

Information sheet for environmental audits and preliminary risk screen assessments (PRSAs)



Publication 2009 June 2021

Victoria's audit system

An environmental audit system has operated in Victoria since 1989. The *Environment Protection Act 2017* (the Act) provides for the appointment of environmental auditors. It also provides for Environment Protection Authority (EPA or the Authority) to have a system of preliminary risk screen assessments (PRSAs) and environmental audits. These are used in the planning, approval, regulation and management of activities, and in protection of human health and the environment.

Under the Act, the functions of an environmental auditor include to:

- conduct PRSAs and environmental audits
- prepare and issue PRSA statements and reports, and environmental audit statements and reports.

The purpose of a PRSA is to:

- assess the likelihood of the presence of contaminated land
- determine if an environmental audit is required
- recommend a scope for the environmental audit if an environmental audit is required.

The purpose of an environmental audit is to:

- assess the nature and extent of the risk of harm to human health or the environment from contaminated land, waste, pollution, or any activity
- recommend measures to manage the risk of harm to human health or the environment from contaminated land, waste, pollution, or any activity
- make recommendations to manage any contaminated land, waste, pollution or activity.

Upon completion, all PRSAs and environmental audits require preparation of either a PRSA statement, accompanied by a PRSA report, or an environmental audit statement, accompanied by an environmental audit report.

A person may engage an environmental auditor to conduct a PRSA or an environmental audit.

EPA administers the environmental audit system and ensures an acceptable quality of environmental auditing is maintained. This is achieved by assessing auditor applications and conducting a quality assurance program. These measures ensure that PRSAs and environmental audits that environmental auditors undertake are completed in accordance with the relevant sections of the Act or any other Act, and with the guidelines the Authority or other government agencies have published.

Information sheet for environmental audits and preliminary risk screen assessments (PRSAs)

File structures

EPA stores digital statements and reports from PRSAs and environmental audits in three parts:

- Part A, the PRSA or environmental audit report
- Part B, report appendices
- Part C, the PRSA statement and executive summary or environmental audit statement and executive summary.

Report executive summaries, findings and recommendations should be read and relied upon only in the context of the whole document, including any appendices and the PRSA statement or environmental audit statement.

Currency of PRSAs and environmental audits

PRSAs and environmental audits are based on the conditions encountered and information reviewed at the time of preparation. They don't represent any changes that may have occurred since the completion date. As it's not possible for the PRSA or audit report to present all data that could be of interest to all readers, consideration should be made to any appendices or referenced documentation for further information.

When information about the site changes from what was available at the time the PRSA or environmental audit was completed, or where an administrative error is identified, an environmental auditor may amend or withdraw PRSA or environmental audit statements and/or reports. Users are advised to check EPA's website to ensure documents' currency.

PDF searchability and printing

EPA can only provide PRSAs and environmental audit statements, reports and appendices that the environmental auditor provided to EPA via the EPA portal on the EPA website.

All statements and reports should be in a Portable Document Format (PDF) and searchable; however at times some appendices may be provided as image-only PDFs, which can affect searchability.

The PDF is compatible with Adobe Acrobat Reader, which is downloadable free from Adobe's Website (www.adobe.com).

Further information

For more information on Victoria's environmental audit system, visit EPA's website or contact EPA's Environmental Audit Unit.

Web: www.epa.vic.gov.au

Email: environmental.audit@epa.vic.gov.au



For languages other than English, please call **131 450**.

Visit epa.vic.gov.au/language-help for next steps.

If you need assistance because of a hearing or speech impairment, please visit relayservice.gov.au

Environmental audit statement

Under Part 8.3 of the *Environment Protection Act 2017*

Publication F1032 published September 2021



The purpose of an environmental audit is:

- a) to assess the nature and extent of the risk of harm to human health or the environment from contaminated land, waste, pollution or any activity; and
- b) to recommend measures to manage the risk of harm to human health or the environment from contaminated land, waste, pollution or any activity; and
- c) to make recommendations to manage the contaminated land, waste, pollution or activity.

This statement is a summary of the findings of an environmental audit conducted under Part 8.3 of the *Environment Protection Act 2017* for:

Muirhead North Stage 1A – Portion of Lot 9370, Lee Point, Norther Territory

Further details are provided in the environmental audit report that accompanies this statement.

