

Environment and Heritage Expertise

Technical Guideline

# TG 0875.41 – Site contamination

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**Confidentiality:** OFFICIAL



**Government of  
South Australia**

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## Significant/major changes incorporated in this edition

Not applicable - this is the first edition of the Technical Guideline.


## Document controls

### Version history

Version	Date	Author	Comments
1.0	28 August 2025	Various	Issued for Use

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### Approvers

Approver Name	Approver Role	Signature
Tim Kildea	Manager Environment and Heritage Expertise	<div>16/09/2025</div> <div>X </div> <div>Tim Kildea Manager Environment and Heritage Expertise Signed by: KI000359</div>
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### Reviewers

Name	Role	Version	Review Date
Environment and Heritage Expertise Team	Team review of guidelines.	1.0	28-08-2025

# 1 Introduction

This guideline relates to the prevention, control, and management of site contamination which may be encountered, created, or worsened during a project, including construction or maintenance activities within an on-site work area or off-site vicinity.

It forms part of the TG 0875 Environment and Heritage Technical Guidelines and is designed to provide insight into regulatory obligations associated dewatering, dredging and earthworks drainage, as well as suggested approaches to manage risk.

Note the guideline is not exhaustive, and additional requirements may be necessary based on project- or site-specific activities, geographical location, or approval conditions.

## 1.1 Environment and Heritage Technical Guidelines Suite

The SAWG-ENV-0875 Environment and Heritage Technical Guidelines suite includes:

- TG 0875.00: General requirements
- TG 0875.11: Aboriginal heritage and Native Title
- TG 0875.12: Non-Aboriginal heritage
- TG 0875.21: Vegetation
- TG 0875.22: Fauna
- TG 0875.23: Weed hygiene
- TG 0875.24: Phytophthora
- TG 0875.31: Surface water
- TG 0875.32: Groundwater
- TG 0875.33: Recycled water
- TG 0875.34: Sediment, erosion and stormwater
- TG 0875.35: Dewatering, dredging and earthworks drainage
- **TG 0875.41: Site contamination (this guideline)**
- TG 0875.42: Acid sulfate soils
- TG 0875.43: Hazardous substances
- TG 0875.51: Dust
- TG 0875.52: Odour
- TG 0875.53: Noise and vibration
- TG 0875.61: Spoil management
- TG 0875.62: Recycling
- TG 0875.63: Waste management

This guideline must be read in conjunction with TG 0875.00: General requirements

## 1.2 General requirements

TG 0875.00: General requirements apply to all aspects of the work:

1. Purpose
2. Application
3. Scope
4. Statutory obligations
5. Strategic alignment
6. Terms and abbreviations

## 2 Site contamination

### 2.1 Overview

MANAGEMENT	
<b>Commitment</b>	<p>Minimising soil disturbance and excavation will reduce the likelihood of encountering contaminated material, which presents risks to the environment, and the health and safety of staff and community.</p> <p>Contaminants of potential concern (COPC) may include metals, volatile organic compounds, hydrocarbons, asbestos (bonded and loose), herbicides, pesticides and per- and polyfluoroalkyl substances (PFAS) which can be found in soils, surface water, groundwater and vapour.</p> <p>Protecting the environment from harm through exposure to contamination is regulated through federal and state legislation.</p>
<b>Strategic objective</b>	<ul style="list-style-type: none"> <li>Environment Corporate Strategy:             <ul style="list-style-type: none"> <li>Our culture creates empowerment, increased accountability for environmental decisions and demonstrates proactive leadership.</li> </ul> </li> <li>Asset Management Corporate Strategy:             <ul style="list-style-type: none"> <li>An integrated approach enables the sustainability outcomes our customers, community and owner expect.</li> </ul> </li> </ul>
<b>Key Performance Indicator</b>	<ul style="list-style-type: none"> <li><b>KPI 1:</b> No site contamination incidents caused through project activities.</li> <li><b>KPI 2:</b> Project activities do not impact sensitive receiving environments on, adjacent to, or downstream from the work area.</li> </ul>
<b>Legislation</b>	<ul style="list-style-type: none"> <li><a href="#">Biodiversity Act 2025 (SA)</a></li> <li><a href="#">Environment Protection (Water Quality) Policy 2015 (SA)</a></li> <li><a href="#">Environment Protection Act 1993 (SA)</a></li> <li><a href="#">Environment Protection Regulations 2023 (SA)</a></li> <li><a href="#">Landscape South Australia Act 2019 (SA)</a></li> <li><a href="#">National Environment Protection (Assessment of Site Contamination) Measure 1999 (Cth)</a></li> <li><a href="#">Planning, Development and Infrastructure (General) Regulations 2017 (SA)</a></li> <li><a href="#">Planning, Development and Infrastructure Act 2016 (SA)</a></li> </ul>
<b>Regulatory approvals</b>	<ul style="list-style-type: none"> <li>None applicable</li> </ul>

