POLLUTION INCIDENT RESPONSE MANAGEMENT PLAN SUPPORTING STATEMENT

NYNGAN SEWAGE TREATMENT SYSTEM

OCTOBER 2012

TABLE OF CONTENTS

TABLES

DRAWINGS

APPENDICES

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. If you have any suggestions for amendments, additions or improvements, please discuss these with me

.....
Bogan Shire Council
Water and Asset Manager

Date: .....

Introduction

1.1 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.

1.2 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;
- Wet Weather Bypass at the sewage treatment plant (STP) and is when untreated sewage bypasses the sewage treatment process and discharges to the Box Cowal, dry creak which connects to the Bogan River during wet weather
- Pond failure
- Mechanical failures of sewerage pumps result sewage overflows
- Mechanical failure at the SP result 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') and all associated components of the reticulation system 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.*

The objectives of the licence 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 sewage treatment plant effluent.

Licence variations:

(a) Update the premises at which this licence applies

(b) Update the site map for premises; Titled "Bogan Shire Council – Nyngan Reuse Scheme"

(c) Update to monitoring and recording conditions;

(d) Inclusion of additional monitoring of inflow (Monitoring point 15) into the Sewerage Treatment ponds

(e) Inclusion of conditions concerning effluent application to land;

(f) Inclusion of new Pollution Reduction Program to define ground water flow in the vicinity of the vicinity of premise

As a condition of the 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*.

Additionally, Licence variation has been taken place after establishing the effluent re use scheme. Once the reuse scheme is operational, further discharges to the Box Cowl dry creek is 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 satisfactory meets the given conditions.

Further more, 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, low rainfall and no piped drainage to accelerate an overflow plume. Potential mining related population growth of say 10% is within existing system capacity. Sewage is mainly domestic in nature. There is no heavy industry or large trade waste dischargers – the RSL club is probably the largest.

Nyngan has oversized oxidation pond system for sewage treatment and a small sewerage reticular system with no overflow hot spots. The100% of treated effluent is reused for irrigation purpose. The Nyngan Sewerage Treatment Pond (NSTP) is located in 2.5km North to Nyngan Central Business District (CBD) and the reuse pond and irrigated farm is located in a similar geological setting on the flood plain of the Bogan River, which is located approximately 1.5 km to the west of the irrigated farm. See *Drawing NO; 02 SITE PLAN*

Nyngan sewerage system has total 18 Km of gravity reticulation mains and 2.3 Km of rising mains. Major lengths of trunk mains also serve as reticulation sewers.

The reticulation system has no recorded overflows and they are unlikely to occur. The system is in good condition for its age, indicated by camera inspections, 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. This system has ample storage capacity in deep sewers, access chambers and pumping stations. Low pump run times indicate spare pumping capacity. See *Drawing NO; 02 SITE PLAN.*

Basically, highly treated effluent (approximately 130ML per annum) is pumped to 40 ML reused pond. This effluent is utilised to irrigate 20 ha, hay farm via a pivot. It comprises DP 753420 (Lots 38 and 39).See *Drawing NO; 03 UTILISATION AREA PLAN*.

The pivot was utilised in part for hay production, and in part for opportunity cropping of cereals and legumes, given the availability of water in a particular season. In both cases produce and therefore nutrients would be exported from the site therefore aiding in removal of nutrients added through the effluent irrigation process

Directly adjacent land uses include leasehold airport land and private property (south), travelling stock reserve (west), private property (north and east), and road infrastructure (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 currently used for stock water, but would be excluded from stock on commission of the scheme. The runoff control bank would capture any potential runoff from the site in the occurrence of large rainfall events.

The Nyngan town levee bank surrounds the southern perimeter providing a natural barrier to users on the southern side of this bank 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.

Irrigation system is managed on a moisture deficit basis, that is, small volumes of effluent would be applied on a regular basis rather than larger volumes on an ad hoc basis. This helps to not only maintain regular plant growth, but also control 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.

