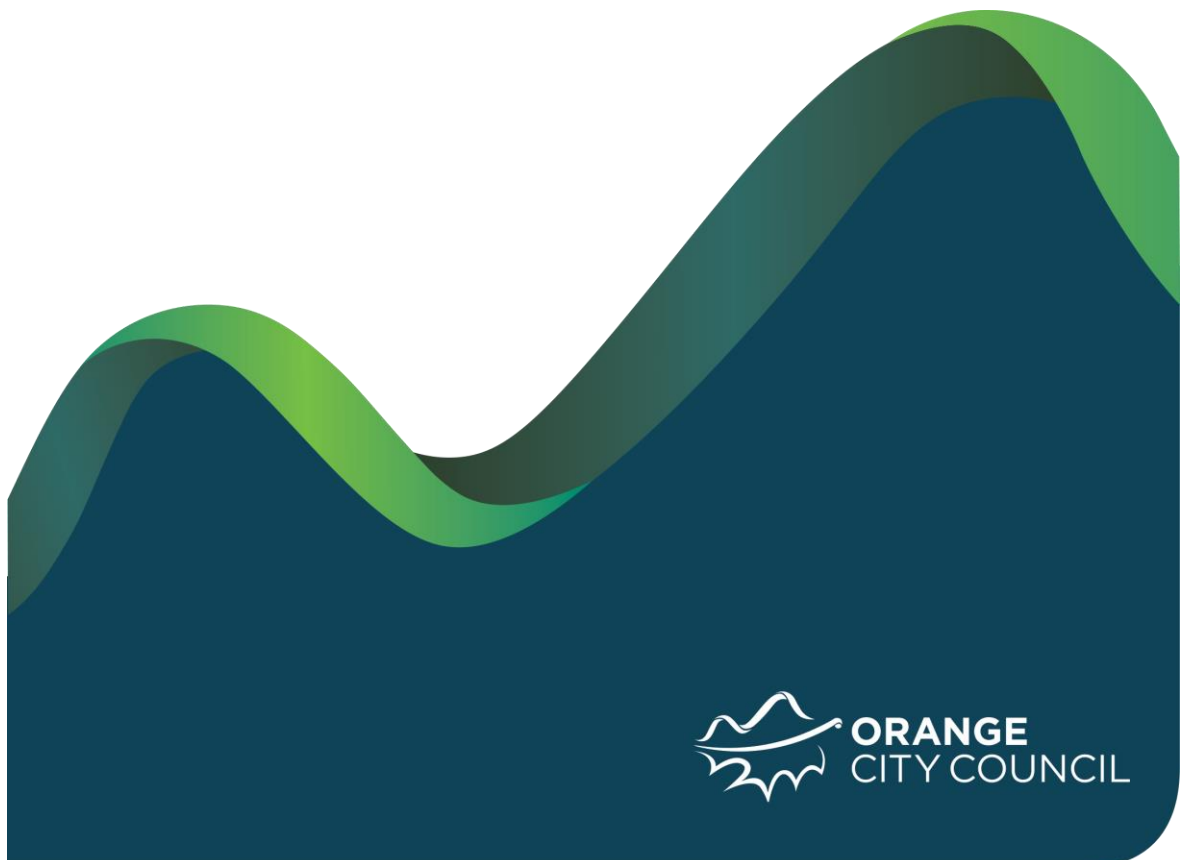


**ORANGE CITY COUNCIL OPERATIONS
TECHNICAL SERVICES
Water, Sewer and Phillip Street Quarry**

**POLLUTION
INCIDENT RESPONSE MANAGEMENT PLAN
(PIRMP - Version 5.2 web)**

Version 5.2 – (Updated & Tested) August 2018



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1 External web-based version

This external web based version of the Pollution Incident Response Management Plan (PIRMP) has been prepared in accordance with the Environmental Protection Authority's (EPA) requirements that only the following sections of the plan be made publically available:

- Procedures for contacting the "relevant authorities";
- Procedures for communicating with the community' and
- Excluding any personal information within the meaning of the Privacy and Personal Information protection Act 1998.

