

**Forbes Water
Treatment Plant:
PIRMP– November
2021**

FORBES WATER FILTRATION PLANT - POLLUTION INCIDENT RESPONSE MANAGEMENT PLAN

LICENCE NUMBER: 435

Approved by: Melanie Slimming

Position/Title: Manager Water

Signature:

Date: 23/11/2021

PURPOSE:

Forbes Shire Council holds an Environment Protection Licence with the NSW Environment Protection Authority (EPA) for the Forbes Water Filtration Plant. As per the *Protection of the Environment Operations Act 1997* (the POEO Act), the holder of an Environment Protection Licence must prepare, keep, test and implement a pollution incident response management plan (PIRMP) that complies with Part 5.7A of the POEO Act in relation to the activity to which the licence relates.

If a pollution incident occurs in the course of an activity so that material harm to the environment (within the meaning of section 147 of the POEO Act) is caused or threatened, the person carrying out the activity must **immediately** implement this plan in relation to the activity required by Part 5.7A of the POEO Act.

A copy of this plan must be kept at the licensed premises, or where the activity takes place in the case of mobile plant licences and 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 must also be available either on a publicly accessible website, or if there is no such website, by providing a copy of the plan to any person who makes a written request. The sections of the plan that are required to be publicly available are set out in clause 98D of the *Protection of the Environment Operations (General) Regulation 2009*.

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

Licensees should also refer to the EPA's *Guideline: Pollution incident response management plans*.

Environment Protection Licence (EPL) Details

Name of licensee: (including ABN)	Forbes Shire Council
EPL number:	435
Premises name and address:	Forbes Water Filtration Plant, 126-132 Flint St FORBES NSW 2871
Company or business contact details	Name: Melanie Slimming Position or title: Manager Water, Forbes Shire Council Business hours contact number/s: 02 6850 2300 After hours contact number/s: 0419 486 933 Email: mail@forbes.nsw.gov.au
Website address:	https://www.forbes.nsw.gov.au/
Scheduled activity/activities on EPL:	N/A
Fee-based activity/activities on EPL:	Miscellaneous licensed discharge to waters (at any time)

Pollution incident – person/s responsible

Contact details must include the names, position titles and 24-hour contact details. Details are to include alternative person/s, should the primary contact be unavailable.

PIRMP activation	Name of person responsible: Melanie Slimming Position or title: Manager Water, FSC Business hours contact number/s: 02 6850 2300 After hours contact number/s: 0408 349 301 Email: melanie.slimming@forbes.nsw.gov.au
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Pollution incident – person/s responsible, continued

Notifying relevant authorities

Notification should be made by a person with an appropriate level of authority within the company.

Name of person responsible: Melanie Slimming
Position or title: Manager Water, FSC
Business hours contact number/s: 02 6850 2300
After hours contact number/s: 0408 349 301
Email: melanie.slimming@forbes.nsw.gov.au

Managing response to pollution incident

Name of person responsible: Melanie Slimming
Position or title: Manager Water, FSC
Business hours contact number/s: 02 6850 2300
After hours contact number/s: 0408 349 301
Email: melanie.slimming@forbes.nsw.gov.au

Notification of relevant authorities

Identify any persons or authorities required 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.

Relevant authorities include:

1. Fire & Rescue NSW and/or Rural Fire Service as applicable – 000 (first notification)
2. EPA – 131 555
3. NSW Health (nearest public health unit)

See www.health.nsw.gov.au/Infectious/Pages/phus.aspx for local contact details.

4. SafeWork NSW – 131 050
5. Local authority (usually the local council) in which the pollution has occurred.

Note: The local council and public health unit will vary depending on the location of the pollution incident. For mobile plant licences the PIRMP will need to include the person or people who are responsible for identifying the local authority and nearest public health unit.

