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# Guideline

# Environmental

# Site Assessment

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## Background

Activity on leased federal airport land is controlled by the *Airports Act 1996* (Airports Act) and Airports (Environment Protection) Regulations 1997 (Airports Regulations). Since 1998 Adelaide Airport Limited (AAL) and Parafield Airport Limited (PAL) have leased the Adelaide and Parafield Airport sites from the Federal Government. The Department of Infrastructure and Regional Development (DoIRD) is charged with administration of the Airports Act and is responsible for overseeing the activities on leased airport land. As lessees, AAL and PAL are responsible for managing airport activities and are required to report any potential degradation and devaluation of the land from its operations to DoIRD. To oversee protection of the environment on airports, an Airport Environment Officer (AEO) is employed by DoIRD to administer the Airports Act and the Airports Regulations.

In certain circumstances, under the Airports Regulations there may be a requirement for an Environmental Site Assessment (ESA) to be undertaken on airport land for the purpose of determining the existence of soil and/or groundwater pollution.

The determination of the need for any ESA is the responsibility of the AEO for the airport in the following circumstances:

- when the soil or groundwater in an area of environmental significance, or otherwise, is contaminated by a specified pollutant to the extent defined in the Airports Regulations, or is possibly migrating to another place
- when the area is likely to have previously been subject to a contaminating activity and is subject to a sub-lease, or license, that is proposed to be terminated or transferred (in which case an ESA is necessary two months before lease expiration or assignment)
- when the soil in an area of land is affected by a proposed change of use under a Master Plan that warrants greater environmental protection measures because the future use will result in the land being used in a way, or for a purpose, that it is reasonably likely to cause greater harm to the environment, or to the health and safety or welfare of occupants or stakeholders

- where construction activities cause soil and/or groundwater contamination or are expected to intersect existing contamination.

Under relevant leasehold tenure, predominantly ground leases for land with a history of activities likely to cause contamination, an initial ESA may be specified as a condition precedent of the lease, or be deemed necessary by the AEO to specifically ascertain the contamination status of the land and set a baseline for eventual lease relinquishment.

Where an ESA is included as a lease requirement, it will be referred to the AEO by AAL and PAL in the event or risk of soil and/or groundwater pollution.

## Objectives

The **objectives** of an **'initial'** ESA should be to:

1. *Establish the contamination status of the site prior to activities being undertaken by the incoming lessee*
2. *Provide baseline site contamination information for the purpose of establishing whether tenant activities have contributed to soil and/or groundwater contamination on the lease site prior to lease relinquishment*

The **objectives** of a **'final'** ESA should be to:

1. *Establish the contamination status of the site at the end of the lease term*
2. *Provide sufficient data for comparison with the results of the initial baseline assessment*
3. *Determine if tenant activities undertaken on the lease site have contributed to soil and/or groundwater contamination*
4. *Determine any requirements and responsibility for site remediation prior to lease relinquishment.*

## Due Diligence

ESAs may also be required as part of due diligence prior to the commencement of proposed developments and/or the execution of underleases.

Where a proposed development does eventually proceed and/or a tenant enters an underlease following the due diligence process, any existing due diligence ESAs for the subject site may be used for the purpose of an 'initial' ESA. It is thus important to ensure the scope of any due diligence ESAs satisfies the requirements for 'initial' ESAs.

## Consultation with AAL/PAL Environment Department

The AAL/PAL Environment Department is available to provide guidance and advice to parties seeking to undertake ESAs on airport land.

Where appropriate, the Environment Department can assist with ESAs by:

- providing historical environmental site information for ESAs, including copies of reports on previous environmental investigations (which can reduce the required scope of ESAs or in some cases, negate the need for additional environmental investigations)
- advising on the appropriate scoping of ESAs in relation to any historical and proposed potentially contaminating site activities
- assist in identifying potential project and development contamination risks.

