



# Pollution Incident Response Management Plan

## Critical Response Information

**If a pollution event has occurred the following CICL contacts must be notified and the Pollution Incident Response Management Plan must be enacted.**

	Primary	Alternate
Name of person responsible	Keith Thompson	DanQing Xie
Business hours contact number	(02) 6950 2826	(02) 6950 2814
After hours contact number	0439 084 569	0487 651 078
Email	<a href="mailto:kthompson@colyirr.com.au">kthompson@colyirr.com.au</a>	<a href="mailto:dxie@colyirr.com.au">dxie@colyirr.com.au</a>

**If a pollution incident causes or threatens material harm to human health or the environment, the following authorities must be notified.**

	EPA	Murrumbidgee Council	SafeWork NSW	Rural Fire Service
Contact number	131 555	1300 676 243	131 050	000

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# 1 Environmental Protection Licence Details

Licence Details	
<b>Licence Number:</b>	4652
<b>Anniversary Date:</b>	1 July
<b>Licensee:</b>	Coleambally Irrigation Co-operative Limited
<b>Premises Name and address:</b>	Coleambally Area of Operations - Drainage Area for Farms 1-660
<b>Company contact details:</b>	(02) 6954 4003
<b>Scheduled/fee based activities:</b>	Irrigated Agriculture
<b>Scale:</b>	>10,000-100,000 hectares

The EPL licence 4652 (the licence) authorises Coleambally Irrigation Co-operative Limited (CICL) to undertake activities associated with Irrigated Agriculture within the high intensity cropping area of the Coleambally Area of Operations. Specifically the licence incorporates the use of pesticides by CICL on or near water bodies and the operation of the CICL drainage network that delivers irrigation wastewater into the Yanco and Billabong creeks.

Monitoring points for the CICL drainage network have been set by the licence under conditions P1.1 and has been reproduced in the table below. A map of the Area of Operations including the drainage network, monitoring points and CICL Depot is included in Appendix 6.

Location of monitoring/discharge points and areas				
EPA Identification number	CICL Labels	Type of Monitoring Point	Type of discharge Point	Location Description
<b>1</b>	CODWonga (CODW)	Wet weather discharge Discharge monitoring Environmental monitoring		Coleambally Outfall Drain Discharge labelled 'CODWonga' on map titled "West Coleambally Water Management Area" dated 19 February 2014 and on EPA file EF13/2805
<b>2</b>	DC800A			Labelled 'DC800A' on map titled "CICL Water Quality Monitoring Site" dated 12 August 2008 and on EPA file LIC07/2508.
<b>3</b>	Coleambally Catchment Drain (CCD)			Coleambally Catchment Drain labelled 'CCD' on map titled "CICL Water Quality Monitoring Site" dated 12 August 2008 and on EPA file LIC07/2508
<b>4</b>	CODOaklands (CODO)			Coleambally Outfall Drain Discharge labelled 'CODOaklands' on map titled "West Coleambally Water Management Area" dated 19 February 2014 and on EPA file EF13/2805

## 2 Definition of a Pollution Incident

Under section 148 of the Protection of the Environment (Operations) Act 1997 (POEO Act) CICAL is required to notify the NSW Environment Protection Authority (EPA) where a pollution incident occurs so that material harm to the environment is caused or threatened.

Under the POEO Act a pollution incident is defined as 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.

Under the POEO Act material harm to the environment is defined as actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial, or resulting 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 loss including the reasonable costs and expense that would be incurred in taking all reasonable and practicable measures to prevent, mitigate or make good harm to the environment.

## 3 Description and Likelihood of Hazards

The CICAL drainage network connects to the Yanco and Billabong creeks, a semi regulated anabranch complex that feeds into the Edward River at Moulamein. The Yanco and Billabong creek system provides important riparian vegetation and aquatic habitat for threatened or endangered species and ecological communities. It is also a major source of irrigation, stock and domestic water for local towns and farmers.

Coleambally is fortunate to be home to a number of ecologically important communities and native species. CICAL maintains 1,342ha of crown land within our Area of Operation for the purpose of environmental protection, with the land comprised of threatened and endangered ecological communities. Our Area of Operations contains and borders State Forest and National Parks, and our irrigation supply network is utilised to supply wetlands and provide habitat for the endangered southern bell frog.

The township of Coleambally is the only major centre within the Area of Operations, with a significant proportion of the area's population living in farm houses.

In undertaking activities associated with Irrigated Agriculture CICAL staff handle and apply agricultural chemicals, including fuels, solvents, herbicides and pesticides. Irrigation wastewater drawn from farms into the drainage network may also contain agricultural chemicals.

Exposure to agricultural chemicals can lead to a variety of acute and chronic health effects in humans, including poisoning, burns, birth defects, nervous system disorders and cancer. Agricultural chemicals can be similarly detrimental to native species and ecosystems, disrupting ecological functions and causing mass die-offs. CICAL's Area of Operations and drainage network is in close proximity to and directly affects the health of the local community and natural environment.

In the CICAL Organisational Risk Register the inherent likelihood of pollution events occurring in its drainage network is classified as 'almost certain'. The inherent likelihood of staff exposure to agricultural chemicals is classified as 'likely'. CICAL has chemical control and chemical contingency plans in place that minimise or eliminate the risk of these events causing material harm to the environment or threatening human health.

In an emergency event (such as bushfires or flash flooding), CICAL may have a limited ability to operate its channel and drainage network, which would increase the likelihood of a pollution event causing material harm to the environment and human health.

## 4 Monitoring and Recording

For monitoring points 1, 2, and 3 under the licence CICL is required to monitor (by sampling and obtaining results by analysis) for the pollutants listed in the licence under condition M2.2 and reproduced below.

When the detected concentration of chemicals listed in Schedule 1 of the licence exceeds the notification or action level at monitoring point 1 (CODW) a sample is required to be collected at monitoring point 4 (CODO) within 14-21 days of previous sample collection day.

Water monitoring requirements for monitoring points 1, 2, 3			
Pollutant	Units of Measure	Frequency	Sampling Method
<b>2,4-D</b>	Micrograms per litre	Special Frequency 1	Representative sample
<b>Atrazine</b>	Micrograms per litre	Special Frequency 1	Representative sample
<b>Chlorpyrifos</b>	Micrograms per litre	Special Frequency 1	Representative sample
<b>Conductivity</b>	Microsiemens per centimetre	Special Frequency 1	Representative sample
<b>Diazinon</b>	Micrograms per litre	Special Frequency 1	Representative sample
<b>Diuron</b>	Micrograms per litre	Special Frequency 1	Representative sample
<b>Malathion</b>	Micrograms per litre	Special Frequency 2	Representative sample
<b>Metolachlor</b>	Micrograms per litre	Special Frequency 2	Representative sample
<b>Molinate</b>	Micrograms per litre	Special Frequency 2 Environmental Monitoring	Representative sample
<b>Nitrogen (total)</b>	Milligrams per litre	Special Frequency 1	Representative sample
<b>Phosphorus (total)</b>	Milligrams per litre	Special Frequency 1	Representative sample
<b>Simazine</b>	Micrograms per litre	Special Frequency 1	Representative sample
<b>Thiobencarb</b>	Micrograms per litre	Special Frequency 2	Representative sample
<b>Trifluralin</b>	Micrograms per litre	Special Frequency 1	Representative sample
<b>Turbidity</b>	Nephelometric turbidity units	Special Frequency 1	Representative sample

### 4.1 Sampling Frequency Rates

There are three sampling frequency rates set out under conditions M2.3 and M4.1 of the licence:

- Special Frequency 1 means the collection of samples of irrigation wastewater during the months of January, April, May, September, October, November and December.
- Special Frequency 2 means the collection of samples of irrigation wastewater during the months of October, November, December and January.

- Environmental monitoring means the collection of samples of irrigation wastewater from mid-October for a period of nine weeks. These samples must be analysed for molinate.

In the event that a monitoring point does not experience a flow of irrigation wastewater for the sampling period samples do not need to be collected provided that the EPA is notified and assents. Verification of the lack of irrigation wastewater flow will be provided to the EPA upon request. Note that injections of fresh supply water from CICL channels into the drainage system does not constitute irrigation wastewater.

## 4.2 Requirement to monitor volume or mass

For each discharge point or utilisation area specified below CICL will monitor the volume discharged using Rubicon FlumeGates and the Demand Management System. In the event that the metering equipment is not operational, with the written approval of EPA the volumes may be estimated until such time as the metering equipment is restored to working order.

Water monitoring requirements for monitoring points 1, 2, 3, 4		
Frequency	Unit of Measure	Sampling Method
Daily	Megalitres per day	In-line instrumentation

## 4.3 Testing and Review Process

A desktop drill is conducted on a yearly basis to test the effectiveness of the PIRMP, to refresh staff of effective pollution incident response procedure and to facilitate the review process. In the event of a pollution incident a desktop drill is conducted within one month to assess whether the information in the PIRMP is accurate and up to date and the plan is still capable of being implemented in a workable and effective manner.

The desktop drill is organised by members of the Environmental Compliance Department. The scenario chosen must draw from previous incidents or by a scenario deemed possible/likely to occur. All members of the Environmental Compliance Department should be present for the desktop drill.

Following the desktop drill the Environmental Compliance Department will produce a review including a summary of the drill and a list of recommendations to be adopted.

## 4.4 Monitoring Records

Results of all testing undertaken in accordance with the licence or a load calculation protocol are stored electronically for a period of at least four years. These results are published on our website within 14 days of receiving results and in our annual compliance report and can be provided to EPA officers on request.

The following meta-data is recorded for all tests undertaken:

- date of the sample taken
- time the sample was collected
- the point at which the sample was collected
- the name of the person who collected the sample

## 4.5 Complaints Handling

CICL operates a telephone complaints line during office hours, with the details of the complaints line published on the CICL website. All complaints are recorded in a complaint

register, with records kept for a period of at least 4 years. An initial assessment of the veracity and seriousness of the complaint is made within 24 hours by the relevant department. If it is determined that action is required to comply with the conditions of the Environmental Protection Licence the details are to be advised to the CEO.

