project brief provided by the client and has relied upon the information, data and results provided or collected from the sources and under the conditions outlined in the report.

All information contained within this report is prepared for the exclusive use of Blayney Shire Council to accompany this report for the land described herein and are not to be used for any other purpose or by any other person or entity. No reliance should be placed on the information contained in this report for any purposes apart from those stated therein.

Premise accepts no responsibility for any loss, damage suffered or inconveniences arising from, any person or entity using the plans or information in this study for purposes other than those stated above.

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Foreword

This is the Supporting Statement for the Pollution Incident Response Management Plan (PIRMP). The PIRMP is a functional document. It is designed to assist personnel at the Blayney Sewage Treatment System (BSTS) to correctly identify pollution incidents and detail the procedures for the response and reporting of a pollution incident.

The structure and scope of this Supporting Statement and PIRMP reflects the requirements of the Environmental Protection Authority's Guidelines: *Preparation of pollution incident response management plans*, March 2012 and in doing so embodies the principles of best practice environmental management.

Utilisation of this PIRMP aims to improve, monitor, and demonstrate environmental performance. If you have any suggestions for amendments, additions, or improvements, please discuss these with your supervisor.

.....
Blayney Shire Council
Director Infrastructure Services

Date: .....

Introduction

1.1 PURPOSE

This Supporting Statement and PIRMP have been prepared in accordance with the *Protection of the Environment Operations Act* 1997 (POEO Act) and reflects the requirements specified in the Environment Protection Authority's (EPA's) *Guidelines: Preparation of pollution incident response management plans,* March 2012.

In accordance with Section 153C of the POEO Act, this PIRMP details:

- The procedures to be followed by the holder of the environment protection licence, in notifying a pollution incident;
- Detailed descriptions of the actions to be taken, immediately after a pollution incident, by the holder of the relevant environment protection licence, to reduce or control any pollution; and
- Procedures to be followed for co-ordinating with the authorities and/or notified persons, actions to be taken in combating the pollution caused by the incident; and
- Procedures for all communications relating to the pollution incident.
- Other matters required by the *Protection of the Environment Operations (General) Regulations* 2009 (POEO General Regulations); specifically:

a) a description of the hazards to human health or the environment associated with the activity to which the licence relates (the relevant activity),

b) the likelihood of any such hazards occurring, including details of any conditions or events that could, or would, increase that likelihood,

c) details of the pre-emptive action to be taken to minimise or prevent any risk of harm to human health or the environment arising out of the relevant activity,

d) an inventory of potential pollutants on the premises or used in carrying out the relevant activity,

e) the maximum quantity of any pollutant that is likely to be stored or held at particular locations (including underground tanks) at or on the premises to which the licence relates,

f) a description of the safety equipment or other devices that are used to minimise the risks to human health or the environment and to contain or control a pollution incident,

g) the names, positions and 24-hour contact details of those key individuals who:

i. are responsible for activating the plan, and

ii. are authorised to notify relevant authorities under section 148 of the Act, and

iii. are responsible for managing the response to a pollution incident,

h) the contact details of each relevant authority referred to in section 148 of the Act,

i) details of the mechanisms for providing early warnings and regular updates to the owners and occupiers of premises in the vicinity of the premises to which the licence relates or where the scheduled activity is carried on,

j) the arrangements for minimising the risk of harm to any persons who are on the premises or who are present where the scheduled activity is being carried on,

k) a detailed map (or set of maps) showing the location of the premises to which the licence relates, the surrounding area that is likely to be affected by a pollution incident, the location of potential pollutants on the premises and the location of any stormwater drains on the premises,

l) a detailed description of how any identified risk of harm to human health will be reduced, including (as a minimum) by means of early warnings, updates and the action to be taken during or immediately after a pollution incident to reduce that risk,

m) the nature and objectives of any staff training program in relation to the plan,

n) the dates on which the plan has been tested and the name of the person who carried out the test,

o) the dates on which the plan is updated,

p) the manner in which the plan is to be tested and maintained.

1.2 DEFINITION OF POLLUTION INCIDENT

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 1997:

"(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."

1.3 IDENTIFIED POLLUTION INCIDENT RISKS

The primary potential hazards to human health or the environment associated with the activity undertaken at this site – i.e. '*Pollution Incidents*' – include the following:

- Wet Weather Overflow from the reticulation system during wet weather;
- Dry Weather Overflow from the reticulation system during dry weather;
- Wet Weather Bypass at the sewage treatment plant (STP) and is when untreated sewage bypasses the sewage treatment process and discharges to the Belubula River during wet weather;
- Dry Weather Bypass at the STP and is when untreated sewage bypasses the sewage treatment process and discharges to the Belubula River during dry weather;
- Pond failure at the STP;
- Mechanical failure at the STP results in discharge of untreated sewage;
- Mechanical failure at the STP results in offensive odour from the premises;
- Inadequate chemical storage;
- Acts of vandalism or target of terrorist activity at the STP
- Treated effluent transfer pipeline breakage; or
- Excessive noise.

Site Overview

2.1 SITE OVERVIEW

The Blayney Sewage Treatment System (BSTS) includes the Blayney Sewage Treatment Plant (STP or the 'facility') and all associated components of the reticulation system under Council's management or control. The STP is zoned SP2 Infrastructure (Sewage Treatment Plant) under the Blayney Shire Council *Blayney Local Environmental Plan* 2012.

The Environment Protection Authority (EPA) has issued Environment Protection Licence 1648 in accordance with Section 55 of the *Protection of the Environment Operations Act* 1997. The licence requires that the total annual load limits discharged from the premises do not exceed the following:

- BOD (Enclosed Water) 3510 kg
- Nitrogen (total) (Enclosed Water) 600 kg
- Oil and Grease (Enclosed Water) 1900 kg
- Phosphorus (total) (Enclosed Water) 100 kg
- Total suspended solids (Enclosed Water) 3300 kg

The objectives of the licence are to:

(a) prevent as far as practicable sewage overflows and sewage treatment plant bypasses;

(b) require the proper and efficient management of the premises to minimise harm to human and environment health; and

(c) require that practicable measures to be taken to protect human and environment health from sewage overflows and sewage treatment plant bypasses and sewage treatment plant effluent generally.

As a former condition of the licence under 'Pollution studies and reduction programs', the *Blayney Sewerage Scheme Sewer Overflow Investigations Report* was prepared, which details the reporting conditions for the BSTS to meet the relevant Environmental Goals specified in the NSW EPA *Licensing Guidelines for Sewage Treatment Systems, 2003*.

