



November 2023

PIRMP

**Pollution Incident Response Management
Plan**

Cowra Water Treatment Plant

EPL 1572

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Document History

Review History

Rev No	Author	Reviewer	Approved for Issue	
			Approver	Date
0	D. Scott	G. Metcalfe	G. Metcalfe	16/01/2013
1	D. Scott	G. Metcalfe	G. Metcalfe	27/03/2013
2	D. Scott	K. Keliher	P. Ford	06/11/2014
3	D.Scott	K.Keliher	P .Ford	22/07/2015
4	S.Hayes	K.Keliher	P.Ford	26/05/2016
5	S.Hayes	K.Keliher	P.Ford	19/05/2017
6	S.Hayes	K.Keliher	P.Ford	22/02/2018
7	S.Hayes	P . Gregg	P.Ford	15/01/2019
8	S.Hayes	P. Ford	P.Ford	2/10/2019
9	S.Hayes	P. Ford	P.Ford	9/9/2020
10	G.Williams	P. Ford	P.Ford	27/9/2020
11	L. Stanbridge	P. Ford	P.Ford	01/06/2023
12	G. Williams	P. Ford	J Chinomona	09/11/2023
		P Gregg		
12b	G. Williams	P Gregg	J Chinomona	23/11/2023

PIRMP Testing and Update Register

Date	Routine Testing	Routine Update	Copies Distributed
06/11/2014		Update 2014	Y
19/08/2015	Test - 2015		Y
26/05/2016		Update 2016	Y
20/2/2017	Test - 2017		
19/2/2018	Test - 2018		
20/2/2018		Update 2018	Y
13/12/2018	Test - 2018		
15/1/2019		Update 2018	Y
11/9/2019	Test - 2019	Update 2019	Y
9/9/2020	Test - 2020	Update 1 .10.2020	Y
27/9/2021	Test- 2021	Update 29/9/2021	Y
26/9/2022	Test-2022	Update 26/9/2022	Y
07/09/2023	Test Completed (CM9 Ref: 2023/26653)	07/09/2023	Y

1. Background

1.1 Water Operations

1.1.1 Cowra Water Treatment Plant (WTP)

Cowra's Water Treatment Plant (WTP) was constructed in the 1930s and has been upgraded in 1959, 1985, and 2016-2017. The plant operates on a conventional treatment process and has a theoretical capacity of 24ML per day (based on 22 hour day operation at 300L/s).

Backwash from the WTP is discharged to the Lachlan River subject to condition imposed under Environmental Protection Licence (EPL) 1572.

1.2 PIRMP Purpose

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

- EPL 1572 Cowra Water Treatment Plant

This EPL is issued under Section 55 of the *Protection of the Environment Operations Act 1997* (POEO Act) by the NSW Office of Environment and Heritage (OEH). 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 POEO 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 (7) 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 that holders of EPLs maintain a Pollution Incident Response Management Plan (PIRMP).

The PIRMP is held by the Infrastructure and Operations Directorate and is applicable to Council's operations at the Cowra WTP. Council maintains separate PIRMPs for landfill, water treatment and water operations.

1.3 Pollution Study and Reduction Program (PRP)

The EPA, in October 2023, issued a variation to EPL 1572. This variation included the addition of Pollution Studies and Reduction Programs (PRP's) requiring the licensee to assess the options available to cease discharge of waste water from the Water Treatment Plant (WTP) to the Lachlan River, and to identify and implement the most suitable option. The introduction of the PRP is reflected in the introduction of the following EPL conditions.

U1.1 Undertake an options study to assess options to cease the discharge of wastewater and report the findings to the EPA by Friday 21 April 2024.

U1.2 Submit a timeline for completion of works identified in Condition 1.1 ('U1.1').

U1.3 On commencement of works as identified by Condition 1.1, submit monthly progress reports.

U1.4 Provide the EPA with a completion report within 2 weeks of completion of works.

The supporting information outlined in these conditions is to be added to this PIRMP as appendices once available.

