

# WINGECARRIBEE SHIRE COUNCIL

## SEWAGE TREATMENT SCHEMES

### POLLUTION INCIDENT RESPONSE MANAGEMENT PLAN



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1. Document Management .....	4
1.1 Version Control	4
1.2 Activation & Training	5
2. Introduction	6
2.1 Key Terms and Definitions	6
2.2 Relationship with other WSC Documents	7
2.3 WSC Incident Classification	7
3. Hazards to Human Health and the Environment	9
3.1 Hazard Causes & Pre-emptive actions	9
3.2 Minimising Harm to Person on the Premises	11
3.3 Inventory of Potential Pollutants	11
4. Safety Equipment	11
5. Actions to be taken during or immediately after a PIRMP notifiable pollution incident	13
5.1 Pollution Incident Notification Protocol	13
It is a legal requirement for pollution incidents to be notified to relevant agencies ‘immediately’ when they occur.	13
5.2 In the event of a MAJOR Pollution Incident	14
5.3 Incident Reporting Information	14
5.4 Hazard Specific Protocols	<b>Error! Bookmark not defined.</b>
7.1 Communicating with Neighbours and the Local Community	41
7.2 Community Communication Protocol	41
8. Site Services and Infrastructure Maps	42
9. Staff training	42
10. APPENDIX 1 – Berrima STP Maps & Site-Specific Information (EPL #1731)	43
11. APPENDIX 2 – Bowral STP Maps & Site-Specific Information (EPL #1749)	48
12. APPENDIX 3 – Bundanoon STP Maps & Site Specific Information (EPL #2436)	54
13. APPENDIX 4 – Mittagong STP Maps & Site Specific Information (EPL #3575)	59
14. APPENDIX 5 – Moss Vale STP Maps & Site Specific Information (EPL #10362)	64
15. APPENDIX 6 – Robertson STP Maps & Site Specific Information (EPL #20205)	69
16. APPENDIX 7 – Risk Assessment and Controls	76
16.1 Reticulation Risk Assessment	76
16.2 STP Risk Assessment	78
17. APPENDIX 8 – Corporate Risk Matrix	81
18. APPENDIX 9 – PIRMP Background and Legislative Information	83

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18.1	Objectives of PIRMP	83
18.2	Legislative Requirements	83
18.3	Form of the Plan and Making Plan Available	84
18.4	Testing of Plan	84
18.5	Implementing plans	85

## 1. Document Management

### 1.1 Version Control

Table includes the version control and induction for this document. The version control will be carried out 1 month prior to the licence anniversary being the 1<sup>st</sup> of May. Version control is included for 4 years.

*Table1: PIRMP Version Control*

Version Number	Date Reviewed	Responsible Person	Amendment Description	Review Type
V0	6/02/2015	Kazi Mahmud	Implementation	Initial Document
V0	1/05/2016	Daya Siriwardena	Review of document	Desktop
V1	13/12/2016	Stephanie Bright	Review and addition of version Control, activation/training, spelling and grammar.	Desktop
V2	27/11/2017	Victoria Longley	Consolidation of six EPL schemes into one PIRMP, review of information and activation training / scenario.	Desktop
V2	30/4/2018	Victoria Longley	Consolidation of six EPL schemes into one PIRMP, review of information and activation training / scenario.	Desktop and Workshop
V3	08/05/2019	Victoria Longley	Updated contacts, contractors and equipment lists	Desktop
V4	28/02/2020	Victoria Longley	Updated contacts and added downstream customers	Incident review
V5	3/05/2021	Harry Sahota	Updated contacts and community plan	Desktop
V6	24/03/2022	Tharun Kesavan	Updated contact & contractor list and added new hazard scenario	Desktop
V7	29/03/2023	Tharun Kesavan	Updated contacts, contractors and equipment lists	Desktop

## 1.2 Activation & Training

Table includes the details of the PIRMP activation and testing of plans.

*Table2: PIRMP Staff Induction & Assessment*

Date	Activation or Testing	Responsible Persons	Staff	Comment / Detail
19/04/2016	Test	Kazi Mahmud	Operations team	Desktop Testing
15/03/2016	Test	Daya Siriwardena	Operations team	Desktop Testing
26/4/2017	Test	Victoria Longley	Operations team	Scenario
16/1/2018 & 17/1/2018	Test	Victoria Longley	Operations team and Hunter H2O	Workshop exercise (alum spill, mains break, SPS overflow)
17/4/2018	Test	Victoria Longley	Operations team	Final desktop review
1-2/05/2019	Test	Victoria Longley	Operations Team	Scenario – dry weather overflow and bypass
26/11/2019	Activation	Victoria Longley	Operations Team	Decant failure Mittagong STP
4/3/2020	Test	Victoria Longley	Operations Team	Desktop - reticulation
6/5/2020	Test	Victoria Longley	Remote Response	Desktop - reticulation
22/4/2021	Test	Harry Sahota	Operations Team	Scenario – Bowral STP
5/5/2021	Test	Victoria Longley	Operations Team/Remote response	Desktop – reticulation
24/03/2022	Test	Tharun Kesavan	Operations Team	Desktop – Mittagong Depot
30/03/2022	Test	Tharun Kesavan	Operations Team/Remote response	Scenario – Reticulation Mittagong Depot
29/03/2023	Test	Tharun Kesavan	Wastewater Treatment Team	Desktop Scenario – Mittagong Depot
25/04/2023	Test	Roger Moore	Wastewater Network Team/Remote Response Team	Scenario – Network Mittagong Depot

## 2. Introduction

This Pollution Incident Response Management Plan (PIRMP) has been prepared to describe the processes required to respond to pollution incidents at Wingecarribee Shire Council's (WSC) sewage treatment schemes. WSC has six treatment schemes with EPA licences:

Asset Name	EPL #	Specific Detail	STP Address
Berrima STP	3575	Appendix 1	201 Taylor Avenue, New Berrima, Lot 1 DP 774598
Bowral STP	1749	Appendix 2	Corner of Burradoo Rd & Railway Avenue, Burradoo, Lot 278 DP 914555; Lot 2 DP 1119953
Bundanoon STP	2436	Appendix 3	145 Quarry Road, Bundanoon, Lot 1 DP 618233; Lot 2 DP 618233
Mittagong STP	10362	Appendix 4	27 Drapers Road, north Side of South Western FWY, Lot 12 DP263904 7 Lot 175 DP751267
Moss Vale STP	1731	Appendix 5	27B Kennedy Close, Moss Vale, Lot 1 DP 187926; Lot 2 DP 187926
Robertson STP	20205	Appendix 6	2B May Street, Robertson, Lot 1 DP 1077348

### 2.1 Key Terms and Definitions

An understanding and appreciation of the following key terms is considered integral to the successful implementation of this PIRMP.

#### Pollution Incident Definition

The POEO Act 1997 defines a pollution incident as:

*'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'.*

#### Notifiable Pollution Incidents Definition

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 as:

*'(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'.*

#### Immediate Reporting Requirement

Industry is required to report notifiable pollution incidents '***immediately***' to the Environment Protection Authority (EPA), and other relevant authorities such as NSW Health (via Public Health Units), Fire & Rescue NSW, SafeWork NSW (formerly WorkCover) the local Council.

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**'Immediately'** has its ordinary dictionary meaning of promptly and without delay.

## **2.2 Relationship with other WSC Documents**

In the event of an environmental pollution incident, staff must follow this PIRMP. This PIRMP is to be used in conjunction with the following related WSC documents:

- Business Continuity Plan
- Safety Documentation and Procedures available as hard copies on STP sites and controlled copies saved on intranet
- PRO-COU-ALL-003 Incident Notification & Reporting Procedure (and 'Attachment 1 and 2')
- Internal Incident Notification Form (FRM-COU-ALL-003) (location on intranet)
- Sewer Response Form (SharePoint)
- Sewer Overflow Notification Form (WSC-SONF03) (location on intranet)
- STP Bypass Notification Form (WSC-SBNF01) (location on intranet)

## **2.3 WSC Incident Classification**

In the event of an environmental pollution incident, each incident should be classified according to the below categories to determine the notifications required. Incidents that are notifiable under the PIRMP (refer section 2) are classified as Category 3 (Major incidents) or Category 2 (Medium incidents) by WSC.

Table 3: WSC Incident Categories and Notification Detail

Incident Categories	Example of Incident and Required Assistance	Notification Detail
Trivial	<b>Contained pollution incident.</b> There is no risk of material harm to humans or the environment. Incident is easy to clean up without additional assistance.	<b>Does NOT require external reporting.</b> Prepare internal reporting form and provide to Supervisor/Engineer.
Minor	<b>Contained pollution incident or Minor not contained pollution incident.</b> There is no risk of material harm to humans or the environment. Incident is easy to clean up without additional assistance.	<b>Senior operator / team leader to report to supervisor/ engineer/ remote response.</b> Report as part of EPL licence condition to EPA and Water NSW (if required).
Medium	<b>Major contained pollution incident and/or Medium not contained pollution incident.</b> There is risk of material harm to humans or the environment but clean up can be completed without assistance.	<b>Supervisor/engineer/remote response to report to Manager immediately.</b> Reportable incident under the PIRMP - notify relevant agencies OR Report as part of EPL licence condition to EPA and Water NSW (if required).
Major	<b>Major not contained pollution incident with risk of leaving the site boundaries.</b> Potential or actual harm to humans and the environment and/or Assistance is required with clean-up from other agencies.	<b>Manager to report to Group Manager immediately.</b> Reportable incident as part of PIRMP, notify all relevant agencies/ authorities according to incident protocol (refer section 5).



### 3. Hazards to Human Health and the Environment

The main pollution related hazards identified at the WSC sewage treatment schemes have been summarised in the table below. The complete risk assessment for each hazard scenario and likelihood and consequences are provided in Appendix 7.

*Table 4: STP Schemes Pollution Hazard Scenarios*

	Hazard Scenario	Type of hazard	What could increase likelihood?
1.	STP wet weather bypass	Environmental / Human	Excessive rainfall
2.	Network wet weather overflow	Environmental / Human	Excessive rainfall
3.	STP dry weather bypass	Environmental / Human	Equipment, infrastructure or process failure
4.	Network dry weather overflow	Environmental / Human	Blockage or equipment failure
5.	Substance spill or release	Environmental / Human	Equipment, infrastructure or Process failure
6.	Odour	Environmental / Human	Septic sewage, spill, process failure, biosolids removal, lagoon clean-out, illegal dumping
7.	Natural disaster – Floods, Bushfire, Earthquake, Storms etc.	Environmental/ Human	Excessive damage of infrastructure, process and services as a result of disaster.
8.	SPS Pipe Main Burst	Environmental/ Human	Equipment, infrastructure or Process failure

#### 3.1 Hazard Causes & Pre-emptive actions

The most likely causes for hazards to occur and pre-emptive actions to be implemented to minimise the risk of hazards are identified and listed in Table 5.

*Table 5: Identified Hazard Causes and Pre-emptive Actions*

<b>Hazards Causes</b>	<b>Pre-emptive Actions</b>
Natural Event or Disaster	Business Continuity Plan, Emergency Plans
Asset, Communication or Infrastructure Failure	Alarms and callouts, remote access, service contracts, routine inspections, reactive and preventative maintenance
Power Failure	Alarms and callouts, remote access, service contracts (electrical maintenance), back-up power (UPS), generators, alternative connections (at some sites), routine inspections
Fire or Explosion	Inductions, emergency evacuation points, fire safety (extinguishers, blankets, exits), routine fire equipment audits, safety audits, chemical storage, and procedures.
Trade waste contamination	Trade waste team, trade waste policy, trade waste approvals, customer inspections, customer sampling, operational sampling, operational monitoring and routine inspections.
Failure of Treatment Process	OEMP/operations manual, daily checks, sampling, process data reports, alarms, remote access, reactive and preventative maintenance, service contracts (maintenance), routine inspections and operational monitoring.
Events related to Chemical Delivery/Dosing/Handling	Provision of chemical spill kit, eye wash stations, chemicals stored in bunded areas, signage, Standard Operating Procedures and Safe Systems of Work (SWMS, HIRAC)
Bomb Threat /Criminal Acts/ Security Threats	Business Continuity Plan, Emergency Evacuation Plan for Mittagong Depot, evacuation points, inductions
Illegal Dumping	Waste contracts and procedures, gates and locks limiting unauthorised access to Council sites
Excessive inflow or flooding of tanks	Hydraulic capacity, alarms and callouts, remote access, service contracts, routine inspections and operational monitoring

### 3.2 Minimising Harm to Person on the Premises

Staff at each STP follows emergency protocol/process by having the following training and procedures: -

- Attendance Register at the STP
- Corporate and site Inductions
- Internal & External Audits
- Operational and safety training
- Scenario training
- Operational & Maintenance Manuals
- Operational procedures
- Safety procedures and Incident management
- Incident procedures
- Communications and Alarm system
- PPE, first aid and Safety Equipment
- Process Reviews
- Emergency Plans
- Evacuation points/muster location (refer STP maps in Appendix 1 to 6)

### 3.3 Inventory of Potential Pollutants

For the list of chemical and substance inventory, refer to the Appendix for each STP.

STP Site	EPL #	Refer to
Berrima	1731	Appendix 1
Bowral	1749	Appendix 2
Bundanoon	2436	Appendix 3
Mittagong	10362	Appendix 4
Moss Vale	3575	Appendix 5
Robertson	20205	Appendix 6

## 4. Safety Equipment

The safety equipment inventory is provided below.

Equipment	Location
Utes	Mittagong Depot (spare) and STPs
Personal Protective Equipment (gloves safe goggles ear plugs)	Mittagong Depot and STPs
Spill kits	Mittagong Depot STPs (near bund area)
Fire extinguisher (carbon dioxide)	Mittagong Depot and all buildings at SPSs and STPs
Gas detectors	Mittagong Depot Robertson STP

Equipment	Location
Harness & fall arrestor	Mittagong Depot STPs
Boat	Bowral STP
Sandbags	Mittagong Depot
Straw bails	Mittagong Depot STPs Co-op
Disinfectant	Mittagong Depot
Pumps	Mittagong Depot Mittagong STP Bundanoon STP
Lay flat pipe	Mittagong Depot
Traffic management equipment	Mittagong Depot
Heavy Equipment including sucker truck, excavator and backhoes	Mittagong Depot
Generator (trailer mounted)	Berrima STP Bowral STP
First Aid Kits	Mittagong Depot All STP offices Utes & Council Trucks
Defibrillator	Mittagong Depot Office All STP Offices
2-Way Radio	Mittagong Depot
Mobile Phones	Operators/engineer/Manager/Group Manager
Computer/email/server access	Mittagong Depot All STP Offices
Breathing apparatus	Mittagong Depot STPs Office/Storage
Tripod	Mittagong Depot
Chain blocks	Bowral, Robertson, Moss Vale and Mittagong STPs

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## 5. Actions to be taken during or immediately after a PIRMP notifiable pollution incident

### 5.1 Pollution Incident Notification Protocol

**It is a legal requirement for pollution incidents to be notified to relevant agencies 'immediately' when they occur.**

Council will also notify agencies if there is reasonable evidence that **an incident may or is likely to occur**, although it hasn't yet occurred.

The Council has the duty to notify pollution incidents under the legislation. This duty is to be performed by the person who manages the division carrying out the activity when the pollution incident occurs, with the following exceptions:

1. If the relevant Manager / engineer cannot be located then the incident must be immediately referred to the Manager, or any other member of the Executive Team to action the notification.
2. If the Manager, nor any member of the Executive Team, can be located promptly or without delay, then the staff member who has identified the incident has the duty to notify the relevant agencies.

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## 5.2 In the event of a MAJOR Pollution Incident

- 1) **Immediate action** should be taken to ensure the safety of people and containment of pollution if it is safe to do so.
- 2) **Call 000 (or 112 from mobiles) if the incident threatens human health or property.** This will mobilise Fire and Rescue NSW, the NSW Police and/or the NSW Ambulance Service (combat agencies) as required.
- 3) **If a combat agency is not required then,** as soon as it is **safe to do so**, notify relevant agencies:

## 5.3 Incident Reporting Information

### Information required for notification:

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

If information is not known at the time of initial notification, but becomes known at a later time, then additional notification should be made.

Take photos or videos as proof of the detail and extent of incident.

### **Notification Forms (Internal):**

Fill out the appropriate form and submit to the Manager. Available forms are:

1. Incident Notification Form.pdf
2. Sewer Overflow Notification Form (WSC-SONF03)
3. STP Bypass Notification Form (WSC-SBNF01)

### **Notifiable Incident Written Report (to EPA)**

Prepare and submit a written report within 7 days after the incident to the EPA. The report information should be displayed in the below template. The information is contained in the Sewer Overflow/Bypass Notification forms.

