

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:

ACN:

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

Trading as: [Willoughby City Council](#)

ABN: [47 974 826 099](#)

Phone: [02 9777 1000](#)

Fax:

Email: email@willoughby.nsw.gov.au

Postal address: [Ground Level, 31 Victor Street, CHATSWOOD NSW](#)

Postcode: [2067](#)

EPA licence number (if applicable):

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

Name: [Ms Kathryn Odgers](#)

Employer/Company: [Willoughby City Council](#)

Position title: [Resource Recovery Team Leader](#)

Type of business: [Local Government Authority](#)

Phone (business): [02 9777 7051](#)

Phone (after hours):

Fax:

Email: Kathryn.odgers@Willoughby.nsw.gov.au

Proponent: [Willoughby City Council](#)

Site: [Bicentennial Reserve, Small Street, Willoughby, NSW 2068](#)

Proposal Date: [8 December 2023](#)

2. Site to which proposal applies

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

- Bicentennial Reserve Former Landfill, Willoughby, NSW 2068 inclusive of the following lots:

Full Lots	
Lot 869 in DP 752067	Lot 1 in DP 125620
Lot 2 in DP 57586	Lot 1 in DP 115636
Lot 3 in DP 522788	Lots 1 & 2 in DP 115624
Lot 1 in DP 524253	Lot 702 in DP 778776
Lot 1 in DP 334861	Lot 1 in DP 5889
Lot 7 in DP 666241	Lot 1 in DP 399
Lots 111, 112 & 113 in DP 129029	Lots 20 & 22 in DP 977176
Lot 2 in DP 332680	Lot C in DP 316969
Lot 21 in DP 1257434	Lots 1 & 2 in DP 115622
Lot 3 in DP 506449	Lot 1 in DP 125619
Lot 1 in DP 315723	Lot 1 in DP 725764
Lot 7 in DP 524254	Lot 21 in DP 977176

Partial Lots	
Lot 1 in DP81035	Lot 1 in DP 963964
Lot C in DP 360612	

- Coordinates (approximate centre of site): Easting: 333659.70 Northing: 6257219.71

The site location is shown in Figure 1 below.

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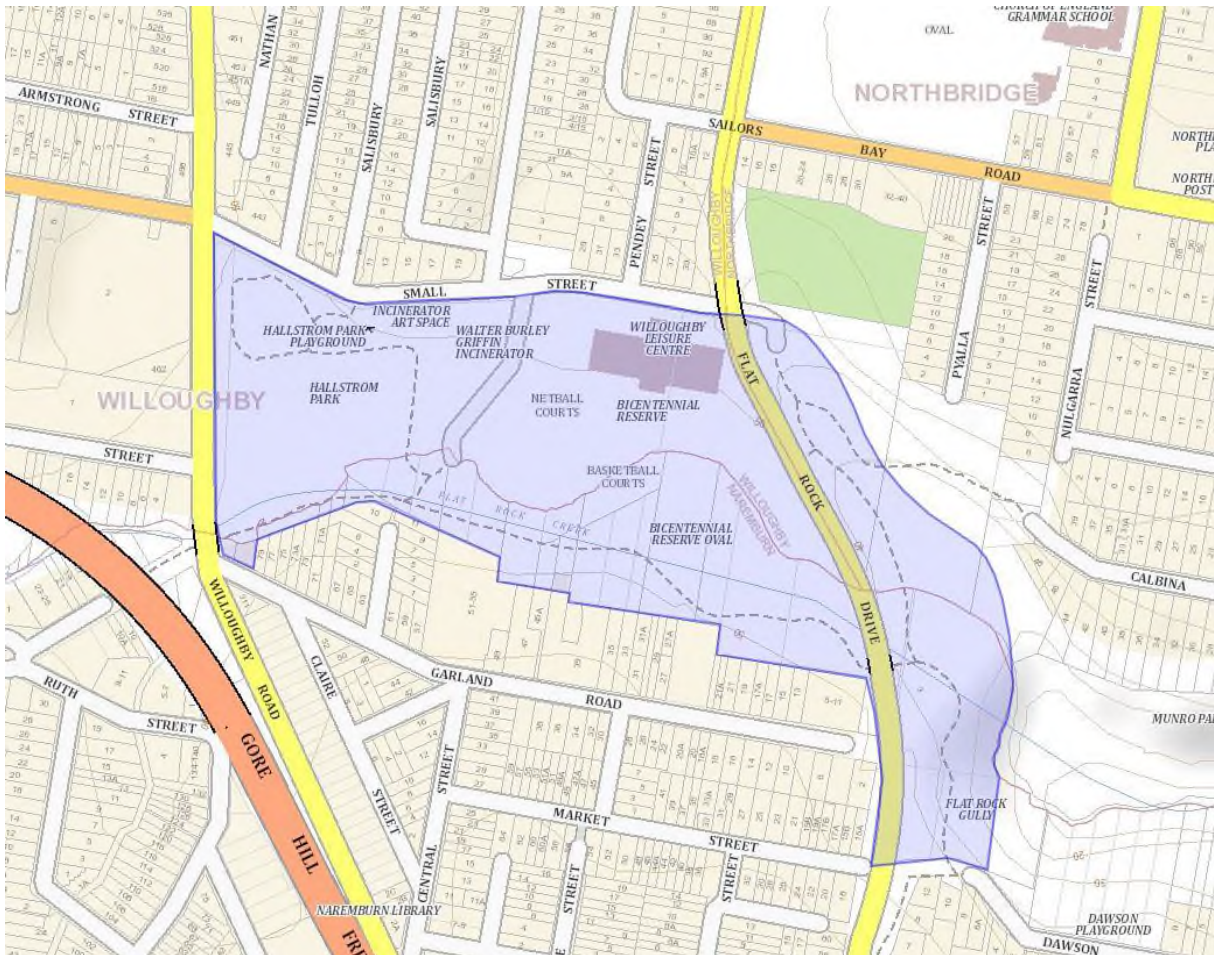