## Regulatory context

As discussed above, Adelaide and Parafield Airports are located on federal land and activities occurring on-airport are thus subject to the provisions of the:

- Airports Act 1996
- Airports (Environment Protection) Regulations 1997

Furthermore, because the airports are located on federal land, soil and groundwater pollution does not fall within the jurisdiction of the South Australian Environment Protection Authority (SA EPA).

State environmental legislation is only applicable to on-airport activities when there is an established material risk to the off-airport environment.

Consequently, all environmental assessments need to be undertaken in accordance with the federal airport legislation.

### Interaction with the National Environment Protection (Assessment of Site Contamination) Measure 1999

The provisions of the Airports Regulations require that environmental assessments be undertaken in a manner consistent with any national environment protection measures, including the *National Environment Protection (Assessment of Site Contamination) Measure 1999* (ASC NEPM 1999).

These provisions of the Airports Regulations requiring consistency with the ASC NEPM 1999 relate to sampling and assessment methodologies rather than any obligations to compare contaminant concentrations with ASC NEPM 1999 investigation levels. Contaminant concentrations in on-airport ESAs must instead be compared to the criteria provided in Schedules 2 and 3 of the AEPR 1997.

### Notification under s83A of the Environment Protection Act 1993 (SA)

There is **no** requirement to notify the SA EPA of actual or potential harm to groundwater, as required under s83 of the Environment Protection Act 1993; unless, there is clear evidence that on-airport contamination presents a risk of serious or material harm to groundwater off-airport.

Where required, AAL/PAL is able to provide copies of official communications with the SA EPA, confirming that there is no requirement to notify under s83A.

As head lessee of Adelaide and Parafield Airports, AAL/PAL expects consultants and contractors to notify them of the potential need for notification under s83A, rather than directly approaching the SA EPA on behalf of AAL/PAL. This enables the AAL Environment Department to ensure that all regulatory bodies such as DIRD and the SA EPA are appropriately notified in accordance with legislative requirements. This also applies where consultants and contractors undertake works for tenants (unless circumstances require consultants to do so in order to meet their regulatory obligations).

## Consultants

An ESA on airport land should involve an assessment of soil and/or groundwater and must be undertaken by a competent person/organisation with adequate environmental experience and training. There are a number of specialist consultancy companies who offer services for undertaking such works.

Careful consideration should be taken when choosing a consultant as individual site assessments may require specific background knowledge and expertise.

The following options are available for choosing a suitably qualified consultant:

- contact a company that employs a Site Contamination Auditor accredited by the EPA. The auditor register is available on the EPA website (available at [www.epa.sa.gov.au](http://www.epa.sa.gov.au))
- contact the South Australian branch of the Australian Contaminated Land Consultants Association (ACLCA) for a list of current members on 08 8243 2505 or available at [www.aclca-sa.org.au](http://www.aclca-sa.org.au)
- seek advice from a trusted person who has previously engaged a consultant that successfully demonstrated acceptable standards of competency and completed similar projects successfully.

### AAL/PAL Environment Department Assistance - Internal

Where ESAs are to be commissioned by AAL/PAL, the Environment Department can assist in:

- developing and reviewing proposed ESA scopes
- obtaining a proposal to undertake the ESA from a consultant on the AAL/PAL Contaminated Site Management Consultancy Panel
- the commissioning and management of consultants undertaking ESAs.

## Sampling Requirements

An ESA must meet the following minimum requirements:

- methodology used is to be consistent with the *National Environment Protection (Assessment of Site Contamination) Measure 1999*
- assessment scope must consider historical and current activities on sites that may have resulted in site contamination
- assessment scope must consider whether the proposed activities for the lease site could be potentially contaminating and consequently, may result in site contamination that is subject to review under the Airports Regulations. For example, if an underground storage tank is to be used/installed, then it is expected that the initial ESA will provide scope to include soil sampling at depth or down gradient from the proposed location of the underground storage tank and possibly groundwater assessment to provide sufficient background information should the tank leak/rupture during the period of the lease
- the number of soil samples should be sufficient to characterise the site and be consistent with published standards and guidelines. The work scope should include the sampling (and analysis) of soils from various depths in the soil profile, especially from within individual fill and natural soil layers.

