POLLUTION INCIDENT RESPONSE MANAGEMENT PLAN

19 September 2024

FOR

OAKEY PARK WATER TREATMENT PLANT

ENVIRONMENT PROTECTION LICENCE 2396

Please check if this is the latest version of PIRMP from Council's website(https://council.lithgow.com/environment/epa-monitoring/).

Contents

Figures

Tables

Version Control

Version No.	Date	Changes made by	Notes
1.0 to 4.0	Various	Lithgow City Council	Previous versions of PIRMP held in Council records.
2020-1.0 (Draft 1)	12 September August 2020	JS Regulatory Services	Major restructuring of PIRMP document and development of response procedures for identified high risks and preliminary testing
2020-1.0	16 November 2020	JS Regulatory Services	Issued document.
2024- 1.0	19 September 2024	Lithgow City Council	Previous version, Updated according to the EPA requirements.

1. Purpose

This Pollution Incident Response Management Plan (PIRMP) is a legislative requirement as set out in Part 5.7A of the *Protection of the Environment Operations Act 1997* (POEO Act) and the clause 98C of the *Protection of the Environment Operations (General) Regulation 2009* (General Regulation). The purpose of the PIRMP is to

- minimise the risk of a pollution incident occurring,
- establish clear and effective notification, action and communication procedures to ensure the right people are notified, warned and quickly provided with updates and information they may need to act appropriately, including people who may need to be involved in incident responses
- have properly trained staff and up-to-date incident management information available to ensure the potential impact of a pollution incident is minimised. All new licensees must prepare a PIRMP prior to commencing operations

This PIRMP:

- applies to the Oakey Park Water Treatment Plant (the premises),
- is a functional document that will be updated from time to time,
- will be tested at least once every 12 months (and within one month of a pollution incident),
- has been prepared to comply with the requirements of the POEO Act and the General Regulation, and
- has been structured to maximise the assistance to Council personnel to quickly identify, assess, respond, and report incidents that do (or may) result in pollution.

2. Distribution

The distribution of this document is controlled to ensure that the correct and most current version is being used to respond to pollution incidents. The current version will always be the electronic version held on Lithgow City Council servers. Details of the version and date of issue are recorded on the footer of each page of the PIRMP and in the version control table in the Contents section.

Printed versions may also be used at the premises and by staff with responsibilities in responding to incidents. It is critical to note that all paper copies of this PIRMP are uncontrolled and that it is the responsibility of users of paper copies of this PIRMP to ensure that it is the current version.

When a new version of this PIRMP is created, the old version will be replaced in its entirety. Notification of the revision of the PIRMP will be distributed to the following:

- Director Water and Wastewater, Lithgow City Council,
- Senior Engineer (Operations),
- Supervisor Plants and Pump Stations,
- Supervisor Reticulation; and,
- Council's Electronic Records Management System, Lithgow City Council.

These people will be responsible for informing staff under their supervision that there is a revised version of the PIRMP and to destroy any paper and digital copies of the previous version.

A copy of this PIRMP (electronic or paper) must be kept at the premises and be made available on request by an authorised EPA officer and to any person who is responsible for implementing this plan.

IMPORTANT!

Trigger for implementation of PIRMP

This plan is to be implemented when there is (or likely to be) a leak, spill or other escape of a substance that has, will or likely to result in pollution[1] that causes (or is likely to cause):

- harm to the health or safety of human beings or to ecosystems that is significant, **or**
- actual or potential loss or property damage (including the costs to stop, contain and clean-up any pollution) exceeds $10,000.[2]

It does not matter that the harm (or risk of harm) exists only within the site of the water treatment plant.

Examples of when the plan must be implemented:

- When a leak or spill of chemical occurs that has, or is likely to reach, a gutter, drain or waterway, or
- When members of the public have been or are likely to be exposed to a leak or spill of chemical, or
- When two (2) or more NSW Fire and Rescue trucks respond to an incident, or
- When an incident will require the removal of spilled sludge or chemicals for disposal at another site.

If there is any doubt over whether this plan should be implemented, ***implement the plan***.

[1] From the Dictionary of the *Protection of the Environment Operations Act 1997*, a ***pollution incident*** 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.

[2] From section 147 of the Protection of the Environment Operations Act 1997 ***material harm to the environment***:

(i) involves actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial, or

(ii) 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), including 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.

It does not matter that harm to the environment is caused only in the premises where the pollution incident occurs.

3. Incident Response Procedures

1. High Risk Chemical Response
2. Other Chemical Spill Response
3. Miscellaneous Notifiable Incident Response

High Risk Chemical Spill Response

Stop

- Stay calm. Assess risk to your personal safety.
- **ONLY IF SAFE TO DO SO**, stop, or at least slow, the source of the spill.

Isolate & Assess

- Remove people from possible harm. Prevent access to the area.
- **ONLY IF SAFE TO DO SO**, protect gutters, drains & waters from the spill.
- Assess how much of what has been spilled and where is is going.

Notify

- Call 000. Request Fire and Rescue response.
- Appoint one person to co-ordinate communications and a seperate person to co-ordinate clean-up actions.
- Commence notifications as listed over the page.

Act

- Find the applicable high risk chemical response sheet(s).
- Put on PPE as required by high risk chemical response sheet(s).
- Commence the spill procedures for applicable chemical response sheet(s).

Assist

- Offer assistance to the NSW Fire and Rescue Incident Controller.
- Arrange necessary assets and resources to assist in the incident response.
- Keep notified agencies / people updated as work progresses.
- Once the site is made safe, receive the handover from the Incident Controller.

Clean-up

- Recover any reusable chemicals / materials.
- Classify any remaining spilt materials and/or contaminated materials (wastes).
- Arrange for the appropriate treatment and/or disposal of all wastes.

Review

- Prepare a written report of the incident for submission to the NSW EPA.
- Review Council's incident response by conducting a debrief with all staff involved.
- Revise and update PIRMP as necessary.

High Risk Chemical Spill Notifications

An effective response to any incident depends on providing early, clear, and accurate information of the situation to the relevant people and authorities. Pause, collect your thoughts, and provide the following information clearly:

a) your name,
b) your contact mobile number,
c) the time, date, and location of the incident,
d) the type of incident,
e) details of any causalities,
f) the estimated quantity or volume and the concentration of any pollutants involved, if known,
g) the cause of the incident, if known, and
h) the action taken or proposed to be taken to deal with the incident and any resulting pollution or threatened pollution, if known.

Notification is required by the person appointed to co-ordinate communications for the incident. This must occur immediately after a pollution incident becomes known.

Any information required that is not known at the time the incident is notified must be provided when it becomes known.

