

21 December 2021

Our ref: 754-ENAUABTF00751AB_L15

Huntingdale Estate Nominees Pty Ltd C/- Sterling Global
Level 50, Rialto South Tower
525 Collins Street
Melbourne VIC 3000

Attention: Simon Hicks

Dear Simon,

Domains 2a, 3a, 3b and 5 Preload - Information in Support of Planning Permit

1. INTRODUCTION

Talbot Road Finance Pty Ltd C/- Sterling Global (Sterling Global) has engaged Tetra Tech Coffey Pty Ltd (Coffey, formerly trading as Coffey Environments Australia Pty Ltd) to provide ongoing environmental and geotechnical services in support of the proposed Talbot Village redevelopment at 1221 to 1249 Centre Road, Oakleigh South, Victoria (the site).

As part of ongoing environmental and geotechnical support, Sterling Global requested that Coffey provide information in support of a proposed planning permit application to Monash City Council (Council) for pre-load stockpiling works in Domains 2a, 3a, 3b and 5.

The extent of the proposed preload stockpiling works is outlined in Figure 1 (**Attachment A**).

2. BACKGROUND

An application for a planning permit is being made to Council to allow the extension of the existing preload stockpile in Domains 2a, 3a, 3b and 5 to as close as practicable to the edges of the former backfilled quarry pit extent in order to apply a more uniform load across the pit edges.

These works are outlined in the following document prepared by Coffey:

- Coffey (2021) *Talbot Village, Oakleigh South Preload Design Report - Domains 2a, 3a, 3b and 5*. Ref: 754-GEOTABTF09257AA-EH. 22nd December 2021.

This letter should be read in conjunction with the preload design report.

The Domains 2a, 3a, 3b and 5 preload is the second stage of proposed preloading works at the site. Works for the first stage comprising Domain 1 (Zone 1) preloading works are outlined in planning permit application TPA/53179.

The term 'Domains' in the context of this planning permit relates to areas of the site grouped by similar geotechnical ground conditions, whereas site 'Zones' relate to environmental conditions and associated management requirements. Geotechnical Domains 2a, 3a, 3b and 5 are located in environmental Zones 2, 3 and 5.

The location of the geotechnical domains overlain with the SoEA zones is outlined in Figure 2 (**Attachment A**).

3. ENVIRONMENTAL AUDIT

A Section 53X Environmental Audit of the site was completed in May 2020 by Mr Ken Mival of EHS Support Pty Ltd¹ in support of the proposed site redevelopment (EPA CARMS reference: 70403-2 and Service Order Number: 8004092).

The audit found that the site was suitable for sensitive (residential) uses subject to a number of conditions as outlined in the Statement(s) of Environmental Audit (SoEA). Three (3) individual SoEA were issued for different areas of the site based on the environmental conditions and associated management requirements, comprising:

- Zone 1 and Zone 2A.
- Zone 2, Zone 3, and Zone 5.
- Zone 4 and Zone 4A.

The preload stockpiling works proposed under this planning permit application in Domains 2a, 3a, 3b and 5 are located in the SoEA area for Zone 2, Zone 3 and Zone 5.

The SoEA for Zone 2, Zone 3 and Zone 5 includes the following Condition (5):

- *The CEMP and CDSMM prepared by Coffey Services Australia Pty Ltd attached to this Statement, also must be adhered to prior to the commencement of construction and followed in detail regarding the proposed staging; the location of required gas protection measures (i.e. gas pathway intervention and building/ services protection measures); and required continuing monitoring of landfill gases.*

The reference in the SoEA to the CEMP prepared by Coffey Services Australia Pty Ltd, is the *Construction Environmental Management Plan* (Coffey 2020) prepared in support of the Environmental Audit. No specific management measures are required in the SoEA and CEMP for pre-load stockpiling works in Zones 2, 3 and 5.

