Jemalong Irrigation Limited

Pollution Incident Response Management Plan

- **Pollution incidents must be reported immediately**

  A pollution incident can be any of the following:

  An "accident" which involves any dangerous or hazardous substances, which is life threatening and/or detrimental to the environment.

  An "accident" which involves minor non-hazardous, non-dangerous substances in small volumes, which are not life threatening, but do have the ability to cause damage to the environment if left untreated.

  The event of notification and/or action levels in irrigation waste water being exceeded (see table 4). The names and location of JIL's water monitoring sites are listed below in table 5.

Procedures to be followed in notifying a pollution incident

1. Call 000 if the incident presents an immediate threat to human health and/or property. Notify the relevant authorities as listed below. Management must then be notified.

   - ❖ EPA – 13 15 55
   - ❖ Local council – Forbes 6850 2344 bh or mobile 0418 411576 ah

     Condobolin 6895 1950 bh or 6895 2418 ah
   - ❖ Ministry of Health – Forbes District Hospital 6850 2000
   - ❖ WorkCover NSW – 13 10 50
   - ❖ Fire and Rescue NSW – 000

2. If the incident poses no actual or potential harm to the health and safety of human beings or to ecosystems, and would not result in actual or potential loss or property damage of an amount exceeding $10,000 then management must be notified and no further action is required.

Information required to be provided to authorities

1. The time, date, nature, duration and location of the incident and people involved

2. The location of the place where pollution is occurring or is likely to occur

3. The nature, the estimated quantity or volume and the concentration of any pollutants involved, if known

4. The circumstances in which the incident occurred, including the cause of the incident, if known

5. The action taken or proposed to be taken to deal with the incident and any resulting pollution or threatened pollution, if known

6. Other information prescribed by the regulations

Action to be taken to reduce or control any pollution

Any mixing of chemicals for weed spraying outside of the JIL depot is to be carried out at least 20 metres away from irrigation channels, waterways and dams. Mixing of chemicals on bridges is prohibited with the exception of aquatic chemicals and mixing should always take place on level ground. Residual chemicals can only be used immediately around outlets or structures and not below the full supply level in the channel.

Procedures for co-ordinating any action taken in combating pollution caused by an incident, and the persons through whom all communications are to be made

Jemalong Irrigation employees are the first point of contact for the notification of a pollution event. The relevant authorities will be contacted by JIL employees and any further instructions from these authorities will be adhered to as required.

Hazards to human health and the environment

Airway and skin damage from chemical exposure can be a hazard to human health

Environmental hazards include soil contamination from both chemical and fuel spills. Chemicals entering irrigation channels can cause environmental damage should the contaminated water be released onto farmland or into waterways.

3.3.1 Description and likelihood of hazards

Chemical exposure could occur if the employee failed to wear the required PPE for chemical handling.

Fuel and chemical spillage onto soil at the JIL depot would be unlikely as most areas of the depot have either concrete or bitumen as the ground base. Chemical spillage could occur in the field if correct procedures are not followed as per existing chemical handling and application of chemicals policies.

It is unlikely that bulk chemicals could accidently enter the irrigation channel system.

Action taken to control, minimise or avoid the hazards posed to human health and the environment

Employees are to ensure that they follow existing JIL policies relating to WHS and the handling and application of chemicals. JIL also has an existing Chemical Contingency Plan in accordance with their EPA licence.

3.3.2 Pre-emptive actions

The chemicals listed below marked with * are stored in a 4,500 litre poly tank located inside the chemical shed which is more than sufficient area to capture chemical if any leakage occurs. A minimum amount of herbicide is purchased by Jemalong Irrigation and is stored at any one time on the premises.

