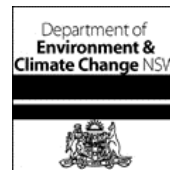


NSW Site Auditor Scheme

SITE AUDIT STATEMENT



A site audit statement summarises the findings of a site audit. For full details of the site auditor's findings, evaluations and conclusions, refer to the associated site audit report.

This form was approved under the Contaminated Land Management Act 1997 on 26 March 2009. For more information about completing this form, go to Part IV.

PART I: Site audit identification

Site audit statement no. 150B

This site audit is a ~~statutory audit~~ **non-statutory audit*** within the meaning of the *Contaminated Land Management Act 1997*.

Site auditor details (as accredited under the *Contaminated Land Management Act 1997*)

Name **Dr Ian C Swane** Company **Sinclair Knight Merz**

Address **100 Christie Street, St Leonards NSW**

..... Postcode **2065**

Phone **02 9928 2126** Fax **02 9928 2224**

Site details

Address **Stockton Rifle Range, Popplewell Road, Fern Bay, NSW**

..... Postcode **2295**

Property description (attach a list if several properties are included in the site audit)

Lot 5 DP 233358 at Fern Bay (Certificate of Title attached – Figure 1)

Local Government Area **Port Stephens Council**

Area of site (e.g. hectares) **111 ha**

Current zoning **Zone 7(a) Environmental Protection**

To the best of my knowledge, the site ~~is~~ **is not*** the subject of a declaration, order, agreement, proposal or notice under the *Contaminated Land Management Act 1997* or the *Environmentally Hazardous Chemicals Act 1985*.

~~Declaration/Order/Agreement/Proposal/Notice*~~ **no(s)**

Site audit commissioned by

Name **Ms Vicki Pearce** Company **Australian Government,
Department of Defence**

Address **Property Disposal Unit, BP3-2-A024, Brindabella Park, Canberra ACT**
..... Postcode **1225**

Phone **(02) 6266 8024** Fax **(02) 6266 8276**

Name and phone number of contact person (if different from above)

Purpose of site audit

- ☒ A. To determine land use suitability (*please specify intended use[s]*)

For the purpose of this audit, Defence has divided the Site into two types of areas referred to as “unrestricted landuse” and “non-development landuse”¹. The “unrestricted landuse” category refers to those areas where the most sensitive landuse would be “standard” residential (HIL A). The “non-development landuse” includes heritage or ecologically constrained areas where the most sensitive landuse would be open space/parkland (HIL E). A plan showing the location of these two area types across the site is provided in Figure 2 (attached).

OR

- ☐ ~~B(i) To determine the nature and extent of contamination, and/or~~
- ☐ ~~B(ii) To determine the appropriateness of an investigation/remedial action/management plan*, and/or~~
- ☐ ~~B(iii) To determine if the land can be made suitable for a particular use or uses by implementation of a specified remedial action plan/management plan* (please specify intended use[s])~~

Information sources for site audit

Consultancy(ies) which conducted the site investigation(s) and/or remediation

GHD, SMEC, Milsearch, GETEX, Alpha Geoscience & Gibson Nominees

¹ SMEC email 22 July 2008

Title(s) of report(s) reviewed

1. GHD. September 2003. *"Preliminary Contamination Site Investigation, Former Stockton Rifle Range, Fern Bay"*. Prepared for CSIG – Canberra
2. SMEC. March 2008. *"Stockton Rifle Range Contamination Assessment Final"*. Prepared for the Department of Defence (2 volumes)
3. SMEC. March 2008. *"Stockton Rifle Range Remedial Action Plan: Final"*. Prepared for the Department of Defence
4. SMEC. 8 September 2008. *"Stockton Delineation Sampling, June 2008"*. 9 pages plus attachments. Prepared for the Department of Defence
5. SMEC. 6 November 2008. *"Remediation Specification Stockton Rifle Range"*, 36 pages. Prepared for the Department of Defence
6. SMEC. 19 June 2009. *"Stockton Rifle Range – Validation Sampling Analysis and Quality Plan"*, Version 3. Prepared for the Department of Defence
7. SMEC. 5 March 2010. *"Stockton Rifle Range Validation Report"*. Prepared for the Department of Defence
8. SMEC. May 2010. *"Final Stockton Rifle Range Site Environmental Management Plan"*. Prepared for the Department of Defence. 37 pages

Other information reviewed (including previous site audit reports and statements relating to the site)

