

Environment Protection Authority (EPA)

**NOTICE OF APPROVAL OF VOLUNTARY MANAGEMENT  
PROPOSAL**

(Section 17 of the *Contaminated Land Management Act 1997*)

**Approval No.:** 20181702

**Approval Date:** 5 July 2018

**Area No.:** 3409

The approved proposal consists of this approval document and the attached proposal, which comprises three Parts: Part 1 – Preliminary Details; Part 2 – Undertakings; and Part 3 – Performance Schedule.

**Proponent:** NSW Department of Industry – Crown Lands and Water

**Site:** Former Arsenic Poison Factory, Jennings, NSW

**Proposal Date:** 14 June 2018

**BACKGROUND**

The EPA is satisfied that the terms of the proposal, as modified by the conditions of this approval, are appropriate.

For the purposes of section 17(4) of the *Contaminated Land Management Act 1997* (CLM Act), the EPA is satisfied that the proponent has taken all reasonable steps to identify and find every owner and notional owner of the land and every person responsible for significant contamination of the land and given those parties identified an opportunity to participate in the formulation and carrying out of the proposal on reasonable terms.

The contents of Part 1, Part 2 and Part 3 of the attached proposal form part of the terms of the approved proposal.

For the purposes of section 9(1) of the CLM Act, the EPA has had regard to the principles of ecologically sustainable development in assessing and approving this Voluntary Management Proposal and has also sought the implementation of those principles in the management of the site under this approved proposal.

## APPROVAL AND CONDITIONS

The EPA approves the proposal subject to the following conditions. These conditions form part of the terms of the approved proposal.

1. Each feature and milestone of the proposal is to be completed by the date specified in the proposal. Failure to satisfactorily complete any component by the due date for that feature or milestone may be taken as a failure to carry out the terms of the proposal for the purposes of section 17(6) of the CLM Act.
2. The proponent cannot recover contributions under Part 3 Division 6 of the CLM Act.
3. Make available for inspection by any person, free of charge, and provide a copy to any person for a reasonable fee, any document required to be prepared and submitted to the EPA under this voluntary management proposal. It is not necessary to disclose:
  - (i) any information contained in those documents that relates to any manufacturing or other industrial or commercial secrets or working processes; or
  - (ii) any personal information, within the meaning of the *Privacy and Personal Information Protection Act 1998*, contained in those documents.
4. Where this proposal requires the proponent or any other person to give a document to the EPA, that document may be given to the EPA:
  - (i) By delivering the document by hand to Level 14, 59 Goulburn Street, Sydney NSW 2000.
  - (ii) By posting the document to the Director Contaminated Land Management, PO Box A290 Sydney South NSW 1232.
  - (iii) By faxing the document to the Director Contaminated Land Management on (02) 9995 5930.
  - (iv) By emailing the document to [contaminated.sites@epa.nsw.gov.au](mailto:contaminated.sites@epa.nsw.gov.au)

## ADDITIONAL INFORMATION

5. The EPA may still exercise any powers it has under the CLM Act, or any other legislation, in relation to the site.
6. The EPA may require the proponent to pay all or any costs incurred by the EPA in connection with any one or more of the following:
  - a. Assessing and settling the terms of the approved voluntary management proposal;
  - b. Monitoring action under the approved voluntary management proposal;
  - c. Seeking the compliance of the proponent with the approved voluntary management proposal;
  - d. Any other matter associated with, or incidental to, the matters set out in paragraphs a. to c. above.

Signed:



5 July 2018

**ROB HOGAN**  
**Manager Contaminated Land Regulation**  
**Environment Protection Authority**  
**(by delegation)**

# VOLUNTARY MANAGEMENT PROPOSAL UNDER THE CONTAMINATED LAND MANAGEMENT ACT 1997

## Part 1

### Preliminary Details

#### 1. Proponent's Details

##### *(a) Name and contact details*

If a registered company, company name:

Trading as: *NSW Department of Industry – Crown Lands and Water*

ABN: *72 189 919 072*

If not a registered company, your full name(s):

Trading as:

ABN:

Phone:

Fax:

Email:

Postal address:

Postcode:

EPA licence number (if applicable):