## 5 Reporting

### 5.1 Reporting breaches in the EPL

In the event that detected concentration of chemicals listed in Schedule 1 (see section 8.1) exceed either the notification or action level, the EPA will be notified of the exceedance within 24 hours either via telephone or email. A written report will be provided to the EPA within 7 days of the event occurring.

Third parties affected (either actual or potential) by a pollution event will be notified within 24 hours. Affected parties include those who may extract the polluted water for irrigation, stock or domestic use, or where the polluted water enters into natural waterways.

### 5.2 Annual Return

An Annual Return must be submitted to the EPA within 60 days of the conclusion of the irrigation season. The Annual Return comprises a summary of the monitoring data and adherence to the conditions set out under the licence. The Annual Return is submitted electronically through eConnect EPA.

### 5.3 Annual Compliance Report (System Performance Report)

By 30 October each year CICL must submit to the EPA an Annual Compliance Report for the preceding season. The Annual Compliance Report must detail the environmental performance and impacts of the works and infrastructure owned and controlled by the licensee and, in particular, the quality of irrigation waste water discharged from such works and infrastructure. The annual report must contain the following information in relation to the period to which it relates:

- The volume of all inflows of water to the premises, the volume of all surface water discharges from the premises and an estimate of all accessions of water to groundwater in or outside of the premises
- Results of all monitoring required by this licence and an assessment of irrigation waste water and an assessment of irrigation waste water quality trends
- A summary of all events which have been reported under conditions within R2 and R3 of the licence
- Any changes the licensee suggests should be made to this licence or the chemical contingency plan and/or the chemical control plan

### 5.4 Pollution Incident Response Management Plan

CICL's Pollution Incident Response Management Plan (PIRMP) is kept both on premises and published on our website. Any amendments to the PIRMP must be submitted to the EPA for approval, and once approved, sections of the plan must be published on our website within 14 days.

The information to be made public must include:

- Procedures for contacting the relevant government authorities in the event of a pollution incident

- The procedures for communicating with the community and any members of the public potentially affected by a pollution event

## 6 Compliance Enforcement

Under CICAL Rules a member of CICAL must not knowingly do or omit to do anything that may cause a contravention of the licences held by CICAL (Section 92.3). Section 89 (Drainage) of the CICAL Rules set out specific requirements of members who have been given permission to use the subsoil drainage services:

- CICAL may give a direction to members that discharge of water from their landholdings must comply with water quality standards set out under the licences and as prescribed by CICAL
- CICAL may also direct landholders to cease use of the subsoil drainage services for the purpose of reducing the impact of pesticides, nutrients, salt and any other pollutant, contaminant or water condition on receiving waters

Where CICAL has determined that a member has breached the rules above, CICAL may suspend the delivery of water or direct the member to conduct works to prevent the continuance of the breach. CICAL may also pass on any costs and expenses it has occurred in detecting the breach.

Any drainage event that is determined by CICAL to be a contravention of the CICAL Rules will be subject to a review by the Board of Directors.

## 7 Chemical Control Plan

### 7.1 Proposed chemical applications

CICAL provides the EPA with a report that details proposed chemical applications for the proceeding seasons including:

- types and volumes of chemicals to be used
- approximate date (in months) of chemical application
- location of likely chemical application
- method of application and target species

The report is completed at the start of each season and submitted to the EPA on request, and is published with the Annual Compliance Report. A copy of the report is attached in Appendix 7.

### 7.2 Training and safety equipment

All CICAL staff and contractors undertaking any duties involving the application of chemicals have completed the units AHCCHM307 (Prepare and Apply Chemicals to control pest, weeds and diseases) and AHCCHM304 (Transport and Store Chemicals) at AQF level 3. Training is renewed every five years by completing a refresher course through an accredited training provider. Upon request CICAL will submit details of staff training details to the EPA.

A chemical spill kit is located in an easily accessible location adjacent to the chemical storage shed at the CICAL Depot (see Appendix 4).

First aid kits are placed at appropriate locations at the Depot site. All CICAL vehicles also have first aid kits. First aid risk assessments are routinely conducted to determine the risks and hazards at each site and the appropriate first aid equipment on site.

Safe Work Practices for chemical storage and application have been developed and are maintained by CICAL staff. Within the Safe Work Practices the appropriate use of safety equipment is detailed, with reference to the safety data sheets of the chemical being applied. Copies of the safety data sheets are kept as hardcopies at the CICAL Depot.

All appropriate safety equipment listed under the Safe Work Practices is provided by CICAL and maintained in good condition.

### 7.3 Notifying neighbours of chemical application

Prior to the chemical treatment of land or water the following actions are undertaken to ensure that all potentially affected parties are notified:

- any affected lease holders of CICAL land are notified in writing prior to chemical application
- all users of treated water where water could be reasonably assumed to be delivered prior to the withholding time expiring will be notified prior to application in writing. The following users are considered especially sensitive to water treatment:
  - WaterNSW
  - members with organic farms registered with CICAL
  - stock and domestic water users
- general notification of chemical treatment will be given to our members periodically in CICAL newsletters

### 7.4 Washdown, service and repair of spray vehicles and equipment

The washdown, service and repair of spray vehicles and equipment may cause pollution of waters. To prevent pollution, spray vehicles and equipment are washed immediately after use on a concrete wash apron at the CICAL depot. To wash spray vehicles and equipment a pressure washer with a venturi nozzle fitted for detergent is stationed at the wash apron. Before spray vehicles and equipment undergo servicing or repair they are washed on the concrete wash apron.

The location of the concrete wash apron can be found on the CICAL Depot map in Appendix 4.

### 7.5 Chemical storage facilities

Chemicals are stored at the CICAL Depot in specifically designed and secured shed. The chemical shed has a raised wooden grating floor to aid in ventilation and allow chemical spills to fall into the concrete floor bunding below. A chemical spill kit is located in an easily accessible location next to the chemical shed. The location of the chemical shed can be found on the CICAL Depot map in Appendix 4.

A hazardous materials manifest can be found in Appendix 5.

### 7.6 Alternative methods of chemical control

CICAL controls pest plants in accordance with its Pest Management Strategy. The strategy identifies problem pest species and prescribes a combination of practices and control methods with the aim of eradicating or controlling pests in an environmentally sensitive way. Where practical non-chemical control methods are favoured over pesticide intensive activities.

An excerpt of the Pest Management Strategy listing alternative methods of chemical control for target pest species can be found in Appendix 9 and 10.

## 8 Chemical Contingency Plan

### 8.1 Schedule 1 – Chemicals to be monitored and the notification level and action level for each chemical

Notification and action levels for each chemical		
Chemical	Notification Level (µg/L)	Action Level (µg/L)
Atrazine	13	45
Chlorpyrifos	0.01	0.11
Diazinon	0.01	0.2
Diuron	0.2	1.0
Malathion	0.05	0.2
Metolachlor	0.46	2.6
Molinate	3.4	14
Simazine	3.2	11
Thiobencarb	2.8	4.6
Trifluralin	2.6*	4.4*
2,4-D	6 <sup>#</sup>	30 <sup>#</sup>

\*Asterisks note those figures for which 99% protection levels are substituted for the 95% Trigger Value for "slightly-moderately disturbed" systems (99% figures listed) and 95% listed instead of the 90% figures – due to bioaccumulation or potential toxicity.

<sup>#</sup>Proposed Action Level for 2,4-D is the health value from Drinking Water Guidelines (2011). Notification Level is one-fifth of the Action Level. All other Notification and Action Levels derived from more sensitive ecosystem protection trigger levels (ANZECC Water Quality Guidelines).

### 8.2 Pre-emptive pollution incident control actions

CICL undertakes a number of additional activities aimed at minimising or preventing any risk of harm to human health or the environment. These activities are above and beyond the requirements listed under CICL's EPL, the POEO Act and the NSW WHS Act.

CICL conducts additional wastewater pollutant testing beyond the prescribed sampling frequency rate for pollutants listed in Schedule 1. In scenarios where wastewater has entered the drainage network and it is deemed a possibility that the water is contaminated, the wastewater is sampled as soon as practicable and close to the source of the pollutant (if possible directly from the farm drainage inlet). This allows CICL to detect and act upon pollution events as soon as possible to minimise or prevent any risk of harm to human health or the environment. All irrigation wastewater test results are logged electronically and any test that returns a concentration of any pollutant in Schedule 1 at or above the Notification level is reported to the EPA.

CICL has an asset maintenance and replacement program in place to ensure that the channel and drainage networks remain fully functional as and when required. This includes a program to install, maintain and replace farm drainage inlets which are used by landholders to divert irrigation wastewater from farms into drains. By ensuring that the farm drainage inlets are fully functional inadvertent releases of irrigation wastewater are minimised. Maintenance and replacement records for drainage inlets are kept by the Asset and Maintenance Department.

## 8.3 EPL Notification and Action Level Response Plan

### Requirements and Conditions

The EPL sets thresholds for concentration levels of pollutants in irrigation waste water (specified in Schedule 1), above which a pollution incident is determined to have occurred and CICAL must enact its PIRMP and Chemical Contingency Plan. The aim of the Notification and Action Level Response Plan is to codify CICAL's response to pollution in irrigation waste water and ensure that it occurs in a timely and effective manner that minimises or eliminates the potential harm to the environment and human health. An overview of CICAL's response to a pollution event is outlined in the flowchart in Figure 1.

The Notification level stated in the licence is equivalent to the 95% "trigger value" in table 3.4.1 of the Australian & New Zealand Guidelines for Fresh and Marine Water Quality (2000). This value can be interpreted as the concentration at which 95% of all species will be protected – with 50% confidence. The 95% protection levels relate to laboratory NOEC (no-observed effect concentration) data and hence does not mean that 95% level of protection results in loss of 5% of species.

