

Richmond  
Valley  
Council



**Coraki Wastewater Treatment Plant  
POLLUTION INCIDENT RESPONSE  
MANAGEMENT PLAN 2021**

## Introduction

Council as holders of environment protection licences must comply with the requirements introduced in 2012 by the *Protection of the Environment Legislation Amendment Act 2011* (POELA Act) to prepare and implement a pollution incident response management plan.

Based on the EPA guidelines the plan must set out specific requirements regarding the preparing, keeping, testing and implementation of these plans.

The POELA Act introduced several changes to improve the way pollution incidents are reported, managed and communicated to the general community. The Act includes a requirement under Part 5.7A of the *Protection of the Environment Operations Act 1997* (POEO Act) to prepare, keep, test and implement a pollution incident response management plan.

The objectives of these plans are to:

- Ensure comprehensive and timely communication about a pollution incident to staff at the premises, the Environment Protection Authority (EPA), other relevant authorities specified in the Act (such as local councils, NSW Ministry of Health, Work Cover NSW, and Fire and Rescue NSW) and people outside the facility who may be affected by the impacts of the pollution incident.
- Minimise and control the risk of a pollution incident at the facility by requiring identification of risks and the development of planned actions to minimise and manage those risks.
- Ensure that the plan is properly implemented by trained staff, identifying persons responsible for implementing it, and ensuring that the plan is regularly tested for accuracy, currency and suitability.

## Document History

Version	Date	Author	Description of Change
1.1	23/07/2014	Latoya Cooper	Update of External Contacts & Internal Role Clarification
1.2	25/06/2015	David Cash	Update Internal Roles and Contacts
1.3	08/07/2016	David Cash	Test & update after overflow of inlet works. Council Media Policy updated
1.4	10/07/2017	David Cash	Test & update after reticulation overflow
1.5	25/07/2018	David Cash	Review and test for 2018. Potential pollutant volumes added.
1.6	17/07/2019	David Cash	Contacts updated. STP changed to WWTP. Reference to RVC Disaster Plan removed.
1.7	10/07/2020	David Cash	Reference to Knowledge Management System (KMS) removed
1.8	15/07/2021	David Cash	References to HR replaced with P&C. Incident contact and external authorities updated.

## Approvers List

Name	Role	Approval / Review Date
David Cash	Operations Officer - Water and Sewer Services	23/07/2014
Aidan Macqueen	Coordinator Water and Sewer Services	17/07/2015
Aidan Macqueen	Coordinator Water and Sewer Services	12/07/2016
Aidan Macqueen	Coordinator Water and Sewer Services	14/07/2017
Aidan Macqueen	Coordinator Water and Sewer Services	28/08/2018
Sandeep Chugh	Coordinator Water and Sewer Services	01/08/2019
Sandeep Chugh	Coordinator Water and Sewer Services	20/07/2020
Sandeep Chugh	Coordinator Water and Sewer Services	27/07/2021

## Plan Testing

<b>Date</b>	<b>Scenario(s) Tested</b>	<b>Test Coordinator</b>
17/07/2015	Blockage between inlet works and humus tank resulting in overflow	David Cash
08/07/2016	Complete failure of automated inlet works resulting in overflow	David Cash
10/07/2017	Gravity sewer main blockage resulting in reticulation overflow	David Cash
25/07/2018	All scenarios listed above.	Craig Smith
17/07/2019	Blockage between inlet works and humus tank resulting in overflow	Craig Smith
14/07/2020	All Elements	Craig Smith
13/07/2021	All Elements	Craig Smith

The objective of the test is to verify that the functionality of the Pollution Incident Response Management Plan is according to the specifications in this document.

The test will execute and verify the contact details, mapping information, description and likelihood of hazards, pre-emptive actions to be taken, inventory of pollutants, safety equipment, communications with adjoining properties and the community, minimizing harm to persons on the premise, actions to be taken during or immediately after pollution incident and a record of staff training.