2. Pollution Incident Response Planning

2.1 Risk Assessment

The main hazards which were identified for the licensed facilities are detailed in Table 1 along with control measures to minimise the occurrence and consequences (people and environment) of the identified risks.

Table 1 – Hazards

Location	Hazard	Control Measure/s	Consequence	Likelihood of material harm	Escalating Factors
WTP	Chemical spill to land	Bunding/Spill Kits Training of WTP operators	Offsite soil contamination Potential exposure of community to water treatment chemicals	Moderate	Failure of bund

2.2 Potential Pollutants and Safety Equipment

Details of potential pollutants and safety equipment are provided in Table 2.

Table 2 - Inventory of Pollutants and Safety Equipment

Potential Pollutant	Location	Maximum Quantity	Safety Equipment & Devices	Alarms
Aluminium Hydrochloride (ACH)	WTP	50kL	Glasses, safety boots and high vis vests Goggles and gloves and Chem Suits. Respirators SCBA	SCADA
Caustic Soda (NaOH)		25kL		
Chlorine gas (Cl ₂)		11,200 kg		
Potassium Permanganate (KMnO ₄)		1t		
Sodium Silico Fluoride (Na ₂ SiF ₆)		1000 kg		
Sodium hypochlorite solution		50 kg		
Calcium hypochlorite tablets		1000 kg		

2.3 Maps

Pollution incident response maps have been prepared to facilitate planning for incident response and provide readily accessible and accurate information to support the assessment of an incident and assist in the implementation of incident response procedures and clean up.

The following maps are provided within the enclosed Appendices:

- Cowra Locality Map;
- Features Map (Cowra WTP)

2.4 Notifiable Incidents

2.4.1 POEO Act Definitions

The following definitions are provided in accordance with the POEO Act:

Pollution incident
(Dictionary)

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.

(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

Material Harm
(s. 147(1))

(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. Incident Response

3.1 Immediate Notification Incident

3.1.1 Incident Response and Notification

As per the definition of an immediate notification incident in Section 2.4.1 and resulting from the risk assessment in Table 1, Council have identified the following incident related to their water operations that requires immediate notification:

Council's procedures for responding to an immediate notification incident are outlined Image 1 and 2.

All internal and external contacts to be notified in the event of an incident are provided in Tables 3-4.

