

Pollution Incident Response Management Plan

Yamba Sewage System (STP and Reticulation)

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1. Table of Amendments

Amendment Detail	Authorised by	Date
Version 2a - Plan updated to reflect current corporate structure, change OHS references to WHS, change mandatory Fire & Rescue reporting to optional, add NSW Shellfish program	G. Mashiah	23/04/15
Version 3 - All CVC PIRMP's re-drafted after testing on the 1 st December 2015. Amendments included minor formatting changes, updated to schematics, contact details, chemical registers.	D. Eaton	01/06/2017
Version 4 – Quantity of onsite wastewater added in Appendix 2. Names of key personnel added. Info added to Section 2.6 on exercising this plan.	G. Mashiah	30/11/2017
Version 4.1 – post Testing/review meeting December 2017. <ul style="list-style-type: none"> • Info added to Section 2.6 on exercising this plan Names of key personnel added • Quantity of onsite wastewater added in Appendix 2 • Minor drafting and typo corrections • Remove references to 'Human Resources' section • Add section 2.5.4 and Remove from appendix 6 • Appendix 7 (formerly appendix 8) re-ordered in priority ranking • Appendix 9 added 	G. Mashiah	15/12/2017
Version 4.2 – Post testing / review meeting February 2019 <ul style="list-style-type: none"> • Minor updates and amendments • Appendix 2 updated 	G. Mashiah	25/03/2019
Version 4.3 – Individual onsite meetings held at each STP <ul style="list-style-type: none"> • Key personnel added • Reticulation changes made 	G. Mashiah	24/06/2020
Version 4.4 – Group review meetings held on 08/06/21 and 09/06/21 <ul style="list-style-type: none"> • New staff inducted • Existing staff participated in document review • SOP for pollution incidents reviewed 	G. Mashiah	24/06/2021
Version 4.5 – Review of documentation <ul style="list-style-type: none"> • New staff inducted • Existing staff participated in document review • Staff details updated. 	G. Mashiah	29/06/2022
Version 4.6 – Review of documentation <ul style="list-style-type: none"> • New staff inducted • Existing staff participated in document review • Staff details updated. 	A. Potter	29/06/2023

2. Introduction

This plan has been developed to document the processes required to prepare for and respond to pollution incidents for the Yamba Sewage Treatment Plant (STP) and associated reticulation (EPA Licence No. 1659) and ensure that hazards to the environment, human health and safety are minimised if not eliminated. It has been prepared in accordance with the requirements of the Protection of the Environment Operations Act 1997 and Protection of the Environment Operations (General) Regulation 2009. Prior to this PIRMP, Council followed the actions listed in the Environmental Management Plan (EMP) for the Sewerage Systems. The EMP reporting and incident procedures have now been superseded by this PIRMP. This PIRMP also includes valuable information formerly contained in the EMP which can be used as a reference, including detail on pump station generator requirements and the location of controlled/uncontrolled surcharge points.

2.1 Scope

This Pollution Incident Response Management Plan applies to Yamba Sewage System (STP and Reticulation - EPA Licence No. 1659). For site plan and sewerage schematic, refer to Section 7.1 Appendix 1 - Site Plan and Reticulation Schematic.

3. Pollution Incident Response Management Plan

The areas of Yamba, Angourie and Wooloweyah are serviced by 56.8km of sewer mains and 38 pump stations transferring sewage to the Yamba STP. The Yamba STP treats approximately 2500kL of sewage daily in dry weather, potentially reaching more than 3 times this flow during heavy rain periods. During sewage treatment, chemicals and by-products are produced which, if they are spilt or incorrectly managed, may contaminate the environment or threaten human health. A register of the chemicals is contained in Section 7.2 Appendix 2 – Wastewater Storage Volumes

Item	Max Storage (kL)
Inlet Works & Balance Tank	116
Wet Weather Storage	1800
Old Aeration Tank 1	700
New Aeration Tanks x 2	2 x 2530
Reuse Balance Pond	3100
Ebb-Tide Release Balance Pond	4200
Sludge Lagoons x 4	4 x 2100
Chlorine Contact Tank	300
Dewatering Buffer Tank	20

Appendix 3 - Site Chemical Register)

3.1 Potential Incidents

The potential hazards to the environment include:

- Sewage overflow (raw or partially treated) – potentially caused by:
 - Storms (lightning/heavy rainfall/wind) causing power failure or infrastructure damage
 - Reticulation blockages
 - Damage to reticulation (contractors or other damage during excavations etc)

- Infrastructure failure due to age
- SCADA/Communications failure
- Excessive flows
- Mechanical break down
- Power outage
- Treatment plant blockage

- Chemical spill – potentially caused by:
 - Tank/storage failure
 - Delivery incident
 - Damage to chemical reticulation
 - Vandalism
 - Inappropriate chemical use
 - Bund failure

A detailed assessment of risks is provided in Section 6.5 Appendix 4 - Risk assessments and actions. For detail on actions to reduce risks see Section 3.5 Pre-emptive Measures.

3.2 Incident Response

This section details the response requirements in the event of an incident. See also pollution incident form provided in Appendix 9. In all situations:

The business hours emergency number for CVC is (02) 6643 0200

The after hours emergency number for CVC is (02) 6626 6858

During working hours, these calls are taken by staff on the CVC Switch. If the call is after hours, the call is redirected to a call centre in Lismore, who informs appropriate personnel of issues and incidents. CVC operates a rostered on-call system, ensuring that an experienced operator is on-call at all times. The call centre will contact the on-call operator. The on-call the operator may also receive alarms from pump stations or the STP via the telemetry system. The telemetry system utilises the SMS mobile phone network to advise of critical alarms. The on-call operator also has access to other qualified staff to assist in an after hours repair or emergency. SOP's are in place to cover an after hours emergency.