Section 1: Environmental audit overview

Environmental audit ID number: NTEPA2017/0102-030

Environmental auditor details

Name:	Jean-Paul Pearce
Company:	Australian Environmental Auditors Pty Ltd
Address:	335 Carrington Street, Adelaide, South Australia 5000
Phone:	0412 854 635
Email:	jppearce@envaud.com.au

Site owner or occupant

Name:	N/A
Company:	Defence Housing Australia

Environmental auditor engaged by

Name:	Mr Chris Grimm
Company:	Defence Housing Australia
Relationship to site owner:	Senior Development Manager

Environmental audit statement

Reason for the environmental audit

- Requirement under the *Planning and Environment Act 1987* (e.g. planning permit)
Condition of Development Application DP19/0050 Condition 29
-
- Requirement under the *Environment Protection Act 2017* (e.g. remedial notice or licence)
-
- Requirement under other legislation
-
- Other
-

Section 2: Environmental audit scope

Details of the site in respect of which the environmental audit was conducted

Site/premises name:	Muirhead North Stage 1A
Address:	544 Lee Point Road, Lee Point, Northern Territory
Title details:	Portion of Lot 9370
Area (m ²):	81,700

- a plan of the site is attached

Use or proposed use for which the site is being audited

Sensitive land use categories

Note that sensitive land uses in the *Environment Reference Standard* (ERS 2021) are categorised as lower and high density. Lower density is where there is generally substantial access to soil and high density is restricted to developments that make maximum use of available land space, and there is minimal access to soil. For planning purposes, the *Ministerial Direction No.1* (MD No.1) considers secondary schools and children's playgrounds to be sensitive land uses.

- High density
- Other (lower density)
- Children's playground (indoor)
- Children's playground (indoor)
- Residential land use
- Child care centre
- Pre-school
- Primary school
- Secondary school

Other land use categories

- Recreation/open space
- Parks and reserves
- Agricultural
- Commercial
- Industrial
- Other land uses not captured by the above as described here:
-

Environmental audit statement

Elements of the environment assessed in the environmental audit

- Ambient air
 - all environmental values were considered
 - all environmental values other than the following were considered:

- Ambient sound
 - all environmental values were considered
 - all environmental values other than the following were considered:

- Land
 - all environmental values that apply to the land use category were considered
 - all environmental values that apply to the land use category, other than the following, were considered:

- Water
 - Surface water
 - all environmental values that apply to the applicable segment were considered OR
 - all environmental values that apply to the applicable segment, other than the following, were considered:

 - Groundwater
 - all environmental values that apply to the applicable segment were considered OR
 - all environmental values that apply to the applicable segment, other than the following, were considered:

Standards and reference documents considered

Environment Reference Standard 2021
National Environment Protection (Assessment of Site Contamination) Measure 1999, as amended from time to time
Northern Territory Waste Management and Pollution Control Act 1998
NT EPA, *Northern Territory Contaminated Land Guideline*, June 2017
Additional technical standards are detailed in the EAR.

Assumptions made during the environmental audit or any limitations

None

Exclusions from the environmental audit and the rationale for these

Excludes ambient air except associated with any soil and groundwater derived sources (i.e. vapour intrusion, LFG, etc).
Exclude surface waters as none are present on site, but risk to offsite surface water will be assessed as part of the groundwater. Exclude ambient sound as not relevant to contaminated land. It is noted that these are standard exclusions for a contaminated audit for site suitability.

This statement is accompanied by the following environmental audit report:

Title:	Muirhead North Stage 1A – Portion of Lot 9370, Lee Point, Northern Territory
Report no:	1
Date:	8 November 2022

Section 3: Results and recommendations of the environmental audit

Environmental audit statement

Land use suitability

Based on my assessment of the site in relation to the risk of harm to human health or the environment from contaminated land, waste or pollution, I am of the opinion that the site is **suitable for the following land uses if the recommendations I have made in this statement are complied with:**

Sensitive land use categories

- | | |
|--|--|
| <input checked="" type="checkbox"/> High density | <input checked="" type="checkbox"/> Residential land use |
| | <input checked="" type="checkbox"/> Child care centre |
| <input checked="" type="checkbox"/> Other (lower density) | <input checked="" type="checkbox"/> Pre-school |
| | <input checked="" type="checkbox"/> Primary school |
| | <input checked="" type="checkbox"/> Secondary school |
| <input checked="" type="checkbox"/> Children's playground (indoor) | |
| <input checked="" type="checkbox"/> Children's playground (indoor) | |

