



WATER TECHNOLOGY
WATER, COASTAL & ENVIRONMENTAL CONSULTANTS



WARNING!
There are many things you can not dump here.
Fines up to \$120,000 (Individuals)
or \$250,000 (Corporations) could apply!

WHAT YOU CAN'T DUMP HERE

1. LIQUIDS
Liquid waste of any description
2. RADIOACTIVE & MEDICAL
Radioactive material, sharps, cytotoxic
body fluids, body fluids, human tissue,
infectious waste, microbiological,
pathological and pharmaceutical waste.
3. INFLAMMABLE LIQUIDS
Any inflammable liquid material derived
from grease, oil, tar, petroleum or coal.
4. SLUDGES
Any sludge or material (unless proven to
be innocuous or harmless) being the
refuse from any industrial process
carried on in:
- any tanning or leather processing plant
- any petroleum or petrochemical plant
- any chemical plant
- any metal treatment plant
- any vegetable oil or mineral oil plant
- any pharmaceutical or drug
manufacturing plant
- any paint manufacturing plant
5. POISONS
Any material containing arsenic,
cyanide or sulphide.
6. TOXIC CHEMICALS
Any toxic soluble salt of:
- barium - manganese
- beryllium - mercury
- cadmium - selenium
- chromium - silver
- copper - zinc
- lead
7. PESTICIDES & WEEDKILLERS
Any pesticide or weedicide and in
particular:
- chlorinated hydrocarbons
(organochlorines)
- fluorinated hydrocarbons
organophosphates
phenols
8. ACIDS & ALKALIS
Any sulphuric acid or alkali, acidic or
basic compounds.
Any of the above wastes may be
disposed of at this facility after
approval of the EPA has been
obtained.

THARBOGANG WASTE MANAGEMENT CENTRE
PUBLIC DISPOSAL CHARGES
THARBOGANG LANDFILL USER FEES

DEAD ANIMALS		
DOGS AND CATS	each	\$13.00
SHEEP AND LARGE DOGS	each	\$16.00
COWS AND HORSES	each	\$1
WITH CFC GAS REMOVED	each	\$25.00
CAR	each	\$1.00
LIGHT TRUCK	each	\$1.80
HEAVY TRUCK	each	\$2.00
SUPER SINGLE	each	\$
SMALL EARTHMOVER	each	\$
MEDIUM EARTHMOVER	each	\$
LARGE EARTHMOVER	each	\$
FLAT CHARGE FOR UTE OR BOX TRAILER (SINGLE AXLE) LOADS:		
MIXED WASTE	each	\$30.00
CONCRETE AND BRICKS	each	\$17.00
STEEL	each	\$11.00
GREEN WASTE	each	\$30.00
FLAT CHARGES FOR CAR OR STATION WAGON LOADS:		
CLEAN FILL	each	\$
TREE STUMPS - GIRTH OVER 0.8m	each	\$
ASBESTOS WASTE	each	\$
TRAILER-DUAL AXLE	Minimum Charge	\$39.00
MIXED WASTE	Minimum Charge	\$41.00
PUTRESCIBLE WASTES	Minimum Charge	\$100.00
GREEN WASTE	Minimum Charge	\$38.00
CONCRETE AND BRICKS		
STEEL		

NO SCAVENGING
SCAVENGING RIGHTS HAVE BEEN AWARDED
TO THE PRIVATE CONTRACTOR
COUNCIL DEPOSIT EMPLOYEES MAY ORDER
MEMBERS OF THE PUBLIC TO VACATE THE
PREMISES AT ANY TIME



Audit Report

Griffith City Council Tharbogang Waste Management Centre Independent Environmental Audit

Griffith City Council

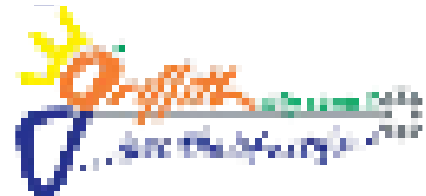


Document Status

Version	Doc type	Reviewed by	Approved by	Date issued
1	Independent Environmental Audit Report	Steven Molino	Steven Molino	28/9/2023
1.2	Independent Environmental Audit Report	Steven Molino	Steven Molino	9/10/2023
Final	Independent Environmental Audit Report	Steven Molino	Steven Molino	24/10/2023

Project Details

Project Name	Griffith City Council Tharbogang Waste Management Centre Independent Environmental Audit
Client	Griffith City Council
Client Project Manager	John Roser
Water Technology Project Manager	Steven Molino
Water Technology Project Director	Steven Molino
Author	Lilian De Torres
Document Number	24050017 Griffith City Council Tharbogang Waste Management Centre Independent Environmental Audit.docx



COPYRIGHT

Water Technology Pty Ltd has produced this document in accordance with instructions from Griffith City Council for its use only. The concepts and information contained in this document are the copyright of Water Technology Pty Ltd. Use or copying of this document in whole or in part without written permission of Water Technology Pty Ltd constitutes an infringement of copyright.

Water Technology Pty Ltd does not warrant this document is definitive nor free from error and does not accept liability for any loss caused, or arising from, reliance upon the information provided herein.



Suite 3, Level 1, 20 Wentworth Street
Parramatta NSW 2150
Telephone (02) 9354 0300
ACN 093 377 283
ABN 60 093 377 283





ACKNOWLEDGEMENT OF COUNTRY

The Board and employees of Water Technology acknowledge and respect the Aboriginal and Torres Strait Islander Peoples as the Traditional Custodians of Country throughout Australia. We specifically acknowledge the Traditional Custodians of the land on which our offices reside and where we undertake our work.

We respect the knowledge, skills and lived experiences of Aboriginal and Torres Strait Islander Peoples, who we continue to learn from and collaborate with. We also extend our respect to all First Nations Peoples, their cultures and to their Elders, past and present.





24 October 2023

John Roser
Waste Operation Manager
Griffith City Council
1 Benerambah Street,
Griffith NSW 2680

Via email: John.Roser@griffith.nsw.gov.au

Dear John

Griffith City Council Tharbogang Waste Management Centre Independent Environmental Audit

Thank you for the cooperation and support Council extended during the time of conducting the independent environmental audit for the Tharbogang Waste Management Centre in August and September 2023.

We are pleased to submit the Independent Environmental Audit Report from June 2018 until September 2023 which was conducted to assess compliance with the conditions of consent in Consolidated Conditions of Consent MP 06_0334 MOD 2. It was conducted in accordance with the Department of Environment and Planning's *Independent Audit Post Approval Requirements 2020*.

Yours sincerely

Steven Molino
Director
steven.molino@watertech.com.au
WATER TECHNOLOGY PTY LTD



EXECUTIVE SUMMARY

Griffith City Council (Council) operates the Tharbogang landfill and quarry facility known as “Tharbogang Waste Management Centre”, which have existed since 1991 and 1984 respectively. To meet community needs for a secure long term gravel resource, and a waste management facility with a sustainable engineered landfill, Council sought approval to expand the site.

Approval was granted on 8 July 2010, by the Minister for Planning (MP_06_0334) for the expansion of the site. The approval has been subsequently modified by:

- Modification 1 – Offset Strategy (MP06_0334-Mod-1) dated 9 May 2012. This modification allowed for the use of Lots 181 and 182 in Deposited Plan (DP) 756035 to the immediate east of the existing landfill and quarry as a Biodiversity Offset Area (BOA); and
- Modification 2 – Design Changes (MP06_0334-Mod-2) dated 22 July 2014. This modification included an increased extraction volume from the existing quarry; changes to the extraction sequence for quarry pits 101 and 103; and the location of a new Green Waste Stockpile site on a capped part of former asbestos disposal site, in the north-east corner of Lot 202 DP 756035.

To meet its post approval conditions, Council is required to commission an independent environmental audit of the Tharbogang Facility every 3 years. Water Technology was engaged by Council to undertake the 2023 audit. This document serves as the Independent Environmental Audit report and is the first audit since 2018.

The audit reviewed the project’s compliance via systems, documents, records, and procedures in relation to conditions of the development consent associated with the development.

The audit considered a total of 89 conditions of which there were 109 separately assessed audit criteria when many, but not all, of the conditions were broken down into sub-conditions (items). It was found that 18 of the conditions were not triggered at the time of the audit. The Tharbogang Waste Management Centre was found to be compliant with 64 of the remaining conditions and sub-conditions. There were 27 non-compliances. Many of the non-compliances related to documentation being submitted after a due date and cannot be corrected. There were 12 recommended actions for the remaining non-compliant items.

The performance related non-compliances relate to:

- Annual waste quantities received
- Receival of sludge
- Compaction rates
- Dust emissions
- Litter management
- Leachate management
- Heritage item protection
- Reporting of incidents and exceedances



CONTENTS

1	INTRODUCTION	8
1.1	Background	8
1.2	Commenced Activities	10
1.3	Non-Commenced Activities	10
1.4	Audit Scope	10
1.4.1	Audit Period	11
1.4.2	Audit Team and Endorsement	11
1.4.3	Independent Audit Post Approval Requirements 2020	11
1.4.4	Audit Objective	11
2	TERMS OF REFERENCE	12
2.1	Audit Methodology	12
2.1.1	Audit Criteria	12
2.1.2	Site Inspection	12
2.1.3	Site Interviews	12
2.1.4	Agency Consultation	13
2.2	Compliance Status Descriptors	13
3	AUDIT FINDINGS	14
3.1	Approval and Document List	14
3.2	Audit Summary	14
3.3	Environmental Performance	14
3.3.1	Physical extent of the development	15
3.3.2	Actual versus Predicted Impacts	15
3.3.3	Management plans	19
3.3.4	Agency Notices	19
3.3.5	Non-compliances and Points for Improvement	20
3.3.6	Previous Report Actions	27
3.3.7	Complaints	36
3.3.8	Incidents	36
3.3.9	Agency Consultation	36
4	RECOMMENDATIONS	38
4.1	Non-compliance Summary	38
4.2	Corrective Actions	38
4.3	Limitations	41
5	CONCLUSION	42

APPENDICES

Appendix A Approval from department of planning and environment

Appendix B declaration of independence forms

Appendix C audit COMPLIANCE table



Appendix D site inspection photos

Appendix E outcome of agency consultation

LIST OF FIGURES

Figure 1 Project Site Map

9



1 INTRODUCTION

This report presents the findings of an Independent Environmental Audit (IEA) Report conducted by Water Technology on behalf of Griffith City Council (Council), for the Tharbogang Waste Management Centre (the site) located at Hillside Drive, Griffith, NSW.

1.1 Background

Griffith City Council (Council) operates the site, which has existed since 1984 (Figure 1). To meet community needs for a secure long term gravel resource, and a waste management facility with a sustainable engineered landfill, Council sought approval to expand the site. This included the following:

- landfilling of the existing quarry pit (located south of the existing landfill),
- two additional quarry pits to the south (pit 103) and south-east (pit 101),
- a waste transfer station,
- a stormwater detention pond,
- two additional leachate ponds,
- other minor works

Approval was granted on 8 July 2010, by the Minister for Planning (MP_06_0334) for the expansion of the site. The approval has been subsequently modified by:

- Modification 1 – Offset Strategy (MP06_0334-Mod-1) dated 9 May 2012. This modification allowed for the use of Lots 181 and 182 in Deposited Plan (DP) 756035 to the immediate east of the existing landfill and quarry as a Biodiversity Offset Area (BOA); and
- Modification 2 – Design Changes (MP06_0334-Mod-2) dated 22 July 2014. This modification included an increased extraction volume from the existing quarry; changes to the extraction sequence for quarry pits 101 and 103; and the location of a new Green Waste Stockpile site on a capped part of former asbestos disposal site, in the north-east corner of Lot 202 DP 756035.

The site also operates under an Environment Protection Licence (EPL No. 5875) issued by the Environment Protection Authority (EPA) dated 9 December 2020.

The conditions of approval require regular independent environmental audits of the facilities to be conducted.

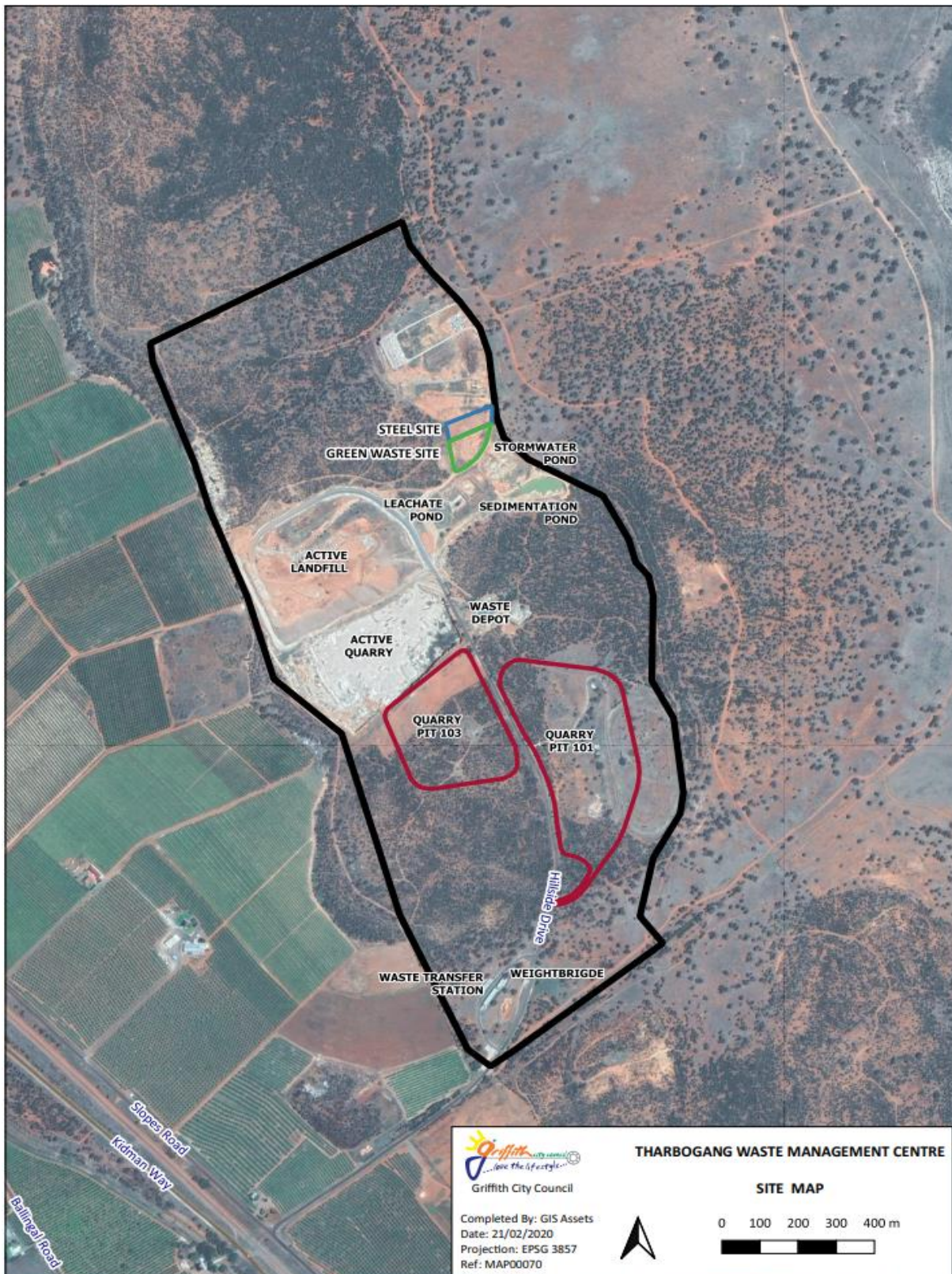


Figure 1 Project Site Map



1.2 Commenced Activities

The following activities have been completed onsite, and were assessed as part of this IEA:

- Construction of new waste transfer station and community recycling centre;
- Upgrade of the Auxiliary Right Turn (AUR) treatment at the intersection of Access Road and Kidman Way;
- Establishment of a Conservation Agreement for and management of Lots 181 and 182, as a 'Biodiversity Offset Area' (BOA);
- Construction and use of a new stormwater detention pond;
- Construction of ground depressions in the location of the two approved leachate ponds, these are not in use. These would require further improvement, lining and connection of pipework to deliver the leachate to the ponds;
- Drainage works (i.e. new conduit for stormwater and leachate) installed under a newly sealed road at T-intersection between the existing quarry, existing landfill and the ponds to the east;
- Construction of the new green waste stockpile site; and
- Design plan preparation for construction of the new leachate ponds.

The approval requires the preparation, approval and implementation of a range of strategies, plans and programs. Progress towards these is discussed in relation to the audit criteria.

1.3 Non-Commenced Activities

Many activities have not commenced, and commencement is based on a number of variables, therefore the following are estimates only, as advised by John Roser – Waste Operations Manager:

- Landfilling within the existing quarry: 2030;
- Quarrying within Pit 101: 2030; and
- Quarrying within Pit 103: More than 20 years.

Note: Council may commence activities earlier or later than these estimates.

1.4 Audit Scope

To meet its post approval conditions, Council requires an independent and suitable qualified contractor to assemble an audit team and undertake an independent environmental audit of the Tharbogang Waste Management Centre. The project is subject to consolidated conditions of consent of which condition 5 (a) of Schedule 5 pertains to the requirement to undertake independent environmental audits of the operation:

Condition 5(a)

Within 1 year of the date of this approval (8 July 2010), and every 3 years thereafter, unless the Secretary directs otherwise, the Proponent (Council) shall commission and pay the full cost of an Independent Environmental Audit of the project. The audit must:

- a. be conducted by a suitably qualified, experienced, and independent team of experts whose appointment has been approved by the Secretary;*
- b. assess the environmental performance of the project, and its effects on the surrounding environment;*
- c. assess whether the project is complying with the relevant standards, performance measures and statutory requirements;*



- d. *review the adequacy of any strategy/plan/program required under this approval; and, if necessary,*
- e. *recommend measures or actions to improve the environmental performance of the project, and/or any strategy/plan/program required under this approval.*

Water Technology was engaged by Council to complete the second independent environmental audit for the Tharbogang Waste Management Centre in accordance with the post approval requirements. Water Technology is to submit a comprehensive report (this report) which outlines the audit methodology, findings, and recommended measures or actions that will improve the environmental performance of the project.

1.4.1 Audit Period

The period covered by this audit is the period that is following the previous Independent Environmental Audit, from May 2018 until September 2023, in line with the specific requirements outlined in Condition 5a.

1.4.2 Audit Team and Endorsement

The audit was undertaken by the following senior staff of Water Technology who fulfill Exemplar Global certification for Lead Environmental Auditor and have conducted environmental audits of several resource recovery and waste management facilities:

- Steven Molino – Company Director and Lead Auditor (Cert 12550)
- Lilian De Torres – Senior Environmental Consultant and Auditor (Cert 121354)

The approval documentation issued by the Department of Planning and Environment (DPE) is provided in Appendix A. The approval issued on 15 August 2023 was revised on 5 October to confirm the appointment of Steven Molino as the Lead Auditor as per Council's request. The audit team has provided the Declaration of Independence Forms as per Appendix B.

1.4.3 Independent Audit Post Approval Requirements 2020

The Independent Environmental Audit has been conducted in accordance with the Consolidated Conditions of Consent of MP_06_0334 and DPE's *Independent Audit Post Approval Requirements 2020*, as per DPE's advice on 15 August 2023 (Appendix A).

1.4.4 Audit Objective

This independent environmental audit is in accordance with the Consolidated Conditions of Consent of MP_06_0334 Modification 2 (MOD 2) dated 22 July 2014. The audit serves to assess the environmental performance of the project with reference to the relevant requirements in these conditions of consent.



2 TERMS OF REFERENCE

2.1 Audit Methodology

The audit was conducted between 16 August 2023 and 15 September 2023 with the site inspection taking place on 4th September.

The audit was based on:

- consultation with regulatory organisations
- examination of a sample of administrative, technical and operating documents and records provided both prior to, during and subsequent to the auditors' site visit;
- site inspection of the facilities and surrounding areas; and
- interviews and discussions with key personnel.

2.1.1 Audit Criteria

The project was audited against the following criteria:

- Consolidated Conditions of Consent MP 06_0334 MOD 2
- DPE's Independent Audit Post Approval Requirements (2020)
- The feedback, requests, and/or comments of relevant agencies consulted; and
- Any other relevant documentation, procedures or plans associated with the project.

2.1.2 Site Inspection

The site inspection was conducted on 4 September 2023. The weather during this period was fine with mild conditions.

Steven Molino and Lilian De Torres conducted the opening meeting at the Griffith City Council Chamber at 1 Benerembah Street. Site activities that have not started yet were confirmed by John Roser, Waste Operations Manager. During the meeting, the Council was given the chance to present some information and documentation relevant to the project approval that was not sighted by the auditor during the desktop assessment which preceded the site visit.

The auditors accompanied by John Roser first went to the Council depot to inspect equipment maintenance records. At around 1:30pm, the group headed to the Tharbogang Waste Management Centre along Hillside Drive. The existing landfill and quarrying areas were inspected including the waste transfer station, weighbridge, stormwater pond, leachate pond, existing green waste and mulch stockpiles, landfill cells, scar trees, perimeter fencing boundaries and the biodiversity offset areas.

Photos of the site inspection are presented in Appendix D.

2.1.3 Site Interviews

Site interviews were undertaken by Steven Molino and Lilian De Torres on 4-5 September 2023. Those interviewed are listed below:

- John Roser – Waste Operations Manager
- Carissa Harris – Workshop Depot Document Controller
- Joshua Scarfo – Weighbridge Operator



- Cameron Grant – Site Overseer

2.1.4 Agency Consultation

Consultation was undertaken by Lilian De Torres during August 2023 as part of the audit scope. This included correspondence and phone calls with nominated representatives from the following relevant agencies:

- Katrina O'Reilly, NSW Department Planning and Environment (DPE).
- Nick Van Lift (Regional Operations Officer), NSW Environmental Protection Authority (EPA).
- Simon Francis, DPE Water Assessments

The purpose of this consultation was to obtain the relevant agencies input into the scope of the audit and to provide any comments that should be accounted for during the audit. The outcomes of this consultation are included in Appendix E.

2.2 Compliance Status Descriptors

The audit findings were graded in accordance with the following Department of Planning and Environment classifications (June 2020):

Compliant: The auditor has collected sufficient verifiable evidence to demonstrate that all elements of the requirement have been complied with within the scope of the audit.

Non-Compliant: The auditor has determined that one or more specific elements of the conditions or requirements have not been complied with within the scope of the audit.

Not Triggered: A requirement has an activation or timing trigger that has not been met at the time when the audit is undertaken, therefore an assessment of compliance is not relevant.