3.2.1 Human health or Safety Incident

If there is a **serious** immediate threat to Human health or Safety, call triple zero "000" ("112" if using a mobile) and implement the following process:

1. Undertake reporting in accordance with the procedures listed in the *CVC Hazard/Near Miss/ Incident/ Injury Reporting & Procedure*
2. If required, evacuate the site
3. Contact Water & Sewer Engineer and/or Manager Water Cycle (Refer contact list Appendix 6)
4. Report the incident to Council's WHS Unit on 6643 0822, 6643 0820 or 0427 288 483.

3.2.2 Pollution incident

Water Cycle have developed a Standard Operating Procedure No. 11 for responding to major pollution incidents, which is available on Water Cycle's B Drive at <B:\Water Cycle\SEWERE\PIRMPs\ 011 Major Pollution Incidents Form.doc> and is included at Appendix 9.

3.3 Community notification

Impacts on the community due to sewage distribution and treatment incidents are variable and depend on location, volumes of spills or other factors. Communication methods will be used on a case by case basis and in all situations Clarence Valley Council will attempt to provide early warning to directly affected premises (either upstream or downstream depending on tidal impacts where relevant) by phone call or site visit. Early warning is to include details of what the incident is, how those affected can prepare and respond, and provide important advice such as avoiding contact and use of affected waterways.

Where early warning is not possible Clarence Valley Council will provide notification and communication during and after an incident to advise those affected with information, advice and updates. Notification and communication methods will be determined on a case by case basis and the following methods may be used:

- Phone calls
- Media releases (radio/television/newspaper/internet/social media as required – only CVC staff with appropriate delegations are permitted to speak to the media)
- Site visits/door knocking
- Letter drops
- Warning signs (e.g. 'Potential Sewer Contamination – Do Not Enter Water')
- Other methods as the situation requires

In the event of a chemical or sewage spill into stormwater or waterway, Clarence Valley Council staff are to go to prominent and/or high use areas of the affected waterway and erect signage. The signs are to

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warn water users of the contamination and advise them to avoid activities such as swimming, fishing, shell fish collection and boating until contamination has cleared. Additionally, if the event occurred or was occurring during dry weather, Clarence Valley Council staff are to attend popular sites and advise users directly.

Contaminated land is to be disinfected, ponded sewage pumped out and faecal coliforms are to be monitored until background levels are reached.

Regular communication and notification is to be provided until the incident and clean up of impacted site and affected areas has been complete (e.g. faecal coliforms have returned to background levels). Clarence Valley Council is to take signs down and advise the public that regular activities can be resumed by (as required):

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

3.3.1 Incidents at the Sewage Treatment Plant

The nearest neighbour from the Yamba STP is the Yamba Golf Course, located immediately adjacent. The nearest occupied building is a dwelling 200m to the East. There is nothing onsite that would create an emergency for any neighbours. However, if an incident did occur and any community members or neighbours were affected then the processes listed in Section 3.3 Community notification above would be implemented as required.

3.4 Incident Investigation

All emergencies must be investigated. For all other incidents, the manager (with guidance from review personnel) will decide whether an incident investigation will be conducted. When an incident investigation is required, the relevant manager is responsible for:

- Forming the investigation team
- Co-ordinating the investigation

Note: Council's WHS Unit has incident procedures and documentation which should be used when conducting the investigation.

A de-brief is to be conducted for all emergency incidents. However, the responsible manager may also initiate de-briefs for other incidents where they feel it is appropriate.

3.5 Pre-emptive Measures

3.5.1 Physical and preventative measures

First priority for pre-emptive measures is to eliminate substances that can become potential pollutants. If this is not possible, physical barriers should be installed to prevent pollutants from entering the environment such as bunding and spill drainage containment. At Yamba STP, all chemical storages are banded to ensure that if the storage fails the pollutant is contained and treatment process bypasses are installed to prevent partially treated sewage spills due to reticulation issues. Additionally, the reticulation, pump stations, and Yamba STP have multiple alarm systems to alert operators of conditions that may result in incidents, which include:

- High level alarms
- Communication failure
- Motor issue alarm
- No flow/high flow alarms

In the event that these systems fail, Clarence Valley Council has portable bypass pumps and other containment options available.

Power failures can occur at any time and can be planned or unplanned interruptions, when a Sewer Pump Station (SPS) experiences a power failure the telemetry system will activate an alarm via the SMS network to alert the on-call/duty personnel. Generator inlets have been installed on all Yamba SPS's. Council has a 500KVA trailer mounted generator located at Shannon Creek, a 125KVA trailer mounted and a 40KVA located in the Lower River area and a 20 KVA and a 100 KVA generator located in the Grafton area. The 500KVA generator is capable of running Yamba STP, the 125KVa generator is capable of running all SPSs and the 40 KVA generator is capable of running all the Yamba reticulation SPS with the exception of Y1 and Y16.

Appendix 7 - Power Failures Generator Priorities identifies the ranking order of generator supply required in the event of a total power failure. The ranking is based on retention times in the SPS and their upstream catchments. Rankings will stay the same for both ADWF and wet weather conditions, however response times will need to increase in wet weather events.

