



WEDDIN SHIRE COUNCIL

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POLLUTION INCIDENT RESPONSE MANAGEMENT PLAN

GRENFELL SEWAGE TREATMENT PLANT



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DOCUMENT CONTROL

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1.0 INTRODUCTION

The Protection of the Environment Legislation Amendment Act 2011 (POELA) has introduced several changes to improve the way pollution incidents are reported, managed, and communicated to the general community. The Act included a new requirement under Part 5.7A of the Protection of the Environment Operations Act 1997 (POEO Act) to prepare, keep, test, and implement a pollution incident response management plan. The objectives of this plan are to:

- ensure comprehensive and timely communication about a pollution incident to staff at the premises, the Environment Protection Authority (EPA), other relevant authorities specified in the Act (such as Council, NSW Ministry of Health, WorkCover NSW, and Fire and Rescue NSW) and people outside the facility who may be affected by the impacts of the pollution incident
- minimize and control the risk of a pollution incident at the facility by requiring identification of risks and the development of planned actions to minimise and manage those risks
- ensure that the plan is properly implemented by trained staff, identifying persons responsible for implementing it, and ensuring that the plan is regularly tested for accuracy, currency and suitability.

The specific requirement for pollution incident response management plans are set out in 5.7A of the POEO Act and the protection of the Environment Operations (General) Regulation 2009 (POEO (G) Regulation). An amendment to the POEO (G) Regulation has been made (by the Protection of the Environment Operations (General) Amendment (Pollution Incident Response Management Plans) Regulation 2012) with the object of specifying additional matters that need be included in plans.

This plan has been developed to document the processes required to prepare for and respond to pollution incidents for Grenfell Sewage Treatment (STP) and associated reticulation (EPA License No.001732) and ensure hazards to the environment, human health and safety are minimized if not eliminated. It has been prepared in accordance with the requirements of the act and regulation detailed above. This Pollution Incident Response Plan applies to Grenfell Sewage Treatment Plant (EPA License No.001732). For site plan, refer to Section 7.1 Appendix 1 - Site Plan.

2.0 POLLUTION INCIDENT RESPONSE MANAGEMENT PLAN

The area of Grenfell is serviced by 31km sewer mains which transfer sewage to Grenfell STP. This STP is located in Memory Street, Grenfell (Lot 270, DP 754578). Grenfell STP treats approximately 360kL of sewage daily in dry weather, potentially reaching 3 times this flow during heavy rain periods with 90mm rainfall in a day. During sewage treatment, by-products are produced which, if they are spilt or incorrectly managed, may contaminate the environment or threaten human health.

2.1 Potential Incidents

The potential hazards to the environment include:

Sewage overflow (raw or partially treated) - potentially caused by:

- Storms (lightning/heavy rainfall/wind) causing power failure or infrastructure damage
- Reticulation blockages
- Damage to reticulation (contractors or other damage during excavations etc)
- Infrastructure failure due to age

- Stop receiving sms alerts from Wetwell as a result of a communication failure
- Excessive flows
- Mechanical break down
- Power outage
- Treatment plant blockage

A detailed assessment of risks is provided in Section 7.4 Appendix 4 - Risk assessments and actions. For detail on actions to reduce risks see Section 2.5 Pre-emptive Measures.

2.2 Incident Response

2.2.1 Notification Speed of Response

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

2.2.2 Notification of Relevant Authorities

In all pollution incident cases and where the pollution incident causes or threatens material harm to the environment or human health, all the following authorities must be notified by the Waste Water Operator:

1. Emergency Call Services

- Emergency Hotline Number (24 hours) **000*** (**112**, if using a mobile)

*The Waste Water Operator 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. Weddin Shire Council

- Director Environmental Services - Landline Number **02 6343 1212** (Day Time)
- Director Environmental Services - Mobile Number **0427 908 986** (24 Hours)

3. The Environment Protection Authority (EPA)

- Environmental Line (24 hours) **131 555**

4. NSW Ministry of Health (via Public Health Unit)

- Bathurst GW PHU (Greater Western) **02 6339 5601**

5. WorkCover NSW

- Hotline Number **13 10 50**

6. Fire and Rescue NSW

- Fire and Rescue **000**
- Grenfell Rural Fire Service **02 6343 1054**

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 dialling 000.

2.2.3 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; and
- Other information prescribed by the regulations.

Notification is required by the Waste Water Operator 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.

2.3 Community notification

Where the pollution incident causes or threatens material harm to the environment or human health, the EPA is notified in accordance with Section 2.2.2. 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 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.