3 AUDIT FINDINGS

3.1 Approval and Document List

Within the project approval, the conditions are set out within a series of 'Parts' starting with Schedule 2 of MP 06_0334. The findings have been attached as a series of documents which reflects these requirements. Furthermore, the comments received from relevant authority consultation have been taken into consideration when completing these schedules.

Thus, the detailed audit findings are presented in the attached audit schedule in Appendix C.

- MP 06_0334 Schedule 2 - Administrative Conditions
- MP 06_0334 Schedule 3 – Specific Environmental Conditions
- MP 06_0334 Schedule 4 – Additional Procedures
- MP 06_0334 Schedule 5 – Environmental Management, Monitoring, Auditing and Reporting

3.2 Audit Summary

The audit considered a total of 89 conditions set out in the Consolidated Conditions of Consent MP06_0334 MOD2 of which there were 109 separately assessed audit criteria when many, but not all, of the conditions were broken down into sub-conditions (items). The Tharbogang Waste Management Centre was found to be compliant with 64 of the assessed conditions and sub-conditions. There were 27 non-compliances with 12 associated corrective actions raised. A total of 18 conditions were classified as not triggered.

At the completion of the audit, an exit meeting was held with relevant staff in attendance. The meeting consisted of informal discussions on the non-compliances identified and the corrective actions that had been noted during the audit.

Any evidence that was provided following the site inspection was incorporated into this audit where this evidence was deemed to have been available and accessible during the audit period.

The corrective actions determined through these processes form the basis of the recommended actions list in Table 4.

3.3 Environmental Performance

Information and documentation were made readily available online, upon request and during the site interviews. Where issues were noted, the site personnel were receptive to incorporating corrective actions that were noted.

This audit has found that the environmental performance of the Tharbogang Waste Management Centre is generally quite good and most of the non-compliances are administrative rather than a reflection of poor environmental practices on site. For example, of the 27 non-compliances, 13 related to documentation not being submitted within the required time frame. Many of these relate to documents which were meant to be submitted soon after operations commenced and although the documents were submitted, they were submitted late and so technically were a non-compliance with the Conditions of Consent and will always be so. Some of these documents are still to be submitted or finalised.

The performance related non-compliances relate to:

- Annual waste quantities received
- Receiving of sludge



- Compaction rates
- Dust emissions
- Litter management
- Leachate management
- Heritage item protection
- Reporting of incidents and exceedances

3.3.1 Physical extent of the development

During the site inspection, the physical extent of the development was reviewed against the approved plans and found to comply with the approved development boundary.

3.3.2 Actual versus Predicted Impacts

An assessment of actual impacts compared to predicted impacts documented in the Environmental Assessment (EA, Balance 2009) was undertaken. The results are in Table 1.

Table 1 Actual versus predicted impacts

Aspect	Comparison of actual impacts compared to predicted impacts
Flora and fauna	



Aspect	Comparison of actual impacts compared to predicted impacts
<p>The removal of 37.5ha of native vegetation onsite over a period of 50 years would directly and indirectly impact on flora and fauna values in the following ways:</p> <ul style="list-style-type: none"> ▪ General loss of 37.5ha of vegetation ▪ Loss of 27ha of regionally significant Bimble Box-Pine communities ▪ Loss of significant habitat features that have been largely removed from the surrounding landscape including hollow bearing trees, rocky outcrops, and structurally diverse vegetation ▪ Fragmentation of regionally significant landscape corridor ▪ Localised impacts on flora and fauna species including listed threatened and migratory species (listed under TSC Act, and EPBC Act) and declining bird species ▪ Disruption to the foraging, roosting and breeding behaviour of fauna as a result of reduced available habitat, predation, and noise pollution ▪ Disruption to the pollination cycle and ability of plants to recruit and germinate as a result of excessive dust. 	<p>Design modifications such as buffer zones, habitat corridors and exclusion zones reduce the impacts associated with land clearance, protect quality habitat features and vegetation communities, and assist in maintaining connectivity throughout the site. Other onsite measures focus on actively managing and enhancing remaining vegetation to provide high value fauna habitat which has been particularly sighted by the auditor in the Biodiversity Offset Area (BOA).</p> <p>To ensure regional flora and fauna values are improved and maintained the project includes the progressive implementation of significant offset areas. The clearing of 37.5ha of vegetation onsite has been offset by 443.5ha of 'like for like' vegetation which is currently protected and actively managed by Council.</p> <p>Excessive dust was not observed deposited on foliage.</p> <p>Actual impacts generally in line with predicted impacts.</p>
Groundwater	
<p>Six saline basins, man-made lakes and swamps located near Tharbogang may be vulnerable to groundwater impacts (Section 7.4, EA, Balance, 2009). Tharbogang Swamp is the closest system to the site, based on the rapid assessment process carried out by the EA (Balance 2009), the development would not alter the groundwater regime under Tharbogang Swamp and the sustained vegetative communities would not be impacted.</p>	<p>The auditor sighted that vegetative communities are thriving and not impacted by onsite activities.</p> <p>Leachate pond monitoring and borehole monitoring in February 2011 results showed no contamination issues. Most recent results (2021/2022) of borehole monitoring conducted for pH, alkalinity, fluoride, sulphate, dissolve magnesium, TSS, TOC, total phenolics, dissolved iron, dissolved calcium, dissolved potassium, total oxidised nitrogen and volatile organic compounds (VOCs) are consistent with long time averages.</p> <p>Actual impacts generally in line with predicted impacts.</p>
Surface Water	



Aspect	Comparison of actual impacts compared to predicted impacts
<p>Surface water impacts identified by the EA included an increase in potentially contaminated runoff (due to the additional landfill); and an increase in erosion and sediment laden runoff from disturbed areas (due to the additional quarry pits and associated infrastructure).</p>	<p>Contour banks are maintained to divert any runoff. As part of the stormwater redesigned and construction project, new cut off drains, culverts and piped drains were constructed. The drainage swale that delivers the stormwater runoff into the Sedimentation Pond was reinstated and the swale outlet was desilted in the process (GCC unpublished from AEMR 2022).</p> <p>It is noted that quarrying operations have not commenced within pits 101 and 103.</p> <p>Latest surface water monitoring results at the leachate pond and sedimentation pond indicated that alkalinity, calcium, chloride, volatile organic compounds (VOCs), fluoride, magnesium, potassium, sodium, sulphate, total phenol and suspended solids concentrations remained stable and below the trigger values. Manganese and pH were within acceptable levels.</p> <p>Actual impacts are better than predicted impacts.</p>
Soil	
<p>The proposed development will increase the area of bare exposed earth and rock by removing vegetation and stockpiling the overburden. Stockpiling soils would mix the soil horizons which in turn may result in the loss of microbiological life and seed bank.</p> <p>The movement of soil around the site for stockpiling and rehabilitation purposes increases the risk of weed species spreading into new areas. Localised populations of noxious weeds were identified onsite.</p>	<p>The construction of bund and diversion channels with energy dissipation and erosion control measures minimise soil erosion and contamination by pollutants, and stockpiles are wetted down on windy days. A weed control plan has been established to control the spread of weeds throughout the site.</p> <p>Actual impacts generally in line with predicted impacts.</p>
Noise and Vibration	



Aspect	Comparison of actual impacts compared to predicted impacts
<p>Noise and vibration impacts and predicted exceedances of criteria relate to the blasting activities and operation of quarry plant.</p>	<p>The noise monitoring results for years 2018, 2019, 2020 & 2021 exceeded the noise criteria of 35dB(A)_{Leq}(15min) for sensitive receivers, however it was likely due to a range of noise sources (road traffic, dogs barking, cicadas, orchard machinery). The impact of quarry and landfill noise emission was shown to be minor when attenuated for distance.</p> <p>Ground vibration level results for years 2018, 2020, 2021 and 2023 for property ID no. 5 were below the peak particle velocity criteria of 5 & 10mm/s.</p> <p>No blasting occurs onsite for 2022.</p> <p>Actual impacts are generally better than predicted impacts.</p>
Air Quality	
<p>Landfilling and quarrying activities have the potential to generate dust and odour.</p>	<p>There were recorded exceedances for deposited dust for some monitoring sites based on the sighted records in the years 2019 & 2022. However, there have been no dust or odour complaints.</p> <p>Actual impacts generally in line with predicted impacts.</p>
Greenhouse Gas Emissions	
<p>Greenhouse gas emissions associated with the project would be attributed to methane emissions from the landfill, carbon emissions from transport and land clearance.</p>	<p>It is not possible to assess greenhouse gas emissions as there's no emission monitoring occurred during the reporting period and no feasibility report for the capture and use of greenhouse gas has been prepared.</p>
Environmental Hazards	



Aspect	Comparison of actual impacts compared to predicted impacts
Landfilling and quarrying activities are subject to impacts from a range of environmental hazards, as identified within the EA: fire, flooding and high rainfall, explosion, fuel or chemical spills, quarry wall failure, and failure of the leachate lining of landfill cells.	<p>Fires occurred on 21 & 25 January 2019 on an active landfill cell on both occasions. The fires were extinguished by staff via water cart and dirt smothering. Both events were considered minor and not a notifiable pollution event.</p> <p>Actual impacts generally in line with predicted impacts.</p>

3.3.3 Management plans

A high-level assessment of whether environmental management plans and sub-plans are adequate was undertaken as part of this audit. These plans include:

- Air quality Management Plan
- Blast Management Plan
- Cultural Heritage Management Plan
- Landfill Environmental Management Plan
- Landscape Biodiversity Management Plan
- Noise and Vibration Monitoring Plan
- Soil Water and Leachate Management Plan
- Pest Control Plan
- Pollution Incident Response Management Plan
- Transport Management Plan
- Weed Control Plan
- Waste Monitoring Program

These appear to be adequate and have been approved by DPE.

The Landfill Operational Management Plan for the site is currently with DPE for approval. This should have been revised at an earlier date as the original copy was dated 23 March 1999 but was not revised until February 2021.

An Environmental Management Strategy (EMS) was not sighted by the auditor but is required as a condition of consent. Similarly, a Community Education Program was meant to be implemented after operations commenced in 2010 but is only in preparation now.

3.3.4 Agency Notices

There have been no agency notices issued to Council regarding the Tharbogang Waste Management Centre during this audit period.



3.3.5 Non-compliances and Points for Improvement

The audit considered a total of 89 conditions from the Project Approval MP 06_0334 MOD2, of which there were 109 separately assessed audit criteria when many, but not all, of the conditions were broken down into sub-conditions (items).

A total of 27 items or conditions were found to be non-compliant as listed in Table 2.

Table 2 Non-compliances

Reference	Non-compliance Description
Sch 2 Cl 5	<p><i>Council shall prepare revisions of any strategies, plans or program required under the approval to the satisfaction and within a timeframe approved by the Secretary.</i></p> <p>The Landfill Operational Management Plan for the site is currently with DPE for approval. This should have been revised at an earlier date as the original copy was dated 23 March 1999 but was not revised until February 2021.</p>
Sch 2 Cl 5(a)	<p><i>Within 3 months of any modification approval, the Proponent must prepare and implement a revised version of any relevant management plan or monitoring program to the satisfaction of the Secretary.</i></p> <p>Relevant management plans were not all revised within 3 months of Mod 1 approval and then again within 3 months of Mod 2. For example, the Landfill Operational Management Plan dated 23 March 1999, should have been revised by 9 August 2012, 3 months after MOD 1 approval but was not revised until February 2021.</p>
Sch 2 Cl 6	<p><i>Within 12 months after the date of this [MP 06_0334] approval, the Proponent shall surrender all existing development consents for the site, to the satisfaction of the Secretary.</i></p> <p>Consent 78/91 was issued on 24 December 1991 for the operation of the Tharbogang Quarry (EA Balance 2009). The auditor found no evidence that a surrender application for Consent 78/91 has been lodged, let alone within 12 months after MP 06_0334 approval was granted.</p>
Sch 2 Cl 8(b)	<p><i>The Proponent shall not receive more than 35,000 tonnes per year of general solid waste (putrescible and non-putrescible) to the site.</i></p> <p>Review of weighbridge data from 2019 to current confirms that the total waste to landfill for 2020 is 35,909.25 tonnes and 36,744.60 tonnes in 2021. Therefore, for these years the total amount of waste received was more than the 35,000 tonnes per year limit.</p>
Sch 3 Cl 4(b)	<p><i>The Proponent shall ensure that all waste sludges and wastes that are controlled under a tracking system have the appropriate documentation prior to acceptance at the site.</i></p> <p>The 2022 AEMR states that 136.96 tonnes of "drilling/suction sludge" was received and there was no evidence of this being tracked.</p>



Reference	Non-compliance Description
Sch 3 Cl 7(e)	<p><i>The Proponent shall maximise landfill compaction rates.</i></p> <p>Waste compaction rate in 2022 was estimated to be at 630 kg/m³ and was compacted using the 26 tonne Tana Compactor. The criterion for compaction in the current EPL is an average of not less than 650 kg/m³. There is a current tender for a new compactor to achieve the maximum compaction rate.</p>
Sch 3 Cl 9(a)	<p><i>Within 6 months of the approval date, Council shall remove existing litter that has accumulated across the site, to the satisfaction of the Secretary.</i></p> <p>The period stated in this condition had lapsed so the auditor assessed this at the time the audit was conducted. There were photos (see Appendix D) that litter was collected in garbage bags on an ad hoc basis, however during the site audit there were areas where litter has accumulated. There was some litter lying within the perimeter fence boundary and one caught on the barbed wire strands of the perimeter fence.</p>
Sch 3 Cl 9(c)	<p><i>Within 6 months of the date of this approval, Council shall inspect daily and clear the site (and if necessary, surrounding area) of litter on at least a weekly basis.</i></p> <p>Council's Waste Operations Manager advised this occurring on an as-needs basis rather than daily or even weekly. A procedure for regular surveillance and picking-up litter onsite needs to be established to ensure compliance with this condition.</p>
Sch 3 Cl 12	<p><i>Council is required to prepare a feasibility report for the Secretary's approval within 5 years of this approval, outlining options to capture and use greenhouse gas in the generation of electricity. The report must identify which options could be reasonably and feasibly implemented.</i></p> <p>Email correspondence dated 6 June 2023 was sighted by the auditor engaging LMS for installation of a gas management system for landfill gas capture so there is evidence that Council is committed to install a greenhouse capture and use system but there was no evidence that a feasibility report was ever prepared.</p>
Sch 3 Cl 13(a to d)	<p><i>Within 6 months of the date of this approval, the Proponent shall update the existing Landfill Environmental Management Plan</i></p> <p>A copy of the revised Landfill Operations & Environmental Management Plan dated February 2021 was sighted by the auditor. This revised copy is currently with DPE for approval. This plan should have been revised twice, first revision on January 2011 within 6 months of the date of this approval and second revision on 9 August 2012, 3 months after MOD 1 approval.</p>



Reference	Non-compliance Description
Sch 3 Cl 18(a)	<p><i>The Proponent shall install a leachate barrier system on any surface to be used for the direct impoundment of leachate.</i></p> <p>There is no leachate barrier system currently installed in the existing leachate pond, it is made of compacted clay underneath. However, the auditor was informed that an appropriate barrier system will be installed on any future leachate ponds. The design plans prepared by SLR Consulting for the new leachate ponds were sighted by the auditor and these include the installation of barrier system.</p>
Sch 3 Cl 18(b)	<p><i>Council shall ensure that this leachate barrier system complies with specifications in the most current version of the EPL.</i></p> <p>As per Sch3 18(a) comments.</p>
Sch 3 Cl 38	<p><i>Prior to 30 November 2010, the Proponent shall prepare and implement a detailed Blast Management</i></p> <p>Council submitted a Blast Management Plan (BMP) to NSW Planning & Infrastructure on 17 October 2012.</p>
Sch 3 Cl 41	<p><i>The Proponent shall ensure that dust emissions generated by the project do not cause additional exceedances of the criteria listed in Tables 5 to 7 at any residence on privately owned land, or on more than 25 percent of any privately-owned land.</i></p> <p>Throughout the audit period there were numerous occasions where the annual average of deposited dust at monitoring stations exceeded the criteria of a maximum of 4g/m2/month.</p> <p>It would appear that no monitoring of suspended particulate matter is being undertaken so it is not possible to determine whether there is compliance with the TSP annual average criterion of 90ug/m3 or the PM10 24hr criterion of 50ug/m3 monitoring conducted during the reporting period, this condition has been assessed as non-compliant.</p> <p>The current Air Quality Monitoring Plan dated 7 November 2019 only proposed monitoring of deposited dust. According to the plan, this is considered the most appropriate to examine the potential impacts on the local amenity. The plan stated that negative health impacts due to fine particulate matter typically have an impact radius at a scale of tens of metres rather than hundreds of metres. As the identified receptors are at distances greater than 800 m, it is not considered appropriate to monitor TSP and PM10, unless the monitoring of dust deposition reveals a high level of dust emissions being dispersed from the site.</p> <p>While the auditor sighted DPE approval for the original Air Quality Monitoring Plan dated February 2013, the auditor has not sighted DPE approval of the updated plan dated 7 November 2019 which proposed to monitor PM10 & TSP only when there's exceedances of deposited dust.</p> <p>As there were exceedances of deposited dust in the 2019/2020 reporting, PM10 should have been monitored as a result of this.</p>



Reference	Non-compliance Description
Sch 3 CI 43	<p><i>The Proponent shall prepare and implement an Air Quality Monitoring Program for the project to the satisfaction of the Secretary. This program must be prepared in consultation with EPA and be submitted to the Secretary for approval within 3 months of the date of this approval.</i></p> <p>The original AQMP was dated February 2013, prepared 2 years and 7 months after the project approval.</p>
Sch 3 CI 45	<p><i>The Proponent shall implement the Biodiversity Offset Area (BOA) on Lots 181 and 182, DP 756035 including 95.31 ha of 'Inland Grey Box – Poplar Box – White Cypress Pine Tall Woodland', as described in MOD 1 to the satisfaction of the Secretary and in consultation with the EPA, within 1 year of the approval of MOD 1.</i></p> <p>A Conservation Agreement between the Minister administering the National Parks and Wildlife Act 1974 (NSW) and Griffith City Council for the 'Tharbogang Quarry and Landfill Conservation Agreement was executed on 12 July 2017 and registered on 17 November 2017, for Lots 181 and 182 in DP 756 035. The agreement was not made by 9 May 2013, as required by this condition.</p>
Sch 3 CI 46	<p><i>Within one year of the approval of MOD 1, unless the Secretary agrees otherwise, Council must provide appropriate long-term security for the BOA defined in Condition 45 through one of the following mechanisms:</i> <i>(a) a Conservation Agreement under the National Parks and Wildlife Act 1974; or</i> <i>(b) a Biobanking Agreement under the Threatened Species Conservation Act 1995.</i> <i>The agreement must remain in force in perpetuity.</i></p> <p>As per Sch 3 CI 45 comments.</p>
Sch 3 CI 47	<p><i>The Proponent shall ensure the long term security of the BOA referred to in Conditions 45 and 46, prior to any clearing onsite.</i></p> <p>The long-term security of the Biodiversity Offset Area (BOA) was not in place prior to clearing in the location of the Waste Transfer Station.</p>



Reference	Non-compliance Description
Sch 3 Cl 49a	<p><i>To ensure that the BOA is implemented in accordance with the performance and completion criteria in the Rehabilitation and Biodiversity Offset Strategy Management Plan, Council must secure implementation funds via one of the following mechanisms to the satisfaction of the Secretary:</i></p> <ul style="list-style-type: none"> <i>a) a Biobanking Agreement under the Threatened Species Conservation Act 1995;</i> <i>b) lodgement of a conservation bond with the Department;</i> <i>c) a Voluntary Planning Agreement under Section 93F of the EP&A Act.</i> <p><i>The sum of the funds shall be determined by:</i></p> <ul style="list-style-type: none"> <i>i. calculating the full cost of implementing the Rehabilitation and Biodiversity Offset Strategy Management Plan, and</i> <i>ii. employing a suitably qualified quantity surveyor to verify the calculated costs.</i> <p><i>The funding must be secured within six months of the approval of the Rehabilitation and Biodiversity Offset Strategy Management Plan required by condition 48, unless otherwise agreed to by the Secretary.</i></p> <p>A biobanking agreement was not made, instead the site was protected using a Conservation Agreement. The 17 Nov 2021 site audit by the Biodiversity Conservation Trust indicated that a total indicative cost of \$398,000 was estimated to implement management actions for the 10-year plan. The management of the conservation area is following the agreed management plan and is on track to meet the offset obligation. However, the implementation cost is inconsistent with the LBMP. Section 7 of the updated LBMP states that the cost to implement the RBOSMP plan are estimated to total approximately \$550,000 over the first 9 years during the active management phase (including quarterly and annual reporting and the Flora & Fauna Monitoring Program) and then approximately \$45,000 per year thereafter until completion. This should be clarified, and correct cost should be reflected in the updated LBMP.</p>



Reference	Non-compliance Description
Sch 3 Cl 53	<p><i>The Proponent shall prepare and implement a Cultural Heritage Management Plan to the satisfaction of the Secretary. This plan must: ... (c) be submitted to the Secretary for approval, within 6 months of the date of this approval.</i></p> <p>The Cultural Heritage Management Plan should have been submitted to the Secretary by 8 October 2010, rather it was submitted 30 April 2013.</p> <p>Four heritage significant items need to be protected such as 2 surveyor scarred trees and 2 speedway signs. Recommendations within the plan noted that the 2 surveyor scarred trees should be entered into the local Council heritage database and heritage listed in the Griffith Local Environmental Plan 2014 (LEP) with a 20m radius development exclusion zone around each tree. Another recommendation is for carefully removing the 2 speedway signs prior to commencement of operations and relocated to Griffith Pioneer Park Museum.</p> <p>These recommendations had not been actioned at the time of the 2018 audit. In this audit (2023), the surveyor scarred trees are still not recorded in the LEP; this should be recorded in the LEP immediately. The speedway signs were not accepted at Griffith Pioneer Museum, instead the signs were sold to a local fellow. An email to Ecoplanning on 6 November 2019, sighted by the auditor confirms the decision by Griffith Pioneer Museum not to accept the signs and a local fellow named Shane Scott picked the speedway signs from the facility.</p>
Sch 3 Cl 54	<p><i>The Proponent shall prepare and implement a Transport Management Plan to the satisfaction of the Secretary. This plan must...(f) be submitted to the Secretary for approval, within 6 months of the date of this approval.</i></p> <p>The Transport Management Plan (TMP) Loading/Unloading/Access-Landfill requirements relate to a time when landfill access was unrestricted and prior to the weighbridge and WTS. Six-monthly inspection of the pavement and associated infrastructure was not documented. The submission date of 17 October 2012 was later than the required 8 October 2010 submission date for the TMP.</p>
Sch 4 Cl 1	<p><i>If the results of monitoring required in schedule 3 identify that impacts generated by the project are greater than the relevant impact assessment criteria, then the Proponent shall notify the Secretary and affected landowners and tenants and provide quarterly monitoring results to each of these parties until the results show that the project is complying with the relevant criteria.</i></p> <p>All monitoring results relevant to this approval can be viewed at the Council's website. Throughout the audit period air quality monitoring results indicated that deposited dust exceeded the impact assessment criteria on numerous occasions but no records of notification to the Secretary and landowners were sighted by the auditor. No evidence that the quarterly monitoring results has been provided to these parties.</p>



Reference	Non-compliance Description
Sch 5 Cl 1 (a to f)	<p><i>The Proponent shall prepare and implement an Environmental Management Strategy for the project to the satisfaction of the Secretary. This strategy must be submitted to the Secretary for approval prior to operations commencing.</i></p> <p>An Environmental Management Strategy (EMS) was not sighted by the auditor. An EMS should be prepared for the project.</p>
Sch 5 Cl 2	<p><i>Within 24 hours of detecting an exceedance of the limits/performance criteria in this approval or the occurrence of an incident that causes (or may cause) material harm to the environment, the Proponent shall notify the Department and other relevant agencies of the exceedance/incident.</i></p> <p>Throughout the audit period air quality monitoring results indicated that deposited dust exceeded the impact assessment criteria on numerous occasions but no records of notification to the Department and landowners was sighted by the auditor. Due to this, this condition is considered as non-compliant.</p>
Sch 5 Cl 5	<p><i>Within 1 year of the date of this approval, and every 3 years thereafter, unless the Secretary directs otherwise, the Proponent shall commission and pay the full cost of an Independent Environmental Audit of the project.</i></p> <p>The previous independent audit report was finalised and submitted to DPE on 24 May 2018. This audit is the second independent environmental audit (IEA) for the facility, carried out 5 years and 3 months after the last IEA instead of 3 years.</p>
Sch 5 Cl 7	<p><i>Within 3 months of submitting a copy of the audit report to the Secretary, the Proponent shall review and if necessary revise the:</i></p> <p><i>(a) strategies/plans/programs required under this approval; and</i></p> <p><i>(b) rehabilitation bond, to consider the:</i></p> <ul style="list-style-type: none"> <i>• effects of inflation;</i> <i>• changes to the total area of disturbance; and</i> <i>• performance of the rehabilitation against the completion criteria of the Landscape and Biodiversity Management Plan (LBMP), to the satisfaction of the Secretary.</i> <p>The LBMP was updated on 14 May 2021, nearly 3 years after the submission of the 2018 IEA in which revision to the previous LBMP was recommended.</p>



Reference	Non-compliance Description
Sch 5 Cl 8	<p><i>Within 1 month of the approval of any strategies/plans/programs required under this approval (or any subsequent revision of these strategies/plans/programs), or the completion of the audits or AEMR required under this approval, the Proponent shall:</i></p> <p><i>(a) provide a copy of the relevant document/s to the relevant agencies and to members of the general public upon request; and</i></p> <p><i>(b) ensure that a copy of the relevant document/s is made publicly available on its website and at the site.</i></p> <p>Screenshots of lodgement of monitoring plans, reports and AEMRs to DPE were sighted by the auditor, however it was noted that the updated LBMP dated 14 May 2021 was not yet uploaded to the website. This should be uploaded to replace the previous LBMP.</p>

The corrective actions determined through these processes form the basis of the recommended actions list in Table 4.

