



Murrumbidgee
Irrigation

Murrumbidgee Irrigation Ltd.

Vegetation Management

May 2021

Murrumbidgee Irrigation Ltd.

Document Authorisation

	Name	Signature	Date
Prepared by:	Jasmine Simmonds		
Endorsed by:	Simon Jackson		
Approved by:	Alan Shea		

1. Meanings and Interpretation

1.1 Definitions

In addition to the definitions listed in the Contract Conditions and unless the context otherwise requires, the definitions set out below apply in MI's Works Requirements (**CWRs**).

Approve, approved, approval and similar words used with reference to the Tenderer or the Tenderer's Works Manager means that the Tenderer or the Tenderer's Works Manager has no objection to the thing or action proposed by the Tenderer. Such approvals are procedural approvals only. Any approval of methods of work or any other matter whatsoever under the Contract or in respect of the Works does not waive or affect any right of the Tenderer or diminish in any way the Tenderer's responsibility in respect of the Works or the Contract.

Australian Standard means a standard or a code of practice published by Standards Australia or its predecessor. Unless noted otherwise, reference to a particular Australian Standard; or to a relevant Australian Standard is a reference to the latest version of that standard or code of practice.

CWRs mean MIs Work Requirements.

MI refers to Murrumbidgee Irrigation Ltd (MI) and its agents

Provide means to provide a service, equipment, advice, documentation, report or test result, consumables or any other materials or plant used in the course of the works

Tender or Tender Document refers to this document in its entirety, including the Appendix and the Tender Form.

Tenderer is the person who submits the tender response.

WHS means work health and safety.

Work Area means that part of the site which has been entered by the Tenderer and in which the Tenderer is carrying out the Works at the time.

Works means any activity undertaken under this contract, which the Tenderer has requested of the Tenderer. This could mean any activity listed in the schedule of rates, or another activity which the Tenderer can provide in the course of vegetation management, at the request of the Tenderer

Works Manager (WM) refers to Murrumbidgee Irrigation Ltd, and is interchangeable with MI in this document. MI's Works Manager is the Channels Lead, with the next point of contact being the Planning Coordinator – Veg & Pest management. Any change in the Works Manager will be advised in writing.

Works Order is a task issued from MI's CI Anywhere system and is received by the Tenderer on an MI issued iPad for action. The Works Order is also often referred to as a Task

Workplace Any place where work is carried out for a business or undertaking and includes any place where a worker goes, or is likely to be, while at work. This may include offices, factories, shops, construction sites, vehicles, ships, aircraft or other mobile structures on land or water.

1.2 Interpretation

In addition to the rules of interpretation set out in the Contract Conditions, in the CWRs:

- a. words implying persons will, where appropriate, be construed as including corporations
- b. wherever in the imperative form of a verb is used alone without it being prefaced by the words "the Tenderer must", those words are deemed to be included as prefacing that verb, wherever it is appropriate to do so

- c. if there is discrepancy between the preliminary scope of works and any other requirement set out in the CWRs, that other requirement set out in the CWRs takes precedence
- d. 'approved', 'directed', 'required', 'rejected', and similar expressions, to mean approved, directed required, rejected, and the like, by the Tenderer's Works Manager
- e. 'give notice', 'submit', and similar expressions, to mean give notice, submit, and the like to MI's Works Manager
- f. the words 'work as executed' refer to the condition of the Works at the time the Tenderer has completed the works according to the Scope of Works or CWR provided by MI and
- g. the meaning of words 'consented' and similar, when used with reference to MIs Works Manager, is limited and indicates that MIs Works Manager does not object to something.

Some of the annexures to this tender are documents that have not been specifically drafted for inclusion in the Contract, but contain requirements that, to the extent that they apply to those aspects of the Works that are under the control of the Tenderer, the Tenderer must comply.

For the avoidance of doubt, it is noted that some requirements in the CWR's may be additional to those set out in the Contract Conditions, while others are merely a detailed reiteration of some portion of the Contract Conditions.

Nothing in these CWR's limits the generality of the Contract Conditions unless such a limitation is explicitly stated in the Works Order to apply, and then only to the extent that is specifically described.

Nothing in any annexure included in the CWR limits any requirement stated in the main body of the Works Order, unless such a limitation is explicitly stated in to apply to some specific provision of an annexure, and then only to the extent that is specifically described.

1.3 Abbreviations

Table 1 Abbreviations

Abbreviation	Meaning
AS	Australian Standard
CIA	CI Anywhere Program
EMP	Environmental Management Plan
NATA	National Association of Testing Authorities
NZS	New Zealand Standards
POEO	<i>Protection of the Environment Operations Act 1997</i>
QMP	Quality Management Plan
SMP	Site Management Plan
TMP	Traffic Management Plan
WHS	Work Health and Safety
WHSP	Work Health and Safety Management Plan
WM	Works Manager
WoNS	Weeds of National Significance
WSAA	Water Services Association of Australia

2. Background

Murrumbidgee Irrigation Ltd (**MI**) is one of the largest private irrigation companies in Australia servicing over 3,260 landholdings owned by 2,300 shareholder customers within an area of 378,911 Ha. MI operates over 1,740km of supply channels and 1,616km of drainage channels, resulting in a total embankment length of around 6,700km. These channels/drains support operation of regulators, outlets and other structures (some 28,000 in total), each of which requires management of vegetation for safe access & operation

Timely, effective and cost-efficient vegetation management along these embankments (& associated infrastructure) underpins MI's ability to operate & maintain infrastructure needed to fulfil its customer commitment, namely "to provide the water delivery services our customers want, in the best way".

The key objectives for the MI's vegetation management efforts are:

- to provide appropriate safe access along embankments for operational and maintenance activities
- control of noxious and/or Weeds of National Significance (WoNS) including managing risk of spread
- community safety improvements for "line-of-sight" hazards
- suppression of vegetation adversely impacting either drainage or supply flows
- positive relationship/reputational outcomes from Tenderer behaviours aligning with Company values

MI maintains an in-house capability for vegetation management (particularly vegetation spraying) and is seeking to improve both the cost effectiveness and impact of vegetation management activities via establishing contracts with suitable service providers. Specifically, MI is seeking contactors who can work in addition to in-house resources and assist across the network with vegetation management activities including, but not limited to:

- Chemical Application (including spraying)
- Slashing
- Trimming/cutting
- Tilling/discing/leveling
- Cut Stump

MI also seeks input from Tenderers who can assist in a safe & cost-effective way via alternate or emerging vegetation management activities, including those listed below. MI has a responsibility under the *Biosecurity Act 2015* (NSW) to ensure it is not causing undue harm, and any alternate methods must be evaluated in consideration of this responsibility. Emergent methods proposed by a Tenderer are to be suitability assessed by MI, and may include:

- Heat treatment (e.g. steam/flame)
- Microwave
- Electrocution
- Targeted mechanical removal
- Organic competition (e.g. kikuyu)
- Alternate treatment types/chemicals/methods

3. Tender Conditions

3.1 Site inspection and briefing of Tenderers

An information session may be arranged by MI to review the tender Submission requirements during the tender period, with tenderers invited to attend.

Meetings may also be arranged by MI, starting the week of the **25th of May 2021**, to review the scope, timing and responsibilities with the Tenderer. This meeting will also provide the Tenderer with an opportunity to raise questions or clarifications regarding the tender package.

3.2 Site conditions

Tenderers are to satisfy themselves as to the nature of works including all matters relating to the Works, including but not limited to:

- the types of vegetation requiring management (and most appropriate treatment method)
- presence/absence of vegetation that is not targeted for treatment as defined in the Work Order
- adjacent land uses (including residential, industrial, agricultural & livestock)
- variability of worker visibility due to pre-existing vegetation/site conditions
- hidden hazards (e.g. fences/fencing wire/rubble/litter)
- available vegetation treatment methods associated limitations & risks
- ground conditions (including uneven ground & slip/trip/fall hazards)
- potential presence of environmental hazards (e.g. snakes, insects)
- identified & unidentified services (above/on/below ground)
- existing structures (including those that move autonomously – e.g. automated regulators)
- condition of the sites
- site access/egress (including potential changes in case of inclement weather)
- variability of weather & impact on works (including hot weather & spark/fire risk)
- telecommunications coverage variability
- third-party hazards such as:
 - public/private roads & associated vehicle/pedestrian/livestock movements
 - farm-plant/equipment movements
 - rail-traffic
 - aerial crop-dusters

3.3 Access to site during tender period

Should the Tenderer consider it necessary to undertake site investigations, prior approval must be obtained from MI for any requested inspections or any other site access of any kind. No reliance will be made on the granting of such approval, which may be conditional.

3.4 Contents of tender

The Tender must be submitted upon the Tender Form provided, and together with the documents referenced on the Tender Form will be deemed to form the Tender.

3.5 Cost for preparation of tenders

MI will not be responsible for, nor pay for, any expense or loss that may be incurred by any Tenderer in the preparation of their Tender.

3.6 Non-conforming Tenders

Any Tender may be rejected which does not comply with the requirements of the Tender Documents or which contains provisions not required by the Tender Documents, except in the case of proposed alternate or emerging vegetation management practices, as referred to in section 8 of this document - Scope of Works.

Any alternative or emerging practices will only be considered if submitted in conjunction with a conforming Tender and must be accompanied by full details of the alternative method, evidence of its ability to achieve the specified quality, and any other requirements.

3.7 Language & Measurements

All Tenders together with any documents submitted by the Tenderer as part of any Tender must be written in English. Prices Tendered must be in Australian currency and measurements and quantities given in the International System of Units.

3.8 Lodgment of Tenders

Tenders and Tender Documents will be accepted in pdf or word format only, and Tender Schedules in the supplied Tender Form only.

Submissions to be made to MI by:

2:00 pm on Friday 11th of June 2021

To the following email address: tenders@mirrigation.com.au

Indicative Contract award date: 1ST to 23RD July 2021

Indicative works commencement date: July 2021

An information session will be held on Wednesday 26th May, 2021. For full details of this information session, please send a request to tenders@mirrigation.com.au

Clarifications and enquiries will be received up to 5pm Wednesday 9th June 2021. Any requests for information or clarification issued after this deadline will only be responded to at MI's discretion.

3.9 Validity period

The validity period for Tenders is forty-five (45) days from the closing date specified. The Tender will remain open for acceptance during this period. Tenderers are to advise if this period is unacceptable.

3.10 Opening of Tenders

In alignment with the best outcome for MI from the marketplace, the tender will be advertised as an open tender.

3.11 Collusion

The Tenderer must, for so long as its Tender remains capable of acceptance:

- not collude with, or communicate with any other Tenderer concerning its tender or the tender process;
- in relation to its tender, behave ethically and in accordance with generally accepted standards of commercial behaviour; and
- advise MI in writing as soon as is practicable if the tenderer becomes aware that any of the information supplied by it, or any statement made by it, is or becomes incorrect, inaccurate or potentially misleading.

3.12 Tender Evaluation

In determining which Tender is most advantageous to MI, the assessment will be based on the following criteria. Tenders will be scored in each of the stated criteria to determine the most advantageous Tender to MI.

Table 2 Evaluation Criteria

No	Criteria
1	Cultural alignment to safety and high-quality service delivery
	Demonstrated Tenderer behaviours aligning with MI Values (namely Teams, Respect, Integrity, Customers, Accountability), including a commitment to high-quality services to MI and an uncompromising commitment to safety.
2	Experience of the Tenderer
	Capability & qualifications of the Tenderer, including relevant licenses and certifications. Proven performance on similar works and demonstrated understanding of effective, safe & compliant weed management techniques
3.	Methodology
	Demonstrated understanding of the scope of works, ability to ascertain most effective treatment type in conjunction with MI, in order to achieve MI's vegetation management standards, in line with relevant legislation.
4.	Program management
	Demonstrated ability to manage the program of weed management activities, with consideration of optimum treatment methods & time-windows, site safety, quality, environment & MI needs.
5.	Submission of the most competitive price for the works
	In accordance with the Tender Schedules at Appendix A.
6.	Regulatory Compliance
	Prior fines, notices or prosecutions for environmental breaches or damage. These must be disclosed as part of the Tender submission.

3.13 Acceptance of Tenders

MI will not be bound to accept the lowest priced Tender, or any submitted Tender. MI may accept the Tender that in view of all the circumstances appears to be the most advantageous. Given the extent of area requiring vegetation management, MI may use a combination of in-house capability and Tenderer capability and may also accept multiple tenderers to perform parts of the overall work package.

Without limiting any clause of the Conditions of Tendering, Tenderers acknowledge that no agreement has been formed between MI and the Tenderer as a result of the tender process such that MI is limited or constrained in the way in which it can deal with the Tenderer's offer other than as expressly set out in these Conditions of Tendering. Tenderers acknowledge and agree that no agreement or contract is formed as a result of the tender process unless and until MI executes the Contract.

Without limiting any clause of the Tender, MI will not be liable to any Tenderer for any loss or damage suffered by a Tenderer arising out of or in connection with any act or omission of the MI, in respect of the tender, the Tender Documents, any clarifications given, and the evaluation of tenders.

3.14 Tender Price

This is a Time & Materials Schedule Tender; the Tender Schedule can be found at **Appendix A**.

The Tender & Contract will not be subject to any adjustment for rise and fall in cost elements, including but not limited to the prices of materials, consumables, plant or plant hire, currency fluctuations in the price of imported equipment, rise and fall in cost of wages, or for any other reason during the term of the contract. The pricing must be in Australian Dollars and account for all costs incurred by the Tenderer, such as the supply of plant, labour, materials and consumables for the complete and proper delivery of works.

Tenders must make due allowances for Payroll Tax on all wages and for any fees, royalties, premiums, costs, charges, Workers Compensation insurance payments, remuneration and the like which will be due or payable to any person or authority as a result of the carrying out of the contract by the successful Tenderer.

3.15 Statutory and Industry Holidays

The period for the execution of the work under the Contract will include the statutory or industry holidays and shutdowns of a similar nature. The Tenderer is reminded that due allowance must be made for such events in its Tender price. No extensions of time will be granted in respect of the occurrence of such events during the Contract period. The Tenderer will nominate the usual business shutdown periods adopted by the Tenderer throughout the year.

3.16 Goods and Services Tax (GST)

Tenderers undertake to issue a *Tax Invoice* and/or Adjustment Note at the time of making a claim for the supply or on the occurrence of an Adjustment Event in accordance with the *A New Tax System (Goods and Services Tax) Act 1999* (the GST Act). Tenderers are required to quote their Australian Business Number (ABN) in their Tender submission. If an ABN is not quoted, MI may withhold tax from payments to the successful Tenderer at the rate of 48.5% in accordance with the provisions of the "Pay As You Go" (PAYG) system for income-tax instalments and withholding tax.

3.17 Prerequisites to Acceptance

Notwithstanding any other requirements of the Tender documents, MI may require a Tenderer to submit additional information to allow further consideration of the Tender before any Tender is accepted.

Should the Tenderer fail to submit any of the information so required by the date and time stipulated by MI, the Tender may be treated as incomplete.

3.18 Evidence of Capacity

Tenderers may be required to provide evidence at an interview prior to the awarding of a contract, that they have sufficient experience and resources to perform the work specified in the Tender document. The Tenderer will attend such interview meeting at its own cost without any obligation by MI to reimburse these costs in any way.

By submitting a Tender, the Tenderer consents to MI seeking further information and investigating their commercial viability and financial capacity, which may include direct contact with previous clients and/or references. MI may seek information from sources, including police forces and the Australian Securities and Investments Commission (ASIC), or any previous MIs of the Tenderer, in order to determine whether the Tendering company, its Tenderers or any other individuals have any record of dishonest activities which may impact on any contract being negotiated.

3.19 Late Tenders

MI will only accept late Tenders in exceptional circumstances. Acceptance will be conditional upon establishing conclusively that the integrity of the process has not been compromised, and that late acceptance does not result in any administrative delay. The acceptance of late Tenders will be at the sole discretion of MI.

3.20 Unsuccessful Tenderers

MI will notify unsuccessful Tenderers that their Tender was not successful. All Tender offers are "Commercial-in-Confidence". No details of any Tenderer's offer or Tender rates, whether accepted or not, will be made available to other Tenderers or persons.

4. Tender Schedule Details

The Tender must be submitted with the Tender Pricing Schedule at Appendix A of the Tender Document, which is included in the Tender Form, along with Appendices C – F. This tender Form in its entirety must be submitted by the tenderer. In submitting this Tender, the Tenderer warrants that the Tender is valid and signed by a person having the authority and capacity to validate the Tender on behalf of the Tenderer. Failure to comply with these requirements may result in the Tender being rejected.

5. Completeness of Offer

The Tenderer warrants that their Time & Materials schedule will provide for any or all of the listed services in Appendix A under this proposed contract, as described and to the true intent of these documents.

6. Contract Documents

The Contract will be comprised as a “Master Services Agreement”, which is available upon request during the Tender Period.

7. Special Conditions of Contract

7.1 Principal Contractor Arrangement

The successful Tenderer(s) will be appointed as the Principal Contractor, and acknowledges under this arrangement:

- for the purposes of the WHS Law, it is the controller of the Workplace and the Principal Contractor under regulation 293 of the *Work Health & Safety Regulations 2017* (NSW) and must ensure, so far as is reasonably practicable, compliance with its obligations under the WHS Law
- it will use its best endeavours to ensure, so far as is reasonably practicable, the health safety of any persons at the Workplace

The tenderer must ensure that:

- it provides appropriate training and supervision for all Workers carrying out work or services at the Workplace
- it establishes and maintains safe work practices
- it will inform MI of any changes of any staff, corporate structure, management structure or supervisors that may affect the safety of its staff or Workers in performing the services required
- it otherwise complies with all statutory requirements for work health, safety and rehabilitation management

If the Tenderer engages an Approved Subcontractor or otherwise relinquishes to, or shares with, any person the management or control of the Workplace or control over the performance of the Work, they will ensure, so far as is reasonably practicable, that person complies with the obligations outlined in his document.

In order to meet its obligations as a Principal Contractor, the Tenderer must:

- adopt a work health, safety and rehabilitation management system that supports a systematic approach to managing risks to health and safety posed by the Workplace
- ensure, so far as is reasonably practicable, that it participates, and that its staff participate, in any investigation carried out by MI relating to any Workplace incident notifiable under a WHS Law in connection with the performance of the Works
- so far as is reasonably practicable, consult, cooperate and coordinate Works with any other person involved in performing work at the site to ensure optimal health and safety risk management and enable MI, the Tenderer and any person who has control of access to or from the Workplace to comply with their respective obligations under all relevant WHS Laws
- comply with MI's WHS handbooks and general safe working procedures, standards, instructions and processes, as outlined within the WHS Contractor Safety Procedure and Handbook

7.2 Third party impacts

In submitting a Tender, the Tenderer warrants that:

- it has made its own assessment of all third- party impacts that may arise in carrying out the Works,
- it has designated mitigation measures in place to prevent or minimise any such risks, and
- it will accept liability for any loss or damage resulting from the Works, except as otherwise provided by the Master Services Agreement.

The Tenderer acknowledges that third party impacts include but are not limited to:

- Loss or damage to third-party property (including crops, livestock, fences, bridges, private pumps/assets, utilities)
- Motor vehicle or pedestrian accidents
- Biosecurity impacts in line with the *Biosecurity Act 2015* (NSW)
- Environmental harm under the *Protection of the Environment Operations Act 1997* (NSW)
- Overspray onto crops, native vegetation or other sensitive vegetation, waterways, residential areas, or otherwise
- Noncompliance under the *Pesticides Act 1999* (NSW)
- Fires generated from activities (e.g. via sparks from slashing)

7.3 Protection of the Works

Consistent with the Master Services Agreement, the Tenderer will be responsible for the protection of all plant, materials, consumables, equipment and works under this Contract.

The Tenderer must provide and maintain adequate and suitable protection for all work which is liable to become damaged from any cause during the progress of the works, including inclement weather, third-party damage, vandalism or theft. Such protection will extend to existing services, stock, materials, consumables and stockpiles within the site.

8. Scope of Works

8.1 General Scope of Works

The Tenderer will provide a service to assist with the control of vegetation throughout our irrigation system, including activities such as identifying and controlling WHS risk, reporting defects, hazards and near misses, which will help MI to provide a high level of service to their customers.

The Tenderer must provide a description of their capabilities in the vegetation management areas of:

- chemical application
- slashing
- tilling/ leveling/ discing
- trimming/cutting
- any alternate/emerging treatments the Tenderer can offer

MI will consider all tenders received and may select part or whole of the offered capabilities to meet the defined requirements of the overall vegetation management program.

Equally, tenderers may choose to bid on all or part of the included tender schedule at Appendix A, according to their own capabilities.

MI may work with more than one successful Tenderer to identify work packages, which may be based upon geographic areas, target vegetation types, specific treatment methods, specific seasonal timeframes, capability or value, or a combination of these.

8.1.2 KPI's

MI measures success of the Tenderer in vegetation management efforts against the following criteria:

- Alignment of behaviors to MI values.
- Quantity of safety / environmental / customer incidents, fines, notices or prosecutions
- Positive level of reporting of any hazards / near-misses / opportunities-for-improvement
- Quality of interactions with stakeholders (incl. MI staff & Tenderers, MI customers & public)
- Cost effectiveness of treatment (\$/area)
- Effectiveness of treatment
- Duration of treatment impact (e.g. days between treatments)
- Flexibility & responsiveness to high-priority tasks (e.g. "Line-of-sight" hazards or priority access works)

8.2 Detailed Scope of Works

8.2.1 GPS Monitoring of Plant & Work:

The Tenderer will be required to facilitate MI fitting GPS tracking technology (i.e. telemetrics) on any vehicle and/or plant assigned to this contract. This GPS equipment will remain the property of MI and no fees/charges shall be levied by the Tenderer in association with the equipment installation / maintenance / removal (i.e. no charges for plant downtime whilst MI's workshop installs the equipment). In addition, where practicable, additional telemetric tracking will be linked to the treatment component of heavy plant, including:

- PTO on slasher/tiller/leveller
- Spray solenoids for spray trucks

MI will use this monitoring information to confirm location of Tenderer staff/plant and also where actual treatment activity has occurred, with this used for cross-checking against tasks & invoices, performance & efficiency measurement, identification of location for safety inspections, review of any incident or complaint, research and reporting, and any other of MI's business related purposes.