The CEMP includes landfill gas (LFG) monitoring requirements under current site conditions, as outlined in the Stage 1 Landfill Gas Monitoring Plan (Coffey 2020) which is a subplan to the CEMP.

The monitoring plan includes the following requirements in relation to LFG:

- *Provide on-going landfill gas monitoring across the site prior to commencement of pre-loading in Zone 1, during filling of the Zone 4 quarry void and/or prior to commencement of detailed design (Stage 2) and Stage 3 (Civil) construction works.*
 - *The monitoring will provide ongoing information with regards to the characteristics of landfill gas under current site conditions and any changes that may occur (i.e. as a result temporal or climactic conditions).*

In accordance with the CEMP, LFG (and groundwater) monitoring is required across the site on a biannual basis (~every 6 months). Results of the monitoring are verified by an appointed environmental auditor and provided to EPA annually.

¹ EHS Support (2020) *53X Environmental Audit of Land at 1221-1249 Centre Road and 22 Talbot Avenue, Oakleigh South, Vic*, Ref. AUS##C01679_2019, dated 13 May 2020

In addition to the requirements outlined within the SoEA EPA Victoria (EPA) has issued a Clean Up Notice (CUN) (Notice ID: 90011712) to enforce the statement conditions relating to implementation of the CEMP (Coffey 2020). The CUN addresses ongoing LFG monitoring requirements at the site under current conditions (prior to redevelopment) including proposed preloading works in Zone 1 (Domain 1).

The SoEA and associated CEMP do not include any specific LFG monitoring requirements with regards to preloading works in Zones 2, 3 and 5 (Domains 2a, 3a, 3b and 5). The majority of these site areas have previously been subject to preloading, the potential environmental effects of which were assessed during the environmental audit.

It should be noted that the construction of a temporary (or permanent) boundary venting system at the north western site boundary is required prior to any preloading works in Zone 1 as a condition of the SoEA for Zone 1 and Zone 2A and the EPA CUN. Specific LFG monitoring requirements also apply for these Zone 1 preloading works. This information is outlined in more detail in the separate planning permit application for the Zone 1 pre-load (TPA/53179).

4. ENVIRONMENTAL CONDITIONS AND IMPACT OF PROPOSED WORKS

The findings of the environmental audit indicate that the potential for off-site landfill gas migration to occur in Zone 3 and 5 is low given the absence of identified sources of LFG in these areas, which have primarily been filled historically with low permeability slimes.

The ground gas conditions of Zone 2 are characterised by elevated methane and carbon dioxide concentrations but with generally very low flow rates (<0.5 L/hr). The elevated LFG concentrations in this area of the site are likely to be associated with the presence of a distinct layer of construction and demolition waste (including at least a component of organic material, timber etc.) previously imported to the site in the 1990s as a bridging layer for the slimes. Given the relatively shallow nature and source of the wastes in Zone 2, low permeability of the underlying slimes and low rates of LFG generation, any migration of LFG in this area is likely to occur due to diffusive processes. Under these conditions any LFG would be expected to attenuate prior to reaching the site boundary and is unlikely to pose an unacceptable risk to off-site receptors.

Higher LFG risks have been identified in Zone 2A located at the north-western boundary of Zone 2, as such this area has been designated as a separate *sub zone* to be managed in the same SoEA as the Zone 1 landfill area. The LFG risks in this area are associated with a distinct zone of high permeability subsurface geology that abuts the landfill area in Zone 1. Conditions in Zone 2A are not considered relevant to the planning permit application given that the identified source of LFG in Zone 2A is migration from Zone 1 and based on the distance of Zone 1 / 2A from the works area (see Zone 3 and 5 considerations below).

No detectable methane concentrations were recorded within boundary bores in Zones 2, 3 and 5 during the environmental audit and gas concentrations dropped relatively quickly with distance from the waste mass (in Zone 2).