The Action Level stated in the licence is equivalent to the 90% "trigger value" in table 3.4.1 of the Australian & New Zealand Guidelines for Fresh and Marine Water Quality (2000). This value can be interpreted as the concentration at which 90% of all species will be protected – with 50% confidence. The 90% protection levels relate to laboratory NOEC (no-observed effect concentration) data and hence does not mean that 90% level of protection results in loss of 10% of species.

Any action or inaction of a CICAL member that leads to a breach of the licence is cause for that member to be found in contravention of the CICAL Rules. Under the Rules CICAL can direct a member to close drainage inlets and undertake on-farm works at their expense to control a pollution event. Failure to comply with a direction will be dealt with under the CICAL Rules.

### Procedure

If a sample analysis returns results at or above the notification or action levels for the pollutants specified in Schedule 1, CICAL must undertake the following actions:

- notify the EPA within 24 hours of receiving the results by telephoning the Environment Line service (131 555). A written report is to be submitted to the EPA's Riverina Far West Region Branch office within 7 days of the incident occurring, including information on the date, time and location of the exceedance, the testing officer's name and the actions undertaken or planned to control the pollution event. A form for the Notification of Breach of the Environmental Protection Licence is attached in Appendix 2
- notify any third parties potentially affected by a pollution event within 24 hours via telephone or email. Affected parties include those who may extract the polluted water for irrigation, stock or domestic use, or where the polluted water enters into natural waterways. CICAL members are to be notified via email or through the member newsletter
- undertake physical site inspections of the drainage network to determine the cause and location of the pollutant source. If a member is found to have caused the pollution event via the discharge of irrigation waste water through drainage inlets, the member is to be directed to cease the flow or undertake on farm works to prevent further pollution
- increase the monitoring of sites affected by the pollution event including sampling at internal Water Quality Sampling Sites (see Appendix 7) where there is flowing water. Repeat sampling of polluted irrigation waste water is to be undertaken every three to four days, and is to continue until the concentration of Schedule 1 pollutants falls below the Notification level or the flow ceases

When an exceedance of the action level for any Schedule 1 pollutant is detected CICL must undertake measures to minimise or eliminate the potential harm to the environment and human health, including the following actions:

- injecting fresh supply water into the drainage network at strategic points to dilute polluted irrigation waste water to a concentration below the Action level for all Schedule 1 pollutants
- undertaking sampling of EPA discharge points every three to four days until the concentration of Schedule 1 pollutants falls below the Action Level or the flow of polluted irrigation waste water ceases
- closing drainage inlets and escape structures in the drainage network and installing earthen bungs at strategic points to prevent polluted irrigation waste water from entering the Yanco and Billabong Creek system
- pumping polluted irrigation waste water back on farm for treatment and reuse

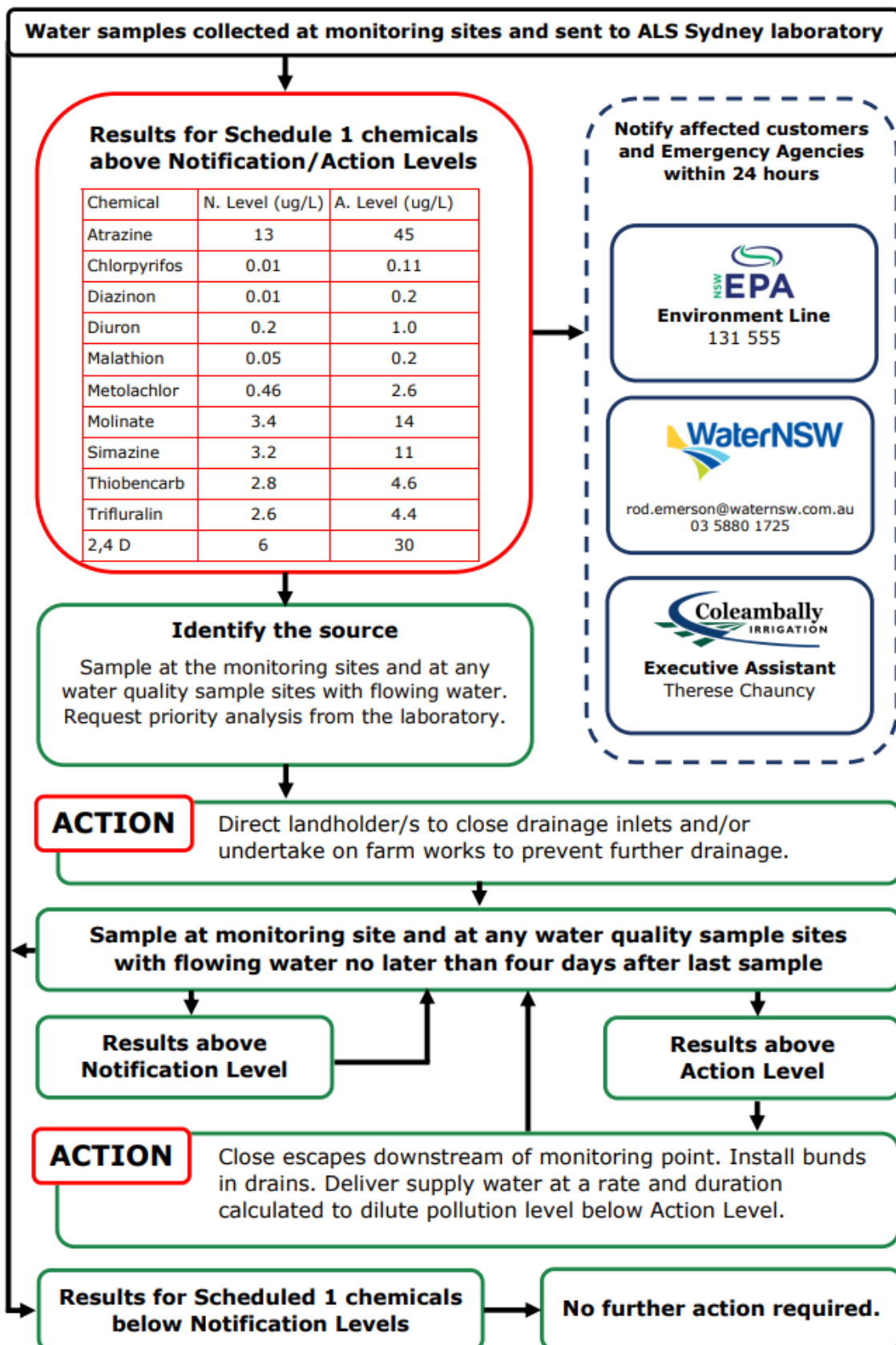


Figure 1: Flowchart of CICL's response to Notification and Action Level pollution events

## 8.4 Chemical Spills Response Plan

### Requirements and Conditions

In addition to the Chemical Contingency Plan CICAL is required to have procedures in place to be followed for co-ordinating any action taken in combating chemical spills within the Area of Operations. The procedures are required to be consistent with the New South Wales State Emergency Management Plan. The PIRMP is integrated into the CICAL's Emergency Management Plan (EMPLAN), which is harmonised with the Murrumbidgee Council's Emergency Management Plan.

### Procedure

If CICAL employees or contractors spill chemicals while undertaking work, they are required to immediately stop work and respond to the spill with the following procedure:

- Isolate the spill area, preventing unintended access from other people
- If the spill is a large spill (one that cannot be easily contained and removed), immediately contact the Compliance Department who will notify the EPA and liaise with the Murrumbidgee Council. In the event of a small spill the Compliance Department is to notify the EPA within 7 working days of the incident
- Contain the spill, either through controlling the flow of chemical from the spillage source or by forming a dam with absorbent material to prevent liquid spreading further
- Decontaminate the area, through soaking excess chemical in absorbent material and removing it and 5 to 10cm of contaminated topsoil and disposing with the waste chemical
- Dispose of the waste chemical as per the directions on the safety data sheet
- Record the details of the spill and the clean-up procedures undertaken

Where spills are within or adjacent to CICAL drain and channel infrastructure weekly testing of supply and/or waste water is undertaken at points deemed to be most at impact by the spill. If a sample analysis returns results at or above the notification or action levels for the pollutants specified in Schedule 1, the EPL Notification and Action Level Response Plan is to be enacted. The weekly testing is discontinued when two consecutive test results return below Notification level for Schedule 1 pollutants.