Other land use categories

- | |
|--|
| <input checked="" type="checkbox"/> Recreation/open space |
| <input checked="" type="checkbox"/> Parks and reserves |
| <input checked="" type="checkbox"/> Agricultural |
| <input checked="" type="checkbox"/> Commercial |
| <input checked="" type="checkbox"/> Industrial |
| <input type="checkbox"/> Other land uses not captured by the above as described here: |
-

Results of the environmental audit

Based on my assessment of the risk of harm to human health or the environment **from contaminated land for Muirhead North Stage 1A – portion of Lot 9370 Lee Point, Northern Territory**, I conclude that the site is suitable for the proposed uses of low density residential, child care, recreational / open space and commercial land uses along with less sensitive land uses (i.e. high density residential and industrial land uses subject to compliance with the audit recommendations).

Recommendations

1. Asbestos containing materials were found on the audit site and have been removed as far as reasonably practicable. Small quantities of bonded asbestos cement (AC) fragments may remain within the soil and be uncovered during excavation works. These AC fragments are not anticipated to represent a health risk to occupiers of the completed development. If encountered during future development or use of the audit site, any fragments must be handled and disposed in accordance with the *NT Work Health and Safety Regulations 2011*, including the use of an appropriately licensed contractor.
 2. If groundwater is to be extracted from the site, advice including testing, should be sought from a suitably qualified professional to ensure the groundwater is suitable for the intended use.
 3. Any soil proposed to be excavated and disposed of off site after the completion of the audit, must be classified by a suitably qualified professional in accordance with relevant NT guidelines.
 4. Any fill material proposed to be imported to the audit site after the completion of the environmental audit, must be tested and classified as per relevant NT EPA guidance.
-

Other related information

Environmental audit statement

- Groundwater at the site contains naturally elevated concentrations of cobalt, copper, nickel and zinc. The levels are considered typical of the natural groundwater quality surrounding the site and do not constitute contamination in accordance with Clause 4 of the *Environment Reference Standard 2021*.
 - Soil at the audit site contains naturally elevated concentrations of nickel and manganese. The levels are considered typical of the regional soil quality surrounding the audit site and do not indicate the presence of contaminated land or represent a health or ecological risk. Local natural plants, grasses and fauna are likely to be adapted to these concentrations of analytes, however there may be some impact on the development of some introduced plants, grasses and fauna. It is recommended that advice is sought from a qualified horticulturalist regarding the suitability for vegetation and soil improvements that may be appropriate for the site.
 - Not all land uses for which the audit site is considered suitable by this environmental audit may be allowed under the existing zoning of the Darwin planning scheme.
 - In accordance with Section 214 of the Act, the person in management or control of the site must provide a copy of this statement to any person who proposes to become the person in management or control of the site.
-

Section 4: Environmental auditor's declaration

I state that:

- I am appointed as an environmental auditor by the Environment Protection Authority Victoria under the *Environment Protection Act 2017*. I am Suitably Qualified Person in accordance with Section 68 of the Waste Management and Pollution Control Act.
- The information contained in this statement represents a true and accurate summary of the findings of the environmental audit that I have completed.