Fire & Rescue NSW / Rural Fire Service	Contact number/s:	02 6851 1843 026851 1541
EPA (Bathurst Office)/ Emergency Hotline No (24 hrs)	Contact number/s:	02 6333 3800 131 555
NSW Health – Bathurst Regional Office Public health office on call (24 hrs)	Relevant Area Health Service: Contact number/s:	02 6330 5880 0428 400 526
SafeWork NSW	Contact number/s:	13 10 50

Notification of relevant authorities, continued

Forbes Shire Council After Hrs Emergency No.

Contact number/s:

1300 978 633

Notification of neighbours and the local community

Identify owners or occupiers of premises in the vicinity of the licensed premises, including any sensitive premises (e.g. schools, preschools, hospitals, nursing homes):

There are five properties adjacent to the Water Filtration plant,

Lot 6 DP 577849 – adjacent to the north of WTP – owner Bruce Howard – 124 Flint st – 6851 4414

Lot 2 DP 563669 – adjacent to the north of WTP

Lot 3 DP 563669 – adjacent to the north of WTP – owner – Roy Hill – 81 Bathurst st – 6852 4001

Lot 4 DP 563669 – adjacent to the north of WTP

Lot 1 DP 244905 – adjacent to the south – owner – Robert Maher – 134 Flint st – 0414 426 088

Details of how the neighbours will be informed of the incident, including early warnings and regular updates (e.g. door knock, phone call, emergency alert):

Neighbours will be phoned where possible or staff will visit premises if they cannot be reached by phone.

Description and likelihood of hazards

Provide a description of the hazards to human health or the environment associated with the activity to which the licence relates:

The primary potential hazards to human health or the environment associated with the activity undertaken at this site –i.e. 'Pollution Incidents'- include the following;

- Waterway and land contamination from the following chemical spills;
 - Dense Soda Ash
 - Liquefied Chlorine (gas)
 - Calcium Hypochlorite (powdered)
 - Sodium Fluorosilicate
 - Poly- Aluminium Chloride
 - Powered Activated Carbon
 - Potassium Permanganate
 - Polymer Emulsion
 - Hydrochloric acid (20L drums)
- Noises which are generated by operational processes

Identify the likelihood of any such hazards occurring, including details of any conditions or events that could, or would, increase that likelihood:

Pollution Incident	Contribution Factors	Impact	Risk Rating (LxC=)	Controls
Chemical Spill – Dense Soda Ash	Lack of maintenance	Land contamination, possibly enter a waterway.	B2=L	Proper site maintenance. Chlorine alarms, suction dosing system so if there is a leak in pipework it shuts off chlorine. Drums inspected and tested by supplier. All Chemicals at the Water Filtration Plant are detailed in the Emergency Information Folder located at the main entrance to the premises. This folder contains the information about all the locations of chemicals, a chemical risk assessment and MSDS sheets as required by Dangerous Goods Legislation and Work Cover Regulations.
Chemical Spill – Liquefied Chlorine (Gas)	Lack of maintenance or mechanical failure	Land contamination, possibly enter a waterway.	B2=L	
Chemical Spill –Calcium Hypochlorite	Lack of maintenance	Land contamination, possibly enter a waterway.	B2=L	
Chemical Spill – Sodium Fluorosilicate	Lack of maintenance	Land contamination, possibly enter a waterway.	B2=L	
Chemical Spill – Poly-Aluminium Chloride	Lack of maintenance	Land contamination, possibly enter a waterway.	B2=L	
Chemical Spill – Powered Activated Carbon	Lack of maintenance	Land contamination, possibly enter a waterway.	B1=L	
Chemical Spill – Potassium Permanganate	Lack of maintenance	Land contamination, possibly enter a waterway.	B1=L	
Noises which are generated by operational processes	Lack of maintenance	Effect the people on site and the surrounding neighbourhood, Air pollution.	B2=L	On site regular maintenance with Pumps /Devices.
Pump out of clear water well	removal of poor water quality	Dirty water discharged to river	A3= M	Only in emergency situations
Overflow of sludge receival pit to river	mechanical failure	Dirty water discharged to river		Alarms and back up pump

