

# POLLUTION INCIDENT RESPONSE MANAGEMENT PLAN SUPPORTING STATEMENT

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## **NYNGAN SEWAGE TREATMENT SYSTEM**



JANUARY 2022 – Version 4



# Document Control

Pollution Incident Response Management Plan Supporting Statement Version Control			
Version Number	Date issued	Author	Update information
Version 1	October 2012	Jayantha Ediriweera	
Version 2	April 2018	David Swan	<ul style="list-style-type: none"> <li>Numerous typographic changes</li> <li>New forms added</li> <li>Requirement to test PS4 spare pump added.</li> </ul>
Version 3	June 2021	Graeme Bourke	<ul style="list-style-type: none"> <li>Update contact details</li> <li>Update Council contacts</li> <li>Update agency details</li> </ul>
Version 4	January 2022	Graeme Bourke	<ul style="list-style-type: none"> <li>Table 2.1 - Update contact details</li> <li>All - Update current position titles (Bogan Shire Council personnel)</li> <li>Update agency details</li> </ul>

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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 Nyngan Sewage Treatment System (NSTS) 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. Council welcomes any suggestions for amendments, additions, or improvements.

# Introduction

## 1.0 PURPOSE

This Supporting Statement and PIRMP have been prepared in accordance with the *Protection of the Environment Legislation Amendment Act 2011 (POELA Act)* and reflect the requirements specified in the Environment Protection Authority's (EPA's) *Guidelines: Preparation of pollution incident response management plans, March 2012*.

The PIRMP details:

- Procedures for notifying a pollution incident to relevant persons;
- Actions to be taken to reduce and/or control pollution; and
- Procedures for co-ordinating those notified, and any action taken in combating the pollution.

## 1.1 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.”

## 1.2 IDENTIFIED POLLUTION INCIDENT RISKS

The primary potential hazards to human health or the environment associated with the Nyngan Sewerage treatment system – i.e. '*Pollution Incidents*' - include the following:

- Wet Weather Overflow from the reticulation system during wet weather;
- Wet Weather Bypass at the sewage treatment plant (STP) and when untreated sewage bypasses the sewage treatment process and discharges to Box Cowal which connects to the Bogan River.
- Pond failure
- Mechanical failures of the sewerage pumps which results in sewage overflows at either the sewerage pump stations (SPS) and/or from upstream utility access holes.
- Mechanical failure at the STP resulting in offensive odour from the premises;
- Acts of vandalism or target of terrorist activity at sewerage pump stations and STP
- Discharge pipeline breakage;
- Exceed Environment Protection Licence (EPL) discharge limits to effluent reuse scheme
- Significant adverse environmental impact from irrigation in utilisation areas. Risk of ground water pollution at effluent reuse pond

# Site Overview

## 2.1 SITE OVERVIEW

The Nyngan Sewage Treatment System (NSTS) includes the Nyngan Sewage Treatment Ponds (STP or the 'facility'), four sewer pumping stations, pipelines and all associated components under Council's management or control. The sewage treatment system includes an oxidation lagoon with a large surface area. This is important because considerable effluent is lost through evaporation from the lagoon, thus reducing the volume that will be available for irrigation.

The ponds are located 1km from Nyngan on the Colane Road, beyond the town's levee banks.

The Environment Protection Authority (EPA) has issued Environment Protection Licence 3298 in accordance with *Section 58(5) of the Protection of the Environment Operations Act 1997*. At the time of writing, the current Licence is dated 12<sup>th</sup> September 2012. A copy of the Licence is attached.

The objectives of the licence (p6 of 28) are to:

- (a) prevent as far as practicable sewage overflows and sewage treatment plant bypasses
- (b) require proper and efficient management of the system to minimise harm to the environment and public health; and
- (c) require practical measures to be taken to protect the environment and public health from sewage overflows and from sewage treatment plant effluent.

As a condition of an earlier licence, a PRP 100 Sewer Overflow Investigations Report was prepared, which details the reporting condition for the Nyngan Sewage Treatment System (NSTS) to meet the relevant Environmental Goals specified in the *Environmental Protection Authority's Licensing Guidelines for the Sewage Treatment Systems, 2003*. A copy of this Report, prepared on 21 December 2007 by Bogan Shire Council is attached.

A Licence variation was undertaken after establishing the effluent reuse scheme, and have been included in the current Licence. Discharges to the Box Cowl dry creek from the reuse scheme will be considered as a breach of this licence and section 120 of the Protection of the Environmental Operations Act 1997(POEO) which relates to pollution of waters. Currently NSTS generally meets the Licence conditions.

Furthermore, as specified in EPL, a PRP 101 Incident Notification Protocol was prepared which details the procedures, define the notification events, and lists the organisation to be contacted.