8.2.2 Issuing of Work to Tenderer(s):

Tenderers will be provided a field laptop or iPad by MI that provides connectivity to their enterprise systems for vegetation management works. Work Orders will be issued electronically via the enterprise system (where they are referred to as Tasks or Work Orders), noting that some urgent work may initially be issued by phone if time criticality requires (e.g. address urgent safety risk from "line of sight" hazard) and in these instances the Work Order will follow. For chemical applications, MI will specify the type of chemical to be used.

In the undertaking of works issued by MI, if the Tenderer identifies additional vegetation management issues (e.g. a previously unidentified "line of sight" hazard) then this can be immediately raised as an ad-hoc task by the Tenderer in the field and completed following approval from MI's relevant representative.

It is the Tenderer's responsibility to ensure that all work conducted is either identifiable by an MI issued task or an MI approved ad-hoc task – and invoices for work other than this will not be accepted by MI.

8.2.3 Privacy & Confidentiality

Confidentiality

As the Tenderer will have access to MI's systems and information, all Tenderers must:

- Treat as confidential, and keep confidential, any confidential information
- not copy, duplicate or otherwise reproduce any documents containing Confidential Information, without the prior consent of the other Party, except as is necessary to fulfil its obligations under this Deed or a Works Order; and
- not allow any of its employees, subcontractors or subcontractors or any third party to copy, duplicate or otherwise reproduce any documents containing Confidential Information, without the prior consent of the other Party, except as is necessary to fulfil its obligations under this Deed or a Works Order.

The Tenderer must not disclose Confidential Information other than:

- to its employees, subcontractors or subcontractors as and when required under the Contract;
- to its legal advisers, financial advisers and auditors
- to the extent required by law, accounting standards, or ordered by any Court,

having, to the extent practicable, consulted with MI with a view to agreeing the form, content, timing and manner of disclosure.

Privacy

The tenderer must:

- only permit Personal Information, disclosed to it by MI, to be disseminated to its employees for the purpose of fulfilling any Works Order
- will not disclose any Personal Information to any third party without the prior written consent of MI and the individual to whom the Personal Information relates

8.2.4 Issuing of Invoices to MI

Invoices must include the relevant work order(s) / task number(s) and related cost, according to the Schedule of Rates at Appendix A.

For an invoice to be approved, it must be accompanied by a separate Excel file that gives details related to the tasks listed. MI will provide a template file (which may be updated from time to time), with data required to be completed for each task including:

- Work Order Number (identified as the Task Number in CIA)
- Date undertaken
- Plant/Vehicle ID (for cross-referencing against telemetric data)
- Operator ID
- Operator Name
- Schedule Item
- Quantity of Schedule Item
- Price of Schedule Item
- Other materials / works claimed which are not included in the Schedule of Rates
- Total Price for task / work order

In addition to individual task info, the template requires:

- Total for invoice (which must match the invoiced amount submitted).
- All dollar figures must be inclusive of GST.

8.2.5 Chemical Application (including spraying)

MI requests chemical application services to address the range of vegetation that may impact service level or compliance across the network. Chemical application works are to be conducted in accordance with MI's Chemical Control Plan – **Appendix H** (and any further reiterations that are supplied to the Tenderer as this plan is updated), MI's EPL 4651 – **Appendix J** and tenderers are required to make themselves fully aware of this plan prior to submission.

All chemical application must in accordance with the relevant label and may also be subject to specific permits as directed by MI.

The Tenderer will be required to supply all chemical used, including associated management of chemical risks, documentation and compliance at the Tenderer's premises.

MI's CI Anywhere system (accessed via the provided field mobility device) enables capture of all related spray activity and compliance information, with full and accurate recording of spray data being a core requirement. This is a requirement of MI's Environmental Protection Licence 4651 – **Appendix J** - and will be strictly monitored to ensure data is entered to meet compliance with our licence. This includes the requirement that all spray data be input by the tenderer, by the end of the work period.

8.2.6 Slashing

MI is aware that different service providers in the market utilise slashing equipment of different models and capabilities. The specific equipment the tenderer is using should be specified in the tender schedules at Appendix A, along with the capabilities of this equipment, and the price for its use. For instance, submissions should indicate the width of particular slasher rigs & their associated hourly rate.

Plant Hourly rates must be used for time of actual engagement in works of the plant whilst on site, with PTO engaged.

Mobilisation and Demobilisation of Plant should be charged using Hourly Labour rates only, in accordance with the rates at Appendix A, to cover time / labour costs; plant rates must not be charged for mobilisation and demobilisation time spent.

Labour hours associated with slashing works is to be included as a separate line item to the plant PTO hours in invoicing, per the Schedule of Rates at Appendix A.

As previously identified in this tender, MI will provide & install telemetric equipment connected to the PTO of approved Tenderer plant – and only plant with PTO installed shall be allowed to work on MI's activities. It should be noted that MI's monitoring includes automated reporting on excessive idling with PTO engaged.

8.2.7 Tilling, Leveling & Discing

MI is considering trialling the use of tilling, leveling & discing as an alternate to slashing or spraying where site conditions are suitable. These services are listed in the Tender Schedules at Appendix A. The Tenderer is invited to provide a description of their capability to perform these tasks when completing the Tender Schedules. Whilst PTO engaged does not apply for these towing related activities, use of telemetrics is still applicable to confirm location and works performed.

8.2.8 Other alternate/emerging treatments

MI has a strong appetite to continuously improve in the vegetation management space, including finding ways to manage vegetation that are lower cost, higher efficiency and cause minimal environmental impact. The tenderer is invited to submit capability for other alternate or emerging treatment technologies for discussion and review, which have not been included in the tender schedule.

8.2.9 Additional services

MI requests information on both capability and rates (hourly, daily and weekly) for labour assistance to undertake the following tasks, in the course of vegetation management:

- chainsaw/brush-cutter work to address vegetation not able to be addressed via other methods.
- powerline-spotting
- truck-driving
- field-labour general
- alternate vegetation management services.

8.2.10 Safety Requirements

MI applies the following safety procedures & SWMS when self-performing works identified in the tender – the Tenderer must demonstrate that they have either equivalent safety procedures or how they will incorporate MI's supplied information. These documents are available on request during the tender period.

- Procedures:
 - Fatigue Management
 - Hazardous Chemicals
 - Traffic Management
 - Working Alone
 - Working in Remote Areas
 - Working near Power lines
 - Working on or near water v 1 4
 - Workplace Safety Inspections and Observations
 - Personals Protective Equipment
- Safe Work Method Statements (SWMS):
 - Chemical Application-Spraying
 - Dealing with Aggressive Customers
 - Extreme Weather
 - Hazard Identification Isolation
 - Isolation of Plant Equipment
 - Maintenance Activities

- Manual Handling and Site Awareness
- Mechanical on-site activities and repairs
- Operation of a Brush Cutter
- Operation of a Chainsaw
- Refuelling from Vehicle
- Tractor Slasher/ Mulcher Operation
- Traffic Management
- Truck Operation
- Recovery of Vehicles

8.2.11 Site Mobilisation / De-Mobilisation

Mobilisation and Demobilisation of Plant should be charged using Hourly Labour rates only, in accordance with the rates at Appendix A, to cover time / labour costs; plant rates must not be charged for mobilisation and demobilisation time spent.

Where the Tenderer is supplied with equipment by MI, and the tenderer must transport this plant or equipment to site, the agreed cost of transporting this to site will be chargeable to MI, including loading and unloading, at the Hourly Labour rate specified in Appendix A.

8.2.12 Traffic Management & Site Access

The Tenderer will be responsible for confirming & providing suitable site access for plant & vehicles as deemed necessary to complete the works scope.

The rate for traffic control should be specified in the submitted tender schedule (Appendix A) for the types of traffic control relevant to the tender. The Tenderer must:

- In collaboration with MI, ensure the safe movement of traffic and protection of persons and property through and around the work site. The extent of traffic control work shall include, but is not limited to, the design, approval from the local authority, construction, maintenance and removal of temporary roadways and detours, the provision of traffic controllers, signposting, road markings, raised pavement markers, lights, barriers and any other items required.
- As a minimum, conform to AS1742.3 2002 - Traffic Control at Work Sites, the RMS Traffic Control at Work Sites Manual, and any other RMS Specifications when planning and carrying out traffic control. Wherever the word 'should' occurs in AS1742.3, the word 'must' applies, and the required action is the Tenderer's responsibility. Wherever the requirements of AS1742.3 conflict with the requirements of the Traffic Control at Work Sites Manual, the requirements of the Manual shall prevail.
- Ensure that traffic controllers are appropriately trained and certified as competent. All traffic control plans for the works are to be submitted as part of the Safety Management Plan prior to commencement of the work.

Wherever the Traffic Control at Work Sites Manual provides options, advice or recommendations, the Tenderer shall consider such when planning and implementing traffic control and adopt them, as necessary, for the safe movement of traffic and protection of persons and property.

Wherever the Traffic Control at Work Sites Manual nominates a person, who is an employee, Tenderer or agent of the Tenderer, the Tenderer shall ensure the specified duties and responsibilities of such persons are carried out.

8.2.13 Temporary Irrigation Channel Shutdown

MI will coordinate the temporary shutdown of channels in accordance with agreed dates, if required for the successful completion of works.

The Tenderer shall coordinate with MI to ensure the Tenderer's works during a temporary channel shutdown are carried out effectively and on time.

The Tenderer will not be entitled to variations or extensions of time resulting from unplanned customer watering requirements that may delay or cause damage to in channel works.

8.2.14 Temporary Protection and Maintenance of Existing Services and Utilities

The Tenderer shall locate known services which are in the vicinity of the works zone including confirming service alignments and their depths.

Notwithstanding this, the Tenderer is to:

- Adequately inform themselves of the location of all services. Before commencement of construction, all utility authorities are to be contacted (and 'Dial Before You Dig' plans obtained) to establish the position of existing services.
- take all necessary action to avoid clashes with these services and immediately reinstate all damaged services to the satisfaction of the Service Provider.
- Assume responsibility for any damage to public utilities caused by its operations.
- Assume responsibility for modifying their works methods to avoid, protect and maintain above and below ground services and utilities.

8.2.15 Plant, Labour and Equipment – Site Requirements

Plant and equipment shall be selected which can reduce identified workplace hazards to as low as reasonably practicable and comply with applicable Australian and industry standards. The following specific items must be provided by the Tenderer:

- ROPS fitted to all mobile plant in accordance with the NSW WHS Act 2011;
- FOPS fitted to mobile plant (where at risk from falling objects) in accordance with the NSW WHS Act 2011;
- All operators and spotters must be trained in an accredited overhead powerline Spotters Course and crew sizes must allow enough resources for any machine capable of working inside the Powerline Exclusion Zone to have a spotter;
- All crane as required to complete the works;
- All lighting as required to undertake the works in a safe manner.

The Tenderer agrees to install MI's provided telematics monitoring system, including on the treatment system of plant (e.g. PTO on slasher & solenoid of sprayer on spray equipment).

8.2.16 Restorations and Rehabilitation

The Tenderer is required to comply with requirements set out in MI's Pollution & Incident Response Management Plan – **Appendix I**. MI's Works Manager shall be notified of any spillage as soon as practicable. Where chemicals, diesel oil, cement or other phytotoxic material have been spilt on the subsoil or topsoil, the Tenderer shall excavate the contaminated soil, dispose of it off site at an appropriately licenced facility, and replace it with site topsoil or imported topsoil as directed by MI's Works Manager, in accordance with the Pollution & Incident Response Management Plan – **Appendix K**, to restore design levels.

Where there is potential that soil may be contaminated with WoNS or Noxious Weeds (including fragments or seeds), the Tenderer must first liaise with & obtain approval from MI's Works Manager prior to any relocation. The Tenderer shall rectify any damage above ordinary wear it has caused to private and/or public land and roads to the satisfaction of MI. This may include repairing and cleaning roads and repairing previously reinstated areas.

8.2.17 Amenities

The Tenderer shall provide the following which complies with the 'Managing the Work Environment and Facilities Code of Practice' December 2011;

- Amenities as required at the work site
- Drinking Water

8.2.18 Program of Works

The Tenderer will be required to maintain an up to date status of all works via MI's corporate ERP (currently CI Anywhere) enabling real-time identification of works progress and planned activities. MI will provide training for staff and hardware (e.g. field laptop or iPad). In addition, MI will use telemetrics systems to monitor works performance.

8.2.19 Quality Assurance

MI measures success in vegetation management efforts against the following criteria:

- Alignment of behaviours to MI values.
- Quantity of safety / environmental / customer incidents, fines, notices or prosecutions
- Positive level of reporting of any hazards / near-misses / opportunities-for-improvement
- Quality of interactions with stakeholders (incl. MI staff & Tenderers, MI customers & public)
- Cost effectiveness of treatment (\$/area)
- Effectiveness of treatment
- Duration of treatment impact (e.g. days between treatments)
- Flexibility & responsiveness to high-priority tasks (e.g. "Line-of-sight" hazards or priority access works)

The Tenderer will be required to provide information and participate in quality-assurance audits relevant to the above (via MI provided systems and/or templates – as adjusted from time to time) in a timely and accurate manner.

8.2.20 Tenderer Works Excluded

The below works are excluded from the Tenderer's scope:

- Customer Engagement activities

Nearby residences will be notified in advance prior to the commencement of work by the MI Customer Engagement team, where required and where practical to do so.

Any customer enquiries received while on site are to be forwarded by the tenderer to MI's Works Manager.

All complaints will be handled by MI's Customer Services team. MI's Works Manager and the Tenderer are to provide assistance and/or information as required to address and resolve any valid complaints.

9 Safety & Environmental Management

All Tenderers must submit with the Tender:

- Relevant safety documentation, insurances, Tender Schedules and attachments
- Licenses required for works (incl. plant operation, chemical application etc as applicable)
- A safety management plan. This plan shall detail as a minimum the Tenderers key safety risks, mitigations, safe work procedures, organization structure. This safety management plan shall also include as attachments activity specific safe work method statements, traffic management plans & generic plant & vehicle movement plans that specify general site set up arrangements for various site conditions.

If successful in their bid, the Tenderer must:

- Complete online inductions via Rapid Global safety software
- Provide evidence of Construction Induction (White Cards),
- Maintain safe work conditions for all works areas
- Provide all plant information/records required by MI
- Hold daily pre-start meetings for their work force, which may include attending toolbox talks presented by MI when required.
- Operate in compliance with MI's safe works procedures & permits including hot works & powerline permits.
- Ensure site housekeeping is maintained to a high standard
- Abide by MI's 'STOP WORK' Process, whereby any of MI's employees, whether operational or otherwise, has the right to stop any works, if they deem it be unsafe in any way. Rectification of the safety issue must be proven to MI's Works Manager prior to the recommencement of works
- Co-ordinate the scope of works in conjunction with MI's staff and/or Contractors working around the Tenderer's site, including others working around and close to the Tenderer's immediate work areas. Tenderers' works and isolation of the same shall not unduly restrict access to work areas assigned to others.

9.1 Environmental Management

9.1.1 Environmental Management Plan

The Tenderer must prepare an Environmental Management Plan (EMP) to outline environmental compliance requirements, potential risks and control measures for the works.

The Tenderer's EMP must be submitted to MI and approved prior to works commencing.

The environmental requirements in sections 9.1.2 to 9.1.7 are to be incorporated as required into the Tenderer's EMP.

9.1.2 Legislative compliance

The EMP should outline each environmental legislation or requirement and clearly detail how the Tenderer will ensure compliance is met.

Compliance needs to include relevant conditions from MI's approvals:

- EPL 4651 – **Appendix J**
- Monitoring & reporting Plan for Combined Approval 40CA403245 – **Appendix K**

9.1.3 Weed and Pest

Action to be undertaken by the Tenderer in accordance with MI's Weed Hygiene Procedure – **Appendix G**:

- All plant is to be clean and meet weed hygiene requirements prior to attending site and prior to leaving site, also in keeping with the *Biosecurity Act 2015*. It is the Tenderer's responsibility to take all measures to prevent the spread of weeds or face penalties under the *Biosecurity Act 2015*.
- MI has truck washes available for use by the Tenderer at both Griffith and Leeton sites where needed
- Inspection of plant for the presence of weeds and seeds is to be conducted before and after the commencement of works.
- Priority weed areas and weed hygiene areas will be identified by MI; this information will be issued to the Tenderer in the Work Order / Task
- The Weed Hygiene Procedure must be strictly followed by the Tenderer at all sites without deviation. In addition to the information provided by MI in the work order, the Tenderer must identify any areas containing WoNS, including Alligator Weed, Sagittaria or Alisma, prior to commencement of works, and undertake all necessary measures as detailed in the Weed Hygiene Procedure.

9.1.4 Barren Box Swamp

Barren Box Storage and Wetlands has specific environmental, cultural heritage and safety risks that anyone entering the area should be aware of. It is also a quarantine zone, designated by Griffith City Council, due to the presence of Alligator Weed on site (a Weed of National Significance).

Entry to and work on the Barren Box Site should only occur after completion of the Barren Box Site Induction. The Barren Box Induction meets the conditions of consent and ensures that everyone understands the importance, environmental aspects and the cultural significance of the water storage site.

Contractors must comply with all specifications and restrictions outlined in the induction at all times.

Any and all works that occur off designated access tracks must comply with the non-negotiable on site washdown as stipulated in the Weed Hygiene Procedure – **Appendix G**.

9.1.5 Air Quality and Dust

Air quality and dust are a moderate environmental risk during the works, especially around sensitive receptors (residents, public zones, including roadways, work zones on customer properties (e.g. sheds, active farm working zones, etc). The Tenderer is responsible for minimising any environmental and nuisance impacts from dust or chemical application.

9.1.6 Chemical, fuels and hazardous substances

- All chemicals must be managed in accordance with the requirements of Safe Work Australia.
- Any chemicals used are under the direction and approval of MI, and will be advised in the Works Order, or in urgent situations, by phone call followed closely by a Works Order. Substitution or deviation by the Tenderer will not be allowed.
- The Tenderer should refer to the Chemical Control Plan (or as amended) at **Appendix H**
- Any hazardous substances required on site must be included in a Hazardous Substance Register. A copy of the register must be maintained on site during the works.
- Prior to use of any chemical, all workers involved in its use must be provided with information and training to ensure the safe use of the product, including first aid, disposal and spill management.
- The tenderer must have suitable spill response kits on hand and have at least one staff member trained in its use available on site.
- The following applies to the use of all hazardous substances:
 - Current Safety Data Sheet (SDS) shall be available,
 - All transport, storage and use of chemicals will be in accordance with SDS requirements (including any signage on vehicles),
 - All chemicals will always be stored in their original container with label intact,
 - Chemical containers shall be checked regularly for leaks and spills,
 - Chemicals will not be stored in site offices, and
 - Employees and Contractors must have access to and training in the use of spill kits
- If a chemical spill occurs on site, the Tenderer must:
 - Clean up the spill in accordance to the SDS and Pollution Incident Response Management Plan – **Appendix I** (or equivalent),
 - Remove waste material from site and dispose of in a safe manner at an appropriately licensed facility,
 - Notify MI's Works Manager of the spill, who will complete an Incident report

9.1.7 Waste Management

The Tenderer must:

- Ensure removal of all of the Tenderer's vehicles, equipment and excess materials relating to the works from the work site and adjacent areas upon completion of the works
- Ensure all waste is taken to a waste facility that is appropriately licenced to accept that waste
- Obtain and maintain records associated with disposal of waste at the relevant facility, and supply these records to MI with the corresponding invoice

10 Key Dates

Indicative dates for the overall project are as follows:

- Tender Close 2:00pm, Friday 11th June 2021
- Indicative Contract award date: 1ST - 23RD July 2021
- Work Period : July 2021 to June 2022

11 Tenderer's Representation and Undertaking

The Tenderer represents itself as an expert in vegetation management works, in line with the detailed scope of works as outlined in Section 8 of this document and **Appendix A**. Having made itself conversant with MI's requirements concerning the Works and having satisfied itself that it can meet those requirements, the Tenderer has offered to provide services as detailed, in accordance with the provisions of the Contract. Upon Execution of the Contract, MI has entered into the Contract with the Tenderer in reliance on the Tenderer's expertise as represented.

The Tenderer agrees that before entering into the Contract, it can complete the Works, taking into consideration the physical conditions and characteristics of the site and its surroundings and any existing constraints, and all other constraints and restrictions as set out in the Contract.

12 MI Supplied Materials and Services

MI **will** supply the following materials free of charge to the successful Tenderer:

- Laptop/iPad (& associated systems) for duration of contract
- Telematics equipment for duration of contract

MI **may** supply the following materials free of charge to the successful Tenderer:

- Chemicals for weed treatment
- Plant for weed treatment (e.g. spray truck, slasher, tractor, backhoe, etc)

Where chemicals or plant are supplied by MI, the Tenderer shall reflect this benefit in the price of works, in accordance with the Pricing in the Tender Schedules at **Appendix A**.

The Tenderer will be responsible for loading and transportation of MI supplied materials, or the Tenderer supplied materials, from the designated material storage area to the site, including the unloading & placement of materials at site location. The Tenderer is to charge any labour related to transportation loading & unloading costs in accordance with the labour rates specified in the Tender Schedules.

MI will not be responsible for any damage to any supplied equipment or materials once the loading & transport process commences.

Accordingly, the Tenderer is responsible for inspecting equipment/materials prior to loading onto transport vehicles. No variation in costs or extensions of time will be considered due to these requirements.

