

Pollution Incident Response Management Plan

North Grafton Sewage System (STP and Reticulation)

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Amendment Detail	Authorised by	Date
Version 2 - 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.	G. Mashiah	24/05/2016
Version 3 - Priority 1 alarms require physical inspection. Pollution incident section and form removed, replaced with reference to SOP. References to OHS unit changed to WHS Unit. Updated WHS Unit phone numbers. JH5 added.	D. Eaton	01/06/2017
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 8 (formerly appendix 9) added new locations • Appendix 9 added 		
Version 4.2 – post testing / review meeting February 2019 <ul style="list-style-type: none"> • Minor updates and corrections • Appendix 2 updated 	G. Mashiah	25/03/2019

1. Introduction

This plan has been developed to document the processes required to prepare for and respond to pollution incidents for the North Grafton Sewage Treatment Plant (STP) and associated reticulation (EPA Licence No. 717) 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 The EMP reporting and incident procedures have now been superseded by this PIRMP.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.

1.1 Scope

This Pollution Incident Response Management Plan applies to North Grafton Sewage System (STP and Reticulation - EPA Licence No. 717). For site plan and sewerage schematic, refer to Section 6.1 Appendix 1 - Site Plan and Reticulation Schematic.

2. Pollution Incident Response Management Plan

Grafton is serviced by 81.1km of sewer mains and 18 pump stations and Junction Hill is serviced by 20.2km of sewer mains and 8 pump stations transferring sewage to the North Grafton STP. The North Grafton STP treats approximately 3000kL of sewage daily in dry weather, potentially reaching 6 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 6 Appendix 3 – Site Chemical Register

2.1 Potential Incidents

The potential hazards to the environment include:

- Sewage overflow (raw or partially treated) – potentially caused by:
 - Storms (lightning/heavy rainfall/wind) causing power failure or infrastructure damage
 - Reticulation blockages
 - Damage to reticulation (contractors or other damage during excavations etc)
 - Infrastructure failure due to age
 - 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 5 - Risk assessments and actions. For detail on actions to reduce risks see Section 2.5 Pre-emptive Measures.**Error! Reference source not found..**

2.2 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.

2.2.1 Human health or Safety Incident

If there is **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 WHS Hazard / Incident Reporting Guidelines***
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.

2.2.2 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 K Drive at <K:\Water Cycle\OPERATIONS\SOPS\NEW SOP FORMAT\011 Major Pollution Incidents Form.doc> Major Pollution Incidents Form.doc and is included at Appendix 9.

2.3 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 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

2.3.1 Incidents at the Sewage Treatment Plant

The nearest neighbours from the North Grafton STP are the Grafton Transfer Station and MI Organics, located immediately adjacent. The nearest dwelling is approximately 200m to the North. 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 2.3 Community notification above would be implemented as required.

2.4 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.

2.5 Pre-emptive Measures

2.5.1 Physical and preventative measures

First priority for pre-emptive measures is to eliminate substances that can become potential pollutants. If this is not possible, physical barriers should be installed to prevent pollutants from entering the environment such as bunding and spill drainage containment. At North Grafton STP, all chemical storages are bunded 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 and pump stations have multiple alarm systems to alert operators of conditions that may result in incidents, which include:

- High level alarms
- Communication failure
- Chemical bund alarms
- 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 SPS experiences a power failure the telemetry system will activate an alarm via the SMS network to alert the on-call/duty personnel. The majority of the SPSs in the Grafton area also have generator inlets installed. Where generator inlets are not installed, Council's electrician can hard-wire a generator if required. Council has an on-going program to continue to install generator inlets at all SPSs. Council has a 500KVA trailer mounted generated 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 100 KVA generator is capable of running all of the Grafton SPS's.

Appendix 7 - Power Failures Generator Priorities identifies the ranking order of generator supply required in the event of a total power failure. The ranking (Table 2) 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 decrease 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 – North Grafton Controlled Overflow/Surcharge Points identifies Controlled Overflow/ Surcharge Points

2.5.2 Preventative inspection, 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 telemetry system	Daily
Check pump stations not connected to telemetry	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	On-going program

2.5.3 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**
- **SWMS 226 – Sewer Main Repair**

2.5.4 Action plans to minimise harm

To address the risk of sewage overflows, Clarence Valley Council has a number of management actions comprising of one or 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
- Planned Renewal of Existing Assets
- Telemetry Monitoring of Sewage Pumping Stations
- Continuous Improvement of Sewerage System Operations
- Emergency Response Procedure to Power Failures

2.6 Training & Exercises

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.

3. Responsibility

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

4. 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

5. 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.