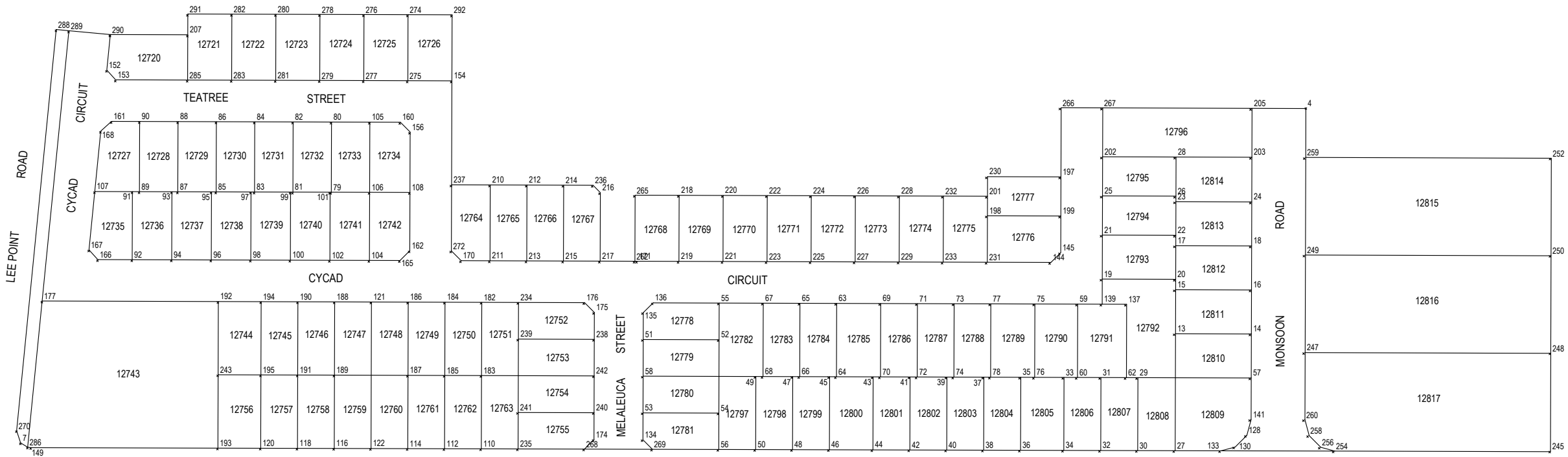
Date: 8 November 2022

Signed:

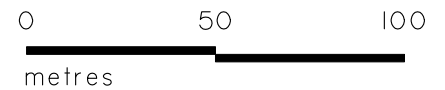


Name: Jean-Paul Pearce

Environmental Auditor



1	706134.330	8634057.691	38	706002.657	8633917.980	75	706023.590	8633977.753	112	705782.362	8633918.563	149	705613.324	8633919.010	186	705767.516	8633978.519	224	705932.222	8634022.027	261	705860.223	8634022.242
2	706134.270	8634037.690	39	705987.661	8633947.861	76	706023.501	8633947.754	113	705767.427	8633948.569	150	705839.520	8633918.412	187	705767.427	8633948.569	225	705932.142	8633995.027	262	705860.142	8633995.242
3	706112.330	8634057.757	40	705987.572	8633918.020	77	706005.590	8633977.807	114	705767.337	8633918.603	151	705645.778	8634087.920	188	705737.467	8633978.609	226	705950.222	8634021.973	265	705860.223	8634022.242
4	706134.330	8634057.691	41	705972.581	8633947.906	78	706005.501	8633947.807	115	705737.377	8633948.659	152	705644.341	8634073.406	189	705737.377	8633948.659	227	705950.141	8633994.973	266	706034.330	8634057.990
5	705613.324	8633919.010	42	705972.492	8633918.060	79	705736.076	8634023.450	116	705737.287	8633918.682	153	705647.947	8634069.413	190	705722.442	8633978.654	228	705968.222	8634021.919	267	706051.330	8634057.939
6	705611.996	8633919.160	43	705957.501	8633947.951	80	705736.161	8634052.150	117	705722.352	8633948.704	154	705785.362	8634069.003	191	705722.352	8633948.704	229	705968.141	8633994.919	268	705839.520	8633918.412
7	705609.122	8633920.957	44	705957.412	8633918.100	81	705720.396	8633923.497	118	705722.263	8633918.722	155	705764.311	8634052.066	192	705689.922	8633978.751	230	706004.246	8634029.812	269	705867.294	8633918.338
8	705607.491	8633925.912	45	705939.716	8633948.004	82	705720.481	8634052.197	119	705707.327	8633948.749	156	705768.299	8634048.054	193	705689.743	8633918.808	231	706004.141	8633994.812	270	705607.491	8633925.912
9	706099.648	8633917.723	46	705924.641	8633918.147	83	705704.716	8634023.544	120	705707.238	8633918.762	157	705768.154	8633999.517	194	705707.417	8633978.699	232	705986.222	8634021.865	271	705623.672	8634090.001
10	706146.114	8633917.600	47	705924.641	8633948.049	84	705704.802	8634052.243	121	705752.492	8633978.564	158	705641.872	8634048.450	195	705707.327	8633948.749	233	705986.141	8633994.865	272	705785.154	8633999.466
11	706034.246	8634029.722	48	705924.552	8633918.187	85	705689.036	8634023.590	122	705752.312	8633918.643	159	705646.265	8634052.418	196	706004.246	8634029.812	234	705812.591	8633978.384	273	705785.443	8634096.003
12	706034.330	8634057.990	49	705909.571	8633948.094	86	705689.122	8634052.290	123	705863.579	8633974.232	160	705764.311	8634052.066	197	706034.246	8634029.722	235	705812.412	8633918.483	274	705767.443	8634096.056
13	706081.054	8633965.582	50	705909.482	8633918.227	87	705673.356	8634023.637	124	705867.591	8633978.220	161	705646.265	8634052.418	198	706004.198	8634013.812	236	705843.035	8634026.293	275	705767.362	8634069.057
14	706112.054	8633965.489	51	705863.546	8633963.232	88	705673.442	8634052.337	125	706110.188	8633923.994	162	705768.154	8633999.517	199	706034.198	8634013.722	237	705785.235	8634026.466	276	705749.443	8634096.110
15	706081.108	8633983.582	52	705894.546	8633963.139	89	705657.676	8634023.684	126	706111.949	8633930.489	163	705764.142	8633995.529	200	705860.223	8634022.242	238	705843.546	8633963.292	277	705749.362	8634096.110
16	706112.108	8633983.489	53	705863.457	8633933.232	90	705657.762	8634052.384	127	706105.416	8633919.250	164	705640.672	8633995.898	201	706004.222	8634021.812	239	705812.546	8633963.384	278	705731.443	8634096.164
17	706081.162	8634001.581	54	705894.456	8633933.139	91	705654.796	8634023.693	128	706110.188	8633923.994	165	705764.142	8633995.529	202	706051.270	8634037.939	240	705843.457	8633933.292	279	705731.362	8634069.164
18	706112.162	8634001.489	55	705894.591	8633978.139	92	705894.591	8633978.139	129	705654.713	8633995.856	166	705640.672	8633995.898	203	706112.270	8634037.757	241	705812.457	8633933.384	280	705713.443	8634096.218
19	706051.121	8633987.940	56	705894.412	8633918.266	93	705894.412	8633918.266	130	706099.648	8633919.250	167	705637.066	8633999.891	204	706051.330	8634057.939	242	705843.502	8633948.342	281	705713.362	8634096.218
20	706081.121	8633987.850	57	706112.000	8633947.489	94	705670.873	8633995.808	131	705863.424	8633922.232	168	705641.872	8634048.450	205	706112.330	8634057.757	243	705689.832	8633948.801	282	705695.443	8634096.272
21	706051.175	8634005.939	58	705863.501	8633948.232	95	705687.116	8634023.596	132	705867.294	8633918.338	169	705785.154	8633999.466	206	705677.418	8634087.825	244	706234.669	8634037.379	283	705695.362	8634069.272
22	706081.175	8634005.850	59	706041.090	8633977.701	96	705687.033	8633995.760	133	706099.648	8633917.723	170	705789.142	8633995.454	207	705843.035	8634026.293	245	706234.311	8633917.367	284	705677.443	8634096.325
23	706081.216	8634019.581	60	706041.001	8633947.701	97	705703.276	8634023.548	134	705863.424	8633922.232	171	705861.142	8633995.239	208	705843.035	8634026.293	246	706146.114	8633917.600	285	705677.363	8634069.326
24	706112.215	8634019.489	61	706061.090	8633977.641	98	705703.193	8633995.711	135	705863.579	8633974.232	172	705839.591	8633978.303	209	705800.942	8633995.419	247	706134.031	8633957.894	286	705611.996	8633919.190
25	706051.223	8634021.939	62	706061.000	8633947.641	99	705719.436	8634023.500	136	705867.591	8633978.220	173	705843.579	8633974.292	210	705800.942	8633995.419	248	706234.431	8633957.585	287	705628.850	8634089.489
26	706081.222	8634021.850	63	705942.591	8633977.996	100	705719.352	8633995.663	137	706061.090	8633977.641	174	705843.424	8633922.292	211	705816.035	8634026.374	249	706134.151	8633997.789	288	705623.672	8634090.001
27	706080.911	8633917.773	64	705942.501	8633947.996	101	705735.596	8634023.451	138	706051.270	8634037.939	175	705843.579	8633974.292	212	705815.942	8633995.374	250	706234.550	8633997.479	289	705628.850	8634089.489
28	706081.270	8634037.850	65	705927.591	8633978.040	102	705735.512	8633995.615	139	706051.090	8633977.671	176	705839.591	8633978.303	213	705831.035	8634026.329	251	706134.270	8634037.690	290	705645.778	8634087.920
29	706065.690	8633947.628	66	705927.501	8633948.041	103	705751.756	8634023.403	140	706112.270	8634037.757	177	705617.912	8633978.966	214	705830.942	8633995.329	252	706234.669	8634037.379	291	705677.443	8634096.325
30	706065.601	8633917.813	67	705912.591	8633978.085	104	705751.672	8633995.566	141	706111.949	8633930.489	178	706112.330	8634057.757	215	705846.026	8634023.284	253	706140.416	8633919.146	292	705785.443	8634096.003
31	706050.596	8633947.673	68	705912.501	8633948.085	105	705751.841	8634052.103	142	706030.141	8633994.734	179	706112.270	8634037.757	216	705845.942	8633995.285	254	706146.114	8633917.600			
32	706050.506	8633917.853	69	705960.591	8633977.942	106	705751.756	8634023.403	143	705861.142	8633995.239	180	706051.330	8634057.939	217	705878.222	8634022.188	255	706135.672	8633923.918			
33	706035.501	8633947.718	70	705960.501	8633947.942	107	705639.426	8634023.739	144	706030.141	8633994.734	181	706051.270	8634037.939	218	705878.142	8633995.188	256	706140.416	8633919.146			
34	706035.411	8633917.893	71	705975.591	8633977.897	108	705768.225	8634023.354	145	706034.153	8633998.722	182	705797.566	8633978.429	219	705896.142	8634022.081	257	706133.949	8633930.423			
35	706017.831	8633947.771	72	705975.501	8633947.897	109	705797.477	8633948.479	146	706034.246	8634029.722	183	705797.477	8633948.479	220	705914.222	8634022.081	258	706135.672	8633923.918			
36	706017.741	8633917.940	73	705990.590	8633977.852	110	705797.387	8633918.523	147	705843.424	8633922.292	184	705782.541	8633978.474	221	705914.142	8633995.081	259	706134.270	8634037.690			
37	706002.746	8633947.816	74	705990.501	8633947.852	111	705782.452	8633948.524	148	705839.520	8633918.412	185	705782.452	8633948.524	222			260	706133.949	8633930.423			