13 Workplace Health and Safety

MI highlights the following Work Health and Safety issues associated with this work, noting that this list is not exhaustive:

- Fatigue Management
- Hazardous Chemicals
- Traffic Management
- Working Alone
- Working in Remote Areas
- Working near Power lines
- Working on or near water
- Chemical Application - Spraying
- Dealing with Aggressive Customers
- Extreme Weather
- Maintenance Activities
- Manual Handling and Site Awareness
- Mechanical on-site activities and repairs
- Operation of a Brush Cutter
- Operations of a Chainsaw
- Refuelling from Vehicle
- Tractor Slasher Mulcher Operation
- Traffic Management
- Truck Operation
- Recovery of Vehicles.

The Tenderer must comply with and ensure that its employees, sub-contractors and their employees also comply with, all provisions of the NSW *Work Health and Safety Act 2011*, and Regulations and Industry Codes of Practice. The Tenderer must also comply with MI's Safety Handbook, which all Tenderers must read and acknowledge in writing, as part of their induction to work for MI, as well as any reasonable safety instruction. This includes "stop-work" instruction in the case of an identified health and/or safety hazard, which can be at the direction of any of MI's employee, including non- operational staff. If such STOP WORK instruction is issued, works will commence again only at the instruction of MIs Works Manager.

The Tenderer will:

- Indemnify MI and agree to keep MI always indemnified against all costs and expenses, fines, losses, or damages, which MI may become liable to suffer or incur in respect of or arising directly or indirectly out of the failure by the Tenderer to comply with its obligations, in accordance with the applicable WHS legislation
- Effect all insurances relating to workplace health and safety as required as a Principal Contractor

- Prepare a “Work Health and Safety Plan” (WHSP) in accordance with the NSW *Work Health and Safety Act 2011*, Regulations and Industry Codes of Practice

The Works Manager may at any time request amendment of the WHSP, if there arises a need to complete works which are not covered by the current iteration of the Tenderer’s WHSP. The Tenderer will forthwith amend the WHSP in accordance with the WMs request or provide written justification as to why the WHSP should not be amended.

Appendices

Appendix A - Tender Schedules

Schedule of Rates

ITEM	DESCRIPTION (incl. brand, model, age, hours)	Unit of measurement charged	Unit / Plant Size	Comments	Ex GST Price	Inc GST Price
1	Labour rate Charged separately to plant/equipment/materials. If applicable, specify different rates for different labour types (e.g. if different for chainsaw/brush-cutter work, powerline-spotting, truck-driving, field-labour general and/or alternate vegetation management services).	\$ per hour				
2	Slashing service Describe slashing plant used, including size of slashing deck. Specify and include separate prices for different sizes of slasher rig if applicable.	\$ per hours (PTO engaged whilst on work-order site – as measured by Telemetrics)		Note: Fuel is not to be charged in addition to the hourly charge, but accounted for within the hourly price		
3	Chemical Spraying service Describe spray plant used, including capacity of spray units. Specify and include separate prices for different sizes of spray rig if applicable.	\$ per hours (engine hours whilst on work-order site – as measured by Telemetrics)		Note: Chemicals used are to be charged in addition to the hourly charge for chemical spraying. Fuel is not to be charged in addition to the hourly charge, but accounted for within the hourly price		

4	Tilling/Leveling/Discing service Describe plant used, including size of towed rig. Specify and include separate prices for different sizes of rig if applicable.	\$ per hours (engine hours whilst on work-order site – as measured by Telemetrics)		Note: Fuel is not to be charged in addition to the hourly charge, but accounted for within the hourly price		
5	Alternate/emerging treatment services As specified by tenderer	As specified by tenderer		Note: Chemicals used are to be charged in addition to the hourly charge for alternate services. Fuel is not to be charged in addition to the hourly charge, but accounted for within the hourly price		
6						
7						

Note: (1)			
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Appendix B - Schedule of Supervisory & other Key Personnel

The experience and ability of the Tenderer's supervisory staff and other key personnel and nominated commitments will be considered in awarding of the Contract.

Table 3 Schedule of supervisory and other key personnel

POSITION (amend title as necessary)	NAME	SITE INVOLVEMENT HRS/WK VISITS/WK	PRESENT POSITION YEARS EXPERIENCE
Project Manager			
Site Manager			
Foreman			
Leading hand			
WHS Manager			
Environmental Manager			
Plant operators			
Any others – please specify			

Appendix C – Capability Statement & Key Selection Criteria

Tenderers shall demonstrate their capability to deliver on MI's requirements, with a Capability Statement which includes addressing the Key Selection Criteria listed below.

No	Key Selection Criteria
1	Cultural alignment to safety and high-quality service delivery
	Demonstrated Tenderer behaviours aligning with MI Values (namely Teams, Respect, Integrity, Customers, Accountability), including a commitment to high-quality services to MI and an uncompromising commitment to safety.
2	Experience of the Tenderer
	Capability & qualifications of the Tenderer, including relevant licenses and certifications.
	Proven performance on similar works and demonstrated understanding of effective, safe & compliant weed management techniques
3.	Methodology
	Demonstrated understanding of the scope of works, ability to ascertain most effective treatment type in conjunction with MI, in order to achieve company vegetation management standards, in line with relevant legislation.
4.	Program management
	Demonstrated ability to manage the program of weed management activities, with consideration of optimum treatment methods & time-windows, site safety, quality, environment & MI needs.
5.	Submission of the most competitive price for the works
	NOTE: submissions that do not sufficiently breakdown pricing, in accordance with the Tender Schedules at Appendix A, may be considered incomplete.
6.	Prior fines, notices or prosecutions for environmental breaches or damage. These must be disclosed as part of the Tender submission.

Appendix D – Schedule of Sub-Contractors

The Tenderer is required to list in this Schedule the description of proposed Subcontract Works and the names of the firms to whom the Tenderer, if his Tender were successful, would subcontract those Subcontract Works nominated by the Tenderer.

The Tenderer will be deemed to have satisfied itself that each of the proposed Sub-contractors is fully competent to execute those portions of the Works that would be allocated, in full compliance with the Contract.

The Tenderer will be deemed to have satisfied itself that each of the proposed Sub-Contractors is fully compliant with the required insurances, as specified in the schedule of insurance confirmation at Appendix F.

The Tenderer agrees that any change or addition that they may desire shall be subject to the prior approval of the Project Manager.

Table 4 Schedule of Key Tenderers

[illegible]

Appendix E – Schedule of Insurance Confirmation

For each type of insurance required under the contract the Tenderer shall attach to this Schedule a Letter of Confirmation from an insurance company registered with the Australian Prudential Regulatory Authority confirming that the tenderer will be able to take out insurance as required by the contract.

Each Letter of Confirmation shall:

1. Be under the letterhead of the Insurance Company, not a broker
2. Include the name of the tenderer
3. Include the name of the project
4. Include the type of insurance
5. Include a statement that the insurance policy will be fully in accordance with the Contract
6. Be signed by an authorised representative of the Insurance Company.

The required **insurances** are listed below:

Insurance Type	Level of Cover
Workers Compensation Insurance	As required by legislation
Public Liability	\$20M

Appendix F – Legislation References

Table 5 Legislation

	Legislation	Legislation Type	Requirements	Relevant Sections
1	<i>Biosecurity Act 2015 (NSW)</i>	Primary	<ul style="list-style-type: none"> • ‘The General Biosecurity Duty’, all plants are regulated with a general biosecurity duty to prevent, eliminate or minimise any biosecurity risk they may pose. • Anyone who deals with any plants and knows, or ought to know of any biosecurity risk, has a duty to ensure the risk is prevented, eliminated or minimised, so far as is reasonably practicable. • Local authority (local council) must be notified of any new incursions. 	Part 3 and Schedule 1
2	<i>Biosecurity Regulation 2017 (NSW)</i>	Primary	<ul style="list-style-type: none"> • The MIA is located within biosecurity zones for Alligator Weed (<i>Alternanthera philoxeroides</i>) and Water Hyacinth (<i>Eichhornia crassipes</i>). • Biosecurity zones are established under the Regulation to manage the biosecurity risk of the weed. • An owner or occupier of the land within the specified biosecurity zone must notify the local control authority of new infestations as soon as is practical. • The landowner/occupier must eradicate the weed, or if that is not practical, destroy as much of the weed as is practicable and suppress the spread of any remaining weed. 	
3	<i>Protection of the Environment Operations Act 1997 (NSW)</i> EPL Licence 4651	Primary	<ul style="list-style-type: none"> • MI has an obligation not to pollute waters, other than what is allowed under its Environmental Protection Licence (Appendix J). • Weed infestations may be treated only in accordance with best management practices as specified in The Cooperative Research Centre for Australian Weed Management's Herbicides: Guidelines for use in and around Water (2005) and the Department of Primary Industry's New South Wales Weed Control Handbook (2018). • MI must notify all relevant authorities of incidents causing or threatening material harm to the environment immediately after the person becomes aware of the incident. 	

4	<i>Pesticides Act 1999 (NSW)</i>	Primary	<ul style="list-style-type: none"> • All persons undertaking chemical vegetation management must be appropriately qualified to work with and apply pesticides. • All pesticides used must be registered or permitted by the APVMA. • Any pesticides used must be applied according to the appropriate label, unless a permit from the APVMA has been obtained. 	Part 2 of the Act.
5	<i>Act 2016 (NSW)</i> <i>Local Land Services Act 2013 (NSW)</i> <i>Land Management (Native Vegetation) Code 2018 (NSW)</i>	Secondary		– Part 5A – Land management (Native vegetation),
6	<i>Water Management Act 2000 (NSW)</i>	Secondary	<ul style="list-style-type: none"> • MI, as an irrigation corporation is the owner of all water management works within its area of operations, irrespective of whether the works are on MI owned land or not. • Under section 120 of the Act, MI has rights of entry for the purpose of installation, operation, repair, replace, maintain, remove, extend, expand, connect, disconnect, improve or carry out any other activity that the corporation considers necessary or appropriate to any of its water management work or to construct new water management works and, for these purposes, to carry out any work on, below or above the surface of the land. 	Part 1 of Chapter 4 of the Act
7	<i>Work Health & Safety Act 2011 (NSW)</i>	Secondary	<ul style="list-style-type: none"> • MI is a person conducting a business or undertaking with respect to the supply and drainage of water. • MI must not only ensure the health and safety of its people, but also other people (including the general public). 	Section 5 of the Act (PCBU). Sections 19 and 28 of the Act



ENVIRONMENTAL PROCEDURE

WEED HYGIENE PROCEDURE - NOXIOUS WEED MANAGEMENT

ENV-PRO-02

WHEN TO USE THIS PROCEDURE

When working in an area where noxious weeds are present

DOCUMENT CONTROL

This document will be reviewed every two years, in response to changes in legislation and or following an incident, whichever is sooner.

Date	Developed by	Reviewed by	Approved by
January 2021	Lucy Smith	Simon Jackson Joel Undy David Huxley Fern Dorricott	Fern Dorricott
Date	Reviewed by	Summary of changes	Approved by

SCOPE

This procedure applies to all activities undertaken by Murrumbidgee Irrigation or engaged contractors that involves work in a designated area where noxious weeds are present. It outlines Murrumbidgee Irrigation's obligations under the *Biosecurity Act 2015*, defines noxious weeds and Weeds of National Significance, as well as procedures to follow to minimise the biosecurity risk. Vehicle cleanliness is detailed as well as wash down guidelines.

Wash down is non-negotiable in the following circumstances.

- Any vehicles that travel off designated tracks or in known Alligator Weed areas in Barren Box Swamp;
- Working in identified or suspected *Sagittaria* (*Sagittaria platyphylla*) or *Alisma* (*Alisma lanceolatum*) drains;
- Conducting any work in or on water in all areas of Barren Box Swamp (including trailers carrying water vehicles), Wah Wah main channel and all associated laterals;
- Any soil disturbance works in Barren Box Swamp or *Sagittaria* identified channels.

PURPOSE

This document defines weed hygiene standards for Murrumbidgee Irrigation Limited and the company's obligations under the *Biosecurity Act 2015*. Procedures to minimise biosecurity risk are also outlined.

APPLICABLE LEGISLATION

Biosecurity Act 2015

ASSOCIATED MI DOCUMENTS

[MI Pre-work Environmental Assessment](#)

[BBS Induction Procedure](#)

[MI Washdown Procedure](#)

In Channel Works Form

DEFINITIONS

Noxious weed: Any plant that has an adverse effect on the environment, the economy or the community. It has the potential to out-compete other organisms for resources, reduce the productivity of agricultural systems and harm or reduce biodiversity.

Weed of National Significance (WoNS): Plant species that have been agreed upon by the Australian government to be prioritised based on their invasiveness, potential for spread and environmental, social and economic impacts.

Worker: any person who carries out work for, or in conjunction with, Murrumbidgee Irrigation. This includes:

- an employee;
- an employee of a contractor or sub-contractor;
- a trainee, apprentice or work experience student;
- staff or contractors representing an external organisation e.g. local government, utility companies, emergency service workers etc;
- a volunteer.

RESPONSIBILITIES

Under the *Biosecurity Act 2015 - Section 22 'The General Biosecurity Duty'*, all plants are regulated with a general biosecurity duty to prevent, eliminate or minimise any biosecurity risk they may pose. Anyone who deals with any plants and knows, or ought to know of any biosecurity risk, has a duty to ensure the risk is prevented, eliminated or minimised, so far as is reasonably practicable.

Under the *Biosecurity Regulation 2017 – Part 5 'Biosecurity Zones – Weeds'*, the MIA is located within biosecurity zones for Alligator Weed (*Alternanthera philoxeroides*) and Water Hyacinth (*Eichhornia crassipes*). Biosecurity zones are established under the Regulation to manage the biosecurity risk of the weed. An owner or occupier of the land within the specified biosecurity zone must notify the local control authority of new infestations as soon as is practical. The landowner/occupier must eradicate the weed, or if that is not practical, destroy as much of the weed as is practicable and suppress the spread of any remaining weed.

Each worker has a responsibility to use the tools made available to them and follow necessary procedures to minimise biosecurity risks to Murrumbidgee Irrigation, our customers and other stakeholders.

General Managers/Managers

- Possess an understanding of biosecurity obligations under the Act. Establish clear weed hygiene procedural expectations and responsibilities for all workers through the promotion of and training in this procedure, as well as all accompanying procedures and documents.

Team Leads/Coordinators

- Possess an understanding of company biosecurity obligations under the Act and establish clear procedural expectations in adherence to weed hygiene. Promote and assist workers with procedural adherence through training and upholding company standards.

Site Supervisor

- Ensure weed hygiene standards and associated procedures are understood and adhered to by all relevant workers.

Workers

- Stop. Think. Act.
- Identify risk areas for spread of noxious weeds and consider weed hygiene
- Implement weed hygiene procedure for appropriate machinery and equipment
- Ensure all machinery, equipment, vehicles and personnel do not contain plant/dirt material before leaving site

PROCEDURE

If a noxious weed or WoNS has been identified through pre work planning, it is a requirement to ensure all necessary precautions have been put in place to reduce the biosecurity risk posed by the plant prior to works commencing. Visit [NSW WeedWise](https://www.dpi.nsw.gov.au/weedwise) for information about individual species and associated biosecurity duty.

Step 1. Pre-work Risk Assessment

Prior to work commencing, conduct a site plan and risk assessment to identify any vegetation that could be considered a noxious weed and is at risk of being spread due to the works. Completing a Pre-Work Environmental Assessment and/or In Channel Works Form, and consulting [weeds.dpi.nsw.gov.au](https://www.dpi.nsw.gov.au) will assist in identifying noxious weeds on site.

Identify any planned activities with the potential to introduce or spread noxious weeds or WoNS such as:

- Introduction of plant material to a site (mulch, seeds, plants or plant fragments);
- Introduction of other materials to a site (soil, gravel, rock, sand, etc);
- Vehicle or machinery access to a site;
- Any potential soil disturbance (ploughing, grading, excavating)

Step 2. Implement vegetation management options prior to commencing work

If noxious weeds or WoNS have been identified, workers must take appropriate measures to manage the vegetation prior to work commencing. Contact the Channels Team and arrange a work order for the weeds treated prior to works commencing. Ensure the work order has been completed prior to commencing work, allowing an appropriate amount of time for the management treatment to be effective, without allowing excessive new growth to occur. Contact the Planning Coordinator for Pest and Vegetation Management for advice if needed.

If the works to be carried out is weed control, this step is not necessary.

Step 3. Manage or minimise risks prior to beginning works

Where possible, minimise risks from identified activities before commencing work.

- Reduce the number of vehicles entering and exiting the site where possible;
- Provide containment for any spills of materials entering or exiting site;
- If visiting more than one site per day, try to visit clean sites prior to infested sites;
- Ensure transport and disposal of materials does not introduce weeds to new areas;
- Provide briefing to all workers on site on the risks of spreading weeds and risk mitigation strategies.

Step 4. Establish hygiene controls

Consider the weeds present on your site and what hygiene measures are necessary to minimise spread of the species to another site.

- Establish access controls including timing and routes of access. Use a site management map for larger, more complex, or high-risk sites;
- Ensure disposal of waste material won't increase the spread of weeds or plant material;
- Identify a suitable site for a washdown bay (check Washdown Procedure for guidelines);
- Have sufficient equipment on hand so that all vehicles, machines and personal items can be cleaned thoroughly if needed ie stiff brush, high pressure gurney, crowbar.
- If working in identified or at risk Alligator Weed areas, black plastic bags must be carried to dispose of plant fragments. All wrapped fragments must be disposed of in the pit at Barren Box Swamp.

Step 5. Washdown guidelines

Refer to the Washdown Procedure for guidelines on setting up an onsite wash bay. When working around WoNS or noxious weeds, every effort should be made to ensure weeds are not spread to new areas.

- Ensure each vehicle is thoroughly cleaned of mud, seeds and plant fragments;
- Washdown water should drain into the lowest part of the infested area away from waterways. If this is not possible, empty it into a waste container for responsible offsite disposal;
- Ensure wash-down water doesn't drain into waterways, farmlands or clean bushland;
- Ensure the washdown bay is the final exit point of the site and wash down water is not driven through by any vehicles;
- Refer to the appendix for checklists specific to each vehicle/machinery type.

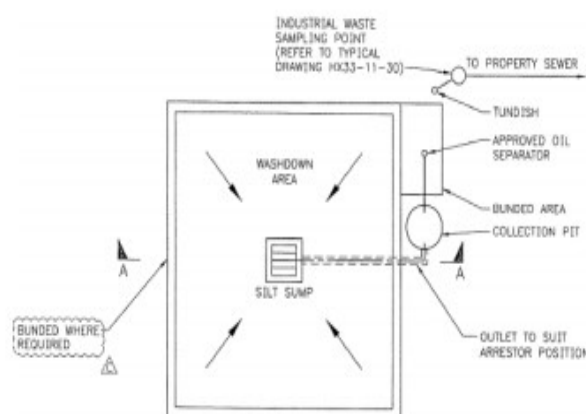


Figure 1: Example of onsite washdown bay including bunding, collection pit and silt sump. This diagram is intended as a guide only.

Figure 2: An example of soil and plant fragments requiring removal.

Step 6. Leave the site clean

- Approved MI program lead are to inspect all machinery to ensure any plant/soil material has been removed before leaving site;
- Contractors are to have plant and equipment inspected by approved MI program lead prior to leaving site;
- Report any issues creating and using a field wash down site;
- Ensure all waste material is responsibly disposed of and minimises the risk of spread to a new site.

Appendix: WoNS in the MIA

The following plants have been identified as [WoNS](#) and are known or have potential to occur in the MIA. This list is not exclusive or exhaustive.

- African Boxthorn (*Lycium fercissimum*)
- Alligator Weed (*Alternanthera philoxeroides*)
- Athel Pine (*Tamarix aphylla*)
- Blackberry (*Rubus spp*)
- Bridal Creeper (*Asparagus asparagoides*)
- Prickly Pear species (*Opuntia spp*)
- Sagittaria (*Sagittaria platyphylla*)
- Silverleaf nightshade (*Solanum elaeagnifolium*)
- Willow species (*Salix spp*)

Appendix: Machinery Washdown Checklists

Below is a checklist for a range of different vehicles or machinery that may be used onsite. This list is not exhaustive but provides an overview of the standards of weed hygiene required by Murrumbidgee Irrigation Ltd.

At a minimum, the following areas of a vehicle should be checked according to the lists below and subsequently cleaned or washed down. There should be no large or loose clods of dirt on any vehicle and all plant fragments and seeds must be removed prior to leaving the site.

Truck and Light Vehicles

Cabin	Floor, mats and under seats
Engine	Radiators
	Engine bay and grill
Body	Hollow Channels
	Inside bumper bars
	Crevices and ledges
	Underside
Wheels	Inside and outside
	Between dual wheels
Tray	Hollow channels
	Chassis

Wheeled Machinery (Skidders, tractors, loaders, slasher & attachments etc)

Cabin	Floor, pedals and under seats
Engine	Grill, radiator and oil cooler
	Engine grill
	Around sound deadening plates
Body	Chassis
	Axle housing if there are hollow sections
	Guards
	Cab steps
	Around fuel tank
	Hollow sections in drawbars and retractable/extendable type three point linkages
	Holes, gaps, crevices in body where soil, plant fragments or seeds may lodge
Wheels	Inside and outside wheels and rims
	Space between dual wheels
	Chains (if fitted)
Attached Equipment	Buckets/blades including teeth and adaptor plates
Hydraulic Arms	Crevices where soil, plant material and seeds can lodge.