The Pollution Incident Reporting Form in Appendix A has been designed to assist person co-ordinating communications to recording the notifications made.

Lithgow City Council Contacts	**Phone Number**
Lithgow STP	0407 928 742
Wallerawang STP	0407 455 476
Portland STP	0417 424 723
Oakey Park WTP	0419 623 597
Lithgow Sewer Plumbers	0409 455 385
Supervisor Reticulation	0417 424 692
Supervisor Plants and Pump Stations	0400 981 667
Water and Wastewater Engineer (Operations)	0439 395 658
Director Water and Wastewater	0409 256 432
Lithgow City Council 24-hour call centre	02 6354 9999
Statutory Notifications	**Phone Number**
Environment Protection Authority	131 555
NSW Health (Nepean Blue Mountains)	02 4734 2022
SafeWork NSW	13 10 50
Fire & Rescue NSW	Notification in progress

Stakeholder notifications	**Phone Number**
WaterNSW	1800 061 069
Residents of Old Colliery House	0439 559 867
Residents of 2 Bells Road	0457 225 270
Residents of 1 Bells Road	02 6352 2648
Other immediate neighbours	Contacted by door knock and/or. Notification on Council website and Facebook page.

Broader community (if required)	Media release and local radio announcement.

High Risk Chemical Response Sheets

1. Chlorine
2. Sodium fluoride
3. Aluminium Sulfate Liquid
4. Sodium Hypochlorite Solution
5. Soda ash

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Chlorine

Maximum amount stored on site	**3,680 kg**
Overall risk	**HIGH**

Description / properties

UN Number	1017
Hazchem Code	2XE
Colour	Clear to greenish yellow
Odour	Chlorine
Density	Denser than air (sinks in air)
pH	- (gas)
Composition	Chlorine >=99.8%

Minimum PPE for spills

Long sleeved clothes / overalls, self-contained breathing apparatus, chemical resistant gloves, and chemical resistant boots.

Spill procedures

1. Clear area of unprotected personnel for a minimum of 100 metres in all directions by moving them uphill and/or upwind of the spill.
2. Eliminate all ignition sources for a minimum of 50 metres in all directions.
3. **ONLY IF SAFE TO DO SO**, stop the leak / spill. Do not walk through or touch spilled material and keep upwind and to higher ground.
4. **ONLY IF SAFE TO DO SO**, prevent entry to waterways and drains. Water spray or fog can be used to knock down or divert vapours. **DO NOT** water directly on the leak.
5. If entry to drains or waterways has occurred, advise NSW Fire and Rescue immediately.
6. Isolate area until gas has dispersed. Ventilation of areas may be required.

If involved with fire

Any fire should be allowed to burn while being contained. If the fire must be fought, attempt to extinguish if fire is small and it is safe to. A fine water spray, fog or water extinguisher only can be used.

Fire water **must** be contained for later disposal.

Containers will need to be cooled with flooding water well after the fire is extinguished. **DO NOT** get water inside containers. Stay away from tank ends.

With large fires involving this chemical, call NSW Fire and Rescue immediately. Evacuation may be required 1500m in all directions due to the generation of toxic gas.

Significant hazards

- Toxic if inhaled.
- Causes serious eye irritation.
- Causes skin irritation.
- Containers may explode if heated.
- May cause or intensify fire.
- Reacts violently with many organic chemicals.
- Forms explosive mixtures with alcohols, glycols, ammonia and hydrogen.
- Becomes corrosive to some metals when mixed with water.

Other incompatibilities

Acids, some nitrogen and phosphorous compounds, glass, combustible materials, reducing agents and hot surfaces.

Disposal procedures

1. Collect any non-recoverable liquid chemical, other contaminated water and any fire water in a vacuum tanker(s) or available appropriate storage container(s).
2. Contain any contaminated soils and solid clean-up materials in a dry and secure location.
3. Classify all wastes in accordance with the NSW EPA *Waste Classification Guidelines Part 1: Classifying Waste*.
4. Depending on the waste classification(s), arrange appropriate treatment and/or disposal at a lawful waste facility.

NOTE: wastes containing this chemical residue may be considered as a Dangerous Good for transport. Ensure all necessary transport requirements are complied with.

Storage location on site

Sodium Fluoride

Maximum amount stored on site	**2,000 kg**
Overall risk	**HIGH**

Description / properties

UN Number	1690
Hazchem Code	2Z
Colour	White
Odour	Odourless
Density	Denser than water (sinks in water)
pH	8-10.5 (alkaline)
Composition	>=95% Sodium fluoride

Minimum PPE for spills

Long sleeved clothes / overalls, dust mask, chemical goggles, chemical resistant gloves, and chemical resistant boots.

Spill procedures

1. Clear area of unprotected personnel for a minimum of 50 metres in all directions (consider 250 metres in all directions if spill is larger than 200L).
2. Eliminate all ignition sources for a minimum of 50 metres in all directions.
3. **ONLY IF SAFE TO DO SO**, stop the leak / spill. Do not walk through or touch spilled material and keep upwind.
4. **ONLY IF SAFE TO DO SO**, prevent entry to waterways and drains.
5. If entry to drains or waterways has occurred, advise NSW Fire and Rescue immediately.
6. Work up wind or increase ventilation to spill area.
7. Collect spilled material and seal in properly labelled containers or drums
8. If spilled material is exposed to weather, cover with dry sand and then a plastic sheet to prevent contact with rain.

If involved with fire

Only attempt to extinguish if fire is small and it is safe to. A fine water spray or a dry powder or CO_2 extinguisher can be used.

Fire water **must** be contained for later disposal.

With large fires involving this chemical, call NSW Fire and Rescue immediately. Evacuation may be required 800m in all directions due to the generation of toxic gas.

Significant hazards

- Toxic if swallowed.
- Causes skin irritation.
- Causes serious eye irritation.
- Decomposes on heating to produce toxic gasses.
- Reacts with acids to produce toxic gasses.
- Reacts with water to form hydrofluoric acid.

Other incompatibilities

Nil.

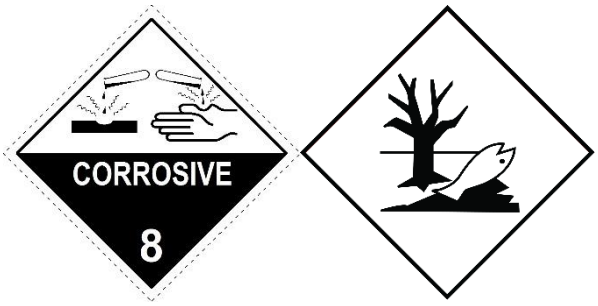
Disposal procedures

1. Collect any non-recoverable chemical in an appropriate storage container(s).
2. Collect other contaminated water and any fire water in a vacuum tanker(s) or available appropriate storage container(s).
3. Contain any contaminated soils and solid clean-up materials in a dry and secure location.
4. Classify all wastes in accordance with the NSW EPA *Waste Classification Guidelines Part 1: Classifying Waste*.
5. Depending on the waste classification(s), arrange appropriate treatment and/or disposal at a lawful waste facility.