The main consideration associated with LFG migration in Zones 3 and 5 relates to the potential for lateral gas migration from the former landfill area in Zone 1. However, this is generally confined to the potential development of these internal areas of the site (building construction). Given the distance from the works areas to the former landfill in Zone 1, LFG migration processes (restricted to diffusion and barometric pumping) and subsurface conditions (no indication of extensive zone of high permeability material extending to site boundary), off-site migration of LFG generated in Zone 1 to the north and east of Zone 3 and east of Zone 2 and Zone 5 is considered unlikely.

Considering the LFG conditions in Zones 2, 3 and 5 it is unlikely that the preload stockpiling works proposed under this planning permit would have any measurable negative affect on LFG migration at the site and pose

a risk to off-site receptors (either to properties immediately adjacent to the works or in other areas surrounding the site). Preloading works may have a positive affect in this area, by reducing the permeability of the ground below the preload.

Coffey note that there is potential that preloading works in Zone 1 (TPA/53179) may have an effect on LFG migration at the site but consider that this is appropriately addressed in the SoEA and associated monitoring and management requirements to be implemented during the works (e.g. landfill gas venting trench). Whether the Zone 1 preloading works occur prior to or following the works proposed under this planning permit application the associated monitoring requirements are considered appropriate (i.e. are unaffected by works under this planning permit application).

5. ENVIRONMENTAL MONITORING

Whilst the proposed preloading works are considered unlikely to impact on LFG conditions at the site and pose a risk to off-site receptors, as a confirmatory measure if preloading works in Domains 2a, 3a, 3b and 5 were to occur prior to those in Zone/Domain 1 (TPA/53179) an additional round of LFG sampling should be undertaken for boundary LFG bores in these areas.

This approach is in accordance with the requirements for LFG monitoring outlined in the CEMP (Coffey 2020), which *recognises that whilst the risks posed by LFG migration from the site to neighboring sensitive land uses under current site conditions are low, ongoing monitoring is required to confirm that this continues to be the case and to assess any changes in ground gas conditions over time.*

Monitoring should be undertaken closely following preloading works (within 4 weeks). The location of bores to be monitored during the additional round is outlined in Figure 3 (**Attachment A**).

The monitoring works should be undertaken in accordance with the Stage 1 Landfill Gas Monitoring Plan (Coffey 2020) with results to be provided for review by an EPA appointed environmental auditor as soon as reasonably practicable following the monitoring (as interim reporting) and to EPA as part of annual LFG reporting requirements. In the event that the results indicate that additional monitoring during the preload works is required, then this requirement should be verified by an appointed environmental auditor and advised to EPA as soon as practicable.

Where preload stockpiling works under this planning permit occur after those outlined in TPA/53179 the monitoring required in accordance with the CEMP (Coffey 2021) for preloading in Zone 1 is considered sufficient to assess the potential risks of LFG migration, and no additional (specific) monitoring for stockpiling works in Domains 2a, 3a, 3b and 5 would be required (i.e would already be being undertaken as part of monitoring for the Zone 1 preload).

The proposed Domain 2a, 3a, 3b and 5 stockpiling works are not expected to have any measurable effect on groundwater conditions at the site and no additional groundwater monitoring is considered to be required for these works.

6. PROTECTING THE EXISTING ENVIRONMENTAL MONITORING NETWORK

In accordance with the CEMP (Coffey 2020) all LFG and groundwater monitoring infrastructure at the site must be protected during construction works, including the following requirements:

- *All monitoring locations are to be retained in a serviceable condition (such that representative samples can be collected) until it is deemed they can be decommissioned by the Environmental Consultant and/or verified by an appointed environmental auditor.*

- *The Site Manager is responsible for ensuring that monitoring infrastructure is not damaged and if any damage does occur, that it is rectified as soon as practicable in consultation with the Project Manager and Environmental Consultant.*

The proposed extent of the preload stockpile will necessitate that several LFG and groundwater bores at the site are extended so that they are still accessible for sampling. These works should be undertaken by a licensed driller in accordance with the requirements of the CEMP (Section 7) and documented in the annual LFG and groundwater reporting.