Impacts on the community due to sewage distribution and treatment incidents are variable and depend on location, volumes of spills or other factors. Communication methods will be used on a case by case basis and in all situations Weddin Shire Council will attempt to provide early warning to directly affected premises (either upstream or downstream depending on tidal impacts where relevant) by phone call or site visit. Early warning is to include details of what the incident is, how those affected can prepare and respond, and provide important advice such as avoiding contact and use of affected waterways. Where early warning is not possible Weddin Shire Council will provide notification and communication during and after an incident to advise those affected with information, advice and updates. Notification and communication methods will be determined on a case by case basis and the following methods may be used:

- Phone calls
- Media releases (radio/newspaper/internet)
- Site visits/door knocking
- Letter drops
- Warning signs
- Other methods as the situation requires

In the event of a sewage spill into stormwater or waterway, Weddin Shire Council staff are to go to prominent and/or high use areas of the affected waterway and erect signage. The signs are to warn water users of the contamination and advise them to avoid activities until contamination has cleared. Contaminated land is to be disinfected, ponded sewage pumped out and faecal coliforms are to be monitored until background levels are reached. Regular communication and notification is to be provided until the incident and clean-up of impacted site and affected areas has been complete (e.g. faecal coliforms have returned to background levels). Weddin Shire Council is to take signs down and advise the public that regular activities can be resumed by (as required):

- Phone calls
- Media releases (radio/newspaper/internet)
- Letter drops
- Other methods as the situation requires

2.4 Incident Investigation

All emergencies must be investigated. For all other incidents, the relevant Director will decide whether an incident investigation will be conducted. When an incident investigation is required, the relevant Director is responsible for forming the investigation team.

2.5 Pre-emptive Measures

2.5.1 Physical and preventative measures

First priority for pre-emptive measures is to eliminate substances that can become potential pollutants. If this is not possible, physical barriers should be installed to prevent pollutants from entering the environment such as bunding and spill drainage containment. At Grenfell STP, treatment process bypass is installed to prevent partially treated sewage spills due to overflow issues. Grenfell STP has one wetwell sms alert system to alert the Waste Water Operator and the Director Environmental Services of condition that the wetwell reach 90% level.

Power failures can occur at any time and can be planned or unplanned interruptions. Essential Energy will notify the Overseer the power failure which will last for above two hours, and then the Waste Water Operator will be notified by the Overseer. When STP experiences a power failure lasting for two hours or above, Wastewater Operator will organise to set up the 86KVA trailer mounted standby generator and/or the 80KVA trailer mounted prime generator located at Council’s Depot.

Any manhole can overflow/surcharge due to a sewer choke at any time, this may cause a minor or major overflow/surcharge into the stormwater system. Sewers may also surcharge due to a blockage in the downstream pipes or lack of capacity especially in wet weather events. Council’s crew will attend the sewer chokes and contain the overflow, and treat the pollutants.

2.5.2 Preventative monitoring and maintenance

Weddin Shire Council uses monitoring and preventative maintenance to reduce the potential for incidents at both the STP and for the reticulation mains. Detail on regular operational/maintenance activities is provided below:

Activity	Frequency
Sewage Treatment Plant	
Operate the STP as per operation and maintenance procedures	Daily
Check wetwell pump via sms alert	When Cleaning with filling above 90% in wetwell
Visual check of pumping operations of sludge pump (1) and wetwell pumps (2)	Daily
Clean pump areas	Weekly
Service pumps	Annually
Electrical inspections of pump controls	As required
Pump refurbishments	Determined by service reports
Pump replacements/upgrades	Determined by service reports
Calibrate Gas Monitor	Annually
Reticulation	

CCTV inspections of mains	Along with renewal program
Mains rehabilitations	As per renewal program

2.6 Training

All staff required to implement this plan and associated documents must have training in its use and be inducted into it. This is to ensure they are aware of the content, processes and requirements of this plan and can competently implement it if necessary. In the event of a significant incident, an investigation and debrief will be conducted, documentation updated (if required) and staff will be reinducted. All incidents are to be registered into Council's filing system and training records will be kept.

3.0 RESPONSIBILITY

Director Environmental Services is responsible for the implementation of this Plan.

4.0 REFERENCES

- Environmental Protection Authority (EPA) NSW Environmental guidelines: Preparation of pollution incident response management plans
- Protection of the Environment Legislation Amendment Act 2011 (POELA)
- Protection of the Environment Operations Act 1997 (POEO Act)
- Environment Operations (General) Regulation 2009 (POEO (G) Regulation)
- Protection of the Environment Operations (General) Amendment (Pollution Incident Response Management Plans) Regulation 2012)
- Local Government Act 1993
- Public Health Act 2010

5.0 DEFINITIONS

5.1 Pollution Incident

Pollution incident means 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.