##### *(b) Who the EPA should contact with technical enquiries about the proposal*

Name: *Richard Chewings*

Employer/Company: *NSW Department of Industry – Crown Lands and Water*

Position title: *Manager Natural Resource Services*

Type of business: *Government Department*

Phone (business): [REDACTED]

Phone (after hours): [REDACTED]

Email: [REDACTED]

**Proponent: NSW Department of Industry – Crown Lands and Water**

**Site: former Arsenic Processing Plant, Jennings NSW**

**Proposal Date: April 2018**

## 2. Site to which proposal applies

The site to which the proposal applies (“the site”) is:

*This proposal applies to the former Jennings Arsenic Processing Plant and adjacent lands. The Proposed Regulated Area (“the site” being land subject to this VMP), as identified in Figure 1, Attachment A, is situated between Duke, Manor, Robinson and Ballandean Streets, Jennings NSW and is formally identified as Lot 114 in DP751490, Lots 6, 7, Part Lots 4, 5 and 8, of Section 12 in DP 758540 and the road reserve for the extension of Gladstone Street.*

## 3. The contamination

Soil and/or groundwater and/or surface water at the site are contaminated with substances and the contamination is significant enough to warrant regulation under the *Contaminated Land Management Act 1997*. The substances of concern (“the contaminants”) are:

*On 7 April 2018, the NSW Environment Protection Authority (EPA) declared that the site is contaminated with Arsenic. A summary of the site contamination identified by previous site investigations with respect to arsenic against current Tier 1 screening criteria is consolidated in ERM (2017), as follows:*

- *Soil sample results have historically been reported above human health commercial/industrial guideline values. Soil sample results have historically also been reported above ecological (commercial and industrial) guideline values (National Environment Protection Council (NEPC), 1999, National Environment Protection (Assessment of Site Contamination) Measure);*
- *Surface water sample results have historically been reported above human health (drinking water) and ecological (95% species protection) guideline values. Surface water sample results have historically also been reported above stock watering guideline values (Australian and New Zealand Environment Conservation Council (ANZECC) and Agriculture and Resource Management Council of Australia and New Zealand (ARMCANZ), 2000, Australian and New Zealand Guidelines for Fresh and Marine Water Quality); and,*
- *Sediment sample results have historically been reported above human health (recreational – soil) guideline values (NEPC, 1999). Sediment sample results have also historically been reported to exceed the ecological sediment quality guideline (SQG) high value (Simpson S.L., Batley G.B. and Chariton A.A., 2013, Revision of the ANZECC/ARMCANZ Sediment Quality Guidelines, CSIRO Land and Water Science Report 08/07, CSIRO Land and Water).*

*See below for site investigation and management reference documents.*

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**Site: former Arsenic Processing Plant, Jennings NSW**

**Proposal Date: April 2018**

## 4. The management proposal

The management proposal (“the proposal”) comprises:

- a) the information set out above;
- b) the actions, works and other components set out in the following documents:

*ERM (2001), Environmental Site Assessment - Former Jennings Arsenic Factory, Jennings NSW, for the NSW Department of Land and Water Conservation, Reference 501017*

*ERM (2004), Supplementary Sampling - Former Jennings Arsenic Factory, Jennings NSW, for the NSW Department of Land and Water Conservation, Reference 0019305*

*NSW Soil Conservation Service (SCS) (2015), Jennings Site Management Plan, for NSW Crown Lands, prepared by SCS October 2015 (18/11/2015)*

*ERM (2017), former Arsenic Processing Plant, Jennings, Conceptual Site Model and Data Gaps Assessment, prepared for the NSW Department of Industry – Crown Lands, June 2017*

- c) the undertakings set out in Part 2 of this document; and
- d) the performance schedule set out in Part 3 of this document.

## Part 2

### Undertakings Included in Voluntary Management Proposal

***Explanatory Note:***

*Before the EPA can approve a voluntary management proposal under section 17 of the Contaminated Land Management Act 1997, it has a statutory obligation to satisfy itself that the terms of the proposal (as modified by any conditions to be imposed by the EPA) submitted to it under section 17 are appropriate. In addition to including an appropriate investigation plan, remedial action plan or other plan of management, to be acceptable to the EPA a proposal would usually include the undertakings set out below. These undertakings are important and will form part of the terms of the proposal. If the proposal is approved, they must be complied with in order for the EPA to be satisfied that the terms of the proposal have been carried out.*

#### **THE PROPOSAL INCLUDES THE FOLLOWING UNDERTAKINGS:**

##### **General**

1. All works or activities carried out in connection with the proposal, including sampling and preparation of associated reports (“the activities”), will be carried out in accordance with applicable provisions of *State Environmental Planning Policy 55 – Remediation of Land* and any requirements imposed under it in relation to the activities.

