

PIRMP– Kandos Wastewater Treatment Plant and Sewerage System

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POLLUTION INCIDENT RESPONSE MANAGEMENT PLAN (PIRMP)

LICENCE NUMBER: 1737

Position/Title: Manager Water and Sewer

Date: 12/05/2023

PURPOSE:

Mid-Western Regional Council holds an Environment Protection Licence with the NSW Environment Protection Authority (EPA) for Kandos Wastewater Treatment Plant. As per the Protection of the Environment Operations Act 1997 (the POEO Act), Mid-Western regional Council must prepare, keep, test and implement a pollution incident response management plan (PIRMP) that complies with Part 5.7A of the POEO Act.

If a pollution incident occurs in the course of our activities so that material harm to the environment (within the meaning of section 147 of the POEO Act) is caused or threatened, Mid-Western Regional Council will **immediately** implement this plan as required by Part 5.7A of the POEO Act.

A copy of this plan is kept at the licensed premises and can be made available on request by an authorised EPA officer and to any person who is responsible for implementing this plan.

Parts of the plan is also available on Mid-Western Regional Council website as set out in clause 98D of the Protection of the Environment Operations (General) Regulation 2009.

NOTE: This plan has been developed in accordance with the *Protection of the Environment Operations Act 1997* and the Protection of the Environment Operations (General) Regulation 2009.

NOTIFICATION OF A POLLUTION INCIDENT

Notification is required if a pollution incident causes or threatens to cause 'material harm to the environment'. Harm to the environment is material as per section 147 of the POEO Act 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 the 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.

Notification is required even where 'harm to the environment is caused only in the premises where the pollution incident occurs', as specified in section 147(2)



Environment Protection Licence (EPL) Details

Name of licensee:	Mid-Western regional Council
EPL number:	1737
Premises name and address:	Kandos Sewage treatment Works, Rylstone Road, Kandos NSW 2848
Contact details	Position or title: Manager Water and Sewer Business hours contact number/s: 1300 765 002 After hours contact number/s: 1300 765 002
Website address:	http://www.midwestern.nsw.gov.au/
Scheduled activity/activities on EPL:	Sewage treatment
Fee-based activity/activities on EPL:	Sewage Treatment processing by small plant

Pollution incident – person/s responsible

PIRMP activation	Position or title: Water and Sewer Process Coordinator Business hours contact number/s: 1300 765 002 After hours contact number/s: 1300 765 002
	Position or title: Manager Water and Sewer Business hours contact number/s: 1300 765 002 After hours contact number/s: 1300 765 002

Notification of relevant authorities

See below for persons and/or **any relevant authorities requiring to be notified as per Part 5.7A of the POEO Act** in the case of a pollution incident that causes or threatens to cause material harm to the environment.

The following information must be noted and forwarded to the authorities when they are notified of the incident:

- Time and date.
- Nature and location of the incident.
- Duration of the incident (including estimated quantity /volume discharged if applicable)
- Location of areas that may be affected by incident.
- Circumstances in which the incident occurred.
- The proposed action to be taken in dealing with the incident

Fire & Rescue NSW	Contact number/s:	000 Emergency (112 mobile phones) 1300 729 579 (generic) 6379 4021 Kandos Fire & Rescue
EPA (written report to be provided within 7 days)	Contact number/s:	131 555
NSW Health	Relevant Area Health Service: Contact number/s:	Dubbo Office 6809 8979 After hours 0418 66 397
SafeWork NSW	Contact number/s:	131 050

Notification of relevant authorities, continued

See below for persons and/or authorities that also **may** need to be notified in the case of a pollution incident that causes or threatens to cause material harm to the environment.

Department of Planning Industry and Environment (DPIE)	Contact number/s:	Generic number (business hours) 1800 353104
WaterNSW	Contact number/s:	1300 662 077 Emergency reporting – 24h (spills etc) 1800 061 069



Mid-Western, Regional Council (24h)	Contact number/s:	1300 765 002 (02) 6378 2850
Rural Fire Services - Rylstone	Contact number/s:	6372 4434 (Mudgee) Crn Coomber St and Bylong Valley Way
NSW Fisheries – Central Tablelands	Contact number/s:	0488 220 443

Notification of neighbours and the local community

See Appendix A for the list of high risk stakeholders which includes neighbouring properties