<b>EPA Reference</b>
<b>System</b>
<b>EPA Licence</b>
<b>Event</b>
<b>Dry/Wet weather</b>
<b>Location</b>
<b>Date</b>
<b>Estimated start time</b>
<b>Estimated duration</b>
<b>Estimated Volume</b>
<b>Receiving environment</b>
<b>Probable cause</b>
<b>Action to stop overflow</b>
<b>Clean up actions</b>
<b>Preventative actions</b>

## **5.4 Hazard Specific Protocols**

The identified hazards Incident Response Procedures are provided in this section on the following:

Hazard	Hazard Description
1	STP wet weather bypass
2	Network wet weather overflow
3	STP dry weather bypass
4	Network dry weather overflow
5	Substance spill or release
6	Odour complaint
7	Natural disaster – Floods, Bushfire, Earthquake, Storms etc.
8	SPS Rising Main Burst

STP wet weather bypass			
Haz No. 1	Summary of Hazard:	A severe rain event overloads the STP and a portion of the sewage bypasses the plant process and is discharged to the receiving environment.	
How we could become aware of the incident:		High level alarms Discharge from bypass discharge points (visual) Inflow monitoring	
Resources / Equipment Identified:	<ul style="list-style-type: none"><li>Sampling equipment to sample (quality)</li><li>Remote access allows after hours monitoring</li><li>Volume estimated / calculated</li></ul>		
INCIDENT RESPONSE PROCEDURE			
Key Incident Steps	Individual Actions	Who is Responsible?	Additional Comments
			e.g. Completed Y/N, Details of action taken
Incident occurs / noticed	Staff member identifies issues / bypass.	Senior operator onsite	
	Investigate the issue and determine the scale and level of risk and the actions and resources required.	Senior operator onsite	
	If safe to do so, contain or try to limit the bypass to minimise the environmental incident severity / impact.	Senior operator onsite	Call in additional resources as required. Delegate / Escalate if required (refer Council Line-Manager Contact List)

Reference: ECM number -

Document Name: Sewage Treatment Scheme Pollution Incident Response Management Plan

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Page 16 of 90



Notifications	Notify Line Manager - Engineer Identify cause and report any additional requirements/resources required.	Senior operator onsite	As soon as practical and safe to do so. Follow escalation contact list (Line Manager).
	Notify Manager Investigate the issue and determine the scale and level of risk and the actions and resources required.	Line Manager - Engineer	Notifying Manager can be delayed to within business hours if no harm is expected from discharge.
	Notify Manager Water Services	Coordinator	If MAJOR (if Medium incident in a reasonable amount of time – such as next working day)
	Notify DGM GM	Manager Water Services	If deemed a MAJOR incident
	Notify relevant authorities: <ul style="list-style-type: none"> <li>• EPA</li> <li>• WaterNSW</li> <li>• Ministry of Health</li> <li>• Safe Work NSW Health</li> <li>• Endeavour Energy (for power failure)</li> </ul>	Engineer/Coordinator	As required Provide all relevant and available information at the time. Provide additional information as soon as it becomes available / is confirmed.
	Notify internal council divisions as applicable: <ul style="list-style-type: none"> <li>• Environment</li> <li>• Environmental health</li> <li>• Customer service</li> <li>• Risk</li> <li>• Incident reporting</li> <li>• Media</li> </ul>	Coordinator / Manager Water Services	

	Notify affected residents and downstream waterway users	Environmental Health / Media, or coordinator / Manager Water Services	
Incident Response (continued)	Organise resources to fix fault	Engineer and /or Coordinator	Refer to afterhours procedure if required
	Manage onsite staff to rectify fault	Senior operator onsite	
	Take samples as appropriate or required (per EPL licence or per advice)	Senior operator onsite	Refer to specific EPL licence conditions test/isolate biosolids if required Test reuse dams if required
	Report any unusual discharge to engineer/Manager	Senior operator onsite	
	Once storm flow resides, continue sewage treatment processes	Senior operator onsite	
	Organise clean-up if required	Senior operator onsite	
	Establish internal Communication on incident changes and progress	Senior onsite operator and/or Manager Water Services	
Reporting	Complete Bypass/Overflow and/or pollution incident report forms	Senior onsite operator and/or Engineer	Fill out all relevant information as requested on relevant forms and submit to Manager.
	Review the Incident Report if required	Coordinator	Submit to incident notification email

	Document the incident in the PIRMP, and review and update the PIRMP if required.	Coordinator	
	Written notification to EPA within 7 days of incident finished	Engineer /Coordinator	
Review & Improvement	Undertake incident root cause analysis and identify improvements, review areas of inflow and infiltration	Senior operator onsite/ Engineer / Coordinator	
	Feedback to assets and development and capital program	Engineer / Coordinator	
Documentation	Information (incident notification form and additional information available) saved in ECM	Business Support Officer	

Network Wet Weather Overflow			
Haz No. 2	Summary of Hazard:	A severe rain event overloads the sewerage network and a portion of the sewage overflows and is discharged to the receiving environment.	
How we could become aware of the incident:		Inspection by Operator Power failure Complaint / notification from public	
Resources / Equipment Identified:	<div><div><ul style="list-style-type: none"><li>• Crew truck</li><li>• Jetter truck</li><li>• Combo unit</li><li>• Sampling, clean-up and disinfection</li><li>• Crane</li><li>• Generator</li></ul></div><div><ul style="list-style-type: none"><li>• Critical spares</li><li>• Hay bails</li><li>• Fill</li><li>• Barricades</li><li>• Maintenance staff</li></ul></div></div>		
INCIDENT RESPONSE PROCEDURE			
Key Incident Steps	Individual Actions	Who is Responsible?	Additional Comments e.g. Completed Y/N, Details of action taken
Incident occurs / noticed	Overflow identified	Team Leader / Duty Officer (after hours)	
	Investigate the issue and determine the scale and level of risk and the actions and resources required.	Team Leader / Duty Officer (after hours)	If emergency, call '000' immediately
	Manage the substance release such as using containment to minimise the environmental incident severity / impact.	Team Leader / Duty Officer (after hours)	e.g. remove blockage, isolate upstream SPS, bund area to contain spill if can't be stopped. Call in additional resources as required.

Notifications	Notify Supervisor or Remote Response.	Team Leader / Duty Officer (after hours)	
	Notify property owner (if required)	Team Leader / Duty Officer (after hours)	
	Notify the public that will be affected	Team Leader / Duty Officer (after hours)	
	Notify Manager	Coordinator / Remote Response	If MAJOR or Medium incident
	Notify Manager Water Services	Manager/Remote Response	If MAJOR (if Medium incident in a reasonable amount of time – such as next working day)
	Notify DGM/GM	Manager Water Services	If MAJOR incident
	Notify relevant authorities: <ul style="list-style-type: none"> <li>• EPA</li> <li>• WaterNSW</li> <li>• Ministry of Health</li> <li>• Safe Work NSW Health</li> <li>• Endeavour Energy (for power failure)</li> </ul>	Team Leader/Coordinator	As required Provide all relevant and available information at the time. Provide additional information as soon as it becomes available / is confirmed.
	Notify internal council divisions as applicable: <ul style="list-style-type: none"> <li>• Environment</li> <li>• Environmental health</li> <li>• Customer service</li> <li>• Risk</li> <li>• Incident reporting</li> <li>• Media</li> </ul>	Coordinator	

	Notify affected residents and community and downstream waterway users	Environmental Health / Media/ Coordinator / Manager Water Services	
Incident Response (continued)	Organise resources to fix fault	Coordinator / Remote Response	Refer to afterhours procedure
	Manage staff to rectify fault	Team Leader / Duty Officer (after hours)	
	Take samples as appropriate or required (per advice)	Team Leader / Duty Officer (after hours)	
	Organise clean-up and disinfect area if required	Team Leader / Duty Officer (after hours)	
	Establish internal Communication on incident changes and progress	Team Leader / Duty Officer (after hours)	
Reporting	Complete sewage overflow form	Team Leader / Duty Officer (after hours)	Fill out all relevant information as requested and submit to Manager.
	Complete and submit incident form if required	Coordinator	Submit to incident notification email
	Document the incident in the PIRMP, and review and update the PIRMP if required.	Coordinator	
	Written notification to EPA within 7 days of incident finished	Coordinator	
Review & Improvement	Undertake incident root cause analysis and identify improvements	Team Leader / Coordinator	
	Feedback to assets and development and capital program	Team Leader / Coordinator	

Documentation	Information (incident notification form and additional information available) saved in Conquest	Business Support Officer	
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STP dry weather bypass			
Haz No. 3	Summary of Hazard:	Partially treated or untreated sewage entering the environment from STP.	
How we could become aware of the incident:		Alarms from operating system (equipment alarms etc) Inspections/Investigation Complaint from public	
Resources / Equipment Identified:	<ul style="list-style-type: none"><li>• Generator</li><li>• Mobile pumps</li><li>• Sucker truck</li><li>• Cranes</li><li>• Maintenance staff</li><li>• Critical spares</li></ul>	<ul style="list-style-type: none"><li>• Hay bails</li><li>• Fill</li><li>• Barricades</li><li>• Sampling (water quality)</li><li>• Remote access allows after hours monitoring</li><li>• Volume estimated / calculated</li></ul>	
INCIDENT RESPONSE PROCEDURE			
Key Incident Steps	Individual Actions	Who is Responsible?	Additional Comments e.g. Completed Y/N, Details of action taken
Incident occurs / noticed	Staff member identifies issues / hazard.	Senior operator onsite	
	Investigate the issue and determine the scale and level of risk and the actions and resources required.	Senior operator onsite	If emergency, call '000' immediately
	If safe to do so, contain or try to limit the bypass to minimise the environmental incident severity / impact.	Senior operator onsite	Call in additional resources as required



Notifications	Notify Line Manager - Engineer Identify cause and report any additional requirements/resources required.	Senior operator onsite	As soon as practical and safe to do so. Follow escalation contact list (Line Manager).
	Notify Manager Investigate the issue and determine the scale and level of risk and the actions and resources required.	Engineer	Manage the substance release such as using containment to minimise the environmental incident severity / impact.
	Notify Manager Water Services	Coordinator	If MAJOR (if Medium incident in a reasonable amount of time – such as next working day)
	Notify DGM/GM	Manager Water Services	If deemed a MAJOR incident
	Notify relevant authorities: •EPA •WaterNSW •Ministry of Health •Safe Work NSW Health •Endeavour Energy (for power failure)	Engineer / Coordinator	Provide all relevant and available information at the time. Provide additional information as soon as becomes available / confirmed.
	Notify internal council divisions as applicable: •Environment •Environmental health •Customer service • Risk • Incident reporting •Media	Engineer / Coordinator	If required

	Notify affected residents and downstream waterway users	Environmental Health / Media, or Coordinator / Manager Water Services	
Incident Response (continued)	Organise resources to fix fault	Engineer and /or Coordinator	Refer to afterhours procedure
	Manage onsite staff to rectify fault	Senior operator onsite	
	Take samples as appropriate or required (per EPL licence or per advice)	Senior operator onsite	Refer to specific EPL licence conditions Test/isolate biosolids if required Test reuse if required
	Organise clean-up and disinfect area if required	Senior operator onsite	
	Establish internal Communication on incident changes and progress	Senior onsite operator and/or Manager	
Reporting	Complete sewage bypass report form	Senior onsite operator	Fill out all relevant information as requested and submit to Manager.
	Complete Incident Report if required	Engineer / Coordinator	Submit to incident notification email
	Document the incident in the PIRMP, and review and update the PIRMP if required.	Engineer / Coordinator	
	Written notification to EPA within 7 days of incident finished	Senior operator onsite / Engineer / Coordinator	
Review & Improvement	Undertake incident root cause analysis and identify improvements	Senior operator onsite/ Engineer / Coordinator	
	Feedback to assets and development and capital program	Engineer / Coordinator	

Documentation	Information (incident notification form and additional information available) saved in Conquest	Business Support Officer	
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Network dry weather overflow			
Haz No. 4	Summary of Hazard:	Raw sewage enters environment or property due to a network blockage or failure.	
How we could become aware of the incident:		Inspection by Operator/staff member Power failure Complaint / notification from public	
Resources / Equipment Identified:	<div><div><ul style="list-style-type: none"><li>Crew truck</li><li>Jetter truck</li><li>Combo unit</li><li>Sampling, clean-up and disinfection</li><li>Generator</li><li>Crane</li></ul></div><div><ul style="list-style-type: none"><li>Critical spares</li><li>Hay bails</li><li>Fill</li><li>Excavator/ Various plant</li><li>Barricades</li><li>Fittings, power fittings</li><li>Maintenance staff</li></ul></div></div>		
INCIDENT RESPONSE PROCEDURE			
Key Incident Steps	Individual Actions	Who is Responsible?	Additional Comments e.g. Completed Y/N, Details of action taken
Incident occurs / noticed	Overflow identified	Team Leader / Duty Officer (after hours)	
	Investigate the issue and determine the scale and level of risk and the actions and resources required.	Team Leader / Duty Officer (after hours)	If emergency, call '000' immediately

	If safe to do so, contain or try to limit the leak / spill. Manage the substance release such as using containment to minimise the environmental incident severity / impact.	Team Leader / Duty Officer (after hours)	e.g. remove blockage, isolate upstream SPS, bund area to contain spill if can't be stopped. Call in additional resources as required.
Notifications	Notify Supervisor or Remote Response.	Team Leader / Duty Officer (after hours)	
	Notify property owner (if required)	Team Leader / Duty Officer (after hours)	
	Notify the public that will be affected	Team Leader / Duty Officer (after hours)	
	Notify Coordinator	Supervisor / Remote Response	
	Notify Manager Water Services	Coordinator/RSO	If MAJOR (if Medium incident in a reasonable amount of time – such as next working day)
	Notify DGM/GM	Manager Water Services	If MAJOR incident
	Notify relevant authorities: <ul style="list-style-type: none"> <li>• EPA</li> <li>• WaterNSW</li> <li>• Ministry of Health</li> <li>• Safe Work NSW Health</li> <li>• Endeavour Energy (for power failure)</li> </ul>	Coordinator	Provide all relevant and available information at the time. Provide additional information as soon as becomes available / confirmed.
	Notify internal council divisions as applicable: <ul style="list-style-type: none"> <li>• Environment</li> <li>• Environmental health</li> </ul>	Coordinator	

Reference: ECM number -

Document Name: Sewage Treatment Scheme Pollution Incident Response Management Plan  
Updated: May 2023

Next Review: March 2024

Version: 7  
Page 29 of 90

	<ul style="list-style-type: none"> <li>• Customer service</li> <li>• Risk</li> <li>• Incident reporting</li> <li>• Media</li> </ul>		
	Notify affected residents and community and downstream waterway users	Environmental Health / Media Manager, or Coordinator / Manager Water Services	
Incident Response (continued)	Organise resources to fix fault	Supervisor / Remote Response	Refer to afterhours procedure
	Manage staff to rectify fault	Team Leader / Duty Officer (after hours)	
	Take samples as appropriate or required (per advice)	Team Leader / Duty Officer (after hours)	
	Organise clean-up and disinfect area if required	Team Leader / Duty Officer (after hours)	
	Establish internal Communication on incident changes and progress	Team Leader / Duty Officer (after hours)	
Reporting	Complete sewage overflow form	Team Leader / Duty Officer (after hours)	Fill out all relevant information and submit to Manager.
	Complete Incident Report if required	Coordinator	Submit to incident notification email
	Document the incident in the PIRMP, and review and update the PIRMP if required.	Coordinator	
	Written notification to EPA within 7 days of incident finished	Coordinator	

Review & Improvement	Undertake incident root cause analysis and identify improvements	Team Leader / Coordinator	
	Feedback to assets and development and capital program	Team Leader / Coordinator	
Documentation	Information (incident notification form and additional information available) saved in Conquest	Business Support Officer/ Coordinator	
	PIRMP Training and document review (where the incident has resulted in activation of the PIRMP)	Coordinator	

Substance release or spill at STP			
Haz No. 5	Summary of Hazard:	Chemical spill (refer chemical inventory lists in Appendices) <u>Substance/Pollutant released to air, water or land</u> (e.g. contaminated/harmful effluent, biosolids, dust, gas, sewage, smoke, chemical)	
How we could become aware of the incident:		<ul style="list-style-type: none"><li>- Alarm from chemical bund</li><li>- Operator inspection onsite</li><li>- Notification from public</li></ul>	
Resources / Equipment Identified:	<ul style="list-style-type: none"><li>• Clean-up companies:</li><li>• Spill kit / Spill containment</li><li>• Straw bales – (local coop/local produce)</li><li>• Breathing Apparatus</li><li>• PPE</li><li>• First Aid Kit</li></ul>	<ul style="list-style-type: none"><li>• Sucker truck (Combo unit)</li><li>• Barricades</li><li>• Fill spoil/material (for creating bunding)</li><li>• Gas detector</li><li>• Communications equipment</li><li>• Testing / sampling equipment</li></ul>	
INCIDENT RESPONSE PROCEDURE			
Key Incident Steps	Individual Actions	Who is Responsible?	Additional Comments e.g. Completed Y/N, Details of action taken
Incident occurs / noticed	Staff member identifies issues / hazard.	Senior operator onsite	
	Investigate the issue and determine the scale and level of risk and the actions and resources required.	Senior operator onsite	If emergency, call '000' immediately
	If safe to do so, contain or try to limit the leak / spill. Manage the substance release such as using containment to minimise the environmental incident severity / impact	Senior operator onsite	Call in additional resources as required
Notifications	Notify Line Manager - Engineer Identify cause and report any additional requirements/resources required.	Senior operator onsite	As soon as practical and safe to do so. Follow escalation contact list (Line Manager).

