

# NON-BINDING EXPRESSION OF INTEREST

Non-binding EOI Title:	Beneficial use of lime residues -Processing or using lime residues from drinking water treatment plant in Muswellbrook
EOI Number:	2021-2022-0512
Issue Date:	2021

RFQ Closing Time and Lodgement Details			
EOI Closing Date:	27 January 2022		
EOI Closing Time:	2:00 pm		
EOI Lodgement Instructions:	<ol> <li>Via <u>https://www.vendorpanel.com.au/muswellbrook/tenders;</u></li> <li>Hard copy to Tender Box at Muswellbrook Shire Council, 60- 82 Bridge Street, Muswellbrook;</li> <li>Via email to: procurement@muswellbrook.nsw.gov.au.</li> </ol>		
EOI Registration:	Please register your intention to submit a quotation to procurement@muswellbrook.nsw.gov.au.		
EOI Questions:	Via email only to procurement@muswellbrook.nsw.gov.au. Any questions and answers will be emailed to all registered participants.		

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Expression of Interest for beneficial use of lime waste –processing or using lime residues from Muswellbrook Water Treatment Plant

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#### 1.Introduction

Muswellbrook Shire Council (MSC) invites Non-binding Expression of Interest (EOI) from interested parties for the use or processing and use of lime residue collected at Muswellbrook Water Treatment Plant (MWTP) under a commercial agreement with MSC.

Council is interested in using lime residue in sludge from water treatment plant as agricultural lime for the benefit of farming community in Hunter area.

Council has a valid exemption "The lime and gypsum residues from drinking water treatment exemption 2006 "that allows removal of sludge from sludge lagoons as a generator (Supplier) of lime residues from drinking water treatment subject to compliance of the conditions of the exemption.

There is a stockpile of more than 5000 m<sup>3</sup> of lime residue at present within the plant area. The non-binding EOI must include information related to processing and or use of lime residues as required under the conditions of the valid exemption.

The interested individuals or parties could provide information in the attached format so that Council will be able to communicate with them for making arrangements and formal agreements for removal of lime residues stockpiled near sludge lagoons.

MSC expects that any decision to engage in a commercial relationship with applicants for the removal of lime residue for use or processing and use will be subject to broader matters such as selection and approval process and regulatory and legislative requirements.

Each applicant is required to complete necessary information form in Appendix A. additional information may be sought by MSC to assist in understanding or clarifying the individual submissions

All potential applicants are requested to register their intention to respond via email to procurement@muswellbrook.nsw.gov.au.

Should you have any questions please direct them via email to procurement@muswellbrook.nsw.gov.au.

All questions and responses will be emailed to all registered applicants.

### 2.Background

Muswellbrook Water Treatment Plant is in Scott Street in Muswellbrook. The Town of Muswellbrook is in Upper Hunter Area, 253 Km away from Sydney and 125 km from Newcastle respectively on New England Highway.

The water treatment plant in Muswellbrook, softens the water of Hunter River using Lime for potable use in the town area.

The sludge of lime and other water borne organic and non-organic impurities wasted from the treatment plant is accumulated in the sludge lagoons adjacent to the treatment plant located at Scott Street Muswellbrook. The locations of the plant and sludge lagoons are shown in the map below.



Figure 1: Location Map - Muswellbrook Shire Council



Figure 2:Location Map- Muswellbrook Water treatment Plant and Sludge Lagoons

Dried sludge consists of lime residues accumulated in lagoons 1 and 2 (Refer Photo below) is available for removal and reuse. Council has a valid exemption "The lime and gypsum residues from drinking water treatment exemption 2006 "that allows removal of sludge from sludge lagoons as a generator (Supplier) of lime residues from drinking water treatment plant subject to compliance of the conditions of the exemption.