7. CONTROLS DURING CONSTRUCTION

The construction of the preload must be in accordance with the CEMP (Coffey 2020).

The CEMP includes measures to address health, safety and environmental risks during construction, associated with residual soil, groundwater and landfill gas contamination at the site and describes how activities undertaken during the construction phase of the site redevelopment (including preloading activities) will be managed to avoid or mitigate negative environmental impacts on site (or off-site) and how these environmental management requirements will be implemented.

The CEMP requires that prior to construction works occurring an overarching site specific OH&S plan must be developed to include the controls described in the CEMP. All contractors and subcontractors are required to prepare their own site specific OH&S plan and appropriate Safe Work Method Statements (SWMS) or similar as required.

Stockpiling works undertaken in accordance with the CEMP are unlikely to pose an unacceptable amenity impact to neighbouring residents (e.g. through generation of dust, odour or stormwater run-off).

Compliance with the CEMP is a requirement of the SoEA and EPA CUN. It is expected that compliance with the SoEA / CEMP will be a condition on the planning permit for these works.

8. CONCLUSION

Potential environmental impacts associated with the construction (extension) of the preload stockpile in Domains 2a, 3a, 3b and 5 (as proposed under this planning permit) are considered unlikely to cause 'unreasonable amenity impact' or pose an unacceptable risk due to landfill gas migration to surrounding residential properties.

9. CLOSING

This report should be read in conjunction with the attached 'Important Information about your Tetra Tech Coffey Report'.

Should you have any queries regarding this information please contact the undersigned.

For and on behalf of Coffey,

Roger Gibbs
Senior Associate Environmental Scientist

Attachments:

Attachment A – Figures

ATTACHMENT A - FIGURES



no.	description	drawn	approved	date
A	ORIGINAL ISSUE	AM	FK	18.11.21

PROPOSED STOCKPILE AND BATTER EXTENT

- PRELOAD STOCKPILE AT RL 66M
- PRELOAD STOCKPILE AT RL 65M
- PRELOAD STOCKPILE AT RL 64.5M
- TRANSITION BATTER 3H:1V

IMAGERY SOURCE: Nearmap (29-04-2021)