The airport site is located on Council owned land which is currently leased privately to a landholder for grazing purposes. The irrigated 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.*

Directly, adjacent land 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). Access to the site is limited with the boundaries fenced and gates locked (Council employees and lessee access), and access to the storage pond also limited with secured fencing boundaries.

Effluent reuse scheme is operating under the following guide lines. The existing sewerage treatment system can comfortably achieve this guide lines.

The quality of effluent produced at Nyngan is classified as low strength effluent (EPA, 2004). Key effluent quality parameters satisfy low strength effluent criteria (BODs < 50 mg / L, total nitrogen (N) < 40 mg / L and total phosphorus (P) < 10 mg / L). The current EPA licence limits most relative to effluent irrigation are: total N of 20 mg / L, total P of 10 mg / L, pH 6.5 – 8.5, and pathogen levels less than 1000 cfu /100 mL.

There was no history of overflows in the reticulation system. It 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 access chambers. The 21st December 2007 storm produced heavy runoff, building damage and long pump run times, but no reticulation overflows.

2.3 SITE SUPERVISION AND CONTROL

Nyngan sewerage operation system consists of 04 sewerage pumping stations called PS1, PS2, PS3 and PS4.All theses pumps are auto operated .This system has ample storage capacity in deep sewers, access chambers and pumping stations. Pumping stations have 02 pumps alternatively duty and back up roles, except PS3 has one pump, with a spare ready for immediate changeover. The three small pump stations PS2, PS3, and PS4 are “piggy backed “onto PS1 which pumps all to sewerage treatment pond system.

Generally, sewerage treatment is undergone in a natural process. Continuos aeration has been introduced to the primary pond and gravitated through a baffle wall to secondary and tertiary ponds. Generally allow 30 day detention in tertiary ponds during dry weather conditions.

Therefore this system is not supervised at all times. However, routine critical point inspection is scheduled in every morning. Especially, due to the seasonal variation, some of detention ponds require additional aerations. In such cases, tractor mounted circulation pump has to be utilised and

moved to the required locations. Similarly when activated sludge circulation is needed, sludge circulation pump has to be manually operated.

During normal working hours the facility is staffed by qualified and experienced personnel. These include a Site Supervisor and up to two Site Operators. Two site Operators are generally present during normal working hours. The operators’ responsibilities include response to alarms, fault identification, trouble shooting and determination of critical control set-points. A highly experienced and qualified officer carries out this inspection at lest once a working day to check the STP is operating effectively and efficiently.

Fencing and security gates are in place at the main access point to the facility which ensures entry is only possible with Council authorisation and supervision. All gates are locked outside of normal working hours except for when approved by the Senior Water Operator in special circumstances... Council maintains the access roads around the facility and Council staffs are to be responsible for internal traffic control.

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

- Sewerage Pump Stations
- Sewerage Treatment Ponds
- Sewerage Re Use Scheme

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.

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

The element of most common concern is that of algal presence 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, irrigation should cease and the issue should be resolved to the satisfaction of both parties prior to irrigation recommencing.

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

To manage leaks, chemicals such as diesel fuel are kept on mobile self-bunded trolleys to allow their safe use in less well protected areas of the site. In the event of a chemical spill, PPE is provided for on-site staffs which consist of 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

3.1 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:

- Regular weed control maintenance to mitigate bushfire risk
- Access for fire hydrant
- A security fence to prevent unauthorised access and acts of vandalism;
- Maintaining machinery in good working order to minimise risk of sparks; and

3.2.2 MECHANICAL FAILURE OF STP

Site Operators carry out inspections at least once a working day to ensure plant and equipments is operating effectively and efficiently.

3.2.3 ACTS OF VANDALISM OR TARGET OF TERRORIST ACTIVITY

The boundary road fence along Colane Road limits unauthorised access outside operational hours. All staff is required to be vigilant and aware that the site is a potential target for vandalism.