NOTE: wastes containing this chemical residue may be considered as a Dangerous Good for transport. Ensure all necessary transport requirements are complied with.

Storage location on site

Aluminium Sulfate Liquid



Maximum amount stored on site	**25,600L**
Overall risk	**HIGH**

Description / properties

UN Number	3264
Hazchem Code	2X
Colour	Off white to light grey
Odour	Negligible
Density	Denser than water (sinks in water)
pH	1.8-2.4 (strongly acidic)
Composition	Aluminium sulfate approx. 28% Non-hazardous components to 100%

Minimum PPE for spills

Long sleeved clothes / overalls, chemical goggles, chemical resistant gloves, and chemical resistant boots.

Spill procedures

1. Clear area of unprotected personnel for a minimum of 50 metres in all directions (consider 250 metres in all directions if spill is larger than 200L).
2. Eliminate all ignition sources for a minimum of 50 metres in all directions.
3. **ONLY IF SAFE TO DO SO**, stop the leak / spill. Do not walk through or touch spilled material and keep upwind and to higher ground.
4. **ONLY IF SAFE TO DO SO**, prevent entry to waterways and drains. An excavated pit, pond, trench or holding area can be used to contain spill. If time permits, line these areas with an impermeable membrane.
5. If entry to drains or waterways has occurred, advise NSW Fire and Rescue immediately.
6. Absorb bulk liquid with **DRY** soil, sand, or other inert material.
7. If rain is likely or occurring, cover absorbed chemical with a plastic sheet.
8. Neutralise with agricultural lime or soda ash.

If involved with fire

Non-combustible. If involved in fire, only attempt to extinguish if fire is small and it is safe to.

DO NOT use halogenated extinguishing agents on spilled material. A violent reaction may result. Use an extinguisher appropriate to the surrounding fire conditions.

Fire water **must** be contained for later disposal.

With large fires involving this chemical, call NSW Fire and Rescue immediately. Evacuation may be required 800m in all directions due to the generation of toxic gas.

Significant hazards

- Causes skin irritation.
- Causes serious eye irritation.
- May produce irritating and toxic gasses upon decomposition.
- Toxic to aquatic life with long lasting effects.
- Harmful to terrestrial vertebrates.
- May be corrosive to, and react with, metals - including mild steel and aluminium.
- Will react violently with alkaline substances.

Other incompatibilities

None described.

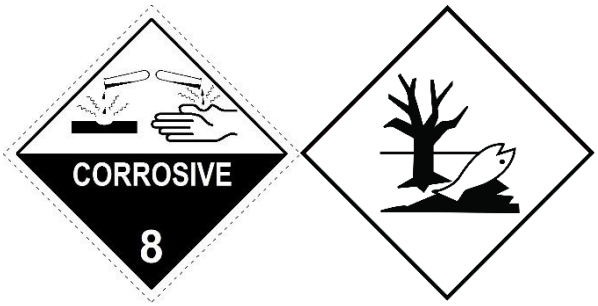
Disposal procedures

1. Collect any non-recoverable liquid chemical, other contaminated water and any fire water in a vacuum tanker(s) or available appropriate storage container(s).
2. Contain any contaminated soils and solid clean-up materials in a dry and secure location.
3. Classify all wastes in accordance with the NSW EPA *Waste Classification Guidelines Part 1: Classifying Waste*.
4. Depending on the waste classification(s), arrange appropriate treatment and/or disposal at a lawful waste facility.

NOTE: wastes containing this chemical residue may be considered as a Dangerous Good for transport. Ensure all necessary transport requirements are complied with.

Storage location on site

Sodium Hypochlorite Solution



Maximum amount stored on site	**800L**
Overall risk	**HIGH**

Description / properties

UN Number	1791
Hazchem Code	2X
Colour	Pale yellow-green
Odour	Chlorine
Density	Denser than water (sinks in water)
pH	12.5 (strongly alkaline)
Composition	Water >60% Sodium hypochlorite <30% Sodium hydroxide <1%

Minimum PPE for spills

Long sleeved clothes / overalls, chemical resistant apron, chemical goggles, face shield, chemical resistant gloves, and chemical resistant boots.

Spill procedures

1. Clear area of unprotected personnel for a minimum of 50 metres in all directions (consider 200 metres in all directions if spill is larger than 200L).
2. Eliminate all ignition sources for a minimum of 50 metres in all directions.
3. **ONLY IF SAFE TO DO SO**, stop the leak / spill. Do not walk through or touch spilled material and keep upwind and to higher ground.
4. **ONLY IF SAFE TO DO SO**, prevent entry to waterways and drains. An excavated pit, pond, trench or holding area can be used to contain spill. If time permits, line these areas with an impermeable membrane.
5. If entry to drains or waterways has occurred, advise NSW Fire and Rescue immediately.
6. Absorb bulk liquid with fly ash or cement powder. Sand can be used if neither is available.
7. If rain is likely or occurring, cover absorbed chemical with a plastic sheet.
8. Neutralise with agricultural lime or crushed limestone.

If involved with fire

Only attempt to extinguish if fire is small and it is safe to. A fine water spray or a dry powder or CO_2 extinguisher can be used.

Fire water **must** be contained for later disposal.

With large fires involving this chemical, call NSW Fire and Rescue immediately. Evacuation may be required 800m in all directions due to the generation of toxic gas.

Significant hazards

- Causes severe skin burns and eye damage.
- May cause respiratory irritation.
- Very toxic to aquatic life with long lasting effects.
- Creates toxic gas when heated.
- Creates heat and toxic gas when mixed with acids.
- Creates explosive substances when mixed with ammonia and ammonium compounds.
- Creates explosive substances when mixed with urea.
- Creates explosive substances when mixed with methanol.

Other incompatibilities

Metals, metal salts, peroxides, reducing agents, ethylene diamine tetraacetic acid, aziridine.

Disposal procedures

1. Collect any non-recoverable liquid chemical, other contaminated water and any fire water in a vacuum tanker(s) or available appropriate storage container(s).
2. Contain any contaminated soils and solid clean-up materials in a dry and secure location.
3. Classify all wastes in accordance with the NSW EPA *Waste Classification Guidelines Part 1: Classifying Waste*.
4. Depending on the waste classification(s), arrange appropriate treatment and/or disposal at a lawful waste facility.

