

Pollution Incident Response Management Plan

North Grafton Sewage System (STP and Reticulation)

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Table of Amendments

| 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 – 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 8 (formerly appendix 9) added new locations • 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 corrections • 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 <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 <ul style="list-style-type: none"> • New staff inducted • Existing staff participated in document review • Staff details updated | A. Potter | 29/06/2023 |

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 minimized, 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 83km of sewer mains and 19 pump stations and Junction Hill is serviced by 22km of sewer mains and 9 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.

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 <B:\Water Cycle\SEWER\PIRMPs\ 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 |
| Visual check of pumping operations | Fortnightly |
| Clean pump stations | As required |
| Service pumps | Annually (minimum) |
| Electrical inspections of pump controls | Bi-Annually |

| | |
|--|-------------------------------|
| Pump refurbishments | Determined by service reports |
| Pump replacements/upgrades | Determined by service reports |
| Reticulation | |
| Inspection of controlled overflow/surcharge points | Every 2 Months |
| 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

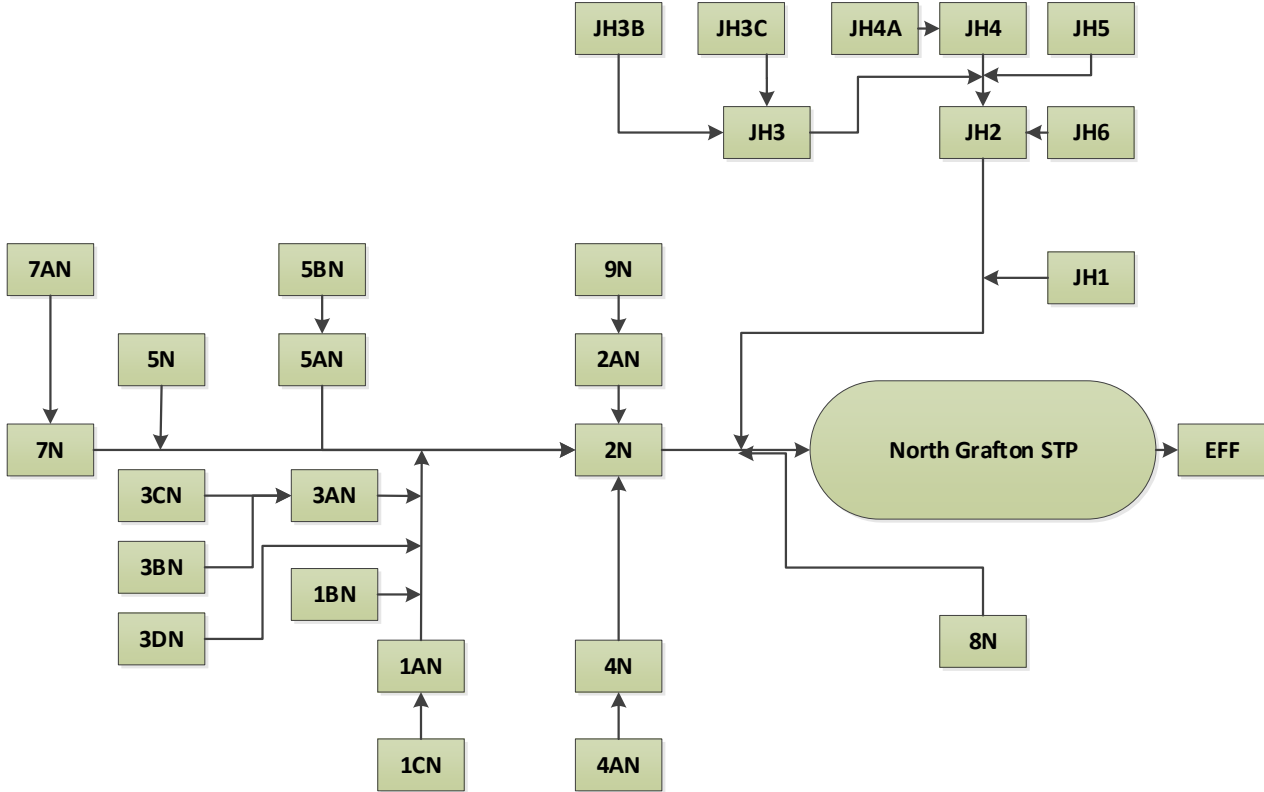
6.1 Appendix 1 - Site Plan and Reticulation Schematic

North Grafton STP Site Plan



North Grafton and Junction Hill Sewer Schematic

| 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 | Pressure Sewer (Future) |
| 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 |
| JH6 | River Top |
| EFF | North St STP Ponds |



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: June 2020

| Chemical Name | Maximum Volume of Chemicals Stored | Location Where Chemical is Stored |
|---|------------------------------------|--|
| Sodium Hypochlorite – not in use as of Feb 2021 | 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 |

| 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 |

| 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 | |

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) | 6640 1300 |
| SOUTH GRAFTON | 6640 1064 |
| AFTER HOURS EMERGENCY | 1800 644 116 |
| TRANSPORT MANAGEMENT CENTRE | 131 700 |
| ELECTRICITY (ESSENTIAL ENERGY) | 132 080 |
| WIRES | 1300 094 737 |
| SAFEWORK NSW | 131 050 |
| NSW Health | 1300 555 555 |
| Pager | 149 377 |
| 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 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 9.1 – Major Pollution Incident Form (Please use either form)

<B:\Water Cycle\SEWER\PIRMPs\011 Major Pollution Incidents Form.doc>

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 on 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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Appendix 9.2 – Major Pollution Incident Form (Please use either form)

B:\Water Cycle\SEWER\PIRMPs

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.

| Title | Doc No | Version | Author | Reviewer | Approver | Approval Date |
|-----------------------|--------|---------|-------------|-------------|-----------|---------------|
| PIRMP – North Grafton | | 4.6 | K. McAndrew | A.Armstrong | A. Potter | 29/06/2023 |

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.....