50 m

Figure 3:Location Map- Sludge Lagoons

Details of ponds are as follows:

	Surface area (m <sup>2</sup> )	Pond volume (m <sup>3</sup> )
Pond 1	3190	4014
Pond 2	3557	6535
Pond 3	2287	997

Table 1 :Volumes	on Lime Storad	e Ponds at the	Muswellbrook	Treatment Plant

Based on the laboratory results basic composition of sludge is as follows.

# Table 2: Lime characterization of lime sludge in storage ponds at Muswellbrook Water Treatment Plant

Chemical	CAS No.	Average Proportion (dry) (wt.%)
Calcium Carbonate [calcite-(Mg)]	471-34-1	84
Pyroaurite (magnesium iron hydroxide carbonate)	NA	6
Quartz	14808-60-7	2
Montmorillonite	1302-78-9	4

Feldspar	68476-25-5	3
Kaolin	1332-58-7	1
Hematite	1317-60-8	<0.5
Goethite	20344-49-4	<0.5
Anatase	1317-70-0	<0.5

Council engaged AECOM group to classify sludge accumulated in lagoons 1 and 2 in 2017. The paragraph below is from their recommendation regarding possible use of sludge.

# Quoted from AECOM Report:

All analytical results from the biosolids samples collected from Evaporation Pond #1 and 2 were below the NSW EPA (2000) Use and Disposal of Biosolids Products most conservative contaminant acceptance concentration thresholds (Grade A).

Based on the samples analyzed, the classification of the contaminant grade is Grade A. No requirement for Stabilization Grade analysis is required since the process is related to drinking water treatment sludge. This results in a biosolids classification as 'Unrestricted Use'. This unrestricted use classification allows for applicable land use of the biosolids for Home lawns and gardens, Public contact sites, Urban landscaping, Agriculture, Forestry, Soil and site rehabilitation, Landfill disposal, and Surface land disposal. It is understood that MSC has an exemption under the Regulations to allow the sludge to be beneficially re-used off-site, subject to completion of appropriate forms and protocols.

# 4. Responsibilities

As per previously mentioned exemption, "The lime and gypsum residues from drinking water treatment exemption 2006 "responsibilities of Council (Supplier), Processors and Consumers (users) are as follows:

# Supplier (Council)

Council must initially fully chemically characterize the lime residues from drinking water treatment. Test results of lime residues in two sludge lagoons are summarized in Table 2.

Above will be repeated in three- year periods

If there is a change in inputs for water treatment Council will repeat all the tests for characterization

Council will provide a Material Safety Data Sheet (MSDS) in accordance with National Code of practice for the preparation of MSDS.

#### Processor

Processor is a person who mixes, blends or otherwise incorporates lime residues from drinking water treatment into a commercial land application material.

There will not be a processor if the residue is provided for direct land application.

## Consumer

A person who applies, or causes or permits the application of, lime and gypsum residues from drinking water treatment to land. The consumer will generally be the landholder responsible for the land to which the lime residues are applied.

If the residues are for soil application following conditions are applicable

The soil to which the lime residues from drinking water treatment will be applied must be characterised prior to the initial application of the lime residues to determine appropriate application rates

Application rate must be equal to or less than the agronomic rate for the most limiting factors

The lime residues must be incorporated into the topsoil.

#### Sampling and analysis of soil

In discussion with an agronomist, characterise the soil (wide range metals) through lab testing to determine the appropriate lime application rates. Gather at least 5 sub-samples of equal size into a single composite sample for analysis. Ensure the sample is representative of the land to which the lime residue is intended to be applied. Once your agronomist has determined the appropriate lime applications rates, calculate the total tonnage required.

#### 5. Transportation of Lime Residues

It is the responsibility of the consumer or processor to arrange transportation of the lime residue. The site is accessible with small trucks and a loader or excavator. Site contact is Mr. Anthony Worth, Treatment Plant Supervisor.