A copy of the full PIRMP is maintained at the premises to which the relevant licence relates and is readily available to the persons responsible for implementing the plan and to an authorised officer of the EPA on request.

2 Background

This Pollution Incident Response Management Plan (PIRMP) covers the Environmental Protection Licences held by the Technical Services Section of Orange City Council for the Icelly Road Water Treatment Plant, Orange Waste Water Treatment Plant, Spring Hill Waste Water Treatment Plant and the Phillip Street Quarry. The resource recovery centres have separate PIRMPs.

2.1 Sewerage System Operations

Orange City Council (Council) operates a sewerage reticulation network throughout the city of Orange and the villages of Spring Hill and Lucknow as well two sewage treatment plants (WWTPs), Orange WWTP servicing the city of Orange and Spring Hill WWTP servicing the villages of Spring Hill and Lucknow.

2.1.1 Orange WWTP

The Orange WWTP is located approximately 3 km north east of the Orange central business district and is surrounded by rural grazing land to the north, a quarry to the south east and Council's Resource Recovery Centre is east of the site, on the opposite side of Blackmans Swamp Creek. Access to the WWTP site is via Narrambla Industrial Estate.

2.1.2 Spring Hill WWTP

Spring Hill Sewage Treatment Plant (WWTP) is located on Beasley Road at Spring Hill approximately 1 km north of the centre of Spring Hill.

2.2 Phillip St Quarry

The Phillip Street Quarry is an historic source of high quality hard rock suitable to produce various grades of aggregates for use throughout Orange. The quarry is located to the north east of the city near to Blackmans Swamp Creek. It is an unmanned site, which is now only utilised for storage of materials and is managed from Council's works depot.

2.3 Icelly Road Water Treatment Plant

The Icelly Road Water Treatment Plant (WTP) provides a supply of filtered, ozonated and chlorinated potable water for use in Orange. The WTP is located to the east of Orange on Icelly Road. The plant has capacity to provide up to 38 ML per day.

2.4 PIRMP Purpose

The licensed sites operate under the following Environment Protection Licences (EPL):

- EPL 1646 Orange WWTP
- EPL 3686 Spring Hill WWTP
- EPL 5762 Phillip St Quarry and
- EPL 20293 Icely Road Water Treatment Plant

These EPLs are issued under Section 55 of the *Protection of the Environment Operations Act 1997* by the NSW Environmental Protection Authority (EPA). The EPLs contain requirements to report pollution incidents as outlined in condition R2:

Note: The licensee or its employees must notify the EPA of incidents causing or threatening material harm to the environment immediately after the person becomes aware of the incident in accordance with the requirements of Part 5.7 of the Act.

R2.1 Notifications must be made by telephoning the Environment Line service on 131 555.

R2.2 The licensee must provide written details of the notification to the EPA within seven days of the date on which the incident occurred.

The introduction of the *Protection of the Environment Legislation Amendment Act 2011* (POELA Act) in February 2012 requires holders of EPLs to maintain a Pollution Incident Response Management Plan (PIRMP). This PIRMP replaces the previous Incident Notification Protocol (INP) and sets out the requirements for the notification, response and management of pollution incidents as defined in the *Protection of the Environment Operations Act 1997* and the *Protection of the Environment Operations (General) Regulations (2009)*. The PIRMP has been developed to satisfy the requirements of Council and POELA Act.

This PIRMP is held by the Technical Services section and is applicable to the Council sewerage, quarry, and water treatment operations. Council maintain separate PIRMPs for the Ophir Road and Euchareena Road landfill operations and this is managed by Waste Services within Technical Services. It outlines responsibilities and response actions for staff in the event of a pollution incident.

This most recent revision of the PIRMP included updating and testing contact details, checking currency of referenced documents, and updating information relating to the Orange WWTP (e.g. discharge limits and conditions referencing wet weather and bypass flow rates).