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**MUIRHEAD NORTH
 LOT 9370, TOWN OF NIGHTCLIFF**

LOT 1A BOUNDARY COORDINATES

Client: **DEFENCE HOUSING AUSTRALIA**



Drawn by: SH
 Date: 4/11/2022
 Cad File: 11060-9.DWG

Scale: 1:2000 (A3)

Datum:

Drawing No:
22/11060/9

Executive Summary

This report details the results of an environmental audit of the property known as Muirhead North Stage 1A – Portion of Lot 9370, Lee Point, Northern Territory (the site). The location of the site is shown in Figure 1.

The environmental audit was completed in response to and in accordance with Section 208 of the *Environment Protection Act 2017* and the guidelines issued by EPA Victoria for the environmental audits of contaminated sites, including *Guidelines for Conducting Environmental Audits* (EPA Publication 2041) and *Environmental Auditor Guidelines – Provision of Statements and Reports for Environmental Audits and Preliminary Risk Screen Assessments* (EPA Publication 2022). In accordance with EPA Publication 2022, the tables below summarises the results of the audit completed.

Table 1: Summary of Audit Report Information

Item	Detail
Auditor	Jean-Paul Pearce
Auditor account number	289162
Date EPA notified of audit	21 September 2022
Environmental Audit reference	NTEPA2017/0102-030
Name of person requesting audit	Mr Chris Grimm Senior Development Manager Defence Housing Australia (Herein referred to as requestor)
Relationship of person requesting audit to site	Authorised representative of the site owner/developer
Name of site owner	Defence Housing Australia
Date of auditor engagement	15 September 2022
Completion date of the audit	8 November 2022
Reason for audit	Condition of the Development Application DP19/0050 Condition 29
Elements of the environment assessed	Land and water (groundwater)
Planning permit number or requirement detail if applicable	DP19/0050
EPA Region	Darwin
Municipality	Lee Point
Dominant – Lot on plan	Portion of Lot 9370, refer to Figure 2.
Additional – Lot on plan(s)	Not applicable
Site/premises name	Muirhead North Stage 1A
Building/complex sub-unit No.	-
Street/Lot – Lower No.	544
Street/Lot – Upper No.	-