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2. All matters listed as relevant to a remediation action plan by the EPA's *Guidelines for Consultants Reporting on Contaminated Sites* (1997) will be taken into account in the carrying out of the activities.
3. All the activities will be carried out consistently with guidelines made or approved under section 105 of the CLM Act.  
(See [www.epa.nsw.gov.au/clm/guidelines.htm](http://www.epa.nsw.gov.au/clm/guidelines.htm))
4. All the activities will be carried out in compliance with applicable NSW environmental legislation, and in particular:
  - i) All the activities, including:
    - (1) the processing, handling, movement and storage of materials and substances used to carry out the activities; and
    - (2) the treatment, storage, processing, reprocessing, transport and disposal of waste generated by the activitieswill be carried out in a competent manner;
  - ii) All plant and equipment installed at the site or used in connection with the activities:
    - (1) will be maintained in a proper and efficient condition; and
    - (2) will be operated in a proper and efficient manner.
5. All the activities at the site will be carried out in a manner that prevents or minimises the emission of dust, odour and noise from the site.
6. Waste generated or stored at the Site will be assessed and classified in accordance with the EPA's *Waste Classification Guidelines Part 1: Classifying Waste*.  
(See [www.epa.nsw.gov.au/wasteregulation/classify-guidelines.htm](http://www.epa.nsw.gov.au/wasteregulation/classify-guidelines.htm))
7. All waste transported from the Site that is required by the *Protection of the Environment (Waste) Regulation 2014* to be tracked must be tracked using the EPA's on-line tracking system or an alternative tracking system approved in writing by the EPA.  
(See [www.epa.nsw.gov.au/owt/aboutowt.htm](http://www.epa.nsw.gov.au/owt/aboutowt.htm))
8. The proponent will make this voluntary management proposal available to the public free of charge and consents to the EPA placing this proposal on its public website.
9. The proponent will make all documents referred to in, and required to be prepared under, this voluntary management proposal available to the public free of charge, unless the proponent identifies commercial-in-confidence or private/personal information (including information relating to a third party) within those documents. In these cases, the proponent will remove such information from the documents to make the documents suitable for public release.
10. The proponent will:
  - i) prior to the implementation of the proposal provide for the EPA's approval a strategy for communicating about that implementation, particularly the actual management works, with members of the public who are likely to have a real interest in or be affected by that implementation; and
  - ii) implement the strategy as approved in writing by the EPA.

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## **Monitoring, Record Keeping & Reporting**

11. At least until the EPA has notified the proponent that the EPA no longer considers that the contamination is significant enough to warrant regulation under the *Contaminated Land Management Act 1997*, record and retain all monitoring data and information and provide this record to the EPA at any reasonable time if so requested by the EPA and as specifically provided under the proposal.
12. The EPA will be informed in writing within 7 days of the proponent becoming aware of information or data indicating a material change:
  - a) in conditions at the site, or
  - b) in its surrounding environment,which could adversely affect the prospects of successful management of the site or result in harm to the environment.
13. The EPA will be informed in writing within 7 days of the proponent becoming aware of any failure, either by the proponent or any other person, to comply with any term of the proposal.
14. The EPA will be informed in writing as soon as practicable of any notification by the proponent, its employees or its agents to an appropriate regulatory authority other than the EPA of any pollution incident at the site within the meaning of the *Protection of the Environment Operations Act 1997*.

(See <http://www.epa.nsw.gov.au/licensing/dutytonotify.htm>)

## **Performance Schedule**

15. The performance schedule which is in Part 3 of this document will be adhered to.

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# Part 3

## Performance Schedule

### Explanatory Notes:

The performance schedule required must provide a clear and concise list of:

- key milestones and dates by which they are to be achieved and
- the objectives and principal features of the investigation or remedial action plan.

The performance schedule is very important because it provides a concise set of performance indicators which will be used, along with an evaluation of compliance with the terms in Part 2 of this document, to assess whether or not the terms of the proposal have been carried out.