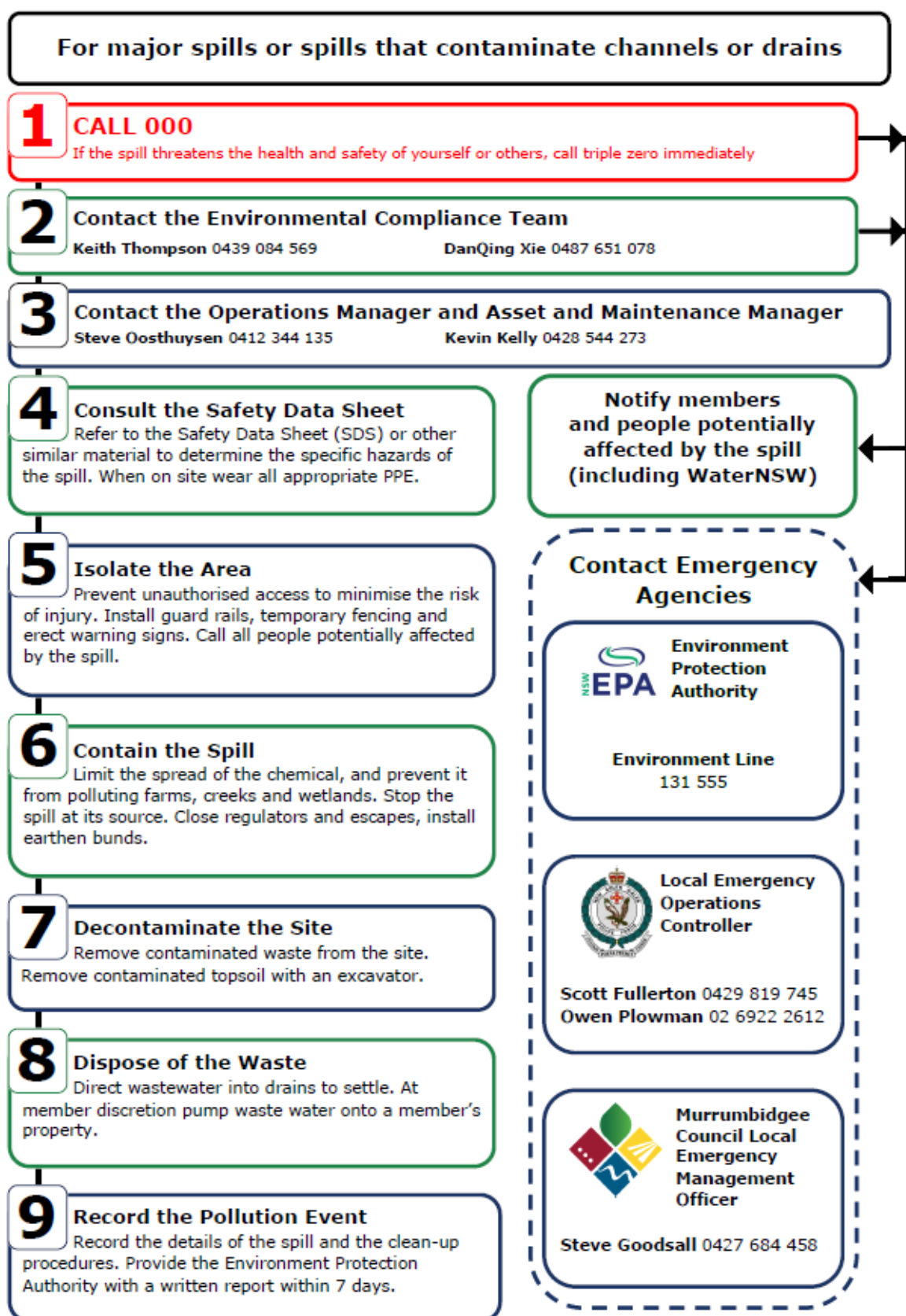
Where a chemical spill has caused a pollution event in a drain, CICAL will implement the action plan for pollutants. Where a chemical spill has caused a pollution event in a supply system channel the following actions are undertaken:

- Member irrigators are advised of the pollution event and where necessary advised to cease irrigation
- The EPA and Murrumbidgee Shire Council are notified immediately
- The spill is contained by closing the upstream and downstream in-channel regulators, confining the polluted water to as few pools as possible
- Where possible the polluted water is directed out of the supply channel system, preferably into a drain. Construct earthen weirs to contain the water within as small a section of drain as possible
- The polluted water is disposed by holding it in the drain until it evaporates, then desilting the drain and burying the contaminated soil in an area away from water sources
- The supply channel is then flushed with water and water samples are taken to ensure the water quality is below the Notification level for Schedule 1 pollutants

## 9 Appendices

### Appendix 1 Flowcharts for responding to chemical spills





## Appendix 2 Notification of breach of Environment Protection Licence



### Notification / Action Level Report

<b>Licensee</b>		<b>EPL No.:</b>	
<b>EPA Incident Number</b>			
<b>Reported by:</b>			
<b>Report Date:</b>		<b>Sample Date:</b>	
<b>Project Name:</b>			
<b>Lab Report No.:</b>			

<b>Level Type:</b>		<b>Location:</b>	
<b>Chemical:</b>		<b>Detected Level (µg/L):</b>	
<b>Notification Level (µg/L):</b>		<b>Action Level (µg/L):</b>	
<b>Details of investigation undertaken by licensee</b>			
<b>Action taken by licensee</b>			
<b>Level Type:</b>		<b>Location:</b>	
<b>Chemical:</b>		<b>Detected Level (µg/L):</b>	
<b>Notification Level (µg/L):</b>		<b>Action Level (µg/L):</b>	

## Appendix 3 Chemical Use Log

## Coleambally Irrigation Co-operative Ltd Chemical Use Log

(Records in *Italics* MUST be kept for 3 years)

(records in <u>italics</u> must be kept for 5 years)		Sketch <u>or describe</u> as appropriate:	
Date of job:                      /                      /			
Start:                      am/pm	Finish:                      am/pm		
Owner of Treated Area:			
Name:      Coleambally Irrigation Coop Ltd			
Address:    Brolga Place			
Coleambally NSW 2707			
Phone:      (02) 6954 4003			
Person Applying Chemical:			
Name:			
Location of Use:		GPS Ref:                      E                      N	

Target Treated:	Growth Stage:	Organic Farms NOT in vicinity:		
		Organic Farms In Vicinity*:		
		Organic Farms Notified*:		
		*state Farm number/s		

<i>Products Used: (full product name)</i>	<i>Batch No:</i>	<i>Chemical Rate Used</i>	<i>Total Concentrate:</i>	<i>Total Amount of Chemical Mix:</i>
<i>Additive / Wetta Used:</i>	<i>Batch No:</i>	<i>Additive/Wetta Rate Used</i>	<i>Total Additive/ Wetta Amt Used</i>	

PPE Used:		Application Equipment Used:		Weather Conditions:		
✓	Mixing				Before	During
Gloves		Handgun		Temperature (°C)		
Overalls		Boom		Relative Humidity(%)		
Goggles		Settings		Wind Speed (Km/h)		
Hat				Wind Direction		
Respirator		Nozzle		Fog/Inversion (✓ x)		
Filtered Cab		Code		Cloud Cover (10stS)		
Rubber Boots		Pressure	kPa	Days since last frost		
PVC Apron		Speed	km/hr	Days since last rain		

**Results:**

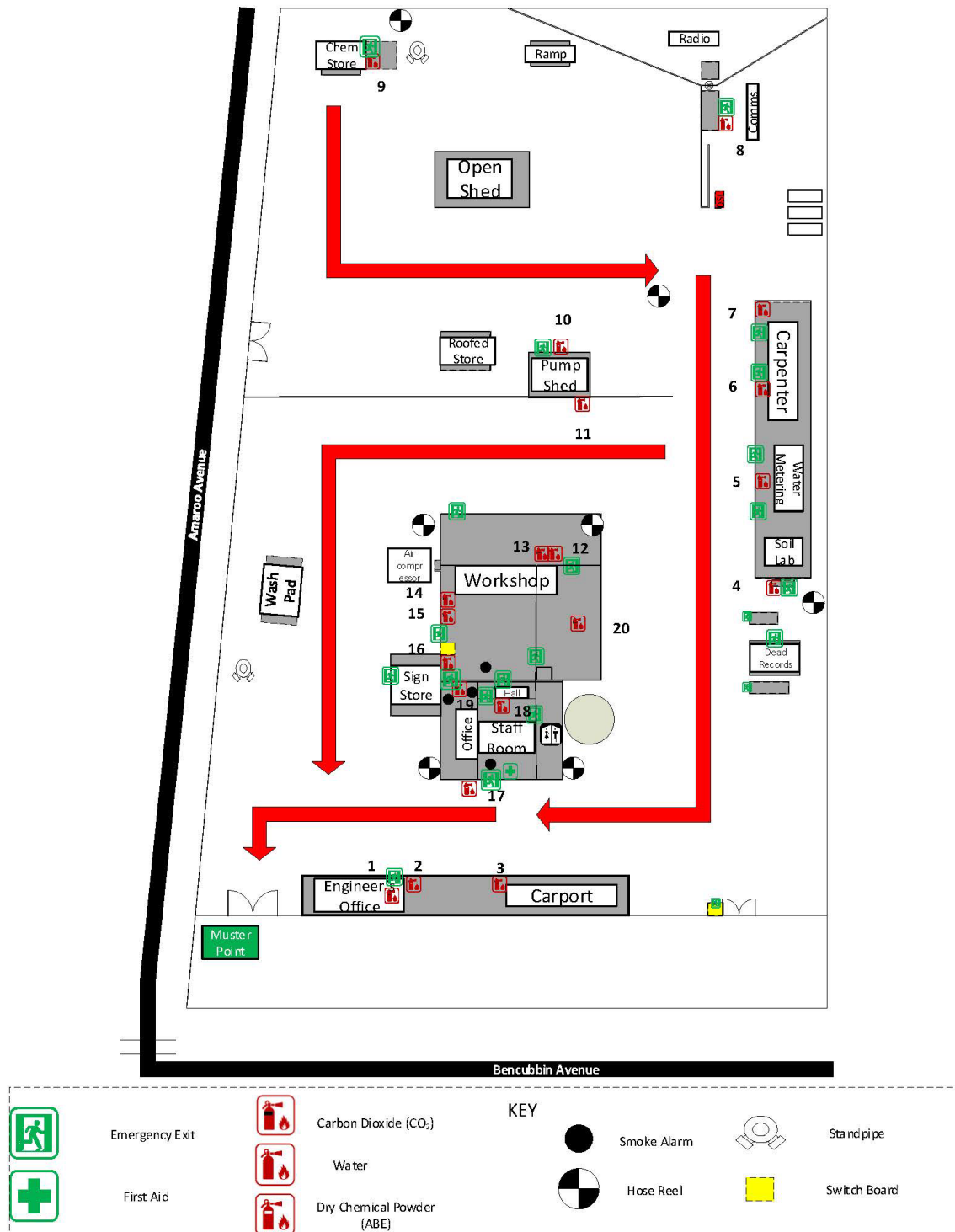
Problems:

Signature \_\_\_\_\_ Date:        /        /

# Appendix 4 Depot Evacuation Plan

Reviewed Mar 2021

## CICL Depot Emergency and Evacuation Map



## Appendix 5 Depot Chemical Manifest

Coleambally Irrigation

Date

11/02/2019

### FORM B - MANIFEST

1. List of Maximum Quantities at any one time of Dangerous Goods/Schedule Poisons/Combustible Liquids stored on premises

2. Retail/stores/depots must be on separate forms, and attached.

3. Consignment stock and stock kept for short periods exceeding transit i.e. 18 hours should be included.

(Please prepare a separate manifest for each store/depot type  
eg. retail area, mixed class warehouse, flammable store, bulk storage, gas platform.)