9. Port Stephens Council. November 2006. *"Contaminated Land Policy, PSC2006-2097"*. Minute 298 23 July 2002 (amended 28 November 2006). 13 pages
10. DECC. 6 November 2008. *"Specific Immobilisation Approval 2008-S-18 – Lead Contaminated Soil, Department of Defence – Small Arm Target Shooting Range – Stockton, Newcastle NSW"*. 7 pages
11. Milsearch. December 2002. *"Unexploded Explosive Ordnance (UXO) Assessment, Defence Property: Stockton Rifle Range, NSW"*. Prepared for Defence Property Management and Disposals October-November 2002.
12. Ecotone Ecological Consultants. 16 October 2003. *"Preliminary Flora and Fauna Constraints Assessment for the Defence Land at Stockton Rifle Range"*. Prepared for GHD
13. Umwelt Environmental Consultants. August 2003. *"Aboriginal Archaeological Survey and Assessment of Part Lot 5, Stockton Rifle Range, Fern Bay"*. Prepared for GHD
14. Umwelt Environmental Consultants. October 2003. *"Historical Heritage Assessment of Stockton Rifle Range"*. Prepared for GHD
15. GHD. September 2003. *"Building Condition Assessment, Former Stockton Rifle Range, Fern Bay"*. Prepared for Corporate Services & Infrastructure
16. GHD. November 2003. *"Divestment Studies Report, Stockton Rifle Range, Popplewell Road, Fern Bay"*. Prepared for Department of Defence
17. Department of Defence. 14 March 2007. *"Stockton Rifle Range Property Report"*. 9 pages
18. Gibson Nominees. December 2006. *"Review of Ordnance-Related Contamination Issues Relating to the Former Stockton Rifle Range and Fort Wallace, New South Wales"*. Prepared for Department of Defence
19. Sutters. 1999. *"Stockton Rifle range, Fern Bay, NSW – Heritage Assessment"*. Prepared for Department of Defence (extract provided in Ref [8])
20. Alpha Geoscience. August 2007. *"Geophysical Survey EM-61, Stockton Rifle Range and Fort Wallace, Stockton"*. Prepared for WSP Environmental and the Department of Defence. 17 pages
21. SKM. 18 September 2008. *"Site Audit Report on a Remedial Action Plan for Stockton Rifle Range, Fern Bay, NSW"*. Prepared for the Department of Defence
22. SKM. 18 September 2008. Site Audit Statement 150 for Stockton Rifle Range, Fern Bay, NSW. Prepared for the Department of Defence. 10 pages

23. SMEC. 13 November 2008. Letter "450065005 – Stage 3 Fort Wallace and Stockton Rifle Range, Environmental Consultant Variation 3 – Potential Asbestos Waste Investigation Revision 3". 4 pages
24. SMEC. 17 April 2009. Letter "Stockton Rifle Range Remediation Validation Approach Clarification". 4 pages
25. Gibson Nominees (2 March 2010) Letter "Former Stockton Rifle Range: Explosive Ordnance-Related Contamination Issues". 5 pages
26. SMEC. 18 March 2010. Letter providing additional information

Site audit report

Title **Site Audit Report for the Remediation of Stockton Rifle Range, Fern Bay, NSW, Site Audit 150B by Dr Ian Swane**

Report no. **150B** Date **10 May 2010**

PART II: Auditor's findings

Please complete either Section A or Section B, **not** both. (*Strike out the irrelevant section.*)

Use Section A where site investigation and/or remediation has been completed and a conclusion can be drawn on the suitability of land use(s).

Use Section B where the audit is to determine the nature and extent of contamination and/or the appropriateness of an investigation or remedial action or management plan and/or whether the site can be made suitable for a specified land use or uses subject to the successful implementation of a remedial action or management plan.

Section A

- ☒ I certify that, in my opinion, the "**unrestricted landuse**" portion of the site (refer Figure 2) is **SUITABLE for the following use(s)** (*tick all appropriate uses and strike out those not applicable*):

- ☐ ~~Residential, including substantial vegetable garden and poultry~~
- ☐ ~~Residential, including substantial vegetable garden, excluding poultry~~
- ☒ Residential with accessible soil, including garden (minimal home-grown produce contributing less than 10% fruit and vegetable intake), excluding poultry
- ☒ Day care centre, preschool, primary school
- ☒ Residential with minimal opportunity for soil access, including units
- ☒ Secondary school
- ☒ Park, recreational open space, playing field
- ☒ Commercial/industrial
- ☒ Other (*please specify*) **Defence uses**

