

Engineering Policy EP175

Deposition of Surplus Material – Assessment Methodology

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1 Purpose

This document supplements the contractual requirements for Deposition of Surplus Material within Clause 8.13.2.1 of MRTS51 *Environmental Management* and Clause 11 of MRTS04 *General Earthworks*.

The Engineering Policy is to provide guidance to Contractors on minimum assessment processes to be undertaken to ensure that Deposition of Surplus Material is undertaken in accordance with all Legislative Requirements.

The Principal Contractor (the Contractor) is responsible for the assessment and management of Surplus Material and associated Deposition Areas until the Deposition is complete. Disposal of any Waste to land that does not meet the requirements for Deposition of Surplus Material, is unacceptable and is not supported by the Department.

The process for Deposition of Surplus Material detailed in this Engineering Policy is intended for use where adjacent private landowners have a use for surplus material from a project. This assists Transport and Main Roads in reducing Waste to landfill, minimising haulage and disposal costs and promoting circular economy. This process is not considered appropriate for long term stockpiling of materials.

2 Glossary

Term	Definition
Appropriately Qualified Person	Means a person who has professional qualifications, training, skills or experience relevant to the nominated subject matter and can give authoritative assessment, advice and analysis on performance relating to the subject matter using the relevant protocols, standards, methods or literature.
Biosecurity Matter	Biosecurity matters as defined in the <i>Biosecurity Act 2014</i> and include Biosecurity Matters listed by Local, State and Commonwealth Governments. Biosecurity matters include but are not limited to prohibited and restricted invasive plants (weeds) and animals.
Contractor's Declaration	A declaration completed and signed by the Contractor which is generally in the form of the Contractor's Declaration referred to in MRTS51 <i>Environmental Management</i> , a template of which is provided as Appendix Form C of MRTS51.
Deposition	Under this Engineering Policy, Deposition means intentional placement of material in a specified location for a purpose.
Deposition Area	Means an area of land outside the Site, including Principal-identified land, where Surplus Material is deposited by the Contractor with the consent of the Landowner.
Landowner	Landowner in this Policy means the registered owner of a proposed Deposition Area pursuant to an agreement between the Contractor and the landowner. In the case of a lease, must be the registered proprietor of the land.
Legislative Requirements	Means Acts, ordinances, regulations, by-laws, orders, awards and proclamations of the jurisdiction where Work under the Contract or the particular part thereof is being carried out.
Off-site	Land that does not form part of the Site.
Reuse	When material is used again with minimal modification or processing.
Suitably Qualified Person	As defined by the <i>Environmental Protection Act</i> , Section 564.

Term	Definition
Surplus Material	Material that is surplus to the Contract requirements that is required to be managed as a Waste in accordance with Clause 8.13 in MRTS51 <i>Environmental Management</i> and Clause 11 MRTS04 <i>General Earthworks</i> .
Waste	As defined by the <i>Environmental Protection Act</i> , Section 13.

3 Background

Transport and Main Roads' *Environmental Sustainability Policy* outlines the department's commitment to incorporate sustainable and innovative solutions to minimise the environmental footprint of departmental activities. Transport and Main Roads' Waste 2 Resource Strategy sets the strategic direction and intent to minimise Wastes and achieve a more sustainable use of resources across the department, in line with the Queensland Government's *Waste Management and Resource Recovery Strategy*.

An integral part of transitioning to a more sustainable and circular economy is to apply the Waste hierarchy shown in Figure 3. Management of Waste, including Surplus Material on departmental infrastructure projects is the contractual responsibility of the Principal Contractor (the Contractor), the Contractor is required to manage Waste as per the Waste hierarchy and to prioritise higher-value reuse and recycling opportunities (where relevant standards are met) above lower-value applications such as energy recovery and disposal to landfill.

Deposition of Surplus Material in accordance with this Engineering Policy is considered to be 'reuse' under the Waste management hierarchy and the following sections give guidance on meeting the relevant standards for Deposition of Surplus Materials generated from Transport and Main Roads Sites and activities.

Figure 3 – Waste hierarchy diagram



4 Legislation, policy and governance

Several strategies, laws and statutory instruments, policies and specifications apply to the Deposition of Surplus Material.

4.1 State government Waste Strategy, legislation and policy

The Department has a number of responsibilities under the *Waste Reduction and Recycling Act 2011* and the *Queensland Waste Avoidance and Resource Productivity Strategy 2014-2024*.