MANAGEMENT	
<b>Statutory obligations</b>	<ul style="list-style-type: none"> <li>• <i>Environment Protection Act 1993 (SA), Section 25:</i> A person must not undertake an activity that pollutes, or might pollute, the environment unless the person takes all reasonable and practicable measures to prevent or minimise any resulting environmental harm.</li> <li>• <i>Environment Protection Act 1993 (SA), Section 83 (1):</i> If serious or material environmental harm from pollution is caused or threatened in the course of an activity undertaken by a person, the person must, as soon as reasonably practicable after becoming aware of the harm or threatened harm, notify the Authority of the harm or threatened harm, its nature, the circumstances in which it occurred and the action taken to deal with it.</li> <li>• <i>Environment Protection Act 1993 (SA), Section 83A (2):</i> <i>Notification of site contamination of underground water: A person...</i> must notify the Authority in writing as soon as reasonably practicable after becoming aware of the existence of site contamination at the site or in the vicinity of the site... <i>(including gross contamination of soil)</i>... that affects or threatens water occurring naturally under the ground or introduced to an aquifer or other area under the ground.</li> <li>• <i>Landscape South Australia Act 2019 (SA), Section 8:</i> A person must act reasonably in relation to the management of natural resources within the State.</li> <li>• <i>Biodiversity Act 2025 (SA) Section 11:</i> An entity must not undertake an activity that harms or has the potential to harm biodiversity unless the entity takes all reasonable and practicable measures to prevent or minimise any resulting harm.</li> </ul>
<b>Reference material</b>	<ul style="list-style-type: none"> <li>• <a href="#">EPA (SA): Guideline 1095/24 - Construction environmental management plan (CEMP)</a></li> <li>• <a href="#">EPA (SA): Guideline for the assessment and remediation of site contamination</a></li> <li>• <a href="#">EPA (SA): Site contamination: Regulatory Framework</a></li> <li>• <a href="#">EPA (SA): Standard for the production and use of Waste Derived Fill</a></li> <li>• <a href="#">PlanSA: Practice Direction 14 - Site Contamination Assessment 2021</a></li> <li>• <a href="#">Safe Work Australia: Model WHS Regulations</a></li> </ul>
<b>Related guidelines</b>	<ul style="list-style-type: none"> <li>• TG 0875.31: Surface water</li> <li>• TG 0875.32: Groundwater</li> <li>• TG 0875.34: Sediment, erosion and stormwater</li> <li>• TG 0875.42: Acid sulfate soils</li> <li>• TG 0875.43: Hazardous substances</li> </ul>