AND

☒ I certify that, in my opinion, the “*non-development landuse*” portion of the site (refer Figure 2) is **SUITABLE** for the following use(s) (tick all appropriate uses and strike out those not applicable):

- ☐ Residential, including substantial vegetable garden and poultry
- ☐ Residential, including substantial vegetable garden, excluding poultry
- ☐ Residential with accessible soil, including garden (minimal home-grown produce contributing less than 10% fruit and vegetable intake), excluding poultry
- ☐ Day care centre, preschool, primary school
- ☒ Residential with minimal opportunity for soil access, including units
- ☒ Secondary school
- ☒ Park, recreational open space, playing field
- ☒ Commercial/industrial
- ☒ Other (please specify) **Defence uses**

subject to compliance with the following environmental management plans
(insert title, date and author of plan) **in light of contamination remaining on the site:**

SMEC (May 2010) “*Final Stockton Rifle Range Site Environmental Management Plan*”

OR

☐ I certify that, in my opinion, the site is **NOT SUITABLE** for any use due to the risk of harm from contamination.

Overall comments

1. This site audit statement should be read in conjunction with the site audit report.
2. This site audit statement applies to the condition of the site at the time the last assessment was undertaken by SMEC in December 2009. The property owner is responsible for ensuring the site remains in a suitable condition. ..
3. The main areas where remediation works were conducted at the site are shown in Figure 3. The work comprised:
 - a) The excavation of lead contaminated soils and spent bullet waste from the Stop Butt (RAC 1), the 10th firing yard (RAC 2), and the Auxiliary Range (RAC 3) followed by the treatment and off-site disposal of over 7,000 tonnes of this material.
 - b) The excavation of 16,023m³ of material from the firing mounds, stripped topsoil and access road subgrade material and its placement in the depression between the target mantle and the western side of the Stop Butt, as shown in Figure 4.
 - c) The excavation of buried waste near the main access road (RAC 4), a north-eastern area (RAC 5a), and a former septic tank (RAC6) followed by off-site disposal.
 - d) The removal and clearance of fragments of asbestos sheeting.
 - e) The use of 5,500m³ of excavated soil to backfill various areas of the site, as shown in Figure 5. Some of this material was screened while some was unscreened (refer to as “scrape material”). The available data

indicate that, on average, 11 spent bullets remain per 100m² area where screened soils were backfilled, while 84 spent bullets remain per 100m² area where unscreened soils were backfilled.

4. The remediation works generally followed the RAP previously reviewed by the Site Auditor (refer Site Audit Statement 150 dated 18/09/09). The main exceptions were that some excavated material containing spent bullet waste was reused on-site rather than disposed off-site and the stockpile and treatment area was not lined. The Site Auditor considers that these exceptions will not have a significant impact on the health of future users or the environment.
5. A Defence-accredited UXO specialist from Gibson Nominees (Ref [25]) has advised that the risk of UXO being present at the Stockton Rifle Range site is very low and does not prevent the site being used for sensitive land uses that include residential with accessible soil. Gibson Nominees also advised that the Defence National UXO Office is satisfied that the requirements of both the Commonwealth Policy on the Management of Land Affected by Unexploded Ordnance and Defence Instruction (General) Administration 63-1 – Management of Land Affected by Unexploded Ordnance – in respect to action to be taken prior to disposal of potentially EO contaminated land have been complied with. The known retention of spent bullets at some areas of the site is considered to be an aesthetic issue that future users of the site need to understand.
6. Other fill and waste materials remain at the site. These mainly comprise small quantities of building and demolition waste, gravel and imported clayey soils containing trace quantities of slag.
7. Acid sulphate soils may be present at the site and should be managed in accordance with Port Stephens Council policy.
8. Groundwater must not be extracted from the Stockton Rifle Range site unless additional monitoring confirms that any changes to water levels induced by groundwater extraction would not impact acid sulphate soils, and confirms that the water is suitable for the proposed uses. Any extraction of groundwater should be approved by Port Stephens Council.
9. The purpose of the EMP is to manage contamination risks posed by Defence waste (eg. spent bullets), asbestos fragments, waste material (eg. building & demolition waste, dumped rubbish) and unexpected findings (eg. UXO) remaining at the site. The EMP also provides guidance on the removal of materials from the site.
10. The EMP has been reviewed and approved in writing by Port Stephens Council. The EMP is to be implemented through a notation of the site planning certificate issued in accordance with Section 149 of the Environmental Planning and Assessment Act 1979.
11. Waste material buried under the sand capping layer at the Target Mantle (Figure 4) must not be disturbed unless the work is undertaken in accordance with an excavation plan acceptable to Port Stephens Council.
12. Any excavated soil or buried material removed from the site must be disposed at a suitable licensed landfill in accordance with DECCW waste regulations.
13. Any excavated soil removed from the former Stop Butt, Auxiliary Range or other filled areas must be either disposed at a suitably licensed landfill in accordance with DECCW waste regulations or retained on-site if chemical testing validates the soil as being suitable for the area where it is to be placed. These filled areas are shown on Figure 5.
14. No excavated soil from the open space/non-development landuse area shall be relocated onto the proposed residential/unrestricted landuse area unless