To be acceptable to the EPA, the performance schedule **must** include precise, measurable and time-bounded performance indicators. Where it is appropriate for the investigation or other management to be done in stages, performance measures for each stage must be provided. EPA approval of later stages will be dependent on the completion and/or performance of earlier stages being demonstrated to the EPA's satisfaction.

The performance schedule should adhere to the structure set out in the following table.

PART 3 - PERFORMANCE SCHEDULE	
The schedule should concisely set out:	
1. Objectives of the proposal	
2. Principal features of the proposal	<ul style="list-style-type: none"><li>a. Stakeholder consultation and site establishment</li><li>b. Environmental investigation</li><li>c. Remedial Planning</li></ul>
3. Reporting requirements and timeframes for submission of reports	
4. Key milestones and deadlines for investigation or remediation activities	

Proponent: NSW Department of Industry – Crown Lands and Water

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## PERFORMANCE SCHEDULE

### 1. Objectives of the proposal

*The general objective of the Proposal is:*

- O1. To set out a course of actions that will facilitate an improved understanding of the nature, extent, potential risks and feasible management options for the identified contaminant (arsenic) such that they do not pose an unacceptable risk of harm to human health and / or the environment.

*Specific objectives of the Proposal are:*

- O2. To develop and maintain relations and communication with stakeholders and the Environment Protection Authority (EPA);
- O3. To assess the current nature and extent of arsenic contamination relating to historic operation of the former Jennings Arsenic Processing Plant;
- O4. Collection of sufficient data to allow for the assessment of future remedial strategies; and
- O5. To work towards mitigation of potential risks to human health and the environment which may be present due to site contamination.

*It is proposed that a staged approach to the implementation of a VMP is the most appropriate. The initial VMP (or Stage 1 VMP - this document) focuses on establishing a suitable level of site characterisation through further investigation of data gaps established in the Conceptual Site Model and Data Gaps Assessment report completed by ERM in 2017. In addition to this, the data collected will be used to conduct remedial action planning to address potentially unacceptable levels of risk to human health and the environment. Following completion of agreed undertakings, a subsequent VMP (Stage 2 VMP) should be developed which focusses upon the remedial execution phases and potential ongoing monitoring once a suitable approach has been agreed between stakeholders.*

*It is proposed that Stage 1 of the VMP would be conducted in a number of sub-stages, as outlined below, within the timeframes specified in this proposal.*

### 2. Principal features of the proposal

The principal features of Stage 1 include, but are not limited to:

#### a. Stakeholder consultation and site establishment

*P1. Stage 1.1: will involve undertaking a process of community and stakeholder consultation including with local council and nearby residents. Above and below ground service owners/operators of infrastructure which is known to transect the project site will also be identified and contacted as part of Stage 1.1 in the instance where relocation of such services may be required to facilitate later stages of works.*

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*The community stakeholder consultation should be focused in order to incorporate a portion of the Gladstone Street road reserve; the entirety of Lot 4, Lot 5, Lot 8, Lot 9, Lot 10 Section 12 DP758540, and, the associated night alley easement into the overall Project Site Boundary (as per Figure 1). It is proposed that a Regulated Area and Non-Regulated Area would then fall within the Project Site Boundary. The incorporation of the additional lots are intended as a buffer from surrounding residential properties and provide extra land for later site management actions.*

*As a part of incorporating the additional lots, it is proposed that the perimeter fencing will be upgraded around the entire proposed Project Site Boundary to minimise access to the public, livestock and wildlife. This stage of the proposal is to be carried out as a collaboration between Tenterfield Shire Council and Crown Lands. At the completion of site establishment activities, a letter acknowledging this will be supplied to the NSW EPA.*

*Community consultation is intended to be conducted via a meeting to include the communities of Wallangarra and Jennings, followed by a letter drop to the residents located adjacent to the Project Site Boundary. The Community Engagement Plan (or communication strategy) shall be submitted to the EPA for endorsement prior to implementation of the VMP. Other regulatory stakeholders shall be invited to monthly VMP update teleconference sessions.*