2.5 Related Documents

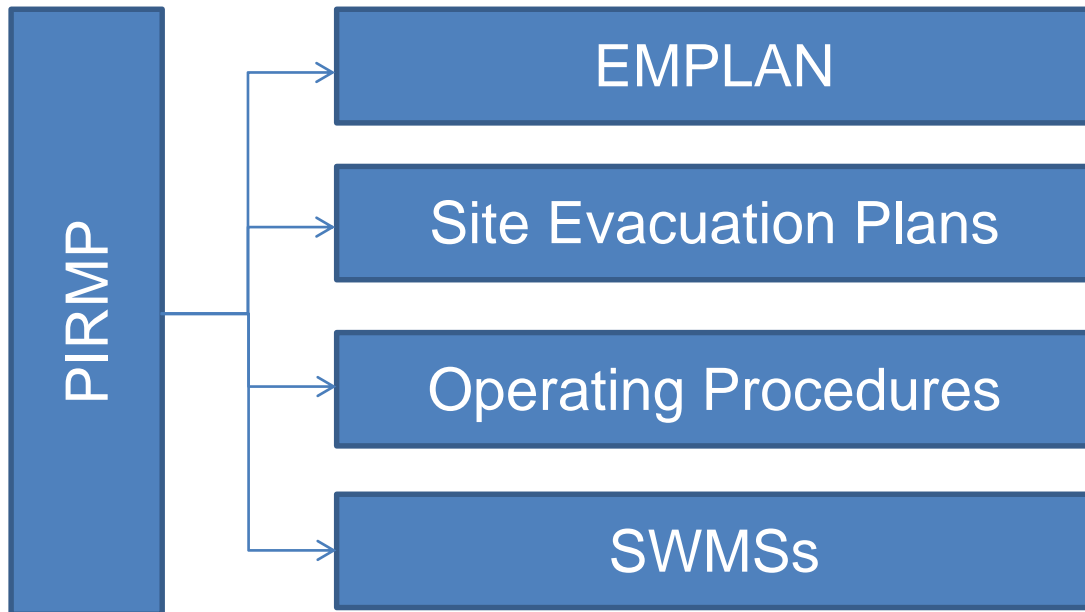


Figure 1 Document Framework

The following documents are available for further information:

Orange City Council, July 2007: PRP 100 Sewer Overflow Investigations Report for the Orange Sewerage System.

Aurecon, 26 July 2011: Modelling and Performance Assessment of Orange Sewerage System.

Orange City Council, 2017: Sewer Asset Management Plan.

Orange City Council, 2017: Drinking Water Management System.

Orange City Council, 2017: Recycled Water Management System.

Orange City Council, 2015: Strategic Business Plan for Water Supply and Sewerage Services.

Orange City Council, 2015: Local Emergency Plan (EMPLAN).

Orange City Council, June 2014: Waste Water Treatment Plant (WWTP) Emergency Evacuation Plan.

Orange City Council, 2011: Water Treatment Plant (WTP) Emergency Evacuation Plan.

Orange City Council, February 1999: Phillip Street Quarry Environmental Management Plan.

3 Pollution Incident Response Planning

3.1 Notifiable Incidents

3.1.1 POEO Act Definitions

A pollution incident is defined by the POEO Act as:

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.

Material harm is defined by the POEO Act as:

(1) For the purposes of this Part:

(a) 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

(b) 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.

(2) For the purposes of this Part, it does not matter that harm to the environment is caused only in the premises where the pollution incident occurs.

3.1.2 Council Notifiable Incidents

Bypass events occur at WWTPs where the flows exceed the treatment capacity of the plant. In terms of the Orange WWTP, wet weather events are defined as when inflows exceed a flow rate of 400 L/s following rainfall. Above this flow rate, all sewage flows must receive screening at a minimum.

Overflow events may occur at the WWTPs but are markedly more common in the reticulation system itself e.g. manholes and pump stations. A wet weather overflow is defined as when more than 10 mm of rainfall has been measured at the Bureau of Meteorology weather station in the catchment of the WWTP during a 24 hour period.

Council have identified the following events that occur within the sewerage system and other licenced sites that constitute a pollution incident that risks human health or threatens material harm to the environment.

- Overflows at public municipal parks where significant usage for recreation is underway e.g. sporting activity is being conducted.
- Overflows inside a childcare centre, school or in close proximity to schools where there is assessed to be a high risk of exposure of children to the overflow incident.
- Any other pollution event that is judged to pose a risk to public health and/or threaten material harm to the environment e.g. shopping centre car park, chemicals stored at the WWTP and WTP.
- All bypasses at the WWTP and overflows from associated pump stations that exceed the volumes outlined in Table 3.