6. 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 assessments and actions
- Appendix 6 - Additional Emergency Contacts
- Appendix 7 - Power Failure Generator Priorities
- Appendix 8 – Controlled Overflow /Surcharge Points
- Appendix 9 – Major Pollution Incident Form

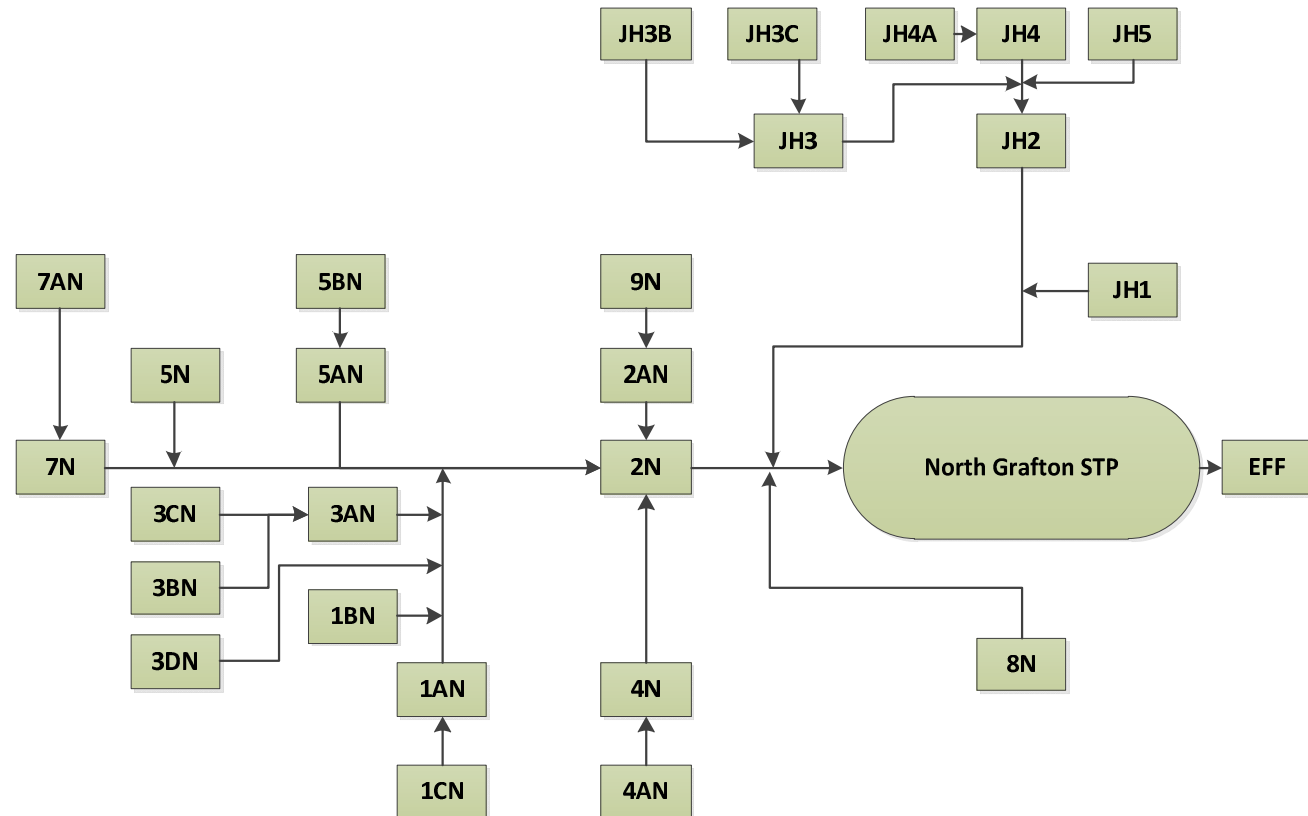
6.1 Appendix 1 - Site Plan and Reticulation Schematic

North Grafton STP Site Plan



Pump Station Name	Pump Station Location
1AN	Market Square
1BN	Queen Street
1CN	Villiers Street
2N	Prince/Arthur
2AN	Challinor St
3AN	Pioneer Park
3BN	Turf/Fry
3CN	Dobie St
3DN	Turf/Oliver
4N	Kent St
4AN	Kent/Oliver St
5N	Banksia St
5AN	Northway Est.
5BN	274 North St
7N	Brougham St
7AN	306 North St
8N	Corcoran Park
9N	Poplar Drive
JH1	Summerland Way
JH2	Trenayr Road
JH3	Back Lane
JH3B	Cronins estate
JH3C	Barnier Park
JH4	Costellos Estate
JH4A	Lake Edgecomb Estate
JH5	Angus Drive
EFF	North St STP Ponds