2.2 SITE CHARACTERISTICS

The BSTS services the towns of Blayney and Millthorpe. The Belubula River passes through the south-east side of the catchment. The BSTS is approximately 51 km in length and serves a connected population of approximately 4,000. There are 7 sewage pump stations (SPS) located throughout the catchment. All sewage from Blayney is transferred to the STP via rising mains from the Henry Street and Martha Street pump stations and all sewage from Millthorpe is taken directly from Forest Reefs Road Pumping Station to the STP via a rising/pressure gravity main.

The STP is located approximately 1 km south-east of Blayney (see Drawing **01A_EV01**). It comprises DP 231385 (Lot 2).

The STP is an intermittently decanted extended aeration (IDEA) treatment plant that currently disposes of all of its highly treated effluent via the Recycle Water Treatment Plant. Though not currently utilised, the facility is also licenced to discharge treated effluent from the constructed wetlands (post tertiary treatment lagoons) to the Belubula River of up to 950 kilolitres (KL) per day. Treated biosolids from the STP site are used as soil conditioner on-site.

The area surrounding the facility to the south, north, east and south-west is predominantly rural open pasture land. The land immediately to the north-west of Hobby's Yard Road is utilised for residential and public recreation uses and forms part of the south-eastern edge of the Blayney urban area. The Belubula River generally flows north to south along the eastern boundary of the site.

The nearest residential property to the facility is located approximately 120 m north-west of the site boundary. Further details of neighbouring properties (residential, commercial, and industrial categories) are provided in Drawing **01A_EV02**.

Access to the STP is via Hobby's Yard Road, which is a two lane sealed road. From Hobby's Yard Road the facility is accessed by a primary sealed road. Within the site, sealed roads and formed gravel access roads lead to the various holding ponds and plant equipment.

The north-western portion of the site adjacent to the main entrance contains the amenities building, sludge drying beds, IDEA Tank and sludge lagoons. This area is fenced along the southern, northern, eastern and western boundaries with a 2.4 m chain-link security fence. The south-eastern portion of the site containing the tertiary ponds and wetland is accessed via a set of lockable gates. The boundary of this larger area is protected with 1 m stock proof fencing.

The concentrations of specified pollutants are required to be monitored by the EPL at three locations within the STP (see drawing **01A_EV03**).

The sludge drying beds, sludge lagoons and tertiary ponds have altered the local topography significantly, creating numerous rises, as such, the current site no longer retains the natural topography but is designed to channel surface water and minimise off site impact of the STP operations.

The site topography and drainage have been engineered to ensure that there is negligible uncontained stormwater runoff into and out of the site, thus minimising any off-site impact. The majority of site generated surface water is drained away from the upstream elements of the STP (i.e. away from the IDEA tank and the sludge drying beds) to grassed areas where it infiltrates into the soil. Some site generated surface water is however expected to drain to downstream STP elements including the tertiary ponds and the wetland, particularly resulting from high-rainfall events.

2.3 SITE SUPERVISION AND CONTROL

The STP is open to Council staff and associated contractors (but not the public) between 7:00 am and 4:00 pm Monday to Friday. The STP is not supervised at all times. Instead the entire facility generally runs automatically. Access to the site outside these hours (e.g. for special circumstances) is subject to the approval of the Manager Water & Wastewater.

During normal working hours the facility is staffed by qualified and experienced personnel. These include a Site Supervisor and two Site Operators. Two site Operators is generally present during normal working hours. The operator's responsibilities include response to alarms, fault identification, troubleshooting and determination of critical control set-points. The Site Operator carries out a site inspection at least once a working day to check the STP is operating effectively and efficiently.

Automatic security gates are in place at the main access point to the facility which ensures entry is only possible with Council authorisation and supervision. There is also a lockable gate restricting access to the south-eastern portion of the site containing the tertiary ponds and wetlands. All gates are locked outside of normal working hours except for when approved by the Manager Urban Services & Projects in special circumstances. The site has timer- or ambiance-activated lighting on the amenities building and other locations across the site to prevent vandalism. Council maintains the access roads around the facility and Council staff are to be responsible for internal traffic control.

The STP consists of the following elements:

- Balance tank and deodorisation bed;
- Intermittently decanted extended aeration (IDEA) reactor;
- Aluminium Sulphate (Alum) dosing and storage facilities

- Sludge lagoons;
- Catch ponds;
- Effluent ponds;
- Effluent pumping station and chlorination facility;
- Engineered wetlands; and
- River discharge main from wetlands to the Belubula River.
- Recycle Water Treatment Plant

The balance tank is designed to protect the secondary treatment facility. It restricts the flow to the plant from Blayney and Millthorpe to 80L/s and includes a mechanical step screen, pressing and bagging, grit removal and classification, wet weather overflow weir and a flow divider.

The IDEA reactor consists of two surface aerators, a central effluent decant mechanism and waste accumulated sludge (WAS) removal pumps. The IDEA reactor is chemical dosed with alum sulphate to remove phosphorous and increase settling of suspended solids.

WAS is pumped to one of four sludge lagoons. The lagoons further stabilise the WAS as well as thickening and storing the digested solids. These lagoons are periodically dewatered with the use of mobile dewatering equipment. Sludge from the sludge lagoons are dried at drying beds while supernatant is gravitated back to the IDEA.

Effluent from the IDEA gravitates to a pump station and pumped into the tertiary effluent ponds. These storage ponds provide treatment by the combined effects of retention and natural UV disinfection. Treated effluent is then pumped to the Recycle water Treatment Plant for re-use following dosing with liquid chlorine.

The remaining treated effluent (noting the majority of flow is pumped to the Recycle water Treatment Plant) is released to the engineered wetland. Effluent which is not evaporated would subsequently overflow to the Belubula River, however this is generally limited to wet weather events.

A schematic flow diagram illustrating the treatment systems at Blayney STP is attached to this document as **Appendix B**.

A Daily Checklist for monitoring, recording activities and incidents that occur during operation of the facility is kept by the Site Supervisor.

2.4 SITE SAFETY EQUIPMENT

The STP buildings are protected from fire by several hose reels and fire extinguishers.

To manage leaks, maintenance chemicals are kept in bunded areas. In the event of a chemical spill, kits are provided for on-site staff which include personal protective equipment (PPE) consisting of overalls, rubber boots, chemical mask, face shield, safety shoes, elbow-length impervious rubber gloves, splash aprons and air supplied respirators for confined spaces.