3.3.6 Previous Report Actions

The previous audit conducted by Property Risk Australia on May 2018 identified 41 non-compliances related to Project Approval MP 06_0334. A summary of the non-compliances identified and the recommended actions or follow-up actions and Council's responses at that time are shown in Table 3.



Table 3 2018 IEA Non-compliances

Condition Number	Previous Audit Finding/Action	Risk Level	Council's response
Sch 3, Cl 9	The site must be inspected daily and the site (and surrounding areas, if necessary) must be cleared of litter on at least a weekly basis.	Low	Waste Operations Manager has met with Landfill Overseer and as discussed, a plan to collect windblown rubbish.
Sch 3, Cl 10	Council must ensure weeds, pests and vermin are controlled onsite. The LBMP must be updated to contain weed and pest management requirements specific to onsite.	Medium	This will be review as part of the review of the BOA and LMBP
Sch 3, Cl 12	Council must seek written exemption from the requirement to prepare a Feasibility Report, outlining options to capture and use greenhouse gas in the generation of electricity, if it does not intend to do this.	Low	This condition will form part of the upcoming modification.
Sch 3, Cl 13	Council must update and finalise the Landfill Environmental Management Plan (LEMP) per this clause and submit this for approval of the Secretary.	Low	
Sch 3, Cl 20	The Soil, Water and Leachate Management Plan (SWLMP) must be updated to reflect the current location and volumes of the stormwater pond and sedimentation basin, including new drainage inputs to this area. Council must ensure consultation with the Environment Protection Authority (EPA) and the Department of Industry - Water (Dol – Water) in this process.	Low	This will occur
Sch 3, Cl 21	The Site Water Balance does not capture all current and approved water sources and discharges. Construction of the stormwater pond and sedimentation basin are completed, and the plan requires update.	Low	This will occur



Condition Number	Previous Audit Finding/Action	Risk Level	Council's response
Sch 3, CI 22	The Erosion and Sedimentation Control Plan (ESCP) contained insufficient detail to implement controls, and does not cover all approved activities (e.g. quarrying in pits 101 or 103) or other parts of the site where soils may be disturbed, e.g. roads, ponds.	Low	This will occur
Sch 3, CI 23	<p>The Stormwater Management Scheme does not include all current and approved water sources and discharges across the site.</p> <p>Construction of the stormwater pond and sedimentation basin are completed, and the plan requires update.</p>	Low	This will occur
Sch 3, CI 24	<p>The Surface Water Monitoring Program does not capture specific assessment criteria for water quality; assessment of surface flows or stream health, including drainage features in Lot 202; areas within Lot 202 subject to soil disturbance; location or testing parameters for the 'upstream of site sample'; or address suitability of the stormwater pond and sedimentation basin to receive water from future quarry pits 101 and 103.</p> <p>Construction of the stormwater pond and sedimentation basin are completed, and the program requires update.</p>	Medium	This will occur
Sch 3, CI 25	The Groundwater Monitoring Program does not capture groundwater impact assessment criteria; a protocol for further groundwater modelling (to confirm the limits to excavation depths across the site); a protocol for the investigation, notification and mitigation of exceedances; or parameters for testing and respective trigger levels for action under the groundwater response plan.	Medium	Council will engage a suitable contractor who will review the Surface Water Groundwater Monitoring Program.



Condition Number	Previous Audit Finding/Action	Risk Level	Council's response
Sch 3, CI 26	The Surface Water, Groundwater and Leachate Response Plan contains no trigger levels, protocol or array of measures to respond to groundwater contamination.	Medium	Council will engage a suitable contractor who will review the Surface Water Groundwater and Leachate Response Plan and also focus on this report's recommendations.
Sch 3, CI 28	There is currently no noise monitoring data to demonstrate compliance with the EPL or PA (Sch 3, CI 28) noise criteria.	Low	This is currently being sorted, WOM has been in discussion with a company who supplies this equipment and technical support.
Sch 3, CI 35	No evidence was provided to indicate Council had advised all landowners within 500 m of proposed blasting activities, by 30 November 2010, of their entitlement to a baseline property inspection. It is noted that the condition is not limited to 'existing buildings or structures' within 500 m of proposed blasting activities.	Low	Currently the only land holder notified is the property Lot22 Dp756035 which is the only property within the 500m buffer that has a residence on it. WOM has been speaking to DPE about this condition and this will be also included in the modification.
Sch 3, CI 38	Council submitted a Blast Management Plan (BMP) to NSW Planning and Infrastructure (P&I) on 17 October 2012, later than the required submission date of 30 November 2010.	Low	Response Not Required
Sch 3, CI 39	No additional measures to reduce noise generated by the project have been investigated, and Council have not submitted an AEMR for the project.	Low	This will be included in the AEMR
Sch 3, CI 40	The submission date of February 2013 was later than the required 8 January 2011 submission date, for the Noise and Vibration Monitoring Program (NVMP).	Administrative	Response Not Required



Condition Number	Previous Audit Finding/Action	Risk Level	Council's response
Sch3, CI 43	The Air Quality Monitoring Program (AQMP) does not propose to monitor or evaluate against the acceptance criteria for 'total suspended particulate (TSP) matter' or 'particulate matter < 10 µm (PM10)', thereby no evidence against the acceptance criteria will be obtained for the approved landfilling or quarrying operations. The plan does not consider cumulative impacts and there are no triggers to recommence monitoring when an activity starts at a later date.	Low	This will be done
Sch 3, CI 44	No additional measures to reduce dust generated by the project have been investigated, and Council have not submitted an AEMR for the project.	Low	This will be done
Sch 3, CI 47	The long term security of the Biodiversity Offset Area (BOA) was not in place prior to clearing in the location of the Waste Transfer Station (WTS).	Low	It was not in place before the clearing commenced for the WTS but the Offset areas that was approved in the EA took into account the WTS. The BOA was based on the approved Offset area.
Sch 3, CI 48	There is no evidence of use or implementation of the LBMP within the BOA between 2010 and current. In practice, the Conservation Agreement (CA, 2017) is used to manage the BOA. However, many LBMP commitments were not captured by the CA (2017), e.g. sediment and erosion controls, infill planting, thinning intervention criteria, dead trees and rock management.	Medium	
Sch 3, CI 49(a)	The Rehabilitation and Biodiversity Offset Strategy Management Plan (RBOSMP), contained with the Landscape Biodiversity Management Plan (LBMP), does not include rehabilitation of the future landfill within the existing quarry.	Medium	This will occur



Condition Number	Previous Audit Finding/Action	Risk Level	Council's response
Sch 3, CI 49(c)	<p>The LBMP does not require reporting against the performance measures and completion criteria for the BOA.</p> <p>The LBMP does not provide any performance measures or completion criteria for the Quarry Rehabilitation Area (QRA), i.e. pits 101 and 103.</p>	Low	This will occur
Sch 3, CI 49 (d)	<p>The LBMP is generally limited to the BOA, and does not contain any of the following in relation to the site:</p> <ul style="list-style-type: none"> ▪ Requirements for seed collection, relocation of woody debris, hollows or the progressive clearing of vegetation; ▪ A vegetation clearing protocol; ▪ Any procedures for protecting areas outside the disturbance areas onsite; ▪ A site specific detailed rehabilitation program, or specific rehabilitation techniques for the QRA onsite; ▪ Actions proposed onsite to manage impacts to fauna during landfilling or quarrying operations; ▪ Any actions for weed or pest management onsite; ▪ Actions to control access onsite; ▪ Actions relating to onsite bushfire management; or ▪ Management actions or completion criteria relating to reducing visual impacts for onsite rehabilitation. 	Low	This will occur
Sch 3, CI 49 (f)	<p>The LBMP does not specifically discuss potential risks or contingency measures. No costs or completion criteria are provided for rehabilitation of the QRA.</p>	Low	This will occur
Sch 3, CI 49a	<p>BOA implementation costs were not verified by a quantity surveyor and implementation funding is not secured (rather an annual budget is provided).</p>	Medium	This will occur



Condition Number	Previous Audit Finding/Action	Risk Level	Council's response
Sch 3, Cl 50	There is insufficient detail within the LBMP to implement, measure, or evaluate performance against the stated objectives, in relation to rehabilitation within the QRA. The Long Term Management Strategy (LTMS) should drive rehabilitation objectives and management actions in the QRA. Consultation with OEH has occurred, but not NSW Office of Water (NOW) or Department of Primary Industries (DPI).	Low	This will occur
Sch 3, Cl. 53	<p>The two surveyor scar trees have not been entered into Schedule 5 – Environmental Heritage or recorded on the 'Heritage Map' of the Griffith Local Environmental Plan 2014 (LEP). There are no physical 20 m exclusion zones marked around the trees.</p> <p>Despite Council's efforts to relocate these, the speedway signs remain onsite in deteriorating condition. If the signs cannot be relocated, Council must seek written exemption from this recommendation of the Cultural Heritage Management Plan (CHMP)</p> <p>(Non-compliance – Low Risk).</p> <p>The CHMP was not submitted for approval of the Secretary by 8 October 2010, rather it was submitted 30 April 2013 (Administrative Non-Compliance).</p>	Medium	<p>Response Not Required</p> <p>Due to Pioneer Park not wanting the sign it was decided to advertise in the paper for past member who may want to take the signs.</p> <p>This was done and there was only 1 person who replied. WOM is currently arranging for this person to come a pick the signs up.</p>



Condition Number	Previous Audit Finding/Action	Risk Level	Council's response
Sch 3, Cl 54	<p>The Transport Management Plan (TMP) Loading/Unloading/Access - Landfill requirements relate to a time when landfill access was unrestricted and prior to the weighbridge and WTS. Six-monthly inspection of the pavement and associated infrastructure is not documented.</p> <p>The submission date of 17 October 2012 was later than the required 8 October 2010 submission date, for the Transport Management Plan (TMP) (Administrative Non-Compliance).</p>	Low	This will be done
Sch 3, Cl 60	Consultation with the Rural Fire Service (RFS) regarding onsite fire- fighting equipment has not occurred.	Low	Council will review the TWMS firefighting capabilities in consultation with RFS
Sch 5, Cl 1	Council must prepare an Environmental Management Strategy for approval from the Secretary.	Low	This will occur
Sch 5, Cl 4	Council must complete an Annual Environmental Management Report (AEMR) to cover the seven annual reports that have not been prepared.	Low	<p>Under advice from DPE the AEMR will be completed after the IEA process has concluded.</p> <p>Contractor has been sought to undertake this report.</p>
Sch 5, Cl 5	This IEA must be submitted to DPE.	Low	
Sch 5, Cl 6	Within one month of submission of this IEA, Council must provide a response to any recommendations to DPE and any relevant agencies	Low	
Sch 5, Cl 7	Within three months of submission of this IEA, Council must revise strategies, plans, programs and the rehabilitation bond required by the approval.	Low	This will occur



Condition Number	Previous Audit Finding/Action	Risk Level	Council's response
Sch 5, Cl 9	Council must make available monitoring results from the various monitoring programs on their website and update the data six monthly.	Low	<p>The Council Web Site (Waste Page) has been updated to include the required documents.</p> <p>See below web page</p> <p>https://www.griffith.nsw.gov.au/cp_themes/default/page.asp?p=DOC-KCB-52-46-17</p>
SoC Cl. 1.1	Council must prepare the Tharbogang Waste Management and Disposal Centre: Operational and Environmental Management Plan in accordance with this clause. It is recommended this form part of the LEMP.	Low	LEMP is still at the draft stage Council is in the process of finalising this document.
SoC Cl. 1.1	The 'Draft Griffith City Council, Biodiversity Strategy' (Draft GBMS) prepared by Council on 23 January 2013, must be finalised, and include an assessment of the significance of the various ephemeral swamps and water bodies in the Griffith Region, and provide further information to understand their dependence on groundwater.	Low	
Table E1 – Surface Water	The new Stormwater Pond was constructed without a flexible membrane liner.	Medium	Council will seek to change this commitment and add to the Modification Application
Table E1 – Air Quality, Traffic, Noise and Vibration	Complaints are tracked within Councils Customer Relationship Management (CRM) system, however there is no written procedure for investigating complaints.	Low	
Table E1 – Soils	Soil testing required down gradient of the leachate pond and sediment pond has not been undertaken.	Low	



Condition Number	Previous Audit Finding/Action	Risk Level	Council's response
Table E1 – Socioeconomic.	Council must provide ongoing consultation with nearby landholders in relation to all environmental issues that have the potential to impact upon them, e.g. traffic, access, noise, dust etc.	Low	Taken under notice

Source: Property Risk Australia IEA 2018

3.3.7 Complaints

There were no complaints recorded during the audit period (2019 -2023).

3.3.8 Incidents

Throughout the audit period air quality monitoring results indicated that deposited dust exceeded the impact assessment criteria on numerous occasions. In accordance with Schedule 4 Clause 1 of the approval, Council should have notified the Secretary and affected landowners and tenants. No notification records were found for these incidents.

There were two fire incidents that occurred on 21 & 25 January 2019 on an active landfill cell. For both occasions, fires were extinguished by staff by smothering with dirt and using water sprayer via the water cart. Both incidents were considered minor and considered as non-notifiable pollution events.

3.3.9 Agency Consultation

All the three agencies contacted during the consultation period, issued responses.

The results of agency consultation and documentation relating to engagement have been summarised below and are also included in Appendix E.

- DPE requested a focus on:
 - management and monitoring of the Biodiversity Offset Area (BOA)
 - management and monitoring of weeds and pests
 - progress of actions that were identified in the recent annual review
 - updates on the progress of community program and feasibility study
 - management and control of dusts, noise and odour
 - complaints register and management
 - website update of required documentation
 - status of litter onsite
 - update on Landscape and Biodiversity Management Plan (LBMP) and Landfill Operational Environmental Management Plan (LOEMP)
 - compliance with commitments within management plans
- EPA requested the assessment of:
 - current and future planned leachate storage and management systems



- dust controls implemented at the site
- controls and procedure to prevent windblown litter from leaving the site
- compliance with landfill waste compaction rates
- DPE Water requested the requirement and implement:
 - management plans that relate to water sources and their dependent ecosystems and associated impact and mitigation
 - prepare and implement trigger action response plans for water source impacts which set clearly defined limits to be reported annually including exceedances
 - clearly defined water supply availability
 - clearly documented water balance that complies with relevant water legislation and guidelines

Details of the above consultations have been incorporated in this report particularly in Tables 1 & 2 and the detailed audit findings in Appendix C.



4 RECOMMENDATIONS

4.1 Non-compliance Summary

The audit considered a total of 89 conditions of which there were 109 separately assessed audit criteria when many, but not all, of the conditions were broken down into sub-conditions (items). The Tharbogang Landfill and Quarry Facility was found to be compliant with 64 of the assessed conditions and sub-conditions. There were 27 non-compliances.

4.2 Corrective Actions

Of the 27 non-compliances, 13 related to documentation not being submitted within the required time frame. Many of these relate to documents which were meant to be submitted soon after operations commenced and although the documents were submitted, they were submitted late and so technically were a non-compliance with the Conditions of Consent and will always be so. No corrective actions can be taken for actions which have been completed but were completed late.

For the remaining non-compliances, 12 corrective actions are recommended as listed in Table 4. Council responses to each recommended actions will be required in Table 4, within one month after the date of this audit report.



Table 4 Recommended Actions List

Actions					
Refer to the Action Item list attached for details. It is required that Council reviews the Action List and fills out the columns titled for 'Action to be Taken', 'By whom', and 'By when'. It is the responsibility of the Council to monitor the progress of the Action List items and ensure close out.					
Corrective Actions raised: 12	Is Action List Closed off? <input type="checkbox"/> Yes <input type="checkbox"/> No				Signed (When completed)
Item No.	Action Item Description	Action to be Taken	By Whom	By When	Date Closed
Corrective Actions against non-compliances					
Sch 2, CI 6	Council has not surrendered Consent 78/91 issued on 24 December 1991 pursuant to Section 4.63 of the Environmental Planning and Assessment Act 1979.	Council should lodge a surrender application to DPE. This can be done in the form of a post-approval application to the Department via the Major Projects Planning Portal.			
Sch 2, CI 8(b)	Council has received more than 35,000 tonnes of waste in a year.	Council should implement procedures to prevent the waste limit is not exceeded			
Sch 3 CI 4(b)	Council has received waste sludges without tracking documentation and which was not allowed to be received at the site.	Council should review procedures to prevent the acceptance of waste which are not allowed to be disposed of at site			
Sch 3 CI 7(e)	Compaction rates did not meet EPL requirements	Council should review its compaction equipment and procedures to ensure it meets required compaction rates			
Sch 3 CI 9(c)	Litter is being cleared on an ad hoc basis	Regular litter surveillance and removal needs to be established.			



Actions					
Sch 3 CI 18(a) and 18(c)	The existing leachate ponds do not have a leachate barrier system which complies with EPL specifications	Council should construct new leachate ponds in accordance with EPL specifications			
Sch 3 CI 41	Deposited dust is regularly exceeding mandated limits	Council should investigate why dust limits are being exceeded and implement better controls to manage emissions			
Sch 3 CI 49(a)	LBMP does not reflect implementation costs is Conservation Agreement	LBMP needs to be updated to reflect correct costings			
Sch 3, CI 53	The actions in the Cultural Heritage Management Plan have not all been implemented.	Council should now take action to record the surveyor scarred trees into the Council's heritage database and in the LEP.			
Sch 4 CI 1 and Sch 5 CI 2	The Secretary, relevant agencies and affected landowners have not been notified when deposited dust criteria have been exceeded.	Council should notify the Secretary, the EPA and affected landowners when deposited dust thresholds are exceeded.			
Sch 5 CI 1	Council has not prepared an Environmental Management Strategy (EMS) for the project	An EMS should now be prepared for the project. Ensure that the EMS satisfy the requirements of Sch 5 CI 1 a to f.			
Sch 5 CI 8	The current LBMP is not on Council's website.	Council should upload the current LBMP.			
Opportunities for Improvement					
<p>During the audit, Council demonstrated improvements on its environmental performance as it started revising some of its existing plans (e.g. Soil Water and Leachate Management Plan, Landscape Biodiversity Management Plan) and implement some of the actions required during the 2018 audit (e.g. preparation and publishing of AEMRs on Council website). Due to this, there are no recommendations for improvement in this audit period. Instead, Council should focus on implementing the corrective actions suggested in this table to ensure continuing compliance of this project approval.</p>					



4.3 Limitations

The process by which this audit was conducted, including the sample of records selected and the method for examination used, followed established audit protocols and was in accordance with the best professional judgment of the auditor. It should be understood that the audit consisted of sample observations in a short span of time. Efforts were directed toward sampling all applicable facets of the environmental management systems and associated records, but it is important to recognise that such a sampling method can only support general conclusions and does not necessarily identify all potential problems.



5 CONCLUSION

Water Technology undertook an independent environmental audit of the Griffith City Council Tharbogang Waste Management Centre. This document serves as the Independent Environmental Audit report.

The facility was audited against the following criteria:

- Consolidated Conditions of Consent MP 06_0334 MOD 2
- DPE's Independent Audit Post Approval Requirements (2020)
- The feedback, requests, and/or comments of relevant agencies consulted; and
- Any other relevant documentation, procedures or plans associated with the project.

Consultation was undertaken by Lilian De Torres (August 2023) as part of the audit scope and in line with the conditions.