3.3.3 Inventory of pollutants

Table 1: Potential pollutants

Potential pollutant	Quantity	Storage location
Distillate	Up to 2000 litres	Underground tank - depot
Petroleum	Up to 2000 litres	Underground tank - depot
Glyphosate *	Up to 100 litres	Chemical shed
2-4/D *	Up to 100 litres	Chemical shed
Amitrole *	Up to 100 litres	Chemical shed
Acrolein	300 litres	Acrolein storage shed
Engine and transmission oils	Up to 400 litres combined	Workshop

* Chemicals stored in poly tank inside chemical shed

3.3.4 Safety equipment

In the event of a chemical spill the following personal protective equipment (PPE) must be worn: butyl rubber gloves, impervious footwear, overalls, and a full face air purifying respirator with organic vapour cartridge.

If chemicals were to enter the JIL irrigation channel system then regulating and outlet structures would be utilised to capture and hold the contaminated water. This is to minimise the risk of contaminated water reaching farmland or waterways.

3.3.5 Names and contact details of owners and occupiers in the vicinity of the premises (or where the activity is carried out)

Table 2: Contact details

Organisation	Name	Contact
Jemalong Irrigation	JIL Office Business Hours	0268 574 201 ph 0268 574 267 fax
	Neil Toole (Manager)	0415 559 768 mobile ah 0268 521 262 ah
	Matthew Toohey (Environmental Officer)	0450 878 889 mobile 0268 514 515 ah
	Patrick Nicholson (Irrigation Officer)	0404 231 895 mobile 0268 511 260 ah
	Gavin Montgomery (Irrigation Officer)	0418 986 553 mobile
	Jonathan Rathbone (Irrigation Officer)	0438 852 929 mobile

3.3.6 Communication with neighbours and the local community

JIL has an up to date list of contacts for every landholder in its area of operations. The landholders have been grouped according to their location in relation to the irrigation supply channels. This will enable a timely and ordered contact process to operate in the event of a pollution event occurring in or near the channel system.

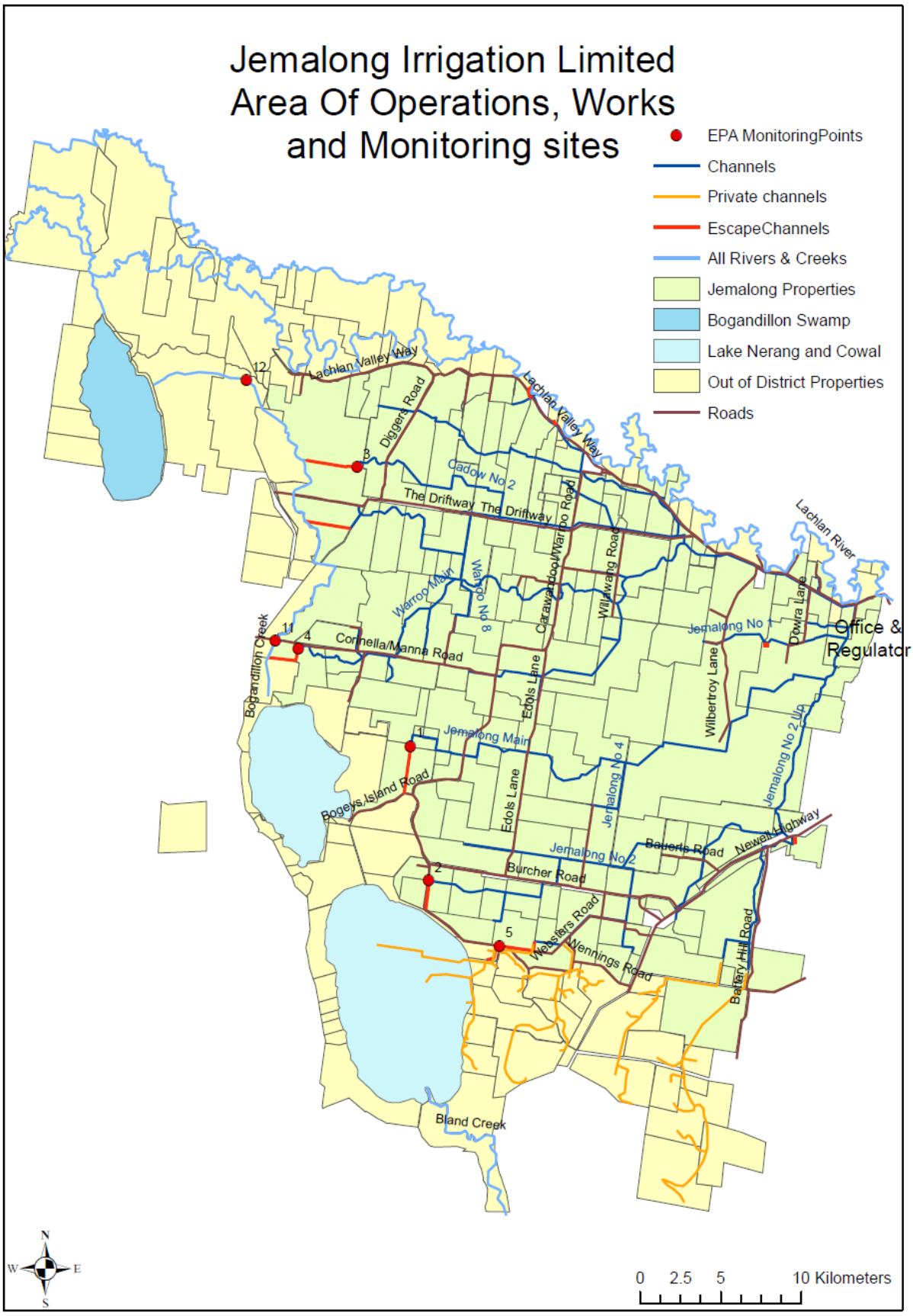
3.3.7 Minimising harm to persons on the premises

