



Economic Development,
Jobs, Transport
and Resources

Imported Materials Management Guideline

For Mine and Quarry Operations

**EARTH
RESOURCES
REGULATION**

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Glossary

Term/Abbreviation	Definition
ASS	Acid Sulfate Soils
Composting	Microbiologically transforming organic materials under controlled aerobic conditions to achieve pasteurisation and a specified level of maturity
DEDJTR	Department of Economic Development, Jobs, Training and Resources
EPA	Environmental Protection Authority
EP Act	<i>Environmental Protection Act 1970</i>
ERR	Earth Resources Regulation
Extractive industry	The extraction or removal of stone from land if the primary purpose is the sale or commercial use of the stone (refer to the MRSDA definition)
'Clean fill'	For the purposes of this document, 'clean fill' refers to Fill Material as defined by the EPA (IWRG600.2 and IWRG621)
IMMP	Imported Materials Management Plan
IWRG	Industrial Waste Resource Regulations
Materials recycling facility	Means land used to collect, dismantle, treat, process, store, recycle or sell used or surplus materials
MRSDA	<i>Mineral Resources (Sustainable Development) Act 1990</i>
PIW	Prescribed industrial waste
Quarry	A pit of excavation made in land below the natural surface for the purpose of extracting or removing stone where the primary purpose is the sale or commercial use of the stone in construction, building, road or manufacturing works or place or operation involving the removal of stone from land as declared by the Minister (refer to the MRSDA definition)
Recycling	Includes collection, sorting, reprocessing and manufacturing into new products
Rehabilitation	The return of disturbed land in a safe, stable and non-polluting condition to an agreed and final land use, as per the approved rehabilitation plan under the MRSDA
Resource	Means a material or waste that can be reprocessed or remanufactured into a new product
Resource recovery	The process of recovering value from discarded materials to make new products
Solid inert waste	Hard waste that has negligible activity or effect on the environment. This is still considered industrial waste by the EPA.
Transfer station	Land where refuse or used materials from offsite are collected, consolidated, temporarily stored, sorted or recovered before transfer for disposal or use elsewhere. Transfer stations do not process or recycle

Term/Abbreviation	Definition
Waste	<p>Waste is defined by the <i>Environment Protection Act 1970</i>.</p> <p>It includes, but is not limited to, any discarded, rejected, unwanted, surplus or abandoned matter, or any otherwise discarded, rejected, abandoned, unwanted or surplus matter intended for—</p> <ul style="list-style-type: none"> (i) recycling, reprocessing, recovery or purification by a separate operation from that which produced the matter; or (ii) sale.
Work Authority	A work authority relating to an extractive industry granted under section 77I
Work Plan	Means a work plan lodged under section 40 or section 77G or varied under section 41AAB or 77HB (as defined under the MRSDA)
VPP	Victoria Planning Provision

1 Introduction

Victoria's construction and demolition sector has demonstrated a strong commitment to recycling and reusing building materials, with a recovery rate in excess of 80 per cent overall (Victorian Government 2013). This provides significant value to the Victorian economy, reducing the environmental impact of construction by keeping reusable or recyclable materials out of landfill and lowering demand for raw materials. The appropriate recycling and reuse of materials has benefits for the environment and the community as a whole.

This guideline has been developed by the Earth Resources Regulation (ERR) Branch (the branch) of the Department of Economic Development, Jobs, Transport and Resources (DEDJTR) (the department).

1.1 The role of Earth Resources Regulation

ERR's regulatory role is principally assessing applications, approving works and inspecting operations to ensure industry participants comply with their obligations and meet community expectations.

ERR regulates mines and extractive industries through the administration of the *Mineral Resources (Sustainable Development) Act 1990* (MRSDA) and subordinate regulations.

For more information go to: <http://earthresources.vic.gov.au/earth-resources-regulation>

1.2 Purpose and objectives

1.2.1 Purpose

This guideline provides practical guidance (recommended practice) to mine and quarry operators for managing materials imported into mine and quarry sites for site rehabilitation and/or materials recycling. In particular, the guideline lists the permissible uses of materials, respective regulators and management requirements.

