Contaminated Land Standard

R0002403289

25 March 2026

Official

TasNetworks | Powering a Bright Future

Version	Date	Document Approver	Changes
V 1.0	11/05/2023	Head of HSEQ	Original Document for publication
V2.0	25/03/2026	Executive People & Stakeholder	• Update to new branding • Update to Old Town Gas Standards • Update to reference ERAPT & other new Standards

TasNetworks acknowledges the palawa (Tasmanian Aboriginal community) as the original owners and custodians of lutruwita (Tasmania). TasNetworks, acknowledges the palawa have maintained their spiritual and cultural connection to the land and water. We pay respect to Elders past and present and all Aboriginal and Torres Strait Islander peoples.

Contents

1.	**Purpose**	**4**
2.	**Scope**	**4**
3.	**Common terms and definitions**	**5**
4.	**Pre-work assessments & investigations**	**6**
4.1	Existing reports & information	6
4.2	Contaminated Land Desktop Review	6
4.3	Contaminated Land Assessment	7
4.4	Cost considerations	7
5.	**Construction requirements**	**7**
5.1	Safety	7
5.2	Work near potentially contaminated land	8
5.3	Work on or near TasNetworks ground mounted assets	8
5.4	Work near Old Town Gas	8
5.4.1	Methods for ground disturbance	9
5.4.2	Gas monitoring	9
5.4.3	Undertaking works	10
5.5	Unanticipated Contamination	11
6.	**Waste classification & disposal**	**11**
6.1	Transporting contaminated waste	11
7.	**Site Remediation**	**11**
8.	**Reporting**	**12**
8.1	Internal reporting	12
8.2	External reporting	12
9.	**Assurance & Training**	**13**
9.1	Assurance	13
9.2	Training	13
10.	**Related Documents and Compliance Requirements**	**13**
10.1	Internal documents	13
10.2	Compliance requirements	14

11. Document Control **14**

Appendix A – Old Town Gas Background Information 15

Contaminated Land Standard

1. Purpose

This Standard outlines the requirements for the identification, assessment and management of potentially contaminated land and water within and adjacent to areas where TasNetworks are undertaking work.

The Standard aims to:

- Minimise impact to the environment from the mobilisation of contaminated land and water
- Minimise workers, and current and future site users' exposure to contaminated material
- Ensure contaminated soil and water is handled, disposed of and transported in line with relevant legislation.

2. Scope

This Standard applies to everyone working for, or on behalf of TasNetworks with requirements relating to management of potentially contaminated land and water, with the following parameters:

- Soil or water that has been identified as potentially contaminated before planned work is undertaken
- Soil or water that is identified as potentially contaminated during work
- Land that is identified as requiring remediation following a spill or leak from an asset or discovering unanticipated contamination during planned work.

The following situations are outside the scope of this Standard:

- Initial response and clean up to spills from TasNetworks assets that occur during planned work or unplanned (fault) work. This is covered in TasNetworks Spill Response Standard (R0002438322).
- Undertaking unplanned (fault) work, except for implementing the Unanticipated Contamination Finds Procedure as required.

3. Common terms and definitions

Definitions and acronyms referred to in this Standard are outlined in Table 1 .

Table 1: Definitions

Term or Acronym	Definition
Contamination	A condition or state that represents or potentially represents an adverse health environmental impact because of the presence of potentially hazardous substances.
ERA	Environmental Risk Assessment – the document that outlines potential risks and key controls from a job. This document is produced by ERAPT
ERAPT	TasNetworks Environmental Risk Assessment & Planning Tool – the cloud-based platform that facilitates an environmental risk assessment
E&S Team	TasNetworks Environment & Sustainability Team
Potentially contaminating activities	Activities that have a potential to cause contamination due to the use of potential contaminants during operations.
Potentially Contaminated Land	Land or water that has been impacted by potentially contaminating activities through historical or current activities.
Suitably qualified person	A professional that has the necessary qualifications and experience to assess contaminated land and ensure that risks to human health and the environment have been appropriately managed. To determine how to identify and engage a suitably qualified person, contact the Environment & Sustainability Team.

4. Pre-work assessments & investigations

4.1 Existing reports & information

A customer or landowner may have undertaken contamination studies or assessment reports as part of their development approvals or due diligence. There may also be management plans relating to the work area which outline specific controls to manage the risk of contamination.

These documents can provide important information to TasNetworks and in some cases, TasNetworks may be required to work in accordance with measures prescribed within the documents.[1]

TasNetworks and its contractors should endeavour to obtain any documents relating to the identification, assessment or management of contaminated land from customers/landowners prior to works commencing.