chemical testing validates the soil as being suitable for the area where it is to be placed and the work is undertaken in accordance with an approval from Port Stephens Council.

15. One approach to notify future owners of the need to comply with the EMP and the requirements of the site audit statement would be to place a positive covenant on the land title. A registered survey plan prepared by a licensed surveyor could also be obtained to accurately define the two types of areas referred to as "unrestricted landuse" and "non-development landuse".

Section B

~~Purpose of the plan² which is the subject of the audit:~~

~~I certify that, in my opinion:~~

- ~~☐ the nature and extent of the contamination HAS/HAS NOT* been appropriately determined~~

~~AND/OR~~

- ~~☐ the investigation/remedial action plan/management plan* IS/IS NOT* appropriate for the purpose stated above~~

~~AND/OR~~

- ~~☐ the site CAN BE MADE SUITABLE for the following uses (tick all appropriate uses and strike out those not applicable):~~

- ~~☐ Residential, including substantial vegetable garden and poultry~~
~~☐ Residential, including substantial vegetable garden, excluding poultry~~
~~☐ Residential with accessible soil, including garden (minimal home-grown produce contributing less than 10% fruit and vegetable intake), excluding poultry~~
~~☐ Day care centre, preschool, primary school~~
~~☐ Residential with minimal opportunity for soil access, including units~~
~~☐ Secondary school~~
~~☐ Park, recreational open space, playing field~~
~~☐ Commercial/industrial~~
~~☐ Other (please specify)~~

~~if the site is remediated/managed* in accordance with the following remedial action plan/management plan* (insert title, date and author of plan)~~

.....

~~subject to compliance with the following condition(s):~~

~~Overall comments~~

² For simplicity, this statement uses the term 'plan' to refer to both plans and reports.

PART III: Auditor's declaration

I am accredited as a site auditor by the NSW Environment Protection Authority under the *Contaminated Land Management Act 1997* (Accreditation No. 9821).

I certify that:

- I have completed the site audit free of any conflicts of interest as defined in the *Contaminated Land Management Act 1997*, and
- with due regard to relevant laws and guidelines, I have examined and am familiar with the reports and information referred to in Part I of this site audit, and
- on the basis of inquiries I have made of those individuals immediately responsible for making those reports and obtaining the information referred to in this statement, those reports and that information are, to the best of my knowledge, true, accurate and complete, and
- this statement is, to the best of my knowledge, true, accurate and complete.

I am aware that there are penalties under the *Contaminated Land Management Act 1997* for wilfully making false or misleading statements.

Signed



.....

Date **10 MAY 2010**

PART IV: Explanatory notes

To be complete, a site audit statement form must be issued with all four parts.

How to complete this form

Part I identifies the auditor, the site, the purpose of the audit and the information used by the auditor in making the site audit findings.

Part II contains the auditor's opinion of the suitability of the site for specified uses or of the appropriateness of an investigation, or remedial action or management plan which may enable a particular use. It sets out succinct and definitive information to assist decision-making about the use(s) of the site or a plan or proposal to manage or remediate the site.

The auditor is to complete either Section A or Section B of Part II, **not** both.

In **Section A** the auditor may conclude that the land is *suitable* for a specified use(s) OR *not suitable* for any beneficial use due to the risk of harm from contamination.

By certifying that the site is *suitable*, an auditor declares that, at the time of completion of the site audit, no further remediation or investigation of the site was needed to render the site fit for the specified use(s). Any **condition** imposed should be limited to implementation of an environmental management plan to help ensure the site remains safe for the specified use(s). The plan should be legally enforceable: for example a requirement of a notice under the *Contaminated Land Management Act 1997* (CLM Act) or a development consent condition issued by a planning authority. There should also be appropriate public notification of the plan, e.g. on a certificate issued under s.149 of the *Environmental Planning and Assessment Act 1979*.

