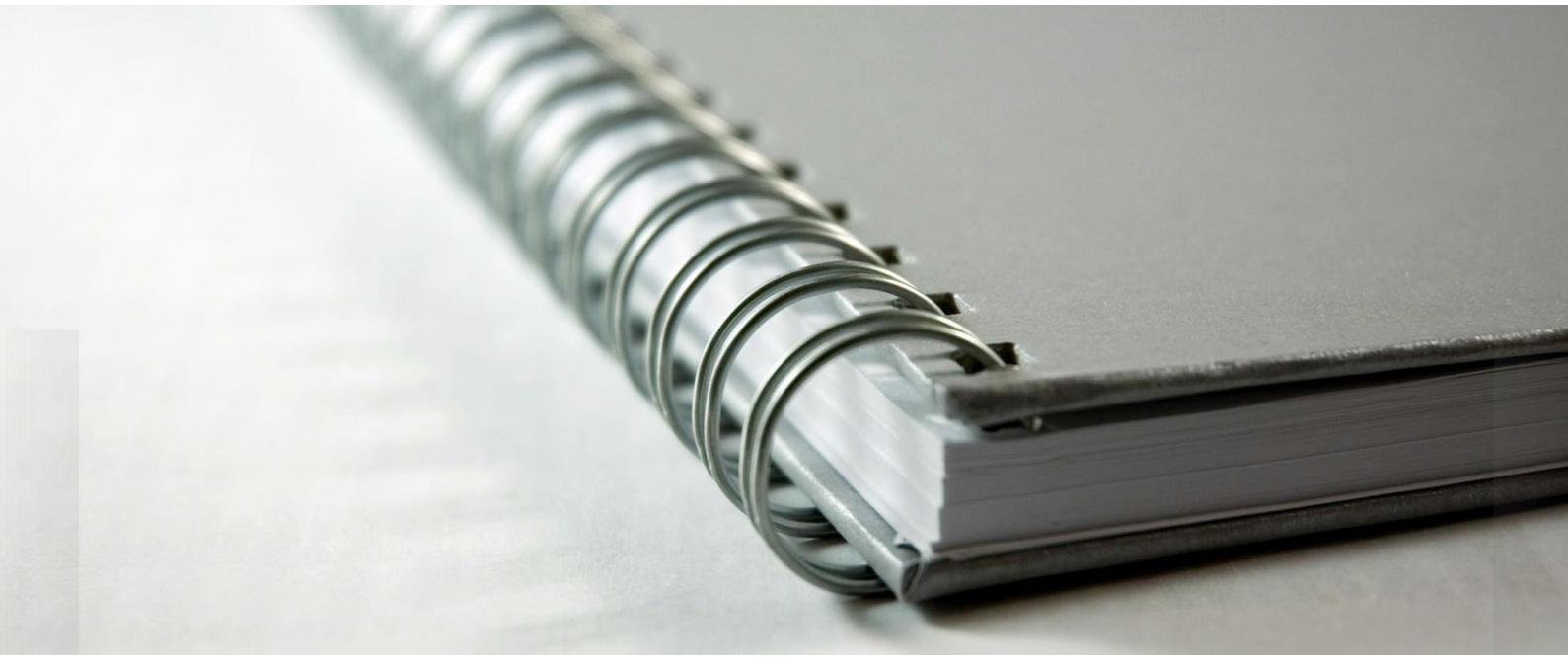

Brewarrina Shire Council

Pollution Incident Response Management Plan

Brewarrina Sewage Treatment Plant

June 2023

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1. Background

1.1 Sewage Treatment Plant

Brewarrina Shire Council (Council) operates a sewage treatment plant in Brewarrina. The property is located on Charlton Road with rural properties surrounding the plant.

The Brewarrina Sewerage Treatment Plant (STP) is a trickling filter system with oxidation ponds. The STP operates as a no release site with effluent reuse through an irrigation system on a nearby property.

The STP operates under EPL 1748 which is issued under Section 55 of the *Protection of the Environment Operations Act 1997* by the NSW Environment Protection Authority (EPA).

1.2 PIRMP Purpose

The EPL contains requirements to report pollution incidents as outlined in Section 6, Reporting conditions:

The licensee or its employees must notify the EPA of incidents causing or threatening material harm to the environment immediately after the person becomes aware of the incident in accordance with the requirements of Part 5.7 of the Act.

R2.1 Notifications must be made by telephoning the Environment Line service on 131 555.

R2.2 The licensee must provide written details of the notification to the EPA within seven days of the date on which the incident occurred.

The introduction of the *Protection of the Environment Legislation Amendment Act 2011* (POELA Act) in February 2012 requires that holders of EPLs maintain a Pollution Incident Response Management Plan (PIRMP).