Mid-Western Regional Council will attempt to provide early warning to directly affected premises. Depending on the severity of the incident and the likelihood of impact on the community, a range of communications methods can be deployed during and after an incident. These include:

- Site visits/door knocking
- Phone calls
- SMS messages
- Emails (internal and external)
- Social media, website updates
- Media updates
- Letter drop
- Warning signs
- Depending on the incident; WaterNSW has an early warning system to alert Water Licence Holders. WaterNSW can be contacted and request made for them to send an alert

Description and likelihood of hazards; Pre-emptive actions to be taken

Sewage overflow

	Impact	Risk Rating*	Pre-emptive actions
Heavy rainfall	Land/waterway contamination	C 3 = M11	<ul style="list-style-type: none"> • Sewerage system maintenance and rehabilitation to reduce infiltration and inflows • Spare capacity in pump wells • Monitoring and maintenance • SCADA alarm
Power failure	Land/waterway contamination	B 2 = L5	<ul style="list-style-type: none"> • Lightning protection • Vegetation management to prevent damage to infrastructure in case of storm • SCADA alarms



	Impact	Risk Rating*	Pre-emptive actions
Blockage or damage to sewers	Land/waterway contamination	C 2 = M8	<ul style="list-style-type: none"> • Sewerage system maintenance • Sewer Jetting program (high pressure cleaning of mains for repeat chokes) • Spare capacity in pump wells • Monitoring and maintenance
SCADA/Communication failure	Land/waterway contamination	A 2 = L4	<ul style="list-style-type: none"> • SCADA testing and alarming • Monitoring of SCADA signal issues
External person hitting sewers when excavating	Land/waterway contamination	C 2 = M8	<ul style="list-style-type: none"> • Provide approximate location of underground service to external persons • Telemetry designed to pick up a change in inflows (for example excessive pumping hours) • Vacuum trucks (for clean-up) • Portable pumps (for clean-up) • Review of design plans by Council
Infrastructure failure (general)	Land/waterway contamination	C 3 = M11	<ul style="list-style-type: none"> • Maintenance and renewal programs • Smoke testing and asset condition assessment aimed at reducing stormwater infiltration programmed in future years • Sewer relining program
Infrastructure failure such as: 1. Failure of Rising Main 2. Failure at Kandos STP site 3. Sewer Pump Station failure	Land/waterway contamination	C 3 = M11	<ul style="list-style-type: none"> • Condition assessment of the receiving manholes (scheduled for 21-22) • Document "Contingencies –Rylstone/Kandos STP, Main and SPS" has list of critical stock items and their location (document in K:\Operations\Services\2. SEWER\Operational)
Mechanical breakdown/dual pump failure	Land/waterway contamination	B 2 = L5	<ul style="list-style-type: none"> • Telemetry monitoring • Maintenance and inspection programs • Spare capacity in pump wells • vacuum truck • Monitoring and maintenance

	Impact	Risk Rating*	Pre-emptive actions
Excessive flow at STP	Land/waterway contamination	B 2 = L5	<ul style="list-style-type: none"> • Sewerage system maintenance and rehabilitation to reduce infiltration and inflows • Spare capacity in pump wells • Monitoring and maintenance • SCADA alarm

Chemical Spills

	Impact	Risk Rating*	Pre-emptive actions
Chemical spill due to storage failure	Land contamination, possibly enter a waterway	B 2 = L5	<ul style="list-style-type: none"> • Bunding
Chemical spill during delivery	Land contamination, possibly enter a waterway	B 2 = L5	<ul style="list-style-type: none"> • PPE • Bund
Chemical spill due to damage to chemical system	Land/waterway contamination	C 1 = L2	<ul style="list-style-type: none"> • Bund • Shut off valves
Chemical spill due to vandalism	Land/waterway contamination	B 2 = L5	<ul style="list-style-type: none"> • Security fences
Chemical spill due to Bund failure	Land/waterway contamination	B 2 = L5	<ul style="list-style-type: none"> • Bund inspections • Maintenance and renewal
Chemical truck incident outside of banded area	Land/waterway contamination	C 2 = M8	<ul style="list-style-type: none"> • Operator always on-site during deliveries.
Storage of chemicals	Toxic effect on human, flammability, Land/waterway contamination	C 2 = M8	<ul style="list-style-type: none"> • Bund • SDS

