



Environment and Heritage Expertise

Technical Guideline

# TG 0875.61 – Spoil management

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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
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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 management and disposal of spoil which may be encountered or generated during a project's construction, operational, maintenance or decommissioning phases. For the purposes of this guideline spoil includes soil, rock, waste soil and hydrovac/dredged spoil (non-spadable) and exclude management of concrete and bitumen.

It forms part of the TG 0875 - Environment and Heritage Technical Guidelines and is designed to provide insight into regulatory obligations associated with vegetation, 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
- 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 (this guideline)**
- 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 Spoil management

### 2.1 Overview

MANAGEMENT	
<b>Commitment</b>	Spoil produced from SA Water's activities (i.e. excavation or earthworks, dredging) can present a risk of environmental harm if not managed correctly. State based legislation and standards provide guidance on how to appropriately temporarily manage, reuse or dispose of spoil
<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> <li>Our communities live in greener environments with thriving ecosystems.</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> All options for reuse or recycling of spoil generated in SA Water projects are investigated and considered prior to undertaking disposal.</li> <li><b>KPI 2:</b> Any disposal of spoil is undertaken appropriately to not cause environmental harm.</li> </ul>
<b>Legislation</b>	<ul style="list-style-type: none"> <li><a href="#">Environment Protection Act 1993 (SA)</a></li> <li><a href="#">Environment Protection Regulations 2023 (SA)</a></li> <li><a href="#">Environment Protection (Waste to Resources) Policy 2010 (SA)</a></li> </ul>
<b>Regulatory approvals</b>	<ul style="list-style-type: none"> <li>None applicable</li> </ul>
<b>Statutory obligations</b>	<ul style="list-style-type: none"> <li><i>Environment Protection Act 1993 (SA)</i>, Section 25: 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> </ul>
<b>Reference material</b>	<ul style="list-style-type: none"> <li><a href="#">EPA (SA): Standard for the production and use of Waste Derived Fill</a></li> <li><a href="#">EPA (SA): Standard for the production and use of Waste Derived Soil Enhancer</a></li> <li><a href="#">Green Industries SA: South Australia's Waste Strategy 2020-2025</a></li> <li><a href="#">EPA (SA): Site contamination: Regulatory framework</a></li> <li><a href="#">EPA (SA): Guideline EPA 1095/24 - Construction Environmental Management Plan (CEMP)</a></li> <li><a href="#">EPA (SA): Guideline for stockpile management</a></li> <li><a href="#">EPA (SA): Liquid storage guidelines EPA 080/16 - Bunding and spill management</a></li> </ul>
<b>Related guidelines</b>	<ul style="list-style-type: none"> <li>TG 0875.43: Hazardous substances</li> <li>TG 0875.42: Acid sulfate soils</li> <li>TG 0875.31: Surface water</li> <li>TG 0875.32: Groundwater</li> <li>TG 0875.34: Sediment, erosion and stormwater</li> <li>TG 0875.35: Dewatering, dredging and earthworks drainage</li> </ul>