The review of these documents must be undertaken by the Environment & Sustainability Team (**E&S Team**) to assess scope and identify any potential limitations.

4.2 Contaminated Land Desktop Review

A Contaminated Land Desktop Review must be undertaken for groundbreaking works with greater than 1m3 of soil removal, in one or more of the following scenarios:

- Works adjacent to or within 25m of potentially contaminated land (refer NetMaps Layer)
- Works within 10m of a TasNetworks ground mounted, oil filled asset that has previously been identified as leaking
- Works within a Zone, Generation or Terminal substation
- Works on land where the land manager or customer has information relating to potential contamination within or near the work site.

This criteria is captured in TasNetworks Environmental Risk Assessment & Planning Tool (ERAPT), and assessments within ERAPT must be undertaken in accordance with TasNetworks Environmental Risk Management Standard (R0002759377).

The Contaminated Land Desktop Review can be undertaken by TasNetworks and must consider the following:

- Sources of potential contamination
- Pathways of potential contamination to ecological and human receptors

TasNetworks Environment & Sustainability Team will undertake the Contaminated Land Desktop Review in accordance with the Environment and Sustainability Escalation Guideline.

[1] Provided these reports/documents align with TasNetworks Standards and legal requirements.

Works where approval is required under the Tasmanian *Land Use Planning and Approvals Act 1993* or the *Major Infrastructure Development Approvals Act 1999* must follow the requirements prescribed under the Act in relation to the identification, assessment and investigation of potentially contaminated land. Therefore, section 4.2 and 4.3 of this Standard do not apply to these works.

4.3 Contaminated Land Assessment

If the Contaminated Land Desktop Review identifies a high risk of intercepting and/or mobilising contaminated land, a Contaminated Land Assessment (CLA) must be undertaken by a suitably qualified, external consultant.

A CLA must include a Preliminary Site Investigation (PSI) or site risk assessment. If deemed as required by a consultant, a Detailed Site Investigation (DSI) may also be prepared. A PSI and DSI should follow the guidelines for site investigations as outlined in the National Environment Protection (Assessment of Site Contamination) Measure 1999 (NEPM).

Mitigation measures and construction requirements must be developed following the PSI/DSI and captured in ERAPT and/or other relevant construction documents (refer section 5 for more information).

4.4 Cost considerations

Management of contaminated material during construction can be costly. To ensure effective management, project costs must reflect the construction & management requirements specified during a Contaminated Land Desktop Review or a CLA.

For customer connections, customer agreements (e.g. Letter of Offer) should reflect the cost responsibility of assessing, investigating, monitoring, sampling and disposing of both expected and unexpected contamination.

5. Construction requirements

A Contaminated Land Desktop Review or CLA may specify site specific construction requirements and mitigation measures. These measures must be included an Environmental Risk Assessment (ERA) (via ERPAT) and/or a site-specific Construction Environmental Requirements document (CER).

If no site-specific requirements or mitigation measures are specified, or no pre-work assessment or investigation was required (e.g. for work near oil filled assets), the general requirements outlined in this section must be implemented where applicable. These construction requirements may be superseded by a site or work specific risk assessment only when advised by a suitably qualified person.

5.1 Safety

Workers must be aware of the potential safety hazards and risks associated with working near potentially contaminated land prior to starting work. The pre-task risk assessment must document these safety risks and controls. Controls, such as PPE, atmospheric monitoring or alternative work methods may be required so that the risk can be reduced to an acceptable limit. The Unanticipated Contamination Finds Procedure (R0002403267) must be implemented as required to manage both the safety and environmental risks associated with encountering unexpected contaminants during work.

5.2 Work near potentially contaminated land

The nature and extent of contamination can be highly variable from site to site. Therefore, where the risk of intercepting potentially contaminated land is high, a site-specific environmental document (e.g. Environmental Risk Assessment, CER) will outline the construction requirements and controls to manage the site-specific risk.

Where a Contaminated Land Desktop Review deems the risk to be low and/or no site-specific controls are deemed necessary, works must be undertaken in accordance with the Unanticipated Contamination Finds Procedure (R0002403267).

5.3 Work on or near TasNetworks ground mounted assets

TasNetworks ground mounted, oil filled assets may have contaminated the surrounding environment through spills, leakages or failed bunds over the life of the asset. Assets, especially older assets, may have also been constructed on fill material, which itself has the potential to contain contaminated material. This section applies for upgrading, augmenting, replacing or decommissioning oil filled ground mounted asset.