Reference: ECM number -

Document Name: Sewage Treatment Scheme Pollution Incident Response Management Plan  
Updated: May 2023

Next Review: March 2024

Version: 7  
Page 32 of 90



	Notify Manager Investigate the issue and determine the scale and level of risk and the actions and resources required.	Engineer	Manage the substance release such as using containment to minimise the environmental incident severity / impact.
	Notify Manager Water Services	Engineer / Coordinator	If MAJOR (if Medium incident in a reasonable amount of time – such as next working day)
	Notify DGM/GM	Manager Water Services	If deemed a MAJOR incident
	Notify relevant authorities: •EPA •WaterNSW •Ministry of Health •Safe Work NSW Health •Endeavour Energy (for power failure)	Engineer / Coordinator	Provide all relevant and available information at the time. Provide additional information as soon as becomes available / confirmed.
	Notify internal council divisions as applicable: •Environment •Environmental health •Customer service •Risk •Incident reporting •Media	Engineer / Coordinator	
	Notify affected residents and downstream waterway users	Environmental Health / Media Manager, or Coordinator / Manager Water Services	
Incident Response	Organise resources to fix fault	Engineer / Coordinator	Refer to afterhours procedure

	Manage onsite staff to rectify fault.	Senior operator onsite	
	Take samples as appropriate or required (per EPL licence or per advice)	Senior operator onsite	Test/isolate biosolids if required Test reuse dams if required
	Organise clean-up if required	Senior operator onsite	
	Establish internal Communication on incident changes and progress	Senior onsite operator and/or Manager	
Reporting	Complete incident report form	Senior onsite operator and/or Manager	Fill out all relevant information as requested incident report form and submit to Manager.
	Review the Incident Report and submit	Engineer / Coordinator	Submit to incident notification email
	Document the incident in the PIRMP, and review and update the PIRMP if required.	Engineer / Coordinator	
	Written notification to EPA within 7 days of incident finished	Engineer / Manager	Refer to section 5.3
Review & Improvement	Undertake incident root cause analysis and identify improvements	Senior operator onsite/ Engineer / Coordinator	
	Feedback to assets and development and capital program	Engineer / Coordinator	
Documentation	Information (incident notification form and additional information available) saved in Conquest	Business Support Officer	

Odour			
Haz No.6		Summary of Hazard:	
How we could become aware of the incident:		Odour from STP activities / network	
Equipment Identified:		- SCADA, process equipment	
INCIDENT RESPONSE REQUIRED			
Key Incident Steps	Individual Actions	Who Responsible	Comments e.g. Completed Y/N, Details of action taken
Incident occurs / noticed	Identify cause and extent of odour (biosolids, raw sewage etc.)	Senior operator onsite	
	Contact customer to confirm odour type, if required	Senior operator onsite	
	Isolate process causing odour if possible (turn off mixers, centrifuge etc.)	Senior operator onsite	
Notifications	Notify Line Manager - Engineer Identify cause and report any additional requirements/resources required.	Senior operator onsite	
	Notify Manager Investigate the issue and determine the scale and level of risk and the actions and resources required.	Engineer	
	Notify Manager Water Services	Engineer / Coordinator	If MAJOR (or Medium) incident
	Notify DGM/GM if required	Manager Water Services	If MAJOR (if Medium incident in a reasonable amount of time – such as next working day)

Reference: ECM number -

Document Name: Sewage Treatment Scheme Pollution Incident Response Management Plan

Updated: May 2023

Next Review: March 2024

Version: 7

Page 35 of 90

	Notify EPA if required	Engineer / Coordinator	
	Notify internal council divisions as applicable: •Environment •Environmental health •Customer service •Risk •Incident reporting •Media	Engineer / Coordinator	
	Notify affected residents and businesses, if required	Environmental Health / Media Coordinator / Manager Water Services	
Incident Response	Organise resources to fix fault	Engineer / Coordinator	Refer to afterhours procedure
	Manage onsite staff to rectify fault.	Senior operator onsite	
	Take samples as appropriate or required (per EPL licence or per advice)	Senior operator onsite	Test/isolate biosolids if required Test reuse dams if required
	Organise clean-up if required	Senior operator onsite	
	Establish internal Communication on incident changes and progress	Engineer / Coordinator	
Reporting	Complete incident report form / Sewerage bypass or overflow form	Senior onsite operator or Engineer	Fill out all relevant information as requested incident report form and submit to Manager.
	Review the Incident Report and submit	Engineer / Coordinator	Submit to incident notification email

Reference: ECM number -

Document Name: Sewage Treatment Scheme Pollution Incident Response Management Plan

Updated: May 2023

Next Review: March 2024

Version: 7

Page 36 of 90

	Document the incident in the PIRMP, and review and update the PIRMP if required.	Engineer / Coordinator	
	Ensure odour incident is captured in conquest	Engineer / Coordinator	
Review & Improvement	Undertake incident root cause analysis and identify improvements	Senior operator onsite/ Engineer / Coordinator	
	Feedback to assets and development and capital program	Engineer / Coordinator	
Documentation	Information (incident notification form and additional information available) saved in Conquest	Business Support Officer	

Natural disaster – Floods, Bushfire, Earthquake, Storms etc.			
Haz No. 7	Summary of Hazard:	Severe bushfires in the region as affected the local power grid resulting in the plant losing power.	
How we could become aware of the incident:		No power alarm (Phase Failure Alarm) High level alarms Process stopped Complete Plant Shutdown Multiple Alarms on SCADA	
Resources / Equipment Identified:	<ul style="list-style-type: none"><li>• SCADA, PLC</li><li>• All Electrical equipment</li></ul>		
INCIDENT RESPONSE PROCEDURE			
Key Incident Steps	Individual Actions	Who is Responsible?	Additional Comments e.g. Completed Y/N, Details of action taken
Incident occurs / noticed	Staff member identifies issues	Senior operator onsite	
	Investigate the issue and determine the scale and level of risk and the actions and resources required.	Senior operator onsite	
	Report power failure to Endeavour Energy Customer Service	Senior operator onsite	Call in additional resources as required. Delegate / Escalate if required (refer Council Line-Manager Contact List)
Notifications	Notify Line Manager - Engineer Identify cause and report any additional requirements/resources required.	Senior operator onsite	As soon as practical and safe to do so. Follow escalation contact list (Line Manager).
	Notify Coordinator Investigate the issue and determine the scale and level of risk and the actions and resources required. Also ring Electrical Engineer for additional support where needed.	Engineer	Notifying Manager can be delayed to within business hours if no harm is expected from discharge.
	Notify Manager Water Services	Coordinator	If MAJOR (if Medium incident in a reasonable

Reference: ECM number -

Document Name: Sewage Treatment Scheme Pollution Incident Response Management Plan  
Updated: May 2023

Next Review: March 2024

Version: 7  
Page 38 of 90

			amount of time – such as next working day)
	Notify DGM GM	Manager Water Services	If deemed a MAJOR incident
	Notify relevant authorities: <ul style="list-style-type: none"> <li>• EPA</li> <li>• WaterNSW</li> <li>• Ministry of Health</li> <li>• Safe Work NSW Health</li> <li>• Endeavour Energy (for power failure)</li> </ul>	Engineer / Coordinator	As required Provide all relevant and available information at the time. Provide additional information as soon as it becomes available / is confirmed.
	Notify internal council divisions as applicable: <ul style="list-style-type: none"> <li>• Environment</li> <li>• Environmental health</li> <li>• Customer service</li> <li>• Risk</li> <li>• Incident reporting</li> <li>• Media</li> </ul>	Engineer / Coordinator	
	Notify affected residents and downstream waterway users	Environmental Health / Media, or Coordinator / Manager Water Services	
Incident Response (continued)	Organise resources to fix fault	Engineer / Coordinator	Refer to afterhours procedure if required
	Manage onsite staff to rectify fault	Senior operator onsite	
	Take samples as appropriate or required (per EPL licence or per advice)	Senior operator onsite	Refer to specific EPL licence conditions test/isolate biosolids if required Test reuse dams if required
	Report any unusual discharge to Engineer/Manager	Senior operator onsite	

	Once power's been restored continue sewage treatment processes	Senior operator onsite	
	Organise clean-up if required	Senior operator onsite	
	Establish internal Communication on incident changes and progress	Senior onsite Operator / Engineer / Coordinator	
Reporting	Complete Bypass/Overflow and/or pollution incident report forms, where required.	Senior onsite operator / Engineer / Coordinator	Fill out all relevant information as requested on relevant forms and submit to Manager.
	Review the Incident Report if required	Engineer / Coordinator	Submit to incident notification email
	Document the incident in the PIRMP, and review and update the PIRMP if required.	Engineer / Coordinator	
	Written notification to EPA within 7 days of incident finished	Engineer / Coordinator	
Review & Improvement	Undertake incident root cause analysis and identify improvements, review areas of inflow and infiltration	Senior operator onsite / Engineer / Coordinator	
	Feedback to assets and development and capital program	Engineer / Coordinator	
Documentation	Information (incident notification form and additional information available) saved in ECM	Business Support Officer	



## 7.1 Communicating with Neighbours and the Local Community

A list identifying immediate neighbours who may be notified during a pollution incident are provided in the Appendix for each STP:

STP Site	EPL #	Refer to
Berrima	1731	Appendix 1
Bowral	1749	Appendix 2
Bundanoon	2436	Appendix 3
Mittagong	3575	Appendix 4
Moss Vale	10362	Appendix 5
Robertson	20205	Appendix 6

## 7.2 Community Communication Protocol

The purpose of community communications management is to define requirements for how information will be distributed. Communicating with neighbours and local community is an important element in managing the pollution incident. The aim of the protocol is that the exchanging incident specific information in response to any pollution incident is completed effectively and that the communication be fit for purpose and tailored to the nature of the incident.

Notification and communication methods to the community will be determined on a case-by-case basis. Communication directly with affected stakeholders and residents should be completed by phone (or email for secondary relevant authority contacts) as soon as practical for early notification. Emails and SMS should also be sent if contact cannot be made, with follow-up phone calls. In extreme events, site visits should also be undertaken to ensure all affected residents are notified. These stakeholders may include:

1. The relevant authorities (Section 6.1)
2. Internal stakeholders (Section 6.2)
3. Neighbouring and downstream properties (Appendix 1-6)

Community wide communication will be undertaken by or on advice from the Executive and WSC Media team. The following community communication methods may be used as appropriate to the circumstances:

- Update Council website with relevant information
- Council social media
- Media releases (radio/television/newspaper/internet/social media as required)
- Site visits/door knocking
- Letterbox drops
- Warning signs
- Other methods as the situation requires

In an after-hours situation the on-call IT support should be notified to update council's website.

All communication should be documented as part of the incident.

## 8. Site Services and Infrastructure Maps

The STP specific maps are provided in the Appendix for each STP.

STP Site	EPL #	Refer to
Berrima	1731	Appendix 1
Bowral	1749	Appendix 2
Bundanoon	2436	Appendix 3
Mittagong	3575	Appendix 4
Moss Vale	10362	Appendix 5
Robertson	20205	Appendix 6

## 9. Staff training

Council has several formal training programs to enhance and improve job knowledge, skills and capabilities of staff. Training requirements for staff are discussed at monthly toolbox meetings.

Specific training including incident and emergency scenario exercises and drills are provided to ensure that all WSC staff are fully aware of their roles and responsibilities, content, processes and requirements in relation to this Plan.

The detail of all the completed training is stored on Councils training plan, available from the Business Support Officers. Training records for training in the PIRMP are available in the ECM.

## 10. APPENDIX 1 – Berrima STP Maps & Site-Specific Information (EPL #1731)

Berrima STP Inventory List (Chemicals/Substances)

Substance / Chemical Name	Quantity (maximum)	Location
Aluminium Sulphate granular	8 Tonne	Alum Bund
Chlorine, Liquid (Pool)	25 Kg	UV Shed
Hydrated Lime	2 Tonne	Shed
Petrol	20 L	Shed
Raw/partially treated Sewage	530 m3	Inlet
Sludge	570 m3 x 2	Sludge Lagoons
Biosolids	100 Tonne	Drying Beds & Storage
Mixed Liquor	1,008 m3	Pasveer
Secondary Treatment	530 m3	Catch Pond
Effluent	14,220 m3	Tertiary Lagoon

Berrima STP discharge to waterways (See EPA Maps)

Discharge Point	Waterway
EPA Point 1 – Discharge to Waters	Oldbury Creek
Storm water run-off	Nil – over land to neighbouring contained drainage network (Blue circle southern cement)

Reference: ECM number -

Document Name: Sewage Treatment Scheme Pollution Incident Response Management Plan

Updated: May 2023

Next Review: March 2024

Version: 7

Page 43 of 90

## BERRIMA STP NEIGHBOURING PROPERTIES



Reference: ECM number -

Document Name: Sewage Treatment Scheme Pollution Incident Response Management Plan

Updated: May 2023

Next Review: March 2024

Version: 7

Page 44 of 90



## BERRIMA SEWER RETICULATION PLAN



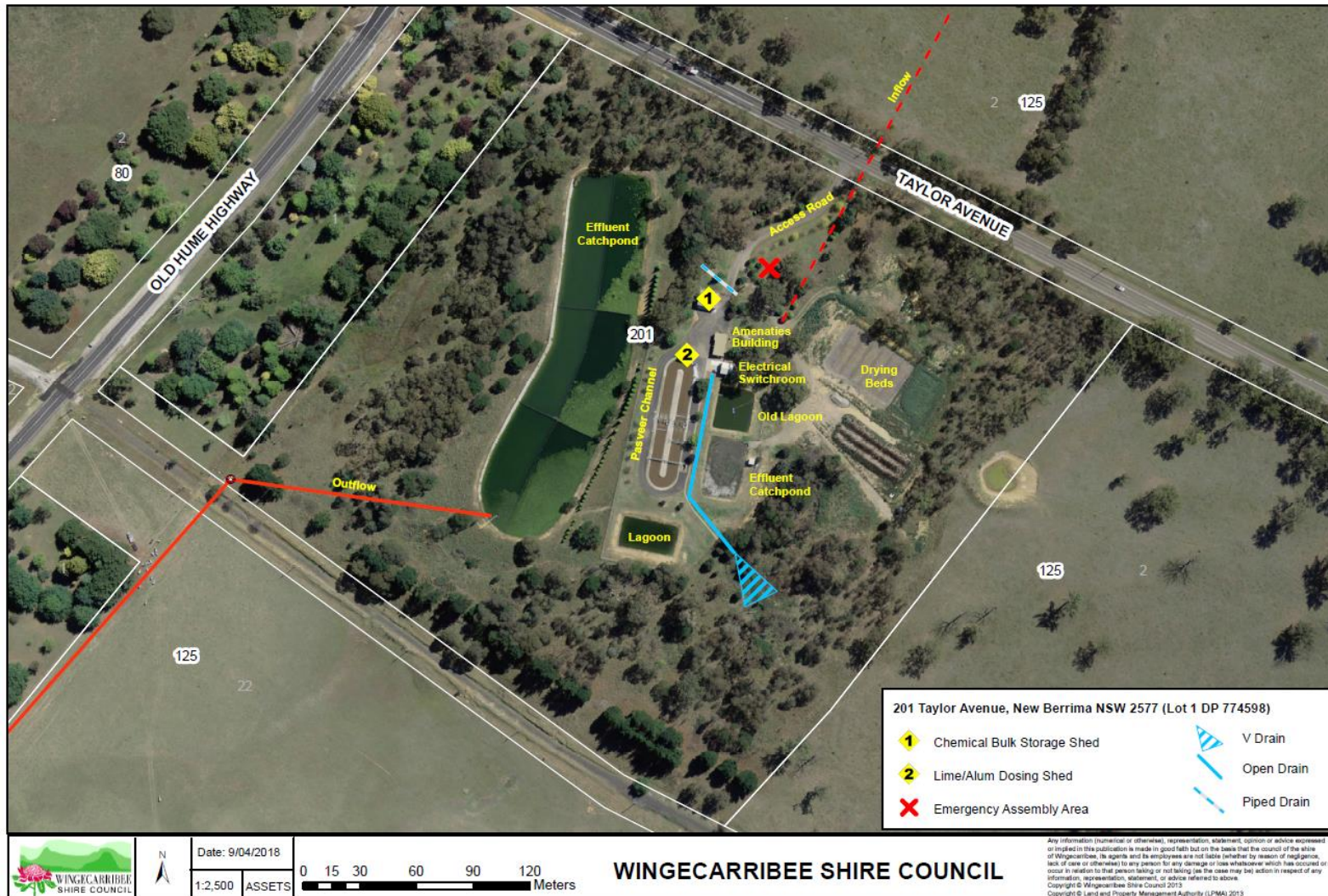
Reference: ECM number -

Document Name: Sewage Treatment Scheme Pollution Incident Response Management Plan  
Updated: May 2023

Next Review: March 2024

Version: 7  
Page 45 of 90

## BERRIMA SEWERAGE TREATMENT PLANT — SITE EMERGENCY PLAN



Reference: ECM number -

Document Name: Sewage Treatment Scheme Pollution Incident Response Management Plan

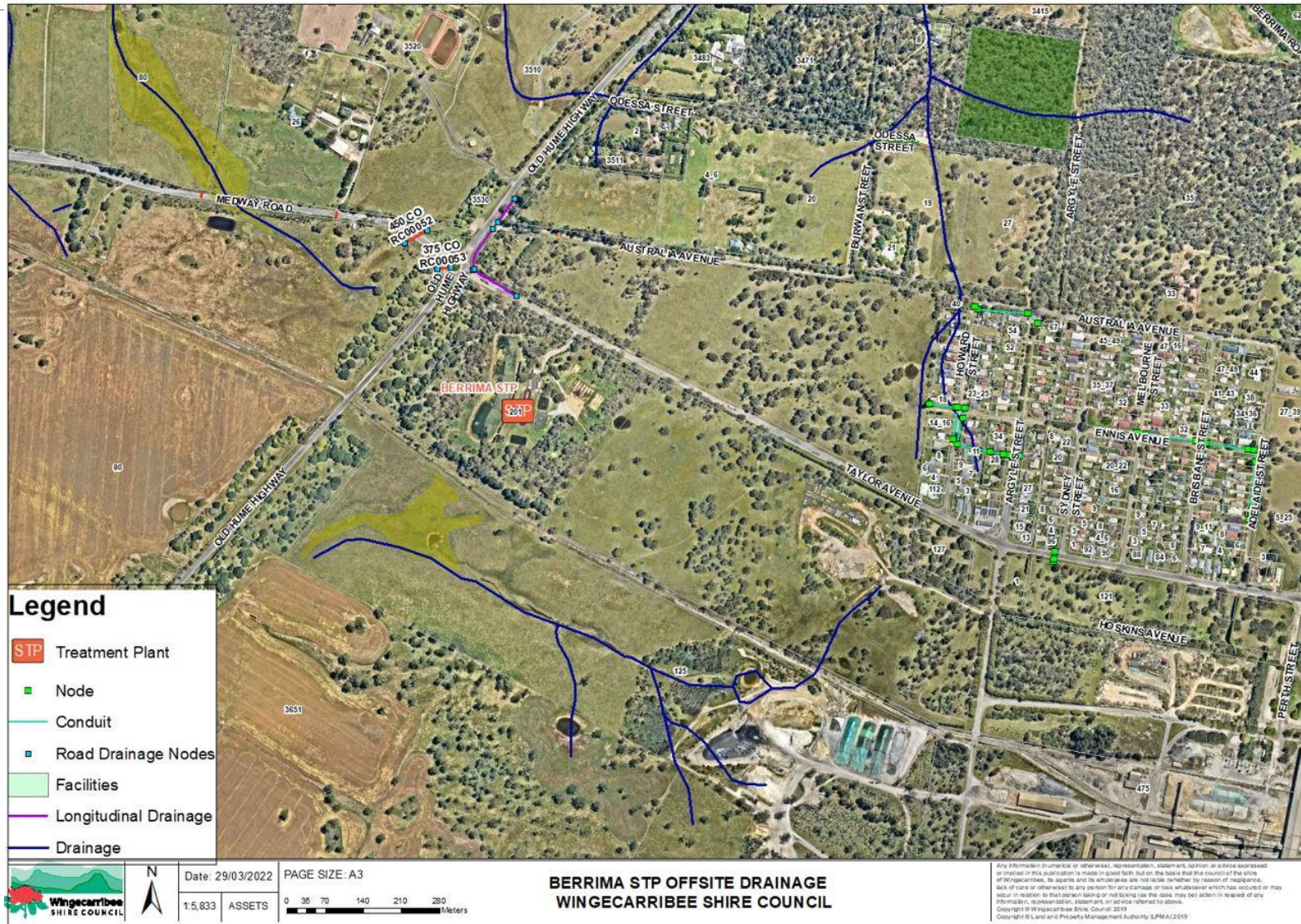
Updated: May 2023

Next Review: March 2024

Version: 7

Page 46 of 90





Reference: ECM number -

Document Name: Sewage Treatment Scheme Pollution Incident Response Management Plan

