# *Contaminated Sites Act 2003*
# Basic Summary of Records Search Response

Report generated at 12:31:15PM, 17/06/2025

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| *Receipt No:* | |
| *ID No:* | *66560* |

**Search Results**

This response relates to a search request received for:

49 Longford Rd
Beaconsfield, WA, 6162

This parcel belongs to a site that contains 33 parcel(s).

According to Department of Water and Environmental Regulation records, this land has been reported as a known or suspected contaminated site.

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| **Address** | 49 Longford Rd<br>Beaconsfield, WA, 6162 |
| **Lot on Plan Address** | Lot 63 On Plan 401867 |
| **Parcel Status** | **Classification:** 04/07/2016 - *Remediated for restricted use*<br>**Nature and Extent of Contamination:**<br>Landfill material including asbestos, hydrocarbons (such as from petrol, diesel or oil) and the polycyclic aromatic hydrocarbon benzo(a)pyrene are present in soil at the site, contained beneath a clean fill layer of at least 1.25 m depth.<br>Landfill gases including methane, carbon dioxide, hydrogen sulfide and volatile organic compounds are present in fill material beneath the site. Building construction guidelines are in place to manage the risks associated with landfill gas.<br>**Restrictions on Use:**<br>The site is to be managed in accordance with 'Environmental Site Management Plan for Proposed Dwellings at Lot 9002 Longford Road, Beaconsfield WA, Version 12 (MDW, 25 May 2016)' and any subsequent amendments to that plan approved by DER. The Environmental Site Management Plan can be obtained from the City of Fremantle, or from the Department of Environment Regulation.<br>Buildings constructed on the site are required to comply with engineering specifications applicable to Characteristic Situation 3 (CS3) as outlined in the documents "Assessing the risk posed by hazardous ground gases to buildings (C665) (CIRIA, 2007)" and "Code of practice for the design of protective measures for methane and carbon dioxide ground gasses for new buildings (BS8485, July 2015)", in order to manage and mitigate potential risks associated with landfill gases.<br>CS3 minimum mitigation measures include:<br>¿ Reinforced concrete cast in situ floor slab,<br>¿ All joints and penetrations sealed,<br>¿ Installation of a proprietary gas resistant membrane, and<br>¿ Passively (or actively) ventilated underfloor sub-space.<br>The above control measures must be certified and verified by a suitably qualified person. |

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Examples of acceptable gas mitigation systems are provided in the document 'Environmental Site Management Plan for Proposed Dwellings at Lot 9002 Longford Road, Beaconsfield WA, Version 12 (MDW, 25 May 2016)'. Other gas mitigation designs may be adopted, provided they are demonstrated to be compliant with the requirements of the above guideline documents, and endorsed as such by an accredited contaminated site auditor.
Prior to slab construction, engineered gas mitigation systems, must be inspected, tested and certified by an appropriately qualified and experienced structural engineer and confirmed to comply with the relevant engineering specifications. Appropriate certification reports, prepared by the structural engineer must be provided to DER for review no more than fourteen (14) days after the date on which the inspection and testing was undertaken.

The proprietary gas-resistant membrane must be installed and tested by a suitably qualified and experienced specialist contractor.

Construction of subsurface voids, including but not limited to the installation of soakwells, is restricted to a maximum depth of 1 metre below the surface.

Due to the presence of asbestos in soils underlying the capping layer at the site, a site-specific health and safety plan is required to address the risks to the health of any workers undertaking intrusive works below 1.25 m depth.

Due to the nature and extent of groundwater contamination identified to date, the abstraction of groundwater for any purpose other than analytical testing or remediation is not permitted.

**Reason for Classification:**

This site previously formed part of a larger residential subdivision known as Salentina Ridge Estate, which was originally reported to the Department of Environment Regulation (DER) as part of the approval process for residential subdivision of the site. The site occupies the eastern portion of the former Salentina Ridge Estate adjoining a former City of Fremantle landfill site. The site was first classified under section 13 of the Act based on information submitted to DER by September 2007. The site was classified again under section 13 of the Act to reflect additional technical information submitted to DER by October 2013. The site has been classified again under section 13 of the Act to reflect further technical information submitted to DER by June 2016.

The site was historically used as a landfill for the disposal of inert demolition and construction waste in accordance with a waste disposal license (Ref: 7106/5) issued under the Environment Protection Act 1986. This is a land use that has the potential to cause contamination, as specified in the guideline 'Assessment and Management of Contaminated Sites' (Department of Environment Regulation, 2014).

The site was subject to a soil and groundwater investigation between 1999 and 2003, to comply with a condition that had been placed by the Western Australian Planning Commission (WAPC) on the site as part of the planning approval process in 2003. Further groundwater investigations were carried out between 2005 and 2007 as part of an application to abstract groundwater for the irrigation of public open space on site. Groundwater investigations identified the presence of chloride and boron at concentrations exceeding Long Term Irrigation criteria levels, but below Australian Drinking Water Guidance levels as published in 'Assessment Levels for Soil, Sediment and Water' (Department of Environment and Conservation, 2010).