Risk Management and Pre-emptive Actions

3.1 INTRODUCTION

The following section outlines current operational procedures and design intended to minimise and manage risk. Members of staff working on site are responsible for being aware and notifying the Site Supervisor of any potential pollution incidents on the premises.

3.2 PRE-EMPTIVE ACTIONS

3.2.1 FIRES AT THE STP

The potential for fires to occur at the site are controlled by:

- A security fence to prevent unauthorised access and acts of vandalism;
- Maintaining machinery in good working order to minimise risk of sparks;
- Maintaining landscape areas proximal to operational areas; and
- Access to on-site fire fighting equipment.

3.2.2 MECHANICAL FAILURE OF STP

Site operators carry out inspections at least once a working day to ensure plant and equipment are operating effectively and efficiently.

3.2.3 ACTS OF VANDALISM OR TARGET OF TERRORIST ACTIVITY

Automatic security gates are in place at the main access point to the facility which ensures entry is only possible with Council authorisation and supervision. The boundary road fence along Hobby's Yard Road limits unauthorised access outside operational hours. Timer- or ambiance-activated lighting is installed as a deterrent. All staff are required to be vigilant and aware that the site is a potential target for vandalism, particularly by arsonists.

3.2.4 ENVIRONMENTAL MONITORING

Environmental monitoring is undertaken in accordance with EPL 1648. The three monitoring/discharge points are illustrated in **Drawing 01A_EV03**. EPL Condition M2.1 requires sampling and analysis of discharge from EPL Points 1 and 3 monthly and discharge from EPL Point 2 once a year. Daily volume monitoring is also required at EPL Points 1 and 3, however this is an automated process conducted by the continuous flow logger.

Environmental monitoring assists with site management and identifies if changes to site controls or management actions are required.

In relation to this monitoring, the STP has a re-sampling and notification protocol that is implemented in the event of significant changes in discharge parameters. This includes notifying the EPA ifrequired.

An exceedance of EPL discharge concentration limits at EPL Point 1 is not considered to be an incident that requires notification under this PIRMP, however an exceedance of EPL discharge volume limits at EPL Point 1 would trigger notification.

3.2.5 EXCESSIVE NOISE

Standard operations at the facility are not expected to result in noise levels that exceed the requirements of the *Noise Policy for Industry* (NSW EPA, 2017).

Noise complaints, where received, are to be investigated by the site supervisor at the identified source area and property boundary.

3.3 INVENTORY OF MAINTENANCE POLLUTANTS

The following potential pollutants are routinely stored on site in quantities required for regular maintenance necessary for operations at the facility:

- Alum Sulphate; (Max. at any time 2500 Lts)
- Liquid Chlorine; (Max. at any time 2000 Lts)
- Citric acid; (Max. at any time 200 Lts)
- Sulfuric Acid; (Max. 12 x 1 Litre bottles)
- Hydroclean; (Max. at any time 60 Lts – 3 drums)
- Glyphosate weedkiller; (Max. at any time 20 Lts)
- MCPA; herbicide (Max. at any time 20 Lts)
- Degreaser; (Max. at any time 20 Lts)
- Unleaded petrol; (Max. at any time 20 Lts)
- Diesel; (Max. at any time 40 Lts)
- 'Sewer-cide' sewer solvent powder.

Enclosed site plan **01A_EV03** provides details of where chemicals are stored on the premises.

3.4 POTENTIAL POLLUTION INCIDENTS

The potential main hazards to human health or the environment – i.e. '*Pollution Incidents*' - associated with the activity undertaken at this site include the following:

- Wet Weather Overflow from the reticulation system during wet weather;
- Dry Weather Overflow from the reticulation system during dry weather;
- Wet Weather Bypass at the STP (where untreated sewage bypasses the sewage treatment process and discharges to the Belubula River during wet weather);
- Dry Weather Bypass at the STP (where untreated sewage bypasses the sewage treatment process and discharges to the Belubula River during dry weather);
- Pond failure at the STP;
- Mechanical failure at the STP results in discharge of untreated sewage;
- Mechanical failure at the STP results in offensive odour from the premises;
- Inadequate chemical storage;
- Acts of vandalism or target of terrorist activity at the STP;
- Treated effluent transfer pipeline breakage; or
- Excessive noise.

3.5 LIKELIHOOD, IMPACT AND CONTRIBUTING FACTORS TO POLLUTION INCIDENTS OCCURRING

There have been no major pollution incidents at the site reported to the EPA in the past five years.

Incidents can be classified as being of low, medium or high risk of occurring (likelihood) based on the past history of the facility, an assessment of management procedures, staff training and site layout.

The impact of an incident can be classed as low, medium or high based on the potential extent of off-site harm to humans and/or the environment. The following assessment of potential pollution incidents detailed below is summarised in **Table 1.1** of Appendix A.

3.5.1 WET WEATHER OVERFLOW FROM THE RETICULATION SYSTEM DURING WET WEATHER

Low Likelihood – As documented in Section 3 of the *Blayney Sewerage Scheme Overflow Investigations Report*, June 2007:

The STP is designed to treat all inflows. Generally unless exceptional circumstances such as malfunction of system due to mechanical/ electrical failure or blockages occur, overflows at STP are unlikely.

No overflows due to wet weather have been recorded

Low Impact – As documented in Section 4 of the *Blayney Sewerage Scheme Overflow Investigations Report*, June 2007:

It is considered highly likely that the wetland areas have sufficient capacity to further treat all flows or provide significant treatment to any emergency bypass. No residents are located within the vicinity of the STP.

Due to the existence of the constructed wetland area, no risk to water quality in Belubula River is considered likely from overflows occurring at the STP in wet or dry weather.

Contributing Factors – As documented in Section 3 of the *Blayney Sewerage Scheme Overflow Investigations Report*, June 2007:

System overflows can principally occur from five main causes. They are:

- *Power/mechanical failure at pumping stations*
- *Reticulation system blockage/leakage*
- *Rising main breakage (leaks or major failure),*
- *Breakdown of pump units, and*
- *Excessive inflows.*

3.5.2 DRY WEATHER OVERFLOW FROM THE RETICULATION SYSTEM DURING DRY WEATHER

Low Likelihood – As documented in Section 3 of the *Blayney Sewerage Scheme Overflow Investigations Report*, June 2007:

Generally unless exceptional circumstances such as malfunction of system due to mechanical/ electrical failure or blockages occur, overflows at STP are unlikely.