Transporters are required to minimise the generation of dust from loading and transport of the material. You and/or Consumers contractor must:

- Assess the risks, document and implement appropriate controls.
- Supply copies of your risk assessment documentation to Council staff;
- Wash down truck tyres & undercarriages before leaving site and prior to entering public roadways to ensure no material is tracked off site;
- Cooperate with Council staff to ensure appropriate dust suppression is implemented where required; and
- Remediate any tracked material from residential/urban streets immediately.

If the lime is not to be applied to the soil immediately it must be covered and surrounded by a small bund. A maximum holding period of 30 days applies by which time the residues must be applied to land.

The non-binding Expression of Interest must consider suitable methods of transporting the lime residues from water treatment plant to the processing facility or to any places of application

## 6. Records

It is the responsibility of the consumer to keep record of the following for three years:

- The supplier's name; and
- The date the lime residues were received.

Additionally, consumers must obtain and keep a written statement (the Certificate of Compliance) for each transaction.

# 7. Non-binding EOI Submissions and Outcomes

Council reserves the right to use the non-binding Expression of Interest process in a number of different ways to advance the project. This includes, but is not limited to:

- information gathering to inform Council's procurement strategy;
- developing a subsequent open tender or request for proposal;
- dealing directly with one or more respondents; and
- inviting one or more respondents to further develop their submission into a selective request for tender or request for proposal.

It is important to note that, although this is a non-binding Expression of Interest process, submissions should contain sufficient detail and evidence that enables the assessment panel to make an informed decision that may lead to a select tender or request for proposal process with one or more respondents

#### 8. Terms and Conditions

Interested parties who have not submitted a non-binding EOI may be ineligible to participate in any subsequent process. Muswellbrook Shire Council unconditionally reserves the right to selectively negotiate with a shortlist of respondents, to recall EOI or to stop the project. Muswellbrook Shire Council is not liable for any expense or loss that may be incurred by a respondent in preparation of its response.

No contract shall exist until Muswellbrook Shire Council and the respondent have executed a deed in writing that incorporates the outcomes of subsequent negotiations and agreed terms (if at all).

Muswellbrook Shire Council may seek clarification from a respondent to this EOI request. Any discussions entered into with a respondent by Muswellbrook Shire Council will be at Muswellbrook Shire Council's sole discretion and purpose.

Muswellbrook Shire Council unconditionally reserves the right to accept or reject any submission regardless of compliance or non-compliance with the conditions of this EOI. Muswellbrook Shire Council reserves the right not to enter into a commercial arrangement.

# 9. Non-binding EOI

Each EOI respondent is required to complete the form in Appendix A. Additional information may be sought by MSC to assist in understanding or clarifying the submission.

Submissions shall be lodged in accordance with these requirements by no later than **2:00pm**, **Thursday**, **27 January**, **2022**. Submissions received after the specified date may not be considered.

All potential respondents are requested to register their intention to respond via email to procurement@muswellbrook.nsw.gov.au.

Please direct all questions via email to procurement@muswellbrook.nsw.gov.au. Questions and responses will be emailed to all registered parties.

## Scope

Purchase lime residue from Muswellbrook Water Treatment Plant for a period of three years from 1 July 2022, with the potential of two 12-month extensions to be agreed between Council and the other party. Those submitting a non-binding Expression of Interest may suggest an alternative preferred contract period.

Alternative proposals that achieve the intent of removing lime residue from Water Treatment Plant are welcomed.

# 10. Lodging of Non-binding EOI submissions

Applicants are encouraged to lodge applications through the NSW Government's Vendorpanel platform at: <u>https://www.vendorpanel.com.au/muswellbrook/tenders;</u>

Applications may also be lodged in the physical tender box at:

Muswellbrook Shire Council 60-82 Bridge Street Muswellbrook NSW 2333

And clearly marked "2021-2022- 0512"

Or

Via email to: procurement@muswellbrook.nsw.gov.au

# 11. Closing date for submissions

The closing date and time for submissions is 2:00 pm Thursday , 27 January 2022.