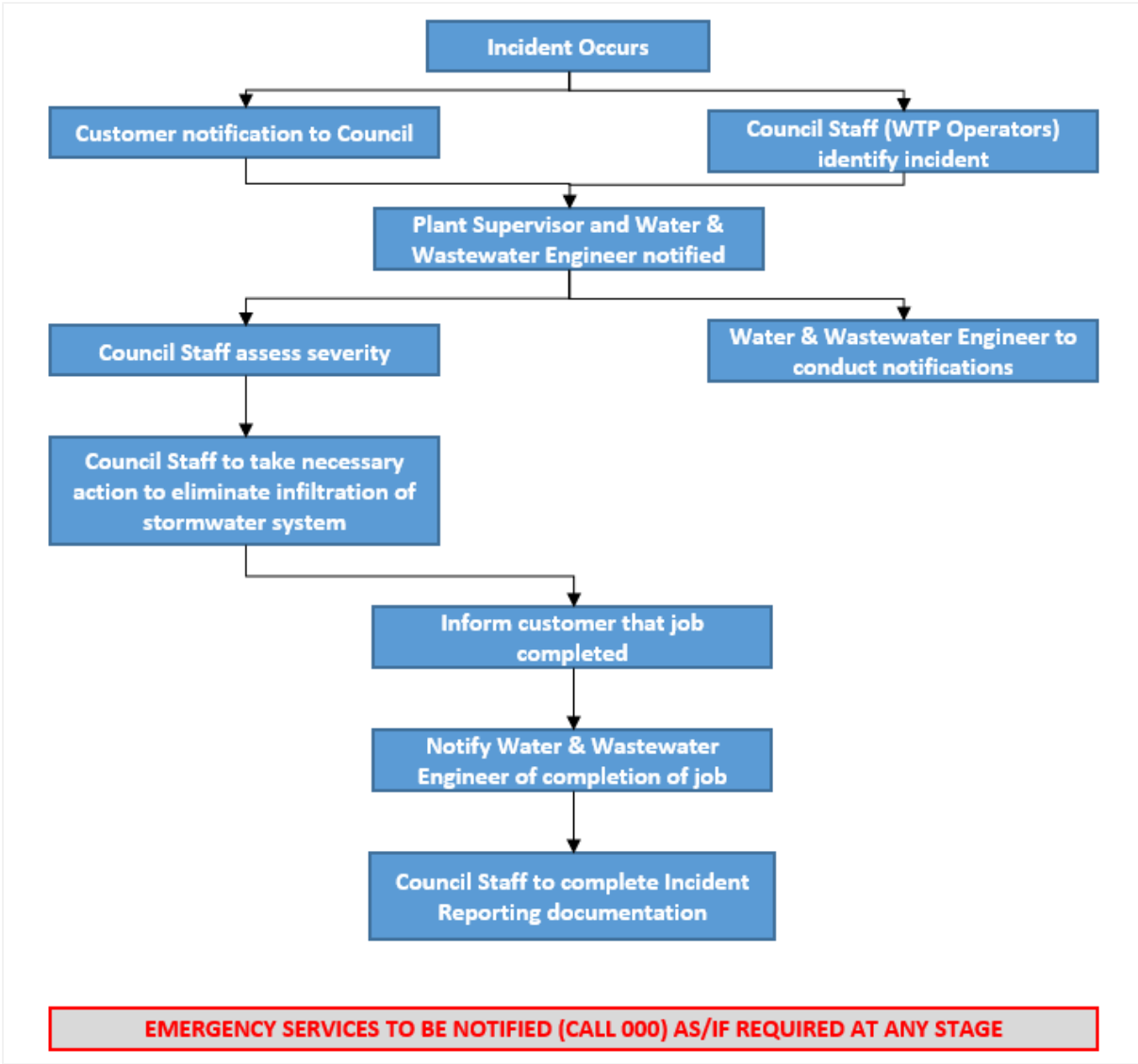


Image 1 - Incident Response Notification Process

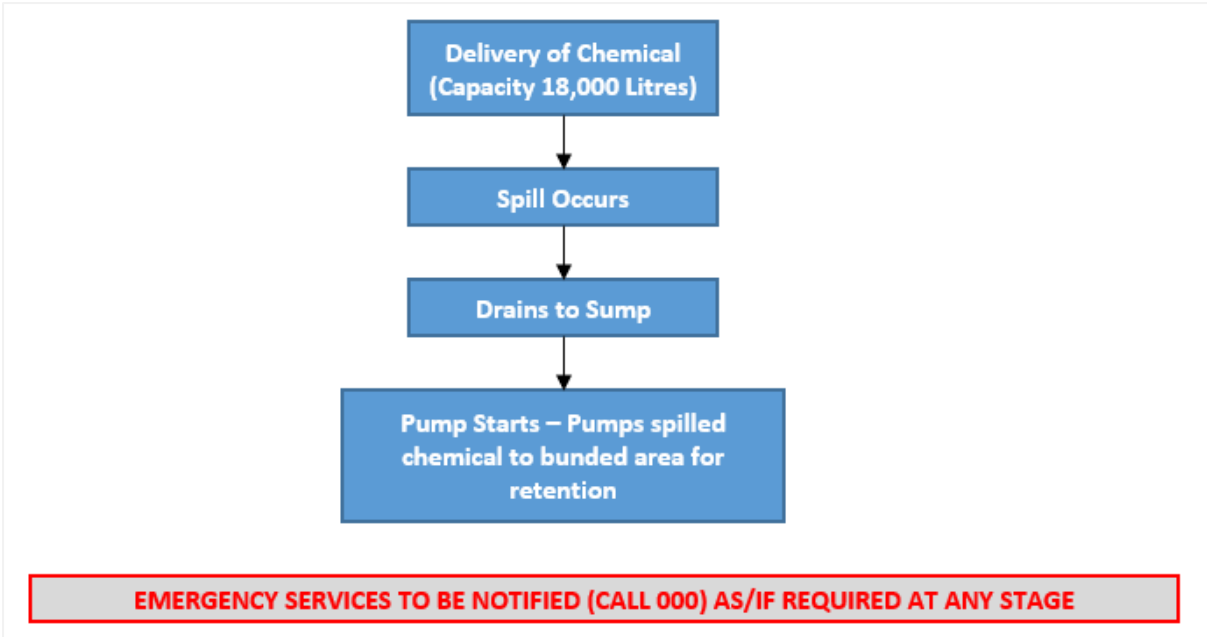


Image 2 - Incident (Spill) Responses Process

Table 3 - Incident Contact Details (Internal)

Name	Role	Contact Number
Peter Ford	Water & Wastewater Engineer	6340 2104 0428 863 084
Johnathan Chinomona	Manager- Cowra Works	6340 2080 0427 083 843
Paul Gregg	Plant Supervisor	6340 2160 0428 674 238
Dirk Wymer	Director Infrastructure and Operations	0418 457 401
Paul Devery	General Manager	6340 2013
Council Emergency contact number		6340 2000
After hours emergency contact		0419 219 231
Enquires and Complaints		6340 2000

Table 4 - Incident Contact Details (External)

Organisation	Contact Number
Emergency Services	000
EPA Bathurst Regional Office	131 555 6333 3800
NSW Ministry of Health On Call Public Health Officer Bathurst Regional Office	0428 400 526 63305880
Safe Work	13 10 50
Fire & Rescue NSW Cowra Rural Fire Service	1300 729 579 6363 6666

3.1.2 Responsibilities

In the event of an immediate notification incident responsibilities for incident management are as follows:

- On-Call WTP Officer is responsible for actioning response to the incident.
- Water & Wastewater Engineer is responsible for notifying external authorities, potentially affected community and ensuring adequate resources are available for incident response.
- General Manager is responsible for liaising with the media.

The Water & Wastewater Engineer shall determine the most appropriate means of contacting potentially affected community including:

- Door knocking
- Letterbox drops
- Phone
- Local media
- Signage

Information provided to the community would depend on the incident but could include:

- Description of the incident
- Status of incident
- Response actions
- Actions to minimise harm
- Likely duration.

As per the EPLs, the licensee must provide written details of the notification to the EPA within seven (7) days of the date on which the incident occurred.

3.1.3 Notification of External Authorities

EPL 1572 requires details of water incidents be recorded. Where water or partially treated water is discharged from the premises as a result of a bypass of the water treatment plant, or an observed or reported overflow has occurred from the reticulation system, and overflow or a bypass may pose a risk to public health, the licensee is to promptly give appropriate notification to any parties that are likely to be affected, including:

- the potentially affected community;
- the NSW Health; and
- other parties as appropriate.

When the licensee notifies the NSW Health of a bypass or overflow incident, the licensee must also notify the EPA. Notifications are to be given as soon as practicable after the licensee or one of the licensee's employees or agents becomes aware of the incident, and must include all relevant information including the information required under the EPL.

4. Training and Review

4.1 Training

Personnel involved in sewer operations undertake a range of training to assist in the response to potential incidents and to test the adequacy of incident response procedures and plans.

Details of the PIRMP training and testing requirements is outlined in Table 5.