Bulldozers & Graders

Cabin	Floor, pedals and under seats
	Below transmission cover plates
Engine	Radiator, oil cooler etc
	Air filters (for seeds)
	Around engine bay
Tracks	Lift cover plates
	Idler wheels, sprockets, rollers and idlers
	Track frame
Body Plates	Knock loose material from belly and rear plates as far as is feasible without dismantling
Body	Fuel cells
	Battery box
Blade	Check all hollow sections
	Pivot points and adaptors at rear of blade where soil can compact
Tines	Crevice where soil, plant material or seeds can lodge
Ripper	Ripper frame support if hollow
	Compacted soil underneath ripper points

Excavators

Cabin	Floor and under seats
Engine	Grill, radiator, oil coolers etc
	Around engine bay
Tracks	Idler wheels
	Track frame
	Tracks
	Removable track adjustor guards and lubrication points
Body Plates	Glacier plate near radiator
Body	Ledges and channels
Blade	Check all hollow sections
	Between teeth of adaptors
	Wear plates
Booms	Crevice
Turret pivot	Under and around mechanism
Attachments	Buckets, rollers, grabs & weed rakes

Ploughs, Discs, Drills, Seeders, Posthole Diggers, Planting Equipment

Frame	Hollow channels
	Chassis crevices and ledges
	Bearing housings
Wheels/tyres	Inside and outside
	Lifting mechanism
	Axles
Mechanism	Holding bins
	Discs, tines, cutters and shears
	Behind safety guards
	Conveyors

Boats & Pontoons

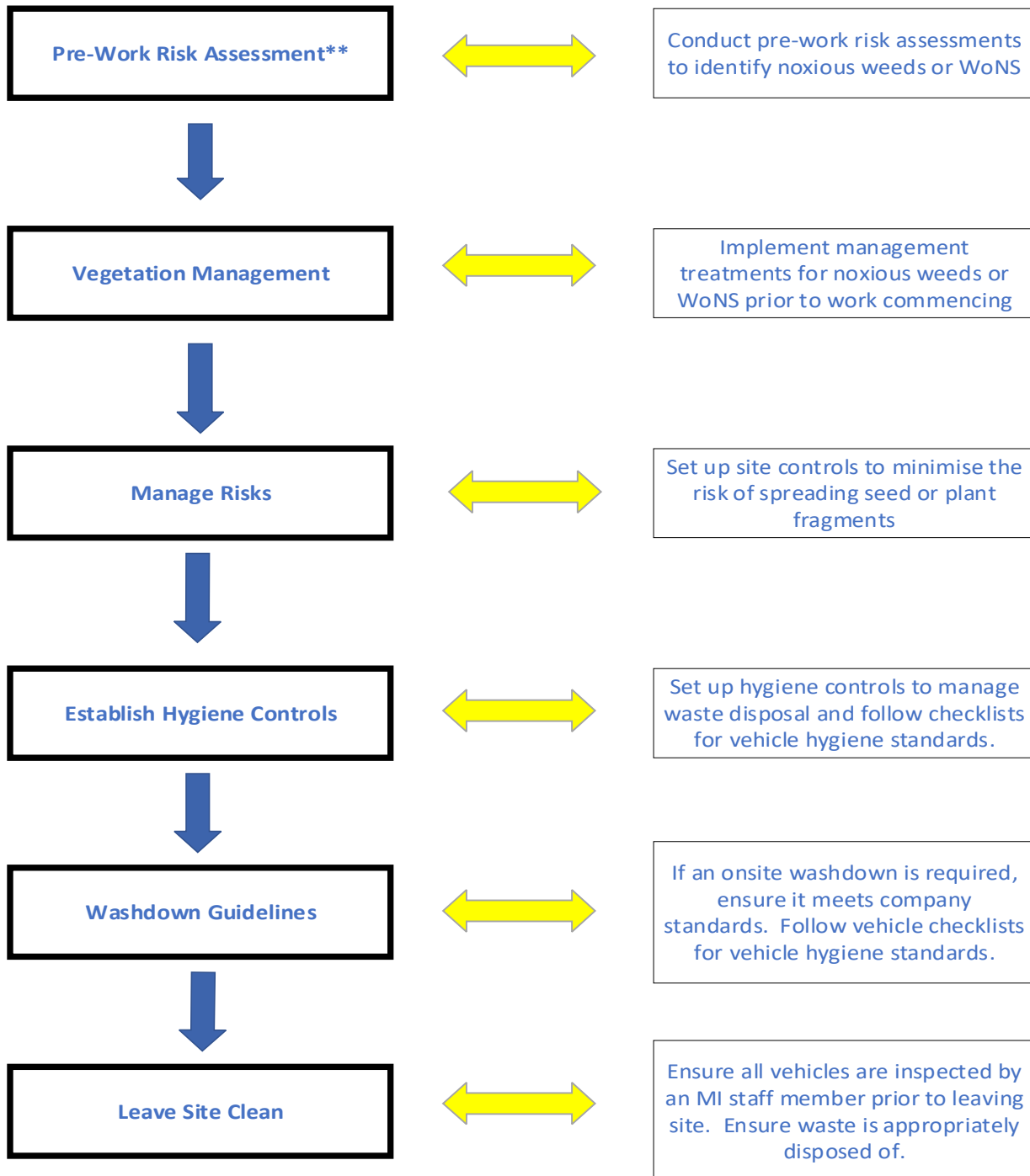
Cabin	Seats, pedals, floors
Body/Hull	Crevices, hollow shafts
	Propeller
	Engine
	Steps, ladders
Equipment	Ropes
	Frames and shade awnings

Pumps

Transport Frame	Skids
	Tyres and guards (large pumps)
	Flex drive
	Pump housing
Piping	Suction pipe
	Strainer
	Metres
	Foot valve

ENVIRONMENTAL PROCEDURE

WEED HYGIENE PROCEDURE - NOXIOUS WEED MANAGEMENT



** Risk Assessment indicates any kind of site assessment, either physical or desktop, prior to works commencing.



Murrumbidgee
Irrigation

CHEMICAL CONTROL PLAN



May 2021



Revision history

Version	Date	Author	Revision details
1	01/02/2016	Lindsay Golsby-Smith	Plan development
2	01/06/2016	Jeff Shaw	Review and update
3	01/08/2018	Lindsay Golsby-Smith	References to new Incident Management System. Added requirements for Ground Applicator Licence for weed spraying contractors. Update links to renewed permit
4	22/7/2019	Jeff Shaw	Update rate of chemical applications
5	13/05/2021	Lucy Smith, Joel Undy, Fern Dorricott	Update following EPL condition review and align with MI template. Added new s2.1 for guidelines, manuals, s9 showing EPL compliance. Updated Table 1. Updated Records Management s6. Updated s3 training with current requirements. Minor edits and updates throughout.

Note: if significant changes are made to this plan, then a copy of the revised must be sent to the EPA for approval prior to implementation of the changes.

Document authorisation

	Name	Position	Date
Endorsed by:	Fern Dorricott	Environmental Planning Manager	14 May 2021
Approved by:	Jody Rudd	General Manager – Assets Delivery	14 May 2021

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1 Introduction

This Chemical Control Plan has been prepared in accordance with condition O3.5 of Murrumbidgee Irrigation's (MI) Environmental Protection Licence 4651.

MI has a responsibility to undertake weed control programs within the supply and drainage system and on MI land. The weed control programs assist with maintaining the operational efficiency of our infrastructure and to reduce the risk of weed species spreading outside our area of operations.

Weed control programs are developed and undertaken in accordance with the [Pesticides Act \(1999\)](#) and are implemented by accredited staff and/or contractors.

2 Chemical application

MI carries out a strategic weed management program to target both aquatic and terrestrial weed species.

2.1 Guidelines, manuals and advice

During the development of the program MI relies on applicable industry and government guidelines, manuals and handbooks as well as chemical supplier/manufacture's labelling and application guides. Where required MI also consults with government staff, e.g. local Councils, NSW Department of Primary Industry (DPI), Local Land Services - Riverina, APVMA and other specialists, e.g. agronomists, Industry weed groups. The following references are regularly used:

- Herbicides: Guidelines for use in and around Water (2005) The Cooperative Research Centre for Australian Weed Management (now archived by DPI)
- [Weed Control Handbook](#) (2018), NSW DPI
- [Weed control and identification \(nsw.gov.au\)](#) – DPI website page with relevant management guides and weed specific information
- [Using chemicals | Australian Pesticides and Veterinary Medicines Authority \(apvma.gov.au\)](#)
- [Pesticides \(nsw.gov.au\)](#) – EPA website page on control of pesticide use.

2.2 Chemical use and methods

The targeted species and chemicals used by MI are summarised in Table 1.

Table 1 Chemicals applied for weed control in the MIA

Target species	Location	Chemical	Rate	Application method	Timing
Cumbungi Water couch Celery buttercup Johnson grass Nutgrass/ Umbrella sedge Phragmites Rushes Plantains Paspalum	Supply and drains	Glyphosate 510g/L	0.9% 6.3L/ha	Boom Spray Handgun	All year
		Glyphosate 450g/L	1.1%		
		Glyphosate 360g/L	1.3%		
		Amitrole T 250g/L	2.3%		
Cat-tail Common watermilfoil	Drain	Glyphosate 510g/L	0.9% 6.3L/ha	Boom Spray Handgun	All year
		Glyphosate 450g/L	1.1%		
		Glyphosate 360g/L	1.3%		

Target species	Location	Chemical	Rate	Application method	Timing
Perennial grasses Annual grasses Kikuyu Paterson's curse Bindweed Scotch thistle	Channel banks	Glyphosate 510g/L Glyphosate 450g/L Glyphosate 360g/L	0.9% 6.3L/ha 1.1% 1.3%	Boom Spray Handgun	All year
Sagittaria Alisma	Drains/ supplies	Glyphosate 450g/L Glyphosate 360g/L	1.1% 1.3%	Boom Spray Handgun	Summer
Horehound	Drainage banks	Glyphosate 510g/L	0.9% 6.3L/ha	Boom Spray Handgun	Summer
Bathurst burr	Channel banks/ easement	Glyphosate 510g/L Glyphosate 450g/L Glyphosate 360g/L	0.9% 6.3L/ha 1.1% 1.3%	Boom Spray Handgun	Summer
Ribbonweed Floating pondweed Foxtail	Supply	MAGNACIDE™ H Herbicide Acrolein 950g/kg Glyphosate 450g/L Glyphosate 360g/L Dichlobenil	15ppm 1.61L/ML 1.1% 1.3% 2.9-3.9kg/ 10m ²	Boom/Drip Boom Spray Handgun	Nov-Mar All Year
Prickly pear	Supply/ drains	Grazon 300 g/L TRICLOPYR	0.5% 500mL/100L	Handgun	All year
General	Road corners	900g/kg SIMAZINE	10kg/ha	Boom Spray Handgun	July
Rye grass (resistant) trials	Drain access	520 g/L HALOXYFOP	0.1% 100mL/ha	Boom Spray Handgun	Spring
Rye grass	Drain access	582g/l Paraffinic oil 240g/l Alkoxylated alcohol	0.1% 100mL/100L	Boom Spray Handgun	Spring
Trees	Channel access	Sprinta 1020 g/L polyether modified polysiloxane	0.1% 100mL/100L	Boom Spray Handgun	All year

MI may also trial alternative herbicides to those listed in Table 1 as a consideration of alternative management methods. All trial herbicide use is strictly as per label stipulations, unless granted a permit from the APVMA, and under the guidance of an appropriately qualified agronomist. All chemical use will be recorded as required under the EPL as detailed in Section 6.

2.3 Permit for chemical control of Sagittaria and Alisma

MI holds a permit ([PER89861](#)) with the Australian Pesticides and Veterinary Medicines Authority (APVMA) for the use of higher concentrations of Glyphosate for the control of *Sagittaria platyphylla* and *Alisma lanceolatum*.

The permit can be viewed here: [PER89861 \(apvma.gov.au\)](#)

2.4 Pesticide control (Acrolein) order

This order authorises the use and possession of the restricted pesticide Acrolein. All the conditions of this control order can be found at the link below. MI engages an external contractor, with appropriate training and qualifications, to apply acrolein in our Area of Operations. MI have trained staff for the use of Acrolein; however this is for work, health and safety reasons only. No MI staff is required to apply Acrolein as part of their work duties.

<https://www.epa.nsw.gov.au/resources/pesticides/Pesticide%20control%20order%20Acrolein%202016%20FINAL.pdf>

3 Training and awareness

MI is committed to providing up to date training and professional development opportunities to all employees. MI staff that are required to apply chemicals for weed control are required to have the following:

- Australian Qualifications Framework Level 3 (AQF3), which includes:
 - AHCCHM307 - Prepare and apply chemicals to control pest, weeds and diseases, and
 - AHCCHM304 - Transport and store chemicals

As of 1 July 2018, all weed spraying contractors are required to obtain a Ground Applicator Licence from the EPA. It is MI's responsibility to ensure that all contractors have this licence before they are contracted for weed spraying. Further information can be found at the EPA website link below.

<https://www.epa.nsw.gov.au/your-environment/pesticides/compulsory-training-pesticides>

MI's Human Resources team diarise training needs, including required refresher courses.

3.1 First aid

Specific first aid instructions regarding chemicals being used are located on all labels and within the Safety Data Sheets (SDS) which are available at the chemical storage areas and in all spray vehicles. Suitable first aid kits are in all MI vehicles and at chemical storage areas and are regularly checked annually for up to date contents by Property and Fleet Manager.

In addition, emergency showers and eye wash equipment are available at each chemical storage area.

4 Notification procedures

In accordance to EPL conditions, MI follow a risk assessment and customer notification procedure in the instance that herbicide application is likely to cause a risk to human health or cause environmental harm when applied in or adjacent to water.

4.1 Risk assessment

As a pesticide user, MI must follow any notification requirement set out by APVMA and on all pesticide product labels and/or permits.

Herbicides are risk assessed based on their level of effectiveness whilst causing minimal harm to human health or the environment. If it is decided that a herbicide may pose a risk and there is no feasible lower-risk alternative, the Channels Lead will notify the Communications Officer where the application is taking place, and users in the vicinity will be notified in accordance with EPL requirements. The Channels Lead will also be responsible for ensuring signage is provided as required.

4.2 Acrolein use

As acrolein is known to be harmful to human health and the environment, MI follows a strict procedure for the notification of potential users and the public for the application of Acrolein within supply channels. The notification procedure is in accordance with EPL 4651 Conditions O3.10 to O3.12 requirements and the chemical label.

- Potential users are notified at least seven days prior to treatment, which includes:
 - notification letter identifying location and date of application and [Acrolein fact sheet](#)
 - notice on MI's website with location and date of application
 - message on EasyWater ordering system
- Before application, warning notices are placed on priority channel structures to indicate the presence of chemical in the water. These notices remain in place until the 48-hour of restricted use has ended or water testing shows the risk is acceptable.

4.3 Permit PER89861

In accordance with EPL conditions, if application of herbicide under this permit is deemed to pose a risk to human health or the environment as a result of the risk assessment procedure (*Section 4.1*), potentially affected customers will be notified accordingly and signage used.

5 Ordering and storage of chemicals

Chemical orders are placed via email to the rural supplier. Field Operators who are licenced for chemical transport under their AQF3 certification transport the chemical from the supplier to the depot. Alternatively, the supplier will deliver chemicals onsite to the depot. The chemical is then transferred into the designated storage area and the inventory updated.

All chemicals are stored correctly at two secure locations:

- Leeton Depot
- Hanwood Depot

These storage facilities are accessible by authorised personnel only with sufficient access to allow easy loading and unloading of vehicles.

MI's depot storage facilities have the following:

- Well ventilated and lit areas with fireproof cages or sheds where the chemicals are locked and stored
- Highly visible warning signs to indicate to anyone attempting to enter the facility that chemicals are stored in this area. Each storage facility displays the relevant HAZCHEM warning signs.
- A fire extinguisher approved for chemical fires, first aid equipment, including emergency eye wash and shower (maintained weekly).
- Emergency telephone numbers are also displayed.
- Soap and clean water is available in or close to the storage facilities for hand washing purposes
- A spill kit containing a shovel, absorbent material and appropriate PPE are located within or close to the storage facility to contain any spillage
- An up to date chemical storage register is maintained and safety data sheets (SDS) for all chemicals stored are readily accessible in the event of an emergency

5.1 Disposal of containers

Herbicide containers are not re-used for any other purpose. Chemical containers are triple rinsed at the depots and disposed of at designated and licensed disposal sites.

5.2 Wash down and spill containment

MI has designated and bunded chemical mixing and wash-down areas. All wastewater from these areas at the Hanwood depot is diverted to a constructed wetland adjacent to the site. This wetland system provides a natural filtration system and evaporation basin, and together with dilution ensure any residual risk of chemicals is contained.

The Leeton Depot currently has a concrete hard stand area where chemicals are mixed. All spills or drips are cleaned up immediately to ensure no impact to stormwater drainage.

6 Record management

All chemical application records are kept in accordance with EPL 4651 and Pesticides Regulation 2017. Records are maintained in a database system (TechOne) that allows for easy accessibility, tracking and reporting.

Records for purchasing and chemical inventory are tracked and maintained via TechOne.

MI retains records of all qualifications, training, and certifications for MI staff within our Human Resources team systems. Contractor qualifications are maintained in MI's Contractor Management System (RapidGlobal).

7 Incident and complaints management

Chemical containers are checked on a regular basis for residue or leaks and Safety Data Sheets (SDS) are given to all relevant staff and readily available at each of the chemical storage facilities.

In the event of a major chemical spill, '000' for response from NSW Fire Brigade/HAZMAT and the EPA are required to be notified. Major incident response procedures are outlined in the [Pollution Incident Response Management Plan](#) (PIRMP) on MI's website. Other minor spill incidents are covered under MI's Incident Management & Reporting procedure. Incidents are managed in MI's Incident Management System (Beakon).

Complaints are recorded MI's customer complaints system (TechOne and Beakon), which records the details of the complaint and what actions were taken in response. Complaints and enquiries can be made to our customer service team on (02) 6962 0200 or made in person at our Hanwood or Leeton Office.

8 Alternative methods of weed management

MI is involved in industry-based projects focused on weed management and alternative methods to weed control. In addition, MI undertakes in-house trials to compare effectiveness of different control measures. Alternative methods currently used for weed control or management include:

- Excavation of in-channel vegetation
- Slashing/mulching - where access is required or line of sight is obstructed
- Grading – where access is needed and vegetation has grown through silt
- Tilling – where access is required

8.1 Desilting and de-weeding

Desilting and de-weeding is conducted throughout the year where silt build-up and/or weed infestations restrict water flow. It is not possible or desirable to use this method of weed control for all channels each year as it reduces the natural sealing of the channel bed, increasing the potential for groundwater accessions.

8.2 Water management

Channels are drained in some areas during winter shut down to assist with weed control and to allow for maintenance work. Several submerged weeds are sensitive to frosts and may die off before the channel is refilled.

Channels are also drained to facilitate the use of residual chemicals to retard germination rates of aquatic weeds. All residual chemicals are assessed for risk according to Section 4.1, and if necessary, customers are notified accordingly and signage used. An external agronomist is engaged to ensure label compliance, and the Water Delivery team withhold and release water according to the withholding period as stipulated on the label. All customers affected by the water management actions are notified of potential outages and delivery delays.

8.3 Slashing/ mulching

Where access and weather permits, slashing/mulching is carried out as an alternative to chemical application, especially on access tracks. This method may promote growth on channel banks and access tracks, which can stabilise banks and compete with invasive species.

8.4 Research initiatives

MI is involved in Research and Development projects aimed at identifying best practice management for aquatic weed management. MI also undertakes trials from time to time to compare non-chemical and/or alternative chemical control methods and their effectiveness in managing weed growth.

9 EPL requirements

Table 2 details the relevant sections where the EPL conditions are covered in this plan.

Table 2 EPL conditions and coverage under chemical control plan

EPL O3 Process and Management conditions	Plan section
O3.5 The licensee must maintain a chemical control plan. The chemical control plan must include the following:	This plan
(a) 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;	Section 2
(b) details of training undertaken by the employees involved in chemical application;	Section 3
(c) details of those mechanisms proposed to notify any occupier or user of treated land and waters of such treatment;	Section 4
(d) details of the manner in which used chemical containers are to be disposed of such that no pollution of waters occurs;	Section 5.1
(e) details of those measures to be employed to ensure that no pollution of waters occurs as a result of the washdown, service or repair of spray vehicles and equipment;	Section 5.2
(f) details of facilities used to store chemicals, including measures designed to contain spillages;	Section 5
(g) an assessment of alternative methods of chemical control for target species and justification for partial or total reliance upon chemical control.	Section 8
O3.6 Weed infestations may be treated only in accordance with best management practices as specified in - The Cooperative Research Centre for Australian Weed Management's Herbicides: Guidelines for use in and around Water (2005) and the Department of Primary Industry's New South Wales Weed Control Handbook (2018).	Section 2.1
O3.7 The licensee must update and submit the updated chemical control plan to the EPA for approval if significant changes are made to the plan by the licensee.	Noted
O3.8 The licensee must comply with the terms of the updated chemical control plan once it has been approved by the EPA.	Noted



EPL O3 Process and Management conditions	Plan section
Storage of chemicals	Section 5
O3.9 All above ground tanks containing material that is likely to cause environmental harm must be bunded or have an alternative spill containment system in place.	
Notification of intention to apply herbicides in or near water	Section 4
O3.10 When applying herbicide(s) in or near water in a manner that is likely to cause those waters to become a risk to human health or of harm to the environment, the licensee must take all reasonable steps to warn users of waters in the vicinity of the herbicide(s) application about any such risks.	
The licensee must erect a sign adjacent to affected waters that at a minimum: (a) is not removed until the water is safe for use; (b) is maintained to ensure it remains in place and is visible to the public until the water is safe for use; and (c) states at a minimum, in legible English, and in any other language as may be considered reasonably necessary: <i>WARNING Water may contain dangerous chemicals</i> <i>The public is advised not to use, drink or swim until further notice.</i> <i>For further information contact Murrumbidgee Irrigation Limited on 02 6962 0200</i>	Section 4
O3.11 In addition, the licensee must at least 7 days prior to the application of the herbicide(s) giving rise to the situation described at condition O3.10, give notification to any occupier of the waters or any occupier of land adjacent to the waters to be effected by the herbicide(s) application, of the licensee's intention to apply herbicide(s), which includes at a minimum the following details: a) what herbicide(s) is to be applied, b) when the herbicide(s) is to be applied, c) a warning not to use, drink or swim in the water until further notice, d) that further information can be obtained from the Licensee, and e) the licensee's name and contact phone number.	Section 4
O3.12 It is for the licensee to determine what other reasonable steps it may need to take to warn other water users of any risks to human health or of harm to the environment which may result from the application of herbicide(s) in or near waters and to prevent such injury or harm from occurring	Section 4



Murrumbidgee
Irrigation

POLLUTION INCIDENT RESPONSE MANAGEMENT PLAN



May 2021



Revision history

Version	Date	Author	Revision details
1	Aug 2015	Lindsay Golsby-Smith	Align with legislative requirements
2	Aug 2016	Lindsay Golsby-Smith	Include feedback from EPA
3	July 2017	Lindsay Golsby-Smith	Update MI staff contact details
4	April 2018	Lindsay Golsby-Smith	Clarify response for chemical spill incident and simplify Appendix 1
5	Aug 2019	Lindsay Golsby-Smith	Update MI contact details
6	June 2020	Fern Dorricott	Reviewed plan, no updates
7	May 2021	Fern Dorricott	Reformat, included hyperlinks to internal MI procedures. Included updated Incident Response Guide, Evacuation maps. Included 'stop pollution source' in steps in s6 to take in response. Checked and amended Notifiable authorities contacts table in plan and Response Guide. Updated to meet EPA's template requirements.