	drawn	AM
	approved	FK
	date	20.12.2021
	scale	1:1,500
	original size	A3

SCALE 1:1,500 (A3) METRES

Projection: GDA 1994 MGA Zone 55

TETRA TECH COFFEY

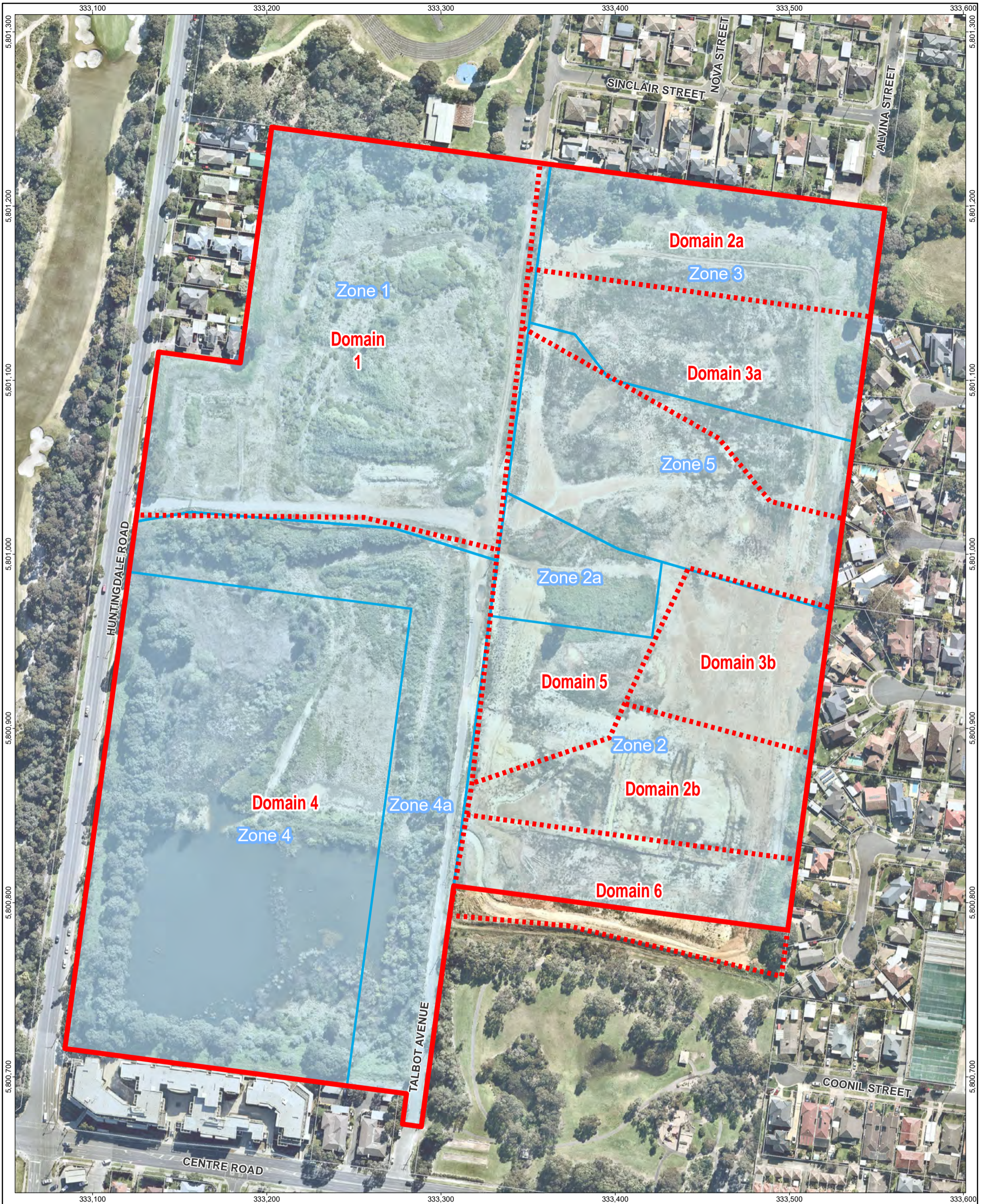
client: HUNTINGDALE ESTATE NOMINEES PTY LTD

project: GEOTECHNICAL SITE INVESTIGATION
1221-1249 CENTRE ROAD & 22 TALBOT AVENUE
OAKLEIGH SOUTH, VICTORIA

title: PROPOSED PRELOAD STOCKPILE
EXTENT (DOMAINS 2A, 2B, 3A, 3B, 5 & 6)

project no: GEOTABTF09257AA-EH figure no: 1 rev: A

M:\0 Templates Reference\09257AA_EH_GS099_v0_1



no.	description	drawn	approved	date
A	ORIGINAL ISSUE	AM	RG	23.11.21

LEGEND

- DOMAIN BOUNDARY
- SITE BOUNDARY
- HISTORICAL SITE ZONES
- CADASTRE

IMAGERY SOURCE: Nearmap (06-09-2020)

revision

drawn AM

approved RG

date 23.11.2021

scale 1:2,000

original size A3

0 20 40 60 80 METRES

SCALE 1:2,000(A3)

Projection: GDA 1994 MGA Zone 55

TETRA TECH COFFEY

client: HUNTINGDALE ESTATE NOMINEES PTY LTD

project: GEOTECHNICAL SITE INVESTIGATION
1221-1249 CENTRE ROAD & 22 TALBOT AVENUE
OAKLEIGH SOUTH, VICTORIA

title: SITE GEOTECHNICAL DOMAINS

project no: GEOTABTF09257AA-EE figure no: FIGURE 2 rev: A

M:\0_Templates\Reference\ENVA\BET\075148_115_GS02_v0_1



no.	description	drawn	approved	date
A	ORIGINAL ISSUE	AM	RG	23.11.21

LEGEND

- Gas bore
- Gas bore to be sampled during stockpiling works
- Site boundary
- Zone boundary
- Fence
- Cadastre

IMAGERY SOURCE: Nearmap (Capure date: 11-09-2019).