As part of Transport and Main Roads' *Waste 2 Resource Strategy*, the department, as Principal, requires the Contractor to demonstrate that the Contractor has considered and implemented Waste minimisation and Resource recovery measures for Work under the Contract in accordance with Clause 8.13.2 of MRTS51 *Environmental Management*. Deposition of Surplus Material diverts materials from disposal to landfill and supports the Queensland Government's commitment to zero Waste by 2050.

4.2 Local Government Planning Scheme

The *Planning Regulation 2017* outlines development which cannot be prescribed as assessable development for the *Planning Act 2016* by a Local Government Planning Scheme. Under the *Planning Regulation 2017* Schedule 6, Part 5 Item 26, Transport and Main Roads is exempt from having to obtain approval from Local Government for construction and maintenance of Transport and Main Roads infrastructure.

This includes operational work carried out by or for Transport and Main Roads or for ancillary Works and encroachments and any development for the construction, use, maintenance, upgrading or repair of Transport and Main Roads infrastructure, and development that is adjacent to Transport and Main Roads infrastructure or which is ancillary to the use, maintenance, upgrading or repair. This might include development which involves depositing materials or undertaking Works on land not under the management of Transport and Main Roads.

While this includes development for these purposes undertaken by Transport and Main Roads or its Contractors on behalf of Transport and Main Roads, it does not apply to development carried out by Landowners accepting Surplus Material via Deposition. Upon completion of Deposition by the Contractor, which includes obtaining all relevant approvals to deposit the material, the landowner is responsible for identifying and complying with all relevant Legislative Requirements to use or move the material.

4.3 Environment, Cultural Heritage and Native Title legislation

Deposition of Surplus Material may be regulated by state and commonwealth environment and Cultural Heritage legislation, as well as legislation and policy relating to native title including the *Native Title Act 1993* and the Queensland Government *Native Title Work Procedures*. The legislation that will apply will depend on a number of factors such as the types of Surplus Material, the Deposition Area and transportation requirements.

4.4 Hydrology and hydraulic impacts management

The department's manuals, including the *Road Planning and Design Manual 2nd Edition*, the *Road Drainage Manual*, and the Technical Guideline *Hydrologic and Hydraulic Modelling* provide overarching requirements which need to be considered to ensure that no adverse impacts to hydraulic conditions result from the Deposition of Surplus Material.

Transport and Main Roads is exempt from having to obtain approval from local government for construction and maintenance of departmental infrastructure, including ancillary and other activities. However, the triggers for operational Works including filling under the relevant Local Government

Planning Scheme are to be used to determine hydrologic and hydraulic assessment requirements for Deposition of Surplus Material (refer to Section 6.2.5).

4.5 Departmental Technical Specifications

The departmental Technical Specifications cover a range of requirements relating to Deposition of Surplus Material. The key requirements are contained within Clause 8.13.2.1 of MRTS51 *Environmental Management* and Clause 11 of MRTS04 *General Earthworks*.

Table 4.5(a) – Transport and Main Roads Technical Specifications relating to Deposition of Surplus Material

Technical Specification	Clause
MRTS01 <i>Introduction to Technical Specifications</i>	10 - Utilisation and disposal of Surplus Material
MRTS04 <i>General Earthworks</i>	5.2 - Construction procedures
	8.4.2 - Surplus Topsoil material
	11 - Deposition of Surplus Material
MRTS16 <i>Landscape and Revegetation Works</i>	5.1.2 - Soil Management Plan - Construction
MRTS51 <i>Environmental Management</i>	8.8 - Acid sulfate soils
	8.9 - Contaminated sites
	8.12 - Biosecurity
	8.13 - Waste 2 resource

Line items for inclusion in the Contract relevant to Deposition of Surplus Material are listed in Table 4.5(b).

Table 4.5(b) Contract line items relevant to Deposition of Surplus Material

Specification (Measurement)	Work activities to be included relevant to Deposition of Surplus Material
MRS04 General Earthworks	
Item 32001 - Clearing and grubbing	Clearing and grubbing and movement of material suitable for Deposition to the Deposition area
Item 32003P - Stripping of Topsoil (Provisional Quantity, as directed)	Stripping Topsoil and movement of material suitable for Deposition to the Deposition area
Item 32101 - Excavation, all materials	Excavation and movement of materials to Deposition Area
MRS51 Environmental Management	
Item 20201 - Weekly Environmental Inspections	Inspections of Deposition Areas until the completion of works
Item 20202 - Develop Environmental Management Plan (Construction)	Environmental, Cultural Heritage, Native Title and Hydrologic / Hydraulic assessments of Surplus Material and Deposition Areas
Item 20203 - Implement Environmental Management Plan (Construction)	Implement mitigation and management measures detailed in EMP(C) for Deposition of Surplus Material