## Legislative requirements

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

Council as holders of environment protection licences must prepare a pollution incident response management plan (section 153A, POEO Act).

The plan must include the information detailed in the POEO Act (section 153C) and be in the form required by the POEO (G) Regulation (clause 98B).

As Licensees Council must keep the plan at the premises to which the environment protection licence relates and where the relevant activity takes place (section 153D, POEO Act).

Council must test the plan in accordance with the POEO (G) Regulation (clause 98E).

If a pollution incident occurs in the course of an activity so that material harm to the environment is caused or threatened, licensees must immediately implement the plan (section 153F, POEO Act).

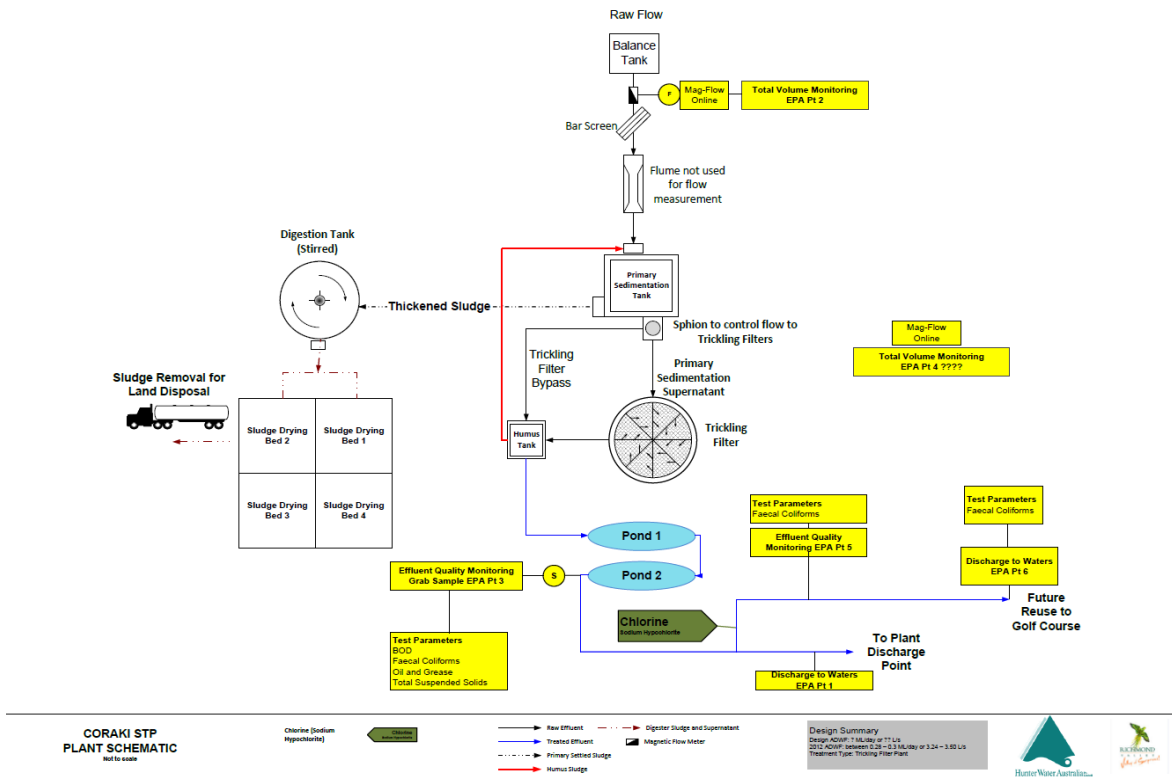
The plan must include the following requirements

1. Description and likelihood of hazards
2. Pre-emptive actions to be taken
3. Inventory of pollutants
4. Safety Equipment
5. Contact details
6. Communications with adjoining properties and the community
7. Minimising harm to persons on the premise
8. Maps
9. Actions to be taken during or immediately after pollution incident
10. Staff training

### 1. Site background

Coraki WWTP was constructed in 1966 and comprises a trickling filter and two tertiary ponds. Effluent is discharged onto adjacent swampland which drains to the Richmond River.