Table 5 - PIRMP Training

Type of Training	Personnel Involved	Frequency	Records
NSW Office of Water Part 1 – Chemical Dosing Systems	WTP Operators	Once	Human Resources
NSW Office of Water Part 2 – Water Treatment Operations	WTP Operators	Once	Human Resources
Water Quality Analysis	WTP and STP Operators	On-the-job DPI training	Human Resources
Confined Space	WTP, STP and Reticulation Operators	As required by training provider	Human Resources
Toolbox Meetings	Site staff	Weekly	Minutes
Site Induction	New staff	Once	Records
Emergency Simulation	All Water/ Sewer staff	Annual	Minutes
Incident Debrief	Personnel involved in incident Independent chair	Within one month of an incident	Minutes

4.2 PIRMP Review

The PIRMP will be reviewed when there is a material change to operations including but not limited to:

- Modification of EPL 1572;
- Changes in standard operating procedures referred to in this PIRMP;
- Change in legislative requirements; and
- Recommendations arising from an incident debrief, emergency drill or emergency simulation exercise.

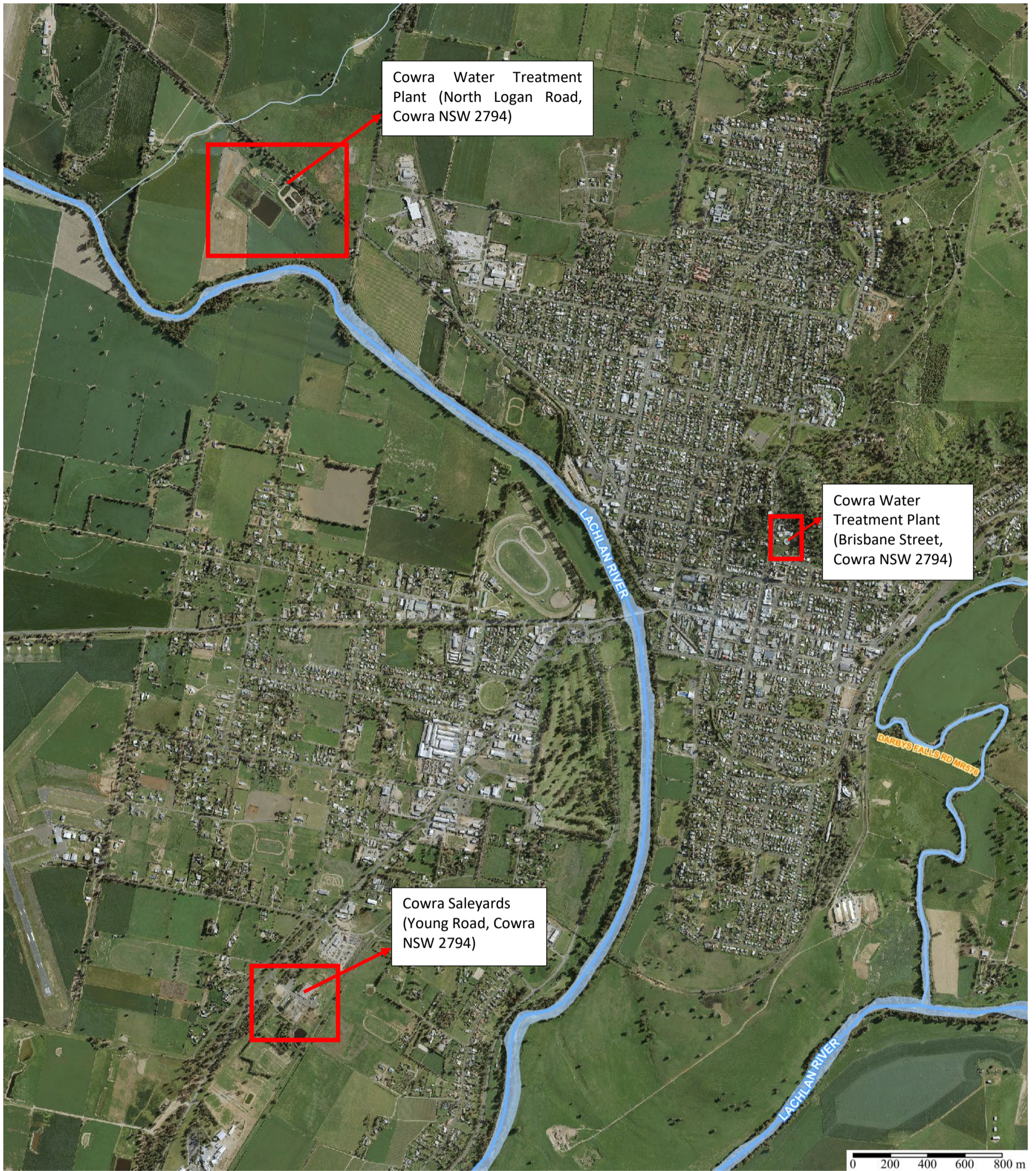
The Manager Cowra Works is responsible for the review of the PIRMP.