## 2.2 SITE CHARACTERISTICS

Nyngan is a small town situated within a flood levee on flat terrain in western NSW, with a hot climate and low rainfall. The existing STP can accommodate a potential population growth of around 10%. Sewage is mainly domestic in nature. There is no heavy industry or large trade waste dischargers.

The Nyngan Sewerage Treatment System (NSTS) consists of following elements:

- Four sewerage pumping stations.
- A sewerage Treatment Plant made up of 4 oxidation and maturation ponds.
- A treated effluent reuse scheme.
- Reticulation and rising mains.

Nyngan has oversized oxidation pond system for sewage treatment and a small sewerage reticulation system with no overflow hot spots. The treated effluent is reused for irrigation purpose. The Nyngan Sewerage Treatment Pond (NSTP) is located approx. 1.5km north to the Nyngan Central Business District (CBD). The reuse pond and irrigated farm is located 450m and 1.4km north-east of the NSTP respectively. This entire area is in a similar geological setting on the flood plain of the Bogan River, which is located which, at its closest point is located approximately 2.1km to the west of the irrigated farm. See *Drawing No 02*.

### SITE PLAN

The Nyngan sewerage system has four pumping stations, approximately 18km of gravity reticulation mains and 2.3 km of rising mains.

The reticulation system has no recorded overflows and they are unlikely to occur. Council has undertaken regular camera inspections which indicate that the system is in good condition for its age, shown by the lack of chokes and breaks in mains, and low flow increases in all but severe wet weather. The reticulation system has four catchments defined by the downstream pumping station. Each of the pumping stations has ample storage capacity in deep sewers, access chambers and pumping stations. Low pump run times indicates that the system has spare pumping capacity, and there is enough storage to accommodate mechanical break-downs at the pumping stations for a couple of days. A significant storm event on 21<sup>st</sup> December 2007 produced heavy runoff, building damage and long pump run times, but no reticulation overflows.

See *Drawing No 02. SITE PLAN*

The town sewage is pumped to the NSTP, where it is treated in maturation and oxidation ponds. The treated effluent (approximately 130ML per annum) is evaporated or is pumped then to a 40ML reused pond. This effluent is utilised to irrigate a 20ha area farm via an irrigation pivot. The area is used for the cropping. The irrigated area comprises lots 38 and 39 of DP 753420. The irrigation area and system are privately owned and managed. See *Drawing No. 03 UTILISATION AREA PLAN*.

The irrigated area is normally used for hay production and, dependant on the season, for opportunity cropping of cereals and legumes. In both cases, the produce and hence the nutrients, would be exported from the site.

Adjacent land uses to the irrigation area and the NSTP includes the Nyngan airport land and private property to the south, travelling stock reserve to the west, private property to the north and east, and road infrastructure to the north and west.

A runoff control bank has been established on the down slope perimeter (western boundary) between the irrigation area and an existing dam which is available for stock



water. The area is excluded from stock when the irrigation area is in use. The runoff control bank captures any runoff from the site in storm events.

The Nyngan town levee bank surrounds the southern perimeter providing a natural barrier to users on the southern side of this bank, including Nyngan itself and excluding any runoff from this direction onto adjacent land. A tree buffer zone exists on the eastern boundary of the site between the proposed irrigation area and neighbouring residences (occupied by the site owner/manager) and natural water courses. Finally, Pepper Lane forms the northern boundary of the site.

The irrigation system is managed on a moisture deficit basis; small volumes of effluent are applied on a regular basis rather than larger volumes on an ad hoc basis. This helps to maintain regular plant growth, and controls runoff and infiltration on the site, allowing the pasture/ crops to utilise the moisture and nutrients being applied. This management strategy also ensures that irrigation does not occur during rain events to minimise the chance of runoff and prevent waterlogging of the soil.

Land directly adjacent land to the NSTP includes leasehold airport land, airport terminal, runways and parking (south and east) private property (east and north) and travelling stock reserve and road infrastructure (west).

The airport site is located on Council owned land which is currently leased privately to a landholder for grazing purposes. The airport area is located adjacent to the new 40 ML storage dam. The site is within the town levee bank. See *Drawing No. 02 SITE PLAN*.

Access to the NSTP site is limited with the boundaries fenced and gates locked (Council employees and lessee access), and access to the storage pond is also limited with securely fenced boundaries.

The treated effluent reuse scheme is operating under the following guide lines. The existing sewerage treatment process can comfortably achieve this guide lines. Accordingly, the quality of effluent produced at Nyngan is classified as low strength effluent (EPA, 2004). The key effluent quality parameters satisfy the low strength effluent criteria;

Quality Parameter	Limit
BOD <sub>5</sub>	< 50 mg / L
Total nitrogen (N)	< 40 mg / L
total phosphorus (P)	< 10 mg / L

The current EPA licence limits most relative to effluent irrigation are:

Quality Parameter	Measured Values
Total nitrogen (N)	20 mg / L
total phosphorus (P)	10 mg / L
pH	6.5 – 8.5
pathogen levels	<1000cfu /100mL.