NOTE: wastes containing this chemical residue may be considered as a Dangerous Good for transport. Ensure all necessary transport requirements are complied with.

Storage location on site

Soda Ash

Maximum amount stored on site	**20,000 kg**
Overall risk	**HIGH**

Description / properties

UN Number	None
Hazchem Code	None
Colour	White
Odour	Odourless
Density	Denser than water (sinks in water)
pH	11.3 (strongly alkaline)
Composition	>= 99% Sodium carbonate

Minimum PPE for spills

Long sleeved clothes / overalls, dust mask, chemical goggles, face shield, chemical resistant gloves, and chemical resistant boots.

Spill procedures

1. Clear area of unprotected personnel for a minimum of 10 metres in all directions (consider 100 metres in all directions if spill is larger than 200kg).
2. Eliminate all ignition sources for a minimum of 50 metres in all directions.
3. **ONLY IF SAFE TO DO SO**, stop the leak / spill. Do not walk through or touch spilled material and keep.
4. **ONLY IF SAFE TO DO SO**, prevent entry to waterways and drains.
5. If entry to drains or waterways has occurred, advise NSW Fire and Rescue immediately.
6. If rain is likely or occurring, cover spilt materials with a plastic sheet.
7. Sweep up or vacuum spilt material and avoid generating dust.
8. Collect and seal in properly labelled containers for potential re-use or disposal.
9. Residual traces can be flushed away with water.

If involved with fire

Soda ash is non-combustible. Only attempt to extinguish if fire is small and it is safe to. Use extinguisher(s) appropriate to to the materials involved and conditions.

Fire water **must** be contained for later disposal.

Significant hazards

- Causes serious eye irritation.
- May cause respiratory irritation.
- Contact with skin may cause irritation.
- Creates toxic gas when heated.
- Creates heat and carbon dioxide when mixed with acids.

Other incompatibilities

Phosphorous pentoxide, Aluminium, lead, magnesium, iron, zinc, fluorine.

Disposal procedures

1. Collect any non-recoverable liquid chemical, other contaminated water and any fire water in a vacuum tanker(s) or available appropriate storage container(s).
2. Contain any contaminated soils and solid clean-up materials in a dry and secure location.
3. Classify all wastes in accordance with the NSW EPA *Waste Classification Guidelines Part 1: Classifying Waste*.
4. Depending on the waste classification(s), arrange appropriate treatment and/or disposal at a lawful waste facility.

Storage location on site

Other Chemical Spill Response

Stop

- Stay calm. Assess risk to your personal safety.
- **ONLY IF SAFE TO DO SO**, stop, or at least slow, the source of the spill.

Isolate & Assess

- Remove people from possible harm. Prevent access to the area.
- **ONLY IF SAFE TO DO SO**, protect gutters, drains & waters from the spill.
- Assess how much of what has been spilled and where is is going.

Notify

- If external assistance is required, call 000. Request Fire and Rescue response.
- Appoint one person to co-ordinate communications and a seperate person to co-ordinate clean-up actions.
- Commence notifications as listed over the page.

Act

- Find the applicable safety data sheet(s).
- Put on PPE as required by the safety data sheet(s).
- Commence the spill procedures as detailed in the applicable safety data sheet(s).
- If external assistance is being provided, arrange the necessary assets and resources as required or as requested by the NSW Fire and Rescue Incident Controller.
- Keep notified agencies / people updated as work progresses.
- If applicable, once the site is made safe, receive the handover from the Incident Controller.

Clean-up

- Recover any reusable chemicals / materials.
- Classify any remaining spilt materials and/or contaminated materials (wastes).
- Arrange for the appropriate treatment and/or disposal of all wastes.

Review

- Prepare a written report of the incident for submission to the NSW EPA.
- Review Council's incident response by conducting a debrief with all staff involved.
- Revise and update PIRMP as necessary.

Other Chemical Spill Notifications

An effective response to any incident depends on providing early, clear, and accurate information of the situation to the relevant people and authorities. Pause, collect your thoughts, and provide the following information clearly:

a) your name,
b) your contact mobile number,
c) the time, date, and location of the incident,
d) the type of incident,
e) details of any causalities,
f) the estimated quantity or volume and the concentration of any pollutants involved, if known,
g) the cause of the incident, if known, and
h) the action taken or proposed to be taken to deal with the incident and any resulting pollution or threatened pollution, if known.

Notification is required by the person appointed to co-ordinate communications for the incident. This must occur immediately after a pollution incident becomes known.

Any information required that is not known at the time the incident is notified must be provided when it becomes known.

The Pollution Incident Reporting Form in Appendix A has been designed to assist person co-ordinating communications to recording the notifications made.

Lithgow City Council Contacts	**Phone Number**
Lithgow STP	0407 928 742
Wallerawang STP	0407 455 476
Portland STP	0417 424 723
Oakey Park WTP	0419 623 597
Lithgow Sewer Plumbers	0409 455 385
Supervisor Reticulation	0417 424 692
Supervisor Plants and Pump Stations	0400 981 667
Water and Wastewater Engineer (Operations)	0439 395 658
Director Water and Wastewater	0409 256 432
Lithgow City Council 24-hour call centre	02 6354 9999
Statutory Notifications	**Phone Number**
Environment Protection Authority	131 555
NSW Health (Nepean Blue Mountains)	02 4734 2022
SafeWork NSW	13 10 50
Fire & Rescue NSW (unless already notified as part of the procedure)	1300 729 579

Stakeholder notifications	**Phone Number**
WaterNSW (if waters are impacted)	1800 061 069
Immediate neighbours	Contacted by door knock.
Broader neighbours (if required)	Notification on Council website and Facebook page.
Broader community (if required)	Media release and local radio announcement.

Miscellaneous Notifiable Incident Response

Stop

- Stay calm. Assess risk to your personal safety.
- **ONLY IF SAFE TO DO SO**, stop, or at least slow, the process causing the incident.

Isolate & Assess

- Remove people from possible harm. Prevent access to the area.
- **ONLY IF SAFE TO DO SO**, contain the incident and prevent it from spreading.
- Assess the size, type and nature of the incident.

Notify

- If external assistance is required, call 000 and request NSW Fire and Rescue.
- Appoint one person to co-ordinate communications and a seperate person to co-ordinate clean-up actions.
- Commence notifications as listed over the page.

Act

- Find any applicable safety dayta sheet(s)
- Put on PPE as required.
- Commence the spill procedures as detailed in the applicable safety data sheet(s).
- If external assistance is being provided, arrange the necessary assets and resources as required or as requested by the NSW Fire and Rescue Incident Controller.
- Keep notified agencies / people updated as work progresses.
- If applicable, once the site is made safe, receive the handover from the Incident Controller.
- Monitor impact to receiving waters (if required).