The site was subject to a remediation and validation program carried out between April and July 2003

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comprising the excavation and off-site disposal of contaminated soils, and validation sampling confirming that the remediation works undertaken were complete and effective. DER understood at the time that the site was to be covered with at least 0.7 m of clean imported sand. DER, on the advice of Department of Health, recommended that as a precautionary measure the thickness of clean soil should be increased to at least 1.25 m across the site to prevent the disturbance of the underlying waste material.

Subsequent to the remedial works conducted in 2003, due to stability issues arising from the steep downward grade to the adjoining former City of Fremantle landfill, the site remained vacant while the western portion of the Salentina Ridge Estate was developed. Between January and September 2010 approximately 93000 cubic metres of fill material was imported to the adjoining former City of Fremantle landfill lot to stabilise and batter the site's eastern boundary.

Between April and December 2012 soil and ground-gas investigations were undertaken on the site. Investigations identified the presence of hydrocarbons (such as from petrol, diesel or oil) and the polycyclic aromatic hydrocarbon, benzo(a)pyrene at concentrations exceeding Health-based Investigation Levels for residential land use with accessible soils, as published in 'Assessment Levels for Soil, Sediment and Water' (Department of Environment and Conservation, 2010), which were the relevant assessment levels at the time. Investigations also identified the presence of asbestos containing material at concentrations exceeding residential criteria prescribed in the Guideline for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia (Department of Health, 2009) at one location. Investigations also identified the presence of ground gases, including methane, carbon dioxide, hydrogen sulphide and volatile organic compounds, in fill material beneath the site.

Further investigation, remediation and validation works were carried out at the site in 2014. Additional clean fill was imported during 2014 site works to meet the requirement for a 1.25 m capping layer across the site. The depth of the capping layer was subsequently validated by intrusive sampling at a minimum two locations within each proposed residential lot. Potential contaminants in underlying soils of the site are therefore contained such that human and environmental receptor exposure is restricted as long as the capping layer remains intact.

As a component of 2014 investigations, asbestos impacts within the capping layer were assessed, and asbestos fibres were identified within a small area of capping material on the southern portion of the site. The impacted soils were remediated by excavation, off-site disposal and replacement with clean back-fill soil. Minor surface finds of asbestos containing material (ACM) were remediated by emu-picking and raking. Validation confirmed that all identified asbestos impacts within the capping layer were successfully remediated.

Nine phases of landfill gas monitoring were undertaken at the site between February and July 2014. The majority of monitoring events identified gas concentrations and flow rates consistent with a 'moderate' relative risk rating (CS3) as outlined in "Assessing the risk posed by hazardous ground gases to buildings (C665) (CIRIA, 2007)" which is the relevant guideline for the assessment of risks associated with landfill gases adopted in WA. Ground gases detected include carbon dioxide, hydrogen sulphide and volatile organic compounds.

An Environmental Site Management Plan (ESMP) was prepared for the site to provide examples of appropriate design features for future buildings at the site, in order to mitigate the risks associated with landfill gases. The ESMP also provides for the management of contaminated soils contained beneath the capping layer at the site.

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| | The investigations remediation and validation works, and the recommendations of the ESMP, were the subject of an independent review by an accredited contaminated sites auditor who provided a mandatory auditor's report (MAR) dated 15 April 2015, and two addendums to the MAR dated 18 December 2015, and 1 June 2016. The MAR and addendums recommended that the site is suitable for the proposed residential land use, subject to implementation of the ESMP, and provided that future buildings at the site are constructed in accordance with specific design requirements specified for the management of risks associated with landfill gases. DER accepts the findings of the MAR.<br><br>Groundwater investigations carried out between 2005 and 2007 identified elevated concentrations of chloride and metals indicating that landfill leachate may have impacted groundwater beneath the site. No further groundwater investigations have been carried out. Given that the quality of groundwater at the site is unknown, the MAR recommended that groundwater use be restricted to protect human health and the environment. DER concurs with this recommendation of the MAR.<br><br>As the site is contaminated and has been remediated such that it is suitable for the proposed residential development, subject to implementation of the ESMP; and subject to construction of buildings on the site being compliant with restrictions applied for the management of landfill gases; and provided that groundwater is not abstracted; the site is classified as 'remediated for restricted use'.<br><br>A memorial stating the site's classification has been placed on the certificate of title, and will notify any prospective owners of the contamination status of the site.<br><br>DER, in consultation with the Department of Health, has classified this site based on the information available to DER at the time of classification. It is acknowledged that the contamination status of the site may have changed since the information was collated and/or submitted to DER, and as such, the usefulness of this information may be limited.<br><br>**Action Required:**<br><br>Please refer to the Restrictions on Use applicable to the site. |
| **Certificate of Title Memorial** | Under the Contaminated Sites Act 2003, this site has been classified as "remediated for restricted use". For further information on the contamination status of this site, please contact Contaminated Sites at the Department of Environment Regulation. |
| **Current Regulatory Notice Issued** | **Type of Regulatory Notice:** *Nil*<br><br>**Date Issued:** *Nil* |
| **General** | No other information relating to this parcel. |