5.2 Material harm to the environment

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 1997as:

(a) harm to the environment is material if:

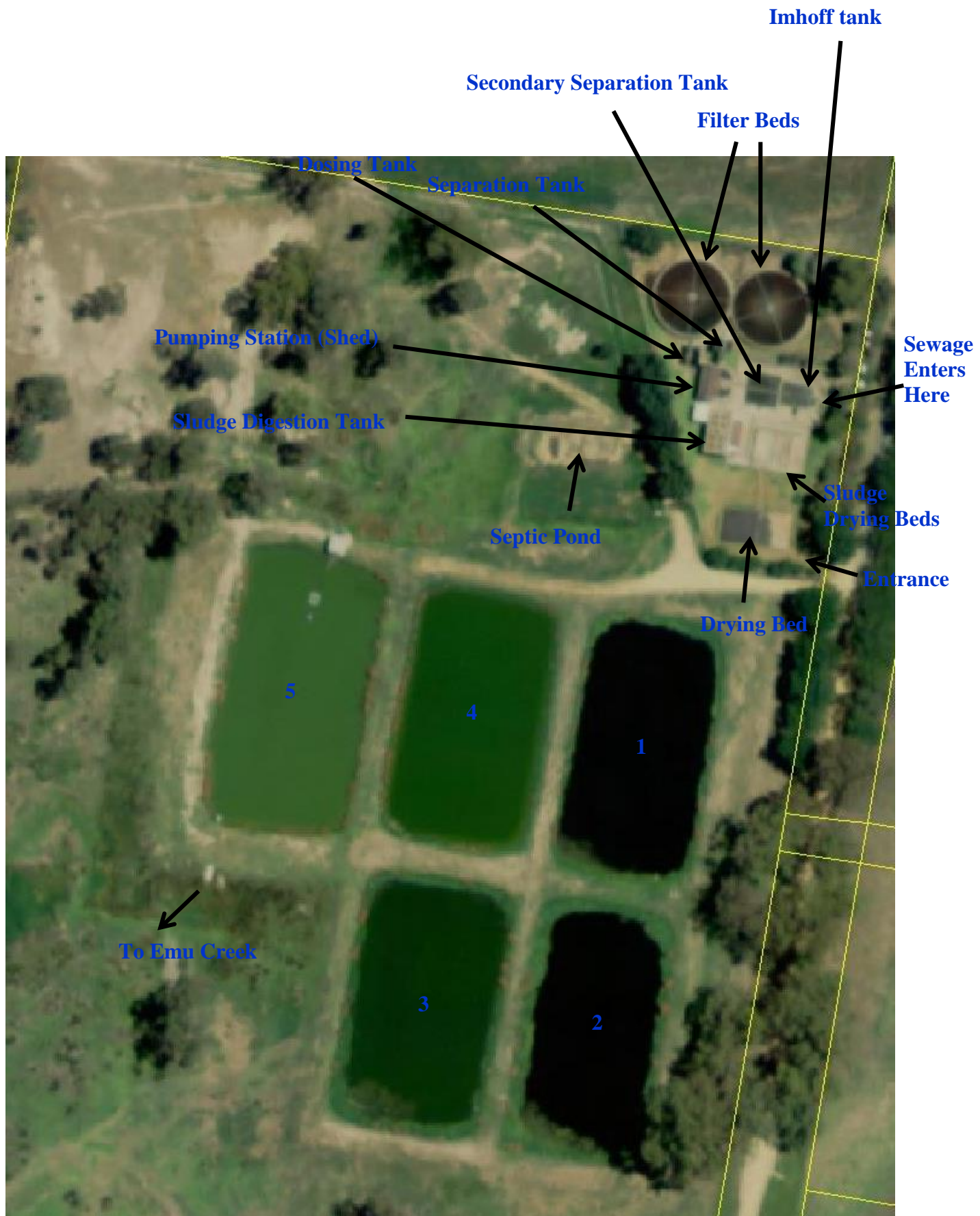
- i) it involves actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial, or
- ii) it results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding \$10,000, and

(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."