Environmental Audit Report

Muirhead North Stage 1A – Portion of Lot 9370,
Lee Point, Northern Territory



Item	Detail	
Street Name	Lee Point	
Street type (road, court, etc.)	Road	
Street suffix (North, South etc.)	-	
Suburb	Lee Point	
Postcode	0810	
Site area (in square metres)	81,700 m ² (stage 1A only)	
Plan of site/premises showing the audit site boundary attached	Refer to survey plan, Figure 3.	
Members and categories of support team utilised	Bridget Roder (AEA) for technical audit support and Alyson Macdonald for peer review of audit report	
Further work or requirements	None	
Nature and extent of continuing risk of harm	<p>Risks in groundwater have not been found to be significant, however the condition of the groundwater should be tested by an appropriately qualified environmental consultant (to determine the suitability thereof) prior to being utilised for extractive use.</p> <p>Risks in soil vapour have not been found to be significant.</p> <p>Risks in soils have not been found to be significant with all known on-site ACM having been removed from site. ACM has been encountered beyond the site boundary and is not a risk to this site provided offsite asbestos removal and earthworks are managed in accordance with relevant guidance.</p>	
Outcome of environmental audit report	Environmental Audit Statement with recommendations	
Land use suitability	Suitable for the proposed use (and less sensitive uses) subject to compliance with recommendations.	
Has groundwater cleanup been undertaken as far as reasonably practicable?	Not applicable	
Does groundwater contamination remain at the site and is the site the source?	No	
If groundwater contamination remains, does it extend off-site?	Not applicable	
Is a GQRUZ recommended?	No	
If applicable, please indicate which of the following are threatened environmental values of groundwater	For example, site-sourced and regional pollution.	
	Water dependent ecosystems and species	No
	Potable water supply (desirable)	No
	Potable water supply (acceptable)	No
	Potable mineral water supply	N/A
	Agriculture and irrigation (irrigation)	No
	Agriculture and irrigation (stock watering)	No
	Industrial and commercial	No
	Water-based recreation (primary contact recreation)	No
Traditional Owner cultural values	No	

Item	Detail	
	Buildings and structures	No
	Geothermal properties	N/A
Is ongoing groundwater monitoring required?	No	
Is ongoing vapour/gas monitoring required?	No	
Are vapour/gas mitigation measures required?	No	

Table 2: Physical Site Information

Item	Detail
Current EPA permissions/s and related permission ID if applicable	DP19/0050 Condition 29
Historical land use	Undeveloped bushland
Current land use	Development site pending completion of audit
Proposed future land use	Low density residential with a child care centre, café, residential sales office, pocket park, internal roads, road verges and a drainage reserve.
Current land use zoning	Future Development (FD)
Proposed land use zoning	Future Development (FD)
Surrounding land use – north (if applicable)	The balance of Lot 9370 comprising bushland, and beyond is located Power and Water Corporation sewer pump station and compound and Lee Point Village Resort.
Surrounding land use – south (if applicable)	The residential suburb of Muirhead
Surrounding land use – east (if applicable)	The balance of Lot 9370, comprising undeveloped and generally undisturbed woodland, and beyond is Buffalo Creek Management Area and Leanyer Swamp.
Surrounding land use – west (if applicable)	Lot 4873 zoned Future Development, and beyond is a Conservation zoned area comprising monsoon vine thicket and the Casuarina Coastal Reserve.
Has EPA been notified about the site under Section 40 of the <i>Environment Protection Act 2107</i> ¹ ?	No - not applicable
Nearest surface water receptor – name	Buffalo Creek
Nearest surface water receptor – direction	800 m East

¹ Section 40 refers to a duty to notify EPA of notifiable contamination. Further information in relation to this can be found in EPA Publication 2008 *Notifiable Contamination Guideline: Duty to Notify of Contaminated Land*.