Clean-up

- Decontaminate any impacted land surfaces.
- Recover any reusable materials.
- Classify any remaining waste materials and/or contaminated materials.
- Arrange for the appropriate treatment and/or disposal of all wastes.

Report & Review

- Prepare a written report of the incident for submission to the NSW EPA.
- Review Council's incident response by conducting a debrief with all staff involved.
- Revise and update PIRMP as necessary.

Miscellaneous Notifiable Incident Notifications

An effective response to any incident depends on providing early, clear, and accurate information of the situation to the relevant people and authorities. Pause, collect your thoughts, and provide the following information clearly:

a) your name,
b) your contact mobile number,
c) the time, date, and location of the incident,
d) the type of incident,
e) details of any causalities,
f) the estimated quantity or volume and the concentration of any pollutants involved, if known,
g) the cause of the incident, if known, and
h) the action taken or proposed to be taken to deal with the incident and any resulting pollution or threatened pollution, if known.

Notification is required by the person appointed to co-ordinate communications for the incident. This must occur immediately after a pollution incident becomes known.

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Stakeholder notifications	**Phone Number**
WaterNSW (if waters are impacted)	1800 061 069
Immediate neighbours	Contacted by door knock.
Broader neighbours (if required)	Notification on Council website and Facebook page.
Broader community (if required)	Media release and local radio announcement.

4. Maps of premises

Figure 1 - Recent satellite imagery of the Oakey Park Water Treatment Plant

Figure 2 – Stormwater drainage for the Oakey Park Water Treatment Plant

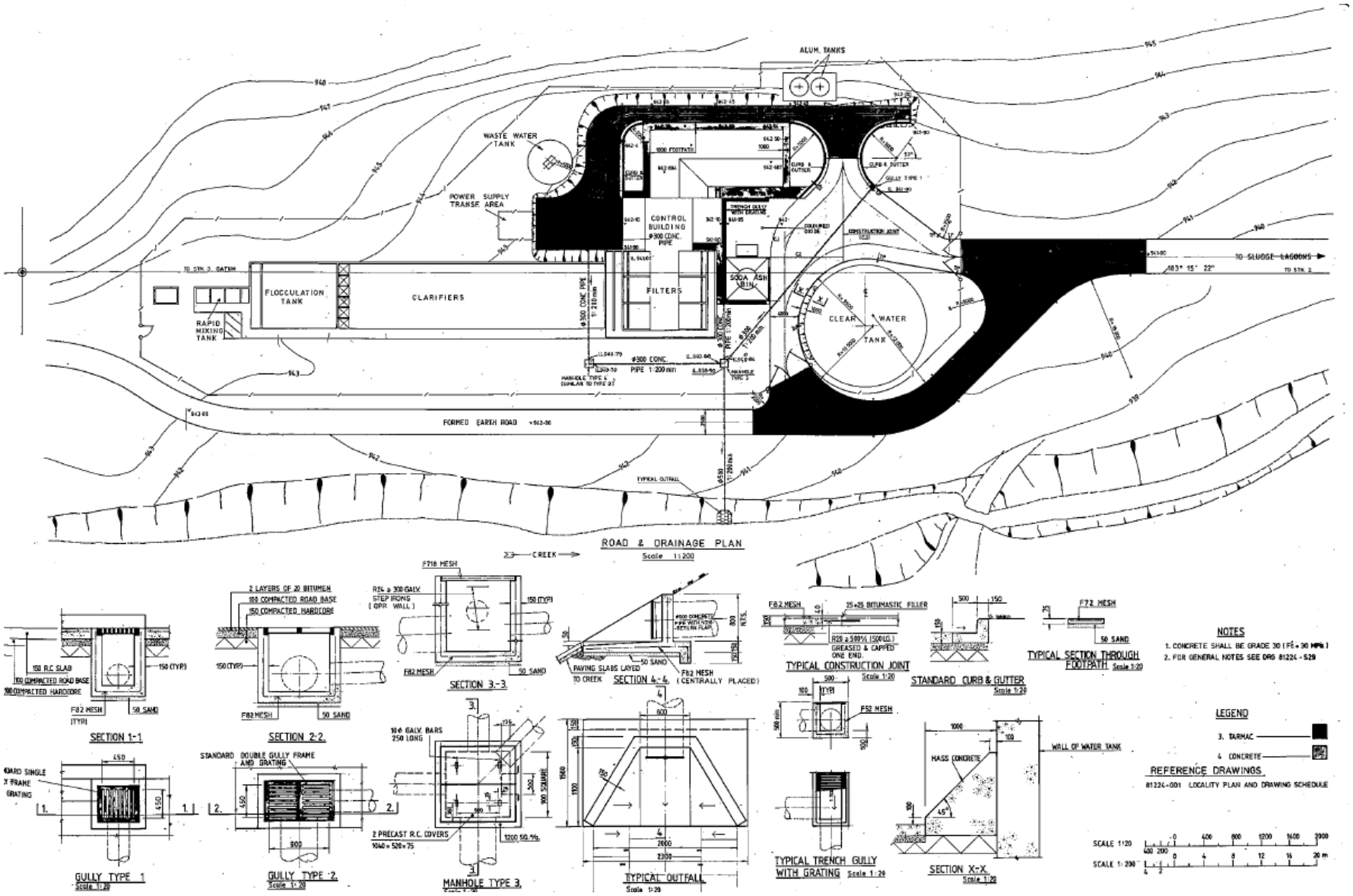
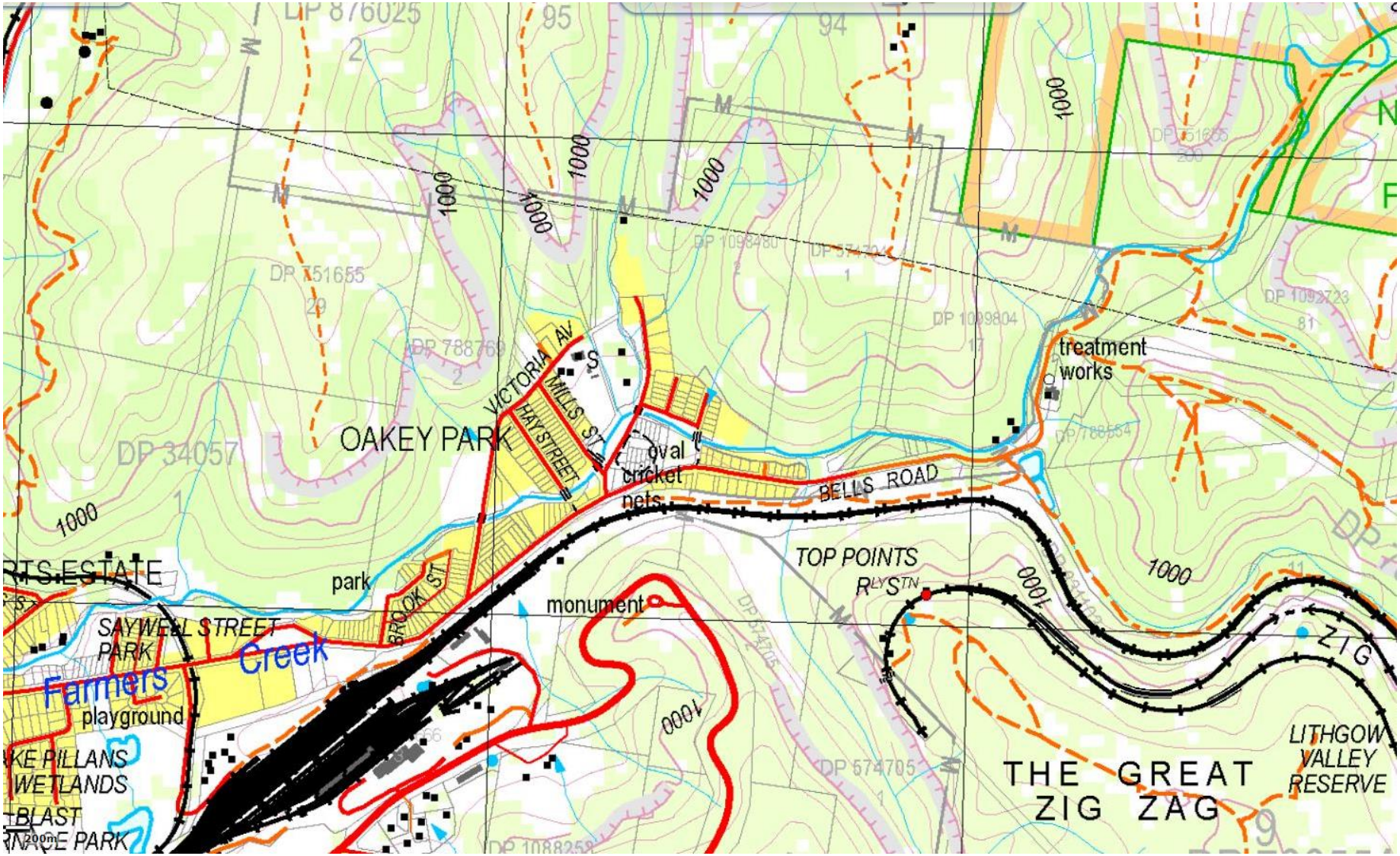