Fire (bushfire)			
	Impact	Risk Rating*	Pre-emptive actions
Fire destroying pump station	Land/waterway contamination	C 3 = M11	<ul style="list-style-type: none"> Vegetation management Fire extinguishers SCADA monitoring
Fire destroying part of or all of STP infrastructure	Land/waterway contamination	B 4 = M12	<ul style="list-style-type: none"> Vegetation management Fire extinguishers
* MWRC Risk Matrix WHS302 used to evaluate risk rating (see Appendix B)			

Inventory of pollutants

Provide an inventory of potential pollutants on the premises or used in carrying out the activity to which the licence relates:

Identify the maximum quantity of any pollutant/s likely to be stored or held at particular locations (including underground tanks) at or on the premises to which the licence relates.

Example

Location/Tank	Max. quantity	Contents	Comments
Workshop	20 L	Unleaded Petrol	
	300kg	Limestone	
	800 Kg	Sodium Carbonate	
	100 kg	Citric acid	
	40 kg	Granular chlorine	
Near dosing system	1000L	10-30% Sodium Hypochlorite Solution	
Near dosing system	1000 L	Aluminium Sulphate	

Safety equipment

Safety Equipment/Process	Location
Alarms via SCADA when issues with processes	Can be remotely monitored
Internal sampling and testing	Kandos STP laboratory
External Sampling and testing	Contracted to ALS Mudgee
Safety Data Sheet (SDS)	in Chemwatch plus hard copy on site
Gas meter (confined space)	In W&S Process Coordinator office (Depot road Mudgee)
PPE including gloves and safety glasses	at STP and in trucks
Hand railing	at various locations as appropriate
Fire extinguishers	at STP and SPS
Emergency alert/evacuation warning system	at STP
Bund to contain chemical spills	at STP Workshop and chemical tanks
Spill containment kits (including sandbags, silt trap)	At Depot shed and stores as appropriate
Witches hats, star pickets and tape to isolate spill area	

Communicating with neighbours and the local community

Mid-Western Regional Council will attempt to provide early warning to directly affected premises. Depending on the severity of the incident and the likelihood of impact on the community, a range of communications methods can be deployed during and after an incident. These include:

- Site visits/door knocking
- Phone calls
- SMS messages
- Emails (external and internal)
- Social media, website updates
- Media alerts
- Letter drop
- Warning signs
- Depending on the incident; WaterNSW has an early warning system to alert Water Licence Holders. WaterNSW can be contacted and request made for them to send an alert

Depending on the nature of the incident, MWRC will liaise with NSW Health and DPIE to ensure best advice is given to the community. The advice will be given to the community either by phone call, email, SMS messages if individuals are directly affected; or by media alerts and social media post for advice to the general community. Community will be regularly updated by the same mediums as the situation evolves.

Depending on the incidents, specific warning signs may be erected near incident sites or near affected area.

Minimising harm to persons on the premises

The following are in place to minimise the risk of harm to any persons who are on the premises or who are present where the scheduled activity is being carried out:

- Operators are trained and qualified to undertake the work
- Operators in training are actively supervised by qualified operators
- Contractors have completed MWRC induction and site induction/ risk assessment
- Visitors are to sign in and out and visitors are accompanied by MWRC staff
- PPE are supplied and kept in good condition
- Gas meter are available to operators

Maps

Maps are presented in Appendix C and includes:

- location of the premises to which the licence relates
- surrounding area likely to be affected by a pollution incident
- location of potential pollutants on the premises