Any manhole can overflow/surcharge due to a sewer choke at any time, this may cause a minor or major overflow/surcharge into the stormwater system. The Sewer reticulation systems also have controlled overflow/surcharge points, where surcharging sewage is directed in a controlled manner to a less harmful situation. These are used to avoid surcharges on private property or sensitive locations. Controlled overflow/surcharge points may consist of any combination of reflux valves, weirs, manholes, flaps valves, gas-check manholes and diversion pipes. Controlled overflow/ surcharge points exist both at SPS's where sewers may surcharge because of failure or lack of capacity of the pumping station, and within the reticulation system where sewers may surcharge due to a blockage in the downstream pipes or lack of capacity especially in wet weather events. Appendix 8 – Yamba Controlled Overflow/Surcharge Points identifies Controlled Overflow/ Surcharge Points

3.5.2 Preventative monitoring and maintenance

Clarence Valley Council uses monitoring and preventative maintenance to reduce the potential for incidents at both the STP and for the reticulation and pump stations. Many specific actions occur in regular cycle, from daily checks (e.g. chemical quantities, check pump stations via telemetry, vandalism, bunds), monthly checks (e.g. valve exercising, inspection of controlled overflow/surcharge points), and annual checks (e.g. RPZ testing, service pumps, electrical inspections of pump controls). More detail on regular operational/maintenance activities is provided below;

Activity	Frequency
Sewage Treatment Plant	
Operate the STP as per operation and maintenance procedures	Daily
Pumping Stations	
Check pump station operations via SCADA system	Daily
Check pump stations not connected to SCADA	Daily
Visual check of pumping operations	Weekly
Clean pump stations	Monthly
Service pumps	Annually (minimum)
Electrical inspections of pump controls	Annually
Pump refurbishments	Determined by service reports
Pump replacements/upgrades	Determined by service reports
Reticulation	
Inspection of controlled overflow/surcharge points	Monthly

CCTV inspections of mains	As per program
Mains rehabilitations	As per program
Location of manholes and boundary shafts	Ongoing program

3.5.3 Pre-emptive documentation

Reticulation blockages, breaks or distribution issues can result in spills if not acted upon. Therefore, the following CVC SWMS and SWP are to be used to address issues before overflows occur:

- SWP 071 – Jetting Sewer Mains
- SWP 106 – Sewer Main Repair

3.5.4 Action Plans to minimise harm

To address the risk of sewage overflows, Clarence Valley Council has a number of management actions comprising of one of more of the following:

- Further detailed Investigations of very high and extreme risks
- Augmentation of Sewerage Assets to Increase Capacity
- Planned Maintenance of Existing Assets
- SCADA Monitoring of Sewage Pumping Stations
- Continuous Improvement of Sewerage System Operations
- Emergency Response Procedure to Power Failures

3.6 Training

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

All incidents are to be registered into Council’s ECM and training records will be sent to People and Culture section for filing.

Training will be undertaken annually at the same time as the plan is exercised.

4. Responsibility

Manager Water Cycle is responsible for the implementation of this Plan.

5. References

- EPA NSW Environmental Guidelines: Preparation of pollution incident response plans
- Local Government Act 1993
- Protection of the Environment Operations Act 1997
- Protection of the Environment Operations (General) Regulation 2009
- Public Health Act 2010

6. Glossary

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 (see the POEO Act 1997).

Harm to the environment: 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

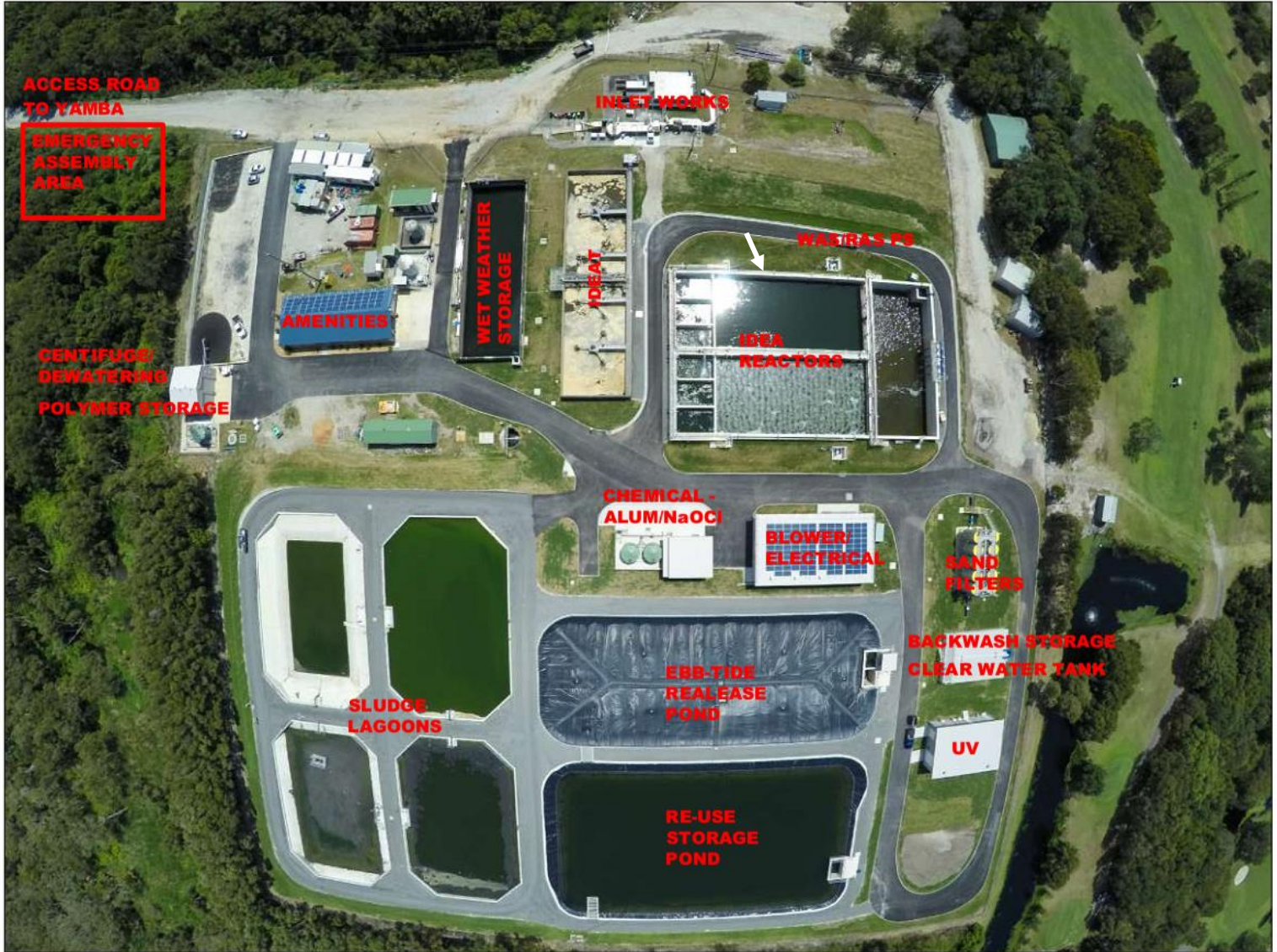
Loss: includes the reasonable costs and expenses that would be incurred in taking all reasonable and practicable measures to prevent, mitigate or make good harm to the environment.