Document authorisation

	Name	Position	Date
Endorsed by:	Fern Dorricott	Environmental Planning Manager	6 May 2021
Approved by:	Jody Rudd	General Manager – Assets Delivery	7 May 2021

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1 Purpose

Murrumbidgee Irrigation (MI) has developed this Pollution Incident Response Management Plan (PIRMP) to comply with the legislative requirements of the *Protection of the Environment Operations Act 1997* (POEO Act).

The purpose of this PIRMP is to:

- Outline protocols to ensure timely communication regarding a potential or actual pollution incident is provided to MI staff, Environmental Protection Authority (EPA) and other relevant authorities as specified in the POEO Act, including relevant local Councils, NSW Health, SafeWork NSW, Fire and Rescue NSW and persons outside the operations who may be affected by the impacts of a pollution event
- Identify key risks of pollution incidents and planned actions to minimise and manage those risks
- Outline implementation requirements for appropriate staff, and setting the framework for testing and reviewing the plan for accuracy, currency and suitability

This plan is to be used in conjunction with MI's Incident Management and Reporting Procedure.

All MI plans are available to staff on Magiq and via MI's intranet links. This plan will also be published on MI's website: [Water quality | Murrumbidgee Irrigation \(mirrigation.com.au\)](http://Water quality | Murrumbidgee Irrigation (mirrigation.com.au)).

2 Legislative requirements

The specific requirements for a PIRMP are set out in Part 5.7A of the POEO Act and the Protection of the Environment Operations (General) Regulation 2009. In summary, this provision requires the following:

- All holders of an Environment Protection Licence (EPL) must prepare a PIRMP (section 153A, POEO Act)
- The plan must include the information detailed in the POEO Act (section 153C) and be in the form required by the POEO(G) Regulation (clause 98B)
- Licensees must keep the plan at the premises to which the EPL relates (section 153D, POEO Act)
- Licensees must test the plan in accordance with the POEO(G) Regulation (clause 98E)
- If a pollution incident occurs during an activity so that material harm to the environment is caused or threatened, licensees must immediately implement the plan (section 153F, POEO Act)

2.1 MI's EPL

MI holds an Environmental Protection Licence for which this PIRMP applies. Details are:

Name of licensee: (including ABN)	Murrumbidgee Irrigation Limited ABN 39 084 943 037
EPL number:	4651
Premises name and address:	Murrumbidgee Irrigation Area & Districts Main Office: 86 Research Station Road Hanwood NSW 2680
Company contact details:	
Business hours	02 6962 0200
After hours	See Table 1 for emergency contacts
Email	info@mirrigation.com.au
Website address:	www.mirrigation.com.au
Scheduled activity on EPL:	Irrigated agriculture
Fee-based activity on EPL:	Irrigated agriculture >100,000 hectares

2.2 Definitions

The following definitions apply to this plan.

2.2.1 Pollution incident

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.”

A pollution incident is required to be notified if there is a risk of ‘material harm to the environment’.

2.2.2 Material harm to the environment

Material harm to the environment is defined under section 147 of the POEO Act 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.*

2.2.3 Report ‘immediately’

MI is required to report pollution incidents immediately to the EPA, NSW Health, Fire and Rescue NSW, WorkCover NSW and the local council. ‘Immediately’ has its ordinary dictionary meaning of promptly and without delay.

3 Scope

MI’s PIRMP is activated in the event of a pollution incident where it is determined that there is a risk of material harm to the environment. This includes pollution incidents that occur on land and water ways under the ownership or management of MI.

For all incidents involving Asbestos, please refer to MI’s Asbestos Management Guide.

This PIRMP must be followed by all employees, contractors and visitors to assist in the early response to and reporting of a pollution incident. This applies to all premises and worksites, unless controlled by a contractor.

In the event of a pollution incident occurring on a site controlled by an MI contractor, the response to that pollution incident is managed in accordance to the contractor’s incident management procedures. However, MI must be notified of the incident immediately.

4 Responsibilities

The PIRMP identifies the general responsibilities of MI staff during a pollution incident. The Incident Manager is responsible for ensuring the following is completed, where required.

- Managing the response to any pollution incident as required in this plan
- Administration, maintenance and implementation of the PIRMP
- Reporting of significant environmental incidents as required in this plan
- Regulatory, community and customer communication
- Registration of complaints and pollution incidents
- Internal incident investigating and reporting, as per MI’s Incident Management Procedure



5 Communication

MI employees are the first point of contact for the notification of a pollution incident on MI premises in accordance with MI's Incident Management & Reporting Procedure.

The relevant authorities will be contacted by designated MI employees and any further instructions from these authorities will be adhered to as required. All pollution incidents are to be reported to an MI staff member via the phone numbers listed in Table 1 immediately.

Table 1. Murrumbidgee Irrigation contact details

Murrumbidgee Irrigation – General	Phone
Front office (business hours)	(02) 6962 0200
Emergency 24-hour service – Griffith	(02) 6962 0262
Emergency 24-hour service – Leeton	(02) 6953 0100

If an incident presents an immediate threat to human health and/or property **call '000'**. Also **call '000'** if the incident cannot be handled with available resources or is unsafe to respond to.

After becoming aware of a pollution incident which causes or threatens to cause material harm to the environment (refer Section 2.2.2), the pollution incident must be verbally reported immediately to the relevant authorities listed in Table 2.

External notification will depend on type of incident. Communication to authorities is the responsibility of the Incident Manager. The information required to be provided to authorities include:

1. The time, date, and location of the incident
2. The nature, estimated quantity or volume and the concentration of any pollutants involved, if known
3. The circumstances in which the incident occurred, including the cause, if known
4. The action taken or proposed to be taken to contain and reduce the impact of the pollution incident

Ongoing updates of the incident may be requested by the relevant authorities. If the incident poses no actual or potential harm to human health and safety and would not result in actual loss or damage to property or the environment, then management must be notified and no further notification to the authorities listed in Table 2 is required.

Table 2. Contact details for notifiable authorities as required under POEO Act

Authority	Contact number	After hours emergency
<i>To respond to a chemical or fuel spill</i> Fire and Rescue NSW – ask for HAZCHEM Police NSW – if public safety or crime involved Ambulance – if injuries or shock involved.	000 – Respond to incident 1300 729 579 – for enquiries	000
<i>To report a pollution incident that has the potential to cause material harm to the environment</i> EnviroLine	131 555	131 555
<i>If a pollution incident has the potential to cause risk to human and public health</i> Albury Public Health Unit Murrumbidgee and Southern NSW LHD	(02) 6053 4800	(02) 6053 4800 Albury Base Hospital - ask for Public Health Officer on call
<i>If a pollution incident has the potential to cause risk to River operations</i> Water NSW	1800 061 069	1800 061 069
<i>If pollution has or is likely to require State Road closure/ impacts</i> Road and Maritime Services	131 700	131 700
<i>If pollution has or is likely to require Rail closure/ impacts</i> John Holland Rail	1300 661 390	1300 661 390
<i>If a pollution incident requires notification for workplace health and safety reasons</i> SafeWork NSW	131 050	131 050
<i>If a pollution incident has occurred above the point of raw water town supply and/or If a pollution incident has occurred resulted from negligent action</i>		
Griffith City Council	(02) 6962 8100	(02) 6969 4832 (02) 6964 1160
Leeton Shire Council	(02) 6953 0911	0428 268 679
Carrathool Council	(02) 6965 1900	0407 244 429 (Roads) Water & Sewer Goolgowi - 0429 690 010 Water & Sewer Hillston - 0429 672 119 Water & Sewer Rankins Springs - 0428 661 305
Narrandera Shire Council	(02) 6959 5510	0417 023 015 (Sewer & Water) 0427 595 562 (Roads, Parks and other)

Communication with the local community or customers may be required depending on the circumstances of the pollution incident. MI would consider the following options for providing information to the community on pollution incidents:

- Phone contact, SMS or face to face communication with residents and/or customers affected
- Information posted on MI website homepage
- The inclusion of information in local newspaper
- Seek assistance from the local Council to communicate with residents

Refer to MI's [Incident Management & Reporting Procedure](#) further details.

6 Actions to be taken to manage a pollution incident

The following actions may be taken to manage a pollution incident. Risk assessments will be undertaken prior to undertaking any action, to ensure the safety of personnel, bystanders and nearby local communities:

1. Stop pollution source

If safe to do so, stop the pollution continuing, e.g. via emergency isolation / stop valves, crimping hoses, plugging leak source, reorientating polluting tank/ vessel.

2. Contain pollution source

If safe to do so, contain the pollution source in as small an area as possible to keep it from spreading and/or direct it away from sensitive receivers.

3. Isolate polluted waters

If a pollution incident occurs in the irrigation system, regulating and outlet structures will be utilised to isolate the water and to reduce the risk of this water reaching farmland or other waterways. If in smaller drainage lines, earthen bunds may be used if equipment is available.

4. Contact relevant stakeholders and authorities

Contact affected customers, residents, council or authority.

5. Clean up of any contaminated area

In the event of a chemical spill, the local HAZMAT unit is available for the cleanup of and possible containment of the chemical. In the event soil has been contaminated by a severe spill, the soil will be removed and disposed of at a licenced disposal site in accordance with application legislative requirements.

7 Minimising harm to persons on the premises

All MI employees handling and applying chemicals hold a ChemCert III accreditation (AQF3). Staff responsible for handling and spraying chemicals will ensure that the appropriate PPE is available and used by themselves and others carrying out this activity. MI's [Hazardous Chemicals Procedure](#) and relevant SWMSs details additional management measures.

All visitors to MI's offices and depots will be notified of evacuation procedures and evacuation points in the event of an emergency. Fire Assembly Area maps below for Hanwood and Leeton premises, are available on MI's Intranet, noticeboards and Magiq:

- [Fire Assembly Map – Hanwood Depot](#)
- [Fire Assembly Map – Hanwood Accommodation](#)
- [Fire Assembly Map – Hanwood Offices](#)
- [Fire Assembly Map – Leeton Office and Depot](#)

Incidents outside of our fixed premises will be managed in accordance with MI procedures and with a view to minimising harm to any staff, bystanders and local community members.

Emergency procedures and notifying site personnel and MI management will be undertaken in accordance with the MI's [Emergency Preparedness Procedure](#), [Safety and Emergency Handbook](#) and [Incident Management & Reporting Procedure](#).

8 Pollution hazards, risks and controls

Hazards	Risks	Controls	Likelihood	Consequence	Risk Rating
Chemical spill (Internal – MI activities)	<ul style="list-style-type: none"> Land and soil contamination Water contamination-potential to prevent water supply to customers Human health (skin irritation, airway damage, poisoning) Impacts to terrestrial and/or aquatic flora and fauna. 	<ul style="list-style-type: none"> SDSs available Hard stand chemical mixing stations at Depots for MI activities Onsite storage facility (ventilated, signed etc) Training and induction for chemical spill response Spill response kit/ supplies 	Occasional (3)	Low (2)	Medium (5)
Fuel or oil spill (Internal – MI activities)	<ul style="list-style-type: none"> Land and soil contamination Water contamination-potential to prevent water supply to customers Water contamination – environmental impact Human health (skin irritation, airway damage, poisoning) 	<ul style="list-style-type: none"> SDSs available Training and induction for fuel spill response including emergency stop activation Bunded areas for refuelling or refuel at service stations. UPSS facility – regular groundwater monitoring. Double-skinned tanks, Fuel System Operation Plan. MI's procedures 	Occasional (3)	Low (2)	Medium (5)
Chemical or fuel spill (external, including chemical spills from vehicle accidents and illegal dumping)	<ul style="list-style-type: none"> Land and soil contamination Water contamination-potential to prevent water supply to customers Human health (skin irritation, airway damage, poisoning) 	<ul style="list-style-type: none"> Pollution Incident Response Guide (Appendix 1) MI's Safety & Emergency Procedures Handbook Staff training and induction on chemical spill response procedures Escalation to Fire & Rescue for large or dangerous incidents. 	Highly Likely (5)	Medium (3)	High (8)

9 Inventory of potential pollutants at the premises

MI maintains a hazardous chemical register for all chemicals used and stored on the premises. All hazardous chemicals used on the premises have a Safety Data Sheet (SDS) available. Hard copies are kept in storage areas, in company vehicles and copies can be accessed from the company database. Table 3 details the bulk hazardous chemicals stored on premises by MI.

Table 3 Bulk hazardous chemicals stored on MI premises

Hazardous chemical	Capacity	Storage location
Diesel fuel	30,000L	Griffith Depot
Petrol	10,000L	Griffith Depot

10 Incident response training

MI will provide training and information to relevant employees on the PIRMP and actions required in the event of a pollution incident. This can include both online and practical 'mock' training.

A copy of the pollution incident response guide (APPENDIX 1 Pollution Incident Response Guide) for responding to a pollution incident will be provided as part of the employee induction for Operations staff.

A copy of this document will be readily available to all staff on MI's Intranet, Magiq and website.

11 Review and testing

An internal review of this plan is required to be conducted annually. The review will consider all aspects of the PIRMP, including legislation and license changes. All changes are to be documented and staff informed of these changes.

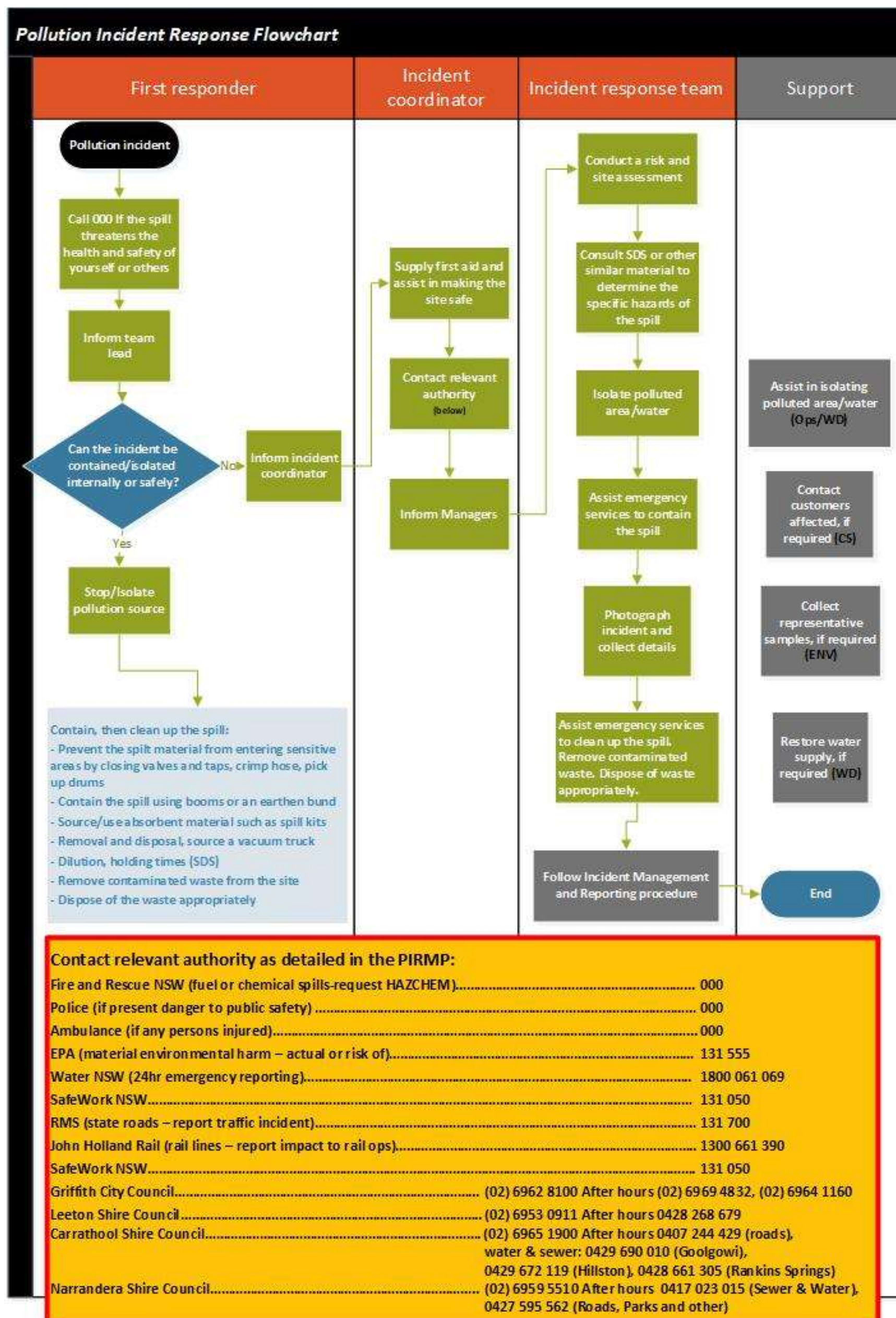
Routine testing of the plan will be also conducted annually, and can be completed through one of the following methods:

Type	Record type
Incident response	Beakon data and records, e.g. photos
Preparations for serious forecast weather event	Work orders, internal comms, planning meeting minutes
Training drill	Training / drill record
Simulated pollution incident emergency (mock scenario in field or desktop)	Training / drill record

APPENDIX 1 Pollution Incident Response Guide

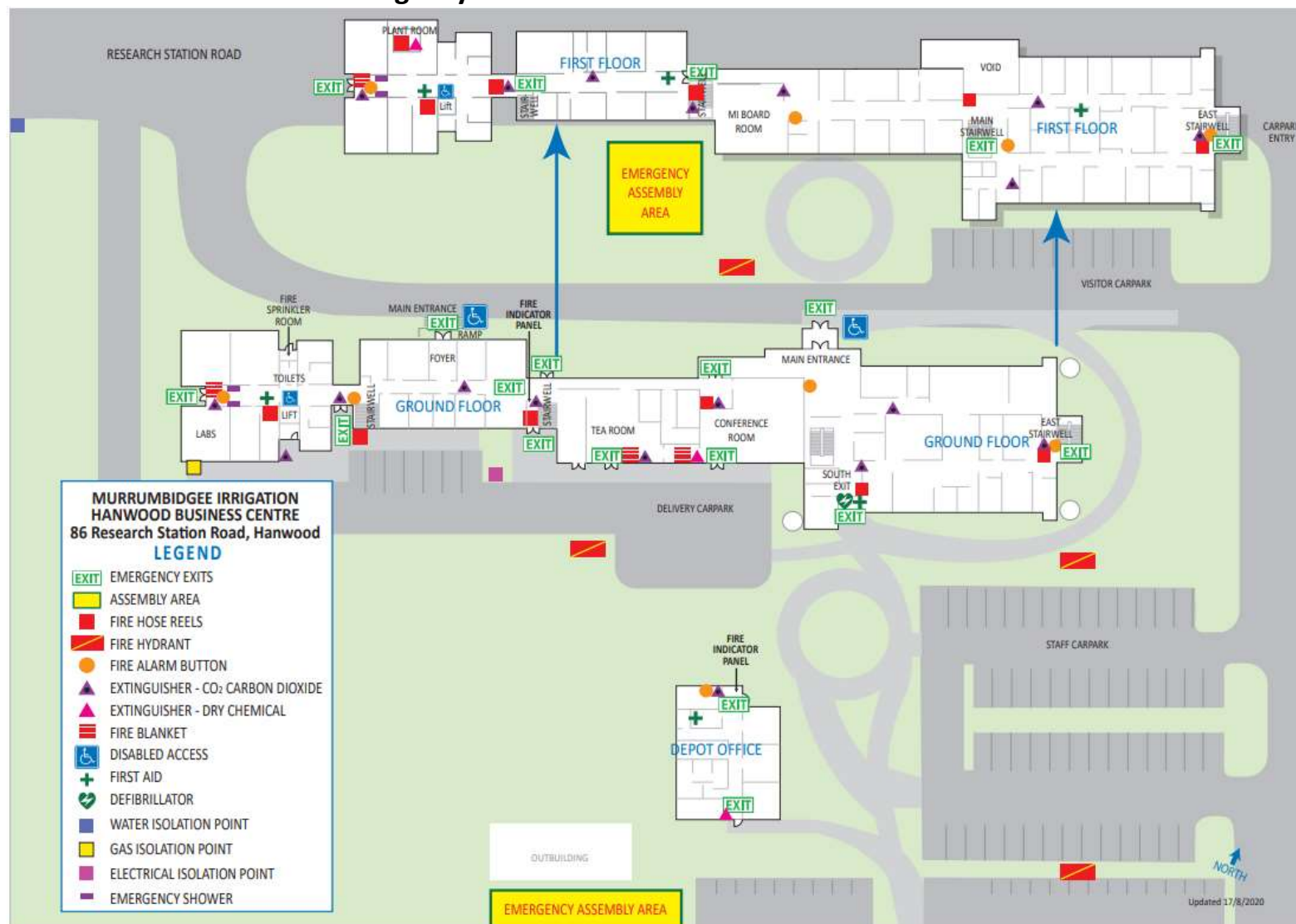
STOP. THINK. ACT. Do not complete task unless safe to do so.