Class		Maximum Quantity in Kilograms/Litres			
		PGI	PGII	PGIII	(No PG)
2.1	Flammable Gases	(PG is n/a for gas)			0.0
2.2	Compressed Gases				0.0
2.3	Poison (or Toxic) Gases				0.0
3	Flammable Liquids	0.0	0.0	215.0	
3	(Sub-risk 6)	0.0	0.0	0.0	
4.1	Flammable Solids	0.0	0.0	0.0	
4.2	Spontaneously Combustible	0.0	0.0	0.0	
4.3	Dangerous When Wet	1.0	0.0	0.0	
5.1	Oxidising Substances	0.0	0.0	0.0	
5.2	Organic Peroxide	0.0	0.0	0.0	
6.1	Poison (or Toxic)	0.0	5.0	145.0	
6.1	(Sub-risk 3)	0.0	0.0	45.0	
8	Corrosives	0.0	0.0	0.0	
9	Miscellaneous	PG 1, 2 n/a for Class 9			50.0
					0

<b>Combustible Liquids</b> (Refer Material Safety Data Sheet (MSDS) to determine C1 or C2 classification)	<b>C1</b> 61°C - 150°C flashpoint Maximum quantity stored at any one time in Litres	<b>C2</b> >150°C flashpoint Maximum quantity stored at any one time in Litres	<b>Manufactured Product</b> e.g. paint with red diamond (Manufactured product means dangerous goods of Class 3 PG II or PG III, which have properties e.g. solid content and viscosity, as defined in the ADG code,)	
	1554.0	840.0	0.0	
<b>Schedule Poisons</b> (including those which are NOT Dangerous Goods)	<b>Schedule 5</b> CAUTION	<b>Schedule 6</b> POISON	<b>Schedule 7</b> DANGEROUS POISON	<b>Aerosols</b> In Litres
Maximum quantity stored at any one time	3453.5	1973.5	106.0	0.0

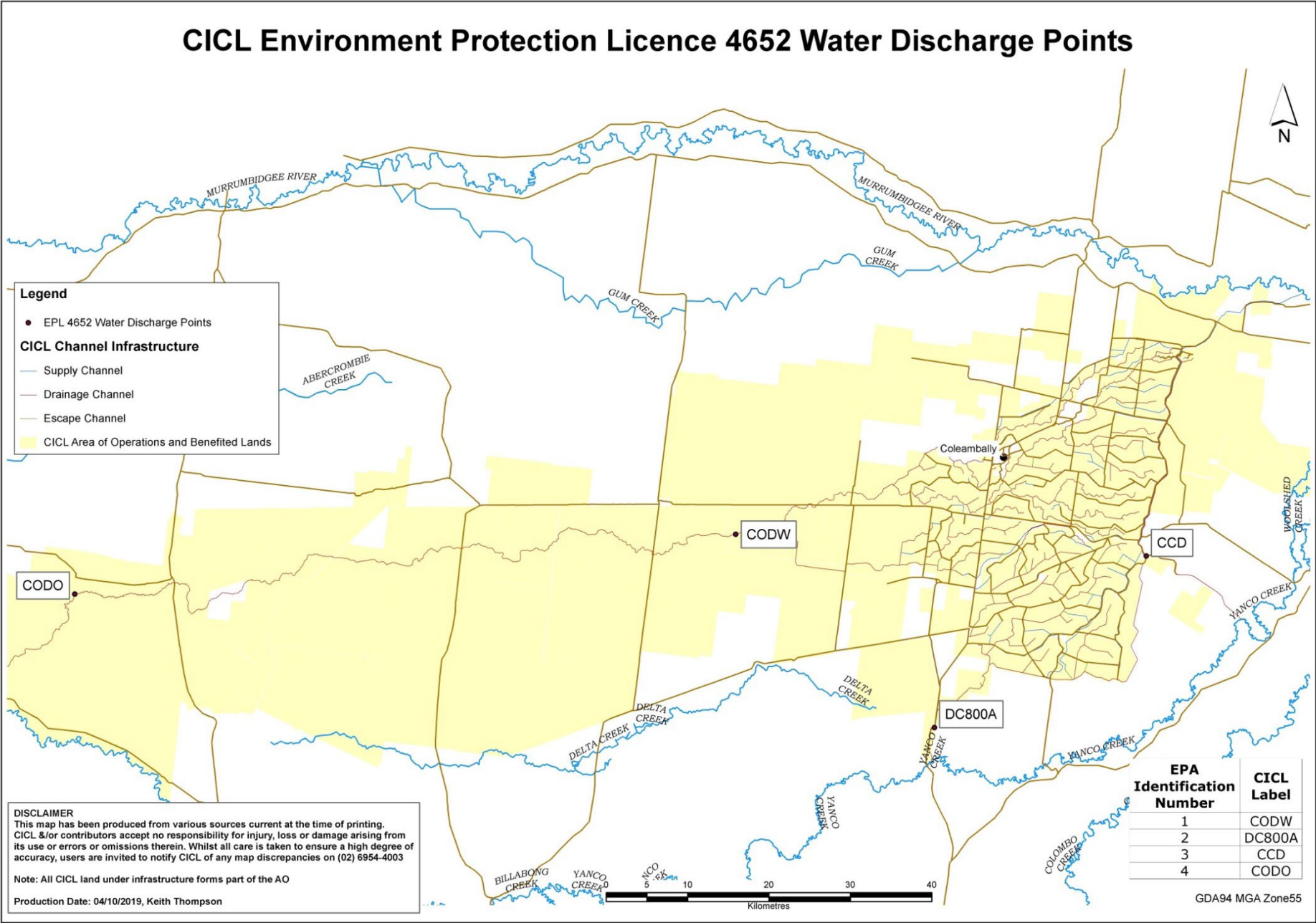
Key: PG = Packing (or Packaging) Group (I, II, III)

## Dangerous Goods Licensing - New South Wales (Detailed Report)

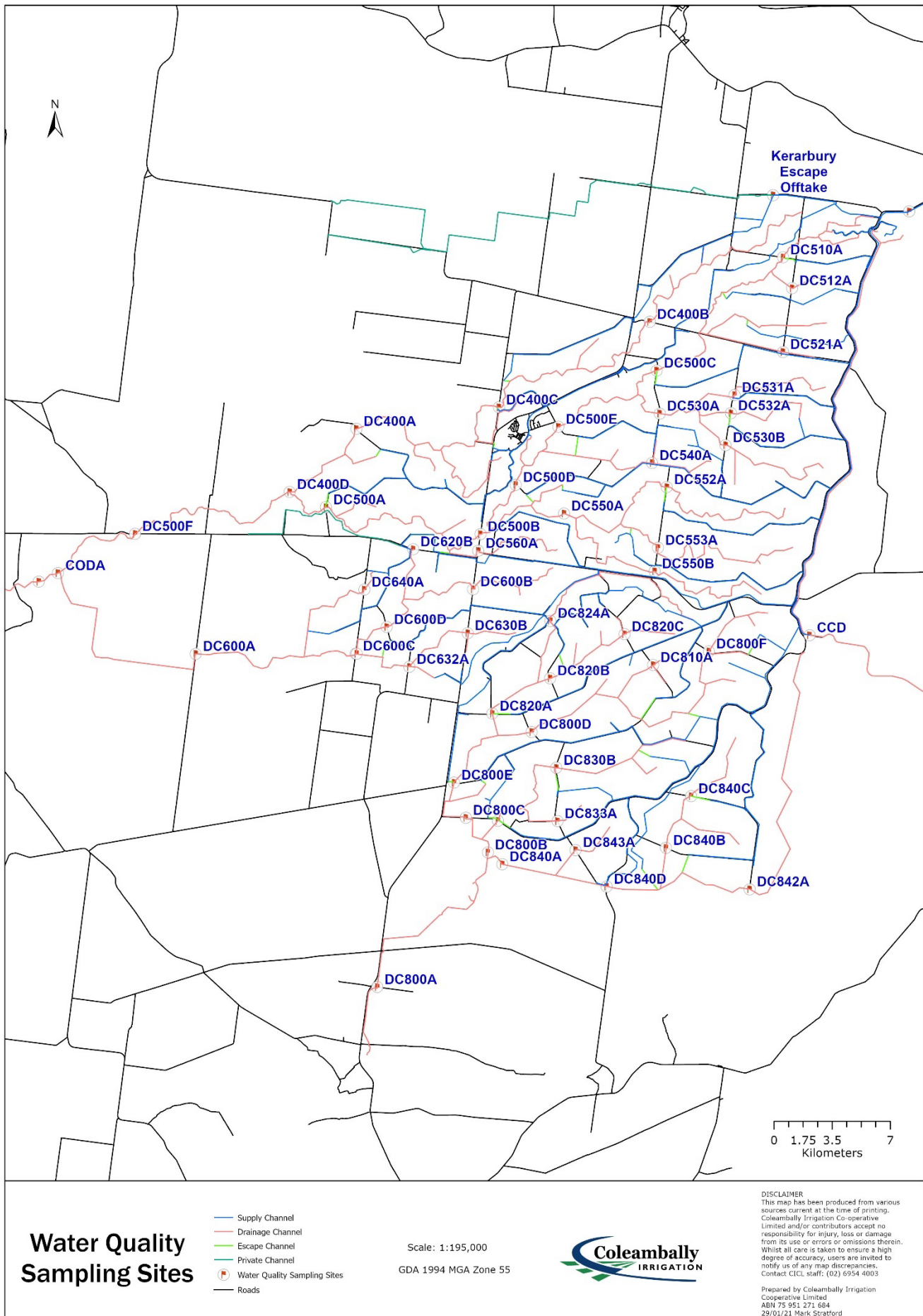
Dangerous Goods	First Month Exceeded	Amount
Class 2		0.0
Class 3 PG I and II		0.0
Class 3 PG III	June	215.0
50342 DIMETHOMIX SYSTEMIC INSECTISIDE / 3017 - ORGANOPHOSPHORUS PESTICIDE, LIQUID, TOXIC, FLAMMABLE		200.0
42637 DUPNT VELPAR HERBICIDE / 1170 - ETHANOL (ETHYL ALCOHOL) OR ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)		10.0
47210 FARMOZ FENITRITHION 1000 INSECTISIDE / 3017 - ORGANOPHOSPHORUS PESTICIDE, LIQUID, TOXIC, FLAMMABLE		5.0
Class 4.1		0.0
Class 4.2		0.0
Class 4.3 PG I	June	1.0
32069 FUMITOXIN COATED INSECTICIDE TABLETS / 1397 - ALUMINIUM PHOSPHIDE		1.0
Class 4.3 PG II		0.0
Class 4.3 PG III		0.0
Class 5.1 Ammonium Nitrate		0.0
Class 5.1 Pool Chlorine		0.0
Class 5.1 PG I		0.0
Class 5.1 PG II		0.0
Class 5.1 PG III		0.0
Class 6.1 PG I		0.0
Class 6.1 PG II	June	5.0
32082 NUFARM DICHLORVOS 1140 INSECTICIDE / 3018 - ORGANOPHOSPHORUS PESTICIDE, LIQUID, TOXIC (CONTAINS DICHLORVOS)		5.0
Class 6.1 PG III	June	145.0
50342 DIMETHOMAX SYSTEMIC INSECTISIDE / 3017 - ORGANOPHOSPHORUS PESTICIDE, LIQUID, TOXIC, FLAMMABLE		20.0
33475 COOPERS DI-JET SHEEP DIP/JETTING FLUID, CATTLE AND PIG SPRAY / 3018 - ORGANOPHOSPHORUS PESTICIDE, LIQUID, TOXIC, N.O.S		20.0
47210 FARMOZ FENITROTHION 1000 INSECTICIDE / 3017 - ORGANOPHOSPHORUS PESTICIDE, LIQUID, TOXIC, FLAMMABLE		5.0
46531 GRAMOXONE 250 HERBICIDE / 3016 - BIPYRIDILIUM PESTICIDE LIQUID, TOXIC, N.O.S. (CONTAINS PARAQUAT)		100.0
Class 8 PG I		0.0
Class 8 PG II		0.0
Class 8 PG III		0.0