Updated: May 2023

Next Review: March 2024

Version: 7

Page 47 of 90

## 11. APPENDIX 2 – Bowral STP Maps & Site-Specific Information (EPL #1749)

Bowral STP Inventory List (Chemicals/Substances)

Substance / Chemical Name	Quantity (maximum)	Location
Aluminium Sulphate	50,000 L	Alum Bund
Chlorine, Liquid (Pool)	100 L	Shed
Caustic Liquid	25,000 L	Tank
Hydrated Lime	100 Kg	Shed
Raw Sewage	17 ML	Storm Detention Pond
Mixed Liquor	2,324 m3	IDAL
Mixed Liquor	1,394 m3 x 2	Pasveer
Secondary Effluent	388 m3	Catch Pond
Recycled Water	35 Kl	Onsite Recycled water
Sludge	5,500 m3 x 2	Sludge Lagoon
Biosolids	1,450 Tonne	Sludge Drying Beds
Biosolids	1,500 m3	Geobags

Bowral STP discharge to waterways (See EPA Point Maps)

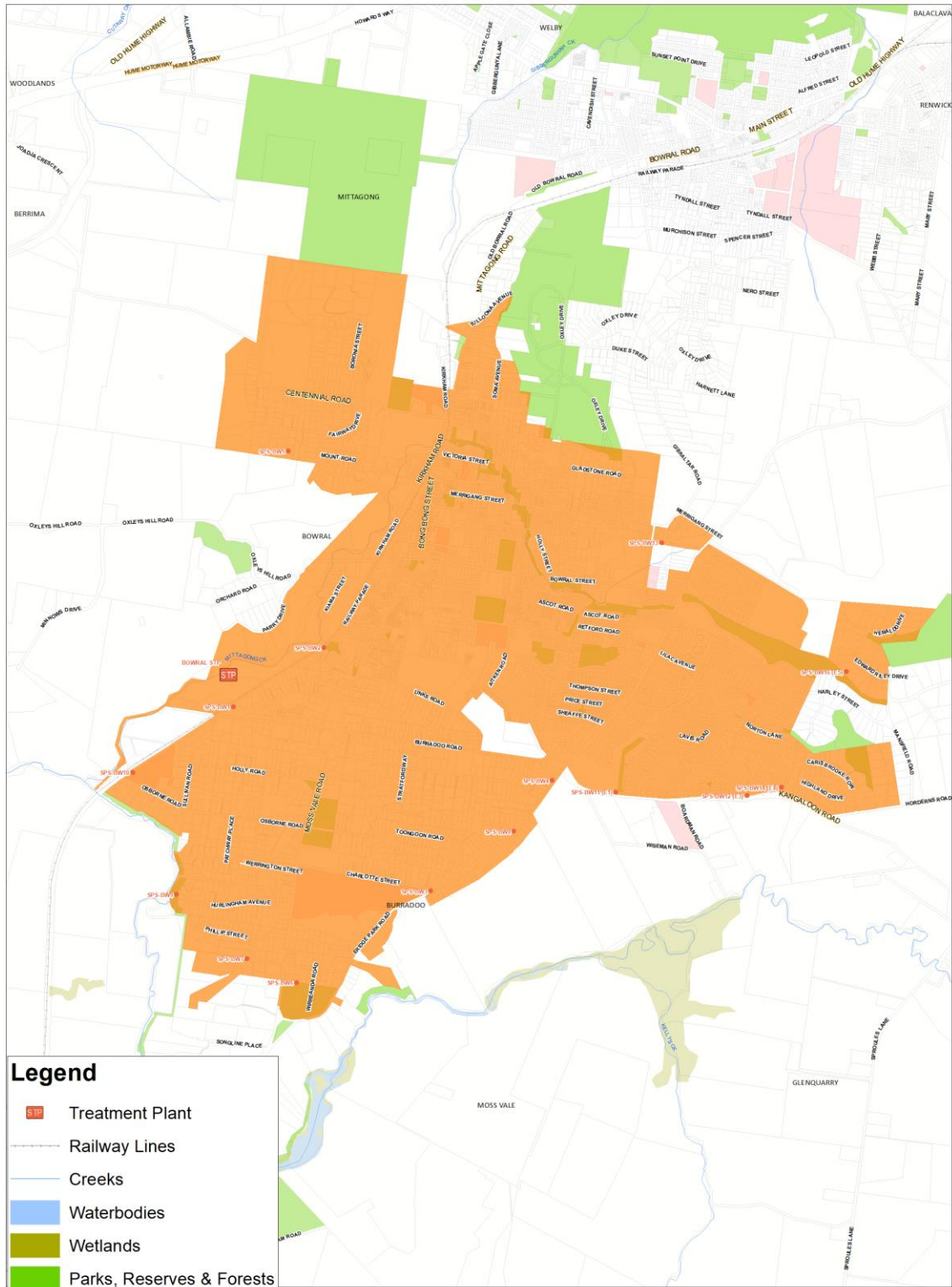
Discharge Point	Waterway
EPA Point 7 – Discharge to Waters	Wingecarribee River
EPA Point 9 – Wet weather discharge to waters (Screened)	Mittagong Creek
EPA Point 10 – Wet weather discharge to waters (Secondary treated)	Mittagong Creek
Storm water run-off	Mittagong Creek



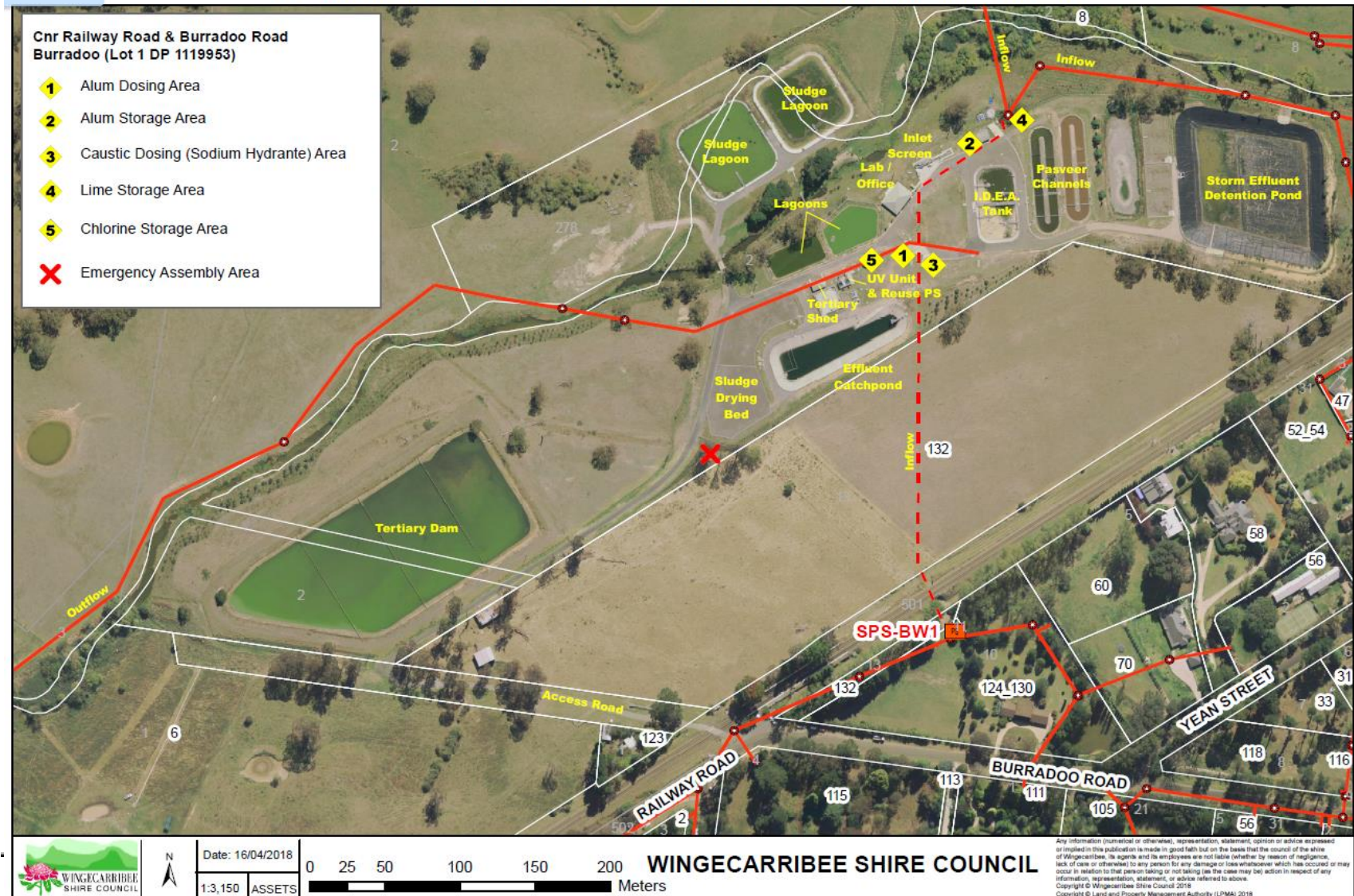




## BOWRAL SEWER RETICULATION



## BOWRAL SEWERAGE TREATMENT PLANT — SITE EMERGENCY PLAN













## 12. APPENDIX 3 – Bundanoon STP Maps & Site Specific Information (EPL #2436)

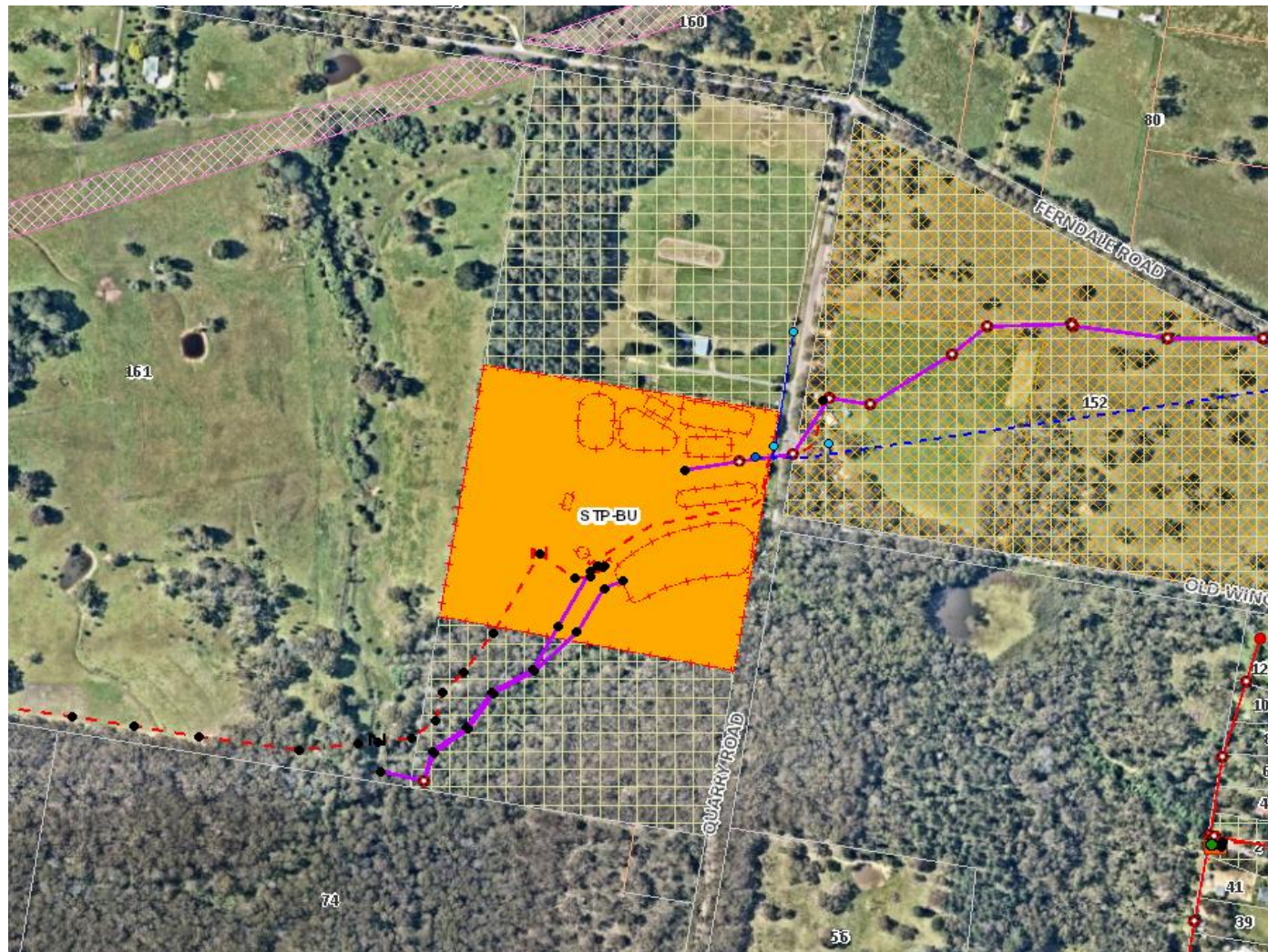
Bundanoon STP Inventory List (Chemicals/Substances)

Substance / Chemical Name	Quantity (maximum)	Location
Aluminium Sulphate liquid	30,000 L	Alum Bund
Chlorine, Liquid (Pool)	50 L	UV Shed
Hydrated Lime	2 Tonnes	Shed
Liquid Lime Storage	200 L	Pasveer
Diesel	40 L	Shed
Petrol	80 L	Shed
Raw Sewage	7,200 m <sup>3</sup>	Storm Detention Pond
Mixed Liquor	1654 m <sup>3</sup>	IDEA
Mixed Liquor	1,033 m <sup>3</sup>	Pasveer
Secondary Effluent	470 m <sup>3</sup>	Catch pond
Reclaimed water	117 kL	Reclaimed water storage tank
Sludge	2 x 2,150 m <sup>3</sup>	Sludge Lagoons
Biosolids	4 x 1,590 m <sup>3</sup>	Drying beds
Biosolids	288 m <sup>3</sup>	Storage area

Bundanoon STP discharge to waterways (See EPA Point Maps)

Discharge Point	Waterway
EPA Point 1 – Discharge to Waters	Reedy Creek
EPA Point 8 – Discharge to Waters	Reedy Creek
Stormwater	Reedy Creek

## BUNDANOON STP NEIGHBOURING PROPERTIES



Reference: ECM number -

Document Name: Sewage Treatment Scheme Pollution Incident Response Management Plan