In addition to the requirements outlined in Section 5.1, for ground disturbing earthworks involving greater than $1m^3$ of excavation under, on or within a) 1 m of a ground mounted oil filled asset or b) 1m of an oil containment system or 3) 2 m of a SPEL tank, the soil is considered potentially contaminated and the requirements outlined in this section (5.2) must be implemented.

If the Unanticipated Contamination Finds Procedure is triggered during work, the requirements of the procedure must be followed, and soil be managed as deemed appropriate by a suitably qualified person.

The soil removed within the defined distance can be reused at the same depth and location it is removed from. If the soil is not reused, the soil must be sampled by a suitably qualified person (i.e. waste contractor, environmental consultant) and classified in accordance with the Tasmanian EPAs Information Bulletin No.105, Classification and Management of Contaminated Soil for Disposal (IB105).

Soil may be classified before works are undertaken (i.e. in-situ waste classification) under the guidance of a suitably qualified person.

The minimum construction requirements for managing potential contaminated near ground mounted assets are outlined in the Soil Management Near Ground Mounted Oil Filled Assets Work Practice (IMS-WPI13-91).

5.4 Work near Old Town Gas

Several locations within Tasmania are reticulated with Old Town Gas (OTG) mains. Further information on the history and hazards associated with OTG are outlined in Appendix A.

The controls outlined in this section must be implemented when undertaking groundbreaking work within the suburbs listed in Table 2.

Table 2: Locations where reticulated Old Town Gas pipes may be located

City of Hobart	City of Glenorchy	City of Launceston
• Central Business District (CBD) • Battery Point • Dynnyrne • Glebe • Lenah Valley* • Mount Stuart* • New Town* • North Hobart • Ridgeway • Sandy Bay including Lower Sandy Bay • South Hobart Cascades • West Hobart	• Berriedale • Chigwell • Claremont • Derwent Park • Glenorchy / Elwick • Goodwood • Lutana* • Montrose • Moonah • Rosetta • West Moonah	• Central Business District (CBD) • East Launceston • Invermay • Mowbray • Newstead • Punchbowl • South Launceston • Trevallyn • Waverley • West Launceston
* there are no OTG pipes mapped between North Hobart and Moonah. Suburbs showing no OTG infrastructure may actually have OTG pipework. Presence should be assumed in these areas		

5.4.1 Methods for ground disturbance

By selecting a less destructive method for ground disturbance, the likelihood of a pipe being broken during work is reduced. The requirements for specific types of ground disturbance are outlined below.

Pole Holes

- Non-Destructive Digging (NDD) must be used for the installation of new pole holes.
- A spotter must be present at all times to identify any pipework or stained material encountered.

Trenching Activities

- Trenching must be conducted using either NDD or excavation with a toothless bucket.
- Personnel must not enter the trench while ground disturbance activities are in progress.
- A spotter must be present at all times to identify any pipework or stained material encountered.

Other ground disturbing activities

- For activities not included above, where ground disturbance of greater than 300mm occurs, NDD must be used.
- A spotter must be present at all times to identify any pipework or stained material encountered.

Where rock or undisturbed ground is intercepted and the above methods are not suitable, normal methods such as auguring may be used. However, a spotter must still be present for the duration of work.

5.4.2 Gas monitoring

Where the landowner/manager has indicated OTG may be/is present, or where investigations (such as Ground Penetrating Radar) have confirmed the presence of OTG, gas monitoring is required.

Where suspension of works for extended periods is not practicable, Works Managers may proactively arrange for a suitably trained professional to undertake spotting or gas monitoring during planned works, including in situations involving major road closures or significant power outages.

Gas monitoring must be undertaken by trained personnel. The following gases must be monitored when gas monitoring occurs:

- Carbon Monoxide
- Hydrogen Cyanide
- Carbon Dioxide
- Oxygen (asphyxiation & explosive risk)
- VOCs (benzene equivalent)
- LEL (methane equivalent)

5.4.3 Undertaking works

All works must be undertaken in accordance with section 5.4.1.

For Normal Work Conditions

- Where no OTG infrastructure or stained material is identified, or no action levels are triggered where gas monitoring occurs, work may proceed as normal.
- Waste materials must be disposed of in accordance with TasNetworks Waste Management Standard.

Identification of suspect OTG pipework, stained material or gases

- If OTG pipework or stained material is identified, all work must immediately cease until workers' breathing zone can be monitored using a specialised portable gas detector (where work is not already being gas monitored).[2]
- The affected work area must be barricaded with a 3m exclusion zone with all personnel staying upwind until gas monitoring verifies a safe working environment.