No dry weather overflow events have been recorded in the recent past

Low Impact – As documented in Section 4 of the *Blayney Sewerage Scheme Overflow Investigations Report*, June 2007:

It is considered highly likely that the wetland areas have sufficient capacity to further treat all flows or provide significant treatment to any emergency bypass. No residents are located within the vicinity of the STP.

Due to the existence of the constructed wetland area, no risk to water quality in Belubula River is considered likely from overflows occurring at the STP in wet or dry weather.

Contributing Factors – As documented in Section 3 of the *Blayney Sewerage Scheme Overflow Investigations Report*, June 2007:

System overflows can principally occur from five main causes. They are:

- *Power/mechanical failure at pumping stations*
- *Reticulation system blockage/leakage*
- *Rising main breakage (leaks or major failure),*
- *Breakdown of pump units, and*
- *Excessive inflows.*

3.5.3 WET WEATHER BYPASS AT THE STP

Low Likelihood – Bypass of the STP is extremely unlikely to occur based on the plant having sufficient capacity to divert excess flow (during wet weather or during plant malfunction) to the tertiary treatment ponds. Untreated effluent may then be returned back to the head of the works for treatment.

High Impact – The site has adequate environmental protection measures and monitoring equipment which alert operators to the incident well before there is potential for impact outside the site. Any pollutants which reach the nearby Belubula River may cause material harm to properties and ecology for some distance downstream.

Contributing Factors – Increased risk during prolonged periods of heavy rain, lack of pond and site maintenance and/or a mechanical failure of plant and equipment.

3.5.4 DRY WEATHER BYPASS AT THE STP

Low Likelihood – Bypass of the STP is extremely unlikely to occur based on the plant having sufficient capacity to divert excess flow during plant malfunction to the tertiary treatment ponds. Untreated effluent may then be returned back to the head of the works for treatment.

High Impact – The site has adequate environmental protection measures and monitoring equipment which alert operators to the incident well before there is potential for impact outside the site. Any pollutants which reach the nearby Belubula River may cause material harm to properties and ecology for some distance downstream.

Contributing Factors – lack of pond and site maintenance and/or a mechanical failure of plant and equipment.

3.5.5 POND FAILURE AT THE STP

Low Likelihood – The tertiary pond system is lined and constructed below surrounding ground levels. The batters comprising the eastern side of the sludge lagoons is adequately graded and vegetated to minimise erosion. The likelihood of an embankment failure causing a large uncontrolled effluent discharge is considered to be low.

High Impact – The site has adequate environmental protection measures and monitoring equipment which would alert operators to the incident well before there is potential for impact outside the site. Any pollutants which reach the nearby Belubula River may cause material harm to properties and ecology for some distance downstream.

Contributing Factors – Increased risk during prolonged periods of heavy rain, lack of pond and site maintenance and/or a mechanical failure of plant and equipment.

3.5.6 MECHANICAL FAILURE AT THE STP RESULTING IN DISCHARGE OF UNTREATED SEWAGE

Low Likelihood – The site has adequate environmental protection measures and monitoring equipment which would alert operators to the incident.

High Impact – The site has adequate environmental protection measures and monitoring equipment which would alert operators to the incident well before there is potential for impact outside the site. Any pollutants which reach the nearby Belubula River may cause material harm to properties and ecology for some distance downstream.

Contributing Factors – Fire damage or poor maintenance of plant and equipment. Prolonged periods of heavy rain.

3.5.7 MECHANICAL FAILURE AT THE STP RESULTS IN OFFENSIVE ODOUR FROM THE PREMISES

Low Likelihood – The site has adequate environmental protection measures and monitoring equipment which would alert operators to the incident. An unpleasant odour generated in the event of mechanical failure (such as failure of the IDEA reactor) can be readily controlled by operators repairing the failure and re-aerating the equipment.

Medium Impact – The impact is considered medium as residences of the Blayney township are in relatively close proximity to the site.

Contributing Factors – Fire damage or poor maintenance of plant and equipment.

3.5.8 INADEQUATE CHEMICAL STORAGE

Low Likelihood – Maintenance chemicals which potentially include accelerants are stored on-site. Such chemicals located in secure and bunded facilities and only utilised by trained staff, the risk of chemical leaks and fire caused by chemicals is considered minimal.

Medium Impact – If a fire were to initiate within the chemical storage areas there is a medium risk of spread off-site and to susceptible surrounding open pasture land and nearby residential properties.

Contributing Factors – Human error. Factors which may increase chemical fire risk include high winds, dry weather, prolonged periods of high temperatures and low humidity.

3.5.9 ACTS OF VANDALISM OR TARGET OF TERRORIST ACTIVITY

Low Likelihood – The site is enclosed by secure fencing and night lighting is activated at dusk. Although the site is of limited strategic value as a potential target for terrorism, the premises may prove attractive to arsonists as it is isolated from habited areas.

Medium Impact – the site is surrounded by open pasture land and there are nearby residential properties susceptible to fire.

Contributing Factors – Increased vandalism risk during hours of closure and increased fire risk during sustained periods of hot and dry weather.

3.5.10 TREATED EFFLUENT TRANSFER PIPELINE BREAKAGE

Low Likelihood – The site has adequate environmental protection measures and monitoring equipment which would alert operators to the incident.

Low Impact – The impact is considered to be low as any effluent inadvertently discharged into the neighbouring environment during normal operating conditions the effluent would have passed through the extent of the treatment system.

Contributing Factors – Poor maintenance of plant and equipment. Flows exceeding pipe and pump capacity.

3.5.11 EXCESSIVE NOISE

Low Likelihood – The likelihood of excessive noise is considered low. The pre-emptive actions listed in **Section 3.2.3** are considered adequate to prevent any excessive noise pollution.

Medium Impact – In the event that excessive noise pollution occurs, the impact may extend beyond the site dependent upon meteorological conditions, potentially affecting nearby receptors proximal to the site.

Contributing Factors – Factors which may increase the risk of excessive noise include insufficient maintenance of equipment and machinery, and vehicle operations.

Premise

PIRMP

4.1 DEFINITION OF POLLUTION INCIDENT

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 1997:

"(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 NOTIFICATION OF POLLUTION INCIDENT

4.2.1 NOTIFICATION SPEED OF RESPONSE

The requirement for notification of a pollution incident is *'immediately'*. In short, *'immediately'* means *'promptly without delay'*, but it does not mean undertaking notification ahead of doing what is necessary to make safe.