There has not been a history of overflows in the reticulation system. This is unlikely as it needs several days of system failure (eg. failure of duty and standby pumps or switchboards), inaction and enough rain to fill the reticulation system to overflow from the access chambers and the pumping stations.

## 2.3 SITE SUPERVISION AND CONTROL

Nyngan sewerage operation system consists of four sewerage pumping stations called PS1, PS2, PS3 and PS4. These pumps are auto operated. This system has ample storage capacity in deep sewers, access chambers and pumping stations.

Pumping stations PS1, PS2 and PS4 each a duty and standby pumps, while PS3 has a duty pump only with a spare pump off-site ready for immediate changeover. Pumping stations PS2, PS3, and PS4 pump to PS1 which pumps to NSTP.

The operation of the replacement pump for PS3 needs to be checked at least annually to ensure that it will operate if required in an emergency.

The treatment of sewerage at the NSTP is a natural process. Continuous aeration has been introduced to the primary pond, following which the effluent gravitates through a baffle wall to the secondary and tertiary ponds. Generally, a 30-day detention time in the tertiary ponds during dry weather conditions is achieved.

The system is not supervised continuously. However, routine critical point inspection is scheduled each day, generally in the mornings. When additional aeration is required, the detention ponds are aerated using a tractor-mounted circulation pump which is moved to the required location. Similarly, when activated sludge circulation is needed, a manually-operated sludge circulation pump is used. Records are kept which indicate when the NSTP is inspected and when the additional attention is implemented.

Qualified and experienced personnel staff the facility and undertake the daily inspections. These include a Site Supervisor and two Site Operators, who are available during normal working hours. Their key tasks are to respond to alarms, fault identification, trouble shooting and determination of critical control set-points. These occur at least once a working day and are at least monitored on weekends.

Security fencing is in place at the NSTP and at each pumping station which ensures legal entry is only possible with Council authorisation and supervision. Generally, all gates are locked when each site is unattended.

In a major storm event, the runoff collection basins will overflow from the spillways provided and, as outlined in the Monitoring Program, this will trigger the surface water sampling requirements. Therefore prior to irrigation commencing after a major storm event, a sample must be collected from one of the run off collection basins. If the water in the basins is only stormwater (i.e. not effluent due to a malfunction) then the outlet can be opened, and the contents allowed to escape (note; if the stormwater is coloured by sediment it should be allowed to stand as long as is practical to allow settlement). The sample should then be sent for the analysis outlined in the monitoring program.

To maintain a good quality effluent delivered to the irrigation area, and to minimise any potential health, production, management, or environmental concerns because of effluent quality it is important that the storage is monitored on a regular basis.

The element of most common concern is the presence of algae in the storage as this may affect the ability of the irrigation manager to utilise the pasture/crop, particularly for grazing purposes. It also will have implications for the management and performance of the irrigation infrastructure. The condition of effluent in the main storage in relation to algal blooms will be monitored (by inspection / observation) by both Bogan Shire Council and the irrigation manager regularly during operation. Should significant algae be detected by either party, the other party should be notified as soon as is practical, and irrigation should cease. The issue should then be resolved to the satisfaction of both parties prior to irrigation recommencing.

The Site Supervisor will keep a Daily Checklist for monitoring, recording activities and incidents that occur during the operation of the facility.

## 2.4 SITE SAFETY EQUIPMENT

The pump houses are protected from fire by several hose reels, fire extinguishers and hydrants.

To manage leaks, chemicals such as diesel fuel will not be stored at either of the sewage treatment facilities. These will be appropriately stored at either the Water Treatment Plant or the Council Depot. In the event of a chemical spill, PPE will be provided for those involved. This will consist of, but not limited to, overalls, rubber boots, chemical goggles, face shields, safety shoes, elbow-length impervious gloves, splash aprons and air supplied respirators.

# Risk Management and Pre-emptive

## Actions

### 3.0 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.

### 3.1 PRE-EMPTIVE ACTIONS

#### 3.1.1 FIRES AT THE STP

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

- Regular weed control maintenance to mitigate bushfire risk, and the removal of rubbish from each site.
- Access to firefighting equipment is always available.
- A security fence is checked weekly to ensure the prevention of unauthorised access and acts of vandalism;
- Maintaining machinery in good working order to minimise risk of sparks.

#### 3.1.2 MECHANICAL FAILURE OF STP

Site Operators carry out inspections at least once a working day to ensure plant and equipment is operating effectively and efficiently. As the only mechanical equipment is manually operated, failure of this equipment will be noticed, and action taken to make the necessary repairs.