A percentage of Coraki WWTP effluent will be reused by the adjacent Coraki Golf Club. The treatment plant schematics give further understanding to the process;



Premises  
 CORAKI WASTE WATER TREATMENT PLANT  
 BOX RIDGE ROAD  
 CORAKI NSW 2471

Environment Protection Licence  
 Licence Number: 351  
 Online at

<http://www.richmondvalley.nsw.gov.au/content/Document/Environment/EPA/Licence%20351%20Coraki%20Jan%202016.pdf>

## 2. Description and likelihood of hazards

The main hazards to human health and the environment associated with activities at the treatment plant are listed below;

Site Hazards	Likelihood of Occurring	Control Measures
<p>Effluent Overflow</p> <ul style="list-style-type: none"> <li>• Excessive Rainfall</li> <li>• Equipment or Operator Failure</li> <li>• Storms</li> <li>• Reticulation Blockages</li> <li>• Damage to Reticulation</li> <li>• Aging Infrastructure</li> <li>• Telemetry Failure</li> <li>• Mechanical Breakdown</li> <li>• Power Outage</li> <li>• Blockage within treatment plant</li> <li>• Vandalism</li> </ul>	Possible	<ul style="list-style-type: none"> <li>• Use of Standard Operations Procedures &amp; Safe Work Method Statements</li> <li>• Preventative Maintenance Programs</li> <li>• Monitoring &amp; Maintenance Programs</li> <li>• Extra storage capacity within system</li> <li>• Back-up generators</li> <li>• Lightening Protection</li> <li>• Spare Equipment Onsite</li> <li>• Telemetry Alarming &amp; Regular Testing</li> <li>• Site Security Cameras</li> </ul>
<p>Chemical Spill</p> <ul style="list-style-type: none"> <li>• Tank/Storage Failure</li> <li>• Inappropriate Use</li> <li>• Vandalism</li> <li>• Delivery Incident</li> <li>• Damage to chemical reticulation</li> <li>• Bund Failure</li> </ul>	Low	<ul style="list-style-type: none"> <li>• Use of Standard Operations Procedures &amp; Safe Work Method Statements</li> <li>• Inspections &amp; Maintenance of Storage Areas</li> <li>• Bunding Where Required</li> <li>• PPE</li> <li>• Site Security Cameras</li> <li>• Telemetry Alarms</li> <li>• Operator onsite during deliveries</li> </ul>
<p>Hydrogen Sulphide Gas Exposure</p> <ul style="list-style-type: none"> <li>• Confined Space Entry</li> <li>• Faulty Equipment</li> <li>• Incorrect Work Practices</li> </ul>	Possible	<ul style="list-style-type: none"> <li>• Use of Standard Operations Procedures &amp; Safe Work Method Statements</li> <li>• Equipment Testing &amp; Maintenance</li> </ul>

### 3. Pre-emptive actions to be taken

Pre-emptive actions to prevent, minimise and manage any pollution incidents at the treatment plant include –

1. Bypasses direct to tertiary ponds to help cope with excessive flows.
2. Telemetry monitoring & alarms
3. Preventative maintenance schedules
4. Effluent monitoring programs
5. Spill Kits available onsite
6. Site Security Cameras

Relevant Pre-emptive documentation includes

- Standard Operating Procedure (SOP) – Sewage Spill in Public Areas
- Safe Work Method Statement (SWMS) WSC8(v1) Confined Space Entry
- Sewer Blockage/Overflow Report

### 4. Inventory of pollutants

As part of the Coraki golf course re-use Coraki WWTP has a 1000L chlorine dosing tank. No further chemicals are dosed as part of the treatment process. A complete hardcopy SDS chemical register folder is located at the plant.