7. Appendices

- Appendix 1 - Site Plans and Schematic
- Appendix 2 – Wastewater Storage Volumes
- Appendix 3 – Site Chemical Register
- Appendix 4 – Personal Protective Equipment
- Appendix 5 – Risk Assessment and actions
- Appendix 6 – Additional Emergency Contacts
- Appendix 7 – Power Failure Generator Priorities
- Appendix 8 – Controlled Overflow/Surcharge Points and PS Attendance Times
- Appendix 9 – Major Pollution Incident Form

7.1 Appendix 1 - Site Plan and Reticulation Schematic

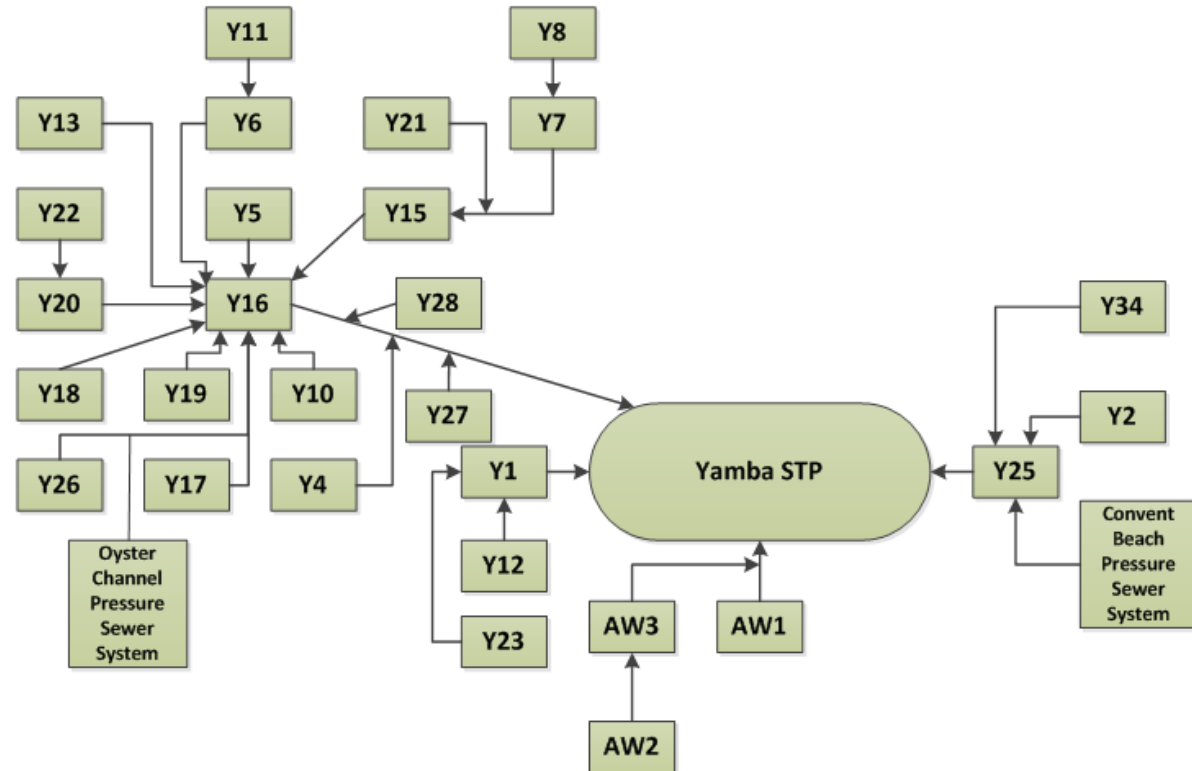
Yamba STP Site Plan



Yamba STP Schematic

Pump Station Name	Pump Station Location
Y1	Redman Ln
Y2	Main Beach - Marine Pde
Y4	Coonawarra Crt
Y5	Roseland Ave
Y6	Willow Way
Y7	Binnacle Court
Y8	The Peninsula
Y10	Cnr Shores Dr & Park Ave
Y11	Westringa Pl
Y12	Uki St - Industrial Area
Y13	Witonga Dr
Y15	Admiralty Ct
Y16	Park Ave
Y17	O'Grady's Lane
Y18	Treelands Dr - Yamba Fair
Y19	Yamba Rd opp. Carrs Dr
Y20	Orion Dr - Oyster Cove
Y21	The Mainbrace
Y22	Bayview Dr
Y23 ??	Harbour St (Gormans) ??
Y25	Claude St
Y26	Witonga Dr & Tarook Ave
Y27	William Ave
Y28	Yamba Business Park
AW1	Lake St. Angourie
AW2	138 Lakes Blvd
AW3	61 Lakes Blvd