<b>Dangerous Goods</b>	<b>Units</b>	<b>Amount</b>
<b>Register Items NOT applying to any Rule above</b>		
55293 ARTFERN AMINE 625 SELECTIVE HERBICIDE / -	Litres	120
56764 CROP CARE ESTER 800 SELECTIVE HERBICIDE / -	Litres	40
46892 FARMOZ LVE MCPA 500 LOW-VOLATILE ESTER HERBICE / -	Litres	100
55859 FARMOZ RHINO 500 SELECTIVE HERBICIDE / -	Litres	20
53696 HAMMER HERBICIDE / -	Litres	15
50651 4FARMERS ALPHA-CYPERMETHRIN 100 EC INSECTICIDE / 3082 -	Litres	10
53298 ALPHA DUOP 100 INSECTICIDE / -	Litres	5
31685 BAYER DIURON 500 SC LIQUID HERBICIDE / -	Litres	80
31398, N NUFARM GLYPHOSATE CT BROADHECTARE HERBICIDE / -	Litres	1000
52764 CROP CARE TRIASULFURON WG HERBICIDE / -	Kg	6
40094 FARMOZ MCPA 500 SELECTIVE HERBICIDE / -	Litres	40
31898, GARLON 600 HERBICIDE / -	Litres	20
59020 GENFARM TRIDENT 600 HERBICIDE / -	Litres	5
46511 LOGRAN 750 WG SELECTIVE HERBICIDE / 3077 - ENVIRONMENTALLY HAZARDOUS	Kg	4
46640 ACCES HERBICIDE / -	Litres	10
41257 GRASLAN HERBICIDE / -	Kg	5
52999 NUFARM SURPASS 300 HERBICIDE / -	Litres	60
49517 GESATOP GRANULES 900 WG HERBICIDE / -	Kg	0
47615 FLOWABLE GESAPRIM 500 SC LIQUID HERBICIDE / -	Litres	20
31786 DUPONT ALLY HERBICIDE / -	Kg	5
31628 DUPONT GLEAN CEREAL HERBICIDE / -	Kg	2
51183 CADENCE WG HERBICIDE / -	Kg	60
52904 NUFARM AMICIDE 625 SELECTIVE HERBICIDE / -	Litres	20
41518 SPRAYMATE BOND ADJUVANT	Litres	60

Appendix 6 Environment Protection Licence 4652 Water Discharge Points



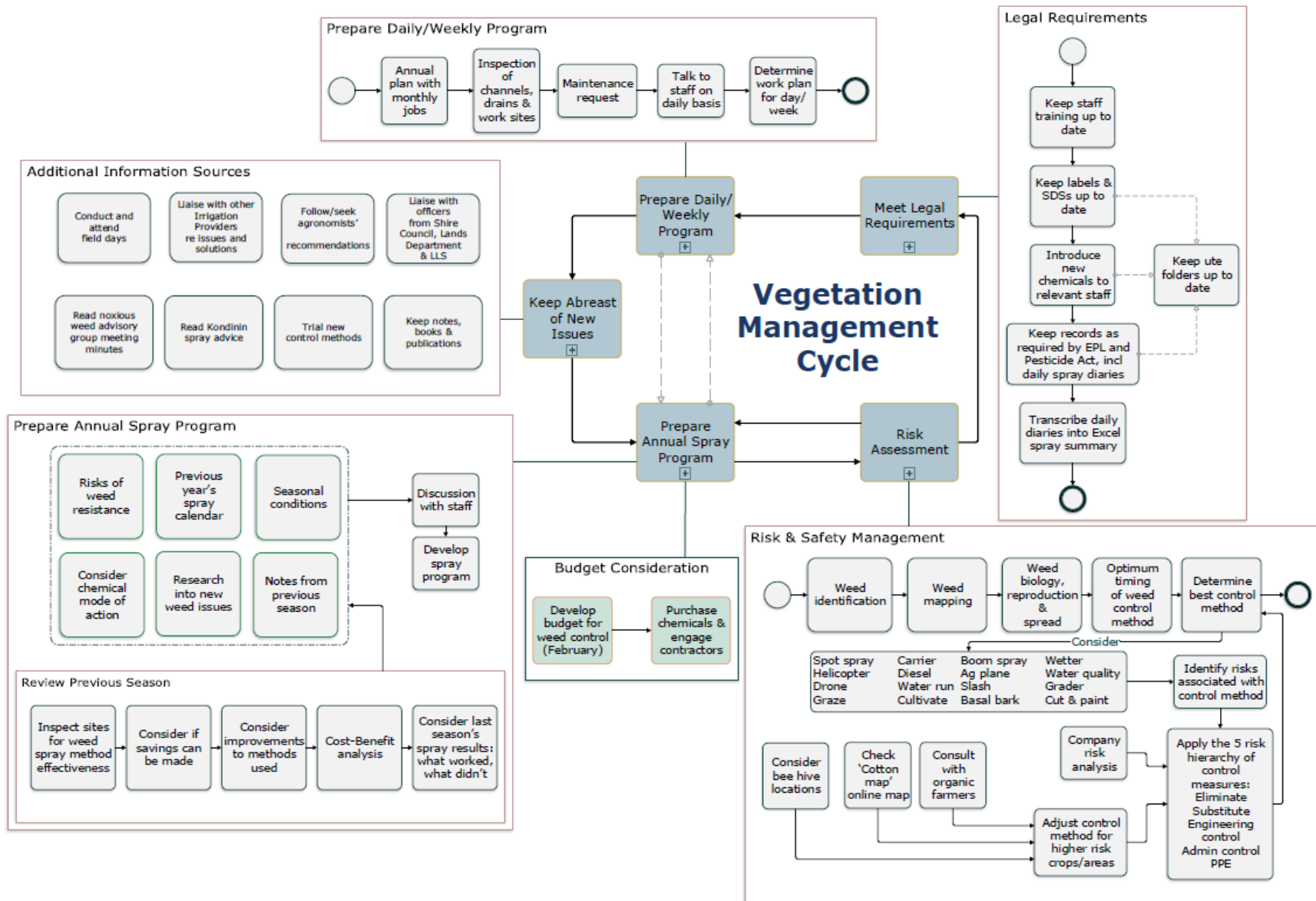
## Appendix 7 Water Quality Sampling Sites



## Appendix 8 Weed Control Program for the 2022-2023 season

Weed Control Chemical Program for the 2022-2023 Season						
Product Name	Active constituent	Estimated Amount	Application time	Location	Method	Target Species
<b>Access</b>	Triclopyr Picloram Liquid Hydrocarbon	40L	When actively growing	Access tracks and reserve land along channel and drain network	Hand gun with lance extension	African Boxthorn, suckers and shrubs
<b>Cutlass</b>	Dicamba	500L	All season	Access tracks and reserve land along channel and drain network	Hand gun and boomless nozzle spray	Bathurst Burr, Banegrass, Cumbungi, Dock, Stickweed
<b>Dalapon</b>	2,2-DPA	1,500Kg	All season	Access tracks and reserve land along channel and drain network	Hand gun and boomless nozzle spray	Alisma, Cumbungi
<b>Grazon</b>	Triclopyr Picloram	40L	When actively growing	Access tracks and reserve land along channel and drain network	Hand gun and boomless nozzle spray	Suckers
<b>Roundup</b>	Glyphosate	2,000L	All season	Access tracks and reserve land along channel and drain network	Hand gun and boomless nozzle spray	Cumbungi, Canegrass, Alisma, Bathurst Burrs, broadleaf weeds
<b>Starane</b>	Fluroxypr-meptyl	2L	November, December	Access tracks and reserve land along channel and drain network	Hand gun and boomless nozzle spray	St Johns Wort
<b>Sulfomac</b>	Sulfonylurea	30Kg	All season	Access tracks and reserve land along channel and drain network	Hand gun	Broadleaf weeds, annual and perennial grass
<b>Tordon</b>	Picloram	155 Litres	September, to May	Access tracks and reserve land along channel and drain network	Hand gun and boomless nozzle spray	African Boxthorn, suckers, noogoora burr