The pollutants identified by the current EPA licence are listed below. The licence identifies the pollutants to be monitored, limit conditions and trigger levels for reporting.

#### **POINT 1 – Discharge to Waters (Effluent Quality Monitoring)**

Biochemical Oxygen Demand – 20mg/L – Tested Monthly

Oil & Grease – 10mg/L – Tested Monthly

Total suspended solids – 30mg/L – Tested Monthly

#### **POINT 6 – Discharge to Golf Course Irrigation**

Faecal Coliforms – 2000CFU/100ml – Tested Monthly

#### **Maximum Quantities of Potential Pollutants Stored**

Tertiary Pond 1	8670 kL
Tertiary Pond 2	8115 kL
Sedimentation Tank	61.75 kL
Humus Tank	43.35 kL
Digester	145.24 kL
Drying Beds	61.56 kL
Chlorine Tank	1000 L



## **5. Standard Safety Equipment Available Onsite**

- Gloves
- Gumboots
- Steel Cap Boots
- Hats
- Hearing Protection
- Sunscreen
- Disposable Overalls
- Safety Glasses/Goggles
- First Aid Kit
- Fire Extinguishers

If any further specific safety equipment is required for a job it will be obtained from Council's Store prior to any works commencing.

## **6. Incident contact details**

This section details the response requirements in the event of any incident. In all situations the 24hour emergency number for Richmond Valley Council is (02) 66600300. During work hours, these calls are taken by staff on the Richmond Valley Council Switch. If the call is after hours, the call is redirected to Immediate Reception, who informs appropriate Council personnel of issues and incident.

If the incident poses an immediate threat to human health or safety call triple zero "000"

Any environmental or pollution incidents must be reported immediately to 6660-0300 in line with Procedure 15.10 Reporting Environmental & Pollution Incidents. Then, if a supervisor is not already aware of the incident, immediately call a supervisor or manager by making calls in the order listed under Internal Contacts.

Reporting continues up the line until the level of Coordinator where a decision is made on whether to notify external authorities.

Internal incident reports are investigated and corrective actions instigated in accordance with Council procedures.

## Notifying External Authorities

- (i) Notification to all authorities is required immediately if any of the following circumstances occur as a result of a pollution incident
- (ii) There is actual or potential harm to the environment that is not trivial
- (iii) There is actual or potential harm to human health or safety  
clean-up costs are expected to be over \$10,000

Generally, this will occur at the level of Coordinator (or someone delegated by the Coordinator). However, if personal contact cannot be made with any of the supervisors or Managers listed then staff at the treatment plant are to immediately call the external authorities if there is a pollution incident causing (i) or (ii) or (iii). In these circumstances, all external authorities listed under External Contacts must be contacted promptly and, in the order, shown in the list.

## External Contacts

To be contacted in the following order:

- |                                     |              |
|-------------------------------------|--------------|
| 1. Environment Protection Authority | 13 15 55     |
| 2. Public Health Unit – Lismore     | 662 07 585   |
| Infection & Disease                 | 0439 882 752 |
| Environmental Health                | 0428 882 805 |
| 3. Work Cover                       | 13 10 50     |
| 4. Fire and Rescue NSW              | 000          |

## Internal Contacts

To be contacted in the following order:

1. Operations Coordinator Water & Sewer Services – Sandeep Chugh - 0439411504
2. Operations Officer Water & Sewer Services – David Cash - 0417265057
3. Manager Infrastructure Services – David Timms - 0475959715
4. Director - Infrastructure and Environment – Angela Jones – 0415299192
5. Council on 6660 0300

## 7. Communications with adjoining properties and the community

In the event of an incident the following methods of communication shall be employed depending on the severity and nature of the incident.