Yamba Sewer Schematic



7.2 Appendix 2 – Wastewater Storage Volumes

Item	Max Storage (kL)
Inlet Works & Balance Tank	116
Wet Weather Storage	1800
Old Aeration Tank 1	700
New Aeration Tanks x 2	2 x 2530
Reuse Balance Pond	3100
Ebb-Tide Release Balance Pond	4200
Sludge Lagoons x 4	4 x 2100
Chlorine Contact Tank	300
Dewatering Buffer Tank	20

7.3 Appendix 3 - Site Chemical Register

Date of register: December 2016

Chemical Name	Maximum Volume of Chemicals Stored	Location Where Chemical is Stored
Liquid Aluminium Sulphate (Alum)	3 x 25000 L	Bunded Area
Sodium Hydroxide (Caustic Soda)	25000 L	Bunded Area
Polymer (Liquid)	3000 L Bulk Container	De-watering Shed
Sodium Hypochlorite	15000 L	Bunded Area
Unleaded petrol	20 L	U.V. Shed (in jerry cans)
Diesel	80 L	U.V. Shed (in jerry cans)
Glyphosate	20 L	Shed
High grade gear box Oil	60 L	Shed

7.4 Appendix 4 - Personal Protective Equipment List

This section list the standard PPE items required.

Sewage Treatment Plant

The following items are to be kept at the Yamba STP:

- Ear/hearing protection
- Life rings (around the treatment system)
- Sun screen
- Apron/disposal overalls
- Rubber Gloves
- Goggles
- Gumboots
- Steel capped Boots

Sewerage reticulation response truck

The following items are to be kept on the sewerage reticulation response truck:

- Asbestos kit
- Goggles/eye protection
- Hearing protection
- Apron/disposable overalls
- Rubber gloves
- Gumboots

7.5 Appendix 4 - Risk assessments and actions

No	Risk	Impact	Risk LxC = Rating	Controls
Yamba Reticulation				
1	Sewage overflow due to inflow/infiltration	Land contamination, possibly enter a waterway	C2 = M	<ul style="list-style-type: none"> ▪ Reticulation maintenance and rehabilitation to reduce infiltration and inflows ▪ Spare capacity in pump wells ▪ Monitoring and maintenance ▪ Pre-emptive measures see Section 3.5 Pre-emptive Measures
2	Sewage overflow due to power failure	Land contamination, possibly enter a waterway	B2 = L	<ul style="list-style-type: none"> ▪ Lightning protection ▪ Back up generators, priorities provided in Appendix 7 ▪ Pre-emptive measures see Section 3.5 Pre-emptive Measures
3	Sewage overflow due to storm damaging infrastructure	Land contamination, possibly enter a waterway	B2 = L	<ul style="list-style-type: none"> ▪ Lightning protection ▪ Site vegetation management to prevent damage to infrastructure ▪ Portable pumps ▪ Pre-emptive measures see Section 3.5 Pre-emptive Measures
4	Sewage overflow due to Reticulation blockages or damage	Land contamination, possibly enter a waterway	C2 = M	<ul style="list-style-type: none"> ▪ Reticulation maintenance ▪ Sewer Jetting program (high pressure cleaning of mains for repeat chokes) ▪ Spare capacity in pump wells ▪ Monitoring and maintenance ▪ Pre-emptive measures see Section 3.5 Pre-emptive Measures
5	Sewage overflow due to an external persons excavation hitting the sewers	Land contamination, possibly enter a waterway	C2 = M	<ul style="list-style-type: none"> ▪ Provide underground service locations to external persons ▪ Telemetry designed to pick up a change in inflows ▪ Vacuum trucks (for clean up) ▪ Portable pumps (for clean up)
6	Sewage overflow due to SCADA/Communications failure	Land contamination, possibly enter a waterway	A2 = L	<ul style="list-style-type: none"> ▪ SCADA testing and alarming ▪ Monitoring of SCADA signal issues ▪ Pre-emptive measures see Section 3.5 Pre-emptive Measures
7	Sewage overflow due to Infrastructure failure (e.g. due to age)	Land contamination, possibly enter a waterway	B2 = L	<ul style="list-style-type: none"> ▪ Reasonably Young network ▪ Maintenance and renewal programs ▪ Pre-emptive measures see Section 3.5 Pre-emptive Measures

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No	Risk	Impact	Risk LxC = Rating	Controls
8	Sewage overflow due to Mechanical break down/dual pump failure	Land contamination, possibly enter a waterway	B2 = L	<ul style="list-style-type: none"> ▪ Telemetry monitoring ▪ Maintenance and inspection programs ▪ Spare capacity in pump wells ▪ Portable pump to bypass site and vacuum truck to maintain flows ▪ Monitoring and maintenance ▪ Pre-emptive measures see Section 3.5 Pre-emptive Measures