3.3 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 Hypochloride Solution (10-15% available chlorine) – Sanitising agent;
- Unleaded Petrol;
- Machine Oil 680;
- Lubricants;

Enclosed DRAWING NO; 04 UTILISATION PLAN provides details of where these chemicals are stored on the premises as well as those on bunded palettes.

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;
- Wet Weather Bypass at the sewage treatment plant (STP) and is when untreated sewage bypasses the sewage treatment process and discharges to the Macquarie River during wet weather;
- Pond failure
- Mechanical failure SP results in discharge of untreated sewage;
- Mechanical failure at the SP results in offensive odour from the premises;
- Acts of vandalism or target of terrorist activity at the STP;
- Discharge pipeline breakage;
- Exceed Environment Protection Licence (EPL) discharge limits to the Bogan River; or
- Significant adverse environmental impact from irrigation in utilisation areas.
- Risk of ground water pollution at effluent reuse pond

3.5 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 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

Likelihood – refer to Sections 5 and 7 of the *PRP 100 Sewer Overflow Investigations Report, December 2007* for details.

Impact – refer to Section 6 of the *PRP 100 Sewer Overflow Investigations Report, December 2006* for details.

Contributing Factors – refer to Section 5.1 of the *PRP 100 Sewer Overflow Investigations Report, December 2007*for details.

3.5.2 WET WEATHER OVERFLOW FROM THE RETICULATION SYSTEM DURING WET WEATHER

Likelihood – refer to Sections 5 and 7 of the *PRP 100 Sewer Overflow Investigations Report, December 2007* for details.

Impact – refer to Table 6 of the *PRP 100 Sewer Overflow Investigations Report, December 2007* for details.

Contributing Factors – refer to Table 5 of the *PRP 100 Sewer Overflow Investigations Report, December 2007* for details.

3.5.3 WET WEATHER BYPASS AT THE STP

Low Likelihood – Bypass of the STP is extremely unlikely to occur. Because, this pond system has connected to effluent reuse irrigation system and capacity to circulate effluent from tertiary pond to 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. 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 could cause considerable harm to properties and environmental habitats 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. Because, this pond system has connected to effluent reuse irrigation system and capacity to circulate effluent from tertiary pond to 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. 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 could cause considerable harm to properties and environmental habitats 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

3.5.5 POND FAILURE AT THE STP

Low Likelihood – The site has significant and advanced 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 (dry creak) 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

3.5.6 MECHANICAL FAILURE AT THE STP 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 – 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. Any pollutants which reach the nearby Talbragar and Macquarie Rivers 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

3.5.7 MECHANICAL FAILURE AT THE STP 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) can be readily controlled by operators manually applying appropriate chemicals to the effluent such as deodorisers within pump stations. Additionally fresh water used to flush the system.

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

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

3.5.8 INADEQUATE CHEMICAL STORAGE

Low Likelihood – The storage of potential accelerants such as maintenance chemicals and fuels is undertaken on-site, however as these are 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 cropping 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, 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 and stores and uses often highly combustible chemicals.

Medium Impact – the site is surrounded by a cropping 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 DISCHARGE PIPELINE BREAKAGE

Low Likelihood – The site has significant and advanced 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 will have been at the very least partially treated, and during normal operating conditions the effluent would have been fully treated.

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

3.5.11 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 the City of Nyngan experiences prolonged periods of heavy rain. There is very low likelihood of discharging effluent to Box Cowal dry creak.

Low Impact – The impact on environmental habits and adjacent properties of the Bogan River is considered to be very low as effluent is directed to the effluent re use scheme and during normal operating conditions the effluent would have been fully treated.

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

3.5.12 SIGNIFICANT ADVERSE ENVIRONMENTAL IMPACT FROM IRRIGATION IN UTILISATION AREAS

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

Low Impact – The environmental impact is considered to be low as the effluent discharged and used for irrigation purposes, and during normal operating conditions the effluent 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

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 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.

4.2.2 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, all the following authorities must be notified by the Site Supervisor:

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.