Specification (Measurement)	Work activities to be included relevant to Deposition of Surplus Material
Item 20204 - Monthly Environmental Reporting	Reporting on Deposition of Surplus Material in the Waste and Recycling Calculator (under reuse)
Item 20205 - Environmental Records Management	Records of assessment, agreements, approvals, transport, tracking, disposal relevant to Deposition of Surplus Material
Item 20206 - Approvals	Obtain and comply with any approvals required to undertake Deposition of Surplus Material

5 Deposition of Surplus Material

Under MRTS04 *General Earthworks* and MRTS51 *Environmental Management*, Surplus Material is material that is surplus to the Contract requirements that is required to be managed as a Waste in accordance with Clause 8.13 of MRTS51 and Clause 11 of MRTS04.

Requirements for Deposition of Surplus Material are detailed within Clause 8.13.2.1 of MRTS51 *Environmental Management* and Clause 11 of MRTS04 *General Earthworks Only* low-environmental risk materials will be permitted to be Deposited.

Surplus Materials that may be considered low-environmental risk material are:

- uncontaminated earth material
- natural and manufactured aggregate
- recycled aggregates including crushed concrete, brick, pavers, glass
- untreated timber, and
- clear and grubbed material.

Deposition of Surplus Material diverts low-environmental risk material from landfill and achieves a higher value outcome in the Waste management hierarchy (reuse). This is often a more cost-effective solution compared with disposal to landfill, however, there are a number of risks associated with this activity which require management.

The risks include:

- Inherent Surplus Material risks (risk of the material, regardless of where it is Deposited or kept):
 - unidentified contaminants within the material posing health, safety and environmental risk (presence of contaminants, restricted or prohibited Biosecurity Matter or other adverse conditions of materials).
- Risks to land (risk the material poses by being deposited on land):
 - potential impact to hydraulic conditions relating to property, buildings and infrastructure due to filling in high risk areas such as flood or overland flow risk areas, and
 - actions by Landowners receiving Surplus Material, including use of materials for purposes which adversely impact hydraulic conditions, environment, Cultural Heritage or Native Title values / interests, or for which legislative approvals have not been obtained.

- Combined risks (risks common to both the material and the land it is Deposited on):
 - potential impacts to environment, Cultural Heritage, Native Title values
 - relevant legislative approvals not being obtained, or other Legislative Requirements not being met
 - reputational risk for both the department and its Contractors, and
 - costs incurred cleaning up incidents at Deposition Areas due to unlawful placement or unstable condition.

Prior to Deposition of Surplus Material, an assessment of both the material and the Deposition Area is required to identify potential risks and demonstrate that those risks will be managed appropriately and in accordance with all relevant legislation, policies and manuals including relevant approvals.

6 Impact assessment methodology

6.1 Principal identified Deposition Areas

Principal Identified Deposition Areas are specified in Clause 5 of Annexure MRTS04.1. Where Deposition Areas have been identified by the Principal, the Principal is responsible for undertaking assessment for environment, Cultural Heritage, Native Title and hydrologic / hydraulic impacts. If any approvals have been obtained by the Principal for Principal Identified Deposition Areas, these will be included in Clause 1 of Annexure MRTS51.1.

The Contractor may at their discretion elect to utilise Principal-Identified Deposition Areas. The Contractor is responsible for ensuring the conditions of use for each Deposition Area are documented in the Surplus Material Management Plan required under Clause 5 of MRTS04 *General Earthworks* and must ensure that Deposition occurs in accordance with any relevant approval conditions and this Engineering Policy. The nominated Deposition Areas are provided in good faith and the Principal makes no guarantee as to access conditions or capacity.

6.2 Contractor-Identified Deposition Areas

Where no Principal-Identified Deposition Areas are specified in Clause 5 of Annexure MRTS04.1, the Contractor may elect to source their own. The Contractor will be required to identify suitable off-site Deposition Areas and undertake impact assessments of both the Surplus Material and Deposition Area including identifying any relevant Legislative Requirements to ensure legal compliance.