## Appendix 9 Vegetation Management Cycle



## Appendix 10 Assessment of alternative methods to chemical control for target pest species

Assessment of alternative methods to chemical control for target pest species					
Target Species	Associated Problem	Growth Cycle	Primary Method of Control	Alternate Method of Control	Remarks
<b>African Box Thorn (<i>Lycium Ferocissimum</i>)</b>	Forms dense, impenetrable thickets restricting stock and human access. Spikes can cause injury and puncture tyres.	All active growth shuts down under moisture stress. Only spray when actively growing. Red fruit are eaten by birds and so the seed spread widely.	African Box Thorn is sprayed when actively growing by basal bark application using a mixture of Diesel and Access.	Contract purpose built Boxthorn pulling out by the roots. Contract Shredder with under hood mist spray cut of the stumps.	The control of this plant must be managed in a manner that reduces its numbers, spread and incidence and continuously inhibits its reproduction.
<b>Alisma (<i>Alisma Lanceolatum</i>)</b>	Flow restrictions. A competitive weed of rice and potentially a serious weed. Spreads from seeds, and also underground corms. Not controlled by cultivation and is spread by tined implements, excavator tracks and clay movement.	Flowering takes place in summer after a period of rapid vegetative growth in spring. Chemical does not affect mature corms.	Alisma is controlled by eradication. Alisma is sprayed from November-January using Amitrol or Glyphosate and Dicamba. Investigating more effective products.	Ensure machinery has no seeds or corms attached. Ensure clay borrow sites are not infected with Alisma. If possible dry out drains over summer. Using excavators with GPS or LASER to return drain bed to correct grade.	CICL should be notified of any outbreaks of Alisma in the supply channels. Now doing 3 or 4 passes per season. Now using a low rate of Glyphosate to allow systemic spread into roots and growing corms.
<b>General vegetation around structures, guardrails and water sample sites</b>	Safety, traffic visibility and line-of-sight, snake risk.	Usually tallest when annuals such as Wild Oats, run up to seed in late spring.	From June-September and January all structures, guardrails and water sample sites are sprayed using Glyphosate and Dicamba and at times a sterilant spray to try and keep the dirt bare for improved safety of staff.	Slashing, Grazing.	Also reduce risk of fire damaging assets.

Assessment of alternative methods to chemical control for target pest species					
Target Species	Associated Problem	Growth Cycle	Primary Method of Control	Alternate Method of Control	Remarks
<b>Native Arrowhead</b> <i>(Sagittaria Montevidensis)</i>	Occasionally a problem, obstructing drainage channels or competing with growing rice. Can be confused with the very serious introduced Sagittaria.	Germinates in spring, growing rapidly and flowering in summer.	Arrowhead is sprayed from November-January using Amitrol. The aim is to control Arrowhead.	Does not compete with a vigorous rice crop. Try to maintain native vegetation at water level.	Native Arrowhead is usually not a serious problem.
<b>Introduced Sagittaria</b> <i>(Sagittaria platyphylla)</i>	Grows vigorously and threatens native aquatic flora and fauna. Impedes water flow and blocks channels.	Germinates from late winter to spring. Seed production occurs from September to May.		Irrigation industry initiated biological control research has identified a couple of possible control agents.	Arrowhead is classified as a weed of National Significance.
<b>Bathurst Burrs</b> <i>(Xanthium spinosum)</i>	Seeds contaminate wool. Spines make plant inedible. Seed contaminates cotton at harvest. Mature plants dye off snap off at ground level and roll into channels. Bathurst Burr competes with desirable plants.	Flowers form at the end of stems and at leaf nodes during summer. Each Burr has 2 seeds. One can stay dormant for 20 years.	Bathurst Burrs are generally sprayed from November-January using Glyphosate and or Dicamba.	Chip below ground level, any isolated plants seen. Try to avoid Grading access tracks in Spring or Summer as the bare ground and lack of competition encourages the germination of Bathurst Burr. Usually do not germinate in healthy native ground cover.	This plant must be managed in a manner that reduces its numbers, spread and incidence and continuously inhibits its reproduction.
<b>Canegrass</b> <i>(Eragrostis Australiasica)</i>	Flow restrictions.	Mainly spreads via root rhizomes that float. Can spread up and along the bank. Once established it is not killed by frost or drought. Flowers mainly in spring to summer, or after flooding.	Canegrass is generally sprayed from March-April using Propon and Amitrol. Needs follow up sprays.	Competition from less invasive rushes and sedges. Frequent cultivation over summer will eliminate it if it's in a paddock.	Excavator is not effective.

## Assessment of alternative methods to chemical control for target pest species

Target Species	Associated Problem	Growth Cycle	Primary Method of Control	Alternate Method of Control	Remarks
<b>Common Blow Grass (<i>Agrostis Avenacea</i>)</b>	Flow restrictions. Can catch on a stick or cable end of FlumeGate and start building up. Affects flow accuracy measurement. Big rafts can accumulate and block off a culvert.	Seed heads detach from plant when mature and are readily blown away by the wind.	Generally the Blow Grass problem areas are on the edges of the CIA where there is old stubble or grazing land. The Blow grass comes of these properties and sticks to the water in the channels creating flow restrictions. When there are large amounts of blow grass in the channels affecting flow, a pitchfork, backhoe or excavator are used to extract the seed heads.	Encourage adjoining landholders cultivate their rice stubbles that have Blow Grass before seed heads develop.	CICL can not spray the Blow Grass that is not on our land. This problem will be ongoing.  In certain target areas we have taken action and installed cages and fences to try and make a central point for extraction and to also stop pipes from becoming blocked.
<b>Cumbungi (<i>Typha Orientalis</i>, <i>T.Domingensis</i>)</b>	Flow restrictions. Wind blown seed readily infects neighbouring land.	Plants die back following frost. Aim to prevent flowering and any seed set. Aim to complete 3 passes per summer and autumn, prior to the first frost.	Our aim is to eradicate Cumbungi from channels and drains. Cumbungi is sprayed from October-April using either Dicamba and Glyphosate; or Amitrol and Propon depending on time of year and location.	Rotate chemicals. E.g. Propon in empty channels and drains. Use the higher rate of Glyphosate to ensure control.	No longer using Bioactive Roundup as we suspect resistance or lack of effectiveness due to the different wetting agent.
<b>Docks (<i>Rumex sp.</i>) and Stickweed</b>	Hard "Stick Like" vertical flowering stems catch floating debris, such as blow grass, and block flow.	Over winters as a flat rosette of leaves. Develops a deep robust tap root that reshoots if defoliated. The tap root can be perennial, reshooting leaves and flower stalk each season.	Dicamba spray in spring prior to plant sending up flower stem/stick. Is resistant to Glyphosate.	Can be controlled by cultivation. Limited opportunity to cultivate bed of drains.	Repeated glyphosate spraying results in drains dominated by docks and stickweed. Tap root is not killed by glyphosate.

## Assessment of alternative methods to chemical control for target pest species

Target Species	Associated Problem	Growth Cycle	Primary Method of Control	Alternate Method of Control	Remarks
<b>Floating Pondweed</b> <b>(<i>Potamogeton tricarlinatus</i>)</b>	Flow restrictions particularly at peak demand in October and early January.	Floating Pondweed commences rapid growth in the early spring, reaching maturity in October-November and usually breaking up or being partly destroyed by insects in mid-summer. Regrowth of Floating Pondweed occurs in late summer – early autumn.	Floating Pondweed is predominantly controlled biological. However, when there is an obvious flow restriction and action needs to be taken immediately mechanical removal is used. CICL does not implement mechanical control for Floating Pondweed unless it is deemed necessary to meet the supply demand of the channel. Desilting in winter provides a couple of seasons reduction of Pondweed.	Chemical control of submerged weeds is not only undertaken in the CIA when other methods are not effective. The available Chemical control is only suitable where the water is not used for stock and domestic water purposes.	It is a native plant. There are natural stem and leaf borers that cause early senescence in mid summer.
<b>Gum Suckers and Boree regrowth</b>	Restrict maintenance Access. Prevent fire truck movement. Sticks and branches fall into channel and obstruct flow. Trees blow over in wind and the root ball can tear out the bank which can washout.	Suckers are present all year.	Gum Suckers are sprayed all year using Tordon DS. Boree regrowth needs a basal bark application of Diesel and Access while actively growing to kill the root system a month or so prior to removal.	Dig out with backhoe when going past.	Gum Suckers are sprayed to ensure that access is maintained along CICL's tracks and also so trees do not start growing on the channel banks.
<b>Horehound</b> <b>(<i>Marrubium Vulgare</i>)</b>	Widespread weed of pastures, roadsides and cropping fringes. Noxious Weed. Toxic to livestock but they generally avoid eating Horehound which leads to pasture domination. Seeds have fine hooks that aid dispersion and contaminate wool.	Flowers from summer through to autumn. With adequate moisture the can be perennial. Has a deep taproot.	Horehound is generally sprayed from June-September using Dicamba. We have stopped using Glyphosate in the mix as it killed off native vegetation leaving bare ground that encouraged the Horehound seeds to germinate.	Introduction of the weevil has reduced the spread of Horehound but has not eliminated established outbreaks. CICL were involved in the release of the Plume Moth weevil that eats Horehound.  Cultivation will kill mature plants.	Horehound is classified as a noxious weed, control class 4. This means the control of this plant must be managed in a manner that reduces its numbers, spread and incidence and continuously inhibits its reproduction.