#### 3.1.3 ACTS OF VANDALISM OR TARGET OF TERRORIST ACTIVITY

The boundary road fence along Colane Road limits unauthorised access outside operational hours. All staff are required to be vigilant and aware that the site is a potential target for vandalism and notify the site supervisor when the integrity of the site fencing is compromised.

#### 3.1.4 PUMPING STATION OPERATIONS

Three of four pumping stations in Nyngan each have a duty and standby pump. Failure of either pump is alarmed, and pumping can continue using the other pump until the failed pump can be repaired and returned to service. In PS4, there is only a duty pump, with a spare pump for this site stored at the Council Depot. This pump will be checked and tested at least annually to ensure that it is operational and fit for service if ever the PS4 pump fails. The replacement pump can then be lowered into the pumping station and put into service prior to the PS overflows.

### 3.2 INVENTORY OF MAINTENANCE POLLUTANTS

The following pollutants can be stored on site in quantities required for routine maintenance necessary for operations at the facility:

- Actizyme Liquid G – Drain cleaner;
- For Earth Bio – Probiotic waste water treatment and odour control;
- For Earth Bio Plus – Probiotic waste water treatment and odour control;
- Sodium Hypochlorite Solution (10-15% available chlorine) – Sanitising agent;
- Unleaded Petrol;
- Machine Oil 680;

- Lubricants;

DRAWING No: 04 UTILISATION PLAN provides details of where these chemicals are stored on the premises as well as those on banded palettes.

### 3.3 LIKELIHOOD, IMPACT AND CONTRIBUTING FACTORS TO POLLUTION INCIDENTS OCCURRING

Incidents can be classified as being of low, medium, or high risk of occurring (likelihood) based on the 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.**

#### 3.3.1 WET WEATHER OVERFLOW FROM THE RETICULATION SYSTEM DURING WET WEATHER

**Likelihood** – Because of the flat and deep sewers in Nyngan, the storage capacity of the pumping stations, access chambers and pipes are likely to have enough storage for more than 2 days. The pumps within the system have enough capacity to maintain flow during this period. Accordingly, sewage overflows are unlikely.

**Impact** – In the unlikely event, wet weather overflows would discharge onto ground and would enter the stormwater system. Overflows after the above period would be noticed by either Council staff or the community and reported to Council. Overflow volumes can be checked and disposed of appropriately.

**Contributing Factors** – Lack of pond and site maintenance and/or a mechanical failure of plant and equipment. These are unlikely to occur at the same time.

#### 3.3.2 WET WEATHER BYPASS AT THE STP

**Low Likelihood** – This is unlikely to occur because of the capacity of the pond and the ability to circulate effluent from the tertiary pond to the primary pond during PWWF or during plant malfunction.

**High Impact** – Although unlikely to occur, if it does, an overflow plume would spread in the vicinity, potentially impacting on nearby residents, and entering the Bogan River. The site has significant and advanced environmental protection measures and monitoring equipment which should alert operators to the incident well before there is potential for impact outside the site.

**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.

#### 3.3.3 POND FAILURE AT THE STP

**Low Likelihood** – The site has significant and advanced environmental protection measures, monitoring equipment and security fencing which would alert operators to an incident.

**Low Impact** – The impact is low as any effluent inadvertently discharged into the neighbouring environment (dry creek) will have been at the very least partially treated, and during normal operating conditions the effluent would have been fully treated.

**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

### **3.3.4 MECHANICAL FAILURE AT THE NSTP RESULTS IN DISCHARGE OF UNTREATED SEWAGE**

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

**High Impact** – Any pollutants which reach the nearby Bogan River could cause considerable harm to properties and environmental habitats for some distance downstream.

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

### **3.3.5 MECHANICAL FAILURE AT THE NSTP RESULTS IN OFFENSIVE ODOUR FROM THE PREMISES**

**Low Likelihood** – An unpleasant odour generated in the event of mechanical failure (such as failure of aeration system or the breakdown of a pump) can be readily controlled by operators due to early notification of any breakdown by the SCADA system.

**Low Impact** –The impact is considered low as there are no close receptors to the NSTP site.

**Contributing Factors**-Fire damage or poor maintenance of plant and equipment

### **3.3.6 INADEQUATE CHEMICAL STORAGE**

**Low Likelihood** – The storage of potential accelerants such as maintenance chemicals and fuels are does not take place at the NSTP or the Pumping Stations. These are stored at the WTP and the Council Depot which are stored in secure and bunded facilities and only utilised by trained staff. Therefore, 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 cropping land and nearby residential properties.

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

### **3.3.7 ACTS OF VANDALISM OR TERRORISM**

**Low Likelihood** – The site is enclosed by secure fencing; however, the site has limited strategic value as a potential target of terrorism. The isolated premises may prove attractive to arsonists.

**Medium Impact** – the site is surrounded by cropping land and there are residential properties susceptible to fire, although some distance away.