Item	Detail
Likely point of groundwater discharge	Buffalo Creek
Site aquifer formation	Fractured and weathered rock
Groundwater flow direction	East
Groundwater TDS range (mg/L)	120 - 200
Groundwater segment	A1
Are there multiple aquifers impacted by pollution at the site?	No
Perched groundwater depth – upper (metres below ground level (mbgl))	Not applicable
Perched groundwater depth – lower (mbgl)	Not applicable
Regional groundwater depth – upper (mbgl)	Groundwater levels not measured during the wet season, when water levels are expected to be higher, potentially within 2 mbgl.
Regional groundwater depth – lower (mbgl)	Approximately 5
Number of bores within 2 km	30
Closest extractive use (distance in m)	900
Zone of groundwater plume influence (m from site boundary)	Not applicable
Year groundwater last monitored	2022

Read in Conjunction with Audit Report

This executive summary summarises the key points of the audit report. The executive summary must be read in conjunction with the full audit report (Australian Environmental Auditors Pty Ltd, ref. EA0975, *Environmental Audit Report, Muirhead North Stage 1A – Portion of Lot 9370, Lee Point, Northern Territory*, 8 November 2022).

List of Abbreviations

Note: Chemical nomenclature follows rules defined by the International Union of Pure and Applied Chemistry (IUPAC) unless otherwise stated.

Abbreviation	Description
ACM	asbestos containing materials
AF	asbestos fines
AHD	Australian height datum
AMP	asbestos management plan
ANZECC	Australian and New Zealand Environment and Conservation Council
ARMCANZ	Agriculture and Resource Management Council of Australia and New Zealand
ASS	acid sulphate soil
B(a)P	benzo(a)pyrene
BTEX	benzene, toluene, ethylbenzene and xylenes
BTEXN	benzene, toluene, ethylbenzene, xylenes and naphthalene
BToC	below top of casing
CEC	cation exchange capacity
CoC	chain-of-custody
CoPC	chemical of potential concern
CoT	certificate(s) of title
CSM	conceptual site model
CUSFARP	clean-up as far as reasonably practicable
DNAPL	dense non-aqueous phase liquid
DSI	detailed site investigation
DQI	data quality indicator
DQO	data quality objective
EAO	environmental audit overlay
EAR	environmental audit report
EAS	environmental audit statement
EIL	ecological investigation level
EMP	environmental management plan
EPA	Environment Protection Authority
ERS	environmental reference standard
ESL	ecological screening level
GIS	geographic information system
GME	groundwater monitoring event
GQMP	groundwater quality management plan
GQRUZ	groundwater quality restricted use zone
HIL	human health-based investigation level
HSL	human health screening level
HVOC	halogenated volatile organic compound
LPG	liquid petroleum gas
LNAPL	light non-aqueous phase liquid
LOR	limit of reporting
mAHD	metres Australian height datum
MAH	monocyclic aromatic hydrocarbon
mBGL	metres below ground level
mBTOC	metres below top of casing
NA	not applicable

Environmental Audit Report

Muirhead North Stage 1A – Portion of Lot 9370,
Lee Point, Northern Territory



Abbreviation	Description
NAPL	non-aqueous phase liquid
NATA	National Association of Testing Authorities, Australia
NE	no exceedance
NEPM	National Environment Protection Measure
NHMRC	National Health and Medical Research Council
OCP	organochlorine pesticide
OPP	organophosphate pesticide
PAHs	polycyclic aromatic hydrocarbons
PCB	polychlorinated biphenyl
PCE	tetrachloroethene
PFAS	per- and poly-fluoroalkyl substances
PID	photoionisation detector
PSI	preliminary site investigation
PQL	practical quantitation limit
QA/QC	quality assurance/quality control
RAP	remediation action plan
RB	rinsate blank
RPD	relative percent difference
SAQP	sampling and analysis quality plan
SEPP	state environment protection policy
SS	suspended solids
SWL	standing water level
TB	trip blank
TCE	trichloroethene
TDS	total dissolved solids
TEQ	toxic equivalence quotient
TIT	triple interceptor trap
ToC	top of casing
TRHs	total recoverable hydrocarbons
TPHs	total petroleum hydrocarbons
UCL	upper confidence limit
US EPA	United States Environmental Protection Agency
UST	underground storage tank
VC	vinyl chloride
VHC	volatile chlorinated hydrocarbons
VOC	volatile organic compound



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 Certified System	 Certified System	 Certified System
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