

Richmond
Valley
Council



Casino Waste Water Treatment Plant POLLUTION INCIDENT RESPONSE MANAGEMENT PLAN 2020

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* (PEOA 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	Update Council Media Policy
1.4	05/07/2017	David Cash	Additional scenario & map update
1.4	05/12/2017	David Cash	Additional maps & potential pollutant quantities added
1.5	25/07/2018	David Cash	Review & Test for 2018
1.6	17/07/2019	David Cash	Contacts updated. STP changed WWTP. Reference to RVC Disaster Plan removed
1.7	10/07/2020	David Cash	Reference to Knowledge Management System (KMS) & Confined Space Entry equipment available onsite removed

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	23/07/2015
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	08/12/2017
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

Plan Testing

Date	Scenario(s) Tested	Test Coordinator
23/07/2015	EAT Decanter failed to raise – continually decanting to tertiary ponds	David Cash
08/07/2016	Lift Pump well overflows to storm water system	Robert Sabol
04/07/2017	Tertiary Pond Overflow to Private Property	Robert Sabol
25/07/2018	All scenarios listed above	Brock Armstrong
17/07/2019	EAT Decanter failed to raise – continually decanting to tertiary ponds	Brock Armstrong
14/07/2020	All Elements Tested	Brock Armstrong

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

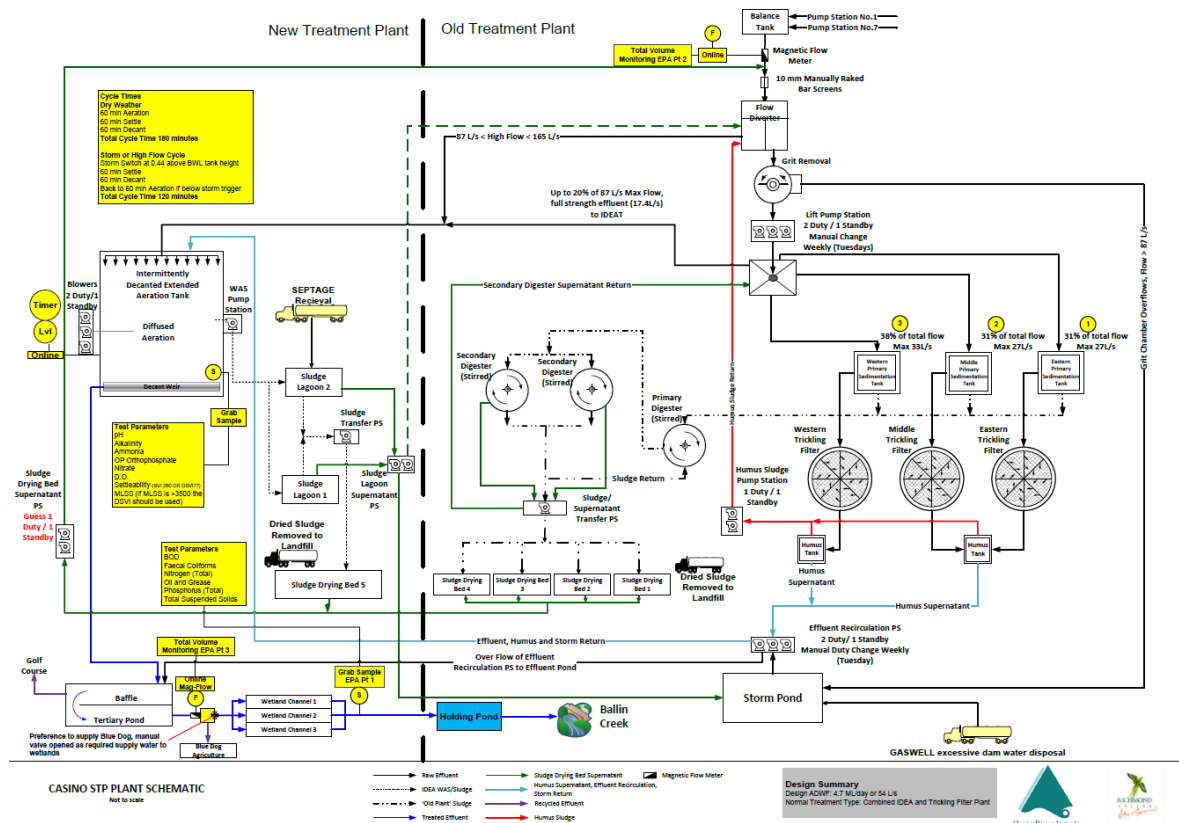
1. Description and likelihood of hazards
2. Pre-emptive actions to be taken
3. Inventory of pollutants
4. Safety Equipment
5. Contact details
6. Communications with adjoining properties and the community
7. Minimising harm to persons on the premise
8. Maps
9. Actions to be taken during or immediately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

1. Site Background

Casino WWTP was originally built in 1932 and augmented in 1955, 1976 and 1990.