Actions to be taken during or immediately after a pollution incident

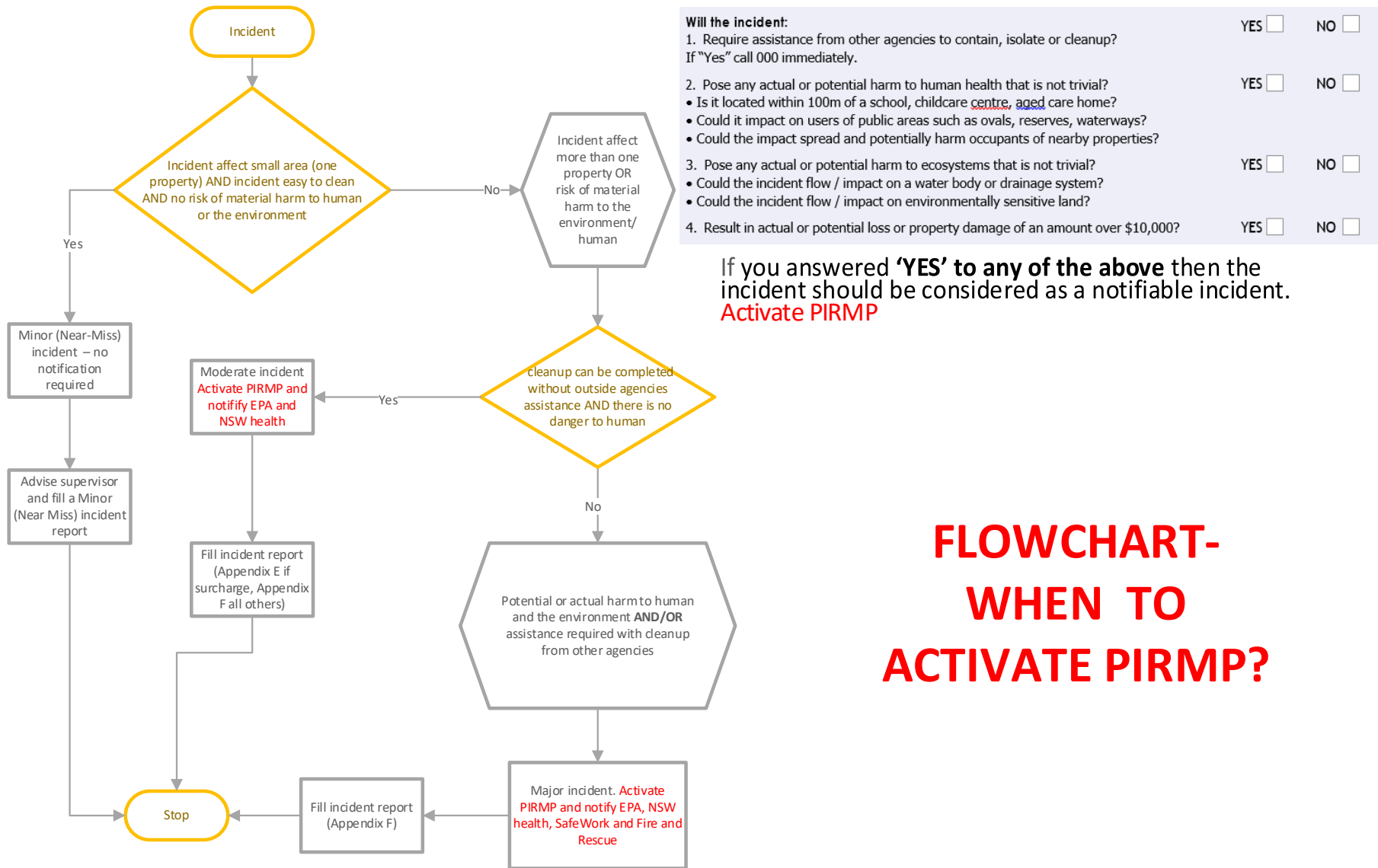