The Contractor shall obtain the necessary Approvals required to deposit Surplus Material at the Deposition Area unless otherwise Principal-supplied in Clause 1 of Annexure MRTS51.1. The Contractor must comply with all relevant Legislative Requirements. The Contractor shall include mitigation and management measures within the Environmental Management Plan for Construction (EMP(C)). The Contractor's Declaration (MRTS51 *Environmental Management* Appendix Form C) is to be completed and signed by the Contractor and submitted to Transport and Main Roads prior to Deposition.

The impact assessment shall address associated risks including environment (including biosecurity and contamination), Cultural Heritage, hydrology / hydraulics and Native Title risk. The assessment process is summarised in Figure 6.2.3 and detailed in Sections 6.2.1 to 6.2.6, inclusive. The Contractor must engage an Appropriately Qualified Person to undertake the required assessments and allow sufficient time in their program to accommodate the assessments. The following areas for assessment and methods for assessment are not exhaustive and further areas and methods may

need to be considered in particular cases, for example, to ensure that Deposition does not cause an actionable nuisance or to comply with specific legislation, for example, the *Coastal Protection and Management Act 1995*.

6.2.1 Assessment of Surplus Material

The Surplus Material proposed for Deposition must be assessed in relation to the following matters:

- Biosecurity Matter (restricted, prohibited)
- contamination as per assessment framework under the *Environmental Protection Act 1994*
- untreated acid sulfate soils; and
- any other potential source of contamination or deleterious material.

Where material has been sourced from:

- land listed on the Environmental Management Register or Contaminated Land Register
- commonwealth land (i.e., defence), or
- land on or adjacent to any other source of potential mobile contaminants,

an assessment must be undertaken by a Suitably Qualified Person (SQP) in accordance with the *National Environmental Protection (Assessment of Site Contamination) Measure 1999* and a report prepared confirming the suitability of the material for Deposition at the intended Deposition Area. A copy of the SQP's report is required to be provided to the registered owner of the land and included as an attachment to the Contractor's Declaration.

6.2.2 Assessment of Deposition Area

6.2.2.1 Environmental assessment

An environmental assessment of the Deposition Area is required to determine any requirements under relevant state or federal legislation. Environmental approvals sought by the Contractor and the associated approval conditions shall be detailed in the Contractor's Surplus Material Management Plan and Environmental Management Plan (Construction) (EMP(C)).

The Contractor's EMP(C) shall detail mitigation and management measures to be undertaken by the Contractor to ensure the Deposited Surplus Material is stable and not posing any environmental or safety concerns, for example Erosion and Sediment Control Plan (ESCP) and Rehabilitation Plan. The contractor shall demonstrate that Deposited Surplus Material forms a stable self-sustaining land form unless an alternate use of the material is agreed upon between the landowner and the Contractor. Any alternate use is to be agreed upon by the Principal in writing prior to Deposition.

Deposition of Surplus Material must be undertaken in accordance with the conditions of all relevant Approvals and Legislative Requirements.

6.2.2.2 Cultural Heritage assessment

The Contractor's Cultural Heritage assessment of the Deposition Area shall be conducted in accordance with *C7559 Terms of Reference for Cultural Heritage Assessment*, available at <https://www.tmr.qld.gov.au/business-industry/Technical-standards-publications/Consultants-for-engineering-projects>.

The Contractor is responsible for obtaining all Cultural Heritage approvals and undertaking consultation with the local Aboriginal Party(ies). The Department's Cultural Heritage Officer assigned

to the project must be provided the opportunity to participate in meetings held between the Contractor and the Aboriginal Party(ies).

Where a historical heritage discovery is made, the Contractor will be required to notify the Administrator within 24 hours, self-assess the Site in accordance with the Transport and Main Roads – *Department of Environment and Science Archaeological Discovery Protocol* (the Protocol) and identify any notification requirements. If notification to Department of Environment and Science is required, the Contractor must notify the department's Cultural Heritage Officer assigned to the project. A copy of the Protocol will be available from the Administrator.

6.2.2.3 Native Title assessment

The Contractor's Native Title Assessment shall be conducted in accordance with the *Native Title Act 1993* (Cth) and the Queensland Government *Native Title Work Procedures* available at <https://www.resources.qld.gov.au/qld/atsi/native-title-work-procedures/work-procedures>.

The Contractor may opt to engage the department's Native Title Unit to undertake an assessment of the Deposition Areas or opt to engage a private consultant. The Contractor may request an assessment from the Native Title Team by emailing nativetitle@tmr.qld.gov.au, with details of the Works to be undertaken and the location.