The plant comprises three trickling filters and an extended aeration tank (EAT) which operates in parallel under higher flows. The treated effluent is discharged into a tertiary pond and then into a constructed wetland area within the WWTP site. During excessive rain periods flows can be diverted to the storm retention ponds and brought back through the system once weather permits.

One third of Casino WWTP effluent is reused and the remainder of the effluent is discharged to Barling Creek, which eventually discharges to the Richmond River, via a series of wetlands on site at the WWTP. The treatment plant schematics give further understanding to the process.



Premises
CASINO WASTEWATER TREATMENT PLANT
SPRING GROVE ROAD
CASINO NSW 2470

Environment Protection Licence
 Licence Number: 585
 Online at

<http://app.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=116972&YSUID=1&LICID=585>

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
Effluent Overflow <ul style="list-style-type: none"> Excessive Rainfall Equipment or Operator Failure Storms Reticulation Blockages Damage to Reticulation Aging Infrastructure Telemetry Failure Mechanical Breakdown Power Outage Blockage within treatment plant Septic Disposal Failure 	Possible	<ul style="list-style-type: none"> Use of Standard Operations Procedures & Safe Work Method Statements Preventative Maintenance Programs Monitoring & Maintenance Programs Extra storage capacity within system Backup generators Lightening Protection Spare Equipment Onsite Telemetry Alarming & Regular Testing
Chemical Spill <ul style="list-style-type: none"> Storage Failure Inappropriate Use 	Low	<ul style="list-style-type: none"> Use of Standard Operations Procedures & Safe Work Method Statements Inspections & Maintenance of Storage Areas Bundling Where Required PPE
Hydrogen Sulphide Gas Exposure <ul style="list-style-type: none"> Confined Space Entry Faulty Equipment Incorrect Work Practices Septic Disposal 	Possible	<ul style="list-style-type: none"> Use of Standard Operations Procedures & Safe Work Method Statements Equipment Testing & Maintenance

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 to storm water retention ponds to help cope with excessive flows.
2. Telemetry monitoring & alarms
3. Preventative maintenance schedules
4. Effluent monitoring programs
5. Spill Kits available onsite

Relevant Pre-emptive documentation includes:

- SOP – Sewage Spill in Public Areas
- SWMS WSC8(v1) Confined Space Entry
- Sewer Blockage/Overflow Report
- Council Treatment Plant Electronic Operations Manual

4. Inventory of pollutants

No chemicals are dosed as part of the treatment process at the plant. 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 Fortnightly
Faecal Coliforms –	Tested Fortnightly (No limit)
Nitrogen (total) –	Tested Fortnightly (No limit)
Oil & Grease – 10mg/L	Tested Fortnightly
Phosphorus (total) –	Tested Fortnightly (No limit)
Total suspended solids – 30mg/L	Tested Fortnightly

Maximum Quantities of Potential Pollutants Stored

Storm Ponds	14 ML
Tertiary Ponds	66 ML
Wetlands	22 ML
Sludge Lagoons	617 kL
EAT	2.002 ML
Sedimentation Tanks	545 kL
Humus Tanks	186.4 kL
Drying Beds	1556.6 m ³
Digesters	741 kL
Biosolids Stockpile	3036 m ³

5. Standard Safety Equipment Available Onsite

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

If any further specific safety equipment is required for a job it will be obtained from Councils 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" and complete the following;

1. If required, evacuate and restrict entry to the site for subsequent work cover inspection
2. Report the incident through Councils QSE (66600300)
3. Report the incident to your immediate supervisor
4. Notify the relevant external contacts below

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. SafeWork NSW | 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 or 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 storm holding 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. There are no sensitive premises in close proximity to the plant.

8. Minimising harm to persons on the premise

The Casino 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;
- Co-ordination 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 - General

Notify Immediate Supervisor and EPA

Immediately isolate SPS 1 & 7 and advise Overseer – Water & Sewer Services that both have been isolated and will require monitoring

If required, have Councils jet rodding truck attend and clear any blockage

Obtain sample of effluent to send to Richmond Water Labs for analyses

Treat effected areas with hydrated lime

Complete the Sewer Blockage/Overflow Report

Discovering an overflow – Lift Pump Well

Notify Immediate Supervisor (who will contact EPA) and request assistance

Immediately isolate SPS 1 & 7 and advise Overseer – Water & Sewer Services that both have been isolated and will require monitoring

Contact approved sucker truck contractors for immediate assistance

- Grelie Waste Services Greg True 0412 794 357
- Ballina Pumping Service Jade Rose 0437 963 976

Isolate lift pump well from inlet works by closing shutter board located within feeder channel to grit chamber. This will divert flow from lift pump well to EAT and storm ponds.