- Phone calls
- Media releases (radio/television/newspaper/internet)
- Site visits/door knocking
- Letter box drops

The extent of the communications with the neighbours and the community will depend on the:

- The magnitude of the emission or discharge
- Type of pollutant
- What that pollutant may impact – water, land
- The potentially impacted area.
- Weather conditions
- Potential duration of the impact

In all cases Council will attempt to provide early warning to directly affected premises by phone call or a site visit. Early warning will include details of what the incident is, how those affected will need to respond, as well as providing important advice such as avoiding contact and use of affected land/waterways. This information will be given on a case by case basis.

If early warning is not possible Council will provide notification during and after an incident. Council will advise those affected with appropriate information, advise and updates.

In the event that the pollutant reaches the waterway, Council will erect signage in prominent locations to warn users of the possible contamination and to avoid activities within the waterway. Once the area affected has been cleaned up and deemed safe to the public, Council will inform the public and its staff that regular activities may resume in the area.

To comply with Council's Media Policy if a staff member is approached by a media representative the staff member should politely refer them to Council's Communications Manager or if urgent, the General Manager.

No staff members are to discuss Council matters with the media unless authorised to do so by the General Manager.

The most likely incidents to occur at the treatment plant are effluent overflows, however these incidents are likely to be contained within the site boundary and bypasses can be used to direct flows that have the potential to overflow direct to the tertiary ponds. However if an incident did occur and any community members or neighbours were likely to be affected then the steps above would be implemented.

## 8. Minimising harm to persons on the premise

The Coraki treatment plant has an emergency plan & chart displayed in its site office detailing steps required in the case of an emergency and the location of its emergency evacuation point. The below Emergency Management Key responsibilities ensure that the risk of harm to staff is minimised.

**Management** is responsible including the Work Health and Safety Officer or delegate for;

- The effectiveness and accuracy of the emergency plan, procedures and relevant emergency documentation
- Staff training in emergency preparedness
- Coordination of evacuation exercises
- Post-emergency / exercise review

**Supervisors /Work Health and Safety Representative** Responsibilities include;

- Immediately responding to any emergency situation
- Ascertaining the nature of the emergency and determining appropriate actions
- Ensuring the appropriate emergency services have been notified
- Co-ordinating the deployment of staff and any internal specialist resources
- Where safe to do so take steps to contain or control the hazard
- Ensuring that appropriate senior management are kept updated on the situation.
- Co-ordinating post-incident recovery strategies.
- Maintenance of staff training, emergency information lists and emergency-related plant and equipment necessary for emergency evacuation compliance

**Staff/Employees:**

Responsibilities include:

- Attendance of any emergency preparedness training
- Follow instructions given in the event of an emergency
- Co-operate with emergency personnel in the event of an emergency
- When safe to do so take steps to contain or control the hazard
- Report all emergency incidents to either Senior Management, Immediate Supervisor and/or Work Health and Safety Officer

### Emergency Response and Evacuation Plan

#### Discovering a dangerous situation

Move persons away from danger if safe to do so

Contact relevant emergency services (i.e. ambulance/fire/police)

Announce evacuation if dangerous situation requires

Contact Senior Management / Immediate Supervisor

#### Discovering an overflow – Blockage between Inlet works & Sed Tank

Notify Immediate Supervisor and EPA

Immediately isolate Sewage Pump Station (SPS) 1 and advise Overseer – Water and Sewer Services that it has been isolated and will require monitoring

Attempt to clear blockage with the rods located within STP workshop

If unsuccessful contact Overseer to organise Council's jet rodding truck to attend and clear

Obtain sample of influent spilt for laboratory analysis ensuring they are clearly marked and accompanied with chain of custody paperwork

Treat effected area with hydrated lime

Complete the Sewer Blockage/Overflow Report

### **Discovering an overflow – Automated Inlet Works Failure**

Check control panel located in amenities building and attempt to reset any faults displayed

If unsuccessful, notify Immediate Supervisor and request an electrician

Immediately isolate SPS 1 and advise Overseer – Water and Sewer Services that it has been isolated and will require monitoring

Remove manual bar-screen cover and clear build up from screen ensuring appropriate PPE is worn. Replace cover to unit