Location – Directions: (SPEAK CLEARLY, Name, Nature of Emergency & Acting Supervisor)

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 (1st 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.

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** - Mitchell Cluster, Hospital Road, Nyngan 2825, Phone: (02) 6832 1707.
- **Rural Fire Service** - 65 Cobar St, Nyngan, (02) 6832 1014
- **Poisons Information Centre** 131 126
- **Gas** – AGL 131 909
- **Electricity** - Country Energy 132 356
- **Water / Sewerage / Stormwater – BSC:** 02 6835 9000 or Trevor Waterhouse, 0409 078 762

Manager Environmental Services – BSC: 02 6835 9013 Mobile: 0419 607 401

The Environment Protection Authority (EPA) Dubbo Regional Office 2 6883 5330

Emergency Hotline Number (24 hours) 131 555

-
- **Farm Manager Contact:** Kieran Smith
  Office: (02) 6835 9000 (w) Mobile: 0428 239 490
- **Airport lessee contact: Trevor Waterhouse Mobile:** 0409 078 762
- **Bogan Shire Council contact:** Alister Quarmby
  Office: (02) 6359024 **(w) Mobile**: 0428239491
- Other:

Helicopter landing coordinates - Latitude: 31.55 °S Longitude: 147.20 °E

The Ministry of Health (via Public Health Units)

Dubbo Regional Office	02 6841 5569
Public Health Officer on Call (24 hours)	0418 866 397

Work Cover 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.**

4.2.3 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 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 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 through the use of 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.

4.4 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 opposite (Orally Park) to 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.

4.5 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 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	Mrs MF Smith	Laravoulta,Nyngan NSW 2825		LOT 38 DP 753420
	Mr TT& Mrs SA Waterhouse	Po Box 223,Nyngan NSW 2825	68321458	LOT 39 DP 753420
	Mr Tod Rope	Yelate Nyngan 2825	68321214	LOT 41 DP 848853
Chemical Storage(Water Treatment Plant)	Property Administration Deptmt, Telstra	C/- United Group,Services,GPO Box 2698		LOT 12 DP 773711
	The Manager, Justice Department	NSWAttorney General Dept Attn:Julie O'connor		LOT 2 DP 758802 Section 31
	The Trustees Of, Anglican Property Trust	Po Box 2,Nyngan NSW 2825		LOT 6 Section 31 DP 758802
	Ms HS Galvin	64 Bogan Street, Nyngan NSW 2825	68322151	LOT 81 DP 1010259
Sewer Pump Station-01	Mr RE &Mrs SM Black	Po Box 189,Nyngan NSW 2825	68321773	LOT 1 DP 965760
	Mr RE Whiteford	25 Wambiana St,Nyngan 2825	68321595	LOT 12 Section 20 DP 758802
	Mr B Murden	33 Wambiana St,Nyngan NSW 2825	68322496	LOT 13 DP 758802 Section 20
	Aboriginal Housing Office	223 - 239 Liverpool Road,Ashfield NSW 2131		LOT 8 DP 758802 Section 20
	Mr DJ Skews	21 Argus Avenue,Gumly NSW 2652		LOT 102854
	GBS Falkiner pty ltd	C/- Falkiner Family Super Fund Haddon Rig		LOT
	Mr JB Neyland	24 Nymagee Street,Nyngan NSW 2825		LOT
	Department of Housing	Po Box 466,Liverpool NSW 2170		Part LOT 3 DP 758802 Section 20
Sewer Pump Station-03	Mrs LE Skewpeck	Gpo Box 260 Nyngan Nsw 2825	68321562	LOT 10 DP 42135
	Mrs DF Smith	71 Cathundril Street,Nyngan NSW 2825		LOT 6 DP 42135
	Mrs GJ Johnson	73 Cathundril Street,Nyngan,NSW 2825		LOT 7 DP 42135
	Mr KL&Mrs JP Jackson	75 Cathundril Street,Nyngan NSW 2825		LOT 8 DP 42135
	Mrs BM Clarke	77 Cathundril St Nyngan 2825		LOT 9 DP 42135
Sewer Pump Station-02	Mrs GD Eldridge	97 Cobar St Nyngan 2825		LOT 1 DP 327199
	Mr GV & Mrs Be Parsons	Po Box 262 Nyngan NSW 2825		LOT 1 DP 925785
	Mrs NB Dutton	Po Box 195 Nyngan NSW 2825		LOT 1 DP 965760
	Mr GV Parsons	Po Box 262 Nyngan NSW 2825		LOT 10 DP 1111471
Sewer Pump Station-04	Mr GR& Mrs AE Webster	Lot 1,Hoskins ,treet,Nyngan NSW 2825		LOT 1 DP 758803 Section 4
	Rob Shine	35 Ellen Street,Nyngan NSW 2825		LOT 3 DP 261826
	Tritton Resources Ltd	Po Box 386 Nyngan NSW 2825		LOT 4 DP 261826
	Mrs PM Carter	31 Ellen Street Nyngan NSW 2825		LOT 5 DP 261826
	Mr WW & Mrs DT Powell	Po Box 88 Nyngan NSW 2825		LOT 56 DP 613677
	Brendon Johnson	27 Ellen Street Nyngan NSW 2825		LOT 7 DP 261826