Figure 1. Site Location (the Site extent is shown in light-blue shading with blue border outline)

3. The contamination

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:

- Ammonia

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:
 - *Environmental Site Investigation Bicentennial Reserve Former Landfill (Consulting Earth Scientists Pty Ltd Document Reference: CES210306-WIL-AD 5 April 2022)*
 - *Addendum to Environmental Site Investigation (Consulting Earth Scientists Pty Ltd Document Reference: CES210306-WIL-AG 30 June 2022)*

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- *Bicentennial Reserve Former Landfill: Addendum No. 2 to Environmental Site Investigation Bicentennial Reserve Former Landfill: Landfill Gas and Surface Water Monitoring (Consulting Earth Scientists Pty Ltd Document Reference: CES210306-WIL-AK dated 14 November 2022)*
 - *Environmental Management Plan, Bicentennial Reserve Former Landfill, Small Street, Willoughby NSW 2068 (Consulting Earth Scientists Pty Ltd Document Reference: CES210306-WIL-AH).*
- c) the undertakings set out in Part 2 of this document; and
d) the performance schedule set out in Part 3 of this document.

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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 *SEPP (Resilience and Hazards) 2021* and any requirements imposed under it in relation to the activities.
2. All matters listed as relevant to a remediation action plan by the EPA’s *Consultants reporting on contaminated land: Contaminated Land Guidelines (2020)* 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)
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)
7. All waste transported from the Site that is required by the *Protection of the*

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Environment Operations (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)

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.

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.

[Note: Specific details of monitoring and data reporting requirements, requirements for progress reports, etc are to be set out in the performance schedule in Part 3 of this document.]

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. If the proponent becomes aware that they will not meet a key milestone or reporting requirement, they must notify the EPA in writing at least 21 days before the specified deadline. The notification must include:
 - a) detailed reasons for not meeting the milestone or requirement,
 - b) a revised time period within which the milestone or requirement will be met, and
 - c) a statement explaining why compliance action should not be taken.
15. 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*.

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

Performance Schedule

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

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Part 3

Performance Schedule

PERFORMANCE SCHEDULE

1. Objectives of the proposal

The objective of the proposal is the ongoing monitoring and management of ammonia contamination at the site to reduce the risks to the natural environment in particular Flat Rock Creek. This will be addressed through the following mechanisms:

O1. Development and Implementation of an Environmental Management Plan

An Environmental Management Plan (EMP) for the site will be developed to detail the environmental management actions to be implemented. The objective of the EMP is to identify key risk activities undertaken by Council staff and third parties when accessing and operating on the site and also identify mitigation measures to be implemented for relevant activities to manage contaminated landfill materials and minimise the risks to current and future site users from interaction with landfilled waste and contamination associated with the historical use of the site.