Figure 1: Incident classification flowchart

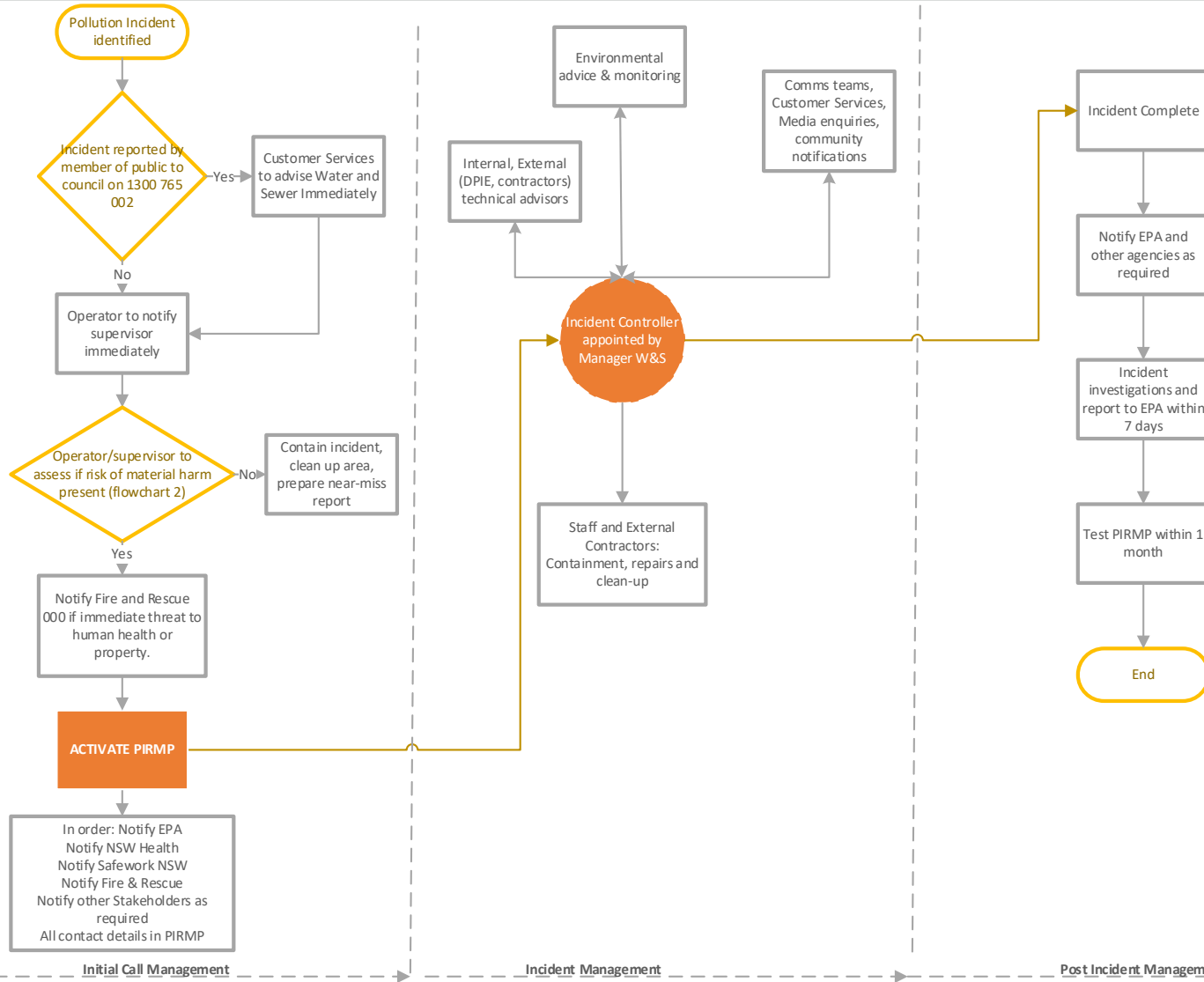
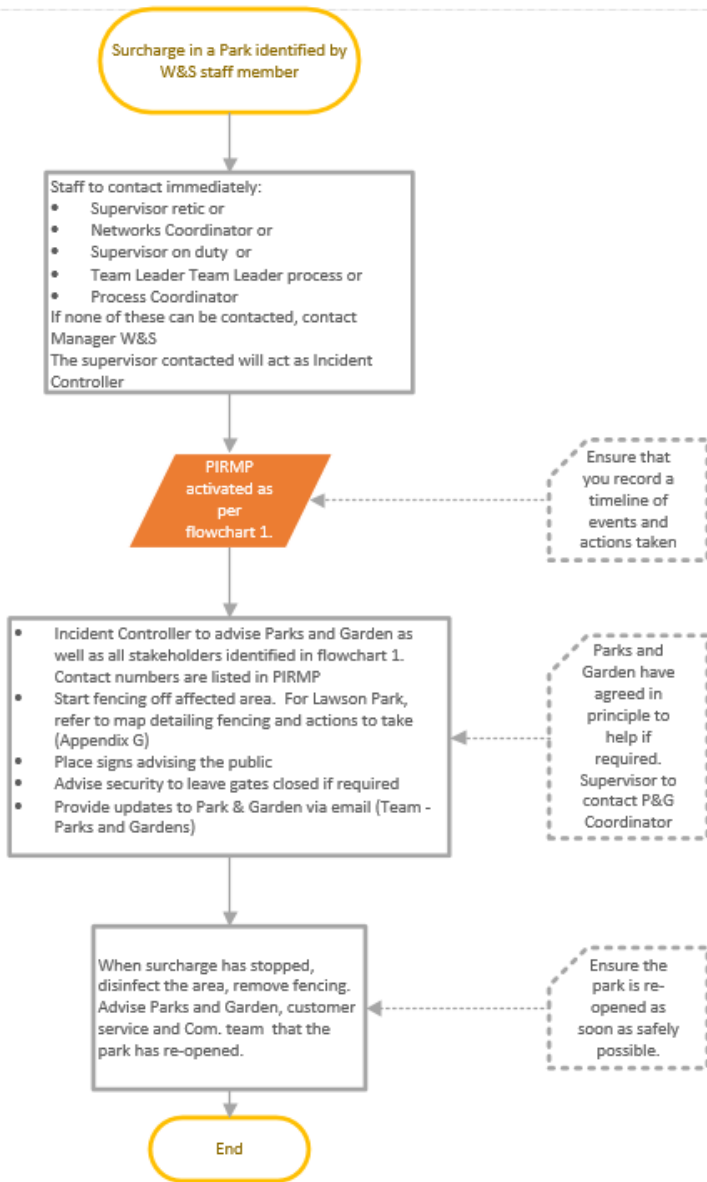