The audit reviewed the Tharbogang Waste Management Centre's compliance via site inspection, systems, documents, records, and procedures in relation to conditions associated with the facility's operation.

The audit considered a total of 89 conditions of which there were 109 separately assessed audit criteria when many, but not all, of the conditions were broken down into sub-conditions (items). The Tharbogang Waste Management Centre was found to be compliant with 64 of the assessed conditions and sub-conditions. There were 27 non-compliances. Many of the non-compliances related to documentation being submitted after a due date and cannot be corrected. There were 12 recommended actions for the remaining non-compliant items.



APPENDIX A APPROVAL FROM DEPARTMENT OF PLANNING AND ENVIRONMENT



Mr John Roser
Griffith City Council
1 BENEREMBAH STREET
GRIFFITH NSW 2680

5 October 2023

Dear Mr Roser

Tharbogang Quarry & Landfill – MP06_0334

Independent Environmental Audit

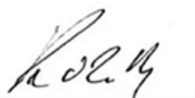
I refer to your request (MP06_0334-PA-23) submitted on 25 September 2023 for the Secretary's approval of Steven Molino of Water Technology Pty Ltd as the Lead Auditor to prepare and undertake the 2023 Independent Environmental Audit (IEA) and prepare the IEA report in accordance with Schedule 5, Condition 5 of MP06_0334 (as modified) the consent for Tharbogang Quarry and Landfill.

The Department has reviewed the request and notes Shireen Baguley will be on leave and that Steven Molino has received his recertification as a Lead Environmental Auditor from Exemplar Global. In accordance with Schedule 5, Condition 5 of the consent and the Independent Audit Post Approval, the Secretary agrees to Steven Molino as the Lead Auditor.

Please ensure this correspondence is appended to the Independent Audit Report.

Should you wish to discuss the matter further, please contact Michael Wood on 0459890661 or compliance@planning.nsw.gov.au

Yours sincerely

A handwritten signature in black ink, appearing to read "K. Wood".

As nominee of the Planning Secretary

Department of Planning and Environment

Mr John Roser
Griffith City Council
1 BENEREMBAH STREET
GRIFFITH NSW 2680

15 August 2023

Dear Mr Roser

**Tharbogang Quarry & Landfill – MP06_0334
Independent Environmental Audit – Audit team approval**

I refer to your request (MP06_0334-PA-22) submitted on 14 August 2023 for the Secretary's approval of suitably qualified persons to prepare and undertake the 2023 Independent Environmental Audit (IEA) and prepare the IEA report in accordance with Schedule 5, Condition 5 of MP06_0334 (as modified) the consent for Tharbogang Quarry and Landfill.

The Department has reviewed the nominations and information you have provided and is satisfied that these experts are suitably qualified and experienced. In accordance with Schedule 5, Condition 5 of the consent and the Independent Audit Post Approval Requirements, the Secretary has agreed to the following audit team from Water Technology Pty Ltd to undertake the IEA and prepare the IEA report:

- Shireen Baguley - Lead Auditor
- Lilian De Torres - Assistant Auditor
- Steven Molino – Assistant Auditor

This approval is conditional on the audit team being independent of the development and maintaining a current Exemplar Global accreditation. Please ensure this correspondence is appended to the Independent Audit Report.

The audit is to be conducted in accordance with the condition of consent and the Independent Audit Post Approval Requirements (Department 2020 or as updated). A copy of this guideline can be located at <http://planning.nsw.gov.au/Policy-and-Legislation/Mining-and-Resources/Integrated-Mining-Policy>. The Audit team may also wish to consider the AS/NZS ISO 19011 Australian/New Zealand Standard: Guidelines for quality and/or environmental management systems auditing.

Failure to meet these requirements will require revision and resubmission

The department reserves the right to request an alternate auditor or audit team for future audits. Notwithstanding the agreement for the above listed audit team for this Project, each respective project approval or consent requires a request for the agreement to the auditor or audit team be submitted to the department, for consideration of the Secretary. Each request is reviewed and depending on the complexity of future projects, the suitability of a proposed auditor or audit team will be considered.

Department of Planning and Environment



Should you wish to discuss the matter further, please contact Michael Wood on 0459890661 or compliance@planning.nsw.gov.au

Yours sincerely

A handwritten signature in black ink, appearing to read "M. Wood", enclosed in a light grey rectangular box.

As nominee of the Planning Secretary



APPENDIX B DECLARATION OF INDEPENDENCE FORMS



Declaration of Independence Form - Auditor


Project Name	Independent Environmental Audit for Griffith Waste Facility
Project Approval	06_0334
Description of Project	Undertake an independent environmental audit to assess compliance with Project Approval 06_0334 and associated documents.
Project Address	Lot 202 and Lot 201 DP 756035 Hillside Drive, Griffith NSW NSW
Proponent	Griffith City Council
Date	14 August 2023

I declare that:

- i. I am not related to any proponent, owner, operator or other entity involved in the delivery of the project. Such a relationship includes that of employer/employee, a business partnership, sharing a common employer, a contractual arrangement outside an Independent Audit, or that of a spouse, partner, sibling, parent, or child;
- ii. I do not have any pecuniary interest in the project, proponent or related entities. Such an interest includes where there is a reasonable likelihood or expectation of financial gain (other than being reimbursed for performing the audit) or loss to the auditor, or their spouse, partner, sibling, parent, or child;
- iii. I have not provided services (not including independent reviews or auditing) to the project with the result that the audit work performed by themselves or their company, except as otherwise declared to the Department prior to the audit;
- iv. I am not an Environmental Representative for the project; and
- v. I will not accept any inducement, commission, gift or any other benefit from auditee organisations, their employees or any interested party, or knowingly allow colleagues to do so.

Notes:

- a) *Under section 10.6 of the Environmental Planning and Assessment Act 1979 a person must not include false or misleading information (or provide information for inclusion in) in a report of monitoring data or an audit report produced to the Minister in connection with an audit if the person knows that the information is false or misleading in a material respect. The proponent of an approved project must not fail to include information in (or provide information for inclusion in) a report of monitoring data or an audit report produced to the Minister in connection with an audit if the person knows that the information is materially relevant to the monitoring or audit. The maximum penalty is, in the case of a corporation, \$1 million and for an individual, \$250,000; and*
- b) *The Crimes Act 1900 contains other offences relating to false and misleading information: section 307B (giving false or misleading information – maximum penalty 2 years imprisonment or 200 penalty units, or both)*

Name of Proposed Auditor	Steven Molino
Signature	
Qualification	B. Sci. (Physical Geography & Environmental Chemistry); Bachelor of Engineering (Civil) (Hons), Exemplar Global Lead Environmental Auditor trained.
Company	Water Technology Pty Ltd

Declaration of Independence Form - Auditor


Project Name	Independent Environmental Audit for Griffith Waste Facility
Project Approval	06_0334
Description of Project	Undertake an independent environmental audit to assess compliance with Project Approval 06_0334 and associated documents.
Project Address	Lot 202 and Lot 201 DP 756035 Hillside Drive, Griffith NSW NSW
Proponent	Griffith City Council
Date	14 August 2023

I declare that:

- i. I am not related to any proponent, owner, operator or other entity involved in the delivery of the project. Such a relationship includes that of employer/employee, a business partnership, sharing a common employer, a contractual arrangement outside an Independent Audit, or that of a spouse, partner, sibling, parent, or child;
- ii. I do not have any pecuniary interest in the project, proponent or related entities. Such an interest includes where there is a reasonable likelihood or expectation of financial gain (other than being reimbursed for performing the audit) or loss to the auditor, or their spouse, partner, sibling, parent, or child;
- iii. I have not provided services (not including independent reviews or auditing) to the project with the result that the audit work performed by themselves or their company, except as otherwise declared to the Department prior to the audit;
- iv. I am not an Environmental Representative for the project; and
- v. I will not accept any inducement, commission, gift or any other benefit from auditee organisations, their employees or any interested party, or knowingly allow colleagues to do so.

Notes:

- a) *Under section 10.6 of the Environmental Planning and Assessment Act 1979 a person must not include false or misleading information (or provide information for inclusion in) in a report of monitoring data or an audit report produced to the Minister in connection with an audit if the person knows that the information is false or misleading in a material respect. The proponent of an approved project must not fail to include information in (or provide information for inclusion in) a report of monitoring data or an audit report produced to the Minister in connection with an audit if the person knows that the information is materially relevant to the monitoring or audit. The maximum penalty is, in the case of a corporation, \$1 million and for an individual, \$250,000; and*
- b) *The Crimes Act 1900 contains other offences relating to false and misleading information: section 307B (giving false or misleading information – maximum penalty 2 years imprisonment or 200 penalty units, or both)*

Name of Proposed Auditor	Lilian De Torres
Signature	
Qualification	MEng, BEng (Chem), Dip Project Management, Certified Environmental Management Systems Lead Auditor (Cert no. 121354)
Company	Water Technology Pty Ltd



APPENDIX C AUDIT COMPLIANCE TABLE



Condition Number	Requirement	Evidence Sighted	Findings and Recommendations	Compliance Status
SCHEDULE 2 ADMINISTRATIVE CONDITIONS				
Obligation to Minimise Harm to the Environment	1. The Proponent shall implement all reasonable and feasible measures to prevent and/or minimise any harm to the environment that may result from the construction, operation, or rehabilitation of the project.	Relevant plans and observations during onsite audit	The presence of various plans and strategies and the efforts put into revising some of these plans ensures that Council is implementing reasonable and feasible measures to minimise harm to the environment. The auditor is satisfied that no major environmental issues were seen during the site audit, however there are practices that can be improved.	Compliant
Terms of Approval	2. The Proponent shall carry out the project generally in accordance with the: (a) EA; (b) site layout plan as shown in Appendix 1 as amended by the drawings in Appendix 1A; (c) Statement of Commitments; (d) MOD 1; (e) MOD 2; and (f) the conditions of this consent.	Relevant plans and observations during onsite audit	The auditor considers the performance of this condition as satisfactory, based on the documentation presented and observation of the site and its activities during the audit. Note that most non-compliances were considered low-risk administrative and Council is working towards the non-compliances that can be corrected.	Compliant
	3. If there is any inconsistency between the above documents, the conditions of approval shall prevail to the extent of the inconsistency.	Relevant plans	Noted	Not Triggered
	4. The Proponent shall comply with any reasonable requirements of the Secretary arising from the Department's assessment of: (g) any reports, plans, programs, strategies or correspondence that are submitted in accordance with the conditions of this approval;	Relevant plans and observations during onsite audit	The auditor notes that Council is implementing the activities specified in the various plans, reports and correspondences of this approval. The auditor sighted monitoring results for groundwater, noise, air quality from 2019 onwards. The Annual Environmental Performance Reporting (AEMRs) from 2017 onwards were all published on Council's website.	Compliant
	4. The Proponent shall comply with any reasonable requirements of the Secretary arising from the Department's assessment of: (h) the implementation of any actions or measures contained in these reports, plans, programs, strategies or correspondence.	Relevant plans and observations during onsite audit	Dusts suppression methods such as water trucks and sprayers, diversion drains/pipes and ponds for stormwater water and leachate, allotted space for waste segregation, database system for identification and measurement of the amount of wastes received and disposed onsite, bunding for stored chemicals, presence of fox and cat baits to mitigate pests in the biodiversity offset area are just some of the mitigation measures sighted by the auditor during the site audit. The auditor is satisfied that the actions specified in various plans and reports are being implemented.	Compliant
	5. The Proponent shall prepare revisions of any strategies, plans or programs required under this approval if directed to do so by the Secretary. Such revisions shall be prepared to the satisfaction of, and within a timeframe approved by, the Secretary.	Any revision of plans, strategies from 2019 onwards? If there is, then evidence of approval from the Secretary is required.	The Landfill Operational Management Plan for the site is currently for approval by DPE. This should have been revised at an earlier date as the original copy was dated 23 March 1999 but was just revised February 2021.	Non-Compliant
	5 (a). Within 3 months of any modification approval, the Proponent must prepare and implement a revised version of any relevant management plan or monitoring program to the satisfaction of the Secretary.	Records of revision of relevant management plans	Relevant management plans were not all revised within 3 months of Mod 1 approval and then again within 3 months of Mod 2. For example, the Landfill Operational Management Plan dated 23 March 1999, should have been revised by 9 August 2012, 3 months after MOD 1 approval but was not revised until February 2021.	Non-Compliant
Limits on Approval	6. Within 12 months after the date of this approval, the Proponent shall surrender all existing development consents for the site, to the satisfaction of the Secretary.		The auditor sent an email to DPE to clarify this condition. On 13 September 2023, DPE responded stating that "The intent of the condition is to surrender any previous development consents on the site so as to allow the landfill and quarry to be regulated under a single development consent. Council may voluntarily surrender a development consent pursuant to Section 4.63 of the Environmental Planning and Assessment Act 1979. This can be done in the form of a post-approval application to the Department via the Major Projects Planning Portal. The request must contain the information outlined within Section 68 of the Environmental Planning and Assessment Regulation 2021. As the 2010 MP06_0334 Consent encompasses the entire site operations, the consent applies to all landfill and quarry operations that are occurring on the subject site." Consent 78/91 was issued on 24 December 1991 for the operation of the Tharbogang Quarry (EA Balance 2009). The auditor found no evidence that a surrender application for Consent 78/91 has been lodged, let alone within 12 months after MP 06 0334 approval was granted.	Non-Compliant
	7. The Proponent may undertake quarrying and landfilling operations on the site until 31 December 2035. <i>Note: Under this approval, the Proponent is required to rehabilitate the site to the satisfaction of the Secretary. Consequently, this approval will continue to apply in all other respects other than the right to conduct quarrying operations until the site has been rehabilitated to a satisfactory standard, in accordance with the approved rehabilitation strategy.</i>		Noted	Compliant
	8. The Proponent shall not: (a) extract more than 315,000 tonnes per year of gravel materials from the site; or		Review of AEMRs from 2019 to 2022 confirms that the maximum gravel extracted from the site is 45,764.8 tonnes in year 2021 which is lower than the maximum criteria of 315,000 tonnes per year.	Compliant
	8. The Proponent shall not: (b) receive more than 35,000 tonnes per year of general solid waste (putrescible and non-putrescible) to the site.	Waste reports/receipts 2019 onwards	Review of weighbridge data from 2019 to current confirms that the total waste to landfill for 2020 is 35,909.25 tonnes and 36,744.60 tonnes in 2021 respectively. Therefore for 2020 and 2021 the total amount of waste received was more than the 35,000 tonnes per year limit.	Non-Compliant

Condition Number	Requirement	Evidence Sighted	Findings and Recommendations	Compliance Status										
	<p>8(a). The landfill shall not exceed the maximum volume for each landfill cell specified in Table A. Calculation of the cell volume shall include the intermediate non-waste layers but shall not include the final cell cap, leachate barrier or leachate drainage layer.</p> <p>Table A – Maximum volume for each landfill cell</p> <table border="1"> <thead> <tr> <th>Cell 1</th><th>Cell 2</th><th>Cell 3</th><th>Cell 4</th><th>Cell 5</th></tr> </thead> <tbody> <tr> <td>131,634m³</td><td>124,781m³</td><td>119,121m³</td><td>142,096m³</td><td>142,497m³</td></tr> </tbody> </table>	Cell 1	Cell 2	Cell 3	Cell 4	Cell 5	131,634m ³	124,781m ³	119,121m ³	142,096m ³	142,497m ³		Landfilling activities within pits 101 and 103 have not started.	Not Triggered
Cell 1	Cell 2	Cell 3	Cell 4	Cell 5										
131,634m ³	124,781m ³	119,121m ³	142,096m ³	142,497m ³										
Management Plans/Monitoring Programs	9. With the approval of the Secretary, the Proponent may submit any management plan or monitoring program required by this approval on a progressive basis.	Copies of management plans and monitoring programs	Screenshots of lodgement of the following plan and reports to the DPE portal were sighted by the auditor: Offset Monitoring reports , Noise monitoring reports 2020 & 2021, Air Quality Review -October 2022, AEMRS 2019 to 2021, Soil Water & Leachate Management Plan.	Compliant										
Structural Adequacy	<p>10. The Proponent shall ensure that all new buildings and structures, and any alterations or additions to existing buildings and structures, are constructed in accordance with the relevant requirements of the BCA (Building Code of Australia).</p> <p>Notes:</p> <ul style="list-style-type: none"> • Under Part 4A of the EP&A Act, the Proponent is required to obtain construction and occupation certificates for the proposed building works. • Part 8 of the EP&A Regulation sets out the requirements for the certification of the project. 	Construction and occupation certificates for the building works	This condition was compliant in the 2018 IEA and there was no building or structure constructed since then.	Not Triggered										
Demolition	11. The Proponent shall ensure that all demolition work is carried out in accordance with Australian Standard AS 2601:2001: The Demolition of Structures, or its latest version.	Related documents for demolition works	No demolition works has been conducted onsite since 2019.	Not Triggered										
Operation of Plant and Equipment	12. The Proponent shall ensure that all plant and equipment used on site is: (a) maintained in a proper and efficient condition; and (b) operated in a proper and efficient manner.	Records of equipment maintenance and observations of equipment usage	The auditor sighted equipment maintenance records in the current system at the Council depot. The type of preventative maintenance that has been done for a particular equipment or asset and date were described. An example is the Tana E260 Landfill Compactor known as asset number 6629. This equipment was serviced as per the operator's manual on 24 August 2023. The cutting edges were inspected for wear and tear on 17 August 2022. Historical maintenance records were also saved in a TRIM folder. During the audit, the auditor sighted Council staff conducting maintenance of some equipment in a safe manner. Operating plant was observed to have normal noise and air emissions	Compliant										
Schedule 3 Specific Environmental Conditions														
WASTE														
Restrictions on Receipt, Storage & Handling of Waste	1. The Proponent shall only receive waste on site that is authorised for receipt by an EPL.	Waste receipts samples for years 2019 to current. Observations of weighbridge operation.	The auditor sighted how the landfill received waste onsite via the existing weighbridge. A database has been set-up to characterise the type and quantity of waste received onsite.	Compliant										
Limits on Outputs	2. The Proponent shall dispose of all outputs produced on site to suitably licensed facility, including all recyclables extracted and delivered off-site for resource recovery purposes.	Disposal/transfer receipts for outputs and/or recyclables (2 for each relevant years). Observations of waste separation areas on site	Sample waste receipts of domestic wastes for April 2023 taken away by Cleanaway to their facility was sighted by the auditor. The waste separation area have steel containers to separate various types of wastes such as domestic waste, green waste, steel, , mattresses, batteries and tyres. Electronic waste are stored in a closed shed steel container. During the audit, Cleanaway staff was sighted loading the recyclables in the waste truck and covered the loaded wastes when leaving the site.	Compliant										
Construction Waste	3. The Proponent shall ensure that all waste generated on the site during construction of the project is classified in accordance with the DECCW's Waste Classification Guidelines, Part 1: Classifying Waste and disposed of at a facility that may lawfully accept the waste.	Onsite evidence of waste segregation.	Nothing has been constructed onsite during this audit period, so this condition is not triggered.	Not Triggered										
	4. The Proponent shall: (a) implement suitable procedures to: • ensure that the site does not accept wastes that are prohibited; and • screen incoming waste loads;	Waste Screening Procedures, Observations of weighbridge operation.	An approved Tharbogang Landfill: Waste Screening Procedures V1.1 approved 17 February 2011 was sighted by the auditor. There are screening procedures implemented at the weighbridge and transfer station. This has been witnessed by the auditor during the site audit.	Compliant										

Condition Number	Requirement	Evidence Sighted	Findings and Recommendations	Compliance Status
Screening	<p>4. The Proponent shall:</p> <p>(b) ensure that:</p> <ul style="list-style-type: none"> all waste sludges and wastes that are controlled under a tracking system have the appropriate documentation prior to acceptance at the site; and staff receive adequate training in order to be able to recognise and handle any hazardous or other unapproved waste. 	waste acceptance receipts, staff training records	<p>It is noted that all waste sludges and wastes that are controlled under a tracking system cannot be legally accepted at the site.</p> <p>Signs are provided at the weighbridge to advise customers of waste materials that are prohibited within the landfill. Customers are asked by the weighbridge attendant to declare the contents of their load. Commercial customers or casual customers with large vehicles, are also required to provide a declaration confirming that they are not carrying any prohibited materials. A mirror is affixed to the underside of the weighbridge roof so that the weighbridge attendant can see into the top of a loaded vehicle and ascertain the waste type unless the waste is covered.</p> <p>Staff training records for waste handling in an excel spreadsheet was also sighted by the auditor.</p> <p>However, the 2022 AEMR states that 136.96 tonnes of "drilling/suction sludge" was received and there was no evidence of this being tracked.</p>	Non-Compliant
Waste Transfer Station	<p>5. Prior to the construction of the Waste Transfer Station, the Proponent shall submit detailed plans of the facility for approval by the Secretary.</p> <p>Note: The WTS should be sited to avoid any remnant vegetation onsite.</p>	Detailed plans of the facility	The Waste Transfer Station was constructed prior to the period of this audit thus this condition is not triggered.	Not Triggered
Waste Monitoring	<p>6. The Proponent shall prepare and implement a Waste Monitoring Program for the project to the satisfaction of the Secretary, prior to the commencement of operation. This program must:</p> <p>(a) be prepared in consultation with EPA by a suitably qualified and experienced expert; and</p> <p>(b) include a suitable program to monitor the:</p> <ul style="list-style-type: none"> quantity, type and source of waste received on site; quantity, type and quality of the outputs produced on site. 	Copy of Waste Monitoring Program	<p>The Tharabogang Waste Management Centre Waste Monitoring Program revision 2.0 dated March 2011 was sighted by the auditor. Mr Darren Walllett of Griffith DECCW and Ms. Felicity Greentree of the then Dept of Planning were consulted during development of the document. The quantity and type of waste received onsite is monitored via computer that operates proprietary weighbridge recording and accounting software backed-up in real time to the Council's server in Griffith. Details of the vehicle, customer details, quantity of waste, type of materials are being recorded through this system and being confirmed by the weighbridge operator. For vehicles that are carrying recovered or processed materials away from the site, the procedure will be similar to receiving onsite except that the vehicle is heavier on exiting than upon entry, so the difference in weight is equals to the weight of materials leaving the site. The material type is entered upon exiting the site. The computer system maintains all records of quantities, material types, sources and transactions for materials in and out of the facility.</p>	Compliant
Landfill Operations	<p>7. Unless the Secretary agrees otherwise, the Proponent shall:</p> <p>(a) minimise the exposed and active tip face at the landfill;</p>	Onsite observation	During the site audit, there is a minimal space of active landfill area being exposed as shown on the photos in Appendix D.	Compliant
	<p>7. Unless the Secretary agrees otherwise, the Proponent shall:</p> <p>(b) progressively revegetate all completed areas of the landfill and stabilise any exposed areas that are not required for operational purposes for a period greater than 90 days;</p>	Onsite observation	During the site audit, a completed landfill cell was completely revegetated as shown on the photo in Appendix B.	Compliant
	<p>7. Unless the Secretary agrees otherwise, the Proponent shall:</p> <p>(c) minimise the tracking of mud and waste from the site on public roads;</p>	Onsite observation	During the site audit, no tracking of mud and waste was observed on roads nearest to the facility.	Compliant
	<p>7. Unless the Secretary agrees otherwise, the Proponent shall:</p> <p>(d) fill the landfill cells in a systematic manner;</p>	Copy of updated Landfill Operations & Environment Management Plan	The systematic filling of landfill cells were described in Sections 5.4 & 5.5 of the revised Landfill Operations and Management Plan dated February 2021.	Compliant
	<p>7. Unless the Secretary agrees otherwise, the Proponent shall:</p> <p>(e) maximise landfill compaction rates;</p>	Onsite observation	Waste compaction rate in 2022 was estimated to be at 630 kg/m ³ and was compacted using the 26 tonne Tana Compactor. The criterion for compaction in the current EPL is an average of not less than 650 kg/m ³ . The 2022 results show that lesser compaction rate was achieved. There is a current tender for a new compactor to achieve the maximum compaction rate.	Non-Compliant
	<p>7. Unless the Secretary agrees otherwise, the Proponent shall:</p> <p>(f) cover the active landfill area with at least 0.15 metres of soil (or a suitable alternative material, as approved by EPA) at the end of daily waste disposal and compaction activities;</p>	Onsite observation, EPA letter of approval	EPA letter of variation to EPL 5875 dated 9 December 2020, states that waste can be compacted instead of applying cover material prior to ceasing operations at the end of each day. This is due to the difficulty in sourcing out clean fill material to provide daily cover to the landfill. Photo of compacted wastes were shown in Appendix D.	Compliant
	<p>7. Unless the Secretary agrees otherwise, the Proponent shall:</p> <p>(g) stockpile green waste on an impermeable pad with bunding to contain leachate; and</p>	Onsite observation	The auditor sighted the details and photos during the construction of the impermeable green waste pad. The construction commenced on 30 October 2019 and photos of the completed green waste pad with bunding and pipe works were taken on 24 February 2020. The auditor was satisfied that the requirements for this condition has been met.	Compliant

