

# Moree Evaporation Ponds

## Frome Street Investments No11 PTY LTD

### Pollution Incident Response Management Plan

EPA Licence Number 21015

#### **Introduction**

This plan has been developed to document the processes required to prepare for and respond to pollution incidents for evaporation ponds for the storage and evaporation of thermal artesian waters, located at Industrial Drive, Moree. The plan ensures that hazards to the environment, human health and safety are minimised. It has been prepared in accordance with EPA Licence Number 21015, the requirements of the Protection of the Environment Operations Act 1997 and the Protection of the Environment Operations (General) Amendment (Pollution Incident Response Management Plans) Regulation 2012.

#### **1.0 Objectives**

This PIRMP aims to:

1. Ensure comprehensive and timely communication about a pollution incident to staff at the premises, the Environmental Protection Authority, other relevant authorities specified by the Act, and people outside the facility who may be affected by the impacts of the pollution incident; and
2. Minimise and control of risk of a pollution incident at the facility by requiring identification of risks and the development of planned pre-emptive actions to minimise and manage these risks; and
3. Ensure that a plan is properly implemented by trained staff, identifying persons responsible for implementing it, and ensuring that the plan is regularly tested for accuracy, currency and suitability.

## 2.0 Definition of “Pollution Incident”

A pollution incident is defined as follows:

*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.

A pollution incident is required to be notified if there is a risk of ‘material harm to the environment’, which is defined in s147 of the PoEO Act 1997 as:

- a) Harm to the environment is material if:
  - i) it involves actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial, or
  - ii) it results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding \$10,000 (or such other amount as is prescribed by the regulations), and
- b) Loss includes the reasonable costs and expenses that would be incurred in taking all reasonable and practicable measures to prevent, mitigate or make good harm to the environment.

Pollution incidents must immediately be reported to the EPA, NSW Health, Fire and Rescue NSW, Work Cover NSW and the local council.

## 3.0 Description and Likelihood of Potential Hazards

The development consists of the following features:

- Pipelines from Gwydir Carapark and Moree Hot Springs Accommodation Units (MHSAU) to transport the artesian water to the evaporation storages; and
- Evaporation storages.

The following hazards are addressed by this plan:

Hazard description	Risk Level
Rupture of inflow pipe of saline water from Gwydir Carapark and MHSAU	Low
Spill or overflow from evaporation storages	Low
Storage bank failure	Very low

#### 4.0 Pre-emptive Actions to be taken

The following pre-emptive actions shall be implemented to mitigate the hazards.

Hazard description	Pre-emptive action
Rupture of inflow pipes from Gwydir Carapark and MHSAU, leading to escape of artesian water to surrounding land in breach of licence	<ul style="list-style-type: none"> <li>Installation of pipes to high design and implementation standards by appropriately qualified persons; and</li> <li>Routine inspection of hydraulic lines and pumps.</li> </ul>
Spill or overflow from evaporation storages	<ul style="list-style-type: none"> <li>Design evaporation storages with 1m freeboard to allow for wave action and potential extreme rainfall events, to minimise risk of overflow events.</li> </ul>
Storage bank failure	<ul style="list-style-type: none"> <li>Design of storage by suitably qualified engineers to ensure structural integrity of banks; and</li> <li>Construction of storage by suitably qualified construction professionals; and</li> <li>Routine inspection and maintenance of banks to maintain structural integrity.</li> </ul>

#### 5.0 Inventory of Potential Pollutants

The proposed development involves the transportation and storage of Artesian water, which is considered to be a potential pollutant.

Typical water quality details of the Artesian water are provided below:

<b>Conductivity</b>	1200 - 1300 $\mu$ S/m
<b>pH</b>	8.8 - 9.0
<b>Sodium</b>	260 - 280mg/L
<b>Chlorine (mg/L)</b>	67 – 100mg/L
<b>Sodium Absorption Ratio</b>	36 - 55

No other potential pollutants will be utilised or stored on site.

#### 6.0 Safety Equipment

The proposed development will not involve the use or storage of pollutants which pose a hazard to human health. Therefore, the development does not require the use of safety equipment on site for routine site operations.

In the event of an incident requiring construction works to address the incident (e.g. a pipe breaking or a bank failure), staff and/or contractors will be inducted in site management

protocols and issued with appropriate safety equipment as required (such as hi-vis vests and hard hats) to ensure on-site safety.

## 7.0 Contact details

If the incident presents an immediate threat to human health or property, “000” will be called first as Fire & Rescue NSW, the NSW police and the NSW Ambulance Service are the first responders, as they are responsible for controlling and containing incidents.

If the incident does not require an initial combat agency, or once the “000” call has been made, it is required under the Protection of the Environment Operations Act 1997 that the following authorities are notified when material harm to the environment is caused or threatened: EPA, NSW Health, Fire & Rescue NSW, WorkCover NSW and the local Council.

The proposed development is also located in the vicinity of the Moree railway line. In the event of a pollution incident in which the railway line has the potential to be impacted, the Australian Rail Track Corporation’s North Network Control Centre should be contacted.