North Grafton and Junction Hill Sewer Schematic



6.2 Appendix 2 – Wastewater Storage Volumes

Item	Storage (kL)
Inlet Works	20
Sed. Tanks x 4	4 x 90ea
Sludge Digesters x 4	4 x 200ea
Humus Tanks x 4	4 x 90ea
Sludge Lagoon	2,500
Catchpond	8,000
Storm Bypass Pond	50,000

6.3 Appendix 3 - Site Chemical Register

Date of register: December 2016

Chemical Name	Maximum Volume of Chemicals Stored	Location Where Chemical is Stored
Sodium Hypochlorite	2000 L	Bunded Area near U.V Shed at ponds
Sodium Hypochlorite	500 L	Outflow weir rear of STP. Elevated bund.
Hydrated Lime	1 tonne	Shed
Unleaded petrol	20 L	Shed (in gerry cans)
Diesel	20 L	Shed (in gerry cans)
Glyphosate	20 L	Shed
Phosphoric Acid	20L	UV shed
Polymer	3000L	Dewatering hardstand

6.4 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 either the North Grafton STP, worn as PPE, or available in vehicles:

- Ear/hearing protection
- Life jackets
- 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

Rushforth Depot

- Gas monitor
- Gas monitor calibration equipment

6.5 Appendix 5 - Risk assessments and actions

No	Risk	Impact	Risk LxC = Rating	Controls
North Grafton and Junction Hill Retic				
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 2.5 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 2.5 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 2.5 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 2.5 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 2.5 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 2.5 Pre-emptive Measures

Title	Doc No	Version	Author	Reviewer	Approver	Approval Date
PIRMP – North Grafton		4.2	Kieran McAndrew	Frank Vaarwerk	G. Mashiah	25/03/2019

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 2.5 Pre-emptive Measures

North Grafton 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 2.5 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 2.5 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 2.5 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 2.5 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 2.5 Pre-emptive Measures

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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					
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	L = Low	Consequence	A	B	C	D	E
B REMOTE - Could occur at some time	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	M = Medium	1	L	L	L	M	H
C OCCASIONAL - Might occur at some time	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	H = High	2	L	L	M	H	V
D FREQUENT - Will probably occur in most circumstances	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	V = Very High	3	M	M	H	V	X
E CONTINUOUS - Is expected to occur in most circumstances	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	X = Extreme	4	H	H	V	X	X
Refer also to Councils Hazards, Risks and Controls Guidelines			5	V	V	X	X	X

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PIRMP – North Grafton		4.2	Kieran McAndrew	Frank Vaarwerk	G. Mashiah	25/03/2019

6.6 Appendix 6 - Additional Emergency Contacts

AMBULANCE	000
GRAFTON	6643 1765
NSW FIRE & RESCUE	000
GRAFTON	6643 3491
POLICE STATION	000
GRAFTON	6642 0222
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	
GRAFTON	6640 2222
ROADS & MARITIME SERVICES (RMS)	66 401300
SOUTH GRAFTON	66 401064
AFTER HOURS EMERGENCY	1800 644 116
TRANSPORT MANAGEMENT CENTRE	131700
ELECTRICITY (ESSENTIAL ENERGY)	132 080
WIRES	6643 4055
WORKSAFE 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 Cycle Greg Mashiah	0428 112 982
Water & Sewer Engineer Sam Towndrow	0436 639 521
Environmental Health Officer – contact through call centre or Manager Water Cycle	

6.7 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
2N	Prince Street	100 one pump only	1
3AN	Pioneer Park	100 one pump only	2
3DN	Turf/Oliver	100	2
7AN	306 North Street	20	2
1AN	Market Square	100	3
1BN	Queen Street	100	3
1CN	Villiers Street	40	3
2AN	North Street (Volkers Park)	40	3
4AN	Kent/Oliver	40	3
5 N	Banksia Street	40	3
7N	Brougham Street	100	3
JH 1	Summerland way	100 one pump only	3
JH 2	Trenayr Rd	100 one pump only	3
JH 3	Back Lane	100 one pump only	3
JH 3B	Cronin Avenue	20	3
JH 4	Costello Estate	20	3
JH 4A	Lake Edgecombe	20	3
9N	Poplar Grove	20	4
3BN	Turf/Fry	40	4
3CN	Dobie Street	20	4
4N	Kent Street	100	4
JH 3C	Barnier Park	20	5
8N	Corcoran Park	20	5
5AN	North/Riverdale	20	5
5BN	North/Cranworth	20	5
JH5	Angus Drive	20	5