Condition Number	Requirement	Evidence Sighted	Findings and Recommendations	Compliance Status
	7. Unless the Secretary agrees otherwise, the Proponent shall: (h) progressively cap the landfill cells using an EPA endorsed method.	Onsite observation	A completed capped landfill cell with existing grass vegetation opposite to the active quarry was sighted by the auditor and was satisfied with how Council implemented the condition of this clause. Waste concrete and bricks were observed being used as capping material on recently filled cells prior to final capping with soil. Site photos can be seen in Appendix D.	Compliant
Security	8. The Proponent shall: (a) install and maintain a perimeter stock fence and security gates on the site surrounding the landfill; and (b) ensure that the security gates on site are locked whenever the site is unattended.	Onsite observation of perimeter stock fence and security gate	The perimeter stock fence and security gates were installed and properly maintained as the auditor witnessed during the site audit. Relevant gates (e.g. gates near the weighbridge) are being locked by the closing time everyday. However, members of the public broke portions of the perimeter fence trying to get into the site at night time.	Compliant
Litter Control	9. Within 6 months of the date of this approval, the Proponent shall: (a) remove existing litter that has accumulated across the site, to the satisfaction of the Secretary	Onsite observation cleanliness , installed mesh fence of 1.8 metres and above, litter inspection records	The period stated in this condition had lapsed so the auditor assessed this at the time the audit was conducted. There were photos (see Appendix D) that litter was collected in garbage bags on an adhoc basis, however during the site audit there were areas where litter has accumulated. There was some litter lying within the perimeter fence boundary and one caught on the barbed wire strands of the perimeter fence.	Non-Compliant
	9. Within 6 months of the date of this approval, the Proponent shall: (b) implement suitable measures to prevent the unnecessary proliferation of litter both on and off site, including the installation and maintenance of a mesh fence of not less than 1.8 metres high around the proposed landfill area; and	As above	There are mobile litter fences deployed on the high side of the active cell and there is a perimeter fence not less than 1.8 meters high along the site boundaries . This fence has helped in preventing litter going offsite and litter is being collected on an as needs basis.	Compliant
	9. Within 6 months of the date of this approval, the Proponent shall: (c) inspect daily and clear the site (and if necessary, surrounding area) of litter on at least a weekly basis.	As above	Council's Waste Operations Manager advised this this occurring on an as-needs basis rather than daily or even weekly. A procedure for regular surveillance and picking-up litter onsite needs to be established to ensure compliance with this condition.	Non-Compliant
Pest, Vermin & Noxious Weed Management	10. The Proponent shall: (a) implement suitable measures to manage pests, vermin and declared noxious weeds on site; and (b) inspect the site on a regular basis to ensure that these measures are working effectively, and that pests, vermin or noxious weeds are not present on site in sufficient numbers to pose an environmental hazard, or cause the loss of amenity in surrounding area. Note: For the purposes of this condition, noxious weeds are those species subject to an order declared under the Noxious Weed Act 1993.	Copy of mitigation measures to manage pests, vermins and weeds, inspection records for pests, vermins and weeds, Landscape Biodiversity Management plan, Pest control plan, onsite observation	The Landscape Biodiversity Management Plan dated 9 April 2013 has been updated on May 2021. It was stated in the updated plan that the control techniques for weeds will be undertaken using minimal disturbance and are outlined further in the Weed Control Plan (Ecoplanning 2019a) for GCC lands and Appendix B of the plan. Section 5.15 specifies control of feral and overabundant native herbivores and Section 5.16 contains vertebrate pest management. The updated plan contains suitable measures for management of pests, vermin and noxious weeds. During the site audit, fox and cats baits were sighted by the auditor. There is also an equipment for removing prickly pear cactus and other noxious weeds that is sighted by the auditor.	Compliant
Greenhouse Gas	11. The Proponent must ensure that all composting is undertaken in accordance with Australian Standard AS 4454-2003: Composts, Soil Conditioners and Mulches, Appendix N, best practice guidelines for Composting Systems, or other practices approved by the EPA.	Onsite observation of composting areas	There is no composting done onsite. They stockpile greenwaste and use it as a cover material for the waste onsite after the dirt has been applied to bind and stop erosion.	Not Triggered
	12. The Proponent is required to prepare a feasibility report for the Secretary's approval within 5 years of this approval, outlining options to capture and use greenhouse gas in the generation of electricity. The report must identify which options could be reasonably and feasibly implemented.	Copy of feasibility report for capturing & using greenhouse gas for electricity generation	Email correspondence dated 6 June 2023 was sighted by the auditor engaging LMS for installation of a gas management system for landfill gas capture so there is evidence that Council is committed to install a greenhouse capture and use system but there was no evidence that a feasibility report was ever prepared.	Non-Compliant
Landfill Environmental Management Plan	13. Within 6 months of the date of this approval, the Proponent shall update the existing Landfill Environmental Management Plan for the site to the satisfaction of the Secretary. Following approval, the Proponent shall implement this plan to the satisfaction of the Secretary. This plan must: (a) describe in detail the management measures that would be implemented to address: • the relevant matters referred to in the Environmental Guidelines for Solid Waste Landfills; and • the conditions of this approval; (b) include a copy of: • the relevant plans and programs required under this approval; • a quality assurance plan for the design and installation of the leachate management system and any capping of the landfill cells that covers the relevant issues outlined in sections 1 – 2 of Appendix A of the Environmental Guidelines for Solid Waste Landfills; (c) describe the procedures that would be implemented to: • keep the local community and relevant agencies informed about the operation and environmental performance of the project; • receive, handle, respond to, and record complaints; • resolve any disputes that may arise during the course of the project; and • respond to emergencies; and (d) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the project.	Copy of Landfill EMP	A copy of the revised Landfill Operations & Environmental Management Plan dated February 2021 was sighted by the auditor. This revised copy is currently for DPE approval. This plan should have been revised twice, first revision on January 2011 within 6 months of the date of this approval and second revision on 9 August 2012 - 3 months after MOD 1 approval.	Non-Compliant
SOIL, WATER AND LEACHATE MANAGEMENT				
	14. Except as may be expressly provided for by an EPL, the Proponent shall comply with section 120 of the Protection of the Environment Operations Act 1997 during the carrying out of the project.		During the site audit, the auditor sighted stormwater and leachate ponds structures that captures clean water and prevent contaminated waste water to be release to the environment.	Compliant

Condition Number	Requirement	Evidence Sighted	Findings and Recommendations	Compliance Status
Discharge Limits	15. Stormwater from all areas of the premises which has the potential to mobilise sediments and other material must be controlled and diverted through appropriate erosion and sediment control/pollution control measures or structures.	Onsite observation of stormwater diversion drains and areas	Surface water runoff is collected via open surface drains designed to divert run-off into stormwater collection ponds for evaporation. These ponds are designed for up to 100 year ARI event.	Compliant
	16. The Proponent shall manage on-site sewage. The facility must comply with the requirements of the Environment and Health Protection Guidelines – On-site Sewage Management for Single Households (1998).	Onsite sewage observation	The auditor sighted 2 underground sewage collection tanks that are serviced by relevant contractor.	Compliant
	17. The Proponent shall ensure that water that has come in contact with waste is not discharged from the site.	Onsite observation, no wastewater discharges from site is allowed	Rainfall and process water in the quarry is pumped from the collection sumps to stormwater collection dam designed with freeboard to contain runoff from high intensity, 72 hour duration, 100 year recurrence storm events. This water is used for irrigating vegetation in quarry areas under rehabilitation. Some water from the pond is also being evaporated. Any surface runoff from rainfall in the landfill is directed to the sedimentation pond. Water quality in these ponds are tested regularly and on confirmation that the water is suitable then water can be discharge by pumping or a designed overflow point. Landfill leachate is collected and isolated from all other runoff sources. It is collected in a dedicated storage pond of 500m3 volume then pumped back to landfill rehabilitation areas where it's used for vegetation establishment and maintenance and apply to active landfill areas to promote biological activity. The storage pond has a free board to accommodate a 100 year, 72 hours duration rainfall event. Any storage pond overflow discharges to the sedimentation dam allowing for a second detention and dilution stage. The above methods ensure that no contaminated wastewater discharges occurred from the site.	Compliant
Leachate	18. The Proponent shall: (a) install a leachate barrier system on any surface to be used for the direct impoundment of leachate;	onsite observation of the leachate barrier system installation for leachate impoundment, observe compacted clay layer or liner	According to DPE, the current approval encompasses all site operations including any works which predate the current approval. The operation of the existing leachate pond is covered by this approval. There is no leachate barrier system currently installed in the existing leachate pond, it is made of compacted clay underneath. However, the auditor was informed that an appropriate barrier system will be installed on any future leachate ponds. The design plans prepared by SLR Consulting for the new leachate ponds were sighted by the auditor and these include the installation of barrier system.	Non-Compliant
	18. The Proponent shall: (b) ensure that this leachate barrier system complies with specifications in the most current version of the EPL;		As above	Non-Compliant
	18. The Proponent shall: (c) collect all leachate in the leachate dams to prevent it from escaping from the site to surface water, groundwater or subsoil;		The existing leachate storage pond has a free board to accommodate a 100 year, 72 hours duration rainfall event (Soil Leachate Management Plan dated June 2011). The auditor sighted that the pond has minimal amount of contaminated water and there is enough capacity for this leachate pond to capture waste water from current operations and no contaminated water releases to surface water, groundwater or subsoil is anticipated for the existing operation. In addition, leachate pond monitoring and borehole monitoring in February 2011 results showed no contamination issues. Most recent results (2021/2022) of borehole monitoring conducted for pH, alkalinity, fluoride, sulphate, dissolve magnesium, TSS, TOC, total phenolics, dissolved iron, dissolved calcium, dissolved potassium, total oxidised nitrogen and volatile organic compounds (VOCs) are consistent with long time averages.	Compliant
	18. The Proponent shall: (d) treat all water from waste storage or handling areas, including any organic waste storage area, or that has been contaminated by leachate, as leachate;		During the audit period no water or water contaminated by leachate was discharged from the facility, so treatment of contaminated water is not necessary.	Compliant
	18. The Proponent shall: (e) ensure that the leachate storage dams: • are capable of accepting leachate generated in a 1 in 100 year, 72 hour duration storm event without overflowing; • have a re-compacted clay or modified soil layer that is at least 900 mm thick and an in situ coefficient of permeability of less than 1×10^{-9} m/s, or some other suitable liner approved by EPA, to the satisfaction of the Secretary.		The leachate storage pond has a free board to accommodate a 100 year, 72 hours duration rainfall event (Soil Leachate Management Plan June 2011). As sighted by the auditor the leachate pond contains a compacted soil clay layer.	Compliant

Condition Number	Requirement	Evidence Sighted	Findings and Recommendations	Compliance Status
Bunding	19. The Proponent shall ensure that all above ground tanks and vats, including those used for treating or processing wastewater, leachate and diesel storage, and that all dangerous goods, as defined by the Australian Dangerous Goods Code, are stored and handled strictly in accordance with: (a) all relevant Australian Standards; (b) a minimum bund volume requirement of 110% of the volume of the largest single stored volume within the bund; and (c) the DECCW's Storing and Handling of Liquids: Environmental Protection – Participant Manual.	Observe bunding for tanks, vats, diesel storage, chemical storage etc.	The auditor sighted the self bunded diesel storage tank and other chemical storages onsite and was satisfied that the bunding requirements and all other specifications of this condition are being complied with.	Compliant
Soil, Water and Leachate Management Plan	20. The Proponent shall prepare and implement a Soil, Water and Leachate Management Plan for the project to the satisfaction of the Secretary. This plan must: (a) be submitted to the Secretary for approval within 6 months of the date of this approval; (b) be prepared by a suitably qualified and experienced expert; (c) be prepared in consultation with the EPA and NOW; and (d) include: • a site water balance; • an erosion and sediment control plan; • a stormwater management scheme; • a surface water monitoring program; • a groundwater and leachate monitoring program; and • a surface water, groundwater and leachate response plan.	Copy of soil, water and leachate management plan	The auditor sighted the revised Soil, Water & Leachate Management Plan dated 14 October 2022. An approval letter from DPE dated 16 November 2022 states that the Department has reviewed the plan and was satisfied that it meets the terms of conditions of this approval.	Compliant
	21. The site water balance must: (a) identify the source of all water collected or stored on the site, including rainfall and stormwater; and (b) include details of all water use on site and any discharges.	Site water balance under the Soil, water and leachate management plan	As above	Compliant
	22. The erosion and sediment control plan must: (a) be consistent with the requirements in the latest version of Managing Urban Stormwater: Soils and Construction (Landcom); (b) identify the activities on site that could cause soil erosion and generate sediment; and (c) describe what measures would be implemented to: • minimise soil erosion and the transport of sediment to downstream waters, including the location, function and capacity of any erosion and sediment control structures; and • maintain these structures over time.	Soil, water and leachate management plan	As above	Compliant
	23. The stormwater management scheme must: (a) be consistent with the guidance in the latest version of Managing Urban Stormwater: Council Handbook (DECCW); (b) provide detailed plans of stormwater management systems onsite; (c) demonstrate separation of stormwater and leachate collection and management systems; and (d) have sufficient capacity to cater for a 1 in 100 year, 72 hour storm event.	Soil, water and leachate management plan	As above	Compliant
	24. The surface water monitoring program must include: (a) detailed baseline data on surface water flows and quality in any waterbodies that could potentially be affected by the project; (b) surface water and stream health impact assessment criteria; (c) a program to monitor the impact of the project on surface water flows, water quality and stream health; and (d) the parameters for testing and respective trigger levels for action under the surface water, groundwater and leachate response plan (see below).	Soil, water and leachate management plan	As above	Compliant
	25. Groundwater and leachate monitoring program must include: (a) detailed baseline data on groundwater levels and quality, based on statistical analysis; (b) groundwater impact assessment criteria, including trigger levels for investigating any potentially adverse ground water impacts; (c) a program to monitor groundwater levels and quality; (d) a protocol for further groundwater modelling to confirm the limits to excavation depth across the site would not adversely affect ground water availability for the environment or local users; (e) a protocol for the investigation, notification and mitigation of identified exceedances of the groundwater impact assessment criteria; and (f) the parameters for testing and respective trigger levels for action under the surface water, groundwater and leachate response plan (see below).	Soil, water and leachate management plan	As above	Compliant
	26. The surface water, groundwater and leachate response plan must: (a) include a protocol for the investigation, notification and mitigation of any exceedances of the respective trigger levels; and (b) describe the array of measures that could be implemented to respond to any surface or groundwater contamination that may be caused by the development.	Soil, water and leachate management plan	As above	Compliant
METEOROLOGICAL MONITORING				
	27. Prior to carrying out any development, the Applicant shall establish and subsequently maintain a meteorological station in the vicinity of the development, which performs 'ambient air monitoring' of rainfall, wind speed and wind direction, in accordance the requirements in the Approved Methods for Sampling of Air Pollutants in New South Wales guideline.	Onsite observation of meteorological/ ambient air monitoring site	Meteorological monitoring is collected by the meteorological station at Griffith Water Reclamation Plant. Use of this station was approved by DPE & EPA in September 2011 as it complied with the requirements of this approval being in the vicinity of the TWMC. The station monitors rainfall, wind speed and wind direction in accordance with the Approved Methods for Sampling of Air Pollutants in New South Wales guidelines.	Compliant

Condition Number	Requirement	Evidence Sighted	Findings and Recommendations	Compliance Status													
NOISE AND VIBRATION																	
Noise Im pact Assessment Criteria	<p>28. The Proponent shall ensure that the noise generated by the project does not exceed the noise impact assessment criteria in Table 1:</p> <p>Table 1: Operational noise impact assessment criteria dB(A)</p> <table><tr><th>Location and Locality</th><th>Day <i>L_{Aeq}(15 min)</i></th><th>Evening <i>L_{Aeq}(15 min)</i></th><th>Night <i>L_{Aeq}(15 min)</i></th></tr><tr><td>All Surrounding Sensitive Receivers</td><td>35</td><td>35</td><td>35</td></tr></table> <p>Notes:</p> <ul style="list-style-type: none">Noise generated by the project is to be measured in accordance with the relevant requirements, and exemptions (including certain meteorological conditions), of the NSW Industrial Noise Policy.The noise limits do not apply if the Proponent has an agreement with the landowner to generate higher noise levels, and the Proponent has advised the Department in writing of the terms of this agreement.	Location and Locality	Day <i>L_{Aeq}(15 min)</i>	Evening <i>L_{Aeq}(15 min)</i>	Night <i>L_{Aeq}(15 min)</i>	All Surrounding Sensitive Receivers	35	35	35	Noise monitoring records from 2019 to current	The auditor sighted noise monitoring data for years 2018, 2019, 2020 & 2021. The noise monitoring results from these years exceeded the noise criteria of 35 dB(A) <i>L_{Aeq}(15min)</i> for sensitive receivers, however it was likely due to a range of noise sources at sensitive receiver sites (e.g. road traffic, dogs barking, cicadas, orchard machinery). The impact of quarry and landfill noise emission was shown to be minor when attenuated for distance. It is likely that noise from the quarry was not consistently the main contributor to noise at any of the sensitive receiver locations.	Compliant					
Location and Locality	Day <i>L_{Aeq}(15 min)</i>	Evening <i>L_{Aeq}(15 min)</i>	Night <i>L_{Aeq}(15 min)</i>														
All Surrounding Sensitive Receivers	35	35	35														
Operating Hours	<p>29. The Proponent shall comply with the operating hours in Table 2.</p> <p>Table 2: Operating hours</p> <table><tr><th>Activity</th><th>Day</th><th>Time</th></tr><tr><td rowspan="3">Quarrying Operations</td><td>Monday – Friday</td><td>7.00am to 5.00pm</td></tr><tr><td>Saturday</td><td>8.00am to 1.00pm</td></tr><tr><td>Sunday and Public Holidays</td><td>None</td></tr><tr><td>Landfilling Operations</td><td>Daily</td><td>8.00am to 5.00pm</td></tr></table> <p>Notes:</p> <ul style="list-style-type: none">Maintenance activities may be conducted outside weekday hours in Table 3 provided that the activities are not audible at any privately-owned residence, or until 6pm on Saturdays.This condition does not apply to delivery of material if that delivery is required by police or other authorities for safety reasons, and/or the operation or personnel or equipment are endangered. In such circumstances, notification is to be provided to EPA and the affected residents as soon as possible, or within a reasonable period in the case of emergency.	Activity	Day	Time	Quarrying Operations	Monday – Friday	7.00am to 5.00pm	Saturday	8.00am to 1.00pm	Sunday and Public Holidays	None	Landfilling Operations	Daily	8.00am to 5.00pm	Onsite interviews	The landfill operating times are shown on the Council’s website and adheres to this condition for landfilling operations. The quarrying operations also adheres to the times and days specified in this condition.	Compliant
Activity	Day	Time															
Quarrying Operations	Monday – Friday	7.00am to 5.00pm															
	Saturday	8.00am to 1.00pm															
	Sunday and Public Holidays	None															
Landfilling Operations	Daily	8.00am to 5.00pm															
Airblast Overpressure Limits	<p>30. The Proponent shall ensure that the airblast overpressure level from blasting at the project does not exceed the criteria in Table 3.</p> <p>Table 3: Airblast overpressure impact assessment criteria</p> <table><tr><th>Receiver</th><th>Airblast overpressure level (dB(Lin Peak))</th><th>Allowable exceedance</th></tr><tr><td rowspan="2">All Surrounding Sensitive Receivers</td><td>115</td><td>5% of the total number of blasts in any 12 month period</td></tr><tr><td>120</td><td>0%</td></tr></table>	Receiver	Airblast overpressure level (dB(Lin Peak))	Allowable exceedance	All Surrounding Sensitive Receivers	115	5% of the total number of blasts in any 12 month period	120	0%	Airblast overpressure monitoring records, notice registration forms for blasting (to be sighted onsite)	The auditor sighted airblast overpressure results from years 2018, 2020, 2021 and 2023 for property ID no. 5. All results doesn’t exceed the upper limit of 120dB(Lin Peak) and the 115 dB(Lin Peak) for 5% of the total number of blasts annually.	Compliant					
Receiver	Airblast overpressure level (dB(Lin Peak))	Allowable exceedance															
All Surrounding Sensitive Receivers	115	5% of the total number of blasts in any 12 month period															
	120	0%															
Ground Vibration Impact Assessment Criteria	<p>31. The Proponent shall ensure that the ground vibration level from blasting at the project does not exceed the levels in Table 4.</p> <p>Table 4: Ground vibration impact assessment criteria</p> <table><tr><th>Receiver</th><th>Peak particle velocity (mm/s)</th><th>Allowable exceedance</th></tr><tr><td rowspan="2">All Surrounding Sensitive Receivers</td><td>5</td><td>5% of the total number of blasts in any 12 month period</td></tr><tr><td>10</td><td>0%</td></tr></table>	Receiver	Peak particle velocity (mm/s)	Allowable exceedance	All Surrounding Sensitive Receivers	5	5% of the total number of blasts in any 12 month period	10	0%	Ground vibration blasting records to be sighted onsite	The auditor sighted ground vibration level results from blasting for years 2018, 2020, 2021 and 2023 for property ID no. 5. All results are below the peak particle velocity criteria of 5 & 10mm/s for this condition.	Compliant					
Receiver	Peak particle velocity (mm/s)	Allowable exceedance															
All Surrounding Sensitive Receivers	5	5% of the total number of blasts in any 12 month period															
	10	0%															
Blasting Hours and Frequency	<p>32. The Proponent shall carry out blasting on site only between 9 am and 3 pm Monday to Friday. No blasting is allowed on weekends and Public Holidays.</p>	Blasting schedules	According to the 2019 AEMR, the EPA was contacted to verify the discrepancy between the operation and blasting hours listed in this approval and the EPL and it was advised that the EPL conditions would apply which is Monday to Saturday, 9:00am to 5:00pm. Blasting records from 2020 to 2023 were sighted by the auditor and confirmed that the time and date of the blasting activities conducted complies with the EPL condition.	Compliant													
	<p>33. The Proponent shall not carry out more than one blast per week on site.</p> <p>Note: In the case of a documented misfire, the Proponent may carry out a second blast in the relevant week.</p>	Blasting schedules	The auditor sighted an excel spreadsheet confirming that currently, the site is conducting blasting activities at least once a year.	Compliant													
Operating Conditions	<p>34. The Proponent shall not undertake blasting within 200 metres of any privately-owned land, unless suitable arrangements have been made with the landowner and any tenants to minimise the risk of flyrock-related impact to the property and to human safety to the satisfaction of the Secretary.</p>		Records of notification for sensitive receivers before blasting operations have been sighted by the auditor. There is a 500m exclusion zone for blasting operations at the quarry.	Compliant													