The Contractor shall be solely liable for any compensation which may become payable to the Native Title holders for the loss, diminution, impairment or other effect of the activity on their determined Native Title.

6.2.2.4 Hydrologic / hydraulic assessment

The volume of Surplus Material proposed for Deposition must be considered as the total volume per allotment when assessing hydrology and hydraulics. If Surplus Material is deposited in multiple locations on the same allotment, it is the total volume per allotment, not the volume per Deposition Area that is measured against the Local Government Planning Scheme fill triggers.

Where the volume of Surplus Material proposed for Deposition does not exceed the relevant local government planning scheme operational work (filling) threshold, no hydrologic / hydraulic assessment is required. Where the volume of Surplus Material proposed for Deposition would normally trigger Code assessment under the relevant Local Government Planning Scheme (if not for Transport and Main Roads' exemption), an assessment of hydrologic / hydraulic risk is required to ensure no worsening and no actionable nuisance will be caused by the Deposition.

The Contractor shall undertake an assessment of the Deposition Area in relation to the local government's flood and overland flow area mapping. This assessment will determine the risk level as either:

- **Low risk**

Where the Deposition Area is outside of flood and overland flow areas it is considered low risk and will require a hydrologic / hydraulic assessment. The Contractor will be required to engage a suitably qualified Registered Professional Engineer Queensland (RPEQ) to conduct this assessment to determine any potential impacts to hydraulic conditions.

The RPEQ shall assess the location and the proposed filling / materials placement to confirm that no worsening will be caused to other properties. The assessment must demonstrate no actionable nuisance will be caused.

or

- **High risk**

Where the Deposition Area is within flood and overland flow areas it is considered high risk and will require hydrologic / hydraulic modelling. The Contractor will be required to engage a suitably qualified Registered Professional Engineer Queensland (RPEQ) to conduct hydrologic / hydraulic modelling of the Deposition Area to determine any potential impacts to hydraulic conditions.

Hydrologic / hydraulic modelling is to be conducted in accordance with the department's Technical Guideline *Hydrologic and Hydraulic Modelling* to confirm that no worsening will be caused to other properties and/or detail the proposed mitigation measures required to manage any impacts. The assessment must demonstrate no actionable nuisance will be caused. The project hydrologic / hydraulic modelling may be utilised where relevant and can be obtained by request from the Principal.

Where the hydrologic / hydraulic assessment or modelling cannot confirm no worsening and no actionable nuisance as a result of the Deposition, the Deposition of Surplus Material must not proceed.

6.2.3 Documentation

Prior to Deposition of Surplus Material, the Contractor must provide the following details to the Administrator:

- a) details of the mitigation and management measures to be undertaken by the Contractor to ensure the Deposited Surplus Material is stable and not posing any environmental or safety concerns in future, this should be included within the EMP(C)
- b) a copy of the Surplus Material Management Plan required under Clause 5 of MRTS04 *General Earthworks*
- c) a copy of any permits or approvals sought relevant to Deposition of Surplus Material, and
- d) a completed and signed Contractor's Declaration for Deposition of Surplus Material for each Deposition Area, including any required attachments.

The EMP(C) must be reviewed and deemed suitable by the Administrator prior to Deposition. If the EMP(C) is deemed not suitable, the Contractor shall revise mitigation and management measures until it is deemed suitable by Transport and Main Roads.