Figure 2: Pollution Incident Response Flowchart



3: Surcharge in a Park Flowchart

Initial Call Management

Pollution incident is identified either by the public or by Water and Sewer Operator.

If there is immediate threat to human health or properties, call triple zero (000 or 112 if using a mobile phone) and follow emergency evacuation protocol as required.

Operator to advise supervisor immediately and **start isolating the site** to prevent un-authorized entry. If possible, contain the incident and prevent it from spreading without endangering staff and/or public. Remain upwind if incident involves smoke or fumes.

Operator and Supervisor will assess if the incident poses a risk of material harm to the environment as defined in section 147 of the POEO Act. Flowchart 2 can help with the assessment.

Material Harm is defined as:

- (i) involving actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial, or*
 - (ii) resulting 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 the 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.*

If the incident is identified as **NOT** posing a risk of material harm, contain the incident, clean up the area and prepare a minor (Near Miss) incident report (Appendix D). In this instance, the PIRMP does not need to be activated.

If the incident is identified as **posing a risk** of material harm, Supervisor to advise Water and Sewer Process Coordinator and/or Manager Water and Sewer. The PIRMP must be **activated immediately**.

The following agencies **MUST** to be contacted as soon as possible:

- EPA on 131 555
- NSW Health Dubbo Office

In case of major incident (potential or actual harm to human and the environment AND/OR assistance is required with cleanup from other agencies), the following agencies **MUST ALSO** be contacted as soon as possible:

- SafeWork NSW 131 050
- Fire and Rescue Kandos 6379 4021

Further authorities may need to be contacted as required see page 4 (notification of authorities, continued)

Incident Management

Incident Controller will take charge of the incident (generally Coordinator/Supervisor/Team Leader first on site). This staff member will be in charge of managing all aspects of the response to the incident.

Incident controller, with the help of internal and external technical advisors (DPIE, external contractors), is to devise the course of action to be taken to contain, repair and clean up the affected area. Incident Controller will also allocate resources (staff, equipment etc) required to be able to deal with the incident in a timely manner.

Incident controller to contact Communication team and Customer Services to advise of incident and request assistance with communication to the community as required. Incident Controller to organise contacting Stakeholders listed in Appendix A as required. The Incident Controller will regularly review the need for communications updates.

In the event of a chemical or sewage spill, Mid-Western Regional Council staff will go to prominent and/or high use areas, erect signage and advise users. The signs are to warn users of the contamination and advise them to avoid using the area until contamination has cleared.

Incident Controller to organise sampling* as required and to advise MWRC Environmental Officer.

Incident Controller to remind all staff involved in the incident to keep a timeline and record all actions taken during the incident.

Post Incident

Incident Controller is satisfied that the incident is under control, repairs have been done and cleanup completed.

EPA and other agencies to be notified of incident completed as required.

Incident Controller to ensure that investigations into the incident, including root cause analysis, are done and report to EPA produced within 7 days. Appendix E can be used to report a sewage spill or overflow. Appendix F can be used as the basis for reporting any incident

PIRMP to be tested within 1 month of incident and amended as required

* Note: To facilitate sampling in case of an environmental incident, PIRMP sampling boxes have been made. The PIRMP boxes include 3 lots of bottles (upstream, at site and downstream), sampling SOP, Chain of Custody and some spare bottles. PIRMP Boxes are at Kandos STP and Mudgee Operations Depot. Sampling poles are also available at these locations.