If an incident presents an immediate threat to human health and/or property **call 000**



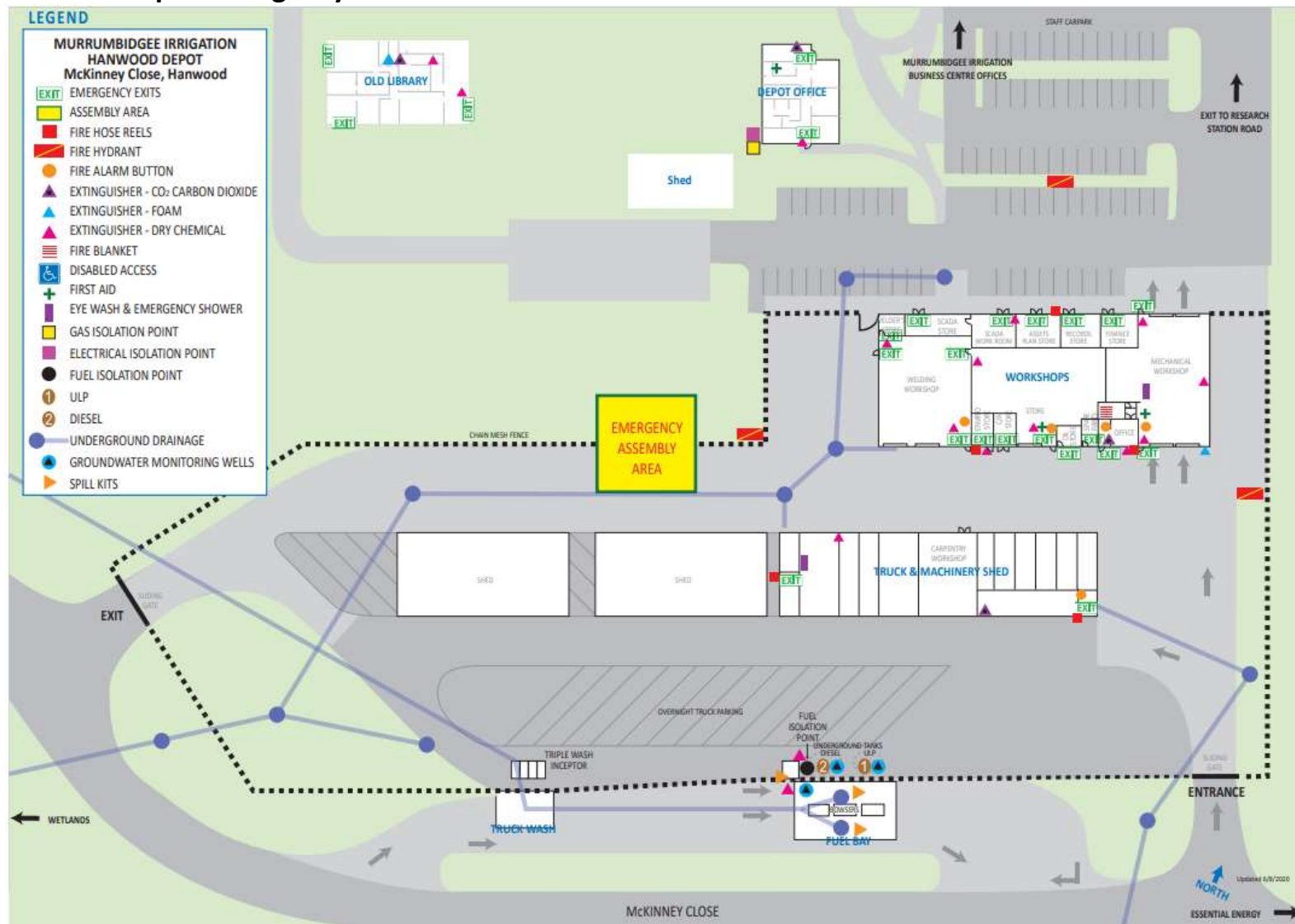


APPENDIX 2 Hanwood Business Centre Emergency Plan

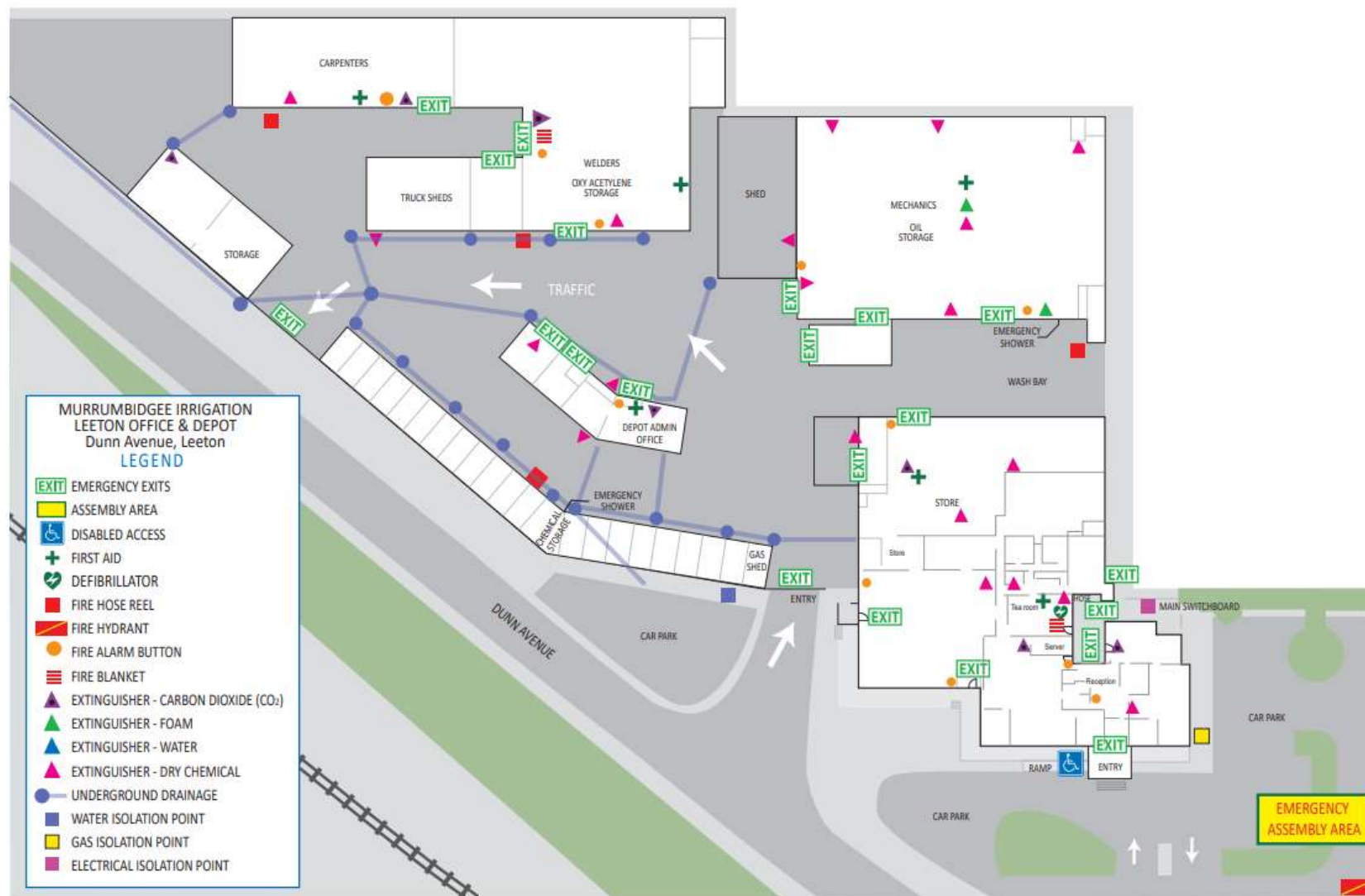




APPENDIX 3 Hanwood Depot Emergency Plan



APPENDIX 4 Leeton Office and Depot Emergency Plan



Updated 31/10/20



Environment Protection Licence

Licence - 4651

<u>Licence Details</u>	
Number:	4651
Anniversary Date:	01-July

<u>Licensee</u>
MURRUMBIDGEE IRRIGATION LIMITED
LOCKED BAG 6010
GRIFFITH NSW 2680

<u>Premises</u>
MURRUMBIDGEE IRRIGATION AREA & DISTRICTS
HANWOOD NSW 2680

<u>Scheduled Activity</u>
Irrigated agriculture

<u>Fee Based Activity</u>	<u>Scale</u>
Irrigated agriculture	> 100000 ha of the total existing area of operations

<u>Region</u>
Riverina Far West
Suites 7-8, Level 1 Griffith City Plaza, 130-140 Banna Avenue
GRIFFITH NSW 2680
Phone: (02) 6969 0700
Fax: (02) 6969 0710
PO Box 397
GRIFFITH NSW 2680

Environment Protection Licence

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Environment Protection Licence

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Information about this licence

Dictionary

A definition of terms used in the licence can be found in the dictionary at the end of this licence.

Responsibilities of licensee

Separate to the requirements of this licence, general obligations of licensees are set out in the Protection of the Environment Operations Act 1997 ("the Act") and the Regulations made under the Act. These include obligations to:

- ensure persons associated with you comply with this licence, as set out in section 64 of the Act;
- control the pollution of waters and the pollution of air (see for example sections 120 - 132 of the Act);
- report incidents causing or threatening material environmental harm to the environment, as set out in Part 5.7 of the Act.

Variation of licence conditions

The licence holder can apply to vary the conditions of this licence. An application form for this purpose is available from the EPA.

The EPA may also vary the conditions of the licence at any time by written notice without an application being made.

Where a licence has been granted in relation to development which was assessed under the Environmental Planning and Assessment Act 1979 in accordance with the procedures applying to integrated development, the EPA may not impose conditions which are inconsistent with the development consent conditions until the licence is first reviewed under Part 3.6 of the Act.

Duration of licence

This licence will remain in force until the licence is surrendered by the licence holder or until it is suspended or revoked by the EPA or the Minister. A licence may only be surrendered with the written approval of the EPA.

Licence review

The Act requires that the EPA review your licence at least every 5 years after the issue of the licence, as set out in Part 3.6 and Schedule 5 of the Act. You will receive advance notice of the licence review.

Fees and annual return to be sent to the EPA

For each licence fee period you must pay:

- an administrative fee; and
- a load-based fee (if applicable).

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The EPA publication “A Guide to Licensing” contains information about how to calculate your licence fees. The licence requires that an Annual Return, comprising a Statement of Compliance and a summary of any monitoring required by the licence (including the recording of complaints), be submitted to the EPA. The Annual Return must be submitted within 60 days after the end of each reporting period. See condition R1 regarding the Annual Return reporting requirements.

Usually the licence fee period is the same as the reporting period.

Transfer of licence

The licence holder can apply to transfer the licence to another person. An application form for this purpose is available from the EPA.

Public register and access to monitoring data

Part 9.5 of the Act requires the EPA to keep a public register of details and decisions of the EPA in relation to, for example:

- licence applications;
- licence conditions and variations;
- statements of compliance;
- load based licensing information; and
- load reduction agreements.

Under s320 of the Act application can be made to the EPA for access to monitoring data which has been submitted to the EPA by licensees.

This licence is issued to:

MURRUMBIDGEE IRRIGATION LIMITED
LOCKED BAG 6010
GRIFFITH NSW 2680

subject to the conditions which follow.

Environment Protection Licence

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1 Administrative Conditions

A1 What the licence authorises and regulates

A1.1 This licence authorises the carrying out of the scheduled activities listed below at the premises specified in A2. The activities are listed according to their scheduled activity classification, fee-based activity classification and the scale of the operation.

Unless otherwise further restricted by a condition of this licence, the scale at which the activity is carried out must not exceed the maximum scale specified in this condition.

Scheduled Activity	Fee Based Activity	Scale
Irrigated agriculture	Irrigated agriculture	> 100000 ha of the total existing area of operations

A2 Premises or plant to which this licence applies

A2.1 The licence applies to the following premises:

Premises Details
MURRUMBIDGEE IRRIGATION AREA & DISTRICTS
HANWOOD
NSW 2680

A3 Other activities

A3.1 This licence applies to all other activities carried on at the premises, including:

Ancillary Activity
Application of herbicides to alligator weed (Alantharas Philoxeroides) at:
Barren Box Swamp and downstream in Lower Mirrool Creek and Wah Wah irrigation channels

A4 Information supplied to the EPA

A4.1 Works and activities must be carried out in accordance with the proposal contained in the licence application, except as expressly provided by a condition of this licence.

In this condition the reference to "the licence application" includes a reference to:

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Licence - 4651

- a) the applications for any licences (including former pollution control approvals) which this licence replaces under the Protection of the Environment Operations (Savings and Transitional) Regulation 1998; and
- b) the licence information form provided by the licensee to the EPA to assist the EPA in connection with the issuing of this licence.

2 Discharges to Air and Water and Applications to Land

P1 Location of monitoring/discharge points and areas

P1.1 The following utilisation areas referred to in the table below are identified in this licence for the purposes of the monitoring and/or the setting of limits for any application of solids or liquids to the utilisation area.

P1.2 The following points referred to in the table are identified in this licence for the purposes of the monitoring and/or the setting of limits for discharges of pollutants to water from the point.

Water and land

EPA Identification no.	Type of Monitoring Point	Type of Discharge Point	Location Description
4	Discharge to waters Environmental monitoring Volume monitoring	Discharge to waters Environmental monitoring Volume monitoring	Lagoon Drain from Gogelderie Main Southern labelled 'LAG' on map titled "Key Infrastructure & Water Quality Sites of the MIA" dated 18 January 2013 and on EPA file LIC07/2304-03.
5	Discharge to waters Environmental monitoring Volume monitoring	Discharge to waters Environmental monitoring Volume monitoring	Gogeldrie Main Southern Drain at River Road labelled 'GMSRR' on map titled "Key Infrastructure & Water Quality Sites of the MIA" dated 18 January 2013 and on EPA file LIC07/2304-03.
6	Discharge to waters Environmental monitoring Volume monitoring	Discharge to waters Environmental monitoring Volume monitoring	Yanco Main Southern Drain labelled 'YMS' on map titled "Key Infrastructure & Water Quality Sites of the MIA" dated 18 January 2013 and on EPA file LIC07/2304-03.
7	Discharge to waters Environmental monitoring Volume monitoring	Discharge to waters Environmental monitoring Volume monitoring	Cudgel Creek downstream of Roaches Escape labelled 'ROCUDG' on map titled "Key Infrastructure & Water Quality Sites of the MIA" dated 18 January 2013 and on EPA file LIC07/2304-03.

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15	Discharge to waters Environmental monitoring Volume monitoring	Discharge to waters Environmental monitoring Volume monitoring	Mirrool Creek Floodway labelled 'MIRFLD' on map titled "Key Infrastructure & Water Quality Sites of the MIA" dated 18 January 2013 and on EPA file LIC07/2304-03.
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3 Limit Conditions

L1 Pollution of waters

- L1.1 Except as may be expressly provided in any other condition of this licence, the licensee must comply with section 120 of the Protection of the Environment Operations Act 1997.

L2 Potentially offensive odour

- L2.1 No condition in this licence identifies a potentially offensive odour for the purposes of section 129 of the Protection of the Environment Operations Act 1997.

Note: Section 129 of the Protection of the Environment Operations Act 1997 provides that the licensee must not cause or permit the emission of any offensive odour from the premises but provides a defence if the emission is identified in the relevant environment protection licence as a potentially offensive odour and the odour was emitted in accordance with the conditions of a licence directed at minimising odour.

4 Operating Conditions

O1 Activities must be carried out in a competent manner

- O1.1 Licensed activities must be carried out in a competent manner.
This includes:
- a) the processing, handling, movement and storage of materials and substances used to carry out the activity; and
 - b) the treatment, storage, processing, reprocessing, transport and disposal of waste generated by the activity.

O2 Maintenance of plant and equipment

- O2.1 All plant and equipment installed at the premises or used in connection with the licensed activity:
- a) must be maintained in a proper and efficient condition; and
 - b) must be operated in a proper and efficient manner.

O3 Processes and management

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Licensee to maintain a chemical contingency plan

O3.1 The licensee must maintain a chemical contingency plan.

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;
- 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;
- 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;
- d) describes in details, procedures and action, consistent with the State Emergency Management Plan (EMPLAN) requirements, that the licensee will implement to deal with a chemical spill or similar incident.

O3.2 Without limiting the generality of condition O3.1, the chemical contingency plan must include the following information:

- (a) details of the enhanced level of investigation to be undertaken upon exceedance of the notification level for any Scheduled Chemical;
- (b) details of the process by which the EPA will be notified of any exceedance of the notification level for any Scheduled Chemical;
- (c) details of the proposed public notification process to increase irrigator awareness of the existence of any exceedance of a notification and/ or action level;
- (d) 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; and
- (e) details of the mechanisms proposed to be used to restrict the discharge or irrigation of waste water should such direction be received from the EPA.

O3.3 The licensee must update and submit the updated chemical contingency plan to the EPA for approval if any significant changes are made to the plan by the licensee.

O3.4 The licensee must comply with the terms of the updated chemical contingency plan once it has been approved by the EPA.

Licensee to maintain a chemical control plan

O3.5 The licensee must maintain a chemical control plan.

The chemical control plan must include the following:

- (a) 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;
- (b) details of training undertaken by the employees involved in chemical application;
- (c) details of those mechanisms proposed to notify any occupier or user of treated land and waters of such treatment;
- (d) details of the manner in which used chemical containers are to be disposed of such that no pollution of waters occurs;
- (e) details of those measures to be employed to ensure that no pollution of waters occurs as a result of

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the washdown, service or repair of spray vehicles and equipment;
(f) details of facilities used to store chemicals, including measures designed to contain spillages;
(g) an assessment of alternative methods of chemical control for target species and justification for partial or total reliance upon chemical control.

- O3.6 Weed infestations may be treated only in accordance with best management practices as specified in - The Cooperative Research Centre for Australian Weed Management's Herbicides: Guidelines for use in and around Water (2005) and the Department of Primary Industry's New South Wales Weed Control Handbook (2018).
- O3.7 The licensee must update and submit the updated chemical control plan to the EPA for approval if significant changes are made to the plan by the licensee.
- O3.8 The licensee must comply with the terms of the updated chemical control plan once it has been approved by the EPA.

Storage of chemicals

- O3.9 All above ground tanks containing material that is likely to cause environmental harm must be bunded or have an alternative spill containment system in place.

Notification of intention to apply herbicides in or near water

- O3.10 When applying herbicide(s) in or near water in a manner that is likely to cause those waters to become a risk to human health or of harm to the environment, the licensee must take all reasonable steps to warn users of waters in the vicinity of the herbicide(s) application about any such risks. The licensee must erect a sign adjacent to affected waters that at a minimum:
- (a) is not removed until the water is safe for use;
 - (b) is maintained to ensure it remains in place and is visible to the public until the water is safe for use;
 - and
 - (c) states at a minimum, in legible English, and in any other language as may be considered reasonably necessary:

WARNING

Water may contain dangerous chemicals

The public is advised not to use, drink or swim until further notice.

For further information contact Murrumbidgee Irrigation Limited on 02 6962 0200

- O3.11 In addition, the licensee must at least 7 days prior to the application of the herbicide(s) giving rise to the situation described at condition O3.10, give notification to any occupier of the waters or any occupier of land adjacent to the waters to be effected by the herbicide(s) application, of the licensee's intention to apply herbicide(s), which includes at a minimum the following details:
- a) what herbicide(s) is to be applied,
 - b) when the herbicide(s) is to be applied,
 - c) a warning not to use, drink or swim in the water until further notice,
 - d) that further information can be obtained from the Licensee, and
 - e) the licensee's name and contact phone number.

- O3.12 It is for the licensee to determine what other reasonable steps it may need to take to warn other water

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users of any risks to human health or of harm to the environment which may result from the application of herbicide(s) in or near waters and to prevent such injury or harm from occurring.

O4 Other operating conditions

Discharges to surface waters and ground waters

- O4.1 The licensee is permitted to discharge irrigation drainage water:
- (a) to surface waters within the premises; and
 - (b) at the authorised discharge points to surface waters outside of the premises.
- O4.2 The licensee is permitted to discharge irrigation drainage water from the premises to ground waters in or outside of the premises.
- O4.3 The licensee is permitted to discharge stormwater runoff to surface waters outside the premises.
- O4.4 Nothing in this licence authorises the pollution of waters unless the pollution occurs:
- (a) despite the exercise of due diligence by the licensee; and
 - (b) despite compliance with this licence.

5 Monitoring and Recording Conditions

M1 Monitoring records

- M1.1 The results of any monitoring required to be conducted by this licence or a load calculation protocol must be recorded and retained as set out in this condition.
- M1.2 All records required to be kept by this licence must be:
- a) in a legible form, or in a form that can readily be reduced to a legible form;
 - b) kept for at least 4 years after the monitoring or event to which they relate took place; and
 - c) produced in a legible form to any authorised officer of the EPA who asks to see them.
- M1.3 The following records must be kept in respect of any samples required to be collected for the purposes of this licence:
- a) the date(s) on which the sample was taken;
 - b) the time(s) at which the sample was collected;
 - c) the point at which the sample was taken; and
 - d) the name of the person who collected the sample.