**b. Environmental Investigation**

*P2. Stage 1.2: will involve the design and completion of a Detailed Site Investigation (DSI) to assess the current nature and extent of contamination within the Project Site Boundary. The DSI should be designed to address the Conceptual Site Model (CSM) data gaps identified in the ERM (2017) report which are specific to the Project Site Boundary. The design of the DSI scope of work should be focused to address the on-site historic source areas and presented in a Sampling and Analysis Quality Plan (SAQP) which outlines the current CSM (including data gaps), the data quality objectives (DQOs), the sampling design, proposed data assessment criteria, data quality assurance and quality control requirements and set out the methodology for implementation of the field works program within the Project Site Boundary. The SAQP is to be endorsed by the EPA prior to implementation. Data collected from investigation within the Project Site Boundary would be used to inform subsequent investigation of off-site environments proposed for completion under a Stage 2 VMP.*

**c. Remedial Planning**

*P3. Stage 1.3: will involve development of a Remedial Action Plan (RAP) which takes in to account the findings of the DSI to mitigate identified risk of harm to human health and the environment. The RAP will outline a preferred remedial solution that can be integrated with broader site related soil and water management controls which may include; capping of selected ground surface areas, upgrade of the existing contour banks, diversion channel and sedimentation ponds; and, realignment of the ephemeral watercourse which runs through the site. The RAP will be presented to the EPA for endorsement.*

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Pending the outcomes of the Stage 1 works, the principal features of Stage 2 VMP may include: Off-site Environmental Characterisation, Project Site Boundary Remedial Activity / Capital Works (execution of the EPA endorsed RAP); Validation Reporting; and, Ongoing Monitoring / Site Management.

### 3. Key milestones for investigation, remediation and other actions

All works set out in the proposal must be completed by the deadlines specified below:

<b>Works</b>	<b>Deadline</b>
T1. Stage 1.1	Stakeholder consultation will be ongoing, however specific actions listed below should be completed by 31 August 2018: <ul style="list-style-type: none"> <li>- Community Engagement Plan;</li> <li>- Incorporating the additional land areas; and</li> <li>- Establishment of upgraded perimeter fencing.</li> </ul>
T2. Stage 1.2	All works set out within Stage 1.2 (SAQP / Detailed Site Investigation / Draft DSI Reporting) will be completed by 21st December 2018.
T3. Stage 1.3	All works set out within Stage 1.3 (Draft RAP) will be completed within ten weeks of EPA endorsement and finalisation of Stage 1.2.

### 4. Reporting requirements and timeframe for submission of reports

The EPA must be provided with the following reports by the deadlines specified below:

<b>Report</b>	<b>Deadline</b>
R1. Community Engagement Plan	30 June 2018
R2. Letter of Acknowledgement (Site Establishment)	31 August 2018
R3. Draft Sampling and Analysis Quality Plan	31 September 2018
R4. Draft Detailed Site Investigation Report	21 December 2018 (pending EPA endorsement of Draft SAQP)
R5. Draft Remedial Action Plan	Within ten weeks of the Draft DSI report being endorsed by the EPA and finalised.