This EMP will also include a requirement for ammonia monitoring and describe the method of communication of the ammonia monitoring results to relevant organisations, site workers and personnel.

O2. Development and Implementation of a Sampling, Analytical and Quality Plan

A Sampling, Analytical and Quality Plan (SAQP) will be prepared for the site prescribing the requirement for quarterly monitoring of ammonia concentrations in surface water and groundwater at the following locations:

- Surface water sampling of Flat Rock Creek at two locations downstream of the site (sampling locations referenced DS1 and DS2) and one surface water sampling location upstream of the site (referred to as sampling location US).
- Groundwater monitoring of existing groundwater wells GW107 located downgradient at the site, groundwater well GW105 located in the central part at the site and monitoring well GW101 located upgradient at the site.

The sampling locations are shown in Figure 2 below. The sampling will be undertaken in a quarterly basis for a period of 3 years.

The SAQP will define the sampling locations, frequency and protocols to be implemented and specify the quality assurance and quality controls (QAQC) applicable to the sampling and analysis of groundwater at the site and surface water in Flat Rock Creek in relation to ammonia.

The objective of the programme of ammonia monitoring is to establish fluctuations in ambient ammonia concentrations and responses to seasonal changes and climatic events, and to ascertain if natural attenuation of ammonia is occurring at the site. The monitoring will provide information to confirm whether an Ecological Risk Assessment (ERA) of Flat Rock Creek is warranted.

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03. Undertake Surface water and Groundwater Ammonia Monitoring Programme

In accordance with the prepared SAQP for the site, undertake quarterly monitoring of surface water sampling locations US, DS1 and DS2 and groundwater monitoring locations GW101, GW105 and GW107. The location of these monitoring points is shown in Figure 2 below. The ammonia monitoring programme will be undertaken for a period of 3 years.

The monitoring will include testing for field parameters (pH, EC, temperature, Dissolved Oxygen and Redox Potential) and laboratory testing of collected water samples by a NATA accredited laboratory for ammonia.

The objectives of the programme of ammonia monitoring are to establish fluctuations in ambient ammonia concentrations and responses to seasonal changes and climatic events and to ascertain if natural attenuation of ammonia is occurring at the site. The monitoring will provide information to ascertain whether an Ecological Risk assessment of Flat Rock Creek is warranted.

Proposed sampling locations are presented in Figure 2 below:



Figure 2. Proposed Sample Locations

04. Development of Community Consultation and Stakeholder Engagement Plan

Willoughby City Council will develop a Community Consultation and Stakeholder Engagement Plan (CCSEP) in relation to the ammonia concentrations in Flat Rock Creek. The CCSEP will include as a minimum the following:

- Descriptions of how stakeholders will be identified.
- Methods of engaging stakeholders.
- Mechanisms for continued and ongoing community and stakeholder engagement.

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- Plans for community access to ammonia monitoring data.
- Strategies for incorporating feedback from stakeholders and the community to continually improve engagement.

O5. Ecological Risk Assessment

Based on the results of the surface water and groundwater ammonia monitoring programme, the trends in concentrations of ammonia will be assessed using an appropriate statistical method (e.g. Mann-Kendall test), to determine if an Ecological Risk Assessment will be commissioned.

The purpose of the Ecological Risk Assessment is to identify unacceptable risks to the ecology of Flat Rock Creek from the ammonia concentration discharged from the site. The Ecological Risk Assessment would be undertaken by a suitably qualified and experienced Ecologist/Ecological Consultant and would provide recommendations on measures to be implemented to reduce the ecological impact of ammonia, including recommendations with regard to the requirement to prepare a Remedial Action Plan.

O6. Preparation of a Remedial Action Plan

If the Ecological Risk Assessment identifies unacceptable risks to the ecology of Flat Rock Creek from ammonia concentrations discharged from the site and that preparation of a Remedial Action Plan is considered necessary, a Remedial Action Plan will be prepared by a suitably qualified and experienced Environmental Practitioner.

2. Principal features of the proposal

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

a) Capital works

No capital works will take place under this Voluntary Management Proposal

b) Monitoring

Regular Monitoring of Rock Flat Creek and Existing groundwater wells:

Undertake surface water sampling of Flat Rock Creek at two locations downstream of the site (DS1 and DS2) and one surface water sampling location upstream of the site (US) and groundwater monitoring of GW107 located downgradient at the site, GW105 in the central part at the site and groundwater monitoring well GW101 located upgradient at the site.