4.2.2 NOTIFICATION OF RELEVANT AUTHORITIES

Where the pollution incident causes or threatens material harm to the environment or human health, all the following authorities must be notified by the Site Supervisor:

1. Emergency Call Services

- Emergency Hotline Number (24 hours) 000*

*The Site Supervisor should call 000 if the incident presents an immediate threat to human health and/or property and a combat agency is required (i.e. NSW Fire and Rescue, NSW Ambulance Service, NSW Police Force) and then notify all other parties below including NSW Fire and Rescue via a local telephone number.

2. Blayney Shire Council

- Director Infrastructure Services, Blayney Shire Council 0477 444 531
- Manager Urban Services & Projects, Blayney Shire Council 0488 149 938
- Supervisor Sewer Treatment, Blayney Shire Council 0428 287 509

3. The Environment Protection Authority (EPA)

- Bathurst Regional Office 02 6333 3800
- Emergency Hotline Number (24 hours) 131 555

4. NSW Health (Public Health Units)

- Bathurst Public Health Unit 02 6330 5880
- After Hours 0428 400 526

5. **SafeWork NSW**
   - Hotline Number 13 10 50
6. **Fire Services NSW**
   - NSW Rural Fire Service, Canobolas Fire Control Centre 02 6363 6666
   - Fire & Rescue NSW, Bathurst Fire Station 02 6332 5634**

**If there is no immediate threat to human health and/or property i.e. a combat agency is not required, then the site supervisor is still required to follow that outlined above except for dialing 000.

A summary of the above pollution incident notification procedure is provided in **Document A** – Pollution Incident Decision Flow Chart in **Appendix A**.

4.2.3 INFORMATION TO BE NOTIFIED

Under section 150 of the *POEO Act 1997*, the information about a pollution incident that must be notified to relevant authorities is:

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

Notification is required by the Site Supervisor immediately after a pollution incident becomes known. Any information required that is not known at the time the incident is notified must be provided when it becomes known.

A Pollution Incident Reporting Form is produced in **Appendix A** to assist the Site Supervisor in correctly recording and notifying the relevant authorities as detailed in **Section 4.2.2** above.

4.3 ACTIONS TO BE TAKEN DURING OR IMMEDIATELY AFTER A POLLUTION INCIDENT

All site personnel with relevant training must make every effort to contain the pollution incident on site, without putting themselves or others at risk of harm.

In the case of a fire and where safe, attempts are to be made by trained personnel to extinguish or contain the fire immediately. This could be through the use of a fire extinguisher or fire hose.

In the event of a chemical spill that is not contained by bunding, spill-kits may be used to restrict the spread of the chemical.

Earthworks may be used to contain surface water discharged as far as practicable.

4.4 MINIMISING HARM TO PERSONS ON THE PREMISES

In the event of a pollution incident occurring all site contractors and other Council staff will be mustered by Council site staff to the Emergency Assembly Point adjacent to the site entrance (identified on Site Plan **01A_EV02**), after which they will be safely evacuated from site where appropriate. It is a condition of entry that in the event of an emergency, both site contractors and staff must adhere to directions given by the Site Supervisor.

4.5 EPA POWERS OF DIRECTION & NOTIFICATION OF NEIGHBOURS

Where the pollution incident causes or threatens material harm to the environment or human health, the EPA is notified in accordance with **Section 4.2**.

Once the EPA is notified, it is then for the EPA to determine whether commercial, industrial and residential neighbours of the site need to be contacted by Council and informed of the circumstances of the incident and what action is being taken in response to it. If deemed necessary, the EPA then has powers to formally direct Council to notify the neighbours of the site.

Irrespective of whether the 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.

Council would notify neighbours by ‘door knocking’ every neighbouring property of the STP as identified on enclosed Site Plan **01A_EV02**. A summary of the neighbour notification procedure is provided in **Document A** – Pollution Incident Decision Flow Chart in **Appendix A**.

4.6 IDENTIFICATION OF NEIGHBOURS

To assist the EPA in its decision as to whether it needs to direct Council to notify neighbours and to assist Council in visiting all the local neighbours, enclosed is aerial plan **01A_EV02** which identifies the commercial, industrial and residential properties within 500 m of the site boundary.

Implementation

5.1 STATUS OF THE PIRMP

The PIRMP and this Supporting Statement are standalone documents designed to assist personnel at the Blayney STP to correctly identify pollution incidents and detail the procedures for the response and reporting of a pollution incident. It complements and should be read in conjunction with *Blayney Sewerage Scheme Overflow Investigations Report, June 2007.*

5.2 STAFF TRAINING

New members of staff at the facility should be inducted. This induction must cover the purpose, requirements and responsibilities detailed in this PIRMP.

All staff should receive sufficient training to enable them to carry out their assigned duties in a competent and safe manner. In particular:

- Staff must be capable of using the fire-fighting equipment;
- Staff must be capable of identifying potential pollution incidents; and
- Staff must be familiar with the requirements and procedures contained within this PIRMP.

Staff competency will be monitored through audits, public complaints and pollution incident reports.

At least once every year staff are to undertake a simulated pollution incident response exercise, (including consultation with emergency services where practicable), to familiarise site personnel with the requirements of this management plan. A register of staff training can be found in **Appendix A** and must be kept on site and updated regularly.

Regular site briefings and toolbox meetings should be held when considered appropriate to draw attention to potential pollution incidents and identify improvements to on-site safety procedures.

5.3 REVIEW AND UPDATE PIRMP

The PIRMP is a dynamic document required to be reviewed and updated at least once every 12 months to ensure accuracy and effectiveness. A review must also be undertaken within one month of any pollution incident occurring.

For these reasons, document control is an important part of the environmental management system. It is critical that PIRMP storage locations are made known to all relevant staff members and that only the latest version is in use. Details of the version and date of issue are recorded on each page of the PIRMP in the bottom left hand corner.

Revised and updated versions of the PIRMP will always be issued with a covering memo summarising the changes. When a new PIRMP is received the old version is replaced in its entirety. A register for updating and testing the PIRMP can be found in **Appendix A** and must be kept on site and updated regularly.

Six copies of any new PIRMP will need to be produced. They are to be distributed to the following:

- Sewage Treatment Plant Operator / Supervisor, Blayney Shire Council;
- Manager Urban Services & Projects, Blayney Shire Council;
- Director Infrastructure Services, Blayney Shire Council;
- WHS & Risk Coordinator , Blayney Shire Council; and
- Premise Australia Pty Ltd, Orange.