6.0 APPENDICES

- 6.1 Appendix 1 - Site Plan and Schematic Diagram
- 6.2 Appendix 2 - Site Chemical Register
- 6.3 Appendix 3 - Personal Protective Equipment
- 6.4 Appendix 4 - Risk assessments and actions

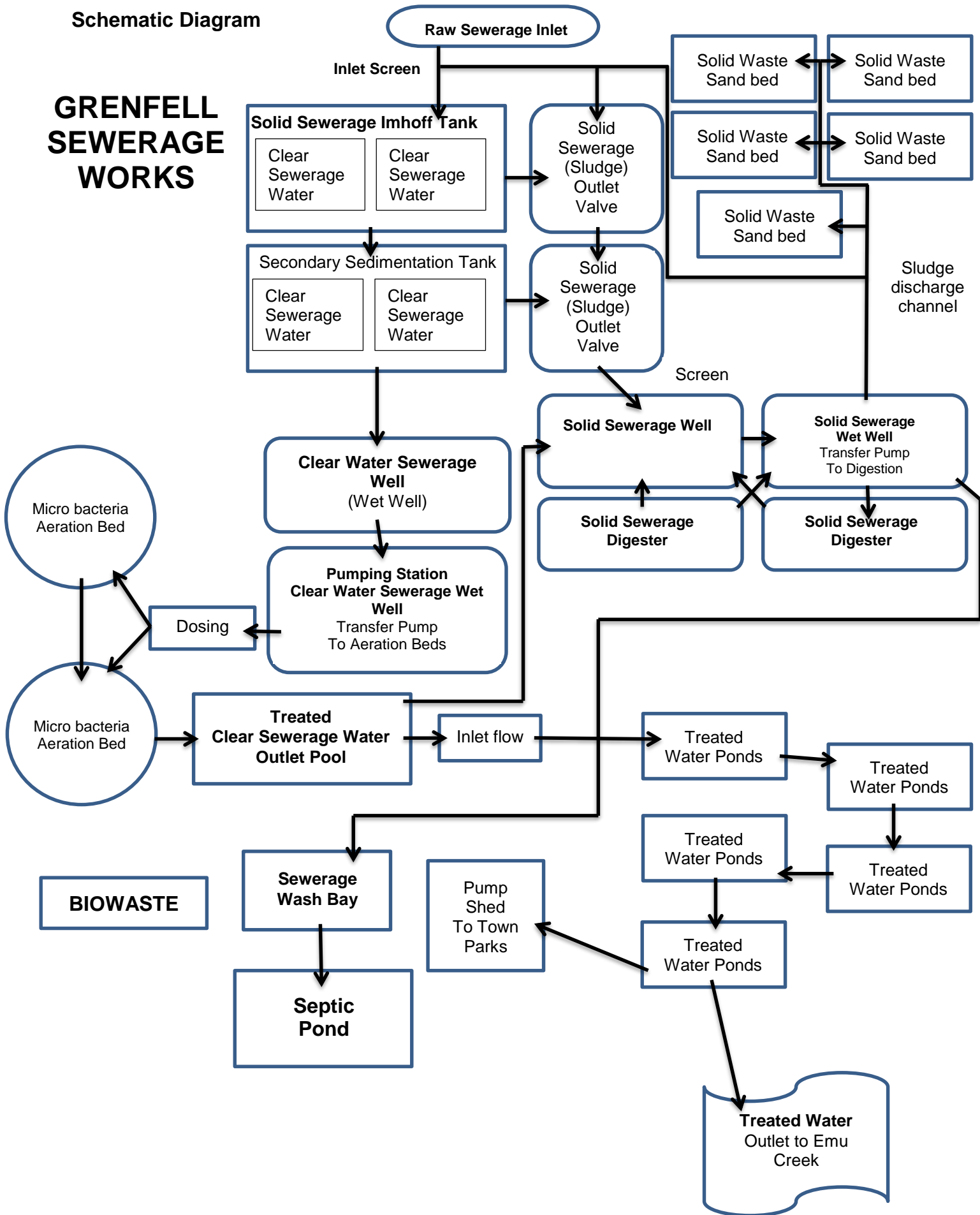
6.1 Appendix 1 - Site Plan



1, 2, 3, 4, 5 - Settlement Ponds

Schematic Diagram

GRENFELL SEWERAGE WORKS



6.2 Appendix 2 - Site Chemical Register

Date of register: 25 October 2012

Chemical Name	Manufacturer	Maximum Volume of Chemicals Stored	Location Where Chemical is Stored
LPG	WESFARMER KLEENHEAT GAS P/L	90 Kg	Outside wash area
Diesel	CALTEX	40 Lts	Pump shed
Unleaded petrol	CALTEX	20 Lts	Pump shed
Antibacterial Sanitiser Detergent	ECOCARE CHEMICAL	5 Lts	Amenities Block (Office)
Glyphosate	ROUNDUP	10 Lts	Pump Shed
Lime		200kg	Sludge Pump Room
Ospray Pickout Herbicide	OSPRAY	40 Lts	Pump shed
Air Freshener	SPRINT CLEANING	10 Lts	Pump shed
Actizyme Pellets	SOUTHERN CROSS LABORATORY	20 Kg	Pump Shed
Disinfectant Odour Zone	CLEVELAND CLEANING SUPPLIER	25 L	Pump Shed
Laundry Destaining Detergent	CLEVELAND CLEANING SUPPLIER	20 Kg	Pump Shed
Concrete Repair Product	CRPR	20 Kg	Pump Shed

6.3 Appendix 3 - Personal Protective Equipment

This section lists the standard PPE items required.