Auditors may also include **comments** which are key observations in light of the audit which are not directly related to the suitability of the site for the use(s). These observations may cover aspects relating to the broader environmental context to aid decision-making in relation to the site.

In **Section B** the auditor draws conclusions on the nature and extent of contamination, and/or suitability of plans relating to the investigation, remediation or management of the land, and/or whether land can be made suitable for a particular land use or uses upon implementation of a remedial action or management plan.

By certifying that a site *can be made suitable* for a use or uses if remediated or managed in accordance with a specified plan, the auditor declares that, at the time the audit was completed, there was sufficient information satisfying guidelines made or approved under the CLM Act to determine that implementation of the plan was feasible and would enable the specified use(s) of the site in the future.

For a site that *can be made suitable*, any **conditions** specified by the auditor in Section B should be limited to minor modifications or additions to the specified plan. However, if the auditor considers that further audits of the site (e.g. to validate remediation) are required, the auditor must note this as a condition in the site audit statement.

Auditors may also include **comments** which are observations in light of the audit which provide a more complete understanding of the environmental context to aid decision-making in relation to the site.

In **Part III** the auditor certifies his/her standing as an accredited auditor under the CLM Act and makes other relevant declarations.

Where to send completed forms

In addition to furnishing a copy of the audit statement to the person(s) who commissioned the site audit, statutory site audit statements must be sent to:

Department of Environment and Climate Change (NSW)

Contaminated Sites Section
PO Box A290, SYDNEY SOUTH NSW 1232
Fax: (02) 9995 5930

AND

the **local council** for the land which is the subject of the audit.

[illegible]