References

Blayney Sewerage Scheme Sewer Overflow Investigations Report, June 2007 – prepared by Wastewater Services Section of Department of Commerce

Blayney Shire Council Local Environmental Plan 2012 - prepared by Blayney Shire Council

Environmental Guidelines: Preparation of Pollution Incident Response Management Plans, March 2012 – prepared by Environment Protection Agency

Environment Protection Licence 1648, 13 February 2019 – prepared by Environment Protection Agency

Licensing Guidelines for Sewage Treatment Systems, July 2003 – prepared by Environment Protection Agency

Noise Policy for Industry, 2017 – NSW Environment Protection Authority

Drawings

(See Separate File)

Appendix A
POLLUTION INCIDENT RESPONSE MANAGEMENT PLAN

POLLUTION INCIDENT RESPONSE MANAGEMENT PLAN

BLAYNEY SEWAGE TREATMENT PLANT

PREPARED FOR:

BLAYNEY SHIRE COUNCIL

MAY 2023

POSTAL ADDRESS PO BOX 1963 ORANGE NSW 2800
LOCATION 154 PEISLEY STREET ORANGE NSW 2800
TELEPHONE 02 6393 5000 **FACSIMILE** 02 6393 5050
EMAIL ORANGE@PREMISE.COM.AU **WEB SITE** WWW.PREMISE.COM.AU

Report Title:	*Pollution Incident Response Management Plan*
Project:	*Blayney Sewage Treatment Plant*
Client:	*Blayney Shire Council*
Report Ref.:	*219384_PIRMP-SS_001.docx*
Status:	*Final*
Issued:	*29 May 2019*

Premise Australia Pty Ltd (**Premise**) and the authors responsible for the preparation and compilation of this report declare that we do not have, nor expect to have a beneficial interest in the study area of this project and will not benefit from any of the recommendations outlined in this report.

The preparation of this report has been in accordance with the project brief provided by the client and has relied upon the information, data and results provided or collected from the sources and under the conditions outlined in the report.

All information contained within this report is prepared for the exclusive use of Blayney Shire Council to accompany this report for the land described herein and are not to be used for any other purpose or by any other person or entity. No reliance should be placed on the information contained in this report for any purposes apart from those stated therein.

Premise accepts no responsibility for any loss, damage suffered or inconveniences arising from, any person or entity using the plans or information in this study for purposes other than those stated above.

TABLE OF CONTENTS

Premise

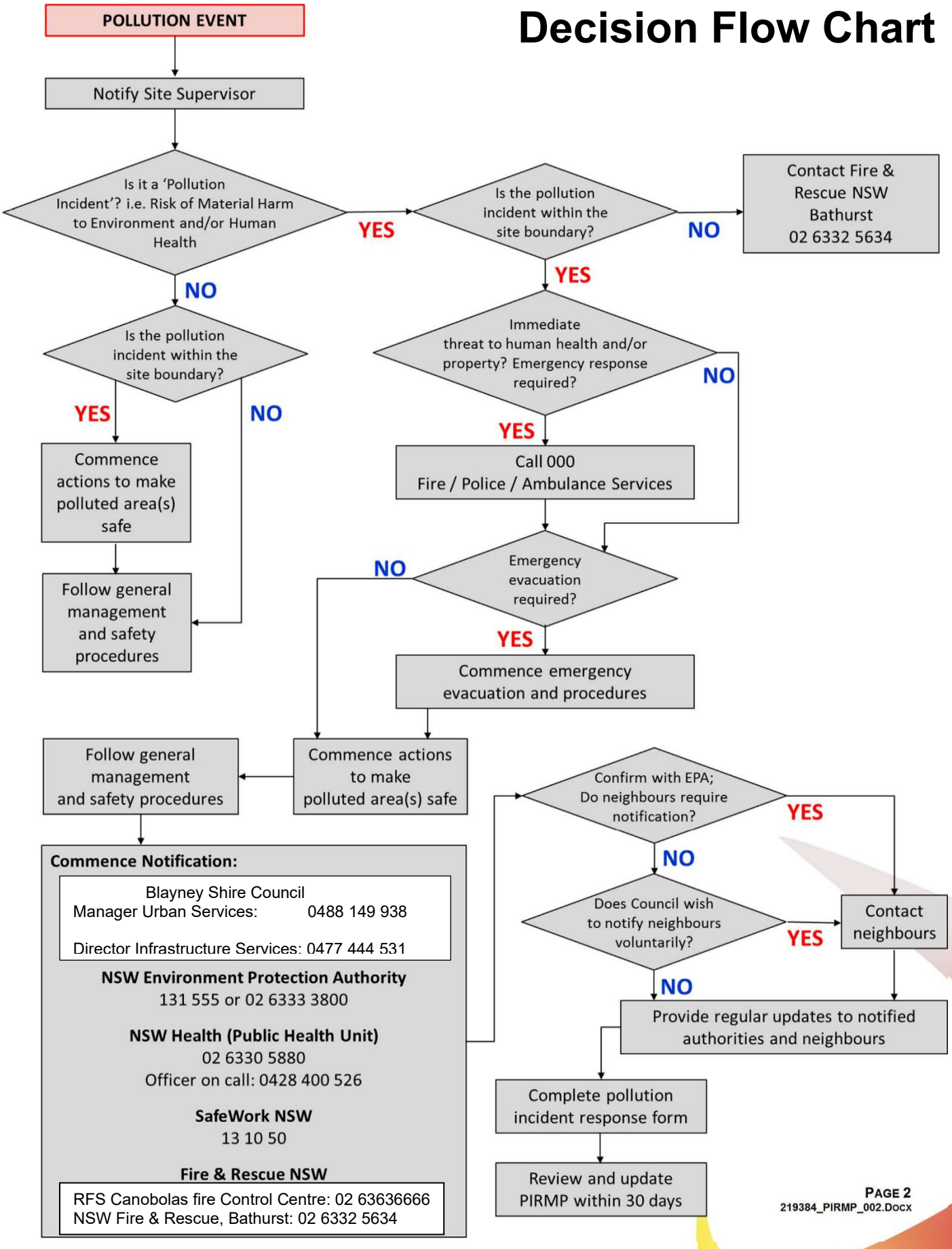
Pollution Incident Classification, Risk Assessment and Contributing Factors

Table 1.1 – Pollution Incident Classification, Risk Assessment and Contributing Factors