SPS 1 & 7 may now be pumped down as required

Obtain sample of influent spilt from storm water drain located outside main gate of STP. Another sample should be collected from the storm water discharge point into Barling Creek. These are to be sent to Richmond Water Labs for analyses

In the main switch room isolate all three lift pumps with lockout tags

Once lift pump well has been sucked down the pumps can be removed and inspected for obstructions

Ensure all required PPE is available when dismantling pumps including needle stick proof gloves and sharps container

When all three pumps are clear and spinning freely they may be lowered back into position and reset on Scada

Remove lockout tags and manually run each pump to verify normal operation

Remove shutter board from channel to allow influent to flow from inlet works to the lift well

Thoroughly hose/clean effected area and continue to monitor operation of lift well pumps

Ensure all collected influent samples are correctly labelled and delivered to Richmond Water Laboratories with chain of custody form

EAT Decanter Failure

Immediately isolate inflow to EAT utilising shutter boards within the central distribution box. This will direct all influent to the sedimentation tanks and trickle filters

If the decanter has failed during decant ensure diffused air blowers are isolated and tagged out in the electrical switch room

Obtain sample of decanted effluent from the EAT discharge point at the head of the tertiary ponds for analysis

Tertiary Pond Overflow to neighbouring properties

Notify Immediate Supervisor (whom will contact EPA) and request assistance
Inspect all tertiary pond outlet points for blockages. Remove grates and clean as required.

Ensure all stop valves feeding the wetlands from the tertiary ponds are open and there is flow through the wetlands inlet distributor manifolds

In the event full flow is not observed to the wetlands immediately organise for Councils jet rodding truck to attend and clear any obstructions from the discharge lines.

Should the overflow continue, contact Blue Dog Agriculture on 0407 641 333. He may be able to assist in taking surplus discharge. If BDA have sufficient capacity to accept reuse, open the valve that feeds their storage dam.

Turn off the BDA reuse feed valve once overflow has ceased.

Collect laboratory samples from neighbouring property ensuring chain of custody paperwork is completed.

Treat effected areas with hydrated lime.