All sampling programs must include an adequate quality assurance and quality control program in order to ensure the reliability and validity of assessment results.



## ESA Report Content

The report should provide as a minimum:

- lease and site description, including tenant details and site address
- aerial photo indicating site boundary and sampling locations
- clear statement of ESA objectives
- brief background to the site's previous activities/land use history, and details of the proposed site activities
- methodology and rationale, where warranted, for the positioning of soil sampling locations and the sample chemical analyses
- site plan showing any improvements on the site, site boundary, position of sampling locations, orientation (indicate north) and any details relevant to the ESA, such as inferred groundwater flow direction if groundwater investigations form part of the ESA
- soil bore logs and groundwater well construction details (including a copy of the Department for Water well permit and GPS locations of the installed groundwater wells)
- laboratory reports (Certificates of Analysis), as produced by a National Association of Testing Authorities (NATA) certified laboratory, with a summary table comparing results with Schedule 3 Soil pollution - accepted limits and Schedule 2 Water pollution -accepted limits, of the Airports Regulations, as required. Advice may be sought from AAL/PAL as to which criteria are most appropriate for the site under investigation, based on surrounding land uses
- comparison of analytical results with the criteria provided in Schedules 2 and 3 of the Airports Regulations
- a statement on site condition, based on the results of the ESA.

These reports will be referred by AAL/PAL to the AEO in the event of actual or potential soil and/or groundwater pollution.

## Other Assessment Considerations

Consistent with the provisions of the Airports Regulations, the AEO has the right to request additional soil and/or groundwater monitoring based on the results of the ESA.

The installation of groundwater wells requires Building Activity Consent and Approval under the Airports (Building Control) Regulations 1996. Two approvals are required: one from AAL/PAL and one from the Airport Building Controller. Please refer to the Building Activity Application Package - **Adelaide and Parafield Airports** for further information (available at [www.adelaideairport.com.au](http://www.adelaideairport.com.au)).

## Consideration of PFAS contamination risks

Potential per- and poly-fluorinated alkyl substances (PFAS) contamination risks may need to be considered in the scope of ESAs where:

- the subject site is located within an area where firefighting training using aqueous film forming foam (AFFF) is known or suspected to have occurred
- the subject site is located down gradient of a site where firefighting training using AFFF is known or suspected to have occurred *and* groundwater beneath the subject site is likely to be intersected.

Where activities involving potential PFAS contamination risks are associated with Building Activity Consent and Approval (BA) under the Airports (Building Control) Regulations 1996, the AAL/PAL Environment Department will undertake a PFAS Trigger Assessment to determine potential PFAS contamination risks and establish any requirement for the inclusion of PFAS sampling and analysis in ESAs.

The AAL/PAL Environment Department is also able to provide guidance on PFAS contamination risks for activities falling outside the BA process.

## Internal Assistance

The Environment Department is available to provide advice and information on any matters relating to PFAS contamination risks. This includes further guidance briefs that provide an overview of the current PFAS regulatory framework and implications to planning and development.

## Further Guidance and References

The AAL/PAL Environment Department can assist in clarifying AAL/PAL's expectations of ESA's and can provide historical information on a site, where required.

Published documentation which may provide further assistance includes:

- National Environment Protection (Assessment of Site Contamination) Measure 1999, National Environment Protection Council ([www.nepc.gov.au/nepms](http://www.nepc.gov.au/nepms))
- Guidance provided by South Australian Environment Protection Authority (EPA), [www.epa.gov.au](http://www.epa.gov.au)
- AS 4482.1:2005, Guide to the sampling and investigation of potentially contaminated soil - Non-volatile and semi-volatile compounds
- AS 4482.2:1999, Guide to the sampling and investigation of potentially contaminated soil - Volatile substances
- AS 4964:2004, Method for the qualitative identification of asbestos in bulk samples
- AS/NZS 5667.11:1998, Water quality - Sampling - Guidance on sampling of groundwaters



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