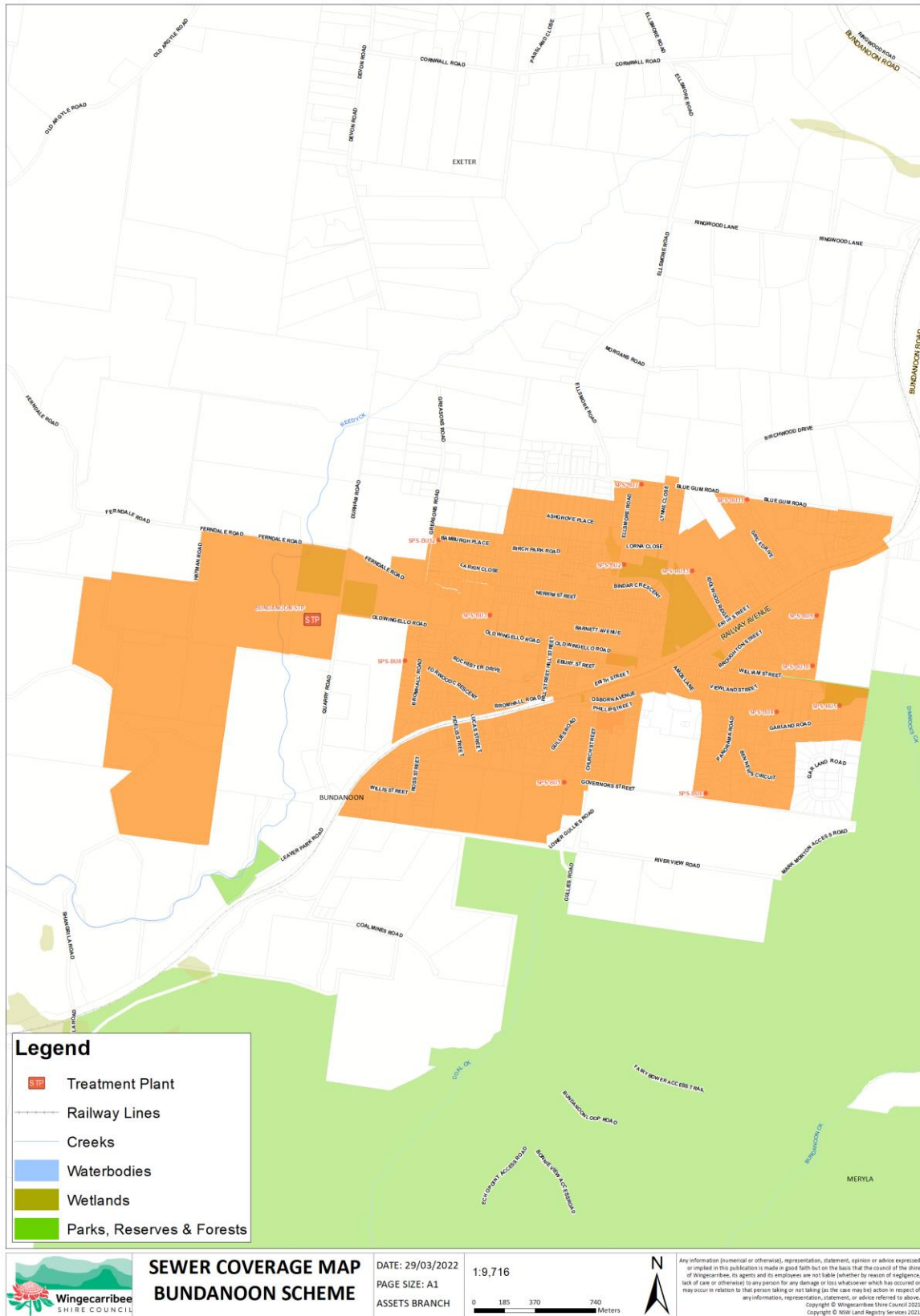
Updated: May 2023

Next Review: March 2024

Version: 7

Page 55 of 90

## BUNDANOON SEWER RETICULATION



Reference: ECM number -

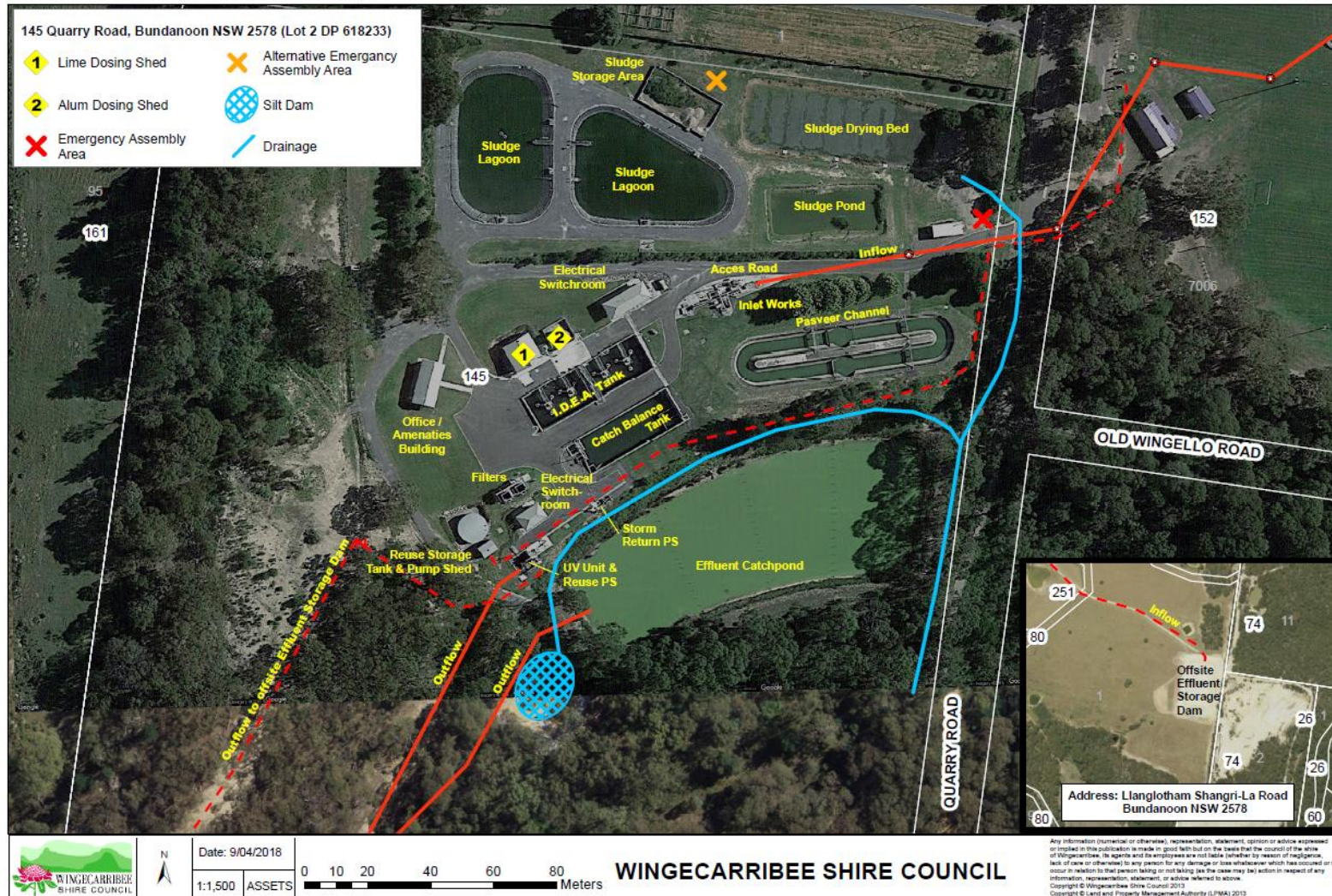
Document Name: Sewage Treatment Scheme Pollution Incident Response Management Plan  
Updated: May 2023

Next Review: March 2024

Version: 7  
Page 56 of 90



## BUNDANOON SEWERAGE TREATMENT PLANT — SITE EMERGENCY PLAN



Reference: ECM number -

Document Name: Sewage Treatment Scheme Pollution Incident Response Management Plan

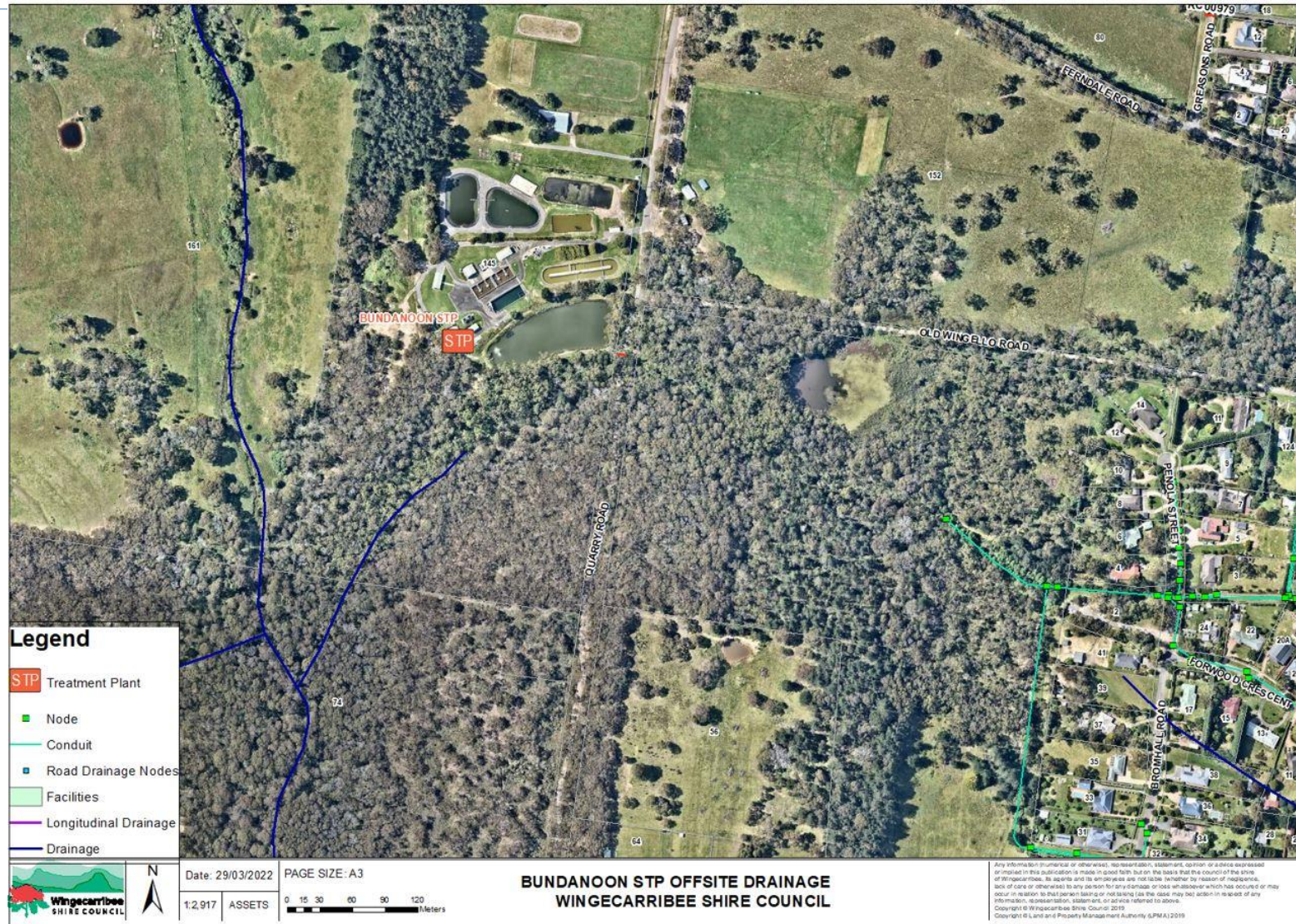
Updated: May 2023

Next Review: March 2024

Version: 7

Page 57 of 90





Reference: ECM number -

Document Name: Sewage Treatment Scheme Pollution Incident Response Management Plan

Updated: May 2023

Next Review: March 2024

Version: 7

Page 58 of 90

### 13. APPENDIX 4 – Mittagong STP Maps & Site Specific Information (EPL #3575)

#### Mittagong STP Inventory List (Chemicals/Substances)

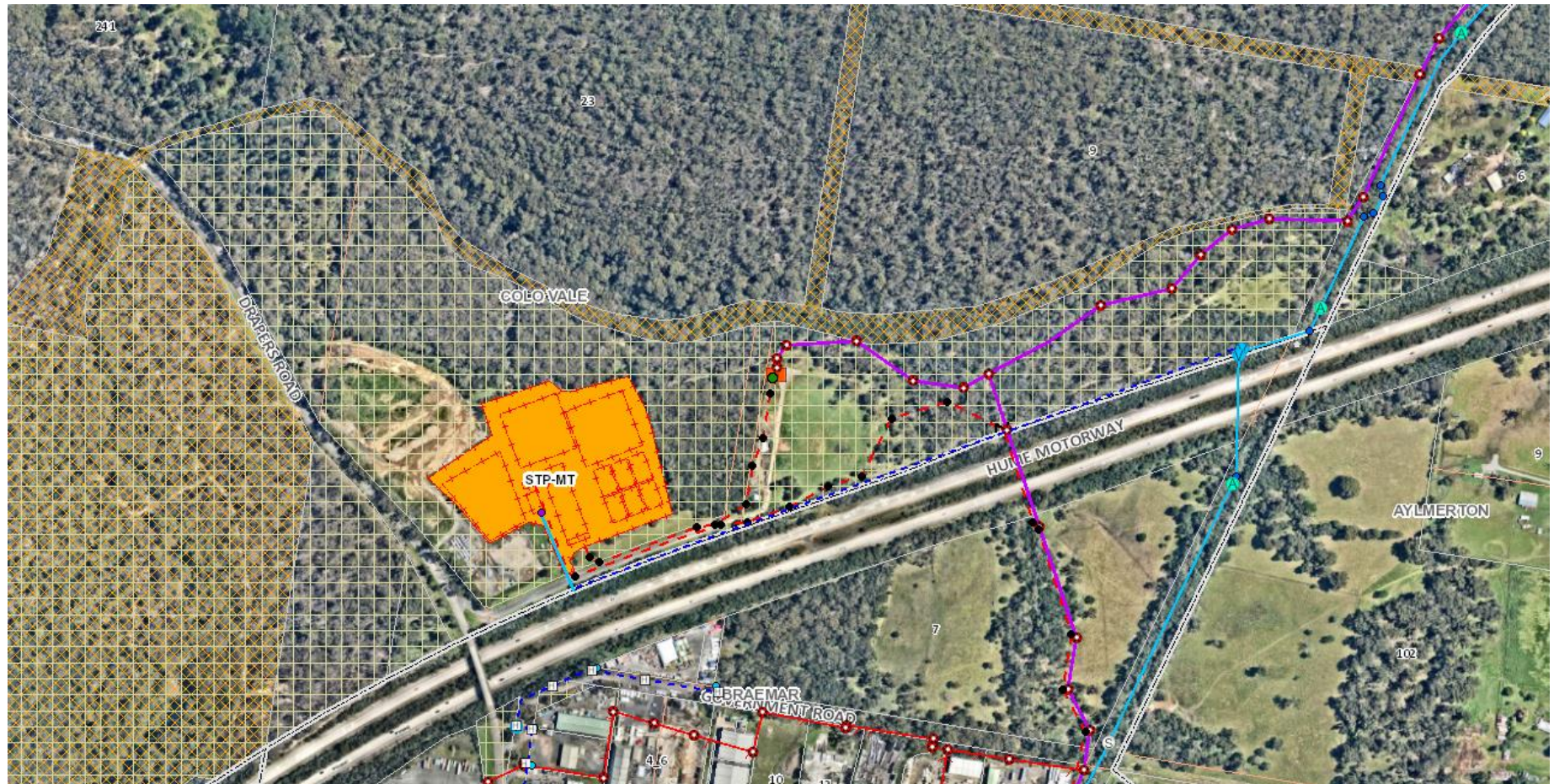
Substance / Chemical Name	Quantity (maximum)	Location
Aluminium Sulphate	45 000 L	Alum Bund
Chlorine, Liquid (Pool)	20 kg	UV Shed
Hydrated Lime	2 Tonne	Shed
Diesel	80 L	Bunded Holding
Petrol	80 L	Bunded Holding
Mixed Liquor	2 x 495 m3	Anoxic tank IDEA
Mixed Liquor	2 x 1765 m3	Aeration tank IDEA
Secondary Effluent	463 m3	Dry Weather Storage Tank
Secondary Effluent	685 m3	Secondary Catch Pond
Sludge	4 x 2,638 m3	Sludge allowances
Biosolids	6 x 400 Tonne	Geobags
Biosolids	225 m3	Storage area
Magnesium Hydroxide (Phodine)	10,000 L	MT01
Magnesium Hydroxide (Phodine)	3000 L	HT01

#### Mittagong STP discharge to waterways (See EPA Point Maps)

Discharge Point	Waterway
EPA Point 1 – Wet weather discharge to Waters	Sheepwash Creek
EPA Point 8 – Discharge to Waters	Iron Mines Creek
Stormwater	Sheepwash Creek



## MITTAGONG STP NEIGHBOURING PROPERTIES



Reference: ECM number -

Document Name: Sewage Treatment Scheme Pollution Incident Response Management Plan