2. Pollution Incident Response Planning

2.1 Risk Assessment

Risk assessments were conducted between GHD and site personnel during October 2012. The main hazards identified through these assessments along with control measures to minimise the occurrence and consequences (people and environment) of the identified risks are outlined in Table 1.

Table 1 Hazards

Location	Hazard	Control Measure/s	Consequence	Likelihood of material harm	Escalating Factors
STP	Insufficient treatment – flood events	Irrigation of effluent On site storage capacity Significant warning of upcoming flood events Work process guidelines	Pollution of downstream waterbody	Low	Upstream significant rainfall event resulting in local flooding Plant malfunction
Sewer reticulation network	Spill of untreated sewage to land – flooding of pump stations / manhole overflow	Sewer staff on call Maintain equipment for sewage clean up and unblocking sewers Work process guidelines Significant warning of upcoming flood events Ability to enclose pump stations with concrete lids Pumping and trucking sewage from manholes to STP	Pollution of downstream waterbody Localised soil contamination Community contact with untreated sewage	Low	Upstream significant rainfall event resulting in local flooding Unauthorised material discharged to sewer network Ageing pipeline network Plant debris (roots) entering pipes
	Spill of untreated sewage – pump station failure	Staff on call Work process guidelines Standby pumps in all pump stations	Localised soil contamination Community contact with untreated sewage Pollution of downstream waterbody	Low	Unauthorised material discharged to sewer network Failure of standby pumps

2.2 Potential Pollutants and Safety Equipment

The only potential Pollutant stored at the Brewarrina Sewerage Plant is powdered chlorine used for cleaning of channels min settling tank and is stored in a 40 liter container inside a chemical shed. The container is also inside a small chemical bend container. Spill kits are kept on site for contamination reasons. All fuels and oils required for sewer operations are stored at Council's depot in Brewarrina.

A range of safety equipment and alarms are maintained for use during emergencies.

Details of potential pollutants and safety equipment are provided in Table 2. The location of the items listed is shown on the maps in Appendix A.

Table 2 Inventory of Pollutants and Safety Equipment

Location	Potential Pollutant	Maximum Quantity	Safety Equipment & Devices	Storage	Alarms
STP	Sewage	ADWF 300-400 kL/day (approx.)	PPE Brooms, shovels and	STP shed Council trucks	Nil
STP	Powdered Chlorine	30kg	**Bins & Chemical Bund (Refer to appendix C Work Method Statement)** Gas monitors Signage First aid kit Fall arrest	Council depot	
Sewer reticulation network	Sewage	Site specific	N/A	N/A	Flashing lights

2.3 Maps

Pollution incident response maps have been prepared to facilitate planning for incident response and provide readily accessible and accurate information to support the assessment of an incident and assist in the implementation of incident response procedures and clean-up.

The following maps are provided in Appendix A:

- Brewarrina locality map
- STP features map.

2.4 Notifiable Incidents

2.4.1 POEO Act Definitions

A pollution incident is defined by the POEO Act as:

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.

Material harm is defined by the POEO Act as:

(1) For the purposes of this Part:

(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.

(2) For the purposes of this Part, it does not matter that harm to the environment is caused only in the premises where the pollution incident occurs.

3. Incident Response

3.1 Incident Response & Notification

3.1.1 Immediate Notification Incident

As per the definition of an immediate notification incident in section 2.4.1 and resulting from the risk assessment in Table 1, Council have identified no incidents related to their sewer operations that require immediate notification. All potential pollution incidents have been identified to occur during a significant flood event resulting from rainfall in upstream catchments. In the event of a pollution incident, the volume of flood waters and the potential load of pollutants in flood waters against the volumes of sewage generated in Brewarrina are unlikely to result in material harm to the environment.

3.1.2 Incident Contact Details

Contact details for Council personnel involved in environmental incident response are provided in Table 3. Contact details for external agencies are provided in Table 4.

Table 3 Incident Contact Details – Council

Name	Role	Contact Number
Russel Holz	Utilities Manager	0427 299 863
David Kirby	General Manager	02 68 305 102
Council Emergency contact number (after hours)		0427 392 101

Table 4 Incident Contact Details – External

Organisation	Contact Number
Emergency Services	000
EPA Dubbo Regional Office	131 555 02 6883 5330
NSW Ministry of Health On Call Public Health Officer Dubbo Regional Office	 0418 866 397 02 6841 5569
NSW Safe Work	131 050
Fire & Rescue NSW Brewarrina Rural Fire Service	02 6839 2589

3.1.1 General Incident Response

In the event of a sewer operations incident, the procedure outlined in Figure 1 as well as the Work Process Guidelines (WPGs) provided in Appendix B would guide response.