An update of the PIRMP would trigger all staff to undergo refresher training as part of the relevant weekly toolbox meeting as per Table 5.

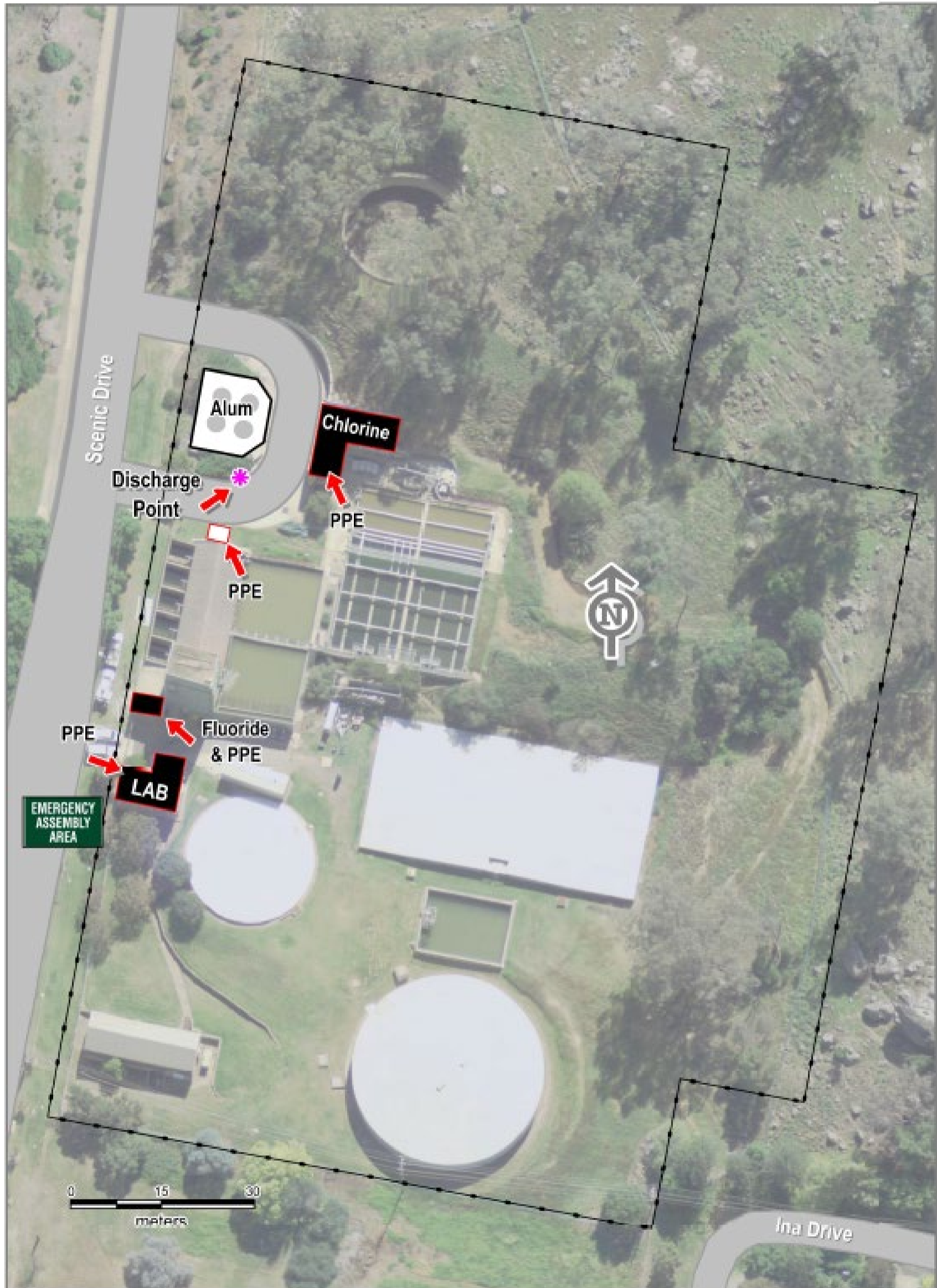
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Appendix A (Map Overview of Sites – Cowra Layout)