Figure 2 Location of Proposed Landuse Areas

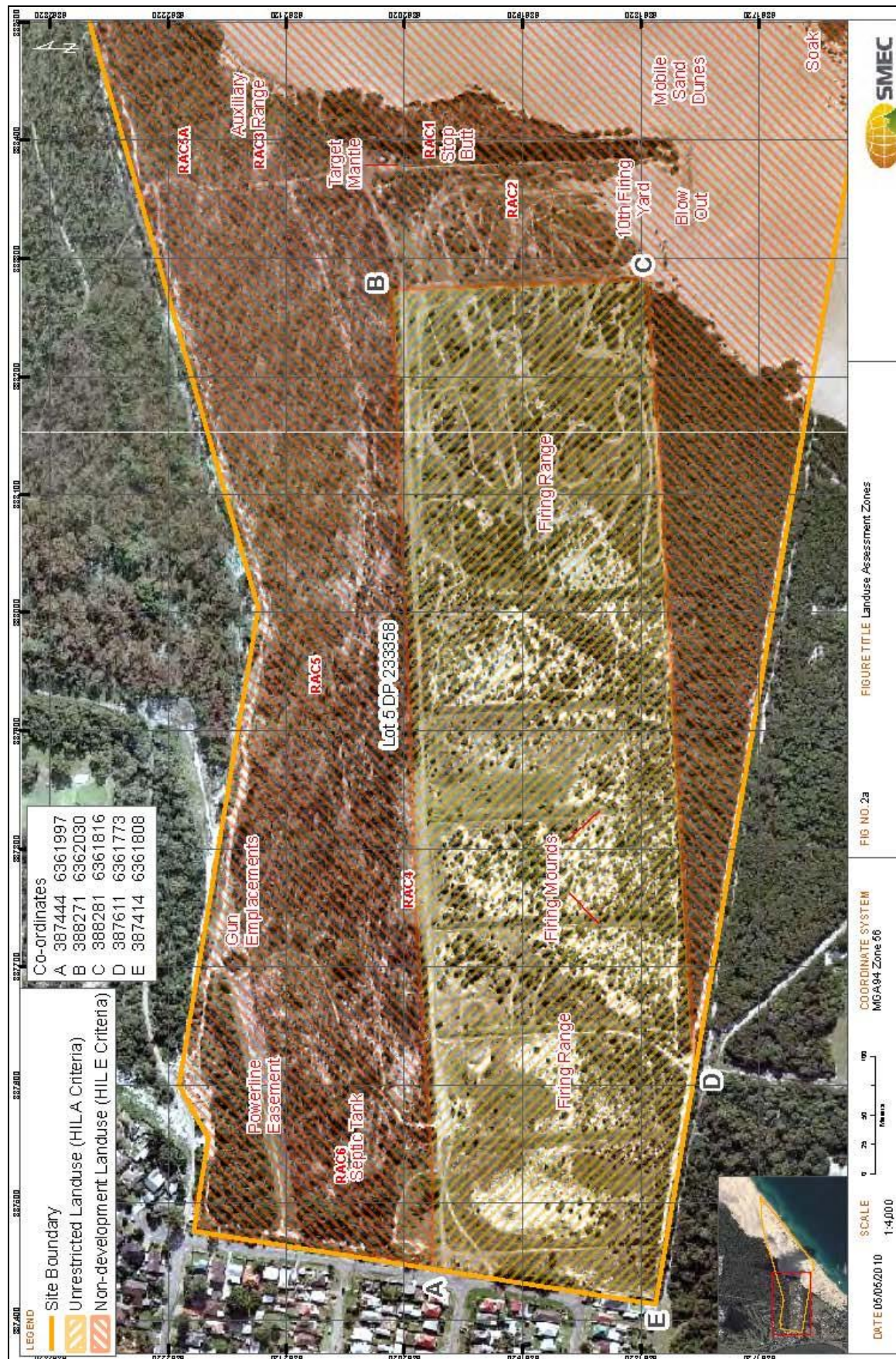


Figure 3 Location of Main Remediation Areas