Staff training

Training in relation to the PIRMP will have three forms:

- for new members of staff at the premises, the specific induction for the premises will include details of the PIRMP,
- refresher training undertaken as part of the annual testing of PIRMP, and
- as deemed necessary, particularly after an incident that required implementation of the PIRMP

PIRMP will be tested yearly as a training exercise. This training exercise will involve all Water and Sewer staff that could potentially be involved in an actual incident.

A realistic scenario will be presented to staff who will need to highlight all steps that will be taken to:

Activate the PIRMP

Contain the incident

Report the incident

Advise the community (if scenario requires)

Clean up and close the incident

Testing and updating of the PIRMP

PIRMP testing details

Date tested	Tested by (to include the names of all people involved in testing)	Details of test	Finding of test, including issues identified	Next scheduled testing date (must be within 12 months from current test)
15/09/2022	W & S Process Coordinator Water Quality Officer Operators W&S Manager Network Coordinator	Two scenarios were presented (one requiring PIRMP activation and one not requiring PIRMP activation) and discussed.	No issues reported	September 2023
26/10/2021	W & S Process Coordinator Water Quality Officer Operators	Two scenarios were presented (one requiring PIRMP activation and one not requiring PIRMP activation) and tested	All aware of changes in the PIRMP	October 2022



1/10/2020	W & S Process Coordinator Reticulation Team Leader Water Quality Officer Water and Sewer Networks Coordinator Operators	Scenario		October 2021
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PIRMP update details

Date update occurred	Reason for update (e.g. address issues identified in testing, contact details/personnel have changed)	Details of updates (nature of changes to PIRMP)	Date the updated version uploaded to website (if applicable)	Date of completion
May 2023	Contact amended, flowcharts amended	Contact amended, flowcharts amended	May 2023	May 2023
August 2022	Contact name and phone changed for P&G and communication team	Contact name and phone changed for P&G and communication team	Not applicable	August 2022
December 21	PIRMP review for MSTP	Contact details and Flowchart amended	December 21	
August 21	Yearly review	Flowcharts amended, chemical list amended, stakeholder list amended, maps amended. PIRMP document transferred into EPA template	27/10/2021	28/10/2021
July 2020	Yearly review		August 2020	



February 2019

Yearly Review

February 2019



Appendix B: MWRC Risk Matrix

	MID-WESTERN REGIONAL COUNCIL	REF: WHS302 REV: 1.0
	RISK MATRIX	

POTENTIAL CONSEQUENCE						LIKELIHOOD				
						A	B	C	D	E
No.	Key Word	Health & Safety	Environmental	Financial	Public Image	Rare <i>Requires unusual chain of events</i>	Unlikely <i>Not expected to occur</i>	Possible <i>May Occur</i>	Likely <i>Will occur occasionally</i>	Almost Certain <i>Expected to occur</i>
5	Catastrophic	Fatality or work related fatal disease	Detrimental impact to environment or community. High level prosecution.	Greater than \$500,000	International media coverage	Moderate 13	High 19	Critical 22	Critical 24	Critical 25
4	Severe	Serious Permanent injury or illness	Long term negative impact. Low level prosecution.	No more than \$500,000	National media coverage	Moderate 10	Moderate 12	High 18	Critical 21	Critical 23
3	Serious	Lost time injury or illness	Serious but reversible impact Media enquiry.	No more than \$100,000	State media coverage	Low 6	Moderate 9	Moderate 11	High 17	Critical 20
2	Significant	Medically treated injury or illness	On-site incident promptly contained requiring external clean up aid.	No more than \$25,000	Local media coverage.	Low 4	Low 5	Moderate 8	High 15	High 16
1	Minor	First Aid treated injury or illness	On-site incident immediately contained & cleaned up.	No more than \$5,000	Public complaint.	Low 1	Low 2	Low 3	Moderate 7	High 14

STATUS	ACTION REQUIRED	NOTIFY	MONITOR
Critical	Do not commence activity. Immediate senior management action required.	General Manager (Notified by Group Mgr)	N.A.
High	Immediate action required to reduce risk. Authorisation required before commencing activity.	Group Manager (Notified by Operational Mgr)	Weekly
Moderate	Risk reduction required to as low as reasonable practicable before commencing task	Operational Manager	Monthly
Low	Follow routine procedures and monitor risk.	Team Leader	Annually