SCALE 1:2,250 (A3) METRES

Projection: GDA 1994 MGA Zone 55

client:	TALBOT ROAD FINANCE PTY LTD
project:	ENVIRONMENTAL SITE ASSESSMENT 1221-1249 CENTRE ROAD & 22 TALBOT AVENUE OAKLEIGH SOUTH, VICTORIA
title:	LANDFILL GAS MONITORING LOCATIONS
project no:	ENAUABTF00751AB-L15
figure no:	FIGURE 3
rev:	A

MDO Template Reference: ENAUABTF00751AB_L15_GSD01_v0_1

IMPORTANT INFORMATION ABOUT YOUR TETRA TECH COFFEY ENVIRONMENTAL REPORT

Introduction

This report has been prepared by Tetra Tech Coffey for you, as Tetra Tech Coffey's client, in accordance with our agreed purpose, scope, schedule and budget.

The report has been prepared using accepted procedures and practices of the consulting profession at the time it was prepared, and the opinions, recommendations and conclusions set out in the report are made in accordance with generally accepted principles and practices of that profession.

The report is based on information gained from environmental conditions (including assessment of some or all of soil, groundwater, vapour and surface water) and supplemented by reported data of the local area and professional experience. Assessment has been scoped with consideration to industry standards, regulations, guidelines and your specific requirements, including budget and timing. The characterisation of site conditions is an interpretation of information collected during assessment, in accordance with industry practice.

This interpretation is not a complete description of all material on or in the vicinity of the site, due to the inherent variation in spatial and temporal patterns of contaminant presence and impact in the natural environment. Tetra Tech Coffey may have also relied on data and other information provided by you and other qualified individuals in preparing this report. Tetra Tech Coffey has not verified the accuracy or completeness of such data or information except as otherwise stated in the report. For these reasons the report must be regarded as interpretative, in accordance with industry standards and practice, rather than being a definitive record.

Your report has been written for a specific purpose

Your report has been developed for a specific purpose as agreed by us and applies only to the site or area investigated. Unless otherwise stated in the report, this report cannot be applied to an adjacent site or area, nor can it be used when the nature of the specific purpose changes from that which we agreed.

For each purpose, a tailored approach to the assessment of potential soil and groundwater contamination is required. In most cases, a key objective is to identify, and if possible quantify, risks that both recognised and potential contamination pose in the context of the agreed purpose. Such risks may be financial (for example, clean up costs or constraints on site use) and/or physical (for example, potential health risks to users of the site or the general public).

Limitations of the Report

The work was conducted, and the report has been prepared, in response to an agreed purpose and scope, within time and budgetary constraints, and in reliance on certain data and information made available to Tetra Tech Coffey.

The analyses, evaluations, opinions and conclusions presented in this report are based on that purpose and scope, requirements, data or information, and they could change if such requirements or data are inaccurate or incomplete.

This report is valid as of the date of preparation. The condition of the site (including subsurface conditions) and extent or nature of contamination or other environmental hazards can change over time, as a result of either natural processes or human influence. Tetra Tech Coffey should be kept apprised of any such events and should be consulted for further investigations if any changes are noted, particularly during construction activities where excavations often reveal subsurface conditions.

In addition, advancements in professional practice regarding contaminated land and changes in applicable statutes and/or guidelines may affect the validity of this report. Consequently, the currency of conclusions and recommendations in this report should be verified if you propose to use this report more than 6 months after its date of issue.