The 24 hours hotline for each authority is given:

<b>Fire, Police and Ambulance</b>	000
<b>NSW Environment Protection Authority Environment Line - Armidale</b>	131555 or 6776 0000
<b>Moree Hospital</b>	6757 0000
<b>Work Cover</b>	131050
<b>Moree Plains Shire Council</b>	6757 3222
<b>ARTC North Network Control Centre</b>	4902 9410

The following lists key personnel responsible for actioning this plan and managing the response to a pollution incident.

<b>Evaporation Storages Key Personnel</b>		
<b>Name</b>	<b>Role</b>	<b>24-hour contact</b>
Wal McDonald	Director	0427 522 260

## 8.0 Minimising Harm to Persons on the Premises

The site is covered by mobile phone reception. The phone numbers of the site managers will be provided to site visitors and contractors, to enable rapid communication in the event of an incident.

Given that the facility is predicted to have a low number of staff on site and is accessible from multiple directions by roads and tracks, there is no formal evacuation point. In the event of an emergency, personnel on site are encouraged to take the nearest accessible road or track

to evacuate the site, and to notify all personnel which may be on site of the incident via mobile phone.

## 9.0 Communicating with Neighbours and the Community

Early warning and regular update to owners and occupiers of premises who may be affected by an incident occurring with regards to the evaporation storages and associated water delivery pump networks will be notified as follows:

### Properties surrounding the facility:

Should a neighbour be required to take action due to an impending or actual pollution risk, a call to the telephone (landline and /or mobile) of the resident or business where a pollution impact may be experienced will be made by the management of evaporation storage facility.

In the event of a major pollution incident, residents or businesses may be further contacted by an emergency service representative, such as in the case where evacuation or critical safety actions are necessary.

An “all-clear” telephone call will also be made to residents when the incident is no longer of concern or normality has been restored.

### Wider community:

Depending on the nature, scale and timing of the incident, management of evaporation storage facility will provide information via the local media.

## 10.0 Actions During or Immediately After Pollution Incident

This section of the plan details specific measures that are to be undertaken in the event of a pollution incident.

Hazard description	Action
Rupture of inflow pipes from Gwydir Carapark and MHSAU, leading to escape of artesian water to surrounding land in breach of licence	<ul style="list-style-type: none"> <li>• Prepare temporary barrier surrounding the location of the breach to prevent public access; and</li> <li>• Assess the situation. In the event of water spilling onto public roads and/or railway lines, contact Council and/or the ARTC.</li> </ul>
Spill or overflow from evaporation storages	<ul style="list-style-type: none"> <li>• Spilling or overflowing from the evaporation storages is only likely to occur during extreme rain events leading to flooding. In this instance, the site should be evacuated. The primary risk of harm to persons on the premises in this</li> </ul>

Hazard description	Action
	<p>instance would be the risk of adverse weather and flooding.</p> <ul style="list-style-type: none"> <li>• In the event of overflow or discharge from the evaporation ponds, water quality samples must be taken as soon as possible and not more than 12 hours after any overflow commencing in accordance with requirements M2.1 of EPA License Number #####.</li> </ul>
Storage bank failure	<ul style="list-style-type: none"> <li>• Evacuate the site downstream of the direction of the bank failure; and</li> <li>• Notify neighbours and community members downstream of the direction of the bank failure; and</li> <li>• Cease delivery of Artesian water from Gwydir Carapark and MHSAU to the affected storage; and</li> <li>• Prepare a temporary barrier surrounding the location of the incident to prevent unauthorised site access.</li> </ul>

This PIRMP must also be reviewed within one month of a pollution incident occurring.

## 11.0 Staff Training

All staff required to implement this plan and associated documents must have training in its use and be inducted into it. This is to ensure they are aware of the content, processes and requirements of this plan and can competently implement it if necessary. Additionally, relevant staff will be involved in a regular exercise/drill to test the implementation of the plan. In the event of a significant incident, an investigation and debrief will be conducted, documentation updated (if required) and staff will be reinducted.

Staff are required to have training in and hold the following qualification / certificates where applicable:

- First Aid

## 12.0 Testing Plan

This plan must be tested every 12 months to ensure that the information contained is accurate and up to date and that the plan is effective.

### **13.0 Site Plan**

The attached plans (Appendix A) show the location of:

- Water supply pipelines to the storages; and
- Roads and tracks on site.

### **14.0 Further Information**

The PIRMP has been developed to comply with legislative obligations and is not an indication of increased pollution risk from the facility. Management welcomes any further enquiry about the PIRMP which can be made by calling Wal McDonald directly on 0427 522 260.

### **15.0 References**

- EPA NSW Environmental Guidelines: Preparation of pollution incident response plans
- Local Government Act 1993
- Protection of the Environment Operations Act 1997
- Protection of the Environment Operations (General) Regulation 2009
- Public Health Act 1991
- Water Administration Act 1986

### Appendix A: Site Plans