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

### 3.3.8 RETICULATION OR RISING MAIN PIPELINE BREAKAGE

**Low Likelihood** – The site has significant and advanced monitoring equipment and environmental protection measures would alert operators to the incident.

**Low Impact** – The impact is low as any effluent inadvertently discharged into the neighbouring environment can be contained with the stormwater system.

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

### 3.3.9 EXCEED EPL DISCHARGE LIMITS TO THE BOGAN RIVER

**Low Likelihood** – The site has FOUR detention ponds which are generally sufficient to hold excess sewage when Nyngan experiences prolonged periods of heavy rain. There is very low likelihood of discharging effluent to Box Cowal or to the Bogan River.

**Low Impact** – The impact on environmental habits and adjacent properties of the Bogan River is very low as the effluent during normal operating conditions will have been fully treated.

**Contributing Factors** – Prolonged periods of heavy rain and mechanical failure of plant and equipment.

### 3.3.10 SIGNIFICANT ADVERSE ENVIRONMENTAL IMPACT FROM IRRIGATION SYSTEM AND IN THE UTILISATION AREA

**Low Likelihood** – The likelihood of significant adverse environmental impact is low as the effluent discharged is used for irrigation purposes and during normal operating conditions, the effluent would have been fully treated.

**Low Impact** – The environmental impact is low as the effluent discharged and used for irrigation purposes, during normal operating conditions, would have been fully treated.

**Contributing Factors** – Human error allowing the effluent to be discharged onto utilisation areas during inappropriate times when the land and farm animals are more susceptible to harm. Lack of control and/or monitoring, prolonged periods of heavy rain.



# Incident Management

## 4.1 NOTIFICATION OF POLLUTION INCIDENT

### 4.1.1 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.

### 4.1.2 NOTIFICATION OF RELEVANT AUTHORITIES

If the pollution incident is a wet weather overflow, dry weather overflow, wet weather bypass or dry weather bypass procedures need to be followed in Council's *PRP 101 Incident Notification Protocol, August 2012*.

In all other pollution incident cases and where the pollution incident causes or threatens material harm to the environment or human health, the Site Supervisor must notify all the following authorities:

#### **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.

The following information will be required. Don't forget to speak clearly

- Location – give clear directions
- Your name
- Nature of the emergency
- Name of the Council Supervisor

#### **Laravoulta Effluent Reuse Farm**

The Laravoulta Effluent Reuse Farm is located just north of the airport, approximately 1 km from the outskirts of Nyngan. The entrance to the site is located approximately 200m east on Pepper Lane (1<sup>st</sup> right hand turn off Colane Rd after the airport) via a gateway on the right hand side.

#### **Airport**

Travel north from Nyngan on the Colane Road, turn right to the Nyngan airport terminal and turn left before the carpark (Dirt road) towards sign-posted gateway. The irrigation site is approximately 50m past the gateway.

#### **Helicopter**

Landing coordinates - Latitude: 31.55 °S Longitude: 147.20 °E

Agency	Contact	Address	Contact Number
Fire and Rescue NSW			
Coonamble Rural Fire Service			02 6883 2200**
Local Police Station		Tabratong St, Nyngan NSW 2825	02 6831 1399
Nyngan Health Service	Jennifer Griffiths	Hoskins Street, Nyngan	02 6835 1700
Rural Fire Service		65 Cobar St Nyngan NSW 2825	02 6832 1014
Poisons Information Centre			131 126
Gas – AGL			131 909
Electricity - Essential Energy			132 356
Water / Sewerage / Stormwater	Trevor Waterhouse	81 Cobar Street, Nyngan	Office 02 6835 9000 Mobile 0409 078 762
Manager Environmental Services	Cathy Black	81 Cobar Street, Nyngan	Office 02 6835 9000 Mobile 0428 239 490
The Environment Protection Authority (EPA)		Dubbo Regional Office	02 6883 5333
Emergency Hotline Number (24 hours)			131 555
Farm Manager Contact:	Luke Smith		
Airport Lessee Contact:	Trevor Waterhouse		0409 078 762
Bogan Shire Council Contact:	Alister Quarmby		Office: 02 6835 9000 Mobile: 0428239491
The Ministry of Health (via Public Health Units)			
Dubbo Regional Office			02 6841 5569
Public Health Officer on Call (24 hours)			
SafeWork NSW			
Hotline Number			13 10 50

\*\*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.

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

#### 4.1.3 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.

The Site Supervisor required to notify 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 4.1.2** above.

#### 4.2 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 at risk of harm.

In the case of a fire and where safe, attempts must be made to extinguish or contain the fire immediately. This could be using a fire extinguisher or fire hose.

In the event of a chemical spill that is not contained by bunding, Spill Sorb (or similar) must be used to restrict the spread of the chemical.