Description of Pollution Incident	Likelihood	Impact	Contributing Factors
Wet Weather Overflow from the reticulation system during wet weather. Refer to Blayney Sewerage Scheme Sewer Overflow Investigations Report (Section 3 & 4)	Low	Low	Power / mechanical failure at pumping stations, reticulation system blockage / leakage, rising main breakage (leaks or major failure), breakdown of pump units, and/or excessive inflows
Dry Weather Overflow from the reticulation system during dry weather. Refer to Blayney Sewerage Scheme Sewer Overflow Investigations Report (Sections 3 & 4)	Low	Low	Power / mechanical failure at pumping stations, reticulation system blockage / leakage, rising main breakage (leaks or major failure), breakdown of pump units, and/or excessive inflows
Wet Weather Bypass at the sewage treatment plant (STP) and is when untreated sewage bypasses the sewage treatment process and discharges to the Belubula River during wet weather.	Low	High	Prolonged periods of heavy rain, lack of pond and site maintenance and/or a mechanical failure of plant and equipment.
Dry Weather Bypass at the STP and is when untreated sewage bypasses the sewage treatment process and discharges to the Belubula River during dry weather.	Low	High	Lack of pond and site maintenance and/or a mechanical failure of plant and equipment.
Pond failure at the STP.	Low	High	Prolonged periods of heavy rain, lack of pond and site maintenance and/or a mechanical failure of plant and equipment.
Mechanical failure at the STP results in discharge of untreated sewage.	Low	High	Fire damage or poor maintenance of plant and equipment. Prolonged periods of heavy rain.
Mechanical failure at the STP results in offensive odour from the premises.	Low	Medium	Fire damage or poor maintenance of plant and equipment.
Inadequate chemical storage.	Low	Medium	Human error. Chemical fire accelerated by high winds, dry weather, prolonged periods of high temperatures and low humidity.
Acts of vandalism or target of terrorist activity at the STP.	Low	Medium	Increased risk during hours of closure
Treated effluent transfer pipeline breakage.	Low	Low	Poor maintenance of plant and equipment. Flows exceeding pipe and pump capacity
Excessive Noise	Low	Medium	Insufficient maintenance of equipment and machinery, and vehicle operations

Premise

Document A - Pollution Incident Decision Flow Chart



Document B – Pollution Incident Emergency Contact Details

3.1 DEFINITION OF POLLUTION INCIDENT

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 1997*:

> *"(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."*

3.2 NOTIFICATION OF POLLUTION INCIDENT

3.2.1 NOTIFICATION SPEED OF RESPONSE

The requirement for notification of a pollution incident is 'immediately'. In short, 'immediately' means 'promptly without delay', but it does not mean undertaking notification ahead of doing what is necessary to make safe.

3.2.2 AUTHORISED PERSONNEL

Table 3.1 – Authorised Notifiers of Pollution Incidents

Name	Position	Contact
Ken Fuller	Sewage Treatment Plant Operator / Supervisor	0428 287 509
Tony Weekes	Manager Urban Services & Projects, Blayney Shire Council;	0488 149 938
Jacob Hogan	Director Infrastructure Services, Blayney Shire Council;	0477 444 531
Vicki Walker	WHS & Risk Coordinator, Blayney Shire Council	0409 830 377

3.2.3 NOTIFICATION OF RELEVANT AUTHORITIES

Where the pollution incident causes or threatens material harm to the environment or human health, the following authorities must be notified by those authorised (see above) to notify relevant authorities:

Notification of Relevant Authorities

1. **Emergency Call Services**
   - **Emergency Hotline Number (24 hours) 000***

*The Site Supervisor should call 000 if the incident presents an immediate threat to human health and/or property and a combat agency is required (i.e. NSW Fire and Rescue, NSW Ambulance Service, NSW Police Force) and then notify all other parties below including NSW Fire and Rescue via a local telephone number.

2. **Blayney Shire Council**
   - Tony Weekes, Manager Urban Services & Projects, Blayney Shire Council 0488 149 938
   - Jacob Hogan, Director Infrastructure Services, Blayney Shire Council 0477 444 531
3. **The Environment Protection Authority (EPA)**
   - Bathurst Regional Office 02 6333 3800
   - Emergency Hotline Number (24 hours) 131 555
4. **NSW Health (Public Health Units)**
   - Bathurst Public Health Unit 02 6330 5880
   - After Hours 0428 400 526
5. **SafeWork NSW**
   - Hotline Number 13 10 50
6. **Fire Services NSW**
   - NSW Rural Fire Service, Canobolas Fire Control Centre 02 6363 6666
   - Fire & Rescue NSW, Bathurst Fire Station 02 6332 5634

**If there is no immediate threat to human health and/or property i.e., a combat agency is not required, then the Site Supervisor is still required to follow that outlined above except for dialing 000.

3.2.4 INFORMATION TO BE NOTIFIED

Under section 150 of the *POEO Act 1997*, the information about a pollution incident that must be notified to relevant authorities is:

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

Notification is required by the Site Supervisor immediately after a pollution incident becomes known. Any information required that is not known at the time the incident is notified must be provided when it becomes known.

A Pollution Incident Reporting Form is provided in the following section to assist the Site Supervisor in correctly recording and notifying the relevant authorities as detailed in **Section 4.2.2** above.

3.2.5 EPA POWERS OF DIRECTION & NOTIFICATION OF NEIGHBOURS

Where the pollution incident causes or threatens material harm to the environment or human health, the EPA is notified in accordance with **Section 3.2.2**

Once the EPA is notified, it is then for the EPA to determine whether commercial, industrial, and residential neighbours of the site need to be contacted by Council and informed of the circumstances of the incident and what action is being taken in response to it. If deemed necessary, the EPA then has powers to formally direct Blayney Shire Council to notify the neighbours of the site.

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

Blayney Shire Council would notify neighbours by 'door knocking' all occupied properties within a 500 m buffer area of the site's boundary. Properties to be contacted are identified on **Drawing01A_EV02** of the PIRMP 'Supporting Statement'.

A summary of the neighbour notification procedure is provided in **Document A** – Pollution Incident Decision Flow Chart.