Appendix C: Maps of STP

Kandos STP is located on the Bylong Valley Way, outside of Kandos township





Mid-Western Regional Council
 PO Box 108
 88 Marshall Street
 MILDURA VIC 3215
 Telephone 02 6378 2800
 Fax 02 6378 2805
 Email info@midwesternregionalcouncil.vic.gov.au

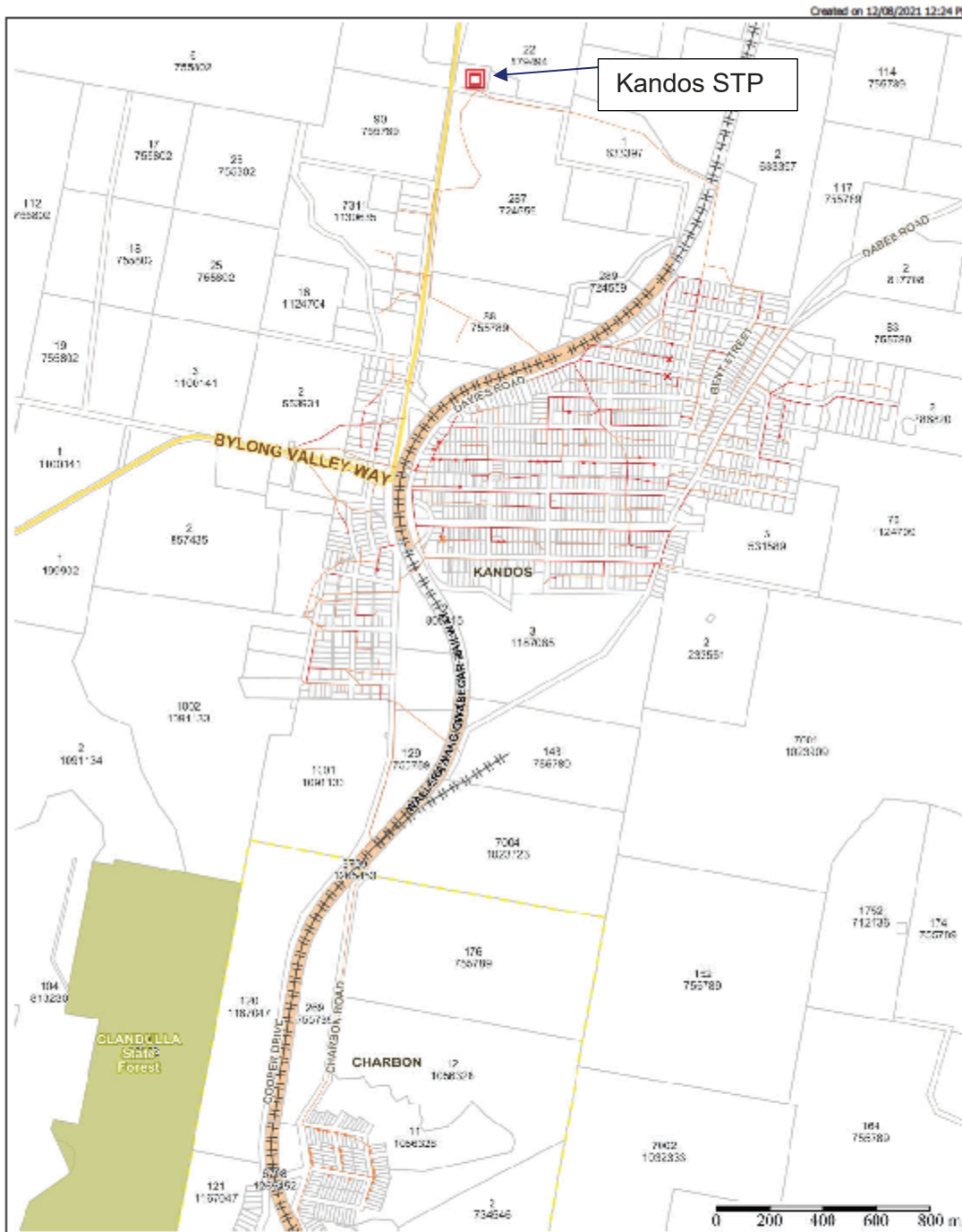
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Date: 12/08/2021 11:57 AM
 Map Scale: 1:3360 at A4



Kandos Sewerage System



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