## 2.2 Planning and design

MITIGATION MEASURES	STAKEHOLDERS
<p><b>Investigative testing</b></p> <p>In-situ soil classification provides an early understanding of the types of spoil likely to be encountered during site works and informs:</p> <ul style="list-style-type: none"> <li>• A waste classification of soils for on-site beneficial reuse and/or off-site management including disposal and associated costs</li> <li>• Appropriate temporary management requirements (either on site or offsite) 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) prior to excavation is an option to inform management and may be required.</p> <p>This testing should be included as part of geotechnical investigations.</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> <p>Refer to the <a href="#">EPA Standard for the Production and Use of Waste Derived Fill</a> for guidance.</p>	<p>Consultant Environmental Officer Site Contamination Specialist Asset Planner</p>
<p>Implement the Waste Hierarchy for beneficial reuse options for spoil, which may include (based on the Intended land use setting and geotechnical suitability):</p> <ul style="list-style-type: none"> <li>• Reuse of spoil at the project site</li> <li>• Reuse of spoil offsite</li> <li>• Rehabilitation of land as a fill material</li> <li>• Habitat restoration and development</li> <li>• Coastal rehabilitation such as shore protection and erosion control</li> <li>• Land reclamation</li> <li>• Production of building materials e.g., concrete, bricks</li> <li>• Fertiliser (organic material)</li> <li>• Shoreline stabilisation and protection (e.g. levee construction, erosion control)</li> <li>• Engineered capping e.g., landfill covers</li> </ul> <p>Waste derived soil enhancer</p>	<p>Environmental Officer Project Manager Circular Economy Specialist</p>
<p>If spoil generation is expected, consideration should be given to any known site contamination or potential contaminating activities (PCA), current or historical, on-site or its vicinity.</p>	<p>Environmental Officer Site Contamination Specialist Project Manager</p>
<p>Ensure that the location of spoil stockpile(s), containment requirements and / or disposal locations are determined prior to commencing work activities.</p>	<p>Environmental Officer Project Manager</p>

MITIGATION MEASURES	STAKEHOLDERS
If spoil has been assessed and classified as being contaminated and is unable to be reused, appropriate temporary procedures for the handling, storage (fully contained, separated) and off-site transport (by a licensed waste transporter to an SA EPA-licensed facility who can receive the contaminated waste type) need to be developed.	Environmental Officer Site Contamination Specialist (S) Project Manager
Where spoil may be applied as a waste derived soil enhancer, adhere to the <a href="#">EPA Standard for the Production and Use of Waste Derived Soil Enhancer</a>	Environmental Officer Project Manager

## 2.3 Construction

MITIGATION MEASURES	STAKEHOLDERS
<p>Where excavated spoil generated at the site has been classified and deemed suitable for reuse (physically and chemically) direct on-site beneficial reuse is possible.</p> <p>For direct on-site beneficial reuse, as the producer of the waste soil, actions must be undertaken in accordance with the <a href="#">EPA Standard for the Production and Use of Waste Derived Fill</a> including:</p> <ul style="list-style-type: none"> <li>• Utilise appropriate waste management options according to the waste hierarchy, including consideration of the National Environmental Protection Measure (NEPM) site contamination management hierarchy</li> <li>• Engage a suitably experienced and qualified site contamination practitioner where required, to assess risk and manage the site</li> <li>• Engage with SA Water Environment Team/Site Contamination Specialist (where required)</li> <li>• Intended land use setting and geotechnical suitability determined</li> </ul> <p>Maintain records and reports, as required</p>	Contractor Consultant
Implement measures to minimise dust and odour impacts of stockpiles for example, dust suppression sprays, enclosing stockpiles in sheds, negative pressure systems, and covering stockpiles.	Contractor
Ensure that all volumes of spoil produced during construction works are monitored and recorded, including arrangements for temporary storage of material and stockpile arrangements and placement.	Contractor
If any spoil has been identified as contaminated, ensure it is managed separately from uncontaminated spoil and other materials including placement (to prevent contact between surface soils and excavated materials).	Contractor
If contaminated material/spoil is unexpectedly discovered, or suspected, this must be immediately reported to SA Water Project Manager and the material isolated for testing.	Contractor
Ensure site machinery and vehicles are well maintained and in good condition and decontaminated before entering the site to minimise the risk of contamination during spoil production.	Contractor



MITIGATION MEASURES	STAKEHOLDERS
Ensure that the mitigation measures regarding dredging, outlined within the Dewatering, Dredging and Earthworks Drainage Guideline are adhered to during construction.	Contractor

## 2.4 Monitoring requirements

DESCRIPTION	METRIC	FREQUENCY	ACCOUNTABILITY
Inspection and sampling of spoil for contamination	Presence and volumes/concentrations of contaminants	As per agreed schedule	Contractor
Spoil creation and reuse / disposal	Records of spoil volume	As per agreed schedule	Contractor