Condition Number	Requirement	Evidence Sighted	Findings and Recommendations	Compliance Status
Property Inspections	35. Prior to 30 November 2010, the Proponent shall advise all landowners within 500 m of proposed blasting activities, and any other landowner nominated by the Secretary, that they are entitled to a property inspection to establish the baseline condition of the property.	Evidence that the none-compliance in 2018 IEA has been addressed	According to a letter from Council to DPE dated 28 May 2018, there are no properties within a 500 metre buffer of current blasting activities and proposed quarry, so a clarification was sought by the Council regarding this condition.	Not Triggered
	36. If the Proponent receives a written request for a property inspection from any such landowner, the Proponent shall: (a) commission a suitably qualified person, whose appointment has been approved by the Secretary, to inspect and report on the condition of any building or structure on the land, and recommend measures to mitigate any potential blasting impacts; and (b) give the landowner a copy of this property inspection report. Note: It is preferable for the property inspection to be carried out prior to the commencement of blasting activities on the site, and the Proponent should facilitate this occurring wherever possible.			Not Triggered
Property Investigations	37. If any landowner within 500 m of proposed blasting activities, or any other landowner nominated by the Secretary, claims that his/her property, including vibration-sensitive infrastructure such as water supply or underground irrigation mains, has been damaged as a result of blasting at the project, the Proponent shall within 3 months of receiving this request: (a) commission a suitably qualified person whose appointment has been approved by the Secretary to investigate the claim and prepare a property investigation report; and (b) give the landowner a copy of the report. If this independent investigation confirms the landowner's claim, and both parties agree with these findings, then the Proponent shall repair the damage to the satisfaction of the Secretary. If the Proponent or landowner disagrees with the findings of the independent property investigation, then either party may refer the matter to the Secretary for resolution.	Are there any claims for damages to landowners during blasting operations for the past 5 years? If so present investigation records	No landowners claim for damages has been received for this audit period.	Not Triggered
Management of Blasts	38. Prior to 30 November 2010, the Proponent shall prepare and implement a detailed Blast Management Plan for the project to the satisfaction of the Secretary. The Plan must (a) be prepared in consultation with EPA; (b) substantiate blast design to ensure compliance with blast criteria; (c) include protocols for communicating with all neighbouring landholders regarding scheduled blasts; (d) include details of how and at what locations blasting performance would be monitored; and (e) include a blast monitoring protocol for evaluating compliance with the blast criteria in this approval.	Copy of Blast Management Plan	Council submitted a Blast Management Plan (BMP) to NSW Planning & Infrastructure on 17 October 2012, later than the required submission date of 30 November 2010.	Non-Compliant
Continuous Improvement	39. The Proponent shall: (a) implement all reasonable and feasible noise mitigation measures; (b) investigate ways to reduce the noise generated by the project; and (c) report on these investigations and the implementation and effectiveness of these measures in the AEMR, to the satisfaction of the Secretary.	Copy of noise mitigation measures	The auditor sighted 2019 AEMR (section 4.9 Noise and vibration) and noted mitigation and management commitments relating to noise and vibration. Where quarry plant noise is found to exceed the intrusive goal of 35dB (LAeq,15 mins) at affected residences, the plant will be moved or modified to ensure the noise impact from the plant is below 35dB (LAeq,15 mins). There is a mitigation measure to review potential for traffic noise levels once extraction rates exceed 350,000 tpa and scale up (Prior to 2033). The Noise and Vibration Monitoring Plan dated February 2013 was also sighted and contains noise and vibration controls and mitigation measures suitable for the operation of the landfill and quarry facility.	Compliant
Monitoring	40. The Proponent shall prepare and implement a Noise and Vibration Monitoring Program for the project to the satisfaction of the Secretary. The Program must: (a) be prepared in consultation with EPA and be submitted to the Secretary for approval within 6 months of the date of this approval; (b) include annual attended noise monitoring; (c) include traffic noise monitoring at the private resident along Hillside Drive. The Program shall also provide details on how the resident would be provided with the opportunity to have amelioration works done on their property should the monitoring demonstrate that the relevant traffic noise criteria is being exceeded, to the satisfaction of the Secretary; (d) include details of how the noise performance of the project would be monitored; and (e) include a noise monitoring protocol for evaluating compliance with the noise criteria in this approval.	Copy of Noise and vibration monitoring program plan, annual noise monitoring records	This was non-compliant in the 2018 IEA due to the late submission of the Noise and Vibration Monitoring Plan (dated February 2013). At the time the plan was submitted the property referred to in this condition on Hillside Drive is not currently occupied. The dwelling is known to be derelict and not suitable for residential purposes. Therefore, noise and vibration monitoring at this location would not be required at this stage. Should this dwelling be occupied in the future, it is recommended that the noise and vibration monitoring program be updated based on current site operations at that time. Aside from this, all other requirements for this condition are satisfied.	Compliant
Air Quality				

Condition Number	Requirement	Evidence Sighted	Findings and Recommendations	Compliance Status																							
Impact Assessment Criteria	41. The Proponent shall ensure that dust emissions generated by the project do not cause additional exceedances of the criteria listed in Tables 5 to 7 at any residence on privately owned land, or on more than 25 percent of any privately-owned land. <i>Table 5: Long term impact assessment criteria for particulate matter</i> <table><tr><th>Pollutant</th><th>Averaging period</th><th>Criterion</th></tr><tr><td>Total suspended particulate (TSP) matter</td><td>Annual</td><td>90 µg/m³</td></tr><tr><td>Particulate matter < 10 µm (PM₁₀)</td><td>Annual</td><td>30 µg/m³</td></tr></table> <i>Table 6: Short term impact assessment criterion for particulate matter</i> <table><tr><th>Pollutant</th><th>Averaging period</th><th>Criterion</th></tr><tr><td>Particulate matter < 10 µm (PM₁₀)</td><td>24 hour</td><td>50 µg/m³</td></tr></table> <i>Table 7: Long term impact assessment criterion for deposited dust</i> <table><tr><th>Pollutant</th><th>Averaging period</th><th>Maximum increase in deposited dust level</th><th>Maximum total deposited dust level</th></tr><tr><td>Deposited dust</td><td>Annual</td><td>2 g/m²/month</td><td>4 g/m²/month</td></tr></table> <i>Note: Deposited dust is assessed as insoluble solids as defined by Standards Australia, 1991, AS/NZS 3580.10.1-2003: Methods for Sampling and Analysis of Ambient Air - Determination of Particulates - Deposited Matter - Gravimetric Method.</i>	Pollutant	Averaging period	Criterion	Total suspended particulate (TSP) matter	Annual	90 µg/m ³	Particulate matter < 10 µm (PM ₁₀)	Annual	30 µg/m ³	Pollutant	Averaging period	Criterion	Particulate matter < 10 µm (PM ₁₀)	24 hour	50 µg/m ³	Pollutant	Averaging period	Maximum increase in deposited dust level	Maximum total deposited dust level	Deposited dust	Annual	2 g/m ² /month	4 g/m ² /month	Air quality monitoring records for TSP, PM10, deposited dust form 2019 onwards, complaint records	The auditor sighted monitoring results for deposited dust from 2018 onwards. Throughout the audit period there were numerous occasions where the annual average of deposited dust at monitoring stations exceeded the criteria of a maximum of 4g/m2/month. It would appear that no monitoring of suspended particulate matter is being undertaken so it is not possible to determine whether there is compliance with the TSP annual average criterion of 90ug/m3 or the PM10 24hr criterion of 50ug/m3 monitoring conducted during the reporting period, this condition has been assessed as non-compliant. The current Air Quality Monitoring Plan dated 7 November 2019 only proposed monitoring of deposited dust (Table 7). According to the plan, this is considered the most appropriate to examine the potential impacts on the local amenity. The plan stated that negative health impacts due to fine particulate matter typically have an impact radius at a scale of tens of metres rather than hundreds of metres. As the identified receptors are at distances greater than 800 m, it is not considered appropriate to monitor TSP and PM10, unless the monitoring of dust deposition reveals a high level of dust emissions being dispersed from the site. While the auditor sighted DPE approval for the original Air Quality Monitoring Plan dated February 2013, the auditor has not sighted DPE approval of the updated plan dated 7 November 2019 which proposed to monitor PM10 & TSP only when there's exceedances of deposited dust. As there were exceedances of deposited dust in the 2019/2020 reporting, TSP and PM10 should have been monitored as a result of this. It is also recommended that the updated Air Quality Monitoring Plan dated 7 November 2019 (by Northstar Air Quality) be submitted to DPE for approval.	Non-Compliant
	Pollutant	Averaging period	Criterion																								
	Total suspended particulate (TSP) matter	Annual	90 µg/m ³																								
	Particulate matter < 10 µm (PM ₁₀)	Annual	30 µg/m ³																								
Pollutant	Averaging period	Criterion																									
Particulate matter < 10 µm (PM ₁₀)	24 hour	50 µg/m ³																									
Pollutant	Averaging period	Maximum increase in deposited dust level	Maximum total deposited dust level																								
Deposited dust	Annual	2 g/m ² /month	4 g/m ² /month																								
Odour	42. Except as otherwise expressly provided in any Environment Protection Licence condition for the project, the Proponent must comply with section 129 of the POEO Act. Note: • Section 129 of the POEO Act, provides that the Proponent must not cause or permit the emission of any offensive odour from the site, 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.	Odour complaint records for the past 5 years	No odour complaints was received by Council from 2019 until the current date.	Compliant																							
Air Quality Monitoring	43. The Proponent shall prepare and implement an Air Quality Monitoring Program for the project to the satisfaction of the Secretary. This program must: (a) be prepared in consultation with EPA, and be submitted to the Secretary for approval within 3 months of the date of this approval; and	Copy of Air quality monitoring program plan	The original AQMP was dated February 2013, prepared 2 years and 7 months after the project approval.	Non-Compliant																							
	44. The Proponent shall: (b) investigate ways to reduce the dust generated by the project; and	Onsite observation	Council implemented ways to reduce dust emissions onsite. The facility has 5,000 L water cart and a water truck onsite to minimise dust generation. These are replenished from a reticulated townwater supply.	Compliant																							
Continuous Improvement	44. The Proponent shall: (c) report on these investigations and the implementation and effectiveness of these measures in the AEMR, to the satisfaction of the Secretary.	AEMR reports	Sections 2.5.8.1 and 4.11 of the AEMR reports on monitoring results and mitigation measures on air quality/dust.	Compliant																							
REHABILITATION AND LANDSCAPE MANAGEMENT																											
Biodiversity Offset Strategy	45. The Proponent shall implement the Biodiversity Offset Area (BOA) on Lots 181 and 182, DP 756035 including 95.31 ha of 'Inland Grey Box – Poplar Box – White Cypress Pine Tall Woodland', as described in MOD 1 to the satisfaction of the Secretary and in consultation with the EPA, within 1 year of the approval of MOD 1.	Copy of Conservation Agreement between NPWS and Griffith City Council	A Conservation Agreement between the Minister administering the National Parks and Wildlife Act 1974 (NSW) and Griffith City Council for the 'Tharbogang Quarry and Landfill Conservation Agreement was executed on 12 July 2017 and registered on 17 November 2017, for Lots 181 and 182 in DP 756 035. The agreement was not made by 9 May 2013, as required by Sch 3, Cl 46 of this approval.	Non-Compliant																							
	46. Within one year of the approval of MOD 1, unless the Secretary agrees otherwise, Council must provide appropriate long term security for the BOA defined in Condition 45 through one of the following mechanisms: (a) a Conservation Agreement under the National Parks and Wildlife Act 1974; or (b) a Biobanking Agreement under the Threatened Species Conservation Act 1995. The agreement must remain in force in perpetuity.	As above	As above	Non-Compliant																							
	47. The Proponent shall ensure the long term security of the BOA referred to in Conditions 45 and 46, prior to any clearing onsite.		The long- term security of the Biodiversity Offset Area (BOA) was not in place prior to clearing in the location of the Waste Transfer Station.	Non-Compliant																							

Condition Number	Requirement	Evidence Sighted	Findings and Recommendations	Compliance Status
Landscape and Biodiversity Management Plan	<p>48. The Proponent shall prepare and implement a Landscape and Biodiversity Management Plan for the project in accordance with Condition 49 to the satisfaction of the Secretary. This plan must:</p> <p>(a) be prepared by suitably qualified person(s), approved by the Secretary;</p> <p>(b) be submitted to the Secretary for approval within 12 months of the date of MOD 1; and</p> <p>(c) include a:</p> <p>i. Rehabilitation and Biodiversity Offset Strategy Management Plan; and</p> <p>ii. Long Term Management Strategy.</p> <p>Note: The Department accepts that the initial Landscape and Biodiversity Management Plan may not include the detailed Long Term Management Strategy. However, a conceptual strategy must be included in the initial plan, along with a timetable for augmentation of the strategy with each subsequent review of the plan.</p>	Copy of Landscape and Biodiversity Management plan dated April 2013, updated copy titled Biodiversity Management Plan dated 14 May 2021	The original Landscape and Biodiversity Management Plan was lodged to DPE on 12 February 2013. This plan has been updated on 14 May 2021. The updated plan contains the requirements to satisfy this condition.	Compliant
	<p>49. The Rehabilitation and Biodiversity Offset Strategy Management Plan must include:</p> <p>(a) the rehabilitation objectives for the site and offset areas;</p> <p>(b) a description of the measures that would be implemented to:</p> <ul style="list-style-type: none"> • rehabilitate and stabilise the site; • minimise the removal of mature trees; • implement the Biodiversity Offset Strategy; and • manage the remnant vegetation and habitat on the site and in the offset areas; <p>(c) detailed performance and completion criteria for the rehabilitation and stabilisation of the site;</p> <p>(d) a detailed description of how the performance of the rehabilitation of the quarry areas would be monitored over time to achieve the stated objectives;</p> <p>(e) a detailed description of what measures would be implemented to rehabilitate and manage the landscape of the site including the procedures to be implemented for:</p> <ul style="list-style-type: none"> • progressively rehabilitating and stabilising areas disturbed by quarrying; • implementing revegetation and regeneration within the disturbance areas; • protecting areas outside the disturbance areas, including the Biodiversity Offset Strategy areas; • vegetation clearing protocols, including a protocol for clearing any trees containing hollows and the relocation of hollows from felled trees; • managing impacts on fauna, in particular threatened species; • controlling weeds and pests; • controlling access; • bushfire management; and • reducing the visual impacts of the project; <p>(f) a description of the potential risks to successful rehabilitation and a description of the contingency measures that would be implemented to mitigate these risks; and</p> <p>(g) details of who is responsible for monitoring, reviewing, and implementing the plan.</p>	Copy of Rehabilitation and Biodiversity Offset Strategy Management Plan (part of the above)	The updated Biodiversity Management Plan (LBMP dated 14 May 2021) contains: (a) rehabilitation objectives for the site and offset areas - Sections 1.4 & 1.4.1; (b) description of measures for implementation- Sections 4.5 & 6; (c) detailed performance and completion criteria for site rehabilitation and stabilisation - Section 2; (d) detailed description of how the performance of the rehabilitation of quarry areas would be monitored overtime to achieve objectives - Sections 8 & 9; (e) a detailed description of what measures would be implemented to rehabilitate and manage the landscape of the site included the procedures to be implemented - Sections 5 to 11; (f) a description of the potential risks to successful rehabilitation and a description of the contingency measures that would be implemented to mitigate these risks - Section 5; and (g) details of who is responsible for monitoring, reviewing and implementation of the plan - Sections 5 & 8.	Compliant
	<p>49(a). To ensure that the BOA is implemented in accordance with the performance and completion criteria in the Rehabilitation and Biodiversity Offset Strategy Management Plan, Council must secure implementation funds via one of the following mechanisms to the satisfaction of the Secretary:</p> <p>a) a Biobanking Agreement under the Threatened Species Conservation Act 1995;</p> <p>b) lodgement of a conservation bond with the Department;</p> <p>c) a Voluntary Planning Agreement under Section 93F of the EP&A Act;</p> <p>The sum of the funds shall be determined by:</p> <p>i. calculating the full cost of implementing the Rehabilitation and Biodiversity Offset Strategy Management Plan, and</p> <p>ii. employing a suitably qualified quantity surveyor to verify the calculated costs.</p> <p>The funding must be secured within six months of the approval of the Rehabilitation and Biodiversity Offset Strategy Management Plan required by condition 48, unless otherwise agreed to by the Secretary.</p>	Copy of either the Funding Agreement for Biobanking or record of lodgment of a conservation bond with DPE or voluntary planning agreement under EP&A Act	A biobanking agreement was not made, instead the site was protected using a Conservation Agreement. The 17 Nov 2021 site audit by the Biodiversity Conservation Trust indicated that a total indicative cost of \$398,000 was estimated to implement management actions for the 10-year plan. The management of the conservation area is following the agreed management plan and is on track to meet the offset obligation. However, the implementation cost is inconsistent with the LBMP. Section 7 of the updated LBMP states that the cost to implement the RBOSMP plan are estimated to total approximately \$550,000 over the first 9 years during the active management phase (including quarterly and annual reporting and the Flora & Fauna Monitoring Program) and then approximately \$45,000 per year thereafter until completion. This should be clarified and correct cost should be reflected in the updated LBMP.	Non-Compliant
	49(b) The Department notes that if a Biobanking Agreement is implemented for the BOA defined by Condition 45, the requirements of Conditions 45, 46, 48 and 48 (a) are likely to be satisfied. The Department requests that on approval of any Biobanking Agreement, a copy of the agreement is submitted to the Department which includes management and monitoring plans and funding arrangements.		A conservation Agreement was made, so this condition will not be applicable.	Not Triggered
	<p>50. The Long Term Management Strategy must:</p> <p>(a) define the objectives and criteria for quarry closure and post-extraction management;</p> <p>(b) be prepared in consultation with EPA, NOW and DPI;</p> <p>(c) investigate and/or describe options for the future use of the site;</p> <p>(d) describe the measures that would be implemented to minimise or manage the ongoing environmental effects of the project; and</p> <p>(e) describe how the performance of these measures would be monitored over time.</p>	long-term management strategy within the Landscape and Biodiversity Management Plan	The updated LBMP contains the objectives and completion criteria for quarry closure post extraction management in Section 11. The biodiversity offset strategy was originally developed by Eco Logical Australia (ELA) in consultation with Office of Environment and Heritage (former DECCW now DPE). Future land use are outlined in Sections 1-4 and the management and monitoring measures are outlined in Sections 5-11.	Compliant