The report does not include the evaluation or assessment of potential geotechnical engineering constraints of the site.

Interpretation of factual data

Environmental site assessments identify actual conditions only at those points where samples are taken and on the date collected. Data derived from indirect field measurements, and sometimes other reports on the site, are interpreted by geologists, engineers or scientists to provide an opinion about overall site conditions, their likely impact with respect to the report purpose and recommended actions.

Variations in soil and groundwater conditions may occur between test or sample locations and actual conditions may differ from those inferred to exist. No environmental assessment program, no matter how comprehensive, can reveal all subsurface details and anomalies. Similarly, no professional, no matter how well qualified, can reveal what is hidden by earth, rock or changed through time.

The actual interface between different materials may be far more gradual or abrupt than assumed based on the facts obtained. Nothing can be done to change the actual site conditions which exist, but steps can be taken to reduce the impact of unexpected conditions.

For this reason, parties involved with land acquisition, management and/or redevelopment should retain the services of a suitably qualified and experienced environmental consultant through the development and use of the site to identify variances, conduct additional tests if required, and recommend solutions to unexpected conditions or other unrecognised features encountered on site. Tetra Tech Coffey would be pleased to assist with any investigation or advice in such circumstances.

Recommendations in this report

This report assumes, in accordance with industry practice, that the site conditions recognised through discrete sampling are representative of actual conditions throughout the investigation area. Recommendations are based on the resulting interpretation.

Should further data be obtained that differs from the data on which the report recommendations are based (such as through excavation or other additional assessment), then the recommendations would need to be reviewed and may need to be revised.

Report for benefit of client

Unless otherwise agreed between us, the report has been prepared for your benefit and no other party. Other parties should not rely upon the report or the accuracy or completeness of any recommendation and should make their own enquiries and obtain independent advice in relation to such matters.

Tetra Tech Coffey assumes no responsibility and will not be liable to any other person or organisation for, or in relation to, any matter dealt with or conclusions expressed in the report, or for any loss or damage suffered by any other person or organisation arising from matters dealt with or conclusions expressed in the report.

To avoid misuse of the information presented in your report, we recommend that Tetra Tech Coffey be consulted before the report is provided to another party who may not be familiar with the background and the purpose of the report. In particular, an environmental disclosure report for a property vendor may not be suitable for satisfying the needs of that property's purchaser. This report should not be applied for any purpose other than that stated in the report.

Interpretation by other professionals

Costly problems can occur when other professionals develop their plans based on misinterpretations of a report. To help avoid misinterpretations, a suitably qualified and experienced environmental consultant should be retained to explain the implications of the report to other professionals referring to the report and then review plans and specifications produced to see how other professionals have incorporated the report findings.

Given Tetra Tech Coffey prepared the report and has familiarity with the site, Tetra Tech Coffey is well placed to provide such assistance. If another party is engaged to interpret the recommendations of the report, there is a risk that the contents of the report may be misinterpreted and Tetra Tech Coffey disowns any responsibility for such misinterpretation.

Data should not be separated from the report

The report as a whole presents the findings of the site assessment and the report should not be copied in part or altered in any way. Logs, figures, laboratory data, drawings, etc. are customarily included in our reports and are developed by scientists or engineers based on their interpretation of field logs, field testing and laboratory evaluation of samples. This information should not under any circumstances be redrawn for inclusion in other documents or separated from the report in any way.

This report should be reproduced in full. No responsibility is accepted for use of any part of this report in any other context or for any other purpose or by third parties.

Responsibility

Environmental reporting relies on interpretation of factual information using professional judgement and opinion and has a level of uncertainty attached to it, which is much less exact than other design disciplines. This has often resulted in claims being lodged against consultants, which are unfounded. As noted earlier, the recommendations and findings set out in this report should only be regarded as interpretive and should not be taken as accurate and complete information about all environmental media at all depths and locations across the site.