Updated: May 2023

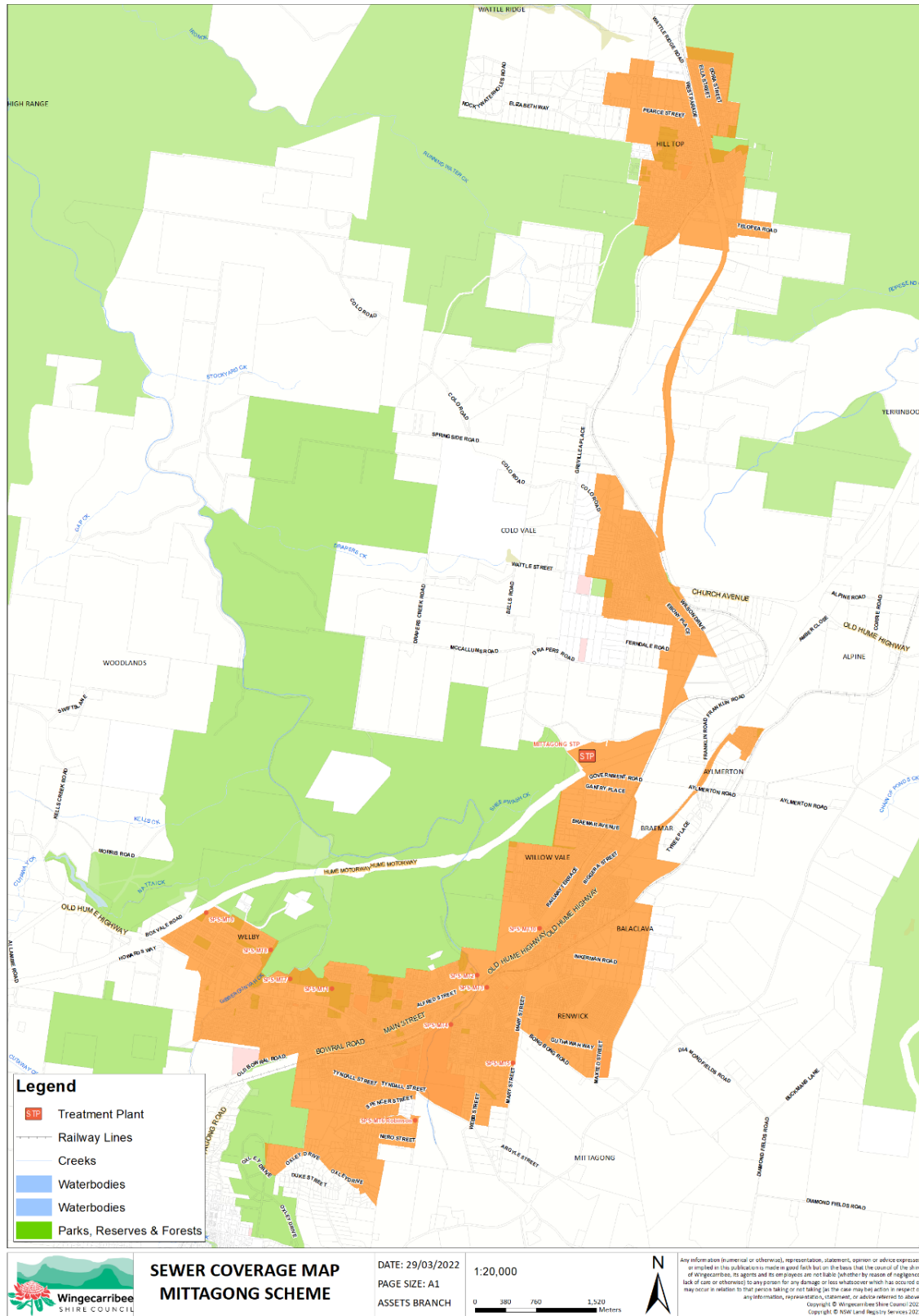
Next Review: March 2024

Version: 7

Page 60 of 90



## MITTAGONG SEWER RETICULATION



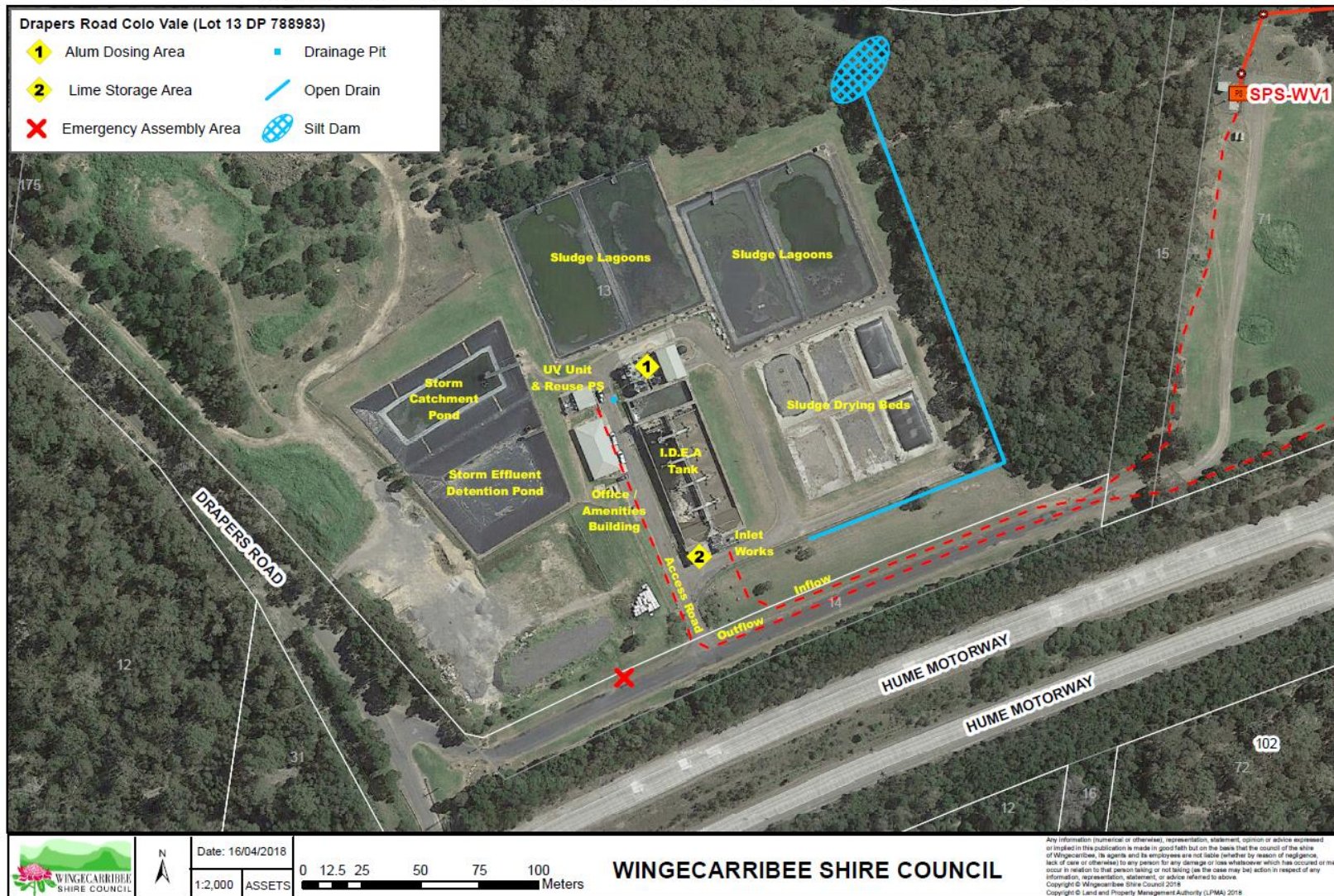
Reference: ECM number -

Document Name: Sewage Treatment Scheme Pollution Incident Response Management Plan  
Updated: May 2023

Next Review: March 2024

Version: 7  
Page 61 of 90

## MITTAGONG SEWERAGE TREATMENT PLANT — SITE EMERGENCY PLAN



Reference: ECM number -

Document Name: Sewage Treatment Scheme Pollution Incident Response Management Plan

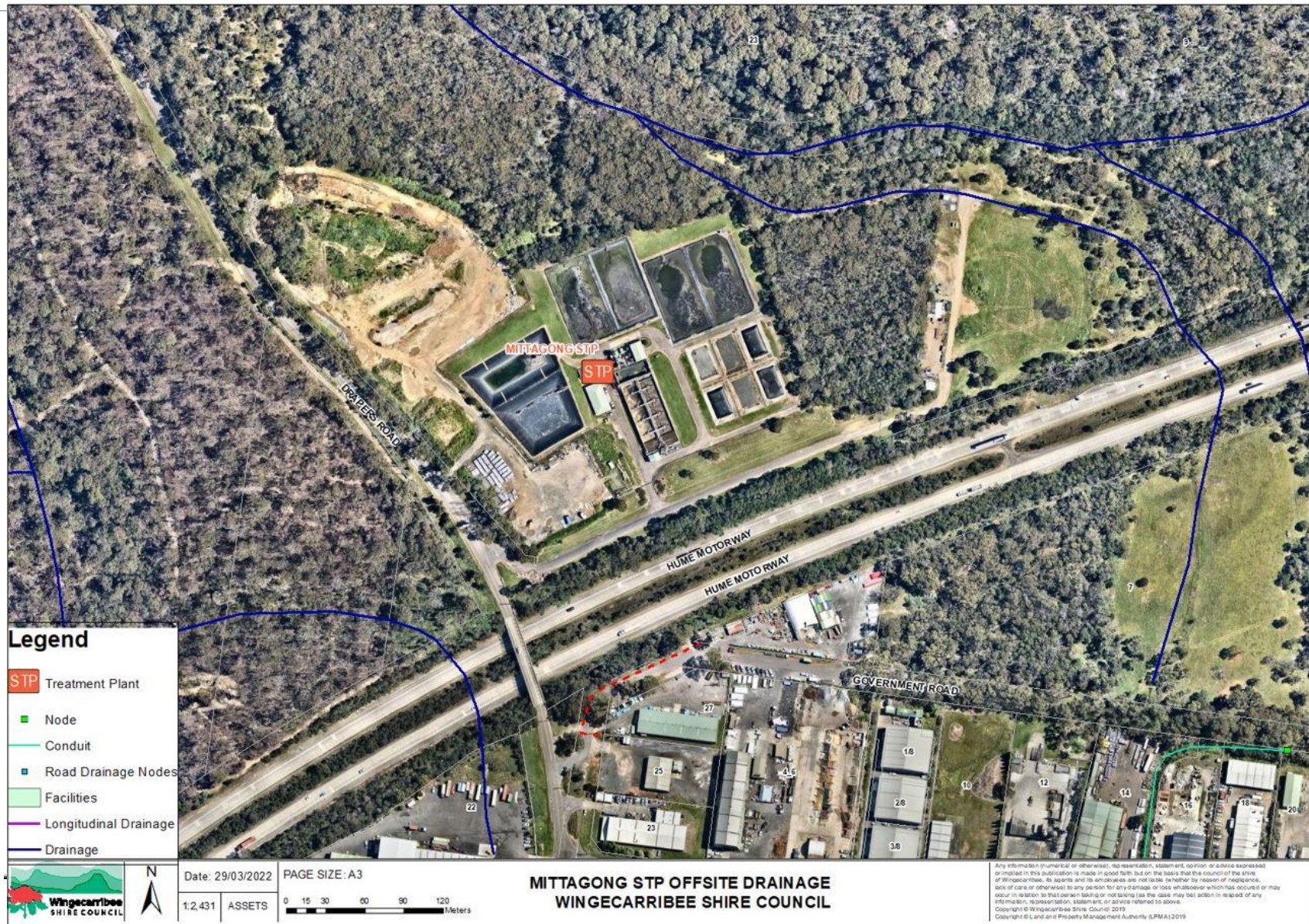
Updated: May 2023

Next Review: March 2024

Version: 7

Page 62 of 90







## 14. APPENDIX 5 – Moss Vale STP Maps & Site Specific Information (EPL #10362)

Moss Vale STP Inventory List (Chemicals/Substances)

Substance / Chemical Name	Quantity (maximum)	Location
Aluminium Sulphate	50,000 L	Alum Bund
Hydrated Lime	2 Tonne	Shed
Diesel	30 L	Shed
Petrol	20 L	Shed
Raw Sewage	2.4 ML, 1.73 ML	Storm pond No. 1 & 2
Mixed Liquor	3.05 ML	IDEA
Secondary Effluent	4.5 ML	Catch Pond
Sludge	2 x 1530 m3	Sludge Lagoons
Biosolids	2 x 165 m3	Drying beds
Biosolids	6,000 m3	Storage bays
Magnesium Hydroxide (Phodine)	5,000 L	Suttor Rd
Magnesium Hydroxide (Phodine)	5,000 L	Church St

Moss Vale STP discharge to waterways (See EPA Point Maps)

Discharge Point	Waterway
EPA Point 1 – Discharge to Waters	Whites Creek
EPA Point 2 – Wet weather discharge to Waters	Whites Creek
Stormwater	Whites Creek

Reference: ECM number -

Document Name: Sewage Treatment Scheme Pollution Incident Response Management Plan

Updated: May 2023

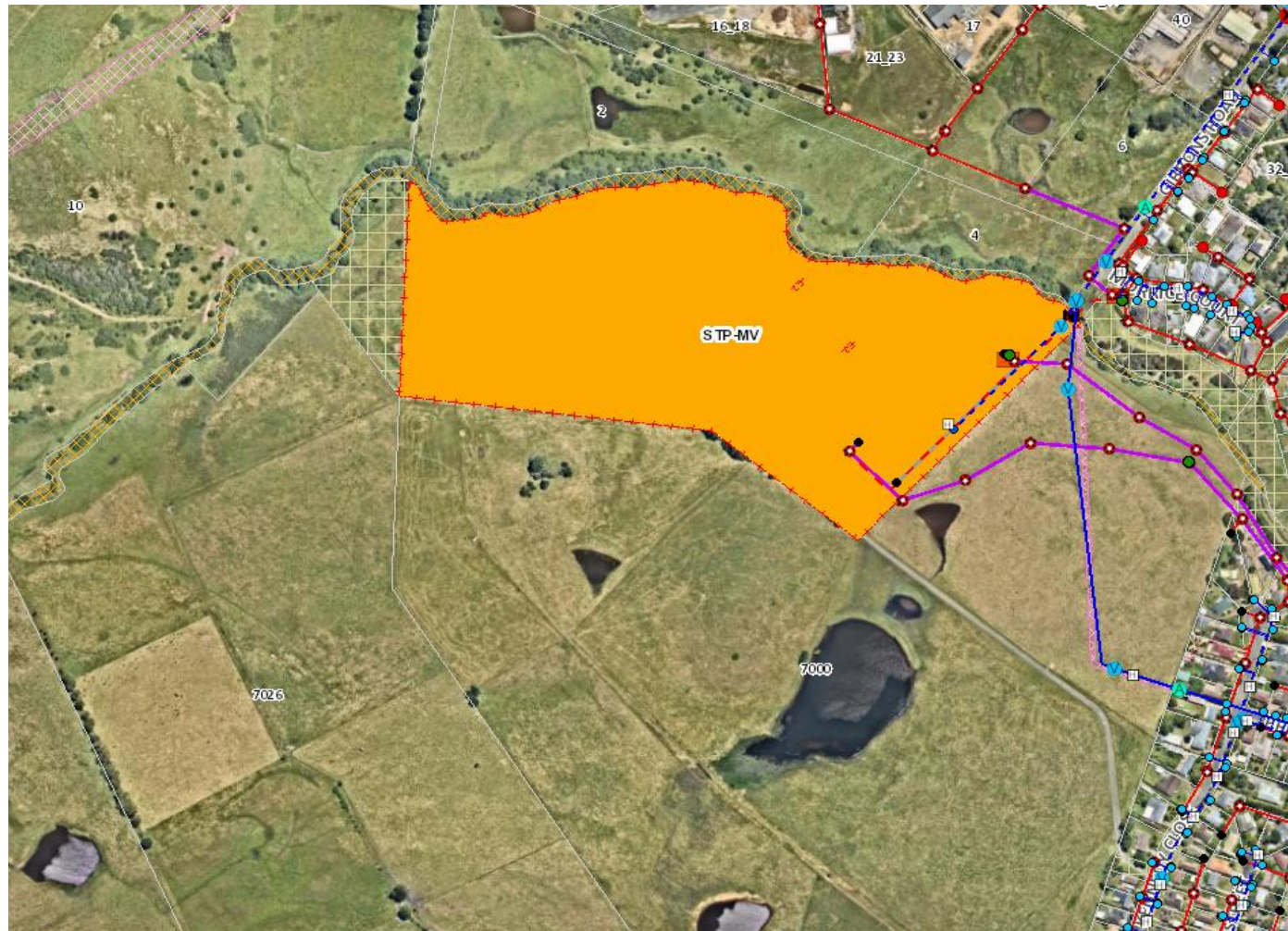
Next Review: March 2024

Version: 7

Page 64 of 90



## MOSS VALE STP NEIGHBOURING PROPERTIES



Reference: ECM number -

Document Name: Sewage Treatment Scheme Pollution Incident Response Management Plan

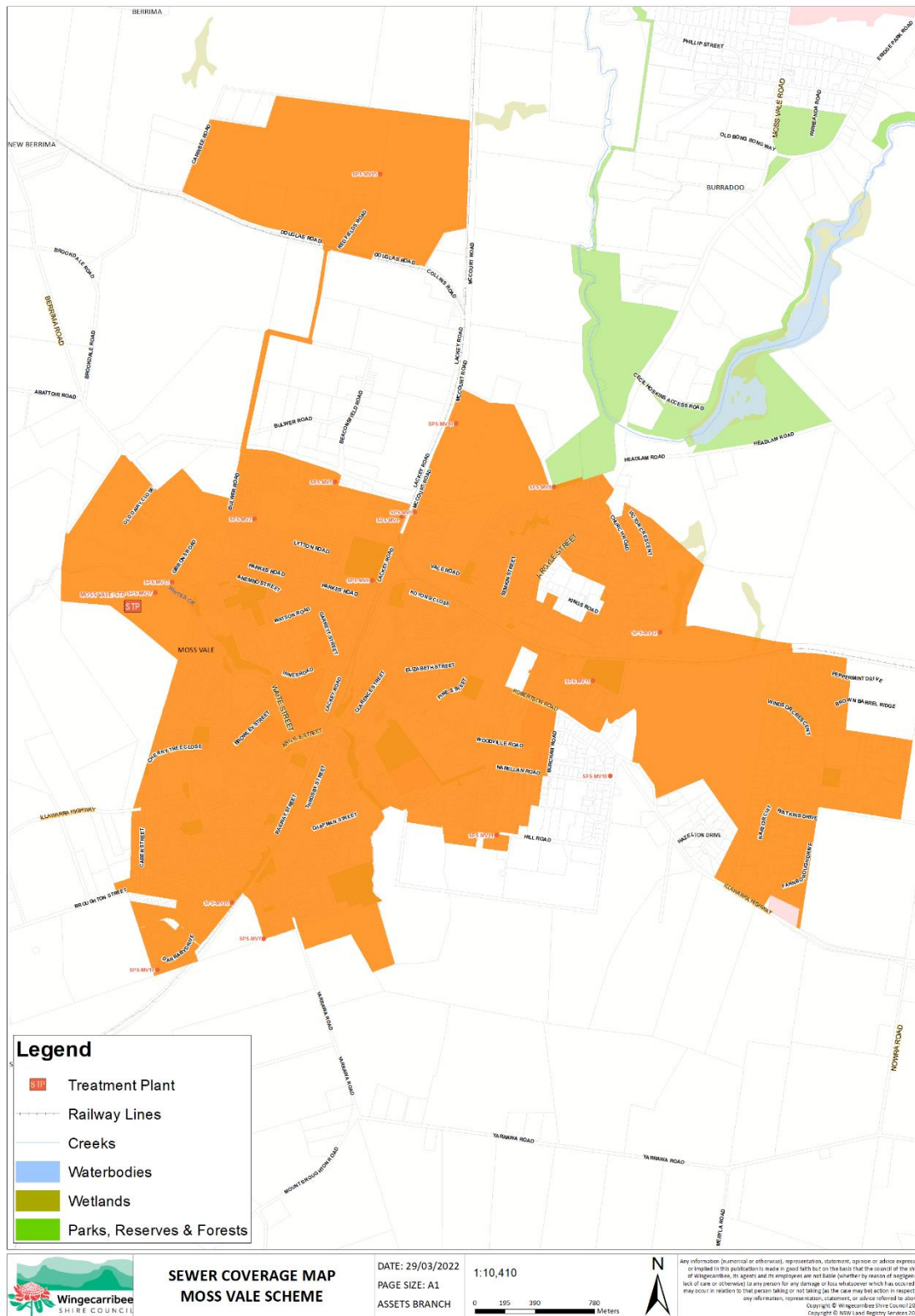
Updated: May 2023

Version: 7

Next Review: March 2024

Page 65 of 90

## MOSS VALE SEWER RETICULATION



Reference: ECM number -

Document Name: Sewage Treatment Scheme Pollution Incident Response Management Plan