Table 1 Volume triggers – Orange Pump Station Overflow¹ & WWTP Bypass² raw sewage equivalent

Location	Wet weather event	Dry weather event
Orange WWTP ³	500,000 L	0 L
Blackmans Swamp Creek Pump Stations	500,000 L	30,000 L
Ploughmans Creek Pump Stations	75, 000 L	4,000 L

Table 2 shows volumetric trigger levels for overflows to water bodies (flowing or still) into or upstream of Suma Park Dam, Blackmans Swamp Creek and Ploughmans Creek. Catchment maps are provided in Appendix B.

Table 2 Volume triggers – Reticulation⁴ overflow raw sewage equivalent

Creek Catchment	Inform External Stakeholders		Inform Stormwater Harvesting Operators	
	Wet weather	Dry weather	Wet weather	Dry weather
Suma Park Dam	0 L	0 L	na	na
Blackmans Swamp Creek	500,000 L	30,000 L	0 L	0 L
Ploughmans Creek	75,000 L	4,000 L		
Effluent re-use	0 ⁵	0	na	na

The volume of the overflow from a manhole is estimated using time and Equivalent Tenement (ET) counts upstream of the overflow point.

¹ The volume from a pump station is estimated using typical pumping rates.

² Volumes are based on average dry weather flow (ADWF) for the time period of discharge from that particular site. Therefore reporting personnel are required to estimate the proportion of sewage in the bypassed effluent (as a %) by comparing to typical dry weather flows for the time period for which the bypass occurred.

³ The Spring Hill WWTP does not discharge to waters.

⁴ Reticulation includes the transport of sewage to the WWTP, as well as the export of treated effluent from the WWTP e.g. Cadia reuse scheme.

⁵ External stakeholders for an effluent re-use overflow are listed in Table 3 only.

4 Pollution Incident Response

4.1 Incident Response

Sewer

Council's procedures for responding to a potential pollution incident in the sewer network or at one of the WWTPs are outlined in Figure 2 and a reference to full procedures is provided in Appendix D.