#### 4.3 MINIMISING HARM TO PERSONS ON THE PREMISES

There is very low human contact time to operate this sewerage lagoons and pumping stations. Basically, pumps are auto operated, and treatment process is under natural process. However main entrance is sufficient for emergency evacuation in both treatment and pump premises.

Chemical are stored in water treatment plant premises. In the event of a pollution incident occurring at treatment plant site contractors and other Council staff will be mustered by Council site staff to the Emergency Assembly Point in O'Reilly Park opposite the water treatment plant 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.

#### 4.4 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 4.1**.

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 pollution incident, Council may at their own discretion voluntarily choose to notify neighbours.

Council would notify neighbours by making a telephone call to every neighbouring property of the STP as detailed in **Table 2.1** below and as identified on enclosed *Drawing NO; 02 SITE PLAN*. A summary of the neighbour notification procedure is provided in **Document A – Pollution Incident Decision Flow Chart** in **Appendix A**.

**TABLE 2.1- LIST OF NEIGHBOURS TO BE NOTIFIED**

Location	Contact Name	Property Address	Contact	Comments
Sewage Reuse Plant	LR Smith	PO Box 230, Nyngan NSW 2825	0438261281	Lot 38 DP 783420
	TT & SA Waterhouse	PO Box 223, Nyngan NSW 2825	68321458	Lot 39 DP 753420
	T Rope	Yelate, Moonagee Rd, Nyngan NSW 2825	68321214	Lot 41 DP 848853
Chemical Storage(Water Treatment Plant)	Telstra Corporation Ltd	C/- Jll Locked Bag 2, Hutt St Adelaide SA 5000	1300 327 005	Lot 12 DP 773711
	BOGAN SHIRE COUNCIL	PO Box 221, Nyngan NSW 2825	68359000	LOT 4 DP 758802 Section 31
	The Trustees Of, Anglican Property Trust	PO Box 2, Nyngan NSW 2825	68321019	Lot 6 Section 31 DP 758802
	MS & RJ Cashion	64 Bogan St, Nyngan NSW 2825	0418456981	Lot 81 DP 1010259
Sewer Pump Station-01	RE & SM Black	PO Box 189, Nyngan NSW 2825	68321773	Lot 1 DP 965760
	RE Whiteford	25 Wambiana St, Nyngan NSW 2825	68321595	LOT 12 Section 20 DP 758802
	B Murden	33 Wambiana St, Nyngan NSW 2825	68322496	LOT 13 DP 758802 Section 20
	Bogan Aboriginal Corp.	Locked Bag 7466, Liverpool NSW 1871	68321750	Lot 8 DP 758802 Section 20
	RB Powyer & TL Skewes	PO Box 119, Cunnamulla Qld 4490		Lot A DP 102854
	RE & SM Black	PO Box 189, Nyngan NSW 2825	68321773	Lot B DP 102854
	JD Neyland	24 Nymagee St, Nyngan NSW 2825		Lot B DP 392243
	Department Of Housing	PO Box 466, Liverpool NSW 2170	93776000	Part LOT 3 DP 758802 Sec 20
Sewer Pump Station-03	LE Skewpeck	GPO Box 260, Nyngan NSW 2825	68321562	Lot 10 DP 42135
	Tritton Resources Pty Ltd	PO Box 386, Nyngan NSW 2825	68381120	Lot 6 DP 42135
	DJ Clarke	73 Cathundril St, Nyngan NSW 2825	68322097	Lot 7 DP 42135
	KL & JP Jackson	71 Cathundril St, Nyngan NSW 2825	68321959	Lot 8 DP 42135
	BM Clarke	77 Cathundril St Nyngan NSW 2825	68322259	Lot 9 DP 42135
Sewer Pump Station-02	GD Eldridge	97 Cobar St, Nyngan NSW 2825	0428321436	Lot 1 DP 327199
	GV & BE Parsons	PO Box 262, Nyngan NSW 2825	68321826	Lot 1 DP 925785
	WA Williams	90 Bogan St, Nyngan NSW 2825	68322641	Pt Lot 51 DP 604596, Lot 2 DP 318171
	GV Parsons	PO Box 262, Nyngan NSW 2825	68321826	Lot 10 DP 1111471
Sewer Pump Station-04	BK & JL Webster	16 Hoskins St, Nyngan NSW 2825	0487770019	Lot 11 DP 1266987
	LV Morrow	35 Ellen St, Nyngan NSW 2825		Lot 3 DP 261826
	Tritton Resources Pty Ltd	PO Box 386, Nyngan NSW 2825	68381120	Lot 4 DP 261826
	J Bonnelo	31 Ellen St, Nyngan NSW 2825		Lot 5 DP 261826
	WW & DT Powell	P O Box 88, Nyngan NSW 2825	0418438227	Lot 56 DP 613677
	SL Vane & TG Bennett	27 Ellen St, Nyngan NSW 2825	0448444426	Lot 7 DP 261826

## 4.5 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 *Drawing NO; 02 SITE PLAN* which identifies the commercial, industrial, and residential properties adjacent to the STP and pumping station site boundaries.