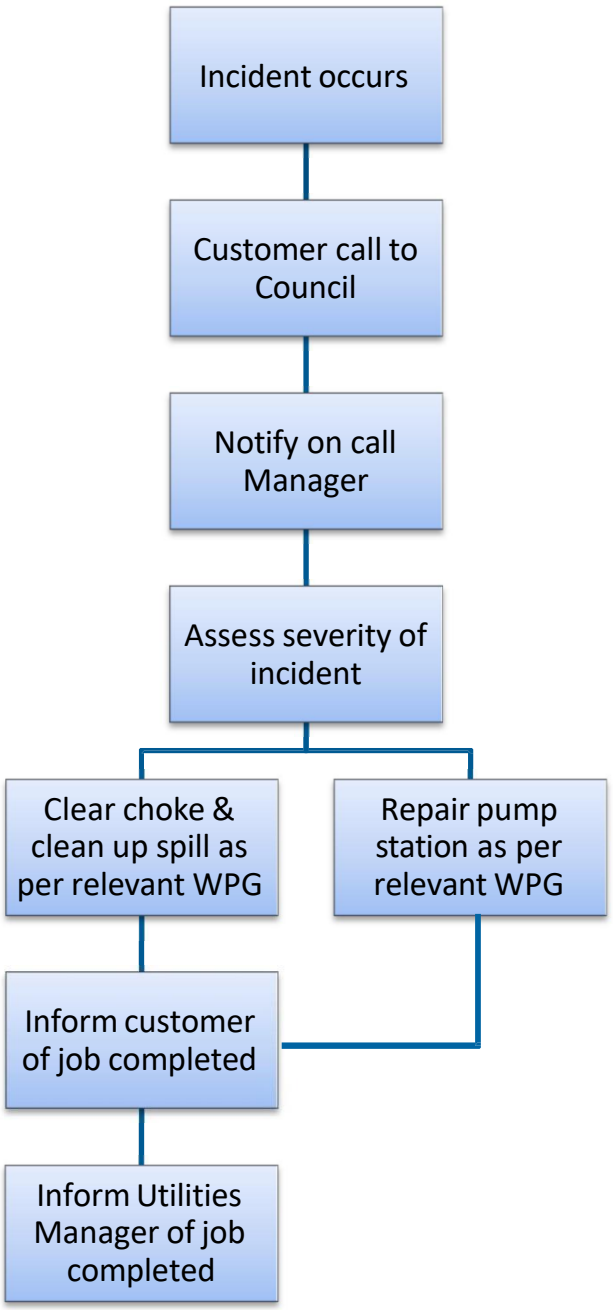

Figure 1 Incident Response Procedure

3.1.2 Responsibilities

In the event of an incident responsibilities for incident management are as follows:

- On Call Manager is responsible for actioning response to the incident.
- Utilities Manager is responsible for notifying external authorities, potentially affected community and ensuring adequate resources are available for incident response.
- General Manager is responsible for liaising with the media.

The Utilities Manager shall determine the most appropriate means of contacting potentially affected community including:

- Door knocking
- Letterbox drops
- Phone
- Local media
- Signage.

Information provided to the community would depend on the incident but could include:

- Description of the incident
- Status of incident
- Response actions
- Actions to minimise harm
- Likely duration.

As per the EPL, the licensee must provide written details of the notification to the EPA within seven days of the date on which the incident occurred.

3.1.3 Notification of External Authorities

The EPL requires details of incidents be recorded. Where sewage or partially treated sewage is discharged from the premises as a result of a bypass of the sewage treatment plant, or an observed or reported overflow has occurred from the reticulation system, and overflow or a bypass may pose a risk to public health, the licensee is to promptly give appropriate notification to any parties that are likely to be affected, including:

- the potentially affected community
- the Department of Health
- other parties as appropriate.

When the licensee notifies the Department of Health or Safe Food NSW Shellfish Quality Assurance Program of a bypass or overflow incident, the licensee must also notify the EPA. Notifications are to be given as soon as practicable after the licensee or one of the licensee's employees or agents becomes aware of the incident, and must include all relevant information including the information required under the EPL.

4. Training & Review

4.1 Training

Personnel involved in water and sewerage operations undertake a range of training to assist in the response to potential incidents and to test the adequacy of incident response procedures and plans. Details of the training and testing of the PIRMP is provided in Table 5.