Figure 3 – Topographic map showing Farmers Creek



Note: Each grid equals 1 kilometre

5. Risk assessment and mitigation

5.1. Assessment methodology

A process of assessing potential pollution incident risks, consistent with the principles of ISO 31000 for risk assessment methodology and HB 203-2012 for managing environmental risk, has been used to identify and assess potential risks for the premises.

Information was collected from the management and staff of the premises regarding the likelihood of potential incidents occurring based on previous experience. These responses were then averaged across the group to create an overall likelihood for the particular incident. Descriptions of the likelihood terms used are presented in Table 1.

Table 1 – Likelihood descriptors

Highly likely	More than once a month.
Likely	Around once a quarter.
Possible	Around once a year
Unlikely	Once every few years
Highly unlikely	Less than once every 5 years.

An assessment of the estimated impacts from a potential pollution incident was then undertaken based on the concentration, nature and volume of potential pollutants released, and the nature, use and sensitivity of the receiving environment (including potential human health impacts). Descriptions of the impact terms used are presented in Table 2.

Table 2 – Impact descriptors

Insignificant	Nuisance only. Negligible clean-up costs.
Minor	Short term detrimental effect. Clean-up able to be undertaken within existing budgets.
Moderate	Medium term detrimental effects. Clean-up requires specific budget approval.
Major	Long term impacts. Clean-up causes significant impact to allocated budgets.
Critical	Extensive, long term impacts. Clean up unable to be funded without external assistance.

The combination of the likelihood and the impact of the potential pollution incident was then assessed, using the matrix presented in Figure 10 below, and a risk rating applied.

Figure 4 – Risk assessment matrix

	Impact				
Likelihood	Insignificant	Minor	Moderate	Major	Critical
Highly likely	High	High	Extreme	Extreme	Extreme
Likely	Medium	High	High	Extreme	Extreme
Possible	Low	Medium	High	Extreme	Extreme
Unlikely	Low	Low	Medium	High	Extreme
Very unlikely	Low	Low	Medium	High	High

5.2. General risk control measures

Council employs a range of risk control measures that operate across the entire premises:

- Security of premises – The Oakey Park Water Treatment Plant is secured and locked when not attended. The control room at the Oakey Park Water Treatment Plant is also locked.
- Community reporting – Council has a single 24-hour phone service where members of the community can report pollution incidents, including sewer overflows.
- SCADA system – Council uses a Citect SCADA (Supervisory Control and Data Acquisition) system at the premises. The SCADA system monitors and controls the Oakey Park Water Treatment Plant and provides early warnings of potential issues. Warnings and alarms can be received by Council staff at all hours and certain functions can be controlled remotely. This system also has multiple backups and redundancies
- Staff training – All staff working at the premises are required to:
  - Complete Council's general induction
  - Complete a site-specific induction for the premises.
  - Maintain relevant competencies and licences.
  - Informed and trained in the use of this PIRMP.
- Council staff and contractors working on the premises being aware of evacuation procedures, use of fire extinguishers and the location of the Emergency Assembly Point.
- Regular inspections, audits, testing and reviews - Equipment, controls, documents, and systems are regularly audited by Council, NSW government agencies and Council's insurers. All required corrective actions are recorded and appropriate corrective actions undertaken.
- Regular management and staff toolbox meetings – to update management and staff on issues requiring correction and prioritising this work according to risk.
- Reporting systems – Council has a system where hazards (including environmental hazards) and near misses are reported, investigated and, where required, action taken to rectify hazards.

- Emergency equipment – Including, but not limited to spill kits, fire extinguishers, appropriate Personal Protective Equipment (PPE), and emergency signage.
- Monitoring – Regular monitoring is undertaken of various points within the Oakey Park Water Treatment Plant to monitor and adjust the treatment process. Monitoring is also undertaken of any discharge from the Oakey Park Water Treatment Plant.