Yamba Sewage Treatment Plant

1	Sewage overflow (raw) due to heavy rainfall	Land contamination, possibly enter a waterway	A1 = L	<ul style="list-style-type: none"> ▪ Reticulation maintenance to reduce infiltration and inflows ▪ Spare capacity in pump wells ▪ Overflow storage at the WRP ▪ Bypass systems to overflow storage pond ▪ Monitoring and maintenance ▪ Pre-emptive measures see Section 3.5 Pre-emptive Measures
2	Sewage overflow (raw) due to Reticulation blockages	Land contamination, possibly enter a waterway	A2 = L	<ul style="list-style-type: none"> ▪ Reticulation maintenance ▪ Spare capacity in pump wells ▪ Overflow storage at the WRP ▪ Bypass systems to overflow storage pond ▪ Monitoring and maintenance ▪ Pre-emptive measures see Section 3.5 Pre-emptive Measures
3	Sewage overflow (raw) due to damage to onsite reticulation (e.g. during excavations, etc.)	Land contamination, possibly enter a waterway	B2 = L	<ul style="list-style-type: none"> ▪ Locate services prior to excavations ▪ Appropriate supervision of contractors ▪ Bypass systems
4	Sewage overflow (raw) due to SCADA/Communications failure	Land contamination, possibly enter a waterway	B2 = L	<ul style="list-style-type: none"> ▪ SCADA testing and alarming ▪ Pre-emptive measures see Section 3.5 Pre-emptive Measures
5	Sewage overflow (raw) due to Infrastructure failure (e.g. due to age)	Land contamination, possibly enter a waterway	B2 = L	<ul style="list-style-type: none"> ▪ Maintenance and renewal programs ▪ Pre-emptive measures see Section 3.5 Pre-emptive Measures
6	Sewage overflow (raw) due to excessive flows	Land contamination, possibly enter a waterway	A2 = L	<ul style="list-style-type: none"> ▪ Reticulation maintenance to reduce infiltration and inflows ▪ Spare capacity in pump wells ▪ Overflow storage at the WRP ▪ Bypass systems to overflow storage pond ▪ Monitoring and maintenance ▪ Pre-emptive measures see Section 3.5 Pre-emptive Measures

Title PIRMP – Yamba	Doc No	Version 4.6	Author K. McAndrew	Reviewer A. Armstrong	Approver A. Potter	Approval Date 29/06/2023
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No	Risk	Impact	Risk LxC = Rating	Controls
7	Sewage overflow (raw) due to Treatment plant blockage	Land contamination, possibly enter a waterway	A2 = L	<ul style="list-style-type: none"> Bypass systems Gross solid screening
8	Chemical spill due to Tank/storage failure	Land contamination, possibly enter a waterway	B2 = M	<ul style="list-style-type: none"> Bunding Alarms Inspection and maintenance of tanks
9	Chemical spill during Delivery	Land contamination, possibly enter a waterway	B2 = M	<ul style="list-style-type: none"> SWMS PPE
10	Chemical spill due to Damage to chemical reticulation	Land contamination, possibly enter a waterway	A3 = M	<ul style="list-style-type: none"> Locate services prior to excavations Appropriate supervision of contractors Bypass systems Shut off valves for chemicals
11	Chemical spill due to Vandalism	Land contamination, possibly enter a waterway	A3 = M	<ul style="list-style-type: none"> Site security fences
12	Chemical spill due to Bund failure	Land contamination, possibly enter a waterway	B3 = M	<ul style="list-style-type: none"> Bund inspections Annual bunding tests Maintenance and renewal
13	Chemical truck incident outside of bunded area	Land contamination, possibly enter a waterway	B3 = M	<ul style="list-style-type: none"> Only use transport companies with evidence of driver licensing and training Operator onsite during deliveries (or at minimum direct contact with deliver in exceptional circumstances)

Likelihood	Consequences	Rating	Likelihood					
			Consequence	A	B	C	D	E
A IMPROBABLE - May occur only in exceptional circumstances	1. INSIGNIFICANT - No injuries, minimal level of pollution, Employee grievances dealt with on site, Loss <5% of job cost, service, business failure resulting in delay < 1 week and costs, plant/equipment loss < \$1,000 2. MINOR - First aid treatment, limited/localised impact, Employee grievances dealt with by senior management, loss 5-10% of job cost, business failure resulting in delay < 1 month and costs, plant/equipment loss < \$10,000 3. MODERATE - Medical treatment & several days off work, significant pollution requiring outside assistance, Employee grievances taken to the union, loss 10-20% of job cost, non-compliance with legislation/Licence conditions, business failure resulting in delay < 3 months and costs, plant/equipment loss < \$50,000 4. MAJOR - long term illness/serious injury, significant pollution requiring outside assistance & long term environ damage, threatened industrial action, loss 20-70% of job cost, loss of production capability, order placed on Council by Authorities, business failure resulting in delay < 6 months and costs, plant/equipment loss < \$100,000 5. CATASTROPHIC - Death or permanent disability/illness, serious permanent environmental damage, Actual industrial action, loss >70% of job cost, potential prosecution by Authorities, business failure resulting in delay > 6 months and costs, plant/equipment loss > \$100,000	L = Low						
B REMOTE - Could occur at some time		M = Medium						
C OCCASIONAL - Might occur at some time		H = High	1	L	L	L	M	H
D FREQUENT - Will probably occur in most circumstances		V = Very High	2	L	L	M	H	V
E CONTINUOUS - Is expected to occur in most circumstances		X = Extreme	3	M	M	H	V	X
Refer also to Councils Hazards, Risks and Controls Guidelines		4	H	H	V	X	X	
		5	V	V	X	X	X	

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7.6 Appendix 6 - Additional Emergency Contacts

AMBULANCE	000
NSW FIRE & RESCUE	000
YAMBA	6646 2058
POLICE STATION	000
YAMBA	6603 0199
EPA POLLUTION HOTLINE	131 555
RURAL FIRE SERVICE	000
ULMARRA OFFICE	6644 5135
STATE EMERGENCY SERVICES (SES)	132 500
CLARENCE NAMBUCCA REGION OFFICE	6641 6900
HOSPITAL	
MACLEAN	6640 0111
ROADS & MARITIME SERVICES (RMS)	66 401 300
SOUTH GRAFTON	66 401 064
AFTER HOURS EMERGENCY	1800 644 116
TRANSPORT MANAGEMENT CENTRE	131 700
ELECTRICITY (ESSENTIAL ENERGY)	132 080
WIRES	6643 4055
SAFEWORK NSW	131 050
NSW Health	1300 555 555
Pager	149377
CLARENCE VALLEY COUNCIL	
Call centre – business hours	6643 0200
Call centre – after hours	6626 6858
Manager Water/Sewer Operations Andrew Potter	0409 968 855
Water & Sewer Operations Coordinator – Aaron Armstrong	0407 263 113
Environmental Health Officer – contact through call centre or Manage Water Cycle	

7.7 Appendix 7 – Power Failures Generator Priorities

Council staff are to physically attend any critical pump station (defined as “Priority 1”) if a high level alarm is received to verify the pump station is physically operating.