## 4.6 SEWAGE TREATMENT SYSTEM COUNCIL CONTACT DETAILS

The following Council officers are directly responsible for the overall management of the NSTS and, if considered necessary, can be contacted by relevant authorities in the event of a pollution incident:

<b>Trevor Waterhouse</b> Works and Services Manager Bogan Shire Council	0409 078 762
<b>Graeme Bourke</b> Director Engineering Services Bogan Shire Council	0427 264 262

# Implementation

## 5.1 STATUS OF THE PIRMP

The PIRMP and this Supporting Statement are standalone documents designed to assist personnel at the DSTP to correctly identify pollution incidents and detail the procedures for the response and reporting of a pollution incident.

## 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 can use the fire-fighting equipment;
- Staff be able to identify 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 should undertake a simulated pollution incident response exercise, including with emergency services, 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.

At least annually, the spare pump for PS4 should be checked over and its operation verified to ensure that if required to replace the duty pump at this site, the pump will be able to be operated without operational issues. A register of the maintenance undertaken on this pump to ensure it is operational 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 living 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.

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

- Supervisor Water and Waste Water – to be kept on site at STP
- Works and Services Manager, Bogan Shire Council
- Director Engineering Services, Bogan Shire Council
- Director Environmental Services, Bogan Shire Council
- General Manager, Bogan Shire Council

# References

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***Pollution Incident Response Management Plan Prepared for Dubbo City Council, August 2012***  
prepared by GEOLYSE

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

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***Environment Protection Licence 3298, 12 September 2012***  
prepared by Environment Protection Agency

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

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***Nyngan Effluent Reuse Scheme –Site Management Plan –June 2010***  
prepared by GHD

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***PRP 101 Incident Notification Protocol- October 2012***  
*prepared by Bogan Shire Council*

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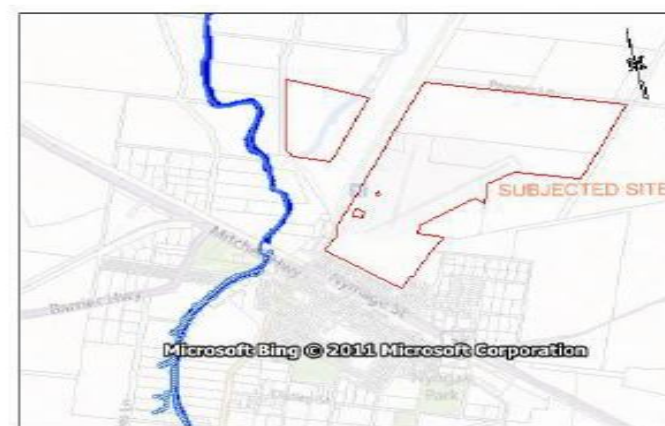


# Drawings

# DRAWING 01 TITLE SHEET, DRAWING LIST AND SITE LOCALITY

## POLLUTION INCIDENT RESPONSE MANAGEMENT PLAN NYNGAN SEWAGE TREATMENT SYSTEM BOGAN SHIRE COUNCIL

SHEDULE OF DRAWINGS		
SHEET	TITLE	DATE
DRAWING NO: 01	TITLE SHEET	24/10/2012
DRAWING NO: 02	SITE PLAN	24/10/2012
DRAWING NO: 03	UTILISATION AREA PLAN -1	24/10/2012
DRAWING NO: 04	UTILISATION AREA PLAN-2	24/10/2012