3. Key milestones for investigation, remediation and other actions

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

Works	Deadline
T1. Development of the Environmental Management Plan	January 2024
T2. Preparation of the Sampling, Analytical and Quality Plan (SAQP)	January 2024
T3. Undertake Surface Water and Groundwater Ammonia Monitoring	February 2024 – February 2027

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Works	Deadline
Programme	
T4. Development and Implementation of a Community Consultation and Stakeholder Engagement Plan	March 2024
T5. Ecological Risk Assessment (Note 1)	To be Commissioned within 3 months following completion of T3, depending on the outcomes of T3.
T6 Preparation of Remedial Action Plan (Note 2)	To be prepared within 6 months following completion of T5, depending on the outcomes and recommendations of T5.

Note 1: The requirement for an Ecological Risk Assessment will be dependent on the results of the surface water and groundwater ammonia monitoring programme demonstrating that the trends in concentrations of ammonia, using an appropriate statistical method (e.g. Mann-Kendall test), are increasing or stable due to ammonia contamination migrating from the site.

Note 2: The requirement for the preparation of a Remedial Action Plan will be dependent on the Ecological Risk Assessment identifying unacceptable risks to the ecology of Flat Rock Creek from ammonia concentrations discharged from the site and that the Ecological Risk Assessment recommends a Remedial Action Plan be prepared.

4. Reporting requirements and timeframe for submission of reports

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

Report	Deadline
R1. Environmental Management Plan	January 2024
R2. Surface Water and Groundwater Ammonia Monitoring Sampling, Analytical and Quality Plan	January 2024
R3. Quarterly Report on Surface Water and Groundwater Ammonia Monitoring	August & November 2024, February/May/August & November 2025, February/May/August & November 2026, February 2027
R4. Final Report on Surface Water and Groundwater Ammonia Monitoring	April 2027
R.5 Community Consultation and Stakeholder Engagement Plan	March 2024
R6. Ecological Risk Assessment (Note 3)	To be submitted within 1 month following receipt of T5.
R7 Preparation of Remedial Action Plan (Note 4)	To be submitted within 1 month following receipt of T6.

Note 3: The requirement for an Ecological Risk Assessment will be dependent on the results of the surface water and groundwater ammonia monitoring programme demonstrating that the trends in concentrations of ammonia, using an appropriate statistical method (e.g. Mann-Kendall test), are increasing or stable due to ammonia contamination migrating from the site.

Note 4: The requirement for the preparation of a Remedial Action Plan will be dependent on the Ecological Risk Assessment identifying unacceptable risks to the ecology of Flat Rock

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Creek from ammonia concentrations discharged from the site and that the Ecological Risk Assessment recommends a Remedial Action Plan be prepared.

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Signature of proponent

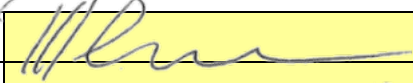
This application for approval of this voluntary management proposal may only be signed by a person(s) with the legal authority to sign it. The various ways in which the application may be signed, and the people who may sign the application, are set out in the categories below.

Please tick (✓) the box next to the category that describes how this application is being signed.

If the proponent is:		The application must be signed and certified by one of the following:
an individual	<input type="checkbox"/>	the individual.
a company	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	the common seal being affixed in accordance with the <i>Corporations Act 2001</i> , or two directors, or a director and a company secretary, or if a proprietary company that has a sole director who is also the sole company secretary – by that director.
a public authority other than a council	<input type="checkbox"/> <input type="checkbox"/>	the chief executive officer of the public authority, or by a person delegated to sign on the public authority's behalf in accordance with its legislation (Please note: a copy of the relevant instrument of delegation must be attached to this application).
a local council	<input checked="" type="checkbox"/> <input type="checkbox"/>	the general manager in accordance with s.377 of the <i>Local Government Act 1993</i> ('LG Act'), or the seal of the council being affixed in a manner authorised under the LG Act.

I/We (the proponent):

- ***apply for approval of the voluntary management proposal set out in this proposal and in any documents referred to in Part 1.4 of this proposal***
- ***declare that the information in this proposal form (including any attachment or document referred to in Part 1.4 of this proposal) is not false or misleading.***

Signature		Signature	
Name (printed)	Hugh Phemister	Name (printed)	
Position	General Manager	Position	
Date	8 July 2024	Date	

Seal (if signing under seal):

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