M2 Requirement to monitor concentration of pollutants discharged

- M2.1 For each monitoring/discharge point or utilisation area specified below (by a point number), the licensee must monitor (by sampling and obtaining results by analysis) the concentration of each pollutant specified

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in Column 1. The licensee must use the sampling method, units of measure, and sample at the frequency, specified opposite in the other columns:

M2.2 Water and/ or Land Monitoring Requirements

POINT 4,5,6,7,15

Pollutant	Units of measure	Frequency	Sampling Method
Atrazine	micrograms per litre	Special Frequency 1	Representative sample
Chlorpyrifos	micrograms per litre	Special Frequency 1	Representative sample
Conductivity	microsiemens per centimetre	Special Frequency 1	Representative sample
Diazinon	micrograms per litre	Special Frequency 1	Representative sample
Diuron	micrograms per litre	Special Frequency 1	Representative sample
Flow	megalitres per day	Special Frequency 1	Representative sample
Malathion	micrograms per litre	Special Frequency 1	Representative sample
Metolachlor	micrograms per litre	Special Frequency 1	Representative sample
Molinate	micrograms per litre	Special Frequency 1	Representative sample
Nitrogen (total)	milligrams per litre	Special Frequency 1	Representative sample
Phosphorus (total)	milligrams per litre	Special Frequency 1	Representative sample
Simazine	micrograms per litre	Special Frequency 1	Representative sample
Thiobencarb	micrograms per litre	Special Frequency 1	Representative sample
Trifluralin	micrograms per litre	Special Frequency 1	Representative sample
Turbidity	nephelometric turbidity units	Special Frequency 1	Representative sample

POINT 15

Pollutant	Units of measure	Frequency	Sampling Method
Aluminium	milligrams per litre	Special Frequency 1	Representative sample
Boron	milligrams per litre	Special Frequency 1	Representative sample
Cadmium	milligrams per litre	Special Frequency 1	Representative sample
Copper	milligrams per litre	Special Frequency 1	Representative sample
Dissolved Oxygen	milligrams per litre	Special Frequency 1	Representative sample
Iron	milligrams per litre	Special Frequency 1	Representative sample
Lead	milligrams per litre	Special Frequency 1	Representative sample
Mercury	milligrams per litre	Special Frequency 1	Representative sample
Nickel	milligrams per litre	Special Frequency 1	Representative sample
pH	-	Special Frequency 1	Representative sample
Sulfur	milligrams per litre	Special Frequency 1	Representative sample
Zinc	milligrams per litre	Special Frequency 1	Representative sample

M2.3 For the purposes of the table(s) above Special Frequency 1 means the collection of samples as soon as practicable during discharge, if indicated by a risk assessment.

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M3 Testing methods - concentration limits

- M3.1 Subject to any express provision to the contrary in this licence, monitoring for the concentration of a pollutant discharged to waters or applied to a utilisation area must be done in accordance with the Approved Methods Publication unless another method has been approved by the EPA in writing before any tests are conducted.

M4 Recording of pollution complaints

- M4.1 The licensee must keep a legible record of all complaints made to the licensee or any employee or agent of the licensee in relation to pollution arising from any activity to which this licence applies.
- M4.2 The record must include details of the following:
- a) the date and time of the complaint;
 - b) the method by which the complaint was made;
 - c) any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect;
 - d) the nature of the complaint;
 - e) the action taken by the licensee in relation to the complaint, including any follow-up contact with the complainant; and
 - f) if no action was taken by the licensee, the reasons why no action was taken.
- M4.3 The record of a complaint must be kept for at least 4 years after the complaint was made.
- M4.4 The record must be produced to any authorised officer of the EPA who asks to see them.

M5 Telephone complaints line

- M5.1 The licensee must operate during its operating hours a telephone complaints line for the purpose of receiving any complaints from members of the public in relation to activities conducted at the premises or by the vehicle or mobile plant, unless otherwise specified in the licence.
- M5.2 The licensee must notify the public of the complaints line telephone number and the fact that it is a complaints line so that the impacted community knows how to make a complaint.
- M5.3 The preceding two conditions do not apply until 3 months after: the date of the issue of this licence.

M6 Requirement to monitor volume or mass

- M6.1 For each discharge point or utilisation area specified below, the licensee must monitor:
- a) the volume of liquids discharged to water or applied to the area;
 - b) the mass of solids applied to the area;
 - c) the mass of pollutants emitted to the air;

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at the frequency and using the method and units of measure, specified below.

POINT 4,5,6,7

Frequency	Unit of Measure	Sampling Method
Continuous	megalitres per day	In line instrumentation

M7 Other monitoring and recording conditions

M7.1 The licensee must maintain a written register that records the following details in relation to each herbicide(s) application in or near waters:

- (a) location of where the herbicide(s) was applied and the area of water (if any) covered by the application;
- (b) date of the herbicide(s) application;
- (c) target species treated;
- (d) name of the herbicide(s) applied, method of application and formulation/ mixing details of the herbicide(s);
- (e) the volume of herbicide(s) used;
- (f) the wind speed (m/s) and direction at the time of the herbicide(s) application;
- (g) the air temperature (degrees Celsius) at the time of the herbicide(s) application;
- (h) name(s) of person(s) applying the herbicide(s) and their supervisor;
- (i) details of the manner in which used chemical containers have been disposed of;
- (j) details of mechanisms used, if any, to notify any occupier or user of treated land and waters of such treatment including as per condition O3.10;
- (k) the date and time of any query by any person in relation to the herbicide(s) application;
- (l) the method by which any such query was made;
- (m) the name and contact details of the person making any such query;
- (n) the nature of any such query; and
- (o) any action taken by the licensee in relation to any such query.

In addition:

- (a) details must be entered into the register within 3 working days of the application of the herbicide(s) or in the case of a query, within 3 working days of the query being received by the licensee;
- (b) details must be kept on the register for at least 4 years after the herbicide(s) application to which they relate was undertaken;
- (c) the register must be held at the principal office of the licensee (or such other office as is notified in writing to the EPA by the licensee) and be available for inspection by any authorised officer of the EPA who asks to see it.

6 Reporting Conditions

R1 Annual return documents

R1.1 The licensee must complete and supply to the EPA an Annual Return in the approved form comprising:

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1. a Statement of Compliance,
2. a Monitoring and Complaints Summary,
3. a Statement of Compliance - Licence Conditions,
4. a Statement of Compliance - Load based Fee,
5. a Statement of Compliance - Requirement to Prepare Pollution Incident Response Management Plan,
6. a Statement of Compliance - Requirement to Publish Pollution Monitoring Data; and
7. a Statement of Compliance - Environmental Management Systems and Practices.

At the end of each reporting period, the EPA will provide to the licensee a copy of the form that must be completed and returned to the EPA.

- R1.2 An Annual Return must be prepared in respect of each reporting period, except as provided below.
- R1.3 Where this licence is transferred from the licensee to a new licensee:
- a) the transferring licensee must prepare an Annual Return for the period commencing on the first day of the reporting period and ending on the date the application for the transfer of the licence to the new licensee is granted; and
 - b) the new licensee must prepare an Annual Return for the period commencing on the date the application for the transfer of the licence is granted and ending on the last day of the reporting period.
- R1.4 Where this licence is surrendered by the licensee or revoked by the EPA or Minister, the licensee must prepare an Annual Return in respect of the period commencing on the first day of the reporting period and ending on:
- a) in relation to the surrender of a licence - the date when notice in writing of approval of the surrender is given; or
 - b) in relation to the revocation of the licence - the date from which notice revoking the licence operates.
- R1.5 The Annual Return for the reporting period must be supplied to the EPA via eConnect *EPA* or by registered post not later than 60 days after the end of each reporting period or in the case of a transferring licence not later than 60 days after the date the transfer was granted (the 'due date').
- R1.6 The licensee must retain a copy of the Annual Return supplied to the EPA for a period of at least 4 years after the Annual Return was due to be supplied to the EPA.
- R1.7 Within the Annual Return, the Statements of Compliance must be certified and the Monitoring and Complaints Summary must be signed by:
- a) the licence holder; or
 - b) by a person approved in writing by the EPA to sign on behalf of the licence holder.

Note: The term "reporting period" is defined in the dictionary at the end of this licence. Do not complete the Annual Return until after the end of the reporting period.

Note: An application to transfer a licence must be made in the approved form for this purpose.

R2 Notification of environmental harm

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R2.1 Notifications must be made by telephoning the Environment Line service on 131 555.

R2.2 The licensee must provide written details of the notification to the EPA within 7 days of the date on which the incident occurred.

Note: The licensee or its employees must notify all relevant authorities of incidents causing or threatening material harm to the environment immediately after the person becomes aware of the incident in accordance with the requirements of Part 5.7 of the Act.

R3 Written report

R3.1 Where an authorised officer of the EPA suspects on reasonable grounds that:

- a) where this licence applies to premises, an event has occurred at the premises; or
 - b) where this licence applies to vehicles or mobile plant, an event has occurred in connection with the carrying out of the activities authorised by this licence,
- and the event has caused, is causing or is likely to cause material harm to the environment (whether the harm occurs on or off premises to which the licence applies), the authorised officer may request a written report of the event.

R3.2 The licensee must make all reasonable inquiries in relation to the event and supply the report to the EPA within such time as may be specified in the request.

R3.3 The request may require a report which includes any or all of the following information:

- a) the cause, time and duration of the event;
- b) the type, volume and concentration of every pollutant discharged as a result of the event;
- c) the name, address and business hours telephone number of employees or agents of the licensee, or a specified class of them, who witnessed the event;
- d) the name, address and business hours telephone number of every other person (of whom the licensee is aware) who witnessed the event, unless the licensee has been unable to obtain that information after making reasonable effort;
- e) action taken by the licensee in relation to the event, including any follow-up contact with any complainants;
- f) details of any measure taken or proposed to be taken to prevent or mitigate against a recurrence of such an event; and
- g) any other relevant matters.

R3.4 The EPA may make a written request for further details in relation to any of the above matters if it is not satisfied with the report provided by the licensee. The licensee must provide such further details to the EPA within the time specified in the request.

R4 Annual system performance report

R4.1 By 30 October each year, the licensee must submit to the EPA's Regional Manager South West an annual report in respect of the preceding financial year.

R4.2 The environmental management report must detail the environmental performance in accordance with this licence and the quality of water discharged from works and infrastructure owned and controlled by the

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licensee.

R4.3 The annual report must contain the following information in relation to the period to which it relates:

- (a) the volume of all inflows of water to the premises, the volume of all surface water discharges from the premises;
- (b) results of all monitoring required by this licence and an assessment of irrigation drainage water quality trends;
- (c) a summary of all events which have been reported under conditions within R2, R3 and R5; and
- (d) any changes the licensee suggests should be made to this licence or the chemical contingency plan and/ or the chemical control plan.

R5 Other reporting conditions

Reporting exceedance of chemical contingency plan levels

R5.1 If the licensee, or any of its employees, servants or agents becomes aware that any:

- (a) notification level; or
- (b) action level

set out in relation to a chemical contingency plan and/or Schedule 1 to this licence has been exceeded, the licensee must as soon as possible and, in any event, within 24 hours, notify the EPA by email to: riverina.farwest@epa.nsw.gov.au

7 General Conditions

G1 Copy of licence kept at the premises or plant

G1.1 A copy of this licence must be kept at the premises to which the licence applies.

G1.2 The licence must be produced to any authorised officer of the EPA who asks to see it.

G1.3 The licence must be available for inspection by any employee or agent of the licensee working at the premises.

8 Special Conditions

E1 Conditions of supply

- E1.1 The licensee must not supply water to a customer unless the supply is conditional upon the following:
- (a) that the customer must comply with any reasonable direction of the licensee for the purpose of reducing the impact of pollutants on receiving waters;

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(b) that the customer will grant the licensee all reasonable access to the customer's premises and provide the licensee with all reasonable assistance for the purposes of the licensee determining whether the customer is complying with (a) above; and

(c) that if the customer fails to comply with the requirements set out in paragraphs (a) and (b) above, the licensee may deny the customer any services provided by the licensee.

E1.2 The licensee must monitor compliance by customers with the conditions of the supply of water to the customer by the licensee as required for the licensee to meet its obligations under this licence.

E1.3 The licensee must produce to the EPA a copy of any contract or details of any arrangement it enters into with a customer in relation to any supply of drainage services within 7 days of receipt of a written request from the EPA that it do so.

E2 Discontinuation of the provision of services

E2.1 In the event that a customer fails to comply with any condition of the supply of water to a customer required by this licence that has caused, is causing or is likely to cause harm to the environment, whether on or off the premises, the licensee must take appropriate action within (7) days to prevent the continuance of the non compliance.

E2.2 In condition E2.1, "appropriate action" includes the licensee doing one or more of the following:

- (a) sending a letter to the relevant customer containing a warning that the licensee will discontinue the supply of water if the relevant non compliance with the condition of supply is not rectified by a specified date;
- (b) refusal to or discontinuance of the supply of water to a customer;
- (c) causing such works to be conducted such as to prevent the continuance of the non compliance by the customer;
- (d) notifying the customer in writing that the licensee no longer consents to the discharge of any substances into a work owned by the licensee.

Note: The purpose of conditions E2.1 and E2.2 is to ensure that the licensee requires customers to take such steps as are necessary to ensure that the licensee is able to meet its obligations under this licence.

E3 Schedule 1 - Chemicals to be monitored and the notification level and action level for each chemical.

E3.1 Notification levels and action levels.

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

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Malathion	0.05	0.2
Metolachlor	0.02	0.1
Molinate	3.4	14
Simazine	3.2	11
Thiobencarb	2.8	4.6
Triflurafin	2.6*	4.4*

Note:

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

1. Notification Level – This is equivalent to the 95% “trigger value” in the Australian and New Zealand Guidelines for Fresh and Marine Water Quality (2018). 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 do not mean that 95% level of protection results in loss of 5% of species.

2. Action Level – this is equivalent to the 90% “trigger value” in the Australian and New Zealand Guidelines for Fresh and Marine Water Quality (2018). 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 do not mean that a 90% level of protection results in loss of 10% of species.

3. The Action Level for Diuron has been set at five times the “trigger value” outlined in the Australian and New Zealand Guidelines for Fresh and Marine Water Quality (2018). The Action Level for Metolachlor has been set at five times the “trigger value” outlined in the Australian and New Zealand Guidelines for Fresh and Marine Water Quality (2000).

4. The Notification Level for Metolachlor is equivalent to the “low reliability trigger value” provided in the Australian and New Zealand Guidelines for Fresh and Marine Water Quality (2000).

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Dictionary

General Dictionary

3DGM [in relation to a concentration limit]	Means the three day geometric mean, which is calculated by multiplying the results of the analysis of three samples collected on consecutive days and then taking the cubed root of that amount. Where one or more of the samples is zero or below the detection limit for the analysis, then 1 or the detection limit respectively should be used in place of those samples
Act	Means the Protection of the Environment Operations Act 1997
activity	Means a scheduled or non-scheduled activity within the meaning of the Protection of the Environment Operations Act 1997
actual load	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 2009
AM	Together with a number, means an ambient air monitoring method of that number prescribed by the <i>Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales</i> .
AMG	Australian Map Grid
anniversary date	The anniversary date is the anniversary each year of the date of issue of the licence. In the case of a licence continued in force by the Protection of the Environment Operations Act 1997, the date of issue of the licence is the first anniversary of the date of issue or last renewal of the licence following the commencement of the Act.
annual return	Is defined in R1.1
Approved Methods Publication	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 2009
assessable pollutants	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 2009
BOD	Means biochemical oxygen demand
CEM	Together with a number, means a continuous emission monitoring method of that number prescribed by the <i>Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales</i> .
COD	Means chemical oxygen demand
composite sample	Unless otherwise specifically approved in writing by the EPA, a sample consisting of 24 individual samples collected at hourly intervals and each having an equivalent volume.
cond.	Means conductivity
environment	Has the same meaning as in the Protection of the Environment Operations Act 1997
environment protection legislation	Has the same meaning as in the Protection of the Environment Administration Act 1991
EPA	Means Environment Protection Authority of New South Wales.
fee-based activity classification	Means the numbered short descriptions in Schedule 1 of the Protection of the Environment Operations (General) Regulation 2009.
general solid waste (non-putrescible)	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997

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flow weighted composite sample	Means a sample whose composites are sized in proportion to the flow at each composites time of collection.
general solid waste (putrescible)	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
grab sample	Means a single sample taken at a point at a single time
hazardous waste	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
licensee	Means the licence holder described at the front of this licence
load calculation protocol	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 2009
local authority	Has the same meaning as in the Protection of the Environment Operations Act 1997
material harm	Has the same meaning as in section 147 Protection of the Environment Operations Act 1997
MBAS	Means methylene blue active substances
Minister	Means the Minister administering the Protection of the Environment Operations Act 1997
mobile plant	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
motor vehicle	Has the same meaning as in the Protection of the Environment Operations Act 1997
O&G	Means oil and grease
percentile [in relation to a concentration limit of a sample]	Means that percentage [eg.50%] of the number of samples taken that must meet the concentration limit specified in the licence for that pollutant over a specified period of time. In this licence, the specified period of time is the Reporting Period unless otherwise stated in this licence.
plant	Includes all plant within the meaning of the Protection of the Environment Operations Act 1997 as well as motor vehicles.
pollution of waters [or water pollution]	Has the same meaning as in the Protection of the Environment Operations Act 1997
premises	Means the premises described in condition A2.1
public authority	Has the same meaning as in the Protection of the Environment Operations Act 1997
regional office	Means the relevant EPA office referred to in the Contacting the EPA document accompanying this licence
reporting period	For the purposes of this licence, the reporting period means the period of 12 months after the issue of the licence, and each subsequent period of 12 months. In the case of a licence continued in force by the Protection of the Environment Operations Act 1997, the date of issue of the licence is the first anniversary of the date of issue or last renewal of the licence following the commencement of the Act.
restricted solid waste	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
scheduled activity	Means an activity listed in Schedule 1 of the Protection of the Environment Operations Act 1997
special waste	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
TM	Together with a number, means a test method of that number prescribed by the <i>Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales</i> .

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TSP	Means total suspended particles
TSS	Means total suspended solids
Type 1 substance	Means the elements antimony, arsenic, cadmium, lead or mercury or any compound containing one or more of those elements
Type 2 substance	Means the elements beryllium, chromium, cobalt, manganese, nickel, selenium, tin or vanadium or any compound containing one or more of those elements
utilisation area	Means any area shown as a utilisation area on a map submitted with the application for this licence
waste	Has the same meaning as in the Protection of the Environment Operations Act 1997
waste type	Means liquid, restricted solid waste, general solid waste (putrescible), general solid waste (non - putrescible), special waste or hazardous waste

Mr Craig Bretherton

Environment Protection Authority

(By Delegation)

Date of this edition: 19-October-2000

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End Notes

- 1 Licence varied by notice 1030202, issued on 19-Nov-2003, which came into effect on 14-Dec-2003.
- 2 Licence varied by notice 1036060, issued on 01-Jul-2004, which came into effect on 01-Jul-2004.
- 3 Licence varied by notice 1050134, issued on 24-Aug-2005, which came into effect on 18-Sep-2005.
- 4 Licence varied by notice 1071393, issued on 26-Mar-2007, which came into effect on 26-Mar-2007.
- 5 Licence varied by notice 1079907, issued on 26-Nov-2007, which came into effect on 26-Nov-2007.
- 6 Condition A1.3 Not applicable varied by notice issued on <issue date> which came into effect on <effective date>
- 7 Licence varied by notice 1095398, issued on 30-Jun-2010, which came into effect on 30-Jun-2010.
- 8 Licence varied by notice 1509750 issued on 24-Jan-2013
- 9 Licence varied by notice 1513360 issued on 02-Jul-2013
- 10 Licence varied by notice 1522534 issued on 12-Jun-2014
- 11 Licence varied by notice 1556031 issued on 03-Nov-2017
- 12 Licence varied by notice 1567551 issued on 02-Oct-2018
- 13 Licence varied by notice 1592034 issued on 09-Mar-2020

MURRUMBIDGEE IRRIGATION LIMITED

Monitoring and Reporting Plan For

Combined Approval - 40CA403245

Date: 16 March 2018

Schedule 1 - Requirements

The Approval Holder of 40CA403245 must provide all data in the format detailed in each specific requirement of this Monitoring and Reporting Plan, unless otherwise authorised by the Department of Industry Water (DoI Water). The data is to be submitted to the nominated officer within DoI Water. The data is to be submitted to the nominated officer within DoI Water.