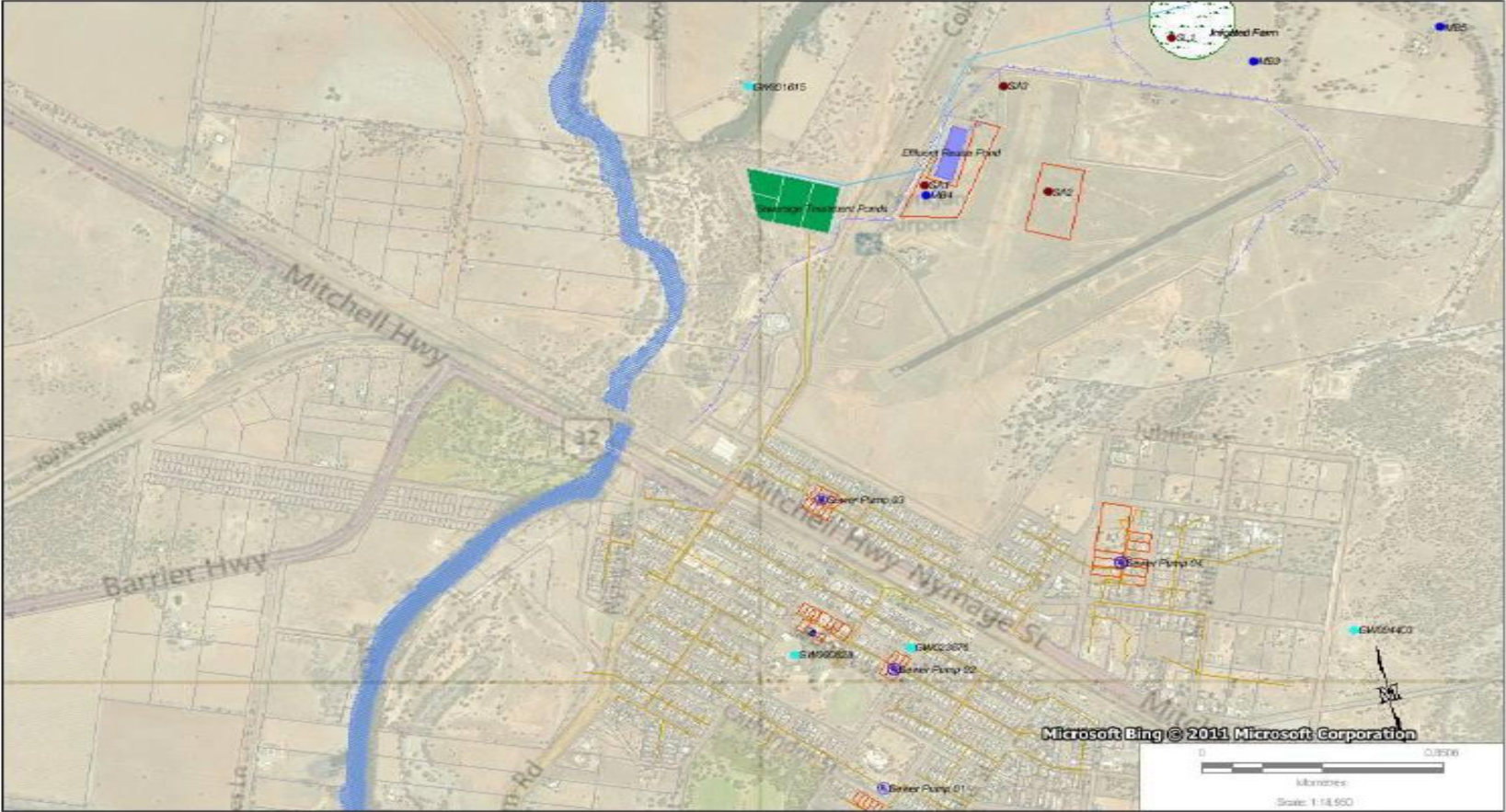
**SITE LOCALITY**  
NOT TO SCALE

POLLUTION INCIDENT RESPONSE  
MANAGEMENT PLAN  
NYNGAN SEWAGE TREATMENT SYSTEM

TITLE SHEET  
DRAWING NO: 01  
24/10/2012  
WSP/PAO/ABE/T/ANGLER - E/C/3157890 35078/04/



# DRAWING 02 SITE PLAN



 Sewerage TP	 Risk Properties	 Levee Bank
 Reuse Pond	 Sownrains	 Monitoring bore
 Ingrided Farm	 Effluent PW	 Soil monitoring points
		 Reservoir groundwater level

POLLUTION INCIDENT RESPONSE  
MANAGEMENT PLAN  
NYNGAN SEWAGE TREATMENT SYSTEM

SITE PLAN  
DRAWING NO: 02  
24/10/2012  
KARLING ARCHITECTS - BANGORNS CONSULTANTS



# DRAWING 03 UTILISATION AREA PLAN



Sewerage TP	Risk Priorities	Lower bank
Risk Pond	Sewermain	Monitoring bore
Irrigated Farm	Effluent PM	Soil monitoring points
		Reservoir groundwater bore

POLLUTION INCIDENT RESPONSE  
MANAGEMENT PLAN  
NYNGAN SEWAGE TREATMENT SYSTEM

UTILISATION AREA PLAN  
DRAWING NO: 03  
24/10/2012  
KINGSTON CONSULTING - ENGINEERING DEPARTMENT



# DRAWING 04 UTILISATION AREA PLAN



 Risk_Properties	 Sewerlines	 Effluent_PN
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POLLUTION INCIDENT RESPONSE  
MANAGEMENT PLAN  
NYNGAN SEWAGE TREATMENT SYSTEM

UTILIZATION AREA PLAN  
DRAWING NO: 04  
24/10/2012  
WISFARD-ABETMANAGIS - EKONLORNO 325PINDI



# **Appendix A**

## **POLLUTION INCIDENT RESPONSE MANAGEMENT PLAN**