Pollution Incident Reporting Form

INCIDENT NO:	**TIME:**
DATE:	**DURATION OF INCIDENT:**

NATURE OF INCIDENT:

TEMPERATURE: ..... °C	**WIND DIRECTION & SPEED:.....KM/HR**
RELATIVE HUMIDITY: ..... %	**RAINFALL SINCE 9AM:..... MM**
FIRE DANGER RATING:	

http://www.bom.gov.au/climate/data/index.shtml *'063294 – Blayney'*

THE LOCATION OF THE PLACE WHERE POLLUTION IS OCCURRING OR IS LIKELY TO OCCUR:

THE NATURE, THE ESTIMATED QUANTITY OR VOLUME, AND THE CONCENTRATION OF ANY POLLUTANTS INVOLVED:

THE CIRCUMSTANCES IN WHICH THE INCIDENT OCCURRED, INCLUDING THE CAUSE OF THE INCIDENT:

THE CORRECTIVE ACTION TAKEN OR PROPOSED TO BE TAKEN TO DEAL WITH THE INCIDENT AND ANY RESULTING POLLUTION OR THREATENED POLLUTION:

NOTIFICATION:		
STAKEHOLDER	DATE / TIME	CONTACT
NSW ENVIRONMENT PROTECTION AUTHORITY	/ / ..... AM/PM	
NSW PUBLIC HEALTH	/ / ..... AM/PM	
SAFEWORK NSW	/ / ..... AM/PM	
NSW FIRE AND RESCUE	/ / ..... AM/PM	

NOTIFICATION OF NEIGHBOURS REQUIRED BY EPA YES / NO

IF NOT, HAVE NEIGHBOURS BEEN NOTIFIED VOLUNTARILY YES / NO

PARTICULARS:

SIGNATURE: ..... DATE / /

SIGNATURE: .....
BLAYNEY STP SITE SUPERVISOR DATE / /

PIRMP Testing & Update Register

Date	Name	Routine Testing	Routine Update	Post Incident Updates	New Copies Distributed?
22-4-21	Charlie Harris / Ken Fuller	Tested scenario with Switch room fire			
25-5-21	Charlie Harris		Update section 4.2.2 to include Supervisor Sewer Treatment Plant		
14-11-2022	Ken Fuller Mathew Sutton Kerry Chapman	Flood recycling Plant	Update: 4.2.2. Remove names. Update: 5.3 add WHS &RC. Update Document A: changed numbers and names. Update section 3.2.2, add WHS&RC		

Staff Training Register

Date	Staff Member(s)	Brief Description of Training Task
/ /		
/ /		
/ /		
/ /		
/ /		
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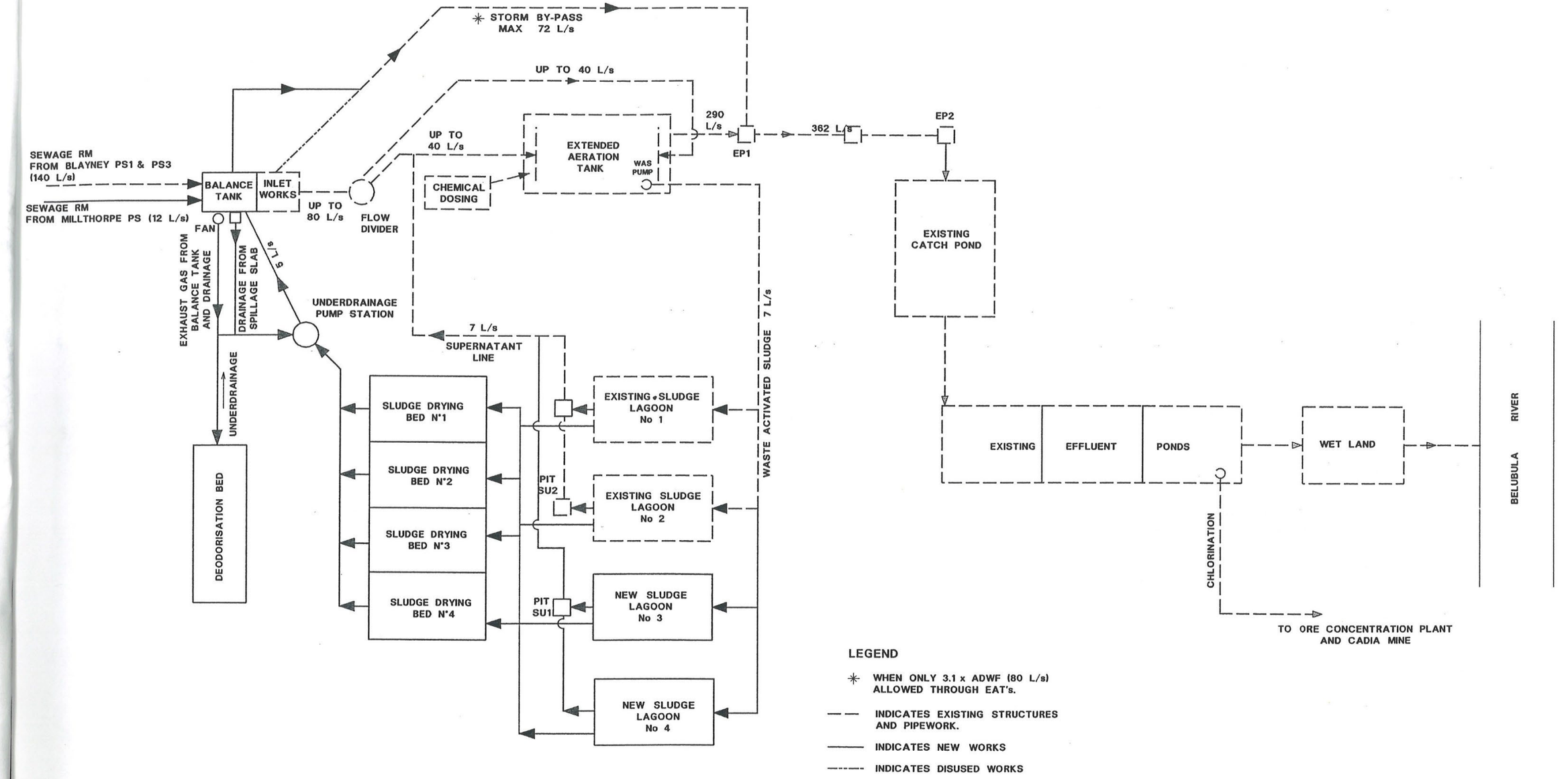
/ /		
/ /		

Appendix B

BLAYNEY STP FLOW SCHEMATIC DIAGRAM

See diagram below



LEGEND

✳ WHEN ONLY 3.1 x ADWF (80 L/s) ALLOWED THROUGH EAT's.

— — INDICATES EXISTING STRUCTURES AND PIPEWORK.

——— INDICATES NEW WORKS

------ INDICATES DISUSED WORKS

DICK PERSSON
DIRECTOR - GENERAL DPWS

MILLTHORPE SEWERAGE