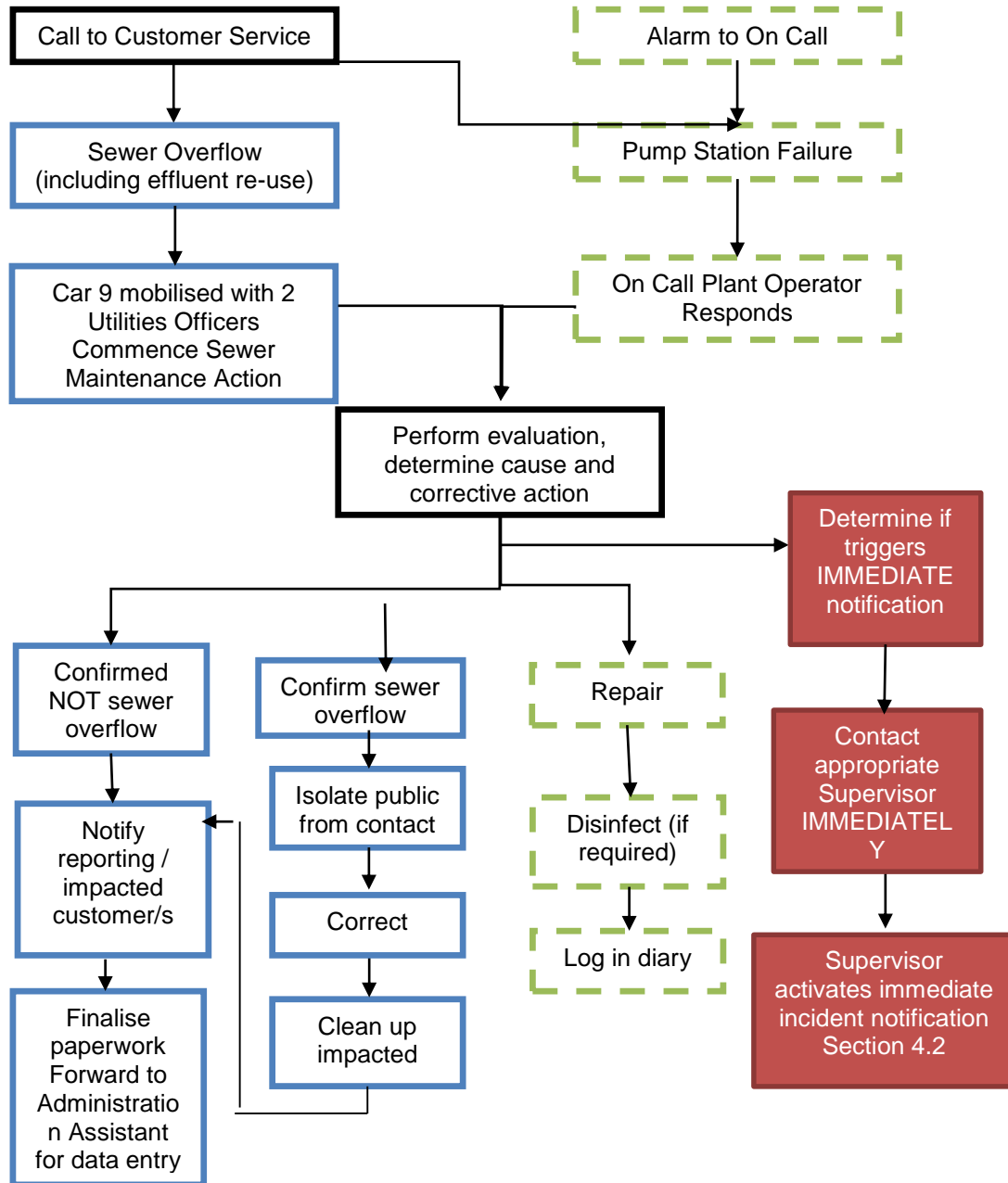


Figure 2 Incident Response Flowchart

Gas Leak

In the event of a gas leak (chlorine, methane or ozone) at least two trained staff using SCBA equipment investigate, stop flow and assess the severity of the leak and repair if possible.

If the leak is a major leak emergency evacuation procedures must be implemented, refer WWTP or WTP Emergency Evacuation Plan.

Chemical Spill

In the event of a chemical spill emergency evacuation procedures must be implemented, refer WWTP or WTP Emergency Evacuation Plan.

4.1.1 Roles and Responsibilities at Treatment Plants

The establishment of an organisational structure for emergency procedures is considered inappropriate because of the small number of staff on duty at the WWTP (maximum four) and WTP (maximum four).

The Most Senior Operator is responsible to act as Incident Controller for any pollution incident.

Staff that discover an actual or potential pollution incident are responsible for immediately notifying the Most Senior Operator.

Most Senior Operator (MSO)

On becoming aware of an emergency the MSO should take the following action:

- Ensure staff on duty have been advised and are safe.
- Undertake notification as per section 4.2.
- If necessary, initiate evacuation and controlled entry procedures. Check the visitor book to account for everyone on site.
- Brief the emergency services personnel upon arrival on the type, scope and location of emergency and the status of evacuation and thereafter action the MSOs instruction.

General Operators

Where other Staff are available, on becoming aware of an emergency the following action should be taken:

- Cooperate or advise the MSO of the incident.
- Commence evacuation if the circumstances warrant.
- Implement the incident response procedures as outlined in Figure 2.
- Liaise with the MSO and act on those instructions.
- Commence incident response under guidance of MSO where suitably trained and support is available as necessary.

4.1.2 Response times

Council's Delivery/Operational Plan 2018 – 2022 sets targets for operational levels of service for response times to scheme failures. For a major spill with significant environmental or health impact affecting a large number of customers, the targets are:

- During business hours: 30 minutes.
- After hours: 60 minutes.

4.2 Incident Notification

The following organisations shall be contacted **IMMEDIATELY** if criteria identified in Section 3.1.2 of this PIRMP are triggered. Authorisation to notify external agencies is provided in the full version of the PIRMP as held by Council.