Pre-emptive actions to be taken

Provide detailed descriptions of the pre-emptive actions to be taken to minimise or prevent any risk of harm to human health or the environment arising from the activities undertaken at the premises

Pre-emptive actions to be taken to minimise the risks of the hazards include:

- Proper site maintenance
- On site regular maintenance with Pumps/ Devices
- Provide PPE to worker at the site including, steel capped boots, gum boots, rubber gloves, hearing protection, safety glasses, masks, broad brimmed hats, sun screen.
- Ensure all workers are inducted and are aware of the operational procedures.
- Having an SDS folder containing relevant details for all chemicals on site.

Inventory of pollutants

Chemical/ Pollutant	Average Quantity	Location
Dense Soda Ash	30 000 kg Bulk	WFP – Shed next to Workshop
Liquefied Chlorine (Gas)	3x920 kg Drums	WFP – Chlorine storage Shed
Hydrated Calcium Hypochlorite	2x20 kg Buckets	WFP – Chemical cabinet
Sodium Fluorosilicate	2000 kg Bagged	WFP – Fluoride Room
Poly Aluminium Chloride	44 000 L Bulk Liquid	WFP – 2 Tanks between clearwater tank and Soda Ash
Powered Activated Carbon	3 500 kg Bagged	WFP – Workshop
Potassium Permanganate	20 x 25kg Buckets	WFP – A and B Plant inlets
Polymer	20 x 25 kg Bags	WFP - Workshop

Safety equipment

- Describe the safety equipment or other devices used to minimise the risks to human health or the environment and to contain or control a pollution incident:
The Filtration Plant mainly protected from fire using fire hose reels and fire extinguishers. Further, Personal Protective Equipment (PPE) is provided for onsite staff, which consists of;
 - Self-Contained Breathing apparatus
 - Chlorine leak detection equipment
 - Ear/hearing protection

- Sun screen
- Rubber Gloves
- Safety Glasses
- Gumboots
- Steel capped boots
- Clothing
- Broad Brimmed Hats.

Communicating with neighbours and the local community

Identify details of the mechanisms for providing early warnings and regular updates to owners and occupiers of premises in the vicinity of the WFP to which the licence relates or where the scheduled activity is carried out:

If there were any events that would potentially harm neighbouring residents or others in the community, Council would provide appropriate early warnings updates, by the most effective means. For people potentially directly impacted we would personally speak with them and advise of the issue and potential risks and measures they should take to stay safe. We would also provide updates on measures we are taking to address the issue. Where the matter can impact the wider community Council would place notices on our social media platforms and potentially on local news and media outlets such as the local radio stations and the newspaper.

Develop any specific information that could be provided to the community, so it can minimise the risk of harm:

Avoid the use of river water or groundwater likely to be affected by a pollutant discharge.

Minimising harm to persons on the premises

Identify the arrangements for minimising the risk of harm to any persons who are on the premises or who are present where the scheduled activity is being carried out:

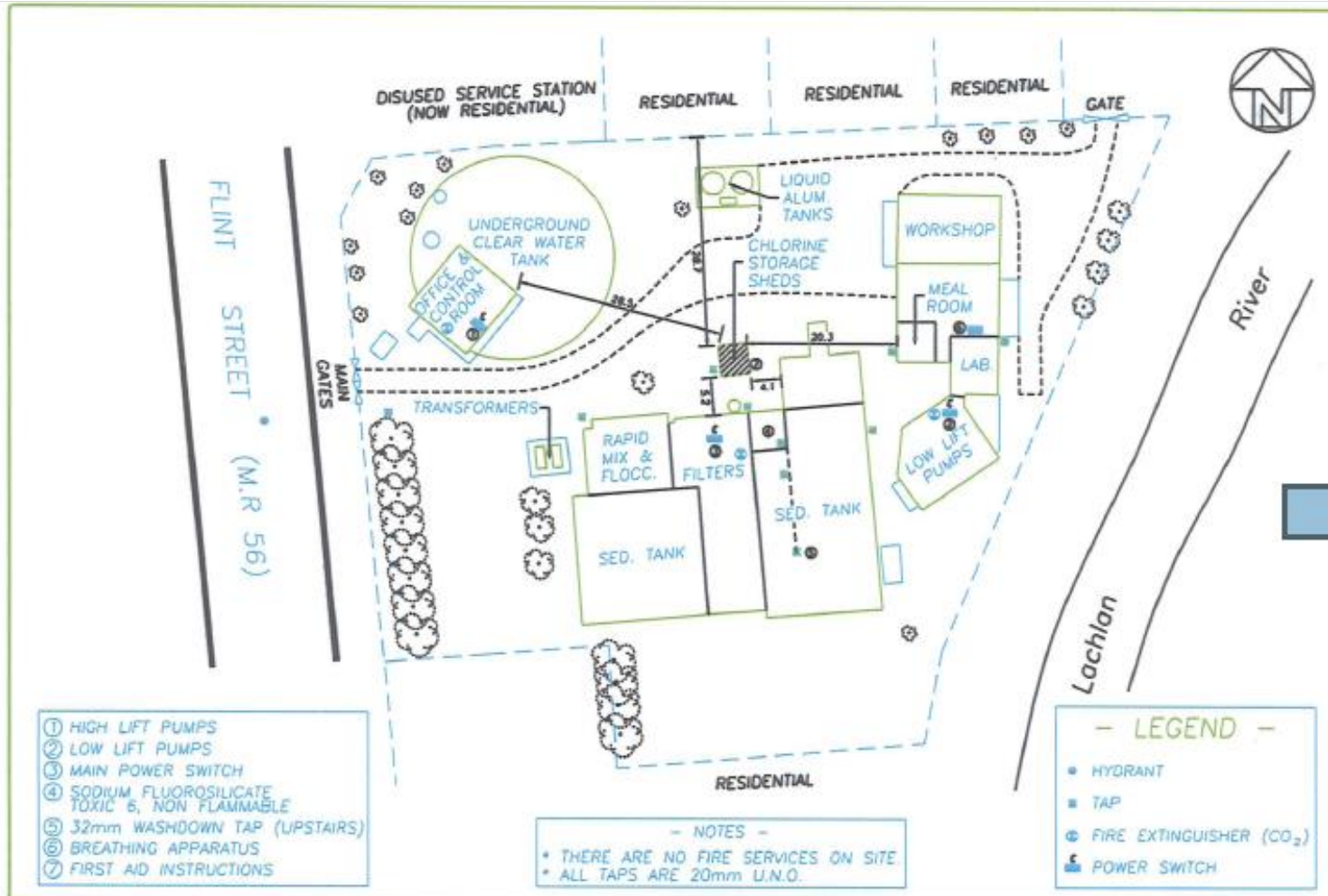
Staff on site have been inducted, and are competent at identifying potential pollution incidents. Council has developed Safe work method statements to carry out the tasks and have the necessary safety equipment required. Water plant Staff have been trained in Chlorine handling procedures and how to safely handle Fluoride. We also have Material safety data sheets available for all chemicals on site which explains procedures in the event of a spill.