Sewage Treatment Plant

The following items are to be kept at Grenfell STP:

- Ear/hearing protection
- Gas monitor
- Sun screen
- Disposal overalls
- Rubber Gloves
- Goggles
- Gumboots
- Steel capped Boots

Sewerage Choke removal

The following items are to be kept on the vehicle:

- Goggles/eye protection
- Hearing protection
- Disposable overalls
- Rubber gloves
- Gumboots

6.4 Appendix 4 Risk assessments and Actions

No	Risk	Impact	Likelihood	Controls
Sewer Reticulation Mains				
1	Sewage overflow due to inflow/infiltration	Land contamination, possibly enter a waterway	UF = 5	>Reticulation maintenance and rehabilitation to reduce infiltrate and inflows >Monitoring and maintenance >Pre-emptive measures see Section 2.5
2	Sewage overflow due to storm damaging infrastructure	Land contamination, possibly enter a waterway	VUF = 6	>Lightning protection >Site vegetation management to prevent damage to infrastructure >portable pumps > Pre-emptive measures see Section 2.5
3	Sewage overflow due to reticulation blockages or damage	Land contamination, possibly enter a waterway	UF = 5	>Reticulation maintenance >High pressure cleaning of mains for repeat chokes >Monitoring and maintenance >Pre-emptive measures see Section 2.5
4	Sewage overflow due to an external persons excavation hitting the sewers	Land contamination, possibly enter a waterway	UF = 5	>Provide underground service locations to external persons >Vacuum trucks (for clean-up) >Portable pumps (for clean-up)
5	Sewage overflow due to infrastructure failure (e.g. due to age)	Land contamination, possibly enter a waterway	VUF = 6	>Maintenance and renewal programmes >Pre-emptive measures see Section 2.5
Sewage Treatment Plant				
1	Sewage overflow (raw) due to heavy rainfall	Land contamination, possibly enter a waterway	VUF = 6	>Reticulation maintenance to reduce infiltration and inflows >overflow storage - bunded area >Bypass systems to overflow storage pond >Monitoring and maintenance >Pre-emptive measures see Section 2.5
2	Sewage overflow (raw) due to reticulation blockages	Land contamination, possibly enter a waterway	VUF = 6	>Reticulation maintenance to reduce infiltration and inflows > overflow storage - bunded area >Bypass systems to overflow storage pond >Monitoring and maintenance >Pre-emptive measures see Section 2.5
3	Sewage overflow (raw) due to damage to onsite reticulation (e.g. During excavations, etc.)	Land contamination, possibly enter a waterway	UF = 5	>Locate services prior to excavations >Appropriate supervision of contractors >Bypass systems
4	Sewer overflow due to Wetwell communication failure	Land contamination, possibly enter a waterway	UF = 5	>Testing and alarming >Monitoring of signal issues >Pre-emptive measures see section 2.5
5	Sewage overflow (raw) due to infrastructure failure (due to age)	Land contamination, possibly enter a waterway	UF = 5	>Maintenance and renewal programs >Pre-emptive measures see Section 2.5
6	Sewage overflow (raw) due to excessive flows	Land contamination, possibly enter a waterway	VUF = 6	>Reticulation maintenance to reduce infiltration and inflows > overflow storage - bunded area >Bypass systems to overflow storage pond >Monitoring and maintenance >Pre-emptive measures see Section 2.5

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7	Sewage overflow (raw) due to treatment plant blockage	Land contamination, possibly enter a waterway	VUF = 6	>Bypass systems >Gross solid screening
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Risk Assessment Matrix

Consequences - How bad is it likely to be?	Likelihood - How likely is it to happen and How often?			
	Very Likely could happen at any time VL	Likely could happen sometime L	Unlikely could happen, but rare U	Very Unlikely could happen, but probably never will VU
Extreme - Kill or cause permanent disability or ill health K	1	1	2	3
Major - Long term illness or serious injury S	1	2	3	4
Moderate - Medical attention and several days off work M	2	3	4	5
Minor - First aid needed F	3	4	5	6

(Adapted from RMS resources)

1 = top priority: do something immediately

6 = low priority: do something when possible