REPORTING AND NOTIFICATION REQUIREMENTS

Submission of an Annual Compliance Report

1. The Approval Holder must, by the 31st of October each year, submit to the Minister a hard copy and an electronic copy of an Annual Compliance Report for the preceding water year (from 1 July to 30 June).
2. The Approval Holder's Annual Compliance Report must present, but need not be limited to the following:

Plans of the Area of Operations, Authorised Works, Monitoring Sites and Water Management Infrastructure

- 2.1 A plan of the Area of Operations, as existing at 30 June of the year of reporting, showing, to the Minister's satisfaction, the boundary of all included land and including any amendments made by the inclusion and exclusion of lands in accordance with sections 131 and 135 of the *WMA 2000*, and showing the boundary of any other land that water is supplied to that are not included in the Area of Operations;
- 2.2 A plan (or plans) showing, to the Minister's satisfaction, the current location of works listed in Schedule 1 and all monitoring sites listed in Attachments 1 and 2, as existing at 30 June of the year of reporting, as well as
 - the location and extent of areas that are permanently or temporarily inundated to store or dispose of water for the Approval Holder's benefit, whether inside or outside the Area of Operations,
 - the boundary of the Area of Operations,
 - the major supply and drainage channels, and
 - the major watercourses located within and adjacent to the Area of Operations;

Statement of Compliance

- 2.3 A statement of compliance, including a summary of significant events, and a summary of the actions, steps, or procedures taken by the Approval Holder to remedy any non-compliance with the conditions of Combined Approval 40CA403245 and the Monitoring and Reporting Plan;

Presentation of Data and Analyses

- 2.4 The data from all monitoring required by the Monitoring and Reporting Plan, in print, file and tabular and/or graphical presentation formats specified in the Monitoring and Reporting Plan or as may be otherwise agreed in consultation with the Approval Holder;
- 2.5 A discussion of, or commentary on, the trends evident from the salinity, discharge, groundwater, extraction and water use monitoring data in the context of;

Schedule 1 - Requirements

- comparable data for at least the two previous years,
 - comparable data for a year, being at least five (5) years prior,
 - any targets or benchmarks established in relevant management plans or strategies, and
 - climate and water allocation conditions;
- 2.6 The identification of and explanation for any data omissions and discrepancies and details of any action undertaken or proposed to remedy any monitoring and/or reporting deficiency;
- 2.7 All monitoring and testing data for discharged water salinity and volume and for groundwater levels in an unrestricted access electronic file format;
- 2.8 A reference to the quality assurance and control standards or any approved monitoring plan or manual under which data was collected and processed;

New Measures to Limit Groundwater Recharge and Discharge of Salt.

- 2.9 A discussion of any new measures implemented during the year, and results of measures commenced in the previous year to
- a) reduce recharge of the groundwater within the Area of Operations, or
 - b) otherwise limit the height of the groundwater and extent of groundwater within two metres from the surface of the land, or
 - c) reduce or limit the discharge of salt from the Area of Operations;

Reporting on Water Management

- 2.10 In respect of each authorised water supply work listed in Schedule 1, the reconciled monthly water volumes in megalitres
- a) extracted under water access licences held by the Approval Holder,
 - b) extracted under any other water access licences nominating that work,
 - c) extracted for environmental or river operational purpose under agreement with and for the Water NSW or the Minister, and
 - d) delivered in total to the Approval Holder's customers;
- 2.11 In respect of each site in Attachment 1 from which water is discharged, the monthly water volumes in megalitres
- a) discharged (without credit), and
 - b) discharged for environmental or river operational purpose under agreement with the Water NSW or the Minister;
- 2.12 An annual water balance estimate for the supply system associated with each water supply work authorised by Combined Approval 40CA403245, which takes into consideration
- a) the data from requirement 2.10 and 2.11,
 - b) the estimated net channel losses, accounting for delivered, escaped, recycled, and evaporated water, and within channel rainfall, change in water storage volume, and seepage, and
 - c) change in the volume of water held in off-line storages change in the volume of water held in off-line storages;

Schedule 1 - Requirements

- 2.13 The estimated annual values in the measurement units shown, for
- rainfall (mm),
 - evapo-transpiration (mm),
 - water deliveries for rice (ML),
 - water deliveries for horticulture (ML),
 - water deliveries for other summer crops (including pasture) (ML),
 - water deliveries for winter crops (ML),
 - water deliveries for domestic and stock purposes (ML) if separately measured,
 - the applicable areas (ha) for the water uses (c) to (f) estimated from locally relevant crop water use factors, and
 - the distribution of irrigation intensity (ML/ha/year) in at least three intensity ranges, for the main supply sub divisions/areas;

Reporting on Salinity and Saltload

- 2.14 The volume, salinity and saltload of extractions at the sites listed in Schedule 1, and in accordance with requirements set out in Schedule 1;
- 2.15 The volume, salinity and saltload of discharges at the sites listed in Attachment 1, and in accordance with requirements set out in Attachment 1;
- 2.16 A simple annual salt balance representing the imported, exported and retained saltload for the area associated with each separate water supply work;

Reporting Groundwater Conditions

- 2.17 The results of monitoring of groundwater conditions by means of piezometers in accordance with the monitoring and reporting requirements set out in Attachment 2.

Quality Assurance for Monitoring & Reporting

3. The Approval Holder must ensure that the monitoring and reporting requirements specified in this Monitoring and Reporting Plan are subject to appropriate quality assurance and control procedures, and national standards, for measurement, analysis and reporting or an approved monitoring plan or manual that incorporates such standards to the satisfaction of the Minister. The Approval Holder may include data of acceptable quality from other sources to meet the monitoring and reporting requirements of this Monitoring and Reporting Plan.

Presentation of Data

4. The Approval Holder must submit the primary data from monitoring required by the Monitoring and Reporting Plan in an electronic data file(s) within 10 working days following the Minister's written request.

ENVIRONMENT PROTECTION AND MANAGEMENT REQUIREMENTS

Discharge of Noxious Aquatic Weeds

5. The Approval Holder, on becoming aware of the actual or potential discharge of a Class 1, 2 or 3 declared noxious aquatic weed from the Approval Holder's supply or

Schedule 1 - Requirements

drainage channels to lands or waters outside of the Area of Operations, must immediately report such condition to the Minister's nominated contact officer.

Note: This requirement does not mitigate any responsibilities the Approval Holder may have under the *Noxious Weeds Act 1993*.

Discharge of Blue-Green Algae

6. The Approval Holder, on becoming aware of an imminent or actual discharge of water containing blue-green algae in a Red Level Action Mode from the Approval Holder's supply or drainage channels to waters outside the Area of Operations, must immediately report such condition to the Minister's nominated contact officer.

Note: This requirement does not mitigate any responsibilities the Approval Holder may have under a Regional Algal Co-ordinating Committee's Contingency Plan.

Basin Salinity Management Strategy

7. The Approval Holder must provide to the Minister any data held by the Approval Holder which may be considered by the Minister to be relevant to the assessment of salinity impacts under the Murray Darling Basin - Basin Salinity Management 2030 (formally Murray-Darling Basin Salinity Management Strategy land and water management practices within the Approval Holder's Area of Operations.

Schedule 1 – Authorised Water Supply Works

SCHEDULE 1 – WATER SUPPLY WORKS AUTHORISED UNDER 40CA403245

Authorised Water Supply Works

- | | |
|----|--|
| 1. | Diversion Channel (Sturt Canal) and Regulator, taking water from Coononcoocabil Lagoon, from the Murrumbidgee Regulated River Water Source within that part of the water source downstream of Berembed Weir but upstream of Gogeldrie Weir (not including Yanco Creek or any rivers that receive water from it). |
| 2. | Diversion Channel (Main Canal) and Regulator (at Narrandera), taking water from Bundidgerry Creek, from the Murrumbidgee Regulated River Water Source downstream of Wagga Wagga gauge but upstream of Berembed Weir. |

Schedule 1 – Authorised Water Supply Works

Authorised Water Supply Works – Details

Work: ID/name; type; location/site	Location details: coordinates (GDA94); Lot//DP	Work details: components; capacity	Flow measuring device: device/method; location; sample frequency; data access/d'load error margin / standard	Salinity measuring device: device/method; location; sample frequency; data access/d'load
STUR / 410129, Sturt Canal; Diversion channel; from Coononcoocabil Lagoon	whole Lot 2//218155;	main canal with flow / level monitoring station	AFFRA flow sensor & digital recorder; 50m u/s of regulator; Digital record of velocity & flow logged every 15 minutes; na / Stored in Theiss Hydstra database; <+/-5 % / NWI compliant	manually (by Hydrolab); 50m u/s of regulator; monthly; stored in Excel data file at MI.
Regulator on Sturt Canal;	431821/6170436; whole Lot 2//218155;	4 under shot radial gates; 1900 ML/d		
NARREG / 410127, Main Canal; Diversion channel; @ Narrandera Regulator	459970/6170420; na;	main canal with flow / level monitoring station	AFFRA flow sensor & digital recorder; 50m u/s of regulator; Digital record of velocity & flow logged every 15 minutes; na / Stored in Theiss Hydstra database;	manually (by Hydrolab); 50m u/s of regulator; monthly; stored in Excel data file at MI.
			<+/-5 % / NWI compliant	
Regulator; on Bundidgerry Creek;	466504/61527251; land adjacent to Lot 1 DP751683;	5 under shot gates; 6600 ML/d		

Schedule 1 – Authorised Water Supply Works

Monitoring and Reporting Requirements - Water Supply Works Authorised under 40CA403245

Work/site identifier	Coordinates of measuring device (GDA94)	Flow measurement requirements ^(#) : frequency; error margin	Salinity measurement requirements: frequency; error margin	Annual reporting requirement ^(#) flow; saltload; salinity	Presentation format (all tabular data in xls files as well as hard copy)
STUR, 410129; 50m u/s of Sturt Canal regulator	431821/6170436	Flow and volume measured & recorded with <+/-5% error.	Weekly; <+/-5% error	ML/month; tonnes/month; monthly average	table; table; table
NARREG, 410127; 50m u/s of Narrandera regulator;	459970/6170420	Flow and volume measured & recorded with <+/-5% error.	Weekly; <+/-5% error	ML/month; tonnes/month; monthly average	table; table; table

Notes

: (#) These requirements do not exempt the Approval Holder from any flow and volume measurement and reporting requirements of Water NSW. Site data files must be provided when requested by the Minister.

Schedule 1 – Authorised Water Supply Works

ATTACHMENT 1 – DISCHARGE MONITORING and REPORTING

Discharge Monitoring Sites - Details

Work: ID/name; discharges to	Location details: coordinates (GDA94)	Work details: components; dimensions; capacity	Flow measuring device: device/method; sample frequency; data access/d'load error margin	Salinity measuring device: device/method; sample frequency; data access/d'load; error margin
MIRFLD (41010163); Mirrool Creek Floodway@ Wyvern Stn monitoring site; lower Mirrool Creek	375753/6218734	water course	Flow measured manually when site operating.	Samples done manually when floodway is flowing.
YMS (410083); Yanco Main Southern Escape; Murrumbidgee floodplain	436273/6170698	channel & block bank	Digital level datalogger; 'Continuous'; Monthly download; <+/-5%	Digital EC datalogger; 'Continuous'; Monthly download; <+/-5%
GMSRR (41010921); Gogeldrie Main Southern Escape; Murrumbidgee floodplain	427479/6171449	channel & block bank	Digital level datalogger; 'Continuous'; Monthly download; <+/-5%	Digital EC datalogger; 'Continuous'; Monthly download; <+/-5%
LAG (41010940); Gooragool Lagoon Escape; Murrumbidgee floodplain	418423/6173126	channel	Digital level datalogger; 'Continuous'; Monthly download; <+/-5%	Digital EC datalogger; 'Continuous'; Monthly download; <+/-5%
ROCUDG (41010005); Cudgel Creek Escape; Murrumbidgee floodplain	444891/6165663	water course	Digital level datalogger; 'Continuous'; Monthly download; <+/-5%	Digital EC datalogger; 'Continuous'; Monthly download; <+/-5%

Schedule 1 – Authorised Water Supply Works

Discharge - Monitoring and Reporting Requirements

Work/site identifier	Flow measurement requirements: frequency; error margin	Salinity measurement requirements: frequency; error margin	Annual reporting requirement flow; saltload; salinity	Presentation format(*)
MIRFLD (41010163); Mirrool Creek Floodway	daily when flowing > 5ML/d; <+/- 10%	daily when flowing > 5ML/d; <+/-10%	ML/month; tonnes/month; monthly min, max, average	table; table; table
YMS (410083); Yanco Main Southern Escape	hourly when flowing; <+/- 5%	daily when flowing; <+/- 5%		
GMSRR (41010921); Gogeldrie Main Southern Escape	hourly when flowing; <+/- 5%	daily when flowing; <+/- 5%		
LAG (41010940); Gooragool Lagoon Escape	hourly when flowing; <+/- 5%	daily when flowing; <+/- 5%		
ROCUDG (41010005); Cudgel Creek Escape	hourly when flowing; <+/- 5%	daily when flowing; <+/- 5%		

Notes:

Site data files must be provided to DoI Water when requested by the Minister. (*): All tabular data must be provided in XLSs files as well as hard copy.

ATTACHMENT 2 - GROUNDWATER CONDITION MONITORING and REPORTING

Piezometers

These groundwater monitoring and reporting requirements are based on the Approval Holder's use of all piezometers recorded in the Approval Holder's MS-Excel file '*MI_piezos6M-2M-2011gov*' (sent to Office of Water in November 2011). This piezometer network, together with the tube-wells operated by the Approval Holder for the control of the groundwater level, is accepted by the Minister as adequate for the groundwater condition reporting requirements of this Approval.

The Minister will, subject to satisfactory reasons offered by the Approval Holder, regard the Approval Holder's groundwater monitoring as unsatisfactory when less than 90% of the agreed network piezometers have not or couldn't be used.

The Approval Holder must ensure that appropriate procedures and standards for the construction and maintenance of piezometers and for monitoring and reporting of groundwater conditions are adopted and adhered to in order to produce data and reports of acceptable quality. The Approval Holder must submit a copy of such procedures and standards upon the Minister's request. In the event that the Approval Holder cannot demonstrate a level of quality assurance acceptable to the Minister, the Minister may not accept the annual report on groundwater conditions submitted pursuant to this Approval and Monitoring and Reporting Plan as satisfactory.

The Approval Holder must submit in every annual compliance report, in electronic MS Excel or Word format, a current listing of the piezometers used for groundwater monitoring, including the 'condition' of each piezometer, in a format which includes the headings shown hereunder:

Site ID	Use Y/ N	Top of pipe (m AHD)	Top of pipe above NS (m)	Natural Surface (m AHD)	Depth below top of pipe (m)	Easting (GDA94) Zone 55	Northing (GDA94) Zone 55	Condition @ date (<u>D</u> estroyed, <u>N</u> ot <u>F</u> ound, <u>D</u> ry)

Notes:

- 'Use' refers to monitoring status: Y = included in monitoring requirements; N = not included in monitoring requirements; GC = included as monitoring piezometers of the groundwater control tube wells.
- 'Condition' must be updated in each annual compliance report.

Attachment 2– Groundwater Condition Monitoring and Reporting

Groundwater Control Bores (Tube-wells) - Details

Site: ID; GWD ID (bore); name	Location: plan; coordinates (GDA94)	Bore details: Number of bores; diameter (mm); screen depth interval
PD-1-01; na; Five Bridges	434961 / 6179154	one Bore; 100mm; 13.39m
PD-1-02; na; Gil Gil	444617 / 6178206	one Bore; 150mm; 18m
PD-1-03; na; Yanco West	444415 / 6172298	one Bore; 80mm; 11.7m
PD-1-04; na; South Leeton	444923 / 6174019	one Bore; 100mm; 16m
PD-1-07; na; Baulch's	438431 / 6177767	one Bore; 100mm; 11m
PD-1-06; na; Wamoon	439878 / 6178591	one Bore; 100mm; 13.39m
PD-1-05; na; East Wamoon	441216 / 6177142	one Bore; 150mm; 18m

Attachment 2– Groundwater Condition Monitoring and Reporting

Groundwater - Monitoring and Reporting Requirements

Site ID:	Groundwater level monitoring requirement: frequency error margin	Groundwater salinity monitoring requirement: frequency; error margin	Annual reporting requirement: level salinity	Presentation format: (all tabular data must be provided in xls files as well as hard copy)
All sites in Official Piezometer List which are marked as “Y” in the Use column	At least once a year in August (+/- 2 weeks). A second annual reading in February/March must be undertaken when requested by the Minister; <+/- 5cm	Sampling of specified piezometers must be undertaken within six months following notification by the Minister. The need for and benefit of sampling groundwater salinity must be reviewed once every two years in consultation between the Approval Holder and the Minister. <+/-5%.	All groundwater level monitoring events. Each groundwater salinity monitoring event	<ol style="list-style-type: none"> map of groundwater depth below natural surface in August @ 2m contour intervals and including the first 1m contour; in consultation with the Minister, contour maps and/or vertical cross sections showing AHD groundwater levels and gradients in areas where levels have been risen above the historical reference; a table of the area (ha) of shallow (<2m), moderate (2-4m) and >4m groundwater depth within the Area of Operations boundary(#); table of change in the three depth class areas (ha) within the Area of Operations, relative to the previous and the historical reference year changes; groundwater salinity @ 0-2000, -5000, -10000, -20000, -30000, -40000 $\mu\text{S/cm}$ contours, and as tabulated salinity interval areas (ha) within the Area of Operations boundary(#), relative to the previous and the historical reference year surveys; or alternative presentation formats as may be approved by the Minister from time to time.

Note: (#) use the Area of Operations boundary as reported under requirement 2.1.

SCHEDULE 2 - DICTIONARY

In this Monitoring and Reporting Plan, unless the contrary is indicated, the terms below have the following meanings:

Access licence has the same meaning as in the *WMA 2000*.

Annual compliance report (ACR) is the Approval Holder's annual report of compliance with the conditions of Combined Approval 40CA401473 and the Monitoring and Reporting Plan.

Approval has the same meaning as in the *WMA 2000*.

Approval Holder means the holder of Approval 40CA401473.

Aquifer has the same meaning as in the *WMA 2000*.

Area of Operations in relation to the Approval Holder comprises the area of land forming the Irrigation Areas and Districts specified in Schedule 1 of the *Water Management Act 2000*, being Areas constituted under the former *Irrigation Act 1912* and Part 6 of the former *Water Act 1912*, including any land included under Division 4 but excluding any land excluded under Division 5 of Chapter 4 Part 1 of the *WMA 2000*.

Bore means a hole sunk into the ground and completed for the abstraction of water or for observation, sampling or testing purposes.

Department of Industry Water is the division within New South Wales Department of Primary Industry responsible for the administration of licences and approvals under the *WMA 2000*.

Discharge (of water) means the discharge or release of water from the Approval Holder's Area of Operations to any area of land or water outside that Area of Operations by means of channels, pipelines or drains, owned, operated by, or on behalf of the Approval Holder

Environment has the same meaning as in the *WMA 2000*.

Extraction means the act of taking water from an artificial or natural water source, such as a river, lake, storage or aquifer for human uses.

Measuring device means a flow meter, sensor, gauge, piezometer, weir or regulator by which water volume, depth, flow rate or water quality can be measured.

Megalitre (ML) means a unit of capacity in the metric system. One megalitre is equivalent to 1,000,000 (one million) litres.

Minister means the Minister administering the *WMA 2000*.

Murray-Darling Basin Salinity Management Strategy is the inter-state agreement on river salinity impact debit and credit accounting against targets set for the end of system flows for rivers in the Murray Darling Basin, as set out in the *Basin Salinity Management Strategy 2001-2015. Murray-Darling Basin Ministerial Council, Canberra, 2001*. See: www2.mdbc.gov.au/salinity/basin_salinity_management_strategy_20012015/

Murrumbidgee Regulated River Water Source means the water source the subject of the *Water Sharing Plan for the Lachlan Regulated River Water Source 2003*

Nominated contact officer means DoI Water's Water Regulation Officer as notified to the Approval Holder from time to time.

Noxious aquatic weeds are those plants, living mainly in water or predominantly wet environments that have been listed as noxious or are otherwise perceived to pose a threat to the water carrying capacity of rivers and channels and the stability of water dependent

Schedule 2 – Dictionary

ecosystems. The classification and management responsibilities are set out in the Noxious Weeds Act 1993.

Piezometer means a bore in which the elevation of the groundwater level or its pressure level can be measured relative to a reference level.

Red Level Action Mode (for blue-green algae) is the condition where the concentration of blue-green algae cells is in excess of levels defined by interim National Health and Medical Research Council (2000) Recreational Guidelines for algae. An Irrigation Corporation, as a water supply authority, is obliged to follow the Regional (Algal) Contingency Plan issued by the Regional Algal Co-ordinating Committee.

Regulated river has the same meaning as in the *WMA 2000*.

Salinity (of water) means the salt content of water expressed in milligrams per litre (mg/l) or electrical conductivity units measured as micro-Siemens per centimetre ($\mu\text{S}/\text{cm}$) or deci-Siemens per metre (dS/m). An electrical conductivity value of 1000 $\mu\text{S}/\text{cm}$ or 1 dS/m represents approximately 640 milligrams of salts per litre of water.

Salt balance means the calculated difference between the weight of salt entering and leaving a specified geographic area over a specified period of time (expressed in tonnes per unit of time).

Salt load means the salt content of a given volume of water expressed as a unit of weight (kilograms or tonnes) per unit of volume (megalitres).

Seepage means the loss of water through the bed and banks of channels and water storage basins or dams.

Water access licence has the same meaning as in the *WMA 2000*.

Water Allocation has the same meaning as in the *WMA 2000*.]

Water balance means an accounting for the difference between the volume of water entering and leaving a defined supply system in terms of the calculated or estimated water flux and storage components that make up the difference.

Water supply work has the same meaning as in the *WMA 2000*.

Water supply work approval has the same meaning as in the *WMA 2000*.

Water use approval has the same meaning as in the *WMA 2000*.

ABBREVIATIONS

AHD	Australian Height Datum (elevation relative to standardised sea level)
cm	Centimetre
GDA94	Geocentric Data of Australia 1994 (coordinate system)
ML	Megalitres
ML/d	Megalitres per day
NSW	New South Wales
$\mu\text{S}/\text{cm}$	Electrical conductivity units (measured as micro-Siemens per centimetre or 1/1000 deci-Siemens per metre)(1000 $\mu\text{S}/\text{cm}$ = 1 dS/m represents approximately 640 milligrams of salts per litre of water)
WA 1912	<i>Water Act (1912)</i>
WMA 2000	<i>Water Management Act (2000)</i>

Murrumbidgee Irrigation Ltd
86 Research Station Rd,
Hanwood NSW 2680

T: 61 2 6962 0200 E: tenders@mirrigation.com.au

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Document Status

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