Priority Ranking Philosophy.

Ranking	Response Time (Dry Weather)	Response Time (Wet Weather)
1	<3hrs	<1hr
2	<4hrs	<2hrs
3	<6hrs	<3hrs
4	<10hrs	<4hrs
5	<12hrs	<5hrs

Generator Requirements and Ranking Priority of Pump Stations during power failure

SPS #	Location	Generator Required (KVA)	Priority ranking
Y1	Redman L	125 one pump only	1
Y4	Coonawarra Court	40	1
Y16	Park Ave	125 one pump only	1
AW3	No 61 Lakes Blvd Wooloweyah	20	1
Y5	Roseland Ave	20	2
Y6	Willow Way	20	2
Y18	Treelands Drive	40	2
AW1	Lake St Angourie	40	2
AW2	No 138 Lakes Blvd Wooloweyah	20	3
Y2	Marine Pde	40	3
Y7	Mariners Way	20	3
Y10	Shores Drive	20	3
Y13	Witonga Dr	20	3
Y15	Admiralty Court	20	3
Y12	Uki St	20	4
Y19	156 Yamba Rd	20	4
Y21	The Main Brace	20	4
Y22	Bayview Drive	20	4
Y8	The Peninsula	20	5
Y11	Westringia Pl	20	5
Y17	O'Grady's Lane	20	5
Y20	Orion Drive	20	5
Y25	Claude St	125	5
Y26	Wittonga Drive	20	5
Y27	William Ave	20	5
Y28	Deering Street	20	5
Y32	Ernie Muller Pavillion	20	5
Y23	Harbour St		5
AW4	Pacific St Angourie		5
AW5	The Crescent		5

7.8 Appendix 8 – Yamba Controlled Overflow/Surge Points and PS Attendance Times

Location/ Catchment	Retic or SPS	Overflow/Surge Point - Receiving waterway	Inspection Point
Pump Station Y1	SPS/ Reticulation	Manhole A5/1 into Angourie Road Drain – Approx 600m to Clarence R.	<ul style="list-style-type: none"> ▪ At overflow point ▪ Upstream of culvert at round about
Yamba Road	Reticulation	Manhole B/11 - de Dougherty's Drain – 115m to drain, 215m to Clarence R.	<ul style="list-style-type: none"> ▪ At overflow point ▪ At culvert adjacent to marina
Pump Station Y16	Reticulation	Overflow manhole between OC/4 and OC/5 access from Kempnich Place – overland to Oyster Channel approx 350m	<ul style="list-style-type: none"> ▪ At overflow point ▪ Stormwater discharge
Pump Station AW1	SPS/ Reticulation	Overflow manhole out of A/1 - Spooky Beach approx 100m	<ul style="list-style-type: none"> ▪ At overflow point ▪ End of open drain
Pump Station AW3	SPS/ Reticulation	Overflow manhole out of C/1– overland approx 45m to Lake Wooloweyah	<ul style="list-style-type: none"> ▪ At overflow point ▪ Lake front at discharge point
Pump Station Y25	Reticulation	Retention Pits into stormwater basin next to Beachside	<ul style="list-style-type: none"> ▪ Stormwater basin at entry point ▪ Stormwater basin at exit point

PS Attendance Times (Dry Weather)

For sewer overflows and pollution incidents pump stations are to be attended **immediately**. For non-urgent telemetry alarms the below table is to be used as a guide to inform pump station attendance time. During wet weather, or peak tourist season, operator to assess the need to respond.

Pump Station Name	Pump Station Location	No. of Pumps	Don't Attend After
Y1	Redman Ln	2	23:00
Y2	Main Beach - Marine Pde	2	18:00
Y4	Coonawarra Crt	2	22:00
Y5	Roseland Ave	2	21:00
Y6	Willow Way	2	21:00
Y7	Binnacle Crt	2	20:00
Y8	The Peninsula	2	20:00
Y10	Cnr Shores Dr & Park Ave	2	20:00
Y11	Westringa Pl	2	18:00
Y12	Uki St - Industrial Area	2	17:00
Y13	Witonga Dr	2	20:00
Y15	Admiralty Ct	2	20:00
Y16	Park Ave	2	22:00
Y17	O'Grady's Ln	2	18:00
Y18	Treelands Dr - Yamba Fair	2	20:00
Y19	Yamba Rd opp. Carrs Dr	2	18:00
Y20	Orion Dr - Oyster Cove	2	18:00
Y21	The Mainbrace	2	18:00
Y22	Bayview Dr	2	17:00
Y23 ??	Harbour St (Gormans) ??	1	
Y25	Claude St	2	20:00
Y26	Wintonga Dr & Tarook Ave	2	18:00
Y27	William Ave	2	18:00
Y28	Yamba Business Park	2	18:00
AW1	Lake St. Angourie	2	18:00
AW2	138 Lakes Blvd	2	22:00
AW3	61 Lakes Blvd	2	18:00

Pressure Sewer Areas
Ocean St
Oyster Channel
Angourie Rd Sports Field
Cook St (Future)

7.9 Appendix 9.1 – Major Pollution Incident Form (Please use either form)

WATER CYCLE PROCEDURE # 011 – Major Pollution Incidents Form



This form is usually completed by the Supervisor based on information provided by Operator. If Operator cannot contact the Supervisor, she/he should complete this form. This form is to be saved as ECM when completed.