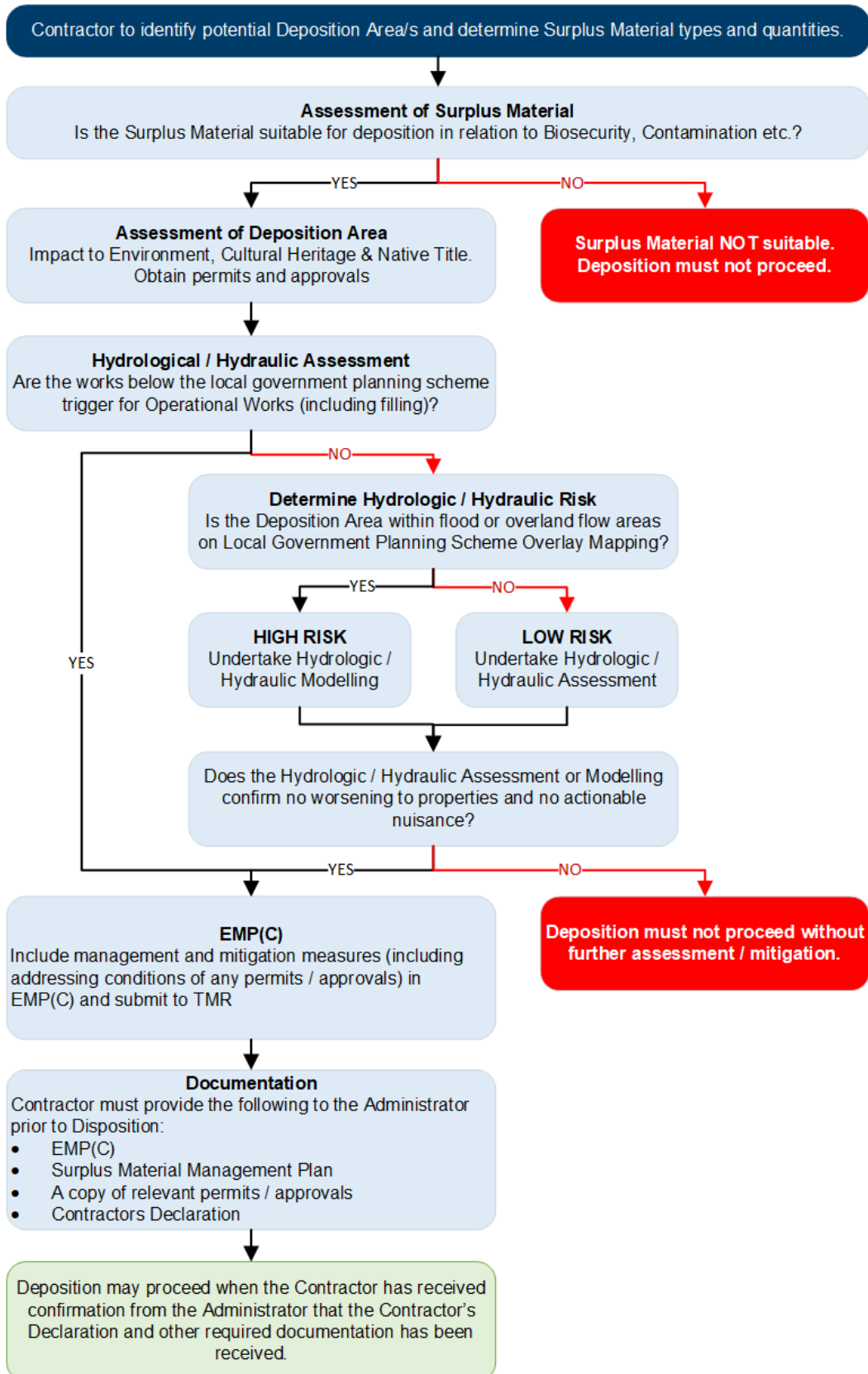
The Contractor's Declaration is to be completed and signed by the Contractor and submitted to Transport and Main Roads prior to Deposition.

Deposition may proceed when the Contractor has received confirmation from the Administrator that the Contractor's Declaration has been received.

The Contractor shall maintain a register of all assessments undertaken, decisions made, and approvals obtained relevant to Deposition of Surplus Material. This shall include a copy of the completed waste calculator, the waste register, the Contractor's Declaration and any other transport or disposal dockets or tracking information. This information shall be made available to Transport and Main Roads on request.

The Contractor and Administrator shall ensure that site inspections and audits include any Deposition Areas to ensure that Work under the Contract is being managed in accordance with the approved EMP(C), environmental approvals and relevant Legislative Requirements.

Figure 6.2.3 – Impact assessment process



7 Key references

- C7558 *Terms of Reference for Review of Environmental Factors* available at <https://www.tmr.qld.gov.au/business-industry/Technical-standards-publications/Consultants-for-engineering-projects>.
- Each Local Government Planning Scheme contains the Operational Works threshold values which trigger assessment against the Planning Scheme for filling and excavation or change to ground level.
- Local Governments have developed flood and overland flow risk mapping to determine whether materials placement constitutes a low or high-risk activity with respect to hydraulic impact. This information is available either online or through the Local Government Planning Scheme Overlay mapping.
- Queensland Government *Native Title Work Procedures*, Department of Resources available at <https://www.resources.qld.gov.au/qld/atsi/native-title-work-procedures/work-procedures>.
- *Road Drainage Manual*, Transport and Main Roads.
- Technical Guideline *Hydrologic and Hydraulic Modelling*, Transport and Main Roads.