Where gas action levels are met/exceeded, work must cease.

- The TasNetworks HSE Team must be notified in accordance with the TasNetworks One Hour Rule. The contractor project manager or nominated person is to notify an environmental or hygiene specialist to attend site for gas monitoring and pipe identification.
- Work must only recommence once safe to do so and approval is given by WorkSafe Tas (if required).[3]
- Waste materials may be required to be tested and disposed of in accordance with Tasmania's EPA Information Bulletin 105. Disposal requirements will be specified by environmental specialists and/or the HSE Team.

Internal and external incident reporting must be undertaken in accordance with Section 8.

[2] Breathing zone means a hemisphere of 300 mm radius extending in front of a person's face and measured from the midpoint of an imaginary line joining the ears.
[3] Measured VOC or cyanide gas releases from OTG mains or adjacent soil more than 50 ppm are reportable incidents, which must be notified to WorkSafe Tasmania.

5.5 Unanticipated Contamination

TasNetworks defines Unanticipated Contamination Finds as contaminated material, land or water that is mobilised or observed during groundbreaking works that was not confirmed as being present in a CER, or similar project environmental report prior to work being undertaken.

The Unanticipated Contamination Finds Procedure (R0002403267) is required to be implemented to mitigate potential environmental and human health impacts associated with mobilising unexpected contamination and asbestos during work. This Procedure requires work to cease until the risk has been appropriately managed.

6. Waste classification & disposal

Classification and disposal must be undertaken in accordance with the Tasmanian EPAs *Information Bulletin No.105, Classification and Management of Contaminated Soil for Disposal* (IB105).

Waste must be stored in a secure vessel whilst classification is being undertake as per the requirements in TasNetworks Waste Standard (R0002883762).

Soil/spoil classified as Level 1 material following sampling can be reused on site (within the site land parcel boundaries). A risk assessment must be undertaken by the Environment & Sustainability Team where Level 1 material is proposed to be reused off site.

Where material classified as Level 2 or above is proposed to be reused on site, a formal risk assessment against the relevant NEPM criteria must be undertaken by a suitably qualified person (i.e. environmental consultant) and approval from the EPA is required.

6.1 Transporting contaminated waste

TasNetworks personnel and vehicles must only transport material contaminated with mineral oil or CCA Ash. TasNetworks Controlled Waste Transport Work Practice (IMS-WPI-00-88) must be followed during transportation.

Other contaminated material must be transported by a suitably qualified and licenced person in accordance with the Tasmanian *Environmental Management and Pollution Control (Waste Management) Regulations 2020.*

7. Site Remediation

A site may require remediation if TasNetworks owns land that is identified as being contaminated or if the land is owned by a third party and if the contamination is identified as being caused by TasNetworks operations or assets. Site remediation requirements may be prescribed by the EPA as a Remediation Notice or may be recommended by a suitably qualified person (i.e. environmental professional) following a site assessment or risk assessment.

Site remediation must be undertaken under the advice and guidance of a suitability qualified person and should follow the NEPM *Key Principles for Remediation & Management of Contaminated Sites*.

Site remediation reports may be required to be submitted to the EPA by TasNetworks or the third party. All documentation associated with site remediation must be saved in TasNetworks Information Management System.

8. Reporting

8.1 Internal reporting

Any event involving Unanticipated Contamination Finds must be reported within one hour to the Environment & Sustainability Team. These events may be entered into SAP as an incident as per the requirements in the HSE Incident Management Procedure.

For works near TasNetworks ground mounted, oil filled assets, any waste classification results that detect Level 2 or above must be reported as a potentially contaminated site to the Environment & Sustainability Team. TasNetworks HSE team or a suitably qualified consultant may recommend that a CLA be undertaken or that the site be remediated.

All waste disposal certificates must be saved against the relevant Functional Location (FLOC) in SAP.

8.2 External reporting

Under section 74B of the *Environmental Management and Pollution Control Act 1994* (EMPCA), TasNetworks is required to report contaminated sites to the EPA. A contaminated site is defined under section 74(A) and is paraphrased as:

- Land that contains a pollutant in a concentration above naturally occurring levels, which is (or is likely) to be causing serious or material environmental harm or environmental nuisance
- Land that contains a pollutant in a concentration above naturally occurring levels which is likely to cause serious or material environmental harm or environmental nuisance in the future if not managed appropriately.

These requirements are different from those under section 32, which relate to incidents or process malfunctions resulting in a pollution event. These reporting requirements are captured in TasNetworks Spill Response Standard.