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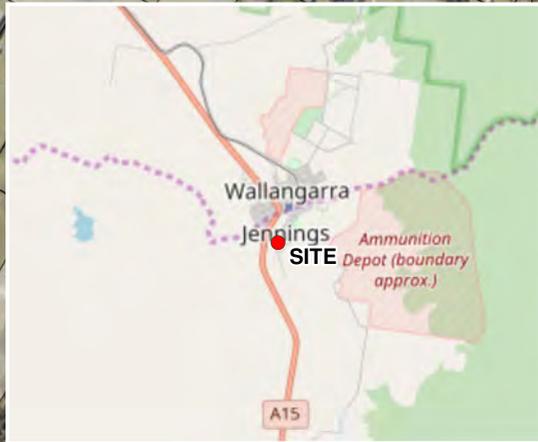
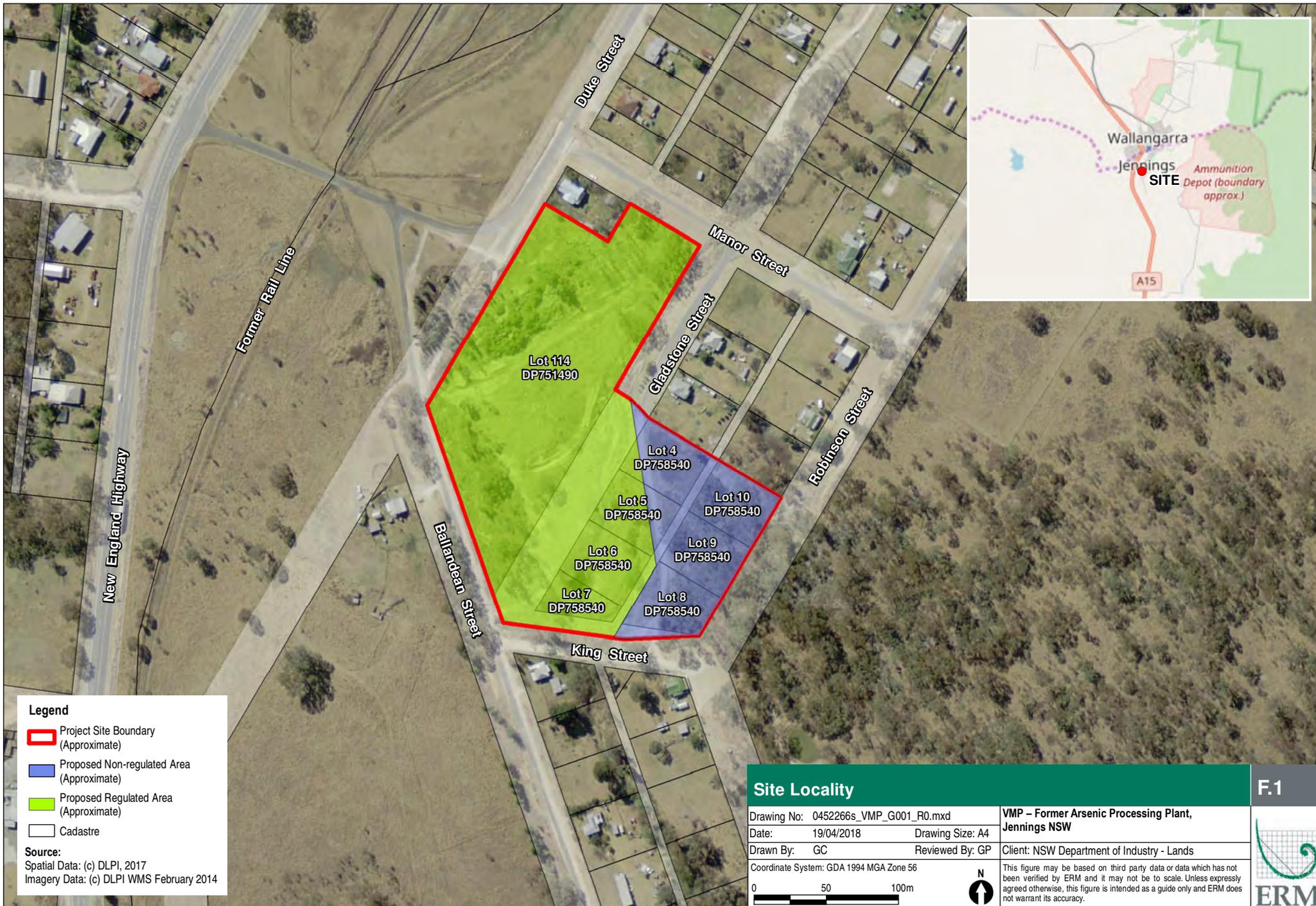


*Attachment A: Site Figure*

**Proponent: NSW Department of Industry – Crown Lands and Water**

**Site: former Arsenic Processing Plant, Jennings NSW**

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**Legend**

- Project Site Boundary (Approximate)
- Proposed Non-regulated Area (Approximate)
- Proposed Regulated Area (Approximate)
- Cadastre

**Source:**  
 Spatial Data: (c) DLPI, 2017  
 Imagery Data: (c) DLPI WMS February 2014

**Site Locality**

F.1

Drawing No: 0452266s_VMP_G001_R0.mxd	VMP – Former Arsenic Processing Plant, Jennings NSW
Date: 19/04/2018	Drawing Size: A4
Drawn By: GC	Reviewed By: GP
Coordinate System: GDA 1994 MGA Zone 56	

Client: NSW Department of Industry - Lands

This figure may be based on third party data or data which has not been verified by ERM and it may not be to scale. Unless expressly agreed otherwise, this figure is intended as a guide only and ERM does not warrant its accuracy.