Maps

Site Locality



Site Layout



FORBES SHIRE COUNCIL

PLAN OF WATER FILTRATION PLANT

FILE No.	SHEET	PLAN No.
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DATUM		
AZIMUTH ASSUMED		
CMLCAD REF: -		
AUTOCAD REF: C:\ACLTOWGS\WTP-DGL		

Actions to be taken during or immediately after a pollution incident

Develop a detailed description of the actions to be taken immediately after a pollution incident to reduce or control any pollution. These should include as a minimum, early warnings, updates and actions to be taken during and after an incident

In the event of a pollution, all site personnel with relevant training must make every effort to contain the pollution incident on site without putting themselves at risk of harm. In the event of a pollution incident occurring, all members of the public and other contractor's staff will be mustered to the Emergency Assembly point, after which they will be safely evacuated from site where appropriate. It is a condition of entry that in the event of an emergency, both the public and staff must adhere to directions given by Water Filtration Plant operators or an onsite Supervisor.

Develop a detailed description of how any identified risk of harm to human health will be reduced, including (as a minimum) by means of early warnings, updates and the action to be taken during or immediately after a pollution incident to reduce that risk:

The main pollution incident that could impact on human health is a chlorine spill/leak. Council has leak detection equipment and a siren and flashing light to provide warning of a major chlorine leak. In the event of a major leak staff would evacuate the site and call emergency services, and provide warnings to neighbouring properties. Chlorine gas is a heavier gas and would tend to collect at low points, so care would need to be taken to ensure any low lying areas are clear before work resumes. Fluoride is also the other chemical that has a risk to harm human health. If there was a spill associated with fluoride, we would try to collect and seal it and arrange for it to be buried at the landfill with any remaining material diluted and washed into the sewer or stormwater. Note full PPE (including gloves, long sleeve shirts and pants, boots, mask and goggles) should be worn when working with Fluoride.

Identify any actions to be taken in combating the pollution caused by the incident and how any clean-up and associated funding resulting from an incident will be undertaken:

Powdered chemicals would be picked up and placed in sealed plastic bags and then taken and buried at the landfill site. Liquid chemicals would be sucked up by a vacuum truck and discharged at the STP plant. The main chemical Poly aluminium chlorine could be dosed into the sewer effluent and potentially reduce the alum dosage requirement over a short period. Chlorine gas would dissipate into the environment and so may not need any physical cleanup. Staff should check for the presence of chlorine in low pits to ensure there is no gas remaining in those areas. Staff should ensure they have the appropriate PPE including breathing apparatus when doing this work.

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Coordinating with persons

Identify the procedures to be followed for coordinating with the authorities or persons who have been notified:

Water Manager or acting representative, is to advise EPA of incident and keep them informed of progress. Any affected residents are to be notified and warned of hazards and measures to prevent risk to health. Residents are to be kept informed of progress when work is completed. Report to EPA on completion of the incident.

Identify the person/s through whom all communications are to be made:

Water Manager or acting representative is to notify EPA and any other relevant authorities. Staff on the ground to notify directly impacted residents.

Staff training

Identify the nature and objectives of any staff training program in relation to this plan:

To ensure employees are aware of Pollution incident response protocols and that all the details are up to date. Also to demonstrate how it would be put into action via a simulated pollution incident exercise.

Testing and updating of the PIRMP

It is a legal requirement to test the plan every 12 months and within one month of any pollution incident.

Example: PIRMP testing details

Date tested	Tested by	Details of test	Finding of test, including issues identified	Next scheduled testing date
	David Tinlin Manager Water Andrew Quirk, Acting Water Supervisor Aaron Parry Water Plant Operator	Ran through PIRMP and actions in the event of a Chlorine Gas Leak	Good check of plan	1/9/2021
1/11/21	Melanie Slimming Manager Water Andrew Quirk, Water Projects Aaron Parry Water Plant Operator Grahame Ruge – Acting WTP operator Daniel Bayley – Water Supervisor	Reviewed new induction process against identified environmental hazards, including a chlorine leak	Finding of test, including issues identified No issues, but prompted further discussion around attending a chlorine leak	Next scheduled testing date November 2022

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
29/11/2020	New PIRMP format released from EPA changed to new format	Updated contacts and maps	2/12/2021	30/11/2020
23/11/2021	Updated contact details and minor modifications to content			30/11/2021