6.8 Appendix 8 – North Grafton Controlled Overflow/Surcharge Points

Location/ Catchment	Retic or SPS	Overflow/Surcharge Point - Receiving waterway	Inspection Point
1AN Duke Street	Retic	Overflow MH, Gas-check MH to 450mm stormwater pipe – 1300m to river via Duke and Bacon St stormwater	<ul style="list-style-type: none"> ▪ Gas-check MH ▪ Stormwater pit Duke St ▪ S/W discharge river end Bacon St
1BN Pound/King St	Retic	Overflow MH, Gas-check MH to 525mm stormwater pipe – approx 660 m to river via Pound and Queen St stormwater	<ul style="list-style-type: none"> ▪ Gas-check MH ▪ Stormwater pit Pound St ▪ S/W discharge river end Queen St
2N Weilley Ave	Retic	Overflow MH with flap valve to 525mm stormwater pipe – approx 930m to river via Fry St stormwater	<ul style="list-style-type: none"> ▪ Overflow MH ▪ Stormwater pit Weilley Ave ▪ S/W discharge river end Fry St
2N Powell/Villiers St	Retic	Overflow MH, Gas-check MH to 900mm stormwater pipe – approx 840m to river via Powell St stormwater	<ul style="list-style-type: none"> ▪ Gas-check MH ▪ Stormwater pit Powell St ▪ S/W discharge river end Powell St
2N Prince/Arthur	SPS	Overflow MH, Gas-check MH, Headwall to open drain and stormwater retention area	<ul style="list-style-type: none"> ▪ Gas-check MH ▪ Stormwater headwall Prince St near open drain
3AN Powell/Alice St	Retic	Overflow MH, Gas-check MH to 750mm stormwater pipe – approx 440 m to Alummy Creek under-drain	<ul style="list-style-type: none"> ▪ Gas-check MH ▪ Stormwater pit Powell St ▪ Stormwater pit Alummy Creek
3BN Fry St/ Matheson Lane	Retic	Overflow MH, Gas-check MH to 375mm stormwater pipe – approx 450m to Alummy creek uner-drain via Fry and Alice St stormwater	<ul style="list-style-type: none"> ▪ Gas-check MH ▪ Stormwater pit Fry St ▪ Stormwater pit Alummy Creek
3BN 95 Queen St	Retic	Overflow from Boundary Shaft to open swale drain – Alummy Creek	<ul style="list-style-type: none"> ▪ Pipe discharge in drain
3CN Turf/ Powell St	Retic	Overflow MH, Gas-check MH to 600mm stormwater pipe pipe – approx 650 m to Alummy Creek under-drain	<ul style="list-style-type: none"> ▪ Gas-check MH ▪ Stormwater pit Powell St ▪ Stormwater pit Alummy Creek
3DN Milton/Powell St	Retic	Overflow MH with flap valve – approx 370m to Eyre St drain via Milton and North St stormwater	<ul style="list-style-type: none"> ▪ Overflow MH ▪ Stormwater pit Powell St ▪ Eyre St drain at North St
4N Kent/Fry St	Retic	Overflow MH, Gas-check MH – approx 450m to river via Fry St stormwater	<ul style="list-style-type: none"> ▪ Gas-check MH ▪ Stormwater pit Fry Street ▪ S/W discharge river end Fry St
4AN Kent/Pound St	Retic	Overflow MH with flap valve to 1050mm stormwater pipe – approx 320m to river via Pound St stormwater	<ul style="list-style-type: none"> ▪ Overflow MH ▪ Stormwater pit Pound St ▪ S/W discharge river end Pound St
5N Hoof/Banksia St	Retic	Overflow MH, Gas-check MH to 525mm stormwater pipe – approx 660m to Eyre St drain via Hoof and Cranworth St stormwater	<ul style="list-style-type: none"> ▪ Gas-check MH ▪ Stormwater pit Hoof St ▪ Eyre St drain at North St
7N Brougham St	Retic	Overflow MH with flap valve to 375mm stormwater pipe – approx 260m to Eyre St drain via Brougham St stormwater	<ul style="list-style-type: none"> ▪ Overflow manhole ▪ Stormwater pit in Lane ▪ Eyre St drain at North St
JH1 Summerland Way	SPS	Overflow MH, Gas-check MH, Headwall to open drain – approx 1500m to Alummy creek	<ul style="list-style-type: none"> ▪ Gas-check MH ▪ Stormwater headwall
JH2 Trenayr Rd	SPS	Overflow MH, Gas-check MH, Headwall to open drain – approx 1600 m to Alummy Ck	<ul style="list-style-type: none"> ▪ Gas-check MH ▪ Stormwater headwall
JH3 Back Lane	SPS	Overflow MH, Gas-check MH, Headwall to open drain - unnamed	<ul style="list-style-type: none"> ▪ Gas-check MH ▪ Stormwater headwall

6.9 Appendix 9 – Major Pollution Incident Form

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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 an 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	<input type="checkbox"/> Known <input type="checkbox"/> Estimate
Rainfall in last 24 hours:	mm	Other weather conditions (e.g. tide, currents, wind):			

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 Mashiah	Version (Date)	V1.0 (May 2017)
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