Only JIL employees with current Chemcert accreditation are to handle and apply chemicals. JIL employees are to ensure that they are wearing the appropriate PPE when handling and applying chemicals.

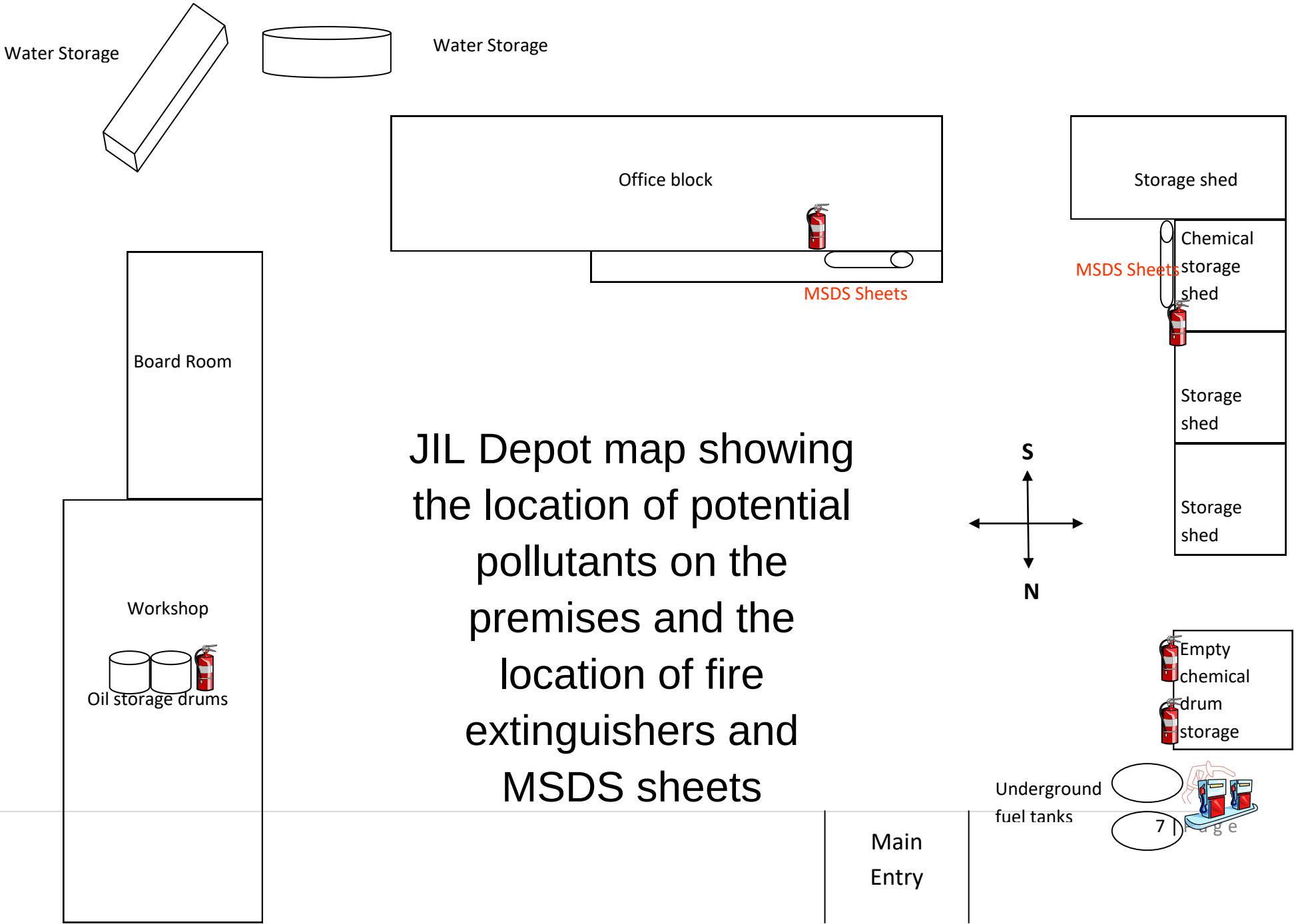
All visitors to the JIL depot are to be given an induction which includes the location of chemicals and other hazardous substances as well as evacuation procedures and muster locations.