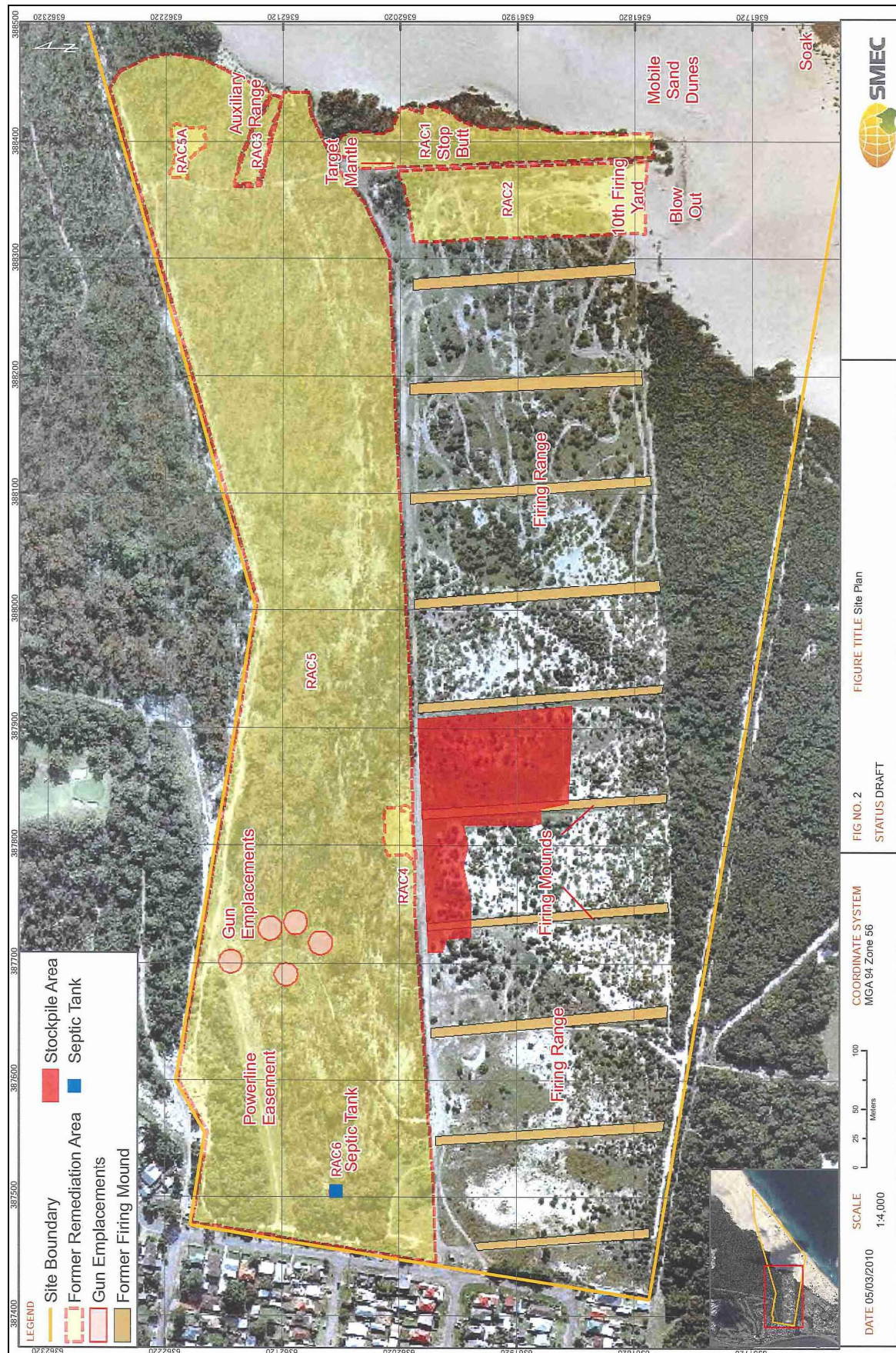


Figure 4 Design of Target Mantle Backfill Area

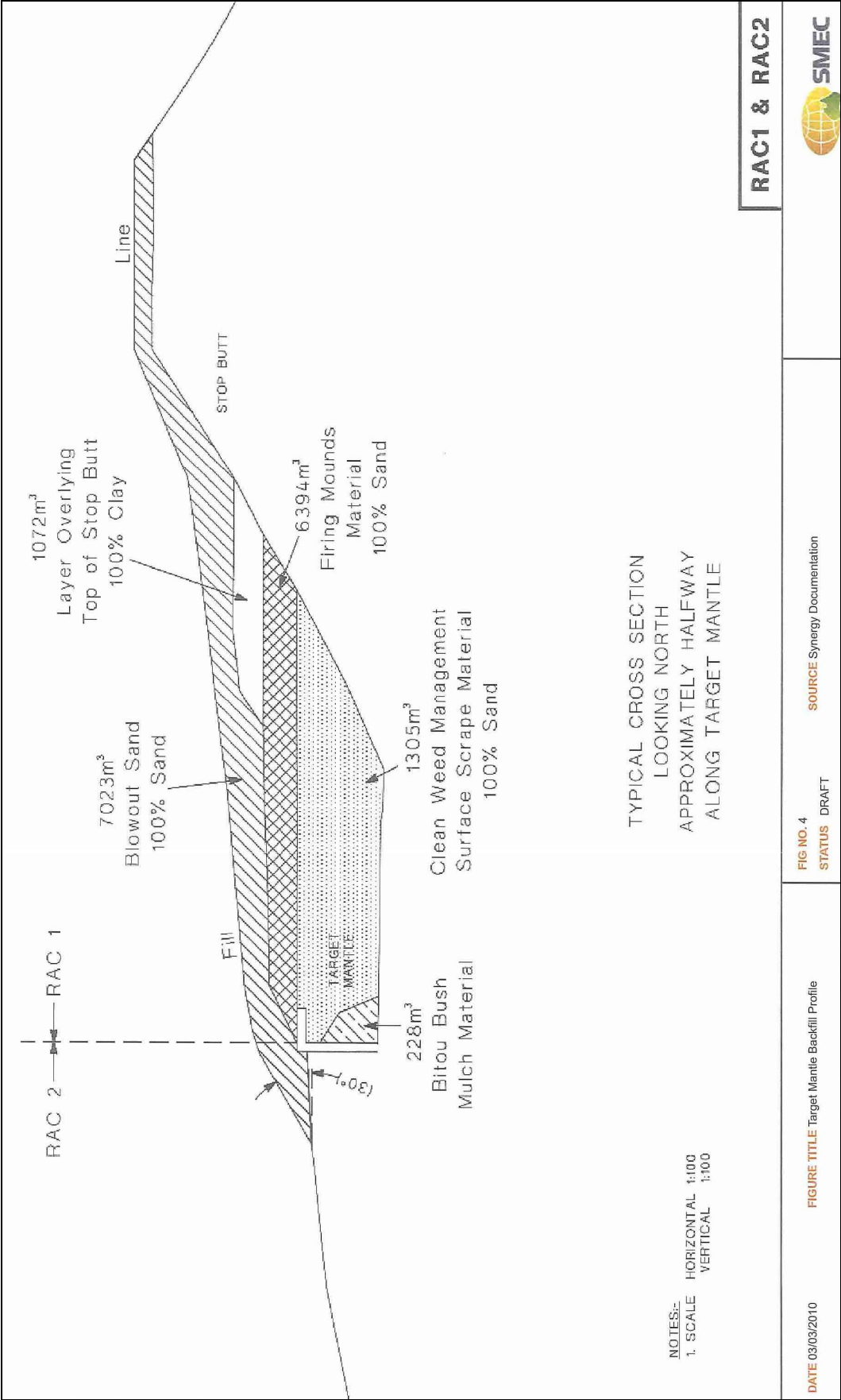