Should SPS 1 reach high level, remove isolation and allow a pump down

After each pump down of SPS 1 the manual bar-screen of the inlet works will require inspection and clearing

Obtain sample of influent spilt for laboratory analysis ensuring they are clearly marked and accompanied with chain of custody paperwork

Thoroughly hose down concrete hardstand area and effected equipment

Complete the Sewer Blockage/Overflow Report

### **Reticulation overflow**

Notify immediate supervisor (will contact EPA) and request assistance (Jet Rodding Truck and possibly Sucker Truck)

Tape off effected receiving area to restrict access to members of the Public

Inspect manholes downstream of overflow to identify section of main that has the blockage

Obtain samples of overflowing material for laboratory analysis ensuring they are clearly marked and accompanied with chain of custody paperwork

When the blockage has been cleared, commence clean-up of receiving area and treat with hydrated lime

Complete the Sewer Blockage/Overflow Report sheet

### **Reporting an emergency**

When reporting an emergency, the following information should be included:

- Name of organisation
- Exact nature of emergency (any casualties?)
- Exact location (including address, near cross street, area level and room no.)
- Name of person reporting emergency
- Contact number (where applicable)

### **Assembly areas**

In the event of an evacuation, persons should assemble at the nearest safe assembly area.

### **First Aid**

If First Aid assistance is required contact the relevant First Aid Attendant.

First Aid Attendant lists can be found erected in the site office.

Any injured people who can be moved safely should be taken to the nearest assembly area (whichever is more appropriate) for treatment. Those people who are trapped or unable to be removed immediately must be protected and given first aid on the spot (providing it is safe to do so)