Condition Number	Requirement	Evidence Sighted	Findings and Recommendations	Compliance Status
Rehabilitation Bond	<p>51. Prior to commencing the projects quarrying operations, the Proponent shall lodge a rehabilitation bond for the project with the Secretary. The sum of the bond shall be calculated at \$1/m2 for the area to be disturbed, which has not been previously disturbed by quarrying, to the satisfaction of the Secretary.</p> <p>Notes:</p> <ul style="list-style-type: none"> • If the rehabilitation works are completed to the satisfaction of the Secretary, the Secretary will release the rehabilitation bond. • If the rehabilitation works are not completed to the satisfaction of the Secretary, the Secretary will call in all or part of the rehabilitation bond, and arrange for the satisfactory completion of the relevant works. 	Record of rehabilitation bond lodgement for quarrying operations if Pits 101 and 103 have commenced operation	Council indicated that they will not going to develop quarry sites in the future.	Not Triggered
Cultural Heritage Management Plan	<p>53. The Proponent shall prepare and implement an Cultural Heritage Management Plan to the satisfaction of the Secretary. This plan must:</p> <p>(a) be prepared in consultation with EPA, OEH and local Aboriginal communities;</p> <p>(b) draw on any relevant recommendations for the management of items of cultural heritage significance as outlined in the Aboriginal and Historical Heritage Assessment report dated February 2010,</p> <p>(c) be submitted to the Secretary for approval, within 6 months of the date of this approval; and</p> <p>(d) include a description of the measures that would be implemented if any new Aboriginal objects or skeletal remains are discovered during the project.</p>	Copy of Cultural Management Plan	<p>The Cultural Heritage Management Plan should have been submitted to the Secretary by 8 October 2010, rather it was submitted 30 April 2013. Four heritage significant items need to be protected such as 2 surveyor scarred trees and 2 speedway signs. Recommendations within the plan noted that the 2 surveyor scarred trees should be entered into the local Council heritage database and heritage listed in the Griffith Local Environmental Plan 2014 (LEP) with a 20m radius development exclusion zone around each tree. Another recommendation is for carefully removing the 2 speedway signs prior to commencement of operations and relocated to Griffith Pioneer Park Museum. These recommendations had not been actioned at the time of the 2018 audit. In this audit (2023), the surveyor scarred trees is still not recorded in the LEP; this should be recorded in the LEP immediately.</p> <p>The speedway signs were not accepted at Griffith Pioneer Museum, instead the signs were sold to a local fellow. An email to Ecoplaning on 6 November 2019, sighted by the auditor confirms the decision by Griffith Pioneer Museum not to accept the signs and a local fellow named Shane Scott picked the speedway signs from the facility.</p>	Non-Compliant
Traffic and Transport	<p>54. The Proponent shall prepare and implement a Transport Management Plan to the satisfaction of the Secretary. This plan must:</p> <p>(a) be prepared in consultation with the RMS;</p> <p>(b) outline measures to manage traffic related issues arising from the landfill and quarry operations;</p> <p>(c) review the standard of the access roads to the site, including Kidman Way;</p> <p>(d) outline ways of managing dust generated from heavy vehicles accessing the site;</p> <p>(e) outlined ways of managing rubbish from vehicles accessing the landfill site; and</p> <p>(f) be submitted to the Secretary for approval, within 6 months of the date of this approval.</p>	Transport Management plan with consultation records with RMS	<p>The Transport Management Plan (TMP) Loading/Unloading/Access-Landfill requirements relate to a time when landfill access was unrestricted and prior to the weighbridge and WTS. Six-monthly inspection of the pavement and associated infrastructure was not documented. The submission date of 17 October 2012 was later than the required 8 October 2010 submission date for the TMP.</p>	Non-Compliant
	<p>55. The Proponent shall upgrade the Auxiliary Right Turn (AUR) treatment at the intersection of Access Road and Kidman Way, within 12 months of operations commencing onsite, in accordance with RTA's Road Design Guide for the prevailing speed limit and the to satisfaction of the RMS.</p>		The Auxiliary Right Turn (ART) treatment at the intersection of Access Road and Kidman Way was upgraded. The design of the AUR treatment was approved by RMS on 20 September 2013.	Compliant
	<p>56. The Proponent shall be responsible for all public utility adjustment/relocation works, necessitated by the above work and as required by the various public utility authorities and/or their agents.</p> <p>Note: The relocation of any underground service within the road reserve will require RMS's concurrence under Section 138 of the Roads Act 1993 prior to the commencement of any works.</p>	What public utility or relocation works happened due to the upgrade?	Council shouldered the cost of the upgraded AUR treatment including the relocation cost of a power pole.	Compliant
Road Haulage	<p>57. The Proponent shall ensure that:</p> <p>(a) all loaded vehicles entering or leaving the site are covered; and</p> <p>(b) all loaded vehicles leaving the site are cleaned of materials that may fall on the road, before they leave the site to the satisfaction of the Secretary</p>	Onsite observation	Loaded vehicles entering and leaving the site was witnessed by the auditor during the site audit and confirms that the requirements of this condition was satisfied.	Compliant
	<p>58. The quarry operator is to record and maintain a log book of the extraction quantities and traffic movements in and out of the site. This log is to be kept on site and be available for inspection at the request of the Department or the RMS.</p>	Logbook of extraction quantities and traffic movements for quarrying operations	Records of traffic movements in and out of the site and extraction quantities (as gravel) are maintained in a database when vehicles are weighed on the facility's weighbridge. The quantity of gravel surveyed is recorded in a 'Quarry Resource Modelling' worksheet sighted by the auditor. These measures are considered satisfactory to meet the requirements of this condition.	Compliant
EMERGENCY AND HAZARDS MANAGEMENT				
Dangerous Goods	<p>59. The Proponent shall ensure that the storage, handling, and transport of fuels and dangerous goods are conducted in accordance with the relevant Australian Standards, particularly AS1940 and AS1596, and the Dangerous Goods Code.</p>	Observe bunding, spill kits		Compliant
Safety	<p>60. The Proponent shall secure the project to ensure public safety to the satisfaction of the Secretary.</p>	Observe buffer zones/proper fencing from outside the premise noting distance from sensitive receivers		Compliant

Condition Number	Requirement	Evidence Sighted	Findings and Recommendations	Compliance Status
Fire Management	60. The Proponent shall: (a) implement suitable measures to minimise the risk of fire on site, including in the landfill area; (b) extinguish any fires on site promptly; (c) maintain adequate fire-fighting capacity on site, in consultation with the rural fire service, including a tanker or water cart with fire fighting capabilities; and (d) assist the rural fire service and emergency services, if safe to do so, if there is a fire on-site.	Onsite fire extinguishers, water carts, fire blanket	Council has enough fire fighting equipment to minimise risk of fire onsite (e.g. water truck, 500L portable water unit that can be loaded at the back of a ute, water tanks) that were sighted by the auditor. Two fire incidents that occurred in January 2019 were extinguished promptly by staff using water cart. RFS was provided a copy of a Pre-Incident Fire Plan dated 23 July 2019 (via email dated 8 May 2023). Due to the mitigation measures sighted, this condition has been considered compliant.	Compliant
Production Data	61. The Proponent shall: (a) provide annual production data to the DPI using the standard form for that purpose; and (b) include a copy of this data in the AEMR.	AEMRs and evidence this has been provided to DPI	AEMRs from years 2019 to 2022 were sighted by the auditor. Production data is included in Section 2.1 of the these AEMRs. Lodgement records to DPE were sighted by the auditor.	Compliant
SCHEDULE 4 ADDITIONAL PROCEDURES				
NOTIFICATION TO LANDOWNERS	1. If the results of monitoring required in schedule 3 identify that impacts generated by the project are greater than the relevant impact assessment criteria, then the Proponent shall notify the Secretary and affected landowners and tenants, and provide quarterly monitoring results to each of these parties until the results show that the project is complying with the relevant criteria.	Notification of any exceedances from 2019 onwards, if triggered provide quarterly monitoring results	The air quality monitoring results indicated that deposited dust exceeded the impact assessment criteria but no records of notification to the Secretary and landowners were sighted by the auditor. No evidence that the quarterly monitoring results has been provided to these parties.	Non-Compliant
INDEPENDENT REVIEW	2. If a landowner of privately-owned land considers that the project is exceeding any of the impact assessment criteria in schedule 3, then he/she may ask the Secretary in writing for an independent review of the impacts of the project on his/her land. If the Secretary is satisfied that an independent review is warranted, the Proponent shall within 3 months of the Secretary advising that an independent review is warranted: (a) consult with the landowner to determine his/her concerns; (b) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Secretary, to conduct monitoring on the land, to determine whether the project is complying with the relevant criteria in schedule 3, and identify the source(s) and scale of any impact on the land, and the project's contribution to this impact; and (c) give the Secretary and landowner a copy of the independent review.	If triggered, copy of independent review	No complaints were received from landowners from 2018, 2019, 2020, 2021 and 2022. This condition is not triggered during the stated years.	Not Triggered
	3. If the independent review determines that the project is complying with the relevant criteria in schedule 3, then the Proponent may discontinue the independent review with the approval of the Secretary.	as above	As above	Not Triggered
	4. If the independent review determines that the project is not complying with the relevant criteria in schedule 3, and that the project is primarily responsible for this non-compliance, then the Proponent shall: (a) implement all reasonable and feasible measures, in consultation with the landowner, to ensure that the project complies with the relevant criteria; and (b) conduct further monitoring to determine whether these measures ensure compliance; or (c) secure a written agreement with the landowner to allow exceedances of the relevant criteria in schedule 3, to the satisfaction of the Secretary. If the additional monitoring referred to above subsequently determines that the project is complying with the relevant criteria in schedule 3, or the Proponent and landowner enter into a negotiated agreement to allow these exceedances, then the Proponent may discontinue the independent review with the approval of the Secretary.	as above	As above	Not Triggered
	5. If the landowner disputes the results of the independent review, either the Proponent or the landowner may refer the matter to the Secretary for resolution. If the matter cannot be resolved within 21 days, the Secretary shall refer the matter to an Independent Dispute Resolution Process (Appendix 3).		As above	Not Triggered
SCHEDULE 5 ENVIRONMENTAL MANAGEMENT, MONITORING, AUDITING & REPORTING				

Condition Number	Requirement	Evidence Sighted	Findings and Recommendations	Compliance Status
Environmental Management Strategy	<p>1. The Proponent shall prepare and implement an Environmental Management Strategy for the project to the satisfaction of the Secretary. This strategy must:</p> <ul style="list-style-type: none"> (a) be submitted to the Secretary for approval prior to operations commencing; (b) provide the strategic framework for environmental management of the project; (c) identify the statutory approvals that apply to the project; (d) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the project; (e) describe the procedures that would be implemented to: <ul style="list-style-type: none"> • keep the local community and relevant agencies informed about the operation and environmental performance of the project; • receive, handle, respond to, and record complaints; • resolve any disputes that may arise during the course of the project; • respond to any non-compliance; and • respond to emergencies; and (f) include: <ul style="list-style-type: none"> • copies of the various strategies, plans and programs that are required under the conditions of this approval once they have been approved; and • a clear plan depicting all the monitoring currently being carried out within the project area. 	Copy of Environmental Management Strategy	An Environmental Management Strategy (EMS) was not sighted by the auditor. An EMS should be prepared for the project.	Non-Compliant
Incident Reporting	<p>2. Within 24 hours of detecting an exceedance of the limits/performance criteria in this approval or the occurrence of an incident that causes (or may cause) material harm to the environment, the Proponent shall notify the Department and other relevant agencies of the exceedance/incident.</p>	Records of notification of monitoring programs exceedances for 2019 onwards, if applicable	Two incident reports were sighted by the auditor. Fires occurred on 21 & 25 January 2019 on an active landfill cell on both occasions. The fires were extinguished by staff by using the water cart and smothering with dirt. Both events were considered minor and not a notifiable pollution events. However air quality monitoring results for the entire auditing period recorded deposited dust exceedances on numerous occasions but no records of notification to the Department and landowners was sighted by the auditor. Due to this, this condition is considered as non-compliant.	Non-Compliant
	<p>3. Within 6 days of notifying the Department and other relevant agencies of an exceedance/incident, the Proponent shall provide the Department and these agencies with a written report that must:</p> <ul style="list-style-type: none"> (a) describe the date, time, and nature of the exceedance/incident; (b) identify the cause (or likely cause) of the exceedance/incident; (c) describe what action has been taken to date; and (d) describe the proposed measures to address the exceedance/incident. 	If triggered, written report	As above	Not Triggered
Annual Reporting	<p>4. Within 12 months of the date of this approval, and annually thereafter, the Proponent shall submit an AEMR to the Secretary and relevant agencies. This report must:</p> <ul style="list-style-type: none"> (a) identify the standards and performance measures that apply to the project; (b) describe the works carried out in the last 12 months, and the works that will be carried out in the next 12 months; (c) include a summary of the complaints received during the past year, and compare this to the complaints received in previous years; (d) include a summary of the monitoring results for the project during the past year; (e) include an analysis of these monitoring results against the relevant: <ul style="list-style-type: none"> • impact assessment criteria/limits; • monitoring results from previous years; and • predictions in the EA; (f) identify any trends in the monitoring results over the life of the project; (g) identify any non-compliance during the previous year; and (h) describe what actions were, or are being, taken to ensure compliance. 	AEMRs and evidence this has been provided to DPE	AEMRs for years 2018, 2019, 2020, 2021 and 2022 were sighted by the auditor and are considered compliant with all the requirements of this condition.	Compliant
Independent Environmental Audit	<p>5. Within 1 year of the date of this approval, and every 3 years thereafter, unless the Secretary directs otherwise, the Proponent shall commission and pay the full cost of an Independent Environmental Audit of the project. This audit must:</p> <ul style="list-style-type: none"> (a) be conducted by a suitably qualified, experienced, and independent team of experts whose appointment has been approved by the Secretary; (b) assess the environmental performance of the project, and its effects on the surrounding environment; (c) assess whether the project is complying with the relevant standards, performance measures and statutory requirements; (d) review the adequacy of any strategy/plan/program required under this approval; and, if necessary, (e) recommend measures or actions to improve the environmental performance of the project, and/or any strategy/plan/program required under this approval. 	This is the second IEA	The previous independent audit report was finalised and submitted to DPE on 24 May 2018. This audit is the second independent environmental audit (IEA) for the facility, carried out 5 years and 3 months after the last IEA.	Non-Compliant
	<p>6. Within 1 month of completion of each Independent Environmental Audit, the Proponent shall submit a copy of the audit report to the Secretary and relevant agencies, with a response to any of the recommendations in the audit report.</p>		The previous onsite audit was conducted 26 March 2018 by Property Risk Australia. The audit report was finalised on 24 May 2018 and emailed to DPE on the same day.	Compliant

Condition Number	Requirement	Evidence Sighted	Findings and Recommendations	Compliance Status
	7. Within 3 months of submitting a copy of the audit report to the Secretary, the Proponent shall review and if necessary revise the: (a) strategies/plans/programs required under this approval; and (b) rehabilitation bond, to consider the: • effects of inflation; • changes to the total area of disturbance; and • performance of the rehabilitation against the completion criteria of the Landscape and Biodiversity Management Plan, to the satisfaction of the Secretary.		The LBMP was updated on 14 May 2021, nearly 3 years after the submission of the 2018 IEA in which revision to the previous LBMP was recommended.	Non-Compliant
ACCESS TO INFORMATION	8. Within 1 month of the approval of any strategies/plans/programs required under this approval (or any subsequent revision of these strategies/plans/programs), or the completion of the audits or AEMR required under this approval, the Proponent shall: (a) provide a copy of the relevant document/s to the relevant agencies and to members of the general public upon request; and (b) ensure that a copy of the relevant document/s is made publicly available on its website and at the site.	Records of revisions of strategies, plans, programs, rehabilitation bonds etc. and evidence that these were provided to DPE	Screenshots of lodgement of monitoring plans, reports and AEMRs to DPE were sighted by the auditor, however it was noted that the updated LBMP dated 14 May 2021 was not yet uploaded to the website. This should be uploaded to replace the previous LBMP.	Non-Compliant
	9. During the project, the Proponent shall: (a) make a summary of monitoring results required under this approval publicly available on its website; and (b) update these results on a regular basis (at least every 6 months).	Review Council's website	Air quality, noise and groundwater monitoring results from 2018 onwards are posted on the Council's website at https://www.griffith.nsw.gov.au/waste-services .	Compliant
Community Education Program	10. The Proponent shall prepare and implement a Community Education Program for the project to the satisfaction of the Secretary. This program must be submitted to the Secretary for approval prior to the commencement of landfill operations in the existing quarry void, and shall at a minimum focus on promoting the: • resource recovery activities provided at the site; • community benefits of composting food and garden waste; and • importance of food waste recovery from all waste streams, but particularly the commercial and industrial waste stream.	Records of implementation for Community education program	The Community Education Program (CEP) has not been started but neither has landfill operations in the existing quarry void. The CEP plan has been submitted to DPE but was assessed to be lacking relevant details, so another contractor has been engaged to redo the plan which is due to be submitted on 31 October 2023.	Not Triggered



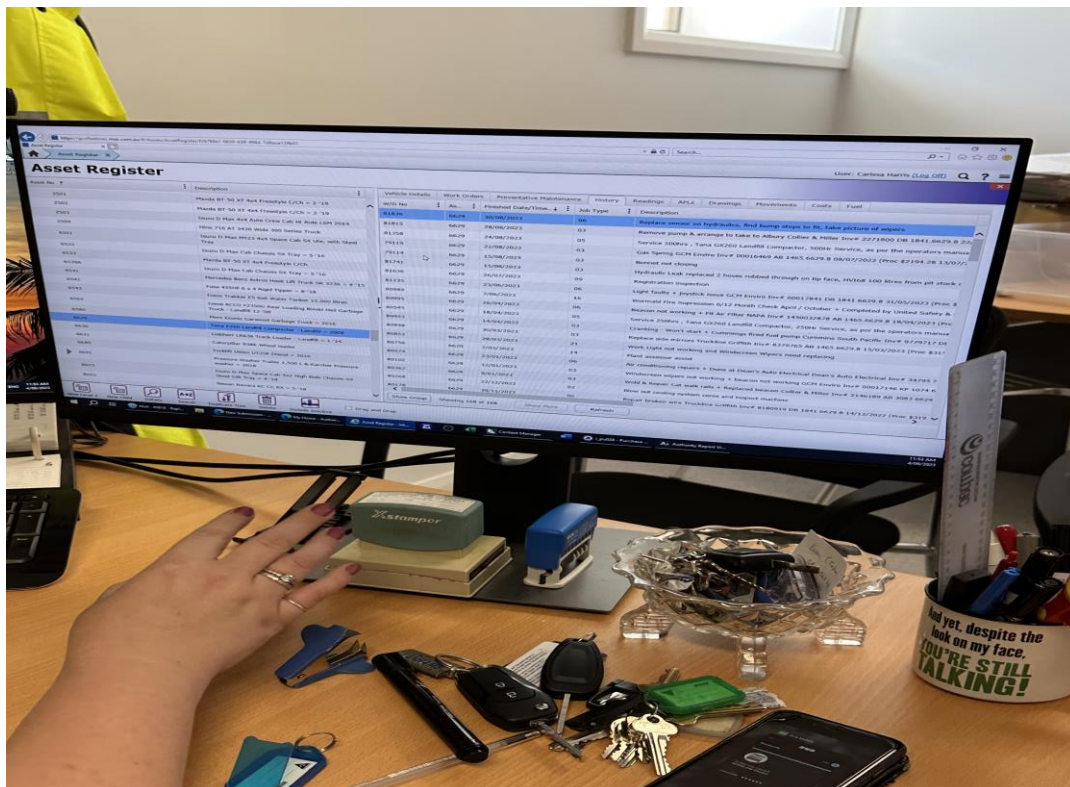
APPENDIX D SITE INSPECTION PHOTOS



Site photos taken on 4 September 2023 unless otherwise specified



Council equipment maintenance depot



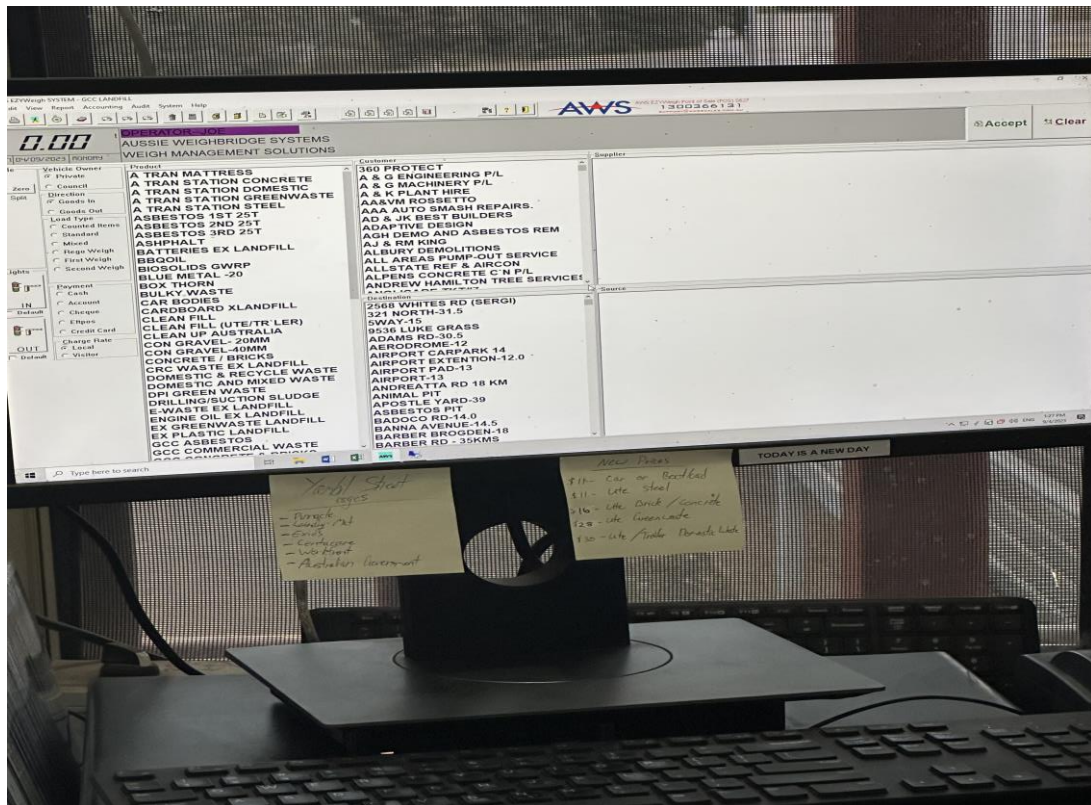
Preventive maintenance database at Council depot



Signage on hours of operation before the site entry gate



Recyclable plastics wastes segregation area



Weighbridge database system





Waste transfer station domestic waste segregation area



Waste transfer station green waste segregation area



Waste transfer station steel waste container



Water cart with sprayer for extinguishing fire and dust suppression



Stored chemicals with bunding



Waste tyres segregation area



Hazardous chemicals storages



Wash truck bay



Water truck for fire and dust suppression



Self-bunded diesel tank



Underground septic tank



The active quarry



The completed landfill cell opposite the active quarry



The active landfill in operation



Wastes being compacted by the end of the day



Perimeter fencing along side boundary



Litter accumulation down the active landfill cell



Rubbish being collected via garbage bags



Dust gauge monitoring within site boundary



Fox bait within the Biodiversity Offset Area (BOA)



Fixing the sign on the surveyor scarred tree



Clean stormwater pond



The existing leachate pond



Prickly pear cactus being destroyed as part of weed control management



Tharbogang Swamp downgradient



Inside the Biodiversity Offset Area



The completed green waste pad (photo taken 24 February 2020)



Current green waste area



Wastes being loaded by contractor for transfer to a licensed facility



Fence broken by members of the public

APPENDIX E

OUTCOME OF AGENCY CONSULTATION




RE: Griffith City Council Tharbogang Landfill and Quarry Independent Environmental Audit (Approval 06_0334) Agency Consultation



Katrina O'Reilly <Katrina.OReilly@planning.nsw.gov.au>

To ● Lilian De Torres

Cc ● Steven Molino; ○ Michael Wood

 If there are problems with how this message is displayed, click here to view it in a web browser.

Caution: External Email.