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 *Drawing NO; 02 SITE PLAN* which identifies the commercial, industrial and residential properties adjacent to the STP site boundary.

4.7 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:

Trevor Waterhouse, 0409 078 762

Water and Sewerage Supervisor,

Bogan Shire Council

Graeme Bourke, 0427 264 262

Manager Engineering Service

Bogan Shire Council

Jayantha C.W .Ediriweera, 0428 264 262

Water and Asset Manager

Bogan Shire Council

Implementation

5.1 STATUS OF THE PIRMP

The PIRMP and this Supporting Statement are standalone documents designed to assist personnel at the DSTS 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 *PRP 100 Sewer Overflow Investigations Report for the Dubbo Sewerage System, December 2006* and *PRP 101 Incident Notification Protocol, August 2012.*

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 indentifying 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.

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:

Water and Sewerage Supervisor, Bogan Shire Council

Manager Engineering Service, Bogan Shire Council

Water and Asset Manager, Bogan Shire Council

Manager Environmental Services, Bogan Shire Council

General Manager, Bogan Shire Council

References

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

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

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

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

PRP 100 Sewer Overflow Investigations Report for the Dubbo Sewerage System – Final, December 2007 – prepared by BOGAN SHIRE COUNCIL

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

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

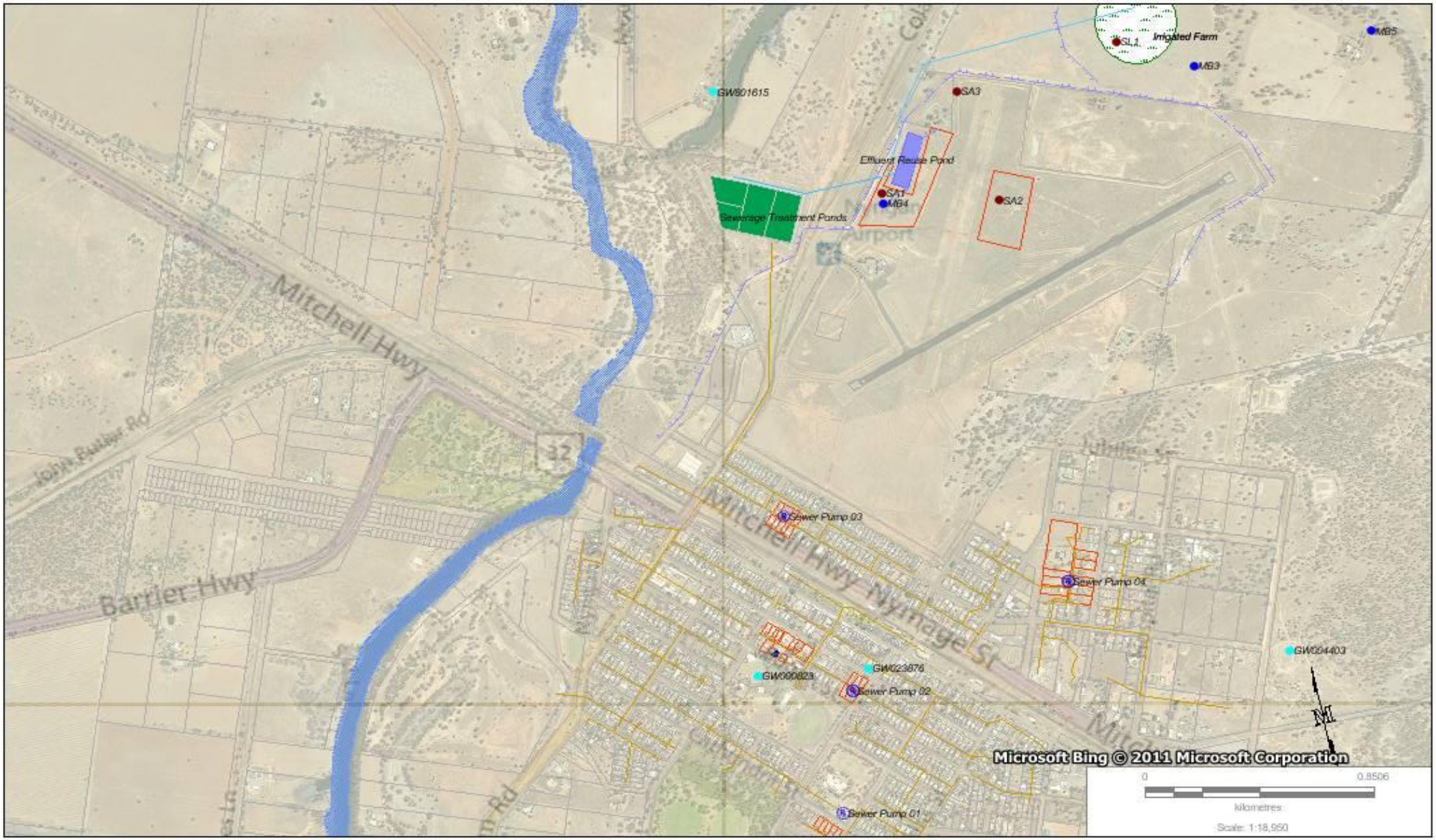
Drawings

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	TILE SHEET DRAWING NO: 01 24/10/2012 WATER AND ASSET MANAGER - ENGINEERING DEPARTMENT	Bogan Shire Council Nyngan