Appendix B – Cowra WTP Site Overview



Appendix C – PIRMP/Pollution Incident Report Form



Pollution Incident Management Plan

Water Treatment Plant

PIRMP / POLLUTION INCIDENT REPORTING FORM

INCIDENT NO: _____

DATE: _____

TIME: _____

DURATION OF INCIDENT: _____

NATURE OF INCIDENT: _____

TEMPERATURE: _____

WIND DIRECTION & SPEED: _____

RELATIVE HUMIDITY: _____

RAINFALL SINCE 9AM: _____

FIRE DANGER RATING: _____

THE LOCATION OF THE PLACE WHERE 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 CORRECTIVE ACTION TAKEN OR PROPOSED TO BE TAKEN TO DEAL WITH THE INCIDENT AND ANY RESULTING POLLUTION OR THREATENED POLLUTION (IF KNOWN):

HAS COUNCIL BEEN NOTIFIED? YES / NO

HAS ENVIRONMENT PROTECTION AUTHORITY (EPA) BEEN NOTIFIED? YES / NO

HAS NSW MINISTRY OF HEALTH (VIA PUBLIC HEALTH UNITS) BEEN NOTIFIED? YES / NO

HAS WORKCOVER NSW BEEN NOTIFIED? YES / NO

HAS LOCAL FIRE AND RESCUE NSW BEEN NOTIFIED? YES / NO

HAS EPA DIRECTED COUNCIL TO NOTIFY NEIGHBOURS? YES / NO

IF NOT, HAS COUNCIL VOLUNTARILY NOTIFIED NEIGHBOURS? YES / NO

Name: _____ Position: _____

Signature: _____ Date: _____

Name: _____ Position: _____

Signature: _____ Date: _____

Appendix D – Memorandum to Staff (Update of PIRMP)



Cowra Shire Council
Private Bag 342
Cowra NSW 2794

Phone: 02 6340 2000
Fax: 02 6340 2011
council@cowra.nsw.gov.au
www.cowraregion.com.au

Memorandum

From: Manager – Cowra Works

Department: Operations and
Infrastructure

Date: 23/11/2023

Re: Summary of changes made to PIRMP – Cowra Water Treatment Plant

<input type="checkbox"/> Urgent	<input type="checkbox"/> For Review	<input type="checkbox"/> Please Comment	<input checked="" type="checkbox"/> For Information	<input type="checkbox"/> Please Recycle
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With regards to the changes made to this PIRMP document to meet the EPA compliance requirements for EPL 1572 changes are as follows:

- Inclusion of Section 1.3 being addition of PRP condition on EPL 1572 (5 October 2023);
- General administrative changes/updates to the PIRMP;
- Update of Section 2.2 (Table 2) – Inventory of Pollutants and Safety Equipment.

Jonathan Chinomona
(Manager – Cowra Works)

Prepared by: Grace Williams (Project Manager - Cowra Works)

Appendix E - EPL 1572 – Cowra WTP Inspection Points