Good afternoon Lilian,

Further to our phone call this morning please find below areas of focus that the department would like liked at:

- Biodiversity offset area (management of and monitoring)
- Weed and pest management and monitoring
- Processes implemented to cover waste at night
- Progress of actions that were identified in the recent Annual Review
- Update on the progress of Community Program and Feasibility study
- Management and control of any dust, noise and odour issues
- Complaints register and management
- Website up to date with all required documents
- Check Litter on site, check status Litter Management Program and evidence of weekly litter removal.
-
- Update on Landscape and Biodiversity Management Plan and Landfill Operational Environmental Management Plan
- Compliance with all commitments within the management plans

Agencies to be consulted:

WaterNSW

DPI

EPA

BCD

Regards


Katrina

RE: Griffith City Council Tharbogang Landfill and Quarry Independent Environmental Audit (Approval 06_0334) Agency Consultation



Nick Van Lijf <Nicholas.VanLijf@epa.nsw.gov.au>

To ● Lilian De Torres

 If there are problems with how this message is displayed, click here to view it in a web browser.

Hi Lilian,

Thank you for your email seeking input from the NSW Environment Protection Authority (EPA) on the upcoming Independent Environmental Audit for the Griffith City Council Tharbogang Landfill and Quarry facility.

We have reviewed information provided and recommend the scope of the audit include the following, where relevant –

- Assessment of current and any future planned leachate storage and management systems;
- Assessment of dust controls implemented at the premises;
- Assessment of controls and/or procedures to prevent windblown litter from leaving the premises; and
- Assessment of compliance with landfill waste compaction rates.

We note that the audit is scheduled for 4-5 September 2023.

If you have any further enquires about this matter please do not hesitate to contact me.

Kind regards,

Nick van Lijf

A/Unit Head – Operations

NSW Environment Protection Authority

T 02 6969 0704

Our ref: OUT23/14281

Lilian De Torres

lilian.detorres@watertech.com.au

31 August 2023

Subject: **Tharbogang Landfill and Quarry Independent Environmental Audit**

Dear Lilian De Torres

I refer to your request seeking advice from the Department of Planning and Environment – Water (the department) on an upcoming audit for the above matter. It is understood this consultation is in accordance with conditions of approval for the project.

The department understands that the scope of the audit as outlined under the development consent and the reference guideline, “*Independent Audit Post Approval Requirements (2020)*” extends to at least the following:

- Identification of compliance requirements and documentation of any non-compliances.
- Assessment of the adequacy and implementation of management plans and sub plans.
- Assessment of compliance against relevant regulatory requirements and legislation.
- Assessment of compliance between actual and predicted impacts in the environmental assessment.
- Reporting requirements for management plans.
- Identification of strengths of the project in environmental management and opportunities for improvement.

The department requests that the audit address compliance with the following specific elements of the consent conditions and related legislative requirements in a manner consistent with the above audit scope:

- The requirement to prepare and implement management plans that relate to water sources and their dependent ecosystems and users, and associated impact management and mitigation. These plans may include:
 - Water Management Plans and related sub-plans eg. Site Water Balance, Erosion and Sediment Control Plan, Stormwater Management Plan, Surface and Groundwater Management Plan.
 - Extraction Plans and related sub-plans eg. Water Management Plan, Subsidence Management Plan.
- The requirement to prepare and implement trigger action response plans for water source impacts which set clearly defined limits and actions. This is to be reported on within annual and exceedance based reporting.
- Water supply availability is clearly defined for the project.
- Water take at the site via storage, diversion, interception or extraction is clearly documented and is authorised by a relevant Water Access Licence or exemption under the Water Management (General) Regulation 2018.
- Water metering at the site is in accordance with the NSW Non-Urban Metering Framework where relevant.

Department of Planning and Environment

- Water Access Licence/s used to account for water take by the project nominates the work where the water is being taken from.
- Annual reporting clearly documents; 1) water take, use and water source impacts, 2) compares results with previous year's, and 3) identifies exceedances and how these are managed/mitigated.

Should you have any further queries in relation to this submission please do not hesitate to contact DPE Water Assessments at water.assessments@dpie.nsw.gov.au

Yours sincerely,

A handwritten signature in black ink, appearing to read "S. Francis", with a long horizontal stroke extending to the right.

Simon Francis

Senior Project Officer
Water Assessments
Department of Planning and Environment – Water



Melbourne

15 Business Park Drive
Notting Hill VIC 3168
Telephone (03) 8526 0800

Sydney

Suite 3, Level 1, 20 Wentworth Street
Parramatta NSW 2150
Telephone (02) 9354 0300

Brisbane

Level 5, 43 Peel Street
South Brisbane QLD 4101
Telephone (07) 3105 1460

Adelaide

1/198 Greenhill Road
Eastwood SA 5063
Telephone (08) 8378 8000

Perth

Ground Floor, 430 Roberts Road
Subiaco WA 6008
Telephone (08) 6555 0105

New Zealand

7/3 Empire Street
Cambridge New Zealand 3434
Telephone +64 27 777 0989

Wangaratta

First Floor, 40 Rowan Street
Wangaratta VIC 3677
Telephone (03) 5721 2650

Geelong

51 Little Fyans Street
Geelong VIC 3220
Telephone (03) 8526 0800

Wimmera

597 Joel South Road
Stawell VIC 3380
Telephone 0438 510 240

Gold Coast

Suite 37, Level 4, 194 Varsity Parade
Varsity Lakes QLD 4227
Telephone (07) 5676 7602

watertech.com.au

Action Plan

Action Plan				
Item	EA Ref Schedule Number	Action Item Description	Action to be taken	Councils Action
1.	Sch2, CL 6	Council has not surrendered Consent 78/91 issued on 24 December 1991 pursuant to Section 4.63 of the Environmental Planning and Assessment Act 1979	Council Should lodge a surrender application to DPE. This can be done in the form of a post approval application to the DPE via the Major Projects Planning Portal.	Council is currently working with the DPE officer to resolve this. Letter to be submitted the form Via DPE portal ASAP.
2.	Sch2, CL 8(b)	Council has received more than 35,000 tons of waste in a year.	Council should implement procedure to prevent the waste limit is not exceeded	<p>This is a bit ambiguous It is my understanding that this Project Approval covers the new landfill development not the existing. Would it be possible to have this verified?</p> <p>The current EPL states that there are no limitations on waste disposal (see appendix). I'm currently verifying this with the EPA.</p> <p>Council will track the total amount of waste entering into Landfill through the Weighbridge Software. This will be monitored from the 1/1 to the 31/12. A threshold will be set and notification will be provided to me when this threshold is reached. Priority capacity will be provided to the Domestic Collection services. Council is currently working with software company to develop such capabilities. It is important to note that Council is actively assessing the viability of adding third bin (FOGO) service. Which by all accounts will reduce the MSW tonnes of waste into Landfill.</p> <p>See appendix for details</p>

3.	<i>Sch2, CL 8(b)</i>	Council has received waste sludges without tracking documentation and which was not allowed to be received at the site	Council should review its procedures to prevent the acceptance of waste which are not allowed to be disposed of at site.	<p>I have sent an email to the EPA to get a ruling whether this type of waste, "Vacuum Truck" by product falls into the Waste Sludge category.</p> <p>There is nothing on the EPL saying that this was is excluded.</p> <p>If I get verification from the EPA that it does fall under the Waste Sludge Category, then it will cease to be accepted it at TWMC.</p>
4.	<i>Sch3 Cl 7(e)</i>	Compaction rates did not meet EPL requirements	Council should review its compaction equipment and procedures ensure it meets required compaction rates	<p>Landfill Void Modelling undertaken in 2022 and 2023 shows the compaction rate at .9t/m3 and .8t/m3 respectively.</p> <p>The EPL states that the average compaction rate should be no lower then .65t/m3.</p> <p>I have attached the two relevant pages from the void modelling studies.</p> <p>See appendix for details</p>
5.	<i>Sch3 Cl 9(c)</i>	Litter is being cleared on an ad hoc basis	Regular litter surveillance and removal needs to be established	<p>Better record keeping of the rubbish collection on site.</p> <p>Process to be developed with staff.</p>
6.	<i>Sch3 Cl 18(a) and 18(c)</i>	The existing leachate ponds do not have a leachate barrier system which complies with EPL specifications.	Council should construct new leachate pond in accordance with the EPL specifications.	<p>Detail design has been finalised for the construction of a leachate pond that will cater for the existing landfill and new landfill.</p> <p>The design plans are too large to attach to this document but it DPE would like to see them then that can be arrange.</p> <p>There is a large stockpile of suitable product quarantined on site for the purposed of pond construction.</p> <p>The new leachate pond requires high voltage power. Waiting for Essential Energy approval on the High-Power extension.</p> <p>Once that approval is given from Essential Energy then a contractor can be engaged to carry out the extension work.</p> <p>Then the construction works can be tendered</p>

7.	<i>Sch3 Cl 41</i>	Deposited dust is regularly exceeding mandated limits	Council should investigate why dust limits are been exceeded and implanted getter control to manage emissions	Council to engage a specialised consultant to provide advice in this area.
8.	<i>Sch3 Cl 49(a)</i>	LMBP does not reflect implantation cost is Conservation Agreement	LBMP needs to be updated to reflect correct costings.	<p>The need to change Sch3 49 (a) was identified by Council and Lindsey Blecher Team Leader Industry Assessments. Due this being an administrative change to the Project Approval it has been included with the currently lodged third Modification.</p> <p>Once this modification has been approved then the revised LMBP that is sitting with DPE can be approved as well.</p> <p>See appendix for the details</p>
9.	<i>Sch3 Cl 53</i>	The actions in the Cultural Heritage Management Plan have note all been implemented	Council should now take cation to record the surveyor scarred tree into the Councils heritage database and in the LEP.	<p>The review of the LEP is a two-stage process. Stage 1. The Review of the Residential Land which occurred in 2023. Stage 2. Is the review of the Employment Land and this will be occurring in 2024.</p> <p>The Employment Land review is where the Scarf Tree will be added to the LEP and Heritage data base.</p> <p>This was confirmed with Councils Planning & Environment Manger, see attached email.</p>
10.	<i>Sch4 Cl 1, Sch5 Cl 2</i>	The Secretary, relevant agencies and affected landholders have not been notified when deposited dust criteria have been exceeded.	Council should notify the Secretary, the EPA and affected landowners when deposited dust thresholds are exceeded.	<p>Notification will be sent to the Secretary, the EPA and affected landowners. I just have to clarify who to notify in the DPE. I have contact details for the EPA and the surrounding neighbours.</p> <p>The is an annual Air Quality report carried out which summaries the analysed results over the 12-month period.</p> <p>Also, as soon at the monthly analysed results come in the document is updated on Councils Waste Web page.</p> <p>See appendix for the details</p>

11.	<i>Sch 5 Cl 1</i>	Council has not prepared an Environmental Management Strategy (EMS) for this project.	An EMS should now be prepared for the project. Ensure that the EMS satisfy the requirements of Sch 5 Cl1 (a) – (f)	Council will engage a contractor to produce this document, this process has commenced.
12.	<i>Sch 5 Cl 8</i>	The current LBMP is not on Council's Website	Council should upload the current LBMP	This is currently on the Waste Web Page. See appendix for Web Address

Environment Protection Licence



Licence - 5875

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
Extractive activities	Extractive activities	> 30000 - 50000 T annually extracted or processed
Waste disposal (application to land)	Waste disposal by application to land	Any capacity

A2 Premises or plant to which this licence applies

- A2.1 The licence applies to the following premises:

Premises Details
THARBOGANG RECYCLING AND WASTE DISPOSAL FACILITY
HILLSIDE DRIVE
THARBOGANG
NSW 2680
LOT 202 DP 756035

A3 Information supplied to the EPA

- A3.1 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:

- 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
- the licence information form provided by the licensee to the EPA to assist the EPA in connection with the issuing of this licence.

- A3.2 The Tharbogang Recycling and Waste Disposal Facility Landfill Environment Management Plan by RE Barton and dated 31 December 1997. is not to be taken as part of the documentation in A4.1, other than those parts specifically referenced in this licence.

3 Landfill Void Space and Lifespan Calculations

Using the final fill profile in combination with the two latest topographical surveys, undertaken in May 2022 and July 2019, Talis prepared 3-D models of the landfill void beneath the proposed top of waste fill profile. The following sections outline the lifespan and material balance calculations determined from the drawings and waste generation model.

3.1 Void Space Modelling

Void space modelling has been undertaken to determine the available filling capacity for the Site using the calculated waste projections outlined in Section 2.1. The results can be used to project key capital works over the various financial years going forward. This will also assist GCC with future budgeting works and ensure continued operations at the Site to cater for the communities' disposal requirements.

For the purposes of this modelling, the worst-case scenario must be considered where there is no introduction of significant waste diversion programs that would diminish the tonnages delivered to Site for disposal. Discussions with GCC showed that no additional cover material was imported or used at the Site, with C&D waste used to construct cell bunds and as daily cover. Therefore, the cover material requirement was set at 0% for the Site, and the compaction rate of 1.09t/m³ was determined from the total waste input and total void consumed between the two surveys. The approximate landfills void space and estimated lifespan using these inputs are presented in Table 3-1.

Table 3-1: Estimated Landfill Lifespan

Aspect	Value
Compaction Rate (t/m ³)	1.09
Cover Material (%)	0%
Total Remaining Void (m ³)	310,042
Waste Requiring Reprofiling (m ³)	13,256
Calculated Cover Material Requirement (m ³)	0
Total Remaining Void for Waste (m ³)	296,786
Approximate Closure Date	January 2031
Approximate Years of Life Remaining	8.6

It is estimated that there is approximately 296,786m³ of void space remaining for the existing waste mass, giving an estimated remaining landfill lifespan of approximately 8.6 years.

It should be noted that the cover soils usage and compaction density are significantly changed from the estimated target values outlined in the Site's Closure Plan, which were set at 10% cover soils and 0.65t/m³. Examination of waste data revealed that the calculated density is likely larger than expected due to the large amount of C&D waste within the incoming waste stream.

The Site lifespan and void consumption rates are highly sensitive and should be recalculated regularly, particularly if changes occur to the following aspects:

- Waste inputs, including the amount of waste and if any additional waste streams are added to the landfill (such as greenwaste);
- The composition of the input waste, specifically if there is a significant change in the proportion of C&D wastes;

3 Landfill Void Space and Lifespan Calculations

Using the final fill profile in combination with the latest topographical surveys, undertaken in June 2023 and May 2022, Talis prepared 3-D models of the landfill void beneath the proposed top of waste fill profile. The following sections outline the lifespan and material balance calculations determined from the drawings and waste generation model.

3.1 Void Space Modelling

Void space modelling has been undertaken to determine the available filling capacity for the Site using the calculated waste projections outlined in Section 2.1. The results can be used to project key capital works over the various financial years going forward. This will also assist GCC with future budgeting works and ensure continued operations at the Site to cater for the communities' disposal requirements.

For the purposes of this modelling, the worst-case scenario must be considered where there is no introduction of significant waste diversion programs that would diminish the tonnages delivered to Site for disposal. Discussions with GCC determined that the use of daily cover is not required at the Site, and C&D waste is used to construct cell bunds. Therefore, the cover material requirement was set at 0% for the Site. The compaction rate of 0.8t/m³ was calculated by determining the tonnages of waste disposed at the landfill divided by the airspace consumed between surveys, as shown in the formula below:

$$\text{Density} \left(\frac{t}{m^3} \right) = \frac{\text{Waste Input (t)}}{\text{Airspace Consumption (m}^3\text{)}} = \frac{37,045}{46,256} = 0.8 \text{ t/m}^3$$

The approximate landfill void space and estimated lifespan using these inputs are presented in Table 3-1.

Table 3-1: Estimated Landfill Lifespan

Aspect	Value
Compaction Rate (t/m ³)	0.8
Cover Material (%)	0%
Total Remaining Void (m ³)	276,303
Waste Requiring Reprofiling (m ³)	25,773
Calculated Cover Material Requirement (m ³)	0
Total Remaining Void for Waste (m ³)	250,530
Approximate Closure Date	May 2029
Approximate Years of Life Remaining	5.8

It is estimated that there is approximately 250,530m³ of void space remaining for the placement of waste, giving an estimated remaining landfill lifespan of approximately 5.8 years.

It should be noted that the cover soils usage and compaction density are significantly changed from the estimated target values outlined in the Site's Closure Plan, which were set at 10% cover soils and 0.65t/m³. Examination of waste data revealed that the calculated density is likely larger than expected due to the large amount of C&D waste within the incoming waste stream.

The Site lifespan and void consumption rates are highly sensitive and should be recalculated regularly, particularly if changes occur to the following aspects:

Modification Report*Tharbogang Quarry and Landfill – Increased annual extraction and stockpiling*

Component of proposed works to form Pit 103	Volume of excess cut to be Stockpiled (m ³)	Estimated quantity of material to be Stockpiled (tonnes) based on a bulk density (loose rock) of 1.6t/m ³
Stockpile 2	54 074m ³	86,518
Retention basin	1 882m ³	N/A
Total	158,462.232	262,736 tonnes

3.1.3 Modified works - Amendment to condition 49(a)

Due to the unavailability of offset options in condition 49(a) a) through c) it is suggested that DPE consider removing the sub-conditions. Condition 49(a) currently reads as follows:

49(a) To ensure that the BOA is implemented in accordance with the performance and completion criteria in the Rehabilitation and Biodiversity Offset Strategy Management Plan, Council must secure implementation funds via one of the following mechanisms to the satisfaction of the Secretary:

- a) a Biobanking Agreement under the *Threatened Species Conservation Act 1995*;
- b) lodgement of a conservation bond with the Department;
- c) a Voluntary Planning Agreement under Section 93F of the EP&A Act;

The sum of the funds shall be determined by:

- i. calculating the full cost of implementing the Rehabilitation and Biodiversity Offset Strategy Management Plan, and
- ii. employing a suitably qualified quantity surveyor to verify the calculated costs.

It is proposed following consultation undertaken with DPE on 22 February 2023 (refer to Section 5.2) that options a) through c) above are removed, and instead less prescriptive requirements are included due to the unavailability of offset options a) through c). Alternative wording of the condition is now suggested as follows (changed indicated in *purple italics*):

49(a) To ensure that the BOA is implemented in accordance with the performance and completion criteria in the Rehabilitation and Biodiversity Offset Strategy Management Plan, Council *must demonstrate to the satisfaction of the Planning Secretary that sufficient funds have been committed for the completion of these works.*

The modification above remains consistent with the approved project, however it removes requirements that are no longer reflected in 2023 legislation.

3.2 Modification summary table

Table 3-3 summarises the key components of the Tharbogang quarry and landfill and the proposed modification.

Item 9

Inbox - John.Roser@griffith.nsw.gov.au - Outlook

File Home Send / Receive Folder View Help Content Manager Tell me what you want to do

New Email New Items Ignore Clean Up Delete Archive Reply Reply All Forward Meeting IM More Share to Teams RAMJO Team Email Reply & Delete To Manager Done Create New Move Rules OneNote Assign Policy Unread/Read Categorize Follow Up Browse Groups Search People Address Book Filter Email Find Read Aloud Speech Get Add-ins Add-ins Viva Insights Add-in

> Search Current Mailbox Current Mailbox

All Unread By Date ↑

Leeanne Pratt
RE: Immix Steel Recycling
Thanks John I will let you know when
2:39 PM

Megan Bugge
9928045 - Commercial Audit - 16-24 ...
Hi John I have just been on the
2:29 PM

admin@griffith.nsw.gov.au
New CRM Task: 139653/2023 Waste ...
Customer Request 139653/2023:
1:15 PM

Toby Warren
RE: New CRM Task: 139642/2023 IT ...
No problem, done. Thanks. Toby
11:57 AM

Joshua Mulvogue
Vac Truck Slurry Disposal Fee
Hi John, We are looking to complete
10:04 AM

elementTIME
#[2023111299951720093225] - Looks ...
9:33 AM

elementTIME
#[2023111299951410093222] - These ...
9:33 AM

Michael Wood
Tharbogang landfill and quarry facil...
Hi John,
9:10 AM

Kaitlyn McLean
RE: Road Closure Notice - Clearsky C...
Please note: the road closure for
8:44 AM

Scott McKinnon
Christmas Lunch
For those haven't responded, don't
7:41 AM

Yesterday

Carel Potgieter
RE: Scar Trees
Hi John No worries I spoke to Kelly
Tue 4:25 PM


Personal Assistant to the GM...
Minutes from SMT Operational on ...
Hi John You d be aware of this one
Tue 3:56 PM

Nick Van Lief

To: John Roser
Cc: Kelly McNicol

Hi John
No worries I spoke to Kelly and it is on his list for the LEP review for employment lands next year.
Regards Carel

Carel Potgieter
Planning & Environmental Manager
p 02 6969 4847 | m 0438 296 277

 Griffith City Council
a 1 Benerambah Street Griffith NSW 2680
p PO Box 485 Griffith NSW 2680
w griffith.nsw.gov.au

Griffith City Council acknowledges and respects the Wiradjuri people as the traditional custodians and ancestors of the land and waters where we work.

OUR CORE VALUES

- WE ARE RESPECTFUL
- WE ARE SUSTAINABLE
- WE ARE A TEAM
- WE ARE PROACTIVE
- WE ARE COMMUNICATORS

From: John Roser <John.Roser@griffith.nsw.gov.au>
Sent: Tuesday, 28 November 2023 3:48 PM
To: Carel Potgieter <Carel.Potgieter@griffith.nsw.gov.au>
Subject: FW: Scar Trees

Hi Carel

Could you please send though (or point me in the right direction) of the amendments to the LEP that include the Scar Trees. As stated below

I have had another Independ Environmental Audit and this is on the action plan again.

Waste and Recycling Services Calendar 2023
Multilingual Recycling Information Brochure
Recycling Bin Information
Recycling Collection Map - Monday
Recycling Collection Map - Tuesday
Recycling Collection Map - Wednesday
Recycling Collection Map - Thursday
Recycling Collection Map - Friday

Tharbogang Waste Management Centre Management Plans

Waste Monitoring Program
Waste Screening & Tracking Program
Landfill & Environmental Management Plan
Soil, Water & Leachate Management Plan
Noise & Vibration Monitoring Program
Air Quality Monitoring Program
Transport Management Plan
Cultural Heritage Management Plan
Landscape & Biodiversity Plan
Blast Management Plan
Pest Animal Control Plan
Weed Control Plan

Project Approval Reporting

Annual Offset Monitoring Report - 2017
Annual Offset Monitoring Report - 2018
Annual Offset Monitoring Report - 2019
Annual Offset Monitoring Report - 2020
Annual Offset Monitoring Report - 2021
Annual Offset Monitoring Report - 2022

Annual Environmental Management Report 2017
Annual Environmental Management Report 2018
Annual Environmental Management Report 2019
Annual Environmental Management Report 2020
Annual Environmental Management Report 2021
Annual Environmental Management Report 2022

Related Information

Waste Services

Asbestos Handling and Removal
Landfill Virtual Tour
Landfill Charges
Community Recycling Centre
Waste Charges