## 2.2 Planning and design

MITIGATION MEASURES	STAKEHOLDERS
<p>A Preliminary Assessment must be undertaken to identify any Potentially Contaminating Activities (PCA's) or known site contamination, using:</p> <ul style="list-style-type: none"> <li>• <a href="#">EPA Site Contamination Index</a></li> <li>• <a href="#">EPA Public Register</a></li> <li>• <a href="#">Location SA map Section 83A sites and groundwater prohibition areas</a></li> </ul> <p>Appendix 1 of <a href="#">EPA Site Contamination Regulatory Framework</a> for a consolidated list of Potentially Contaminating Activities (PCAs).</p>	<p>Environmental Officer Project Manager</p>
<p><b>Investigative testing</b></p> <p>In-situ soil classification provides an early understanding of the types of materials likely to be encountered during site works and informs:</p> <ul style="list-style-type: none"> <li>• An indication of the potential classification of soils for on-site beneficial reuse and off-site disposal and associated costs</li> <li>• Appropriate temporary management requirements that may be necessary based on the material type and classification</li> <li>• Specific equipment or PPE that may be required</li> </ul> <p>Therefore, investigative testing to classify soil (via bore holes or test pit excavation) is required.</p> <p><b>This testing should be included as part of geotechnical investigations.</b></p> <p>A suitably experienced and qualified site contamination practitioner is responsible for carrying out the sampling, liaising with NATA accredited labs for testing and generating the waste classification report.</p> <ul style="list-style-type: none"> <li>• Refer to the <a href="#">EPA Standard for the Production and Use of Waste Derived Fill</a> for guidance.</li> </ul>	<p>Consultant Environmental Officer Site Contamination Specialist Project Manager</p>
<p>Where site contamination is expected, pre-occupancy (baseline) site investigations should be undertaken to determine status of site contamination prior to site occupancy. Where required, the investigations assist in the development a Site Contamination and Remediation Management Plan.</p> <p>A suitably experienced and qualified site contamination practitioner is required for the investigations and preparation of any required plans.</p> <p><b>Note</b> environmental baseline site investigation works should <u>always</u> be completed during the due diligence period as part of any property acquisition.</p>	<p>Consultant Environmental Officer Site Contamination Specialist Project Manager</p>
<p>Options to avoid and / or minimise impacts on site contamination must be identified through options selection and decision making.</p>	<p>Environmental Officer Project Manager Design Manager</p>
<p>Recommendations of the detailed assessments must be incorporated into design, which may include impermeable membranes, remedial works and beneficial reuse opportunities.</p>	<p>Environmental Officer Project Manager Design Manager</p>

MITIGATION MEASURES	STAKEHOLDERS
A Site Contamination Management Plan, if required, must be prepared by a suitably qualified person for implementation during construction. The plan must identify the type and location of contamination, risk mitigation measures such as location, type and extent of capping layers (if applicable) and the required ongoing management measures, if any.	Consultant Environmental Officer Site Contamination Specialist Project Manager
Ensure that all project documentation, including design reports, data records and management plans, report on implementation of the <b>waste management hierarchy</b> .	Environmental Officer Project Manager
Post-occupancy (exit) site investigation will be undertaken (at replica investigation locations) to confirm that the status of site and condition has not changed during site occupancy. A suitably experienced and qualified site contamination practitioner is required for the post-occupancy investigations.	Consultant Environmental Officer Site Contamination Specialist Project Manager

## 2.3 Construction

MITIGATION MEASURES	STAKEHOLDERS
Site contamination (identified during planning, design or site work) must be appropriately managed and remediated as part of site activities.	Contractor
Where site contamination exists, measures to manage risk must be described in Construction Environmental Management Plans (CEMP) and have been prepared by a suitably experienced and qualified person in accordance with <a href="#">EPA Construction Environmental Management Plan (CEMP) Guideline 2024</a> for implementation during site activities. The plan must identify the contamination type and location, necessary risk mitigation measures and any required ongoing long term management measures.	Contractor
Implement Stop Work / Discovery Procedures / Unexpected Finds Protocols in the immediate vicinity of any suspected contamination. Indicators of contamination include discoloured soil, anthropogenic material within fill, asbestos, chemical or petrol odours and leachate. Contain disturbed material on an impermeable surface and cordon areas off.	Contractor
Hazardous substances (such as chemicals and fuels) must be managed to avoid and minimise site contamination (refer to Hazardous Substances Guideline).	Contractor
Waste must be managed to avoid and minimise contamination (refer to Waste Management Guideline).	Contractor

MITIGATION MEASURES	STAKEHOLDERS
<p>Record keeping will be key to support temporary management of stockpiled material, including appropriate controls and placement (to prevent contact between surface soils and excavated materials), including:</p> <ul style="list-style-type: none"> <li>• Consideration for adequate space to safely store and manage stockpiled materials without interfering with ongoing site activities.</li> <li>• Waste soil classification allows for determination regarding on-site beneficial reuse or off-site disposal (to an SA EPA-licensed facility).</li> </ul>	Contractor

## 2.4 Monitoring requirements

DESCRIPTION	METRIC	FREQUENCY	ACCOUNTABILITY
Validation of any site remediation	Soil sampling, testing and comparison of analytical results to acceptable criteria	Hold points during remediation to verify clean up criteria met	Project Manager
Auditing against a Site Contamination Management and Remediation Plan	Inspection, auditing and reporting compliance	At least at end of project, with some projects requiring hold points for audits based on Site Contamination and Remediation Plan	Project Manager