The Environment & Sustainability Team must undertake all reporting to the EPA.

Old Town Gas

Measured VOC or cyanide gas releases from OTG mains or adjacent soil more than 50 ppm are reportable incidents, which must be notified to WorkSafe Tasmania.

9. Assurance & Training

9.1 Assurance

Inspections and audits will be undertaken periodically against the requirements outlined in this Standard.

9.2 Training

Relevant TasNetworks team members will be provided with training and awareness to implement their responsibilities are per this Standard. The training will be reflected in the ESI Competency Matrix and the E&S Training and Awareness Framework. It is the responsibility of Team Leaders to ensure their team members participate in the required training.

Contractors must ensure all their employees are competent and educated to implement the requirements in this Standard and must undertake the required TasNetworks training as per TasNetworks Learning Management System.

10. Related Documents and Compliance Requirements

10.1 Internal documents

Document Number	Document Title
R0002759377	Environmental Risk Management Standard
R0002403267	Unanticipated Contamination Finds Procedure
IMS-WPI-13-91	Soil Management Near Oil Filled Assets Work Practice
R0000502077	Hazardous Substances Management
R0002883762	Waste Management Standard
R0001602080	Incident Management Procedure
R0000112684	Personal Protective Equipment Procedure
R0000793081	Excavation Procedure

R0002302565	ESI Competency and Authorisations Implementation Manual
R0002333457	Environment & Sustainability Training & Awareness Framework

10.2 Compliance requirements

Document Title, Section or Part
Tasmanian Environmental Management and Pollution Control Act 1994 **(EMPCA)**
Tasmanian Environmental Management and Pollution Control (Waste Management) Regulations 2020
Information Bulletin No.105 – Classification and Management of Contaminated Soil for Disposal, Tasmania EPA
National Environment Protection (Assessment of Site Contamination) Measure 1999 **(NEPM).**

11. Document Control

Version	Date	Amended by	Comments
1.0	11/05/2023	Katie Lawrence	Original document for publication
2.0	29/01/2026	Katie Lawrence	Update to new branding; Update Old Town Gas Standards; Update to reference ERAPT & other new Standards

Appendix A – Old Town Gas Background Information

Background

Old Town Gas (OTG) poses serious safety risks, and in many areas the precise location and condition of former gas pipes is unknown, increasing the potential for unexpected exposure during ground-disturbing works.

Gasworks supplying OTG operated across several Tasmanian centres from the mid-19th century. Facilities in Hobart and Glenorchy ceased operation in 1978, while Launceston's gasworks closed in 1995. Latrobe also operated a gasworks from 1888, although limited information exists about the extent of its network or when it was decommissioned. OTG was generated by heating coal or other hydrocarbon materials in controlled, low-oxygen environments. This process produced a gas blend that included carbon monoxide, hydrogen, methane and other volatile hydrocarbons (VOCs), along with residual by-products such as cyanide compounds, ammonia, coal tar, ash and slag.

The gas was distributed through underground pipe networks for domestic and commercial use, including lighting, heating and cooking. Even though these systems are no longer in use, hazardous gases and contaminated residues can remain trapped within abandoned pipes and surrounding soils, creating ongoing risks for workers.

In Hobart and Glenorchy, the underground network was taken out of service in 1978. While some sections were flushed with seawater and capped, only about half of the estimated total pipe length has been mapped, meaning the location of remaining pipes is not fully known. In Launceston, the network was operated more recently and is better documented, with most of the pipe system mapped. Portions of this network were physically removed by Launceston City Council between 2018 and 2020.

Key Hazards

The primary risk associated with excavation near OTG infrastructure is the inhalation of hazardous gases that may remain within the pipework or surrounding backfill material. Exposure to these gases can cause serious injury or death. Gases may be released when OTG pipes, bedding or surrounding materials are disturbed, damaged or fractured.

Potentially hazardous gases may be odourless, such as carbon monoxide; have a faint almond smell, such as hydrogen cyanide; or produce sweet, coal tar or petroleum-like odours, typical of VOCs.

Limited certainty about where OTG pipes are located and how deep they are—sometimes found as deep as 1.4 metres—significantly increases the difficulty and risk of excavation and drilling activities near existing underground services across greater Hobart, from Lower Sandy Bay to Berriedale.

There is also a risk associated with contaminated soils and pipe materials. These materials may require testing and specialist handling to ensure they are managed and disposed of safely and in accordance with environmental and health requirements.

www.tasnetworks.com.au