1. Call 000 if the incident presents an **immediate threat to human health or property**. Fire and Rescue NSW, the NSW Police and NSW Ambulance Service are the first responders, responsible for controlling and containing incidents.
2. If the incident does not require an initial combat agency, or once the 000 call has been made, call the relevant external authorities as detailed in Table 3.

Table 3 Notification of External Authorities

Agency	Business Hours	After Hours
EPA	131 555	131 555
	record the reference no. given by the operator	
Ministry of Health Public Health Unit (Bathurst)	Ph: 02 6330 5880	Mob: 0428 400 526 (ask for Public Health Officer on call)
Safework NSW	13 10 50	13 10 50
Fire and Rescue (Pollution Notification)	4902 3183	4902 3183

3. Once the external agencies have been contacted internal sections of Council outlined in **Error! Reference source not found.** shall be contacted if criteria identified in Section 3.1.2 of this PIRMP are triggered.

Details to report to all stakeholders listed in this section include:

- the date, time, nature (wet/dry sewage overflow/bypass, chemical spill), duration (start time – finish time) and location (address) of the incident;
- the location of the place where pollution is occurring or likely to occur (e.g. Blackmans Swamp or Ploughmans Creek);
- the nature (raw sewage / partially treated sewage / type of chemical), the estimated quantity or volume and the concentration of any pollutants involved;
- 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; and
- other information prescribed by the regulations.

The staff member notifying authorities should not wait for collection of all information if not immediately available – for example, a report may have to be made whilst an event is underway. The reporting officer may therefore need to re-contact stakeholders as per the above protocol as more information becomes available.

4. Council's water and sewer management or Council's works management, in conjunction with Council's communication(s) officers, shall determine the most appropriate means of contacting the potentially affected community (residents and/or commercial premises and/or Cabonne Council) dependent on the severity of the incident. This may include:
 - face-to-face explanation e.g. door knocking;
 - letter box drops to household;
 - direct phone calls;
 - local papers or radio; or
 - placement of Council signage boards (including electronic as an option).

Information to be provided includes:

- what has occurred;
- current situation;
- process of remediation; and
- likely duration.

In the case of an overflow, once the area has been remediated, those people that have been informed will be contacted to inform them that the site has been cleared. This includes the person who reported the incident.

If the situation escalates and there is potential for the broader community to be affected, the Supervisor and Manager are to be contacted regarding the course of action. In this scenario, Council will work closely with the EPA on the most appropriate course of action. The Manager Corporate and Community Relations would be responsible for any liaison with the media. The contacts list for the media is held with Corporate and Community Relations team.

5. WWTP bypass events also require e-mails to be distributed to the following stakeholders (and cc in the Water Compliance Coordinator – Systems):
 - EPA:
 - NSW Health Public Health Unit:
 - DPI Water:

4.3 Incident Reporting

4.3.1 EPA

EPLs require written details of notifiable incidents be provided to the EPA within seven days of the date on which the incident occurred. These reports should at least include the information listed in Section 4.2 of this PIRMP as well as photographs and other evidence demonstrating extent of harm. Reports shall be in the form provided in Appendix A of the full version of the PIRMP and sent via email or mail (request receipt confirmation) to the local office of the EPA (Bathurst) as follows:

Regional Operations Officer – Central West

Environment Protection Authority

PO Box 1388

Bathurst NSW 2795

Phone 6333 3800

Fax 6333 3809

Email central.west@epa.nsw.gov.au

The EPA may request distribution of information to other regulatory authorities or stakeholders.

4.3.2 Council

Council require details of all overflows to be registered in the corporate GIS.

Council require details of all bypass events be registered in the “Monitoring” folder located in the WWTP laboratory.

Copies of all emails, faxes and letters should be filed in HP Content Manager (Council’s electronic filing system).

If the overflow event does not require immediate notification, completed “Sewer Maintenance Action Request Form” is still required.

Information is to be entered into the relevant computer database and originals retained. This information will be presented to the EPA in the Orange Sewage Treatment Plant Annual Systems Performance Report (ASPR).