Version: 7

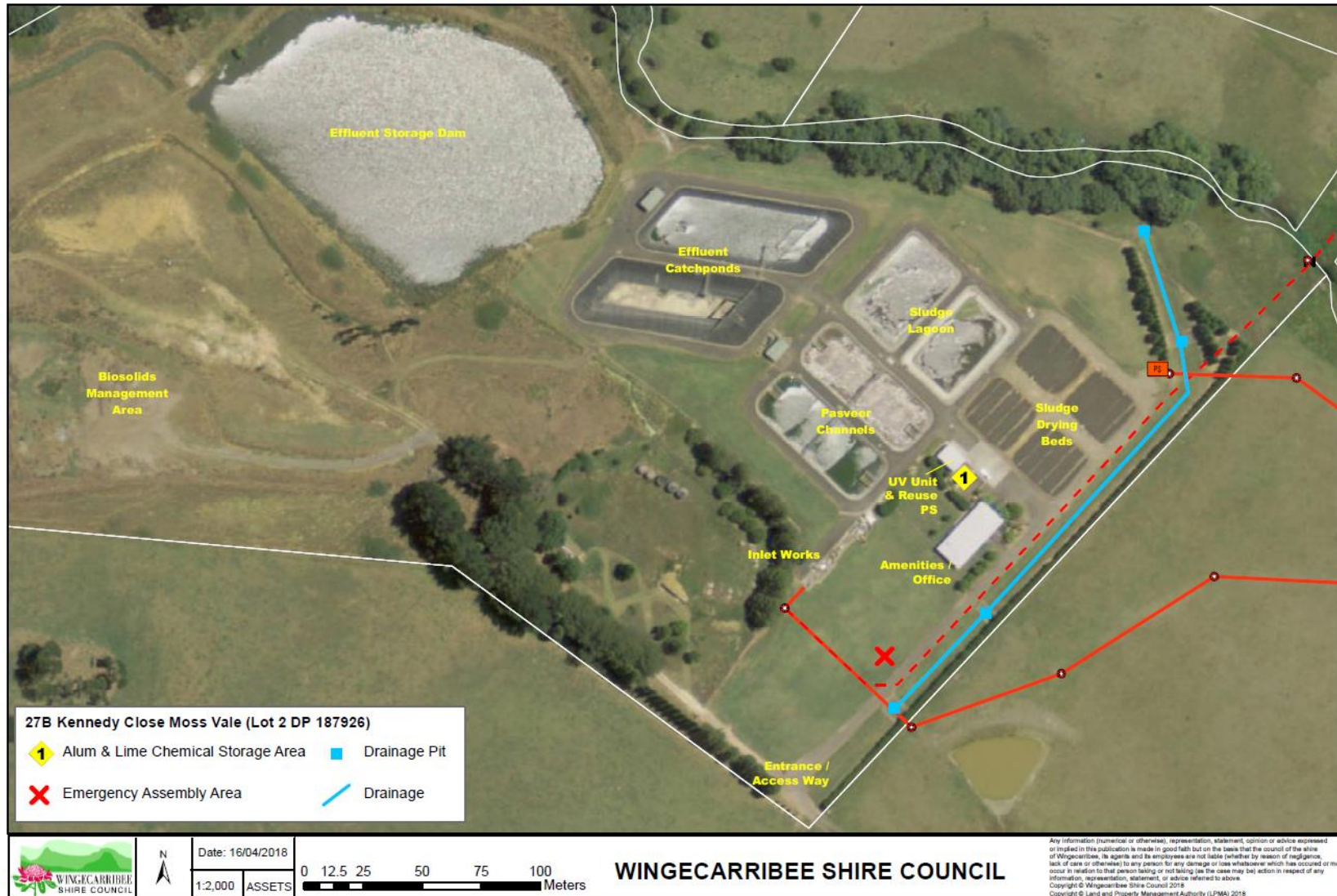
Updated: May 2023

Next Review: March 2024

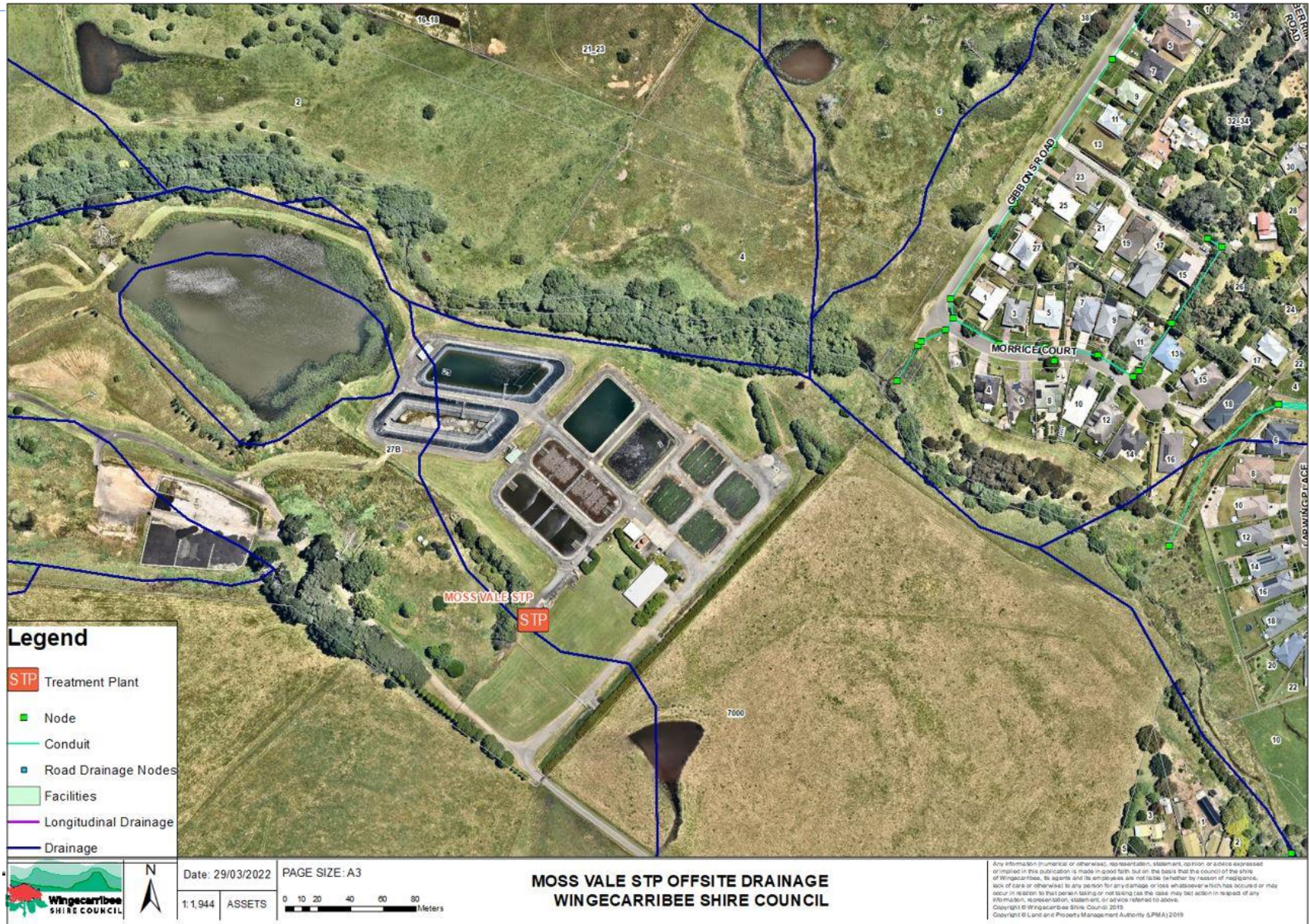
Page 66 of 90



## MOSS VALE SEWERAGE TREATMENT PLANT — SITE EMERGENCY PLAN









## 15. APPENDIX 6 – Robertson STP Maps & Site Specific Information (EPL #20205)

Robertson STP Inventory List (Chemicals/Substances)

Substance / Chemical Name	Quantity (maximum)	Location
Aluminium Sulphate Liquid	30,000 L	Outdoor Tank
Liquid Caustic	30,000 L	Outdoor Tank
Chlorine, Liquid (Pool)	1,500 L	Plant bund area
Sulphuric Acid 73%	500 L	Plant bund area
Citric Acid	1,500 L	Plant bund area
Sodium Meta Sulphate	1,500 L	Plant bund area
Polymer	15kg x 48 bags	Blower Room
Sodium Acetate	1,500 L	Plant Bund area
Raw Sewage	21 kL	Pump Station
Mixed Liquor	152 kL	Pre-anoxic Tank
Mixed Liquor	2 x 85.7 kL	Aerobic Tank (1 & 2)
Mixed Liquor	175 kL	Post-anoxic Tank
Mixed Liquor	19.5 kL	Membrane Operating System (MOS) Tank
Effluent	60 kL	Permeate Storage Tank
Sludge	30 kL	Sludge Tank
Cleaning waste	31.5 kL	CIP Waste System
Biosolids	2 Tonne	Biosolids Trailer

Robertson STP discharge to waterways (See EPA Point Maps)

Discharge Point	Waterway
EPA Point 1 – Wet weather discharge to Waters	Wingecarribee River
Stormwater	Caalong Creek

## ROBERTSON STP NEIGHBOURING PROPERTIES



Reference: ECM number -

Document Name: Sewage Treatment Scheme Pollution Incident Response Management Plan

Updated: May 2023

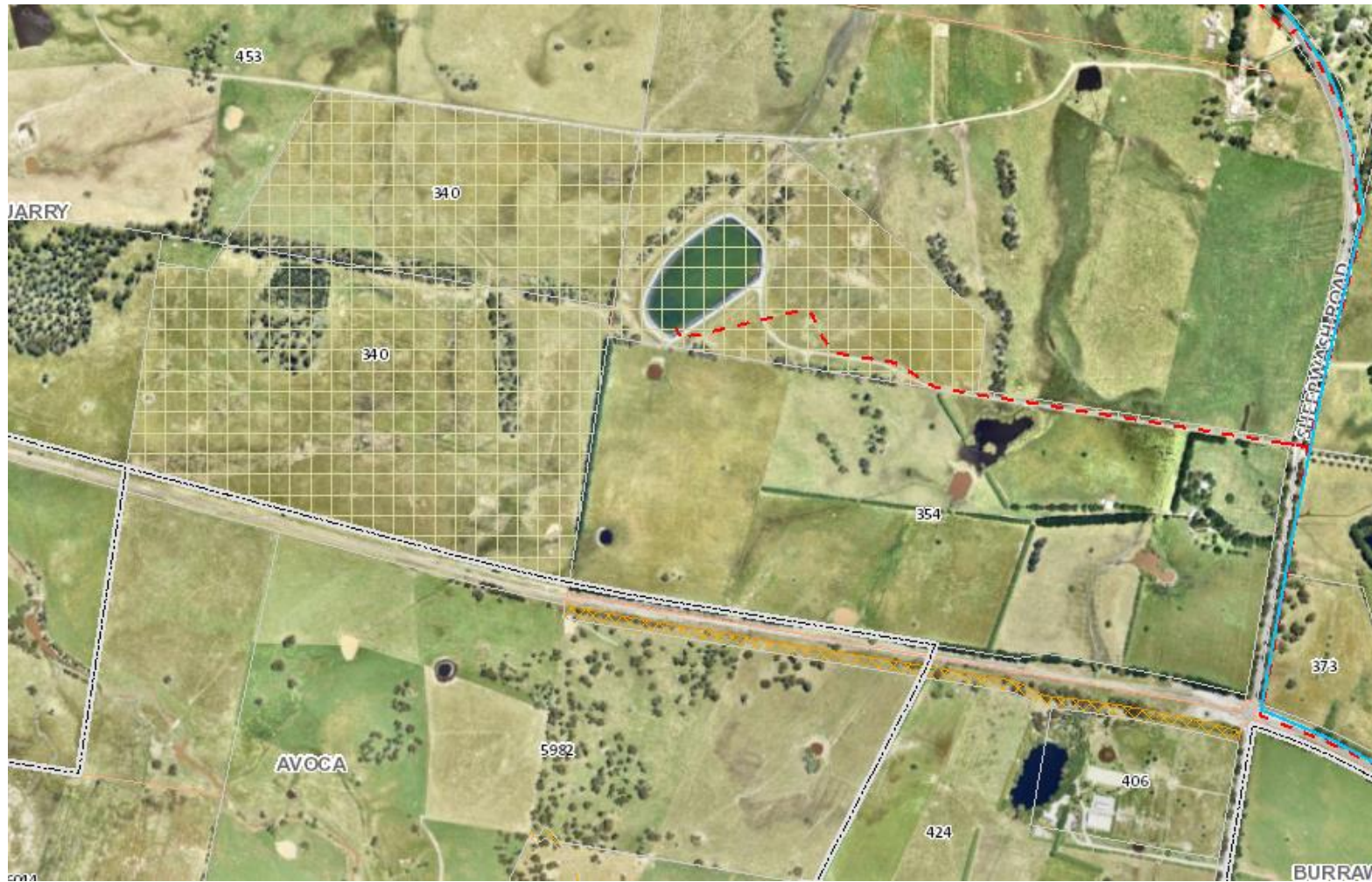
Next Review: March 2024

Version: 7

Page 70 of 90



## ROBERTSON DAM NEIGHBOURING PROPERTIES



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Document Name: Sewage Treatment Scheme Pollution Incident Response Management Plan

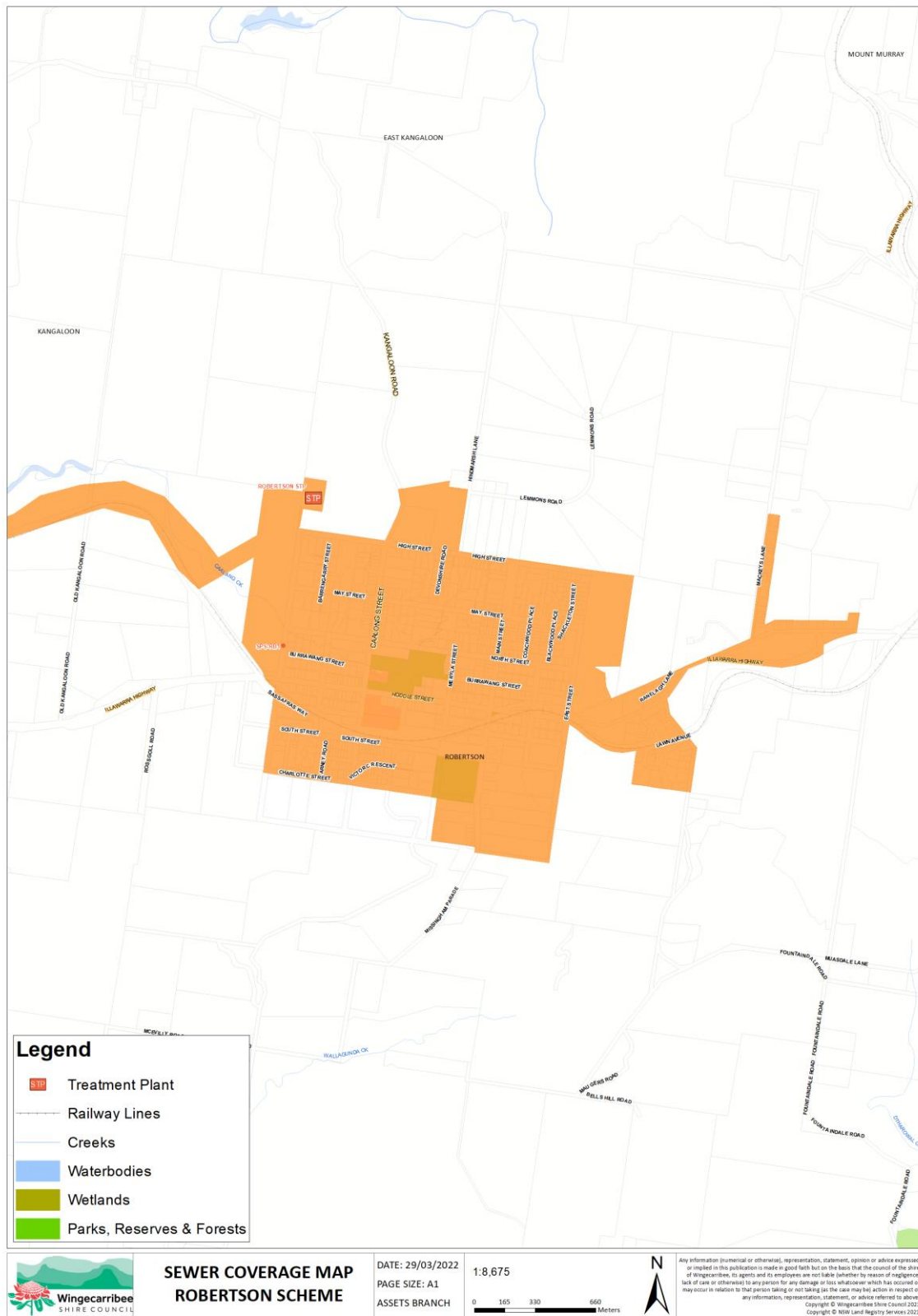
Updated: May 2023

Next Review: March 2024

Version: 7

Page 71 of 90

## ROBERTSON SEWER RETICULATION



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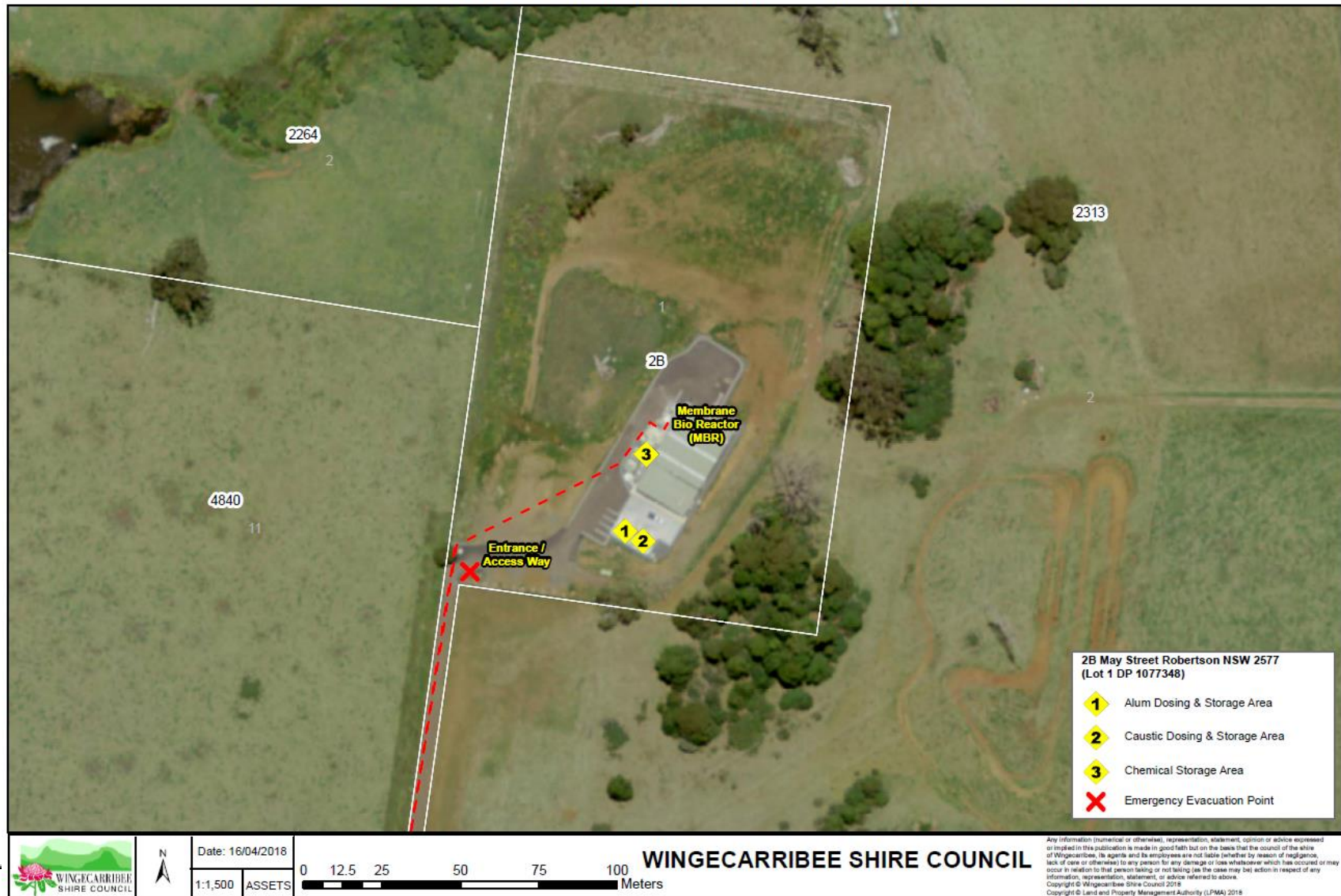
Document Name: Sewage Treatment Scheme Pollution Incident Response Management Plan  
Updated: May 2023