5.3. Identified pollution risks

In the following sections, the rationale for the allocation of the occurrence and impact levels for each potential pollution incident, along with specific risk control measures (in addition to the general control measures described above). Risks have been ordered from highest risk to lowest risk.

5.3.1. Chemical spill / leak

Occurrence	*Impact*	*Risk*
Unlikely	Major	High

Rationale

Significant quantities of hazardous chemicals are stored on the premises. An escape of these chemicals to the environment would be likely to cause severe and long-lasting harm that would require significant expenditure to remedy. This situation is estimated to occur only once every few years and the general and specific control measures are designed to identify and contain any leaks or spills as soon as possible and as close to the source as possible.

Specific control measures

- All bulk chemical storage tanks are clearly labelled.
- Chemical supply contractors have contractual obligations to ensure the correct chemicals are delivered to the right location.
- Council has additional checks and balances in place to ensure the right chemicals are delivered to the right storage tanks.
- The storage of the most hazardous chemicals (chlorine gas and fluorine) is contained in secured areas. The chlorine gas storage has a chlorine gas leak detector.
- The bulk chemical storage area is surrounded by an impermeable bund in accordance with applicable Australian Standards.
- The SCADA system will notify operators if bund fills.
- The stormwater drains in the chemical unloading area can be easily covered / isolated.

5.3.2. Loss of power

Power Outage – Water Treatment Plant

Occurrence	*Impact*	*Risk*

Possible	Minor	Medium

Rationale

This hazard is generally outside Council's control as it relates to a failure of the electricity supply system due to lack of supply or damage to electricity transmission infrastructure. Typically, electricity supply interruptions are short duration, however, supply interruptions due to natural disasters (bushfires, severe storms, floods, etc) can last significantly longer. Council does have contingency plans in place to deal with electricity supply interruptions.

Essential Council infrastructure, including water treatment, is given priority status for reconnection in the event of a power failure.

Specific control measures

- Council has two portable generators that can be used in an emergency.
- Several alerts would be raised via the SCADA system in the event of an interruption to the power supply.
- The storage capacity of the clear water tank is sufficient to cater for a lengthy power outage.

5.3.3. Sludge leak / spill / overflow

Occurrence	*Impact*	*Risk*
Unlikely	Moderate	Medium

Rationale

Sludge is produced at the Water Treatment Plant by the flocculation of solids using aluminium sulfate. This sludge contains high concentration of aluminium, which can be toxic in aquatic environments at low pH. Alum sludge is transferred to the sludge lagoons on the premises for decanting, evaporation and drying. The sludge lagoons are desludged when full. There is more than sufficient capacity to store generated sludge on the premises.

Specific control measures

- The sludge lagoons are included in the routine inspections undertaken by the staff at the Water Treatment Plant.
- The efficiency and effectiveness of the water treatment process is monitored daily by the staff at the site.

5.3.4. Fire / explosion at Water Treatment Plant

Occurrence	*Impact*	*Risk*
Highly unlikely	Moderate	Medium

Rationale

The most likely sources of a fire are the electronics and the chemicals stored on the premises. If involved in a fire, the on-site staff and/or the SCADA system would identify this quickly and there are sufficient firefighting resources to combat small fires. The main source of risk for a fire / explosion at the Water Treatment Plant is to the staff and any contractors working at that location.

Specific control measures

- Fire extinguishers and fire hoses are located on the site of the water treatment plant.
- Storage vessels for bulk chemicals meet the relevant Australian Standards.
- The quantity of chemicals kept at the Water Treatment Plant are minimised to meet operational requirements.
- Various bushfire preparation precautions are taken prior to the commencement of the bushfire season.

5.3.5. Direct backwash discharge to Farmers Creek

Occurrence	*Impact*	*Risk*
Unlikely	Moderate	Medium

Rationale

Any backwash water discharge from the Water Treatment Plant occurs in the Warragamba Catchment which forms part of the overall Sydney Drinking Water Catchment. Discharge quality in this catchment area is especially important to the overall quality of drinking water in the Sydney area. Any backwash discharge would be especially high in suspended solids. The operating and treatment systems at the Sewage Treatment Plant have also been modernised so that the process is tightly controlled and any deviations from ideal operating conditions are identified and rectified quickly.

Specific control measures

- Normal operation does not involve the discharge of backwash waters to Farmers Creek. This would only occur in exceptional circumstances after the failure of multiple systems and all other options are exhausted.
- There is redundancy and storage built into the water treatment process where part of the system can be isolated to prevent backwash discharge to waters.
- The efficiency and effectiveness of the water treatment process is monitored daily by the staff at the site.

5.3.6. Flooding of Water Treatment Plant and/or sludge lagoons

Occurrence	*Impact*	*Risk*
Unlikely	Moderate	Medium

Rationale

Any flood that inundates the Oakey park Water Treatment Plant would result in significant inundation to Lithgow itself, which would be the primary focus of any emergency response. Operations at the premises could be suspended until the flood event has passed. Bulk chemical storage areas are highly unlikely to be inundated and damaged by flood.

Specific control measures

No further measures employed.

6. Pollutant inventory

Table 3 - Bulk potential pollutants on the premises (>500 kg/L)

Potential Pollutant	Quantity (max)	DG Group	Packing group
Alum rich sludge and supernatant	2,400,000 Litres	None	None
Chlorine	3,680 kilograms	2	None
Sodium Fluoride	2,000 kilograms	6	III
Soda Ash	20,000 kilograms	None	None
Aluminium sulfate liquid	25,600 Litres	8	III
Sodium hypochlorite	800 Litres	8	III

Table 4 - Potential pollutants on the premises in quantities of between 50 kg/L & 500 kg/L

Potential Pollutant	Quantity (max)	DG Group	Packing group
LT20 Polyelectrolyte	200 kilograms	None	None

Table 5 – Other chemicals that may be on the premises in quantities of less than 50 kg/L

Chemical	DG Group	Packaging group
Hydrochloric Acid	8	III
Ammonium Hydroxide	None	None
Potassium Chloride	None	None
Sodium Bisulfate	None	None
Boric Acid	None	None
Sodium Citrate	None	None
Ammonium Persulfate	5	III
Dimethylglyoxime	None	None
Daraboascrobic acid	None	None
Sodium Chloride	None	None

Table 5 - Other chemicals that may be on the premises in quantities of less than 50 kg/L (cont)

Chemical	DG Group	Packaging group
Disodium Salts	None	None
Acetic Acid	8	II
Eriachrome Cyannine	None	None
Sodium Cyanide	6	I
Ammonium Chloride	None	None
Methyl Alcohol	3	II
Sodium Metabisulfate	None	None
Sulfuric Acid	8	II
Phenoiphaien	None	None
Sodium Periodate	None	None
Triazine Salt	9	None
Tolluenesulfonic Acid	8	III
Propanetricarboxylic Acid	None	None
Sodium Dithionite	4	II
Succinic Acid	None	None
Disodium Succinate	None	None
Ascorbic Acid	None	None

7. Testing of PIRMP and staff training

7.1. Testing of PIRMP

It is a legislative requirement that this PIRMP be tested:

- At least once every 12 months and
- Within one month of any pollution incident occurring

The annual test will be undertaken by a simulated desktop pollution incident response exercise. An "incident" will be selected, and the relevant staff will be required to respond to this incident as per the PIRMP. Any issues or deficiencies identified during this simulated incident will be considered in the review and update of the PIRMP.