# 9. Maps



Treatment Plant EPA Points



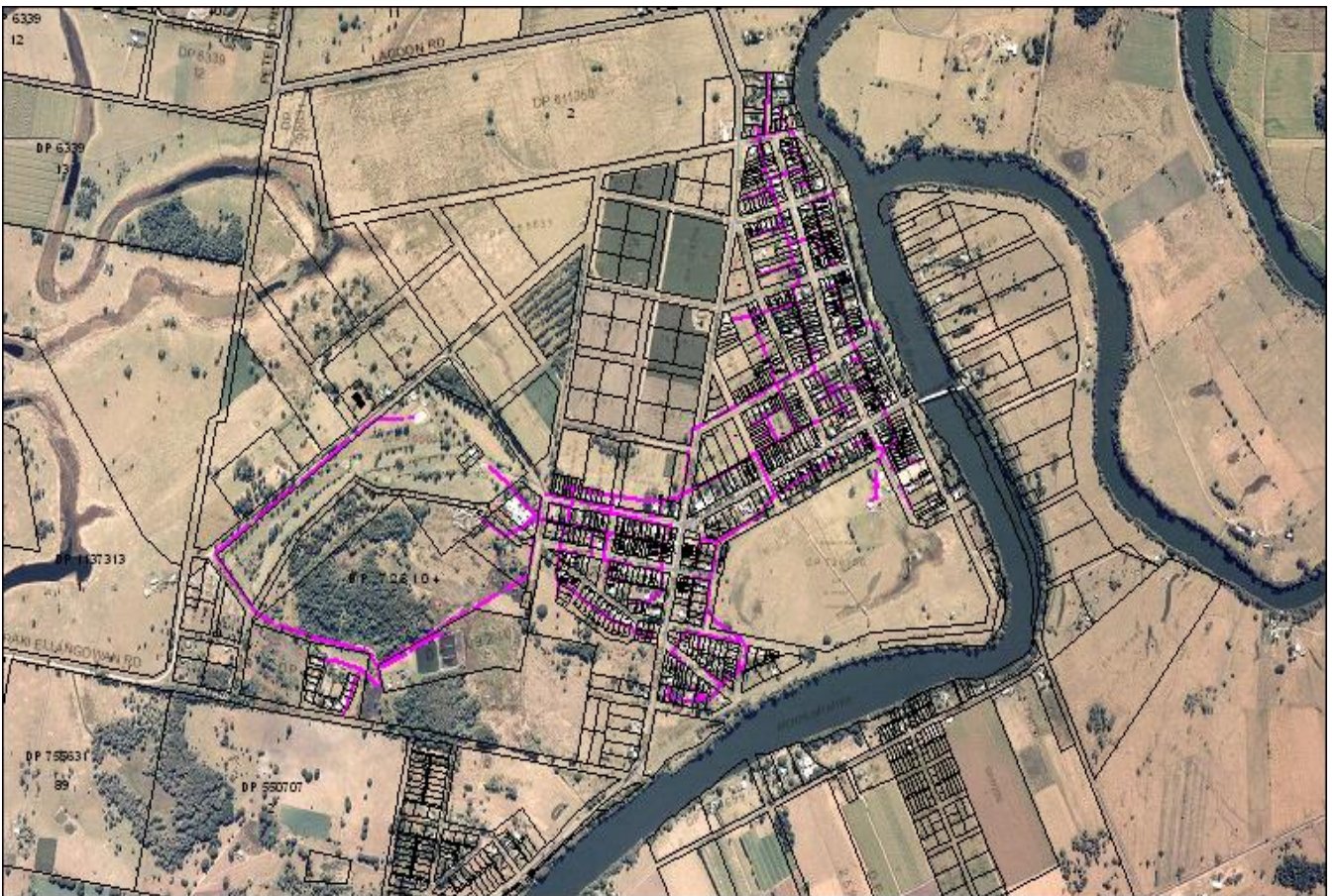
**Effluent Reuse EPA Points**



**Surrounding Area**



**Site Plan Descriptions**



**Reticulation Network**



## **10. Actions to be taken during or immediately after pollution incident**

### **During a pollution incident**

All actions taken during and after a pollution incident will vary depending on the nature of the properties of the pollutant/s and severity of the incident.

Any action taken shall be in accordance with any Work Health and Safety, EPA & Work Cover requirements.

Detailed records/evidence collection shall be carried out provided it is safe to do so. Evidence may include photographs/ samples taken and written notes.

Follow all directives given by the person/s in charge.

Follow only safe work practises as detailed in Council's SOP & SWMS.

### **Emergency Termination.**

Only Richmond Valley Council management shall deem the emergency terminated. This action shall take place once all emergency services have concluded their involvement.

### **Post Incident Reporting**

Reporting of the incident to the EPA shall include the following information.

The time, date, nature, duration and location of the incident.

The location of the place where the pollution is occurring or is likely to occur.

The nature, the estimated quantity or volume and the concentration of any pollutants involved if known.

The circumstances in which the incident occurred (including the cause of the incident if known).

The action taken or proposed to be taken to deal with the incident and any resulting pollution or threatened pollution if known.

## **11. Staff training**

Management aim to ensure staff are competent in key functional areas, that ongoing training will be provided and currency of training monitored throughout their period of employment with Richmond Valley Council.

Records of training currency are maintained by the Council's People & Culture (P&C) section. P&C tracks expiry dates and arranges appropriate training as necessary and annual employee reviews are conducted to identify all required training needs.

All staff are trained in Richmond Valley Council general and site specific Safe Work Method Statements & Standard Operating Procedures

Daily toolbox meetings are undertaken by treatment plant staff.

Practise emergency response training events are held annually. These events are utilised to demonstrate readiness and refine responses to a specific scenario for which an Emergency Scenario Response has been documented. De-briefing after the training event allows for further staff consultation and procedural refinement of the response.

All staff required to implement this plan 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 the plan & can competently implement it if necessary.

Within one month of a pollution incident occurring an additional test of the PIRMP will be conducted to assess whether the relevant responses are able to be implemented in an effective manner.

In the event of a significant incident, an investigation and debrief will be conducted, documentation updated where required and staff re-inducted.

All documentation is to be registered into Council's record management system.