Minor events: *There is no need to report minor pollution incidents as they are captured through CRMs. If a minor event occurs without a CRM please create a CRM. Examples of minor events: odour complaints and chemical spills with no human health risk contained in bunded areas.*

Major events: *All major incidents need to be reported through this form. Examples of major events:*

- any pollution incident with risk to human health
- chemical spills outside bunded areas or with health impacts
- significant sediment run off incidents
- large sewer spills, or sewer spills near waterways (including dry gullies), inside buildings or sensitive areas (e.g. schools, shopping precincts)

Incident Details

Person Completing Form:				
Incident Location:				
Cause of Pollution Incident:				
Method of detection. (e.g. telemetry, inspections, CRM):				
Actions taken to rectify:				
Incident witnesses (names/ph):				
Quantity discharged:	kL	<input type="checkbox"/> Known <input type="checkbox"/> Estimate	Duration of Discharge:	hr
Rainfall in last 24 hours:	mm		Other weather conditions (e.g. tide, currents, wind):	<input type="checkbox"/> Known <input type="checkbox"/> Estimate

Immediate Contacts: *The following should be immediately contacted.*

Name	Number	Contacted?	Time contacted	Ref. Number
EPA Environment Line	131 555	Yes / No	am / pm	
SafeWork NSW*	131 050	Yes / No	am / pm	
Fire & Rescue NSW*	000	Yes / No	am / pm	
<i>Consider contacting the following if relevant to incident.</i>				
One of following: (1) NSW Shellfish Program (2) Grant Webster Shellfish Safety Officer (3) Local Industry Rep Alan Brooks	(1) BH: 6539 4800 or AH: 0407 078 269 (2) BH: 6539 4809 or AH: 0407 947 730 (3) 0408 214 896	Yes / No	am / pm	
NSW Environmental Health	BH: 1300 066 055 or AH: 0428 882 805	Yes / No	am / pm	
Fisheries	1800 043 536	Yes / No	am / pm	
Affected Neighbours	Determined on site	Yes / No	am / pm	
Chemical suppliers	Refer to MSDS	Yes / No	am / pm	
Council's Insurance & Risk Officer	6643 0200	Yes / No	am / pm	

**Notification is required by legislation. NSW EPA has requested that Council only notify Fire & Rescue of pollution incidents where they have a role in managing the incident (e.g. chemical spill, fire).*

Sampling: *The requirements of a sampling program are likely to be discussed with the immediate contacts listed above. Generally samples will be taken at the point of discharge and a suitable point upstream and downstream of the incident.*

Clean Up: *The clean up requirements will also be agreed upon by the contacts listed above.*

Responsible Officer	Greg Mashlah	Version (Date)	V1.0 (May 2017)
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Appendix 9.2 – Major Pollution Incident Form (Please use either form)

CVC Standard Operating Procedures -Surcharge and Overflow Events.

Form 1 (To be filled out by the Sewerage Operator attending the surcharge / overflow event.)

Is the event Minor or Major?

- Minor- any surcharge not immediately threatening public health or not likely to enter a waterway.
- Major - any surcharge immediately threatening public health or is likely to enter a waterway.

Record the following information.

Location.....
 Cause of surcharge.....
 Rainfall in the last 24 hrs.....mm
 Estimated quantity discharged.....KL. Estimated Duration of Discharge.....
 Method of detection. E.g. Telemetry, regular inspections, Customer request

For Major Overflows / Surcharges Complete the Following:

Tide and current movements.....

- Operator to contact Supervisor / Operations Engineer when situation assessed.

Supervisor to contact the following people if appropriate and note time of contact:

- DECC – Pollution Line 131555 or Grafton 6640 2500 – immediately situation assessed
- NSW Shellfish Program – B/Hours 6539 4800, A/H 0407078269
 Email nswsp@foodauthority.nsw.gov.au
 Or Grant Webster Shellfish Safety Officer 6539 4809, mob 0407 947 730
 Local Industry Rep Mitchell Gorman 0457 601 602
- Operations Engineer (BH: 6640 3528, AH: 0419 206 427) – within 12 hours
- NSW Dept of Health Ph - 6620 7500 Fax 6621 7088
- CVC Environmental Officer

Sampling

If a **Major** overflow or surcharge occurs, the requirements of a sampling program will be agreed to by the responsible persons listed above. Generally, samples will be taken at the point of discharge and a suitable point approximately 50 metres each side of the contamination entering the waterway. Testing will be carried out for Faecal Coliforms by a suitably qualified laboratory.

Clean Up

Operator to arrange control of or arrest surcharge and commence clean up of site.

Operators Name.....**Date**.....

This form is to be retained at the Sewerage Treatment Plant or by Supervisor and a copy sent to the Operations Engineer the next working day.

CVC Standard Operating Procedures -Surcharge and Overflow Events.
Major Surcharge and Overflow Incident Report – Additional Information
 Form 2 (To be filled out by the Sewerage Operator attending the surcharge/overflow event)

Date:

Time:

Duration:

Concentration of pollutant entering waterway:

Actions taken to rectify the problem(s) and the reduction of pollutants entering waterways:

Details of any proposed measures to prevent reoccurrence of the problem:

Names and contact details of witnesses to the incident:

Location of where test samples were taken from:

Results of tests taken:

Any other relevant information:

Operator.....Date.....