Table 5 Incident Response Training

Type of Training	Personnel Involved	Frequency	Records
NSW Officer of Water Part 1 – Water Treatment Operations	STP Operators	Once	Human Resources
NSW Officer of Water Part 2 – Advanced Treatment	STP Operators	Once	Human Resources
Induction	New staff	Once	Human Resources
Overflow clean up	New Sewer staff	On-the-job	Nil
Confined space	Sewer staff	As required by training provider	Human Resources
Toolbox meetings	All water and sewer staff	Daily	Nil
Emergency simulation	All water and sewer staff	Annual	Minutes
Incident debrief	Personnel involved in incident Independent chair	Within one month of an incident	Minutes

4.2 PIRMP Review

The PIRMP will be reviewed when there is a material change to operations including but not limited to:

- Modification of EPL 1748
- Changes in standard operating procedures referred to in this PIRMP
- Change in legislative requirements
- Recommendations arising from an incident debrief, emergency drill or emergency simulation exercise.

The responsibility for reviewing the PIRMP is the Utilities Manager. An update of the PIRMP would trigger all staff to undergo refresher training as part of team toolbox meetings as per Table 5.

Appendices

Appendix A – Maps

Brewarrina STP

Image © 2012 GeoEye

©2010 Google

Paper Size A3

0 35 70 140 210 280

Metres

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 55

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Brewarrina Shire Council
Pollution Incident Response Management Plan

Job Number 21-21980
Revision 0
Date 20 Dec 2012

Brewarrina Sewage Treatment Plant Site Locality

Figure 1

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Data source: Reserves, Built-up Area, Towns, Railways, Watercourses, Waterbodies - ©Commonwealth of Australia (Geoscience Australia) 250K Topo Data/2007; DME - Mining Leases/2010; DMR- State Controlled Roads/2010;Imagery - ©Google Earth Pro/ Accessed 23/11/2012. Created by:pmcdougall

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PPE Storage

Muster Point

Paper Size A3

0 5 10 20 30 40

Metres

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 55

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Pollution Incident Response Management Plan

Job Number 21-21980
Revision 0
Date 20 Dec 2012

Brewarrina Sewage Treatment Plant Site Features

Figure 2

G:\21\21980\GIS\Maps\MXD\2121980_Z001_F2_Site_Features.mxd

Data source: Reserves, Built-up Area, Towns, Railways, Watercourses, Waterbodies - ©Commonwealth of Australia (Geoscience Australia) 250K Topo Data/2007; DME - Mining Leases/2010; DMR- State Controlled Roads/2010;Imagery - ©Google Earth Pro/ Accessed 23/11/2012. Created by:pmcdougall

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Appendix B – Risk Minimising Procedures

Council maintain the following risk minimising procedures:

- 1700-1 Sewer Main Repairs – Pressure
- 1705-1 Sewer Main Repairs – Gravity
- 1710-1 Sewer Connection Repairs
- 1715-1 Sewer Mains Choke
- 2720-1 Sewer M&R Manholes
- 2730-1 Sewer M&R Pump Station - Mechanical & Electrical
- 2735-1 Sewer M&R Pump Station – Civil
- 2770-1 Sewerage Treatment Works M&R – Mechanical & Electrical
- 2775-1 Sewerage Treatment Works M&R – Civil
- 3755-1 Sewer Operate Pump Station
- 3780-1 Sewer Operate Treatment Works.

Appendix C – Chlorine Powder Work Method Statement

WORK METHOD STATEMENT		
BREWARRINA SHIRE COUNCIL		Page 22 of 2
ITEM:	W&S: SEWAGE TREATMENT PLANT – POWDERED CHLORINE USE	ITEM NO.

DESCRIPTION:
This requires chlorine to be applied to channels of settling tank.

QUALITY STANDARD:
The task is to be completed without risk to yourself and others.

HAZARD IDENTIFICATION OR RISK ASSESSMENT:
- ❑ **Powdered Chlorine**
- ❑ **Take care on stairs**

SAFETY CONTROLS:
- ➢ **Wear eye protection and air respirator.**
- ➢ **Wear protective clothing including gloves and safety mask.**
- ➢ **Use safe lifting techniques to move any heavy equipment.**
- ➢ **Keep clear of suspended drums.**
- ➢ **Wear a respirator**

PROCEDURE IN STEPS: (including Possible Hazards & Safety Controls)

1. Complete maintenance checks.
2. Confirm compliance with Work Method Statement.
3. Switch on the fan in the Chlorine Room and operate for at least three minutes
4. Remove the drum lid.
5. Sprinkle chlorine using a clear container where needed.
6. Reinstall lid to chlorine drum.
7. Place back in chemical shed and lock the door.

Rev No.	Author	Reviewer		Approved for Issue		
		Name	Signature	Name	Signature	Date
A	D. Scott	G. Metcalfe		G. Metcalfe		21/12/2012
B	G. Turner	D. Kirby		D. Kirby		23/11/2016
C	D Kirby	R Holz		D Kirby		24/05/203


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