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



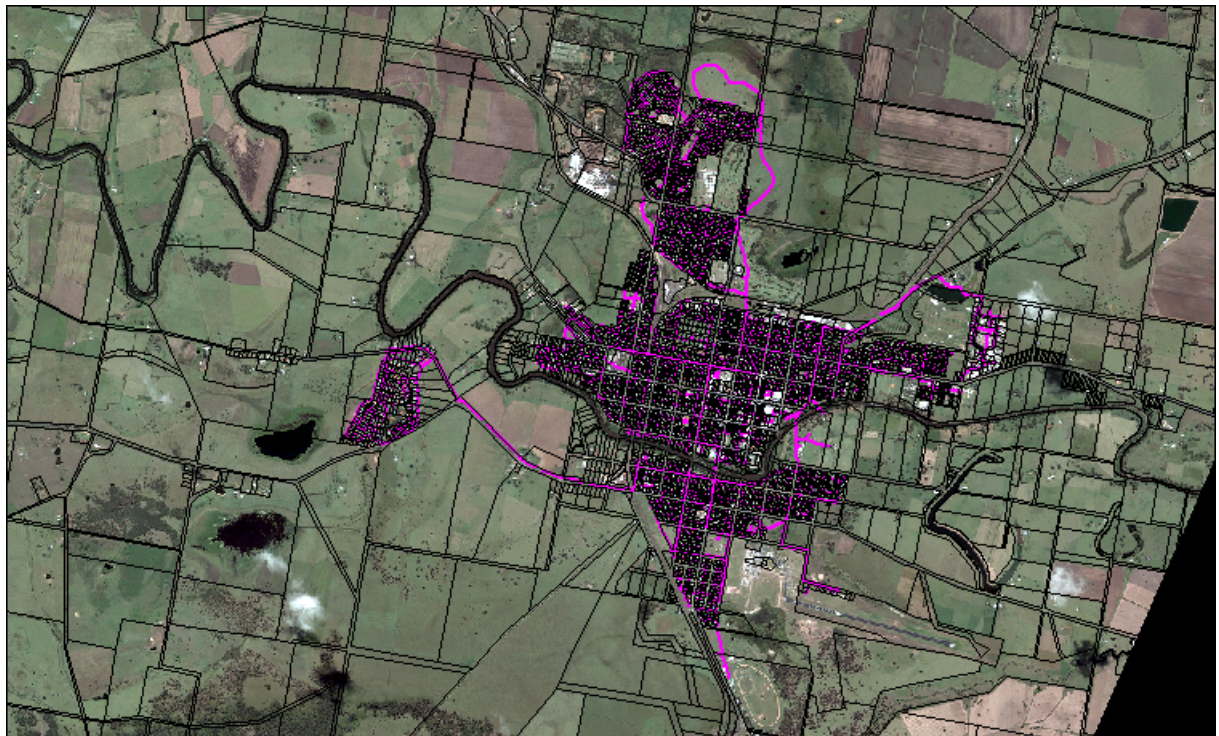
Location of EPA Monitoring Points



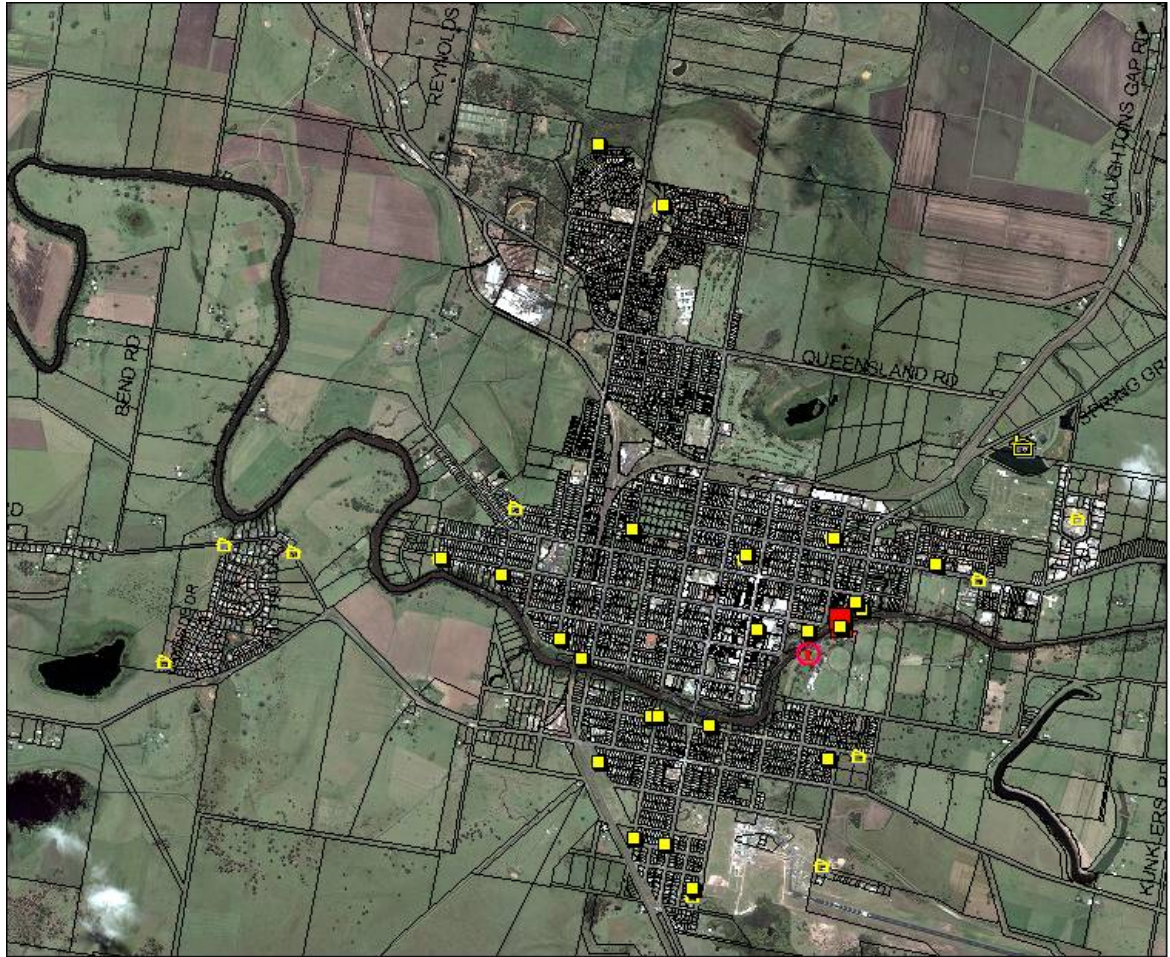
Site Storm Water Pits and Drainage



Site Plan Descriptions



Casino Sewer Reticulation Network



Casino sewer reticulation network overflow points



Creeks & Rivers possibly affected by an incident

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 Councils 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.

Forms can be found on Councils website.

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 Councils Human Resources (HR) section. HR 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 tool box 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 Councils record management system.