3.3.8 Maps

Map 1: JIL Area of Operations



Map 2: JIL Depot



3.3.9 The actions taken by the licence holder following a pollution incident

The licence holder will contact the appropriate authorities immediately following a pollution incident. Any actions required by the authorities will be undertaken by the licence holder. Affected landholders will be contacted immediately and also be provided with regular updates.

3.3.10 Staff training

Training has been provided to the following Jemalong Irrigation employees

Table 3: Trained JIL employees

Name	**Position**	**Completed training**	**Assessment due**
Neil Toole	General Manager	31/5/2017	31/5/2018
Matthew Toohey	Environmental Officer	31/5/2017	31/5/2018
Gavin Montgomery	Irrigation Officer	31/5/2017	31/5/2018
Patrick Nicholson	Irrigation Officer	31/5/2017	31/5/2018
Wesley Horan	Irrigation Officer	31/5/2017	31/5/2018

The training involves each employee reading the Pollution Response Management Plan as well as the corresponding JIL policy. The employees are given scenarios based on possible pollution incidents that may occur. The employees must be able to implement the plan using these scenarios.

The plan will be tested and assessed annually on the 31st of May. In the event of a pollution event the plan will be reviewed one month after the incident.

Table 4: Chemical notification and action levels

Chemical	Environmental Guideline (ug/l) (less than)	Notification Level (ug/l)	Action Level (ug/l) (greater than)
Atrazine	2	2	10
Diuron	8	8	40
Paraquat	0.1	0.1	0.5
Diquat	1	1	5
Methomyl	0.1	0.1	0.5
Endosulfan	0.01	0.01	0.05
MCPA	232	232	1160
Acrolein	0.2	0.2	1
Glyphosate	65	65	235
2-4/D	4	4	20

Table 5: JIL monitoring points

No.	Name	Easting	Northing
1	Jemalong Escape	542607	6294635
2	Jemalong No. 2 Escape	543660	6286194
3	Cadow No. 2 Escape	539211	6311928
4	Warroo No. 9 Escape	535561	6300600
5	Jemalong No. 2C Escape	547379	6281262
11	Manna Creek, Upstream Manna Bridge	534019	6300940
12	Bogandillon Creek at Birrak Bridge	532350	6317750