Next Review: March 2024

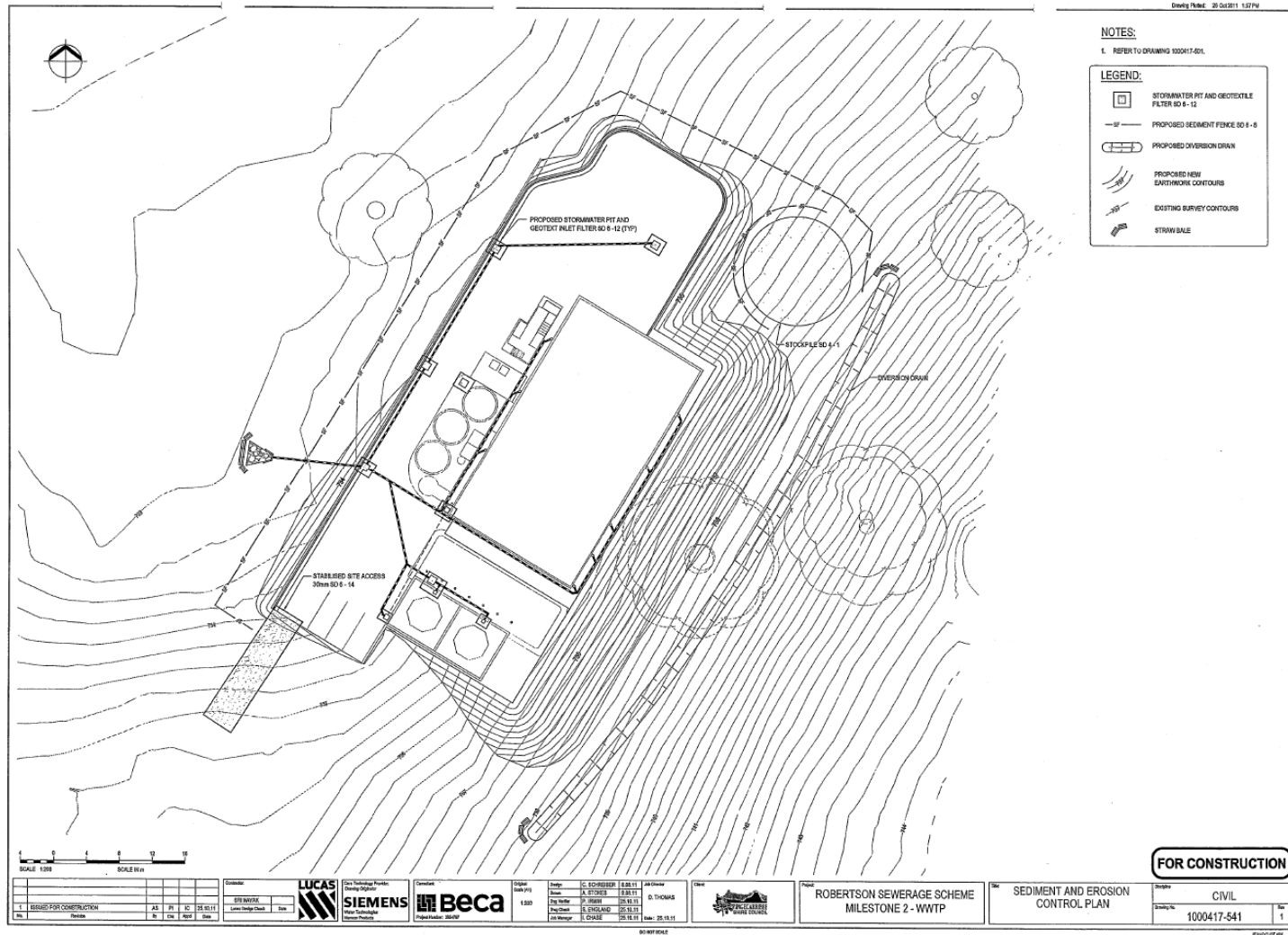
Version: 7  
Page 72 of 90



## ROBERTSON SEWERAGE TREATMENT PLANT — SITE EMERGENCY PLAN



## ROBERTSON STP DRAINAGE MAP



Reference: ECM number -

Document Name: Sewage Treatment Scheme Pollution Incident Response Management Plan

Updated: May 2023

Next Review: March 2024

Version: 7

Page 74 of 90







## 16. APPENDIX 7 – Risk Assessment and Controls

### 16.1 Reticulation Risk Assessment

Hazard	Risk	Consequence	Risk	Pre-emptive Actions & Controls
<b>2</b>	Sewage overflow due to heavy rainfall	Land contamination Waterway contamination Customer dissatisfaction Reputational damage Health effects Regulatory Action	<b>M</b>	Reticulation maintenance and renewals to reduce infiltration and inflows
				Compliance of connections (smoke testing) to reduce inflow and infiltration
				Pump station storage
				Development assessment and modelling to ensure capacity
				Asset inspections
				Customer contact centre (24 hour) and on-call operations
<b>2/4</b>	Sewage overflow due to storm damaging infrastructure	Land contamination Waterway contamination Customer dissatisfaction Reputational damage Health effects Regulatory Action	<b>L</b>	Reticulation maintenance and rehabilitation
				Vegetation management
				Pump Station storage
				System monitoring
				Asset inspections
				Customer contact centre (24 hour) and on-call operations
<b>2/4</b>	Sewage overflow due to Reticulation blockages or damage	Land contamination Waterway contamination Customer dissatisfaction Reputational damage Health effects Regulatory Action	<b>M</b>	Reticulation maintenance and renewal programs
				Sewer Jetting program (high pressure cleaning of mains for repeat chokes)
				Pump station storage
				Reticulation maintenance and rehabilitation
				System monitoring
				Asset inspections
				Customer contact centre (24 hour) and on-call operations

4	Sewage overflow due to an external persons excavation hitting the sewers	Land contamination Waterway contamination Customer dissatisfaction Reputational damage Health effects Regulatory Action	M	Provide underground service locations to external persons
				Telemetry designed to pick up a change in inflows
				Vacuum trucks and portable pumps to divert flow
				Customer contact centre (24 hour) and on-call operations
4	Sewage overflow due to Infrastructure failure	Land contamination Waterway contamination Customer dissatisfaction Reputational damage Health effects Regulatory Action	L	Reticulation maintenance and rehabilitation
				Vegetation management
				Pump Station storage
				System monitoring
				Asset inspections
				Customer contact centre (24 hour) and on-call operations

## 16.2 STP Risk Assessment

Hazard	Risk	Consequence	Risk	Pre-emptive Actions & Controls
1	Wet weather bypass	Land contamination Waterway contamination Customer dissatisfaction Reputational damage Health effects Regulatory Action	H	Reticulation maintenance and renewals to reduce infiltration and inflows Compliance of connections (smoke testing) to reduce inflow and infiltration Wet weather storage at STP System monitoring Alarms and on-call operators 24 hours Development assessment and modelling to ensure capacity Asset inspections Planning of capacity upgrades to meet demand
1/3	Bypass due to power failure	Land contamination Waterway contamination Customer dissatisfaction Reputational damage Health effects Regulatory Action	M	Lightning protection Backup generators (some sites have 2 power supplies) Storage at STP System monitoring Alarms and on-call operators 24 hours UPS and dual feeds (where possible)
1/3	Bypass due to infrastructure damage	Land contamination Waterway contamination Customer dissatisfaction Reputational damage Health effects Regulatory Action	M	Asset inspection and maintenance Vegetation management Capital program System monitoring Alarms and on-call operators 24 hours Condition Assessments
1/3	Bypass due to damage to onsite reticulation pipework	Land contamination Waterway contamination Customer dissatisfaction Reputational damage Health effects	M	Locate services prior to excavations Induction and appropriate supervision of contractors, SSOW Storage at STP Isolations and diversions

Reference: ECM number -

Document Name: Sewage Treatment Scheme Pollution Incident Response Management Plan Version: 7

Updated: May 2023

Next Review: March 2024

Page 78 of 90

		Regulatory Action		
1/3	Bypass due to SCADA /Communications failure	Land contamination Waterway contamination Customer dissatisfaction Reputational damage Health effects Regulatory Action	H	SCADA testing and alarming
				Routine upgrades and maintenance
				Contractor/electrician on-call
				Alarms and on-call operators 24 hours
1/3/5/6	Bypass due to Mechanical break down	Land contamination Waterway contamination Customer dissatisfaction Reputational damage Health effects Regulatory Action	H	Maintenance and inspection program
				System monitoring
				Alarms and on-call operators 24 hours
				Contractors on-call
				Critical spares
				Renewals program
1/3	Bypass due to blockage (at inlet)	Land contamination Waterway contamination Customer dissatisfaction Reputational damage Health effects Regulatory Action	M	Screenings removal
				Maintenance and inspection program
				System monitoring
				Alarms and on-call operators 24 hours
				Contractors on-call
				Renewals program
5	Effluent discharge with excess pollutants that could damage environment	Waterway contamination Customer dissatisfaction Reputational damage Health effects Regulatory Action	H	Maintenance and inspection program
				System monitoring
				Alarms and on-call operators 24 hours
				Renewals program
				Sampling and monitoring program
				EPA sampling
5	Substance spill due to infrastructure failure	Land contamination Waterway contamination Customer dissatisfaction	H	Bunding
				Maintenance and inspection program
				System monitoring

Reference: ECM number -

Document Name: Sewage Treatment Scheme Pollution Incident Response Management Plan Version: 7

Updated: May 2023

Next Review: March 2024

Page 79 of 90



		Reputational damage Health effects Regulatory Action		Alarms and on-call operators 24 hours Contractors on-call Renewals program
5	Chemical/Pollutant spill during delivery	Land contamination Waterway contamination Customer dissatisfaction Reputational damage Health effects Regulatory Action	H	Induction, SSOW and delivery procedures Bunding PPE Chemical training Operator onsite during deliveries
5	Chemical spill due to damage to pipework	Land contamination Waterway contamination Customer dissatisfaction Reputational damage Health effects Regulatory Action	M	Locate services prior to excavations Appropriate supervision of contractors Shut off valves for chemicals Bunding Chemical training Maintenance and inspection program System monitoring Alarms and on-call operators 24 hours
5	Fire/smoke	Air pollution Customer dissatisfaction Reputational damage Health effects Regulatory Action	M	Fire alarms, extinguishers and blankets Evacuation points Maintenance and inspection program System monitoring Customer contact centre (24 hour) and on-call operations Alarms and on-call operators 24 hours
6	Odour	Air pollution Customer dissatisfaction Reputational damage Health effects Regulatory Action	M	OEMP/operation manuals Maintenance and inspection program System monitoring Customer contact centre (24 hour) and on-call operations Alarms and on-call operators 24 hours

## 17. APPENDIX 8 – Corporate Risk Matrix

CONSEQUENCES					
<b>Health &amp; Safety</b>	Fatality or permanent disability or cost of injury more than \$100,000	Serious Injury or illness resulting in more than 31 calendar days absence from work or cost of injury from \$10,000 to \$100,000	Significant injury or illness > 7 days to < 31 calendar days absence from work or cost of injury between \$1,000 and \$10,000	Moderate injury or illness < 7 calendar days absence from work or cost of injury between \$100 and \$1,000	Minor injury or illness first aid needed not time lost or cost of injury less than \$100.
<b>Corporate Financial Loss</b>	\$10 million to \$100 million	\$1 million to \$10 million	\$100,000 to \$1 million	\$12,000 to \$100,000	Up to \$12,000
<b>Natural Environment</b>	Catastrophic & irreversible environmental damage. Full clean up not possible.	Major but reversible environmental damage. Full clean up extremely difficult and expensive	Significant local impact on or off work site requiring longer term clean up.	Moderate environmental impact. Issue affects more than the worksite. Quick clean up possible	Minor environmental damage. Contained on worksite. Quick clean up possible.
<b>Social/ Cultural/ Heritage</b>		Ongoing serious social issues. Significant damage to structures/sections of cultural significance		Ongoing social issues. Permanent damage to sections of cultural significance	Minor medium term social impacts on local population. Mostly repairable
<b>Community/ Government/ Reputation/ Media</b>		Serious public or media outcry (international coverage)	Significant adverse national/media/ public/Local Government attention	Media attention and/or heightened concern by local community. Criticism by Local Government	Minor adverse local public or media attention or complaints
<b>Legal</b>	V. Serious breach. Prosecution including class actions and/or potential culpability/ manslaughter implications. Loss of Licence to operate	Major breach of regulation. Major investigation by authority with litigation and/or potential criminal charges or major compensation	Significant breach of regulation with investigation or report to authority with possible prosecution and/or significant fine	Minor legal issues, non compliance and breaches of regulation	

			A	B	C	D	E
			Catastrophic /Fatality	Major/Serious	Significant	Moderate	Minor
LIKELIHOOD	A	Almost Certain (at any time)	EXTREME	EXTREME	HIGH	MEDIUM	LOW
	B	Very Likely (in most circumstances)	EXTREME	HIGH	HIGH	MEDIUM	LOW
	C	Likely (may happen at some time)	HIGH	HIGH	MEDIUM	LOW	LOW
	D	Unlikely (could happen)	HIGH	MEDIUM	MEDIUM	LOW	INSIGNIFICANT
	E	Very Unlikely (probably wont happen)	MEDIUM	MEDIUM	LOW	INSIGNIFICANT	INSIGNIFICANT



## 18. APPENDIX 9 – PIRMP Background and Legislative Information

The Protection of the Environment Legislation Amendment (POELA) Act introduces several changes to improve the way pollution incidents are reported, managed and communicated to the general community. The Act includes 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.

### 18.1 Objectives of PIRMP

The objectives of these plans 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 Local Councils, NSW Ministry of Health, SafeWork NSW, and Fire and Rescue NSW)
- Minimise 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.

Beyond meeting legislative requirements; the purpose of the plan is to reduce the risk of an environmental pollution incident occurring given the residual risk that will always be present. It will also help with the coordination of an appropriate and timely response should such a pollution incident occur.

### 18.2 Legislative Requirements

The specific requirements for pollution incident response management plans are set out in Part 5.7A of the POEO Act and the Protection of the Environment Operations (General) Regulation 2009 (POEO (G) Regulation). In summary, the provision requires the following:

- All holders of environment protection licences must prepare a pollution incident response management plan (section 153A, POEO Act).
- The plan must include the information detailed in the POEO Act (section 153C) and be in the form required by the POEO (G) Regulation (clause 98B).
- Licensees must keep the plan at the premises to which the environment protection licence relates or, in the case of traceable waste transporters and mobile plant, where the relevant activity takes place (section 153D, POEO Act).

- Licensees must test the plan in accordance with the POEO (G) Regulation (clause 98E).
- If a pollution incident occurs in the course of an activity so that material harm to the environment is caused or threatened, licensees must immediately implement the Plan (section 153F, POEO Act).

### 18.3 Form of the Plan and Making Plan Available

As the purpose of this PIRMP is to mitigate the likelihood and to improve the management of pollution incidents and facilitate better coordination with the relevant response agencies, this PIRMP must:

- be provided in written form,
- be available at the subject premises,
- be able to be provided to an authorised EPA officer on request and
- be available to any person who is responsible for implementing the PIRMP.

A written copy of this PIRMP is located in the Main Office at each Sewage Treatment Plant (STP) to which the relevant Environmental Protection Licences (EPLs) relate.

The master copy of this PIRMP is to be maintained by the Manager Water & Sewer who will be responsible for revisions of the PIRMP and for the distribution of revised copies to relevant locations.

A copy can be provided to an authorised EPA Officer on request.

An electronic copy is available on Council website:

<https://www.wsc.nsw.gov.au/Council/Strategies-Plans/Pollution-Incident-Response-Management-Plans-PIRMP>

The Pollution Incident Response Management Plan information made available to the public will include relevant information for the public but exclude staff contact details and details of the neighbouring properties. Relevant information will include:

- Procedures for contacting the relevant authorities
- Procedures for communicating with the community

### 18.4 Testing of Plan

This plan will be routinely tested at least once every 12 months. Refer to the PIRMP Table for actual details of each test undertaken or planned. Test methods include undertaking desktop simulations or undertaking practical exercises (drills) on site.

All tests of the plan **must**:

- Ensure that information included in the plan is accurate and up to date
- Ensure the plan is capable of being implemented in a workable and effective manner
- Cover all components of the plan

- Include the effectiveness of training

The Plan **must** also be tested within 1 month of any pollution incident occurring. This is to ensure the information included in the plan is accurate and up to date, and the plan is still capable of being implemented in a workable and effective manner.

### **18.5 Implementing plans**

If a pollution incident occurs at the STP that causes material harm to the environment (within the meaning of section 147), this Plan **must** be implemented immediately by appropriately trained and competent staff.

Please note: If this plan is not implemented within agreed timeframes the matter may be investigated and internal disciplinary action taken. This could also include separate action taken by regulators against individual persons.