The test required within one month of the pollution incident occurring will be undertaken by a debrief with all staff involved in the incident and revisiting the actions required by the PIRMP and the actions taken. The adequacy of the response and any issues identified with the response and/or the PIRMP will be considered in the review and update of the PIRMP.

A PIRMP testing record is contained in Appendix B. Every test of the PIRMP will be recorded in this Appendix, along with the name of the person undertaking the test and accompanying notes (issues identified, and amendments made, etc.)

7.2. 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.

Records of any training undertaken by staff will be kept with Council's records.

The objectives of any training undertaken in relation to the PIRMP will be to enable the participants to:

- Explain the purpose of the PIRMP,
- Demonstrate an understanding of when the PIRMP must be implemented,
- Outline the responsibilities of various personnel in relation to the implementation of the PIRMP,
- Apply the incident response procedures contained in the PIRMP, and
- Take part in the assessment of a response to pollution incidents.

Appendix A – Environmental Incident report

PART B

Report to Environmental Incident Hotline
INVESTIGATION

PLACE YOUR COUNCIL LOGO HERE

The appropriate Section Supervisor/Manager is responsible for completion of Part B of the incident report.

IMMEDIATE ACTION BY SUPERVISOR/MANAGER

Will the incident:

1. Require assistance from other agencies to contain, isolate or cleanup? YES ☐ NO ☐ NOT SURE ☐
   If "Yes" call 000 immediately.
2. Pose any actual or potential harm to human health that is not trivial? YES ☐ NO ☐ NOT SURE ☐
   - Is it located within 100m of a school, childcare centre, aged care home?
   - Could it impact on users of public areas such as ovals, reserves, waterways?
   - Could the impact spread and potentially harm occupants of nearby properties?
3. Pose any actual or potential harm to ecosystems that is not trivial? YES ☐ NO ☐ NOT SURE ☐
   - Could the incident flow / impact on a water body or drainage system?
   - Could the incident flow / impact on environmentally sensitive land?
4. Result in actual or potential loss or property damage of an amount over $10,000? YES ☐ NO ☐ NOT SURE ☐

If you answered **'YES' to any of the above** then the incident should be considered as a notifiable "pollution event". There is a **duty to notify** the EPA, Ministry of Health, WorkCover and Fire and Rescue NSW immediately after becoming aware of a pollution incidents where material harm is caused or threatened. Failure to do so is an offence *(Protection of the Environment Operations Act 1997)*

AGENCY NOTIFICATIONS

If the incident does not require an initial combat agency, or once the 000 call has been made, notify the relevant authorities in the following order.

NSW EPA (EPA Environment Line: 131 555)

Contacted: ☐ YES ☐ NO Reason not contacted:

NAME OF EPA REPRESENTATIVE	TIME AND DATE	EPA REFERENCE NUMBER

ACTIONS REQUIRED BY EPA

NSW Health – Local Public Health Unit (See www.health.nsw.gov.au/publichealth/infectious/phus.asp)

Contacted: ☐ YES ☐ NO Reason not contacted:

NAME OF PHU REPRESENTATIVE	TIME AND DATE	PHU REFERENCE NUMBER

ACTIONS REQUIRED BY LOCAL PHU

WorkCover Authority (WorkCover: 13 10 50)

Contacted: ☐ YES ☐ NO Reason not contacted:

NAME OF WORKCOVER REPRESENTATIVE	TIME AND DATE	WORKCOVER REFERENCE NUMBER

ACTIONS REQUIRED BY WORKCOVER

Fire & Rescue NSW (Emergency Hotline: 000)

Contacted: ☐ YES ☐ NO Reason not contacted:

NAME OF FIRE & RESCUE REPRESENTATIVE	TIME AND DATE	FIRE & RESCUE REFERENCE NUMBER

ACTIONS REQUIRED BY FIRE & RESCUE

CONTINUES ON REVERSE

OTHER NOTIFICATIONS TO CONSIDER INCLUDE:

- ☐ Internal contacts eg Environmental Health Officer
- ☐ Media
- ☐ NSW Food Authority
- ☐ Shellfish programs
- ☐ River users eg boat hiring companies
- ☐ Marine education centres
- ☐ Other

PRELIMINARY INVESTIGATION

Notes from discussions with relevant operational staff

Any further observations or comments by Supervisor / Manager

CATEGORISATION BY AUTHORISED OFFICER

☐ **Minor** *No notification required*	• Incident affects small area only (eg single property) AND • Incident is easy to clean up without additional assistance, AND • There is no risk of material harm to humans or the environment.
☐ **Moderate** *Notify EPA and Local PHU only*	• Incident affects more than one property OR • There is a risk of pollution or material harm to the environment BUT • Cleanup can be completed without assistance AND • There is no danger to humans.
☐ **Major** *Notification required - Notify EPA, Local PHU, Workcover and Fire & Rescue*	• Potential or actual harm to humans and the environment AND/OR • Assistance is required with cleanup from other agencies.
☐ **Council Responsible**	Incident occurred as a direct result of Council activity or function.
☐ **Response by Council**	Incident occurred on Council land, or land under Council care and control BUT Council did not cause the incident.
☐ **Technical Licence Breach**	Relating to technical compliance such as exceedence of permissible discharge volume or environmental monitoring limits.

DETAILS OF APPROPRIATE SECTION SUPERVISOR/MANAGER REPORTING THE INCIDENT

NAME

DATE

PHONE

MOBILE

DEPARTMENT SECTION

Appendix B - PIRMP testing record

Date tested	Who by	Notes
25th August 2020	JS Regulatory Services	Earliest record of PIRMP testing
29th June 2022	In house testing led by Aadesh Baniya and Perrin Walsh	
26/09/2024	Dane Russel – Reticulation Supervisor Jason McGuinness – Plant & Pump Station Supervisor Laurin Shirt – WHS & Environment Officer Phillip Kellond – Water Operator	Sections of PIRMP tested: incident response procedures p3, high risk chemical spill response p4, high risk chemical response sheets – sodium fluoride p10