Assessment of alternative methods to chemical control for target pest species					
Target Species	Associated Problem	Growth Cycle	Primary Method of Control	Alternate Method of Control	Remarks
<b>Paterson's Curse</b> ( <i>Echium Plantagineum</i> )	Can dominate grazing and annual pasture land. Toxic to some stock in large quantities. Noxious Weed	Spread by seed. Flowers from August to December.	Paterson's Curse is generally sprayed autumn, winter and spring using Glyphosate and Dicamba.	There is a crown boring weevil that eats Patterson's Curse. Easily killed by cultivation but is not suitable for channels and drains.	Introduction of the weevils have reduced the spread of Paterson's Curse.
<b>St. John's Wort</b> ( <i>Hypericum Perforatum</i> )	Noxious Weed. Toxic to livestock. Causes photosensitisation in sheep and cattle.	Spread by seed. Occurs during late spring and summer.	St. John's Wort is generally sprayed during November using Starane when its yellow flowers stand out.	Ensure contractors' equipment, particularly from Wagga area, is properly cleaned down.	St. John's Wort is classified as a noxious weed, control class 3. This means the plant must be fully and continuously suppressed and destroyed.
<b>Umbrella Sedge</b> ( <i>Cyperus Eragrostis</i> )	Flow restrictions. Can dominate a drain following repeated spraying with Glyphosate.	Mostly spread by seed.	Umbrella Sedge is generally sprayed from November-January and again in July using Amitrol T.	Can be controlled by cultivation	The smooth waxy coating makes Umbrella Sedge resistant to Glyphosate. Repeated Glyphosate spraying results in drains dominated by Umbrella sedge.
<b>Water Couch</b> ( <i>Paspalum Paspalodes</i> )	Severely obstructs flow and causes siltation. Have had big rafts of water couch break off and float in a flood event and lodge on a bridge centre pier. This caused the flood water to wash around and scour out under the bridge abutments.	Mostly spread by runners breaking off and floating downstream. Flowers early to mid-summer; seeds maturing in late summer. Frost Sensitive	Water Couch is sprayed from October-March using high rates of Glyphosate. Depending on the concentration of couch the spraying may be contracted to helicopters. If helicopters are used Dicamba is added to kill other weeds that may be present to reduce build up of Glyphosate resistant weeds.	Water Couch is also controlled by allowing the drainage and supply channels to drain over winter and expose the couch to frost. The couch is good at trapping silt. If flow is reduced the couch and silt are removed using an excavator.	The extent of Water Couch in the CIA is too much to eradicate, however, CICAL's aim is to manage the weed so that it does not cause any major flow constraint in the area.

## Appendix 11 Pollution Incident Response Management Plan Testing and Review

Date	Name	Type
9 October 2019	Emergency Control Committee	Desktop scenario Environment Incident Report Number C-13681-2019
14 April 2020	Keith Thompson	PIRMP document review
3 June 2020	Environmental Compliance Team	Desktop scenario
17 November 2020	Environmental Compliance Team	After Action Review (Action Level Event)
29 March 2021	Environmental Compliance Team	Desktop scenario
20 June 2022	Environmental Compliance Team	Desktop scenario and PIRMP document review
9 January 2023	Environmental Compliance Team	PIRMP document review

## Appendix 12 Legislative Requirements and Compliance Conditions

Protection of the Environment Operations Act 1997 No 156		
Condition	PIRMP Reference	Comment
<b>Section 66 Conditions requiring monitoring, certification, or provision of information, and related offences</b>		
<b>(6) Publication of results of monitoring</b> The holder of a licence subject to a condition referred to in subsection (1) (a) must, within 14 days of obtaining monitoring data as referred to in that subsection—		
<b>(a)</b> if the holder maintains a website that relates to the business or activity the subject of the licence—make any of the monitoring data that relates to pollution, and the licensee’s name, publicly and prominently available on that website in accordance with any requirements issued in writing by the EPA	4.4	
<b>Section 153A Duty of licence holder to prepare PIRMP</b> The holder of an EPL must prepare a PIRMP that complies with Part 5.7A of the POEO Act	PIRMP	
<b>Section 153C Information to be included in plan</b> A PIRMP must be in the form required by regulations and must include the following:		
<b>(a)</b> procedures to be followed by the holder in notifying a pollution incident to- (i) the owners or occupiers of adjacent premises (ii) the local authority (iii) any persons or authorities required to be notified by Part 5.7 of the POEO Act	4.1, 8.3, 8.4	
<b>(b)</b> a detailed description of the action to be taken immediately after a pollution incident to reduce or control any pollution	8.3, 8.4	

(c) procedures to be followed for co-ordinating any action taken in combating the pollution caused by the incident and the persons through whom all communications are to be made.	8.3, 8.4	
<b>Section 153F Implementation of plan</b> If a pollution incident occurs at the premises so material harm to the environment (within the meaning of section 147 of the POEO Act) is caused or threatened, the person carrying on the activity must immediately implement any PIRMP that was developed to meet the requirements of the POEO Act.	8.3, 8.4	
<b>Protection of the Environment Operations (General) Regulation 2021</b>		
Condition	PIRMP Reference	Comment
<b>98C Additional matter to be included in plan</b> (1) The matters required under section 153C(d) of the Act to be included in a plan are as follows:		
(a) a description of the hazards to human health or the environment associated with the activity to which the licence relates	3	
(b) the likelihood of any such hazards occurring, including details of any conditions or events that could, or would, increase that likelihood	3	
(c) details of the pre-emptive action to be taken to minimise or prevent any risk of harm to human health or the environment arising out of the relevant activity	7.2	
(d) an inventory of potential pollutants on the premises or used in carrying out the relevant activity	Appendix 5	
(e) the maximum quantity of any pollutant that is likely to be stored or held at particular locations (including underground tanks) at or on the premises to which the licence relates	Appendix 5	
(f) a description of the safety equipment or other devices that are used to minimise the risks to human health or the environment and to contain or control a pollution event	7.2	
(g) the names, positions and 24-hour contact details of those key individuals who- (i) are responsible for activating the plan, and (ii) Are authorised to notify relevant authorities under section 148 Act, and (iii) Are responsible for managing the response to a pollution incident	Critical Response Information, 8.3, 8.4	
(h) the contact details for each relevant authority referred to in section 148 of the Act	Critical Response Information	
(i) details of the mechanisms for providing early warnings and regular updates to the owners and occupiers of premises in the vicinity of the premises to which the licence relates or where the scheduled activity is carried on	7.3, 8.2, 8.3, 8.4	
(j) 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 on	8.3, 8.4	
(k) a detailed map (or set of maps) showing the location of the premises to which the licence relates, the surrounding area that is likely to be affected by a pollution incident, the location of potential pollutants on the premises and the location of any stormwater drains on the premises	Appendix 4	

(l) 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	8.3, 8.4	
(m) the nature and objectives of any staff training programs in relation to the plan	7.2	
(n) the dates on which the plan has been tested and the name of the person who carried out the test	Appendix 11	
(o) the dates on which the plan is updated	Appendix 11	
(p) the manner in which the plan is to be tested and maintained.	4.3	
<b>98D Availability of plan</b>		
(2) A plan is also to be made publicly available in the following manner within 14 days after it is prepared—		
(a) in a prominent position on a publicly accessible website of the person who is required to prepare the plan,	4.4, 5.4	
<b>98E Testing of plan</b>		
The testing of a plan is to be carried out in such a manner as to ensure that the information included in the plan is accurate and up to date and the plan is capable of being implemented in a workable and effective manner	4.3	
Any such test is to be carried out- (a) routinely at least once every 12 months, and (b) within 1 month of any pollution incident occurring in the course of an activity to which the licence relates so as to assess, in the light of that incident, whether the information included in the plan is accurate and up to date and the plan is still capable of being implemented in a workable and effective manner	4.3	
<b>Environment Protections Licence #4652</b>		
Condition	PIRMP Reference	Comment
<b>Operating Conditions O3.1 chemical contingency plan</b>		
The chemical contingency plan must include the following information:		
a) reproduce Schedule 1 to this licence, which lists certain chemicals (the "Scheduled Chemicals") and stipulates the notification and action levels in relation to each Scheduled Chemical	8.1	
b) describes in detail, in relation to each Scheduled Chemical what actions the licensee will take in the event that the relevant notification level is exceeded in samples of irrigation waste water	8.3	
c) describes in detail, in relation to each Scheduled Chemical what actions the licensee will take in the event that the relevant action level is exceeded in samples of irrigation waste water	8.3	
d) describes in details, procedures and action, consistent with the State EMPLAN requirements, that the licensee will implement to deal with a chemical spill or similar incident.	8.4, CICL EMPLAN	
<b>Operating Conditions O3.2 chemical contingency plan additional requirements</b>		
Without limiting the generality of condition O3.1 the chemical contingency plan must include the following information		
a) details of the enhanced level of monitoring to be undertaken upon exceedance of the notification level for any Scheduled Chemical	8.3	

<b>b)</b> details of the process by which the EPA will be notified of any exceedance of the notification level for any Scheduled Chemical	8.3	
<b>c)</b> details of the proposed public notification process to increase irrigator awareness of the existence of any exceedance of a notification and/or action level	8.3	
<b>d)</b> details of the proposed emergency measures to be used to immediately bring about a reduction in the level of any scheduled chemical in irrigation waste water whenever an exceedance of a notification and/or action level occurs	8.3	
<b>e)</b> details of the mechanisms proposed to be used to restrict the discharge of irrigation waste water should such a direction be received from the EPA.	8.3	
<b>Operating Conditions 03.5 chemical control plan</b> The chemical control plan must include the following information:		
<b>a)</b> details of all proposed chemical applications within the premises, including location, date, types and volumes of chemicals to be used, method of application and target species	7.1, Appendix 8	
<b>b)</b> details of training undertaken by the employees involved in chemical application	7.2	
<b>c)</b> details of those mechanisms proposed to notify any occupier or user of treated land and waters of such treatment	7.3	
<b>d)</b> details of the manner in which used chemical containers are to be disposed of such that no pollution of waters occurs	7.5	
<b>e)</b> details of those measures to be employed to ensure that no pollution of waters occurs as result of the washdown, service or repair of spray vehicles and equipment	7.4	
<b>f)</b> details of facilities used to store chemicals, including measures designed to contain spillages	7.5	
<b>g)</b> an assessment of alternative methods of chemical control for target species and justification for partial or total reliance upon chemical control.	7.6, Appendix 10	