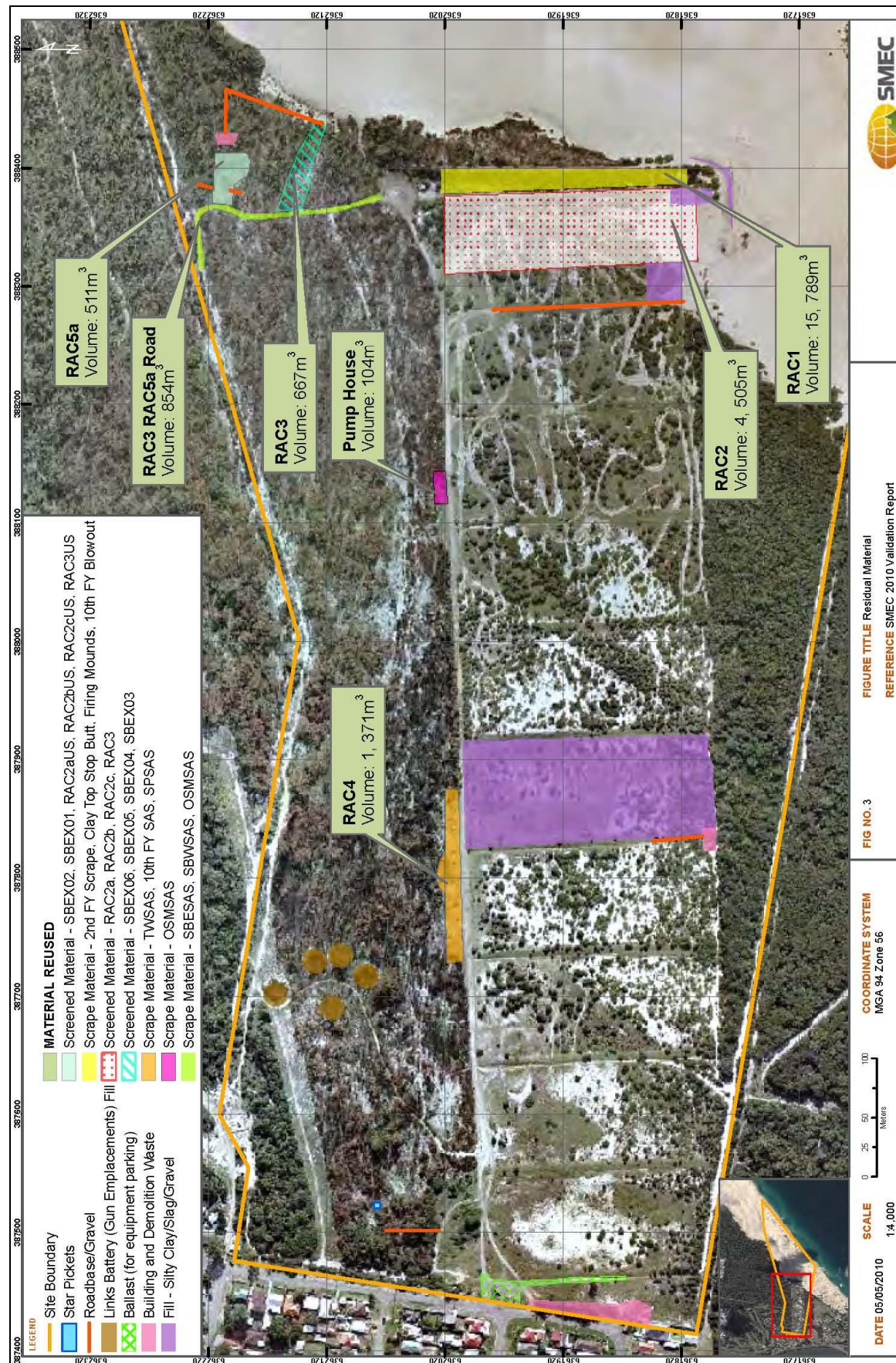


Figure 5 Residual Materials Remaining On-site



SAS 150B Validation

Ian C Swane

SKM