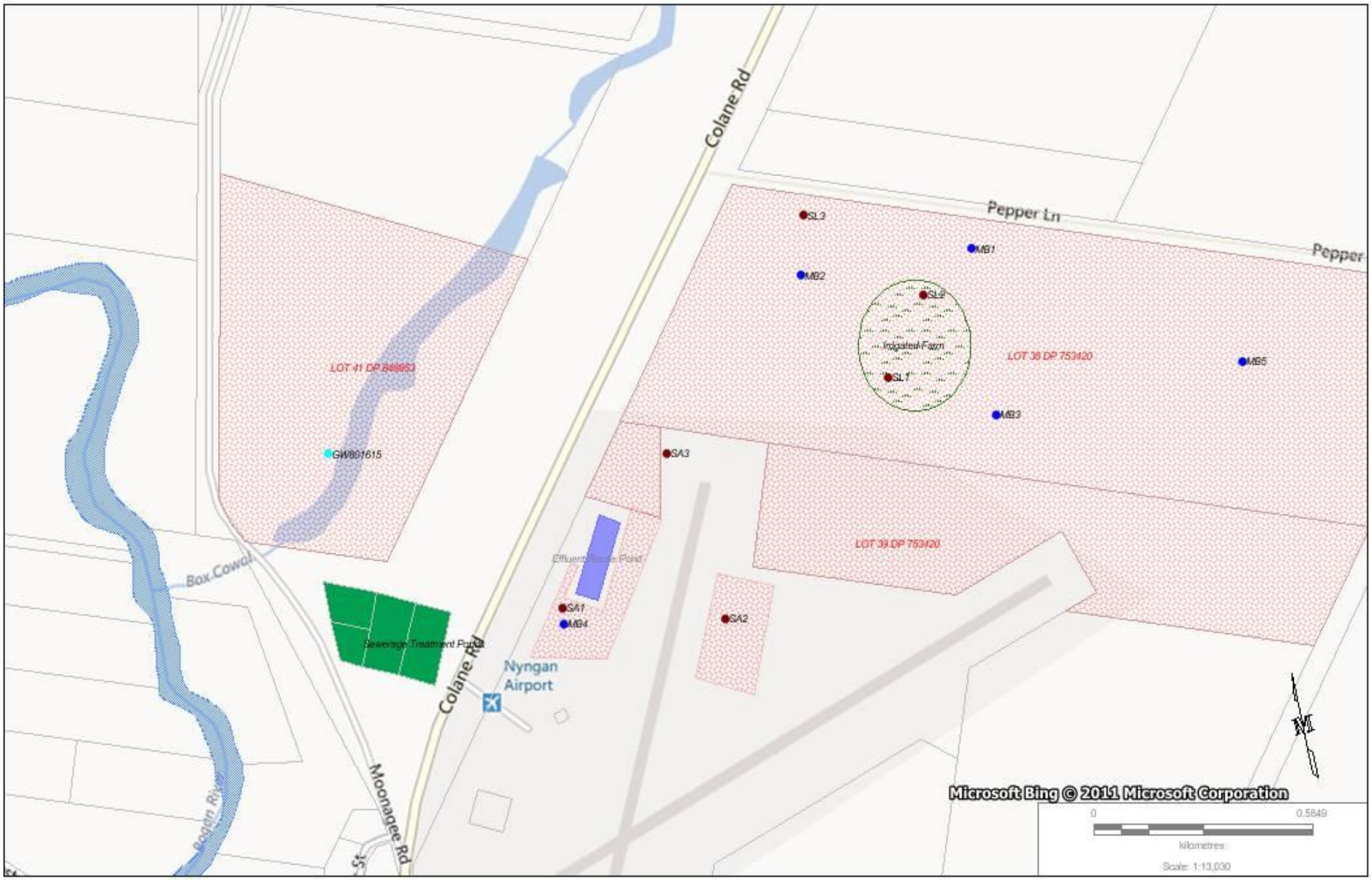


POLLUTION INCIDENT RESPONSE MANAGEMENT PLAN
NYNGAN SEWAGE TREATMENT SYSTEM

SITE PLAN

DRAWING NO: 02
24/10/2012
WATER AND ASSET MANAGER - ENGINEERING DEPARTMENT

Bogan Shire Council Nyngan



POLLUTION INCIDENT RESPONSE MANAGEMENT PLAN
NYNGAN SEWAGE TREATMENT SYSTEM

UTILIZATION AREA PLAN
DRAWING NO: 03
24/10/2012
WATER AND ASSET MANAGER - ENGINEERING DEPARTMENT

Bogan Shire Council Nyngan

Risk_Properties

Sewermains

Effluent_PM

POLLUTION INCIDENT RESPONSE MANAGEMENT PLAN
NYNGAN SEWAGE TREATMENT SYSTEM

UTILIZATION AREA PLAN
DRAWING NO: 04
24/10/2012
WATER AND ASSET MANAGER - ENGINEERING DEPARTMENT

Bogan Shire Council Nyngan

Appendix A

POLLUTION INCIDENT RESPONSE MANAGEMENT PLAN