This guideline is primarily for use by:

- quarry operators who hold a current work authority and import or may import materials for use or development to a location within the work authority
- sites that hold a current mining licence and import materials from offsite.

In regard to materials recycling, this guideline:

- focuses on sites that import, process and sell without blending with quarried material. This is because stand-alone recycling is a common practice across quarry sites in Victoria.
- provides guidance for sites that import materials (particularly concrete or bricks) for blending with quarried rock prior to sale.

This guideline is not intended for waste or materials that are generated on site (for example redundant equipment, excess quarry products or used tyres). The general principles of waste management outlined in this guideline may still be relevant for reuse of products manufactured on site, such as bricks or excess quarry materials.

1.2.2 Objectives

The objectives of this guideline are to assist mine and quarry operators who have a current work authority or mining licence under the MRSDA to understand the regulatory requirements for importing waste soil and industrial materials for recycling, reuse and site rehabilitation. The guideline will do this by clarifying the:

- various categories of imported materials
- management implications associated with imported materials
- requirements in each case for ERR and other agencies
- planning/permit requirements in each case, and (importantly for Approvals) sets out when an Imported Materials Management Plan (IMMP) is required.

1.3 Related standards and guidance

The Environment Protection Authority (EPA) and VicRoads have produced a number of guidelines and industry standards that apply to individuals and industry that excavate, supply or receive waste soil and/or industrial waste.

- Industrial Waste Fact Sheet (EPA Publication No. 1624)
- Industrial Waste Resource Guidelines – Solid industrial waste hazard categorisation and management (EPA Publication No. IWRG631)
- Industrial Waste Resource Guidelines – Soil hazard categorisation and management (EPA Publication No. IWRG621)
- Industrial Waste Resource Guidelines – Waste Categorisation (EPA Publication No. IWRG600.2.)
- Classification for Drilling Mud (EPA Publication 2015/205)
- Designing, Constructing and Operating Composting Facilities (EPA Publication No. 1588.1)
- Acid Sulfate Soil and Rock (EPA Publication No. 655.1)
- VicRoads Standard Specification Section 820 - Crushed Concrete for Pavement Subbase and Light Duty Base

This guideline should be read in conjunction with the above guidance documents.

1.4 Legislative framework

Three Victorian Acts of Parliament are relevant to the importation of materials into mine and quarry sites, and are within the responsibilities of ERR and the EPA. These are summarised below.

Earth Resources Regulation

- MRSDA

Environmental Protection Authority

- *Environment Protection Act 1970* (EP Act)
- *Planning and Environment Act 1987*

For further information on the application of these Acts refer to Appendix A.

1.5 Approvals and requirements for importing materials

A mine or quarry site should initiate discussions with council and ERR as soon as they are considering any new activities or changes to existing practices for a site. The site manager is to seek advice in writing to ensure approval requirements are clearly understood by all parties.

Risks associated with the importation of materials are to be addressed in the Risk Management Plan which is submitted to ERR as part of their Work Plan or Work Plan Variation. The relevant risks and associated controls presented in the Risk Management Plan are to be identified in the site's Imported Materials Management Plan (IMMP) or equivalent document, if existing, or clear reference is made to the relevant EPA guideline in regard to the management of these imported materials. Refer to section 3 for further details on the IMMP.

Community consultation, particularly in relation to potential off-site impacts, should be undertaken as part of the site's community engagement plan which is a requirement of the site's Work Plan.

Table 1 summarises a range of activities for which a mine or quarry site may want to import materials. It describes the materials that may be suitable for this activity and the approval that would be required.

Other inert industrial waste that are not classified as Fill Material ('clean fill'), e.g. processed glass, are generally not allowed by the EPA to be used in site rehabilitation. However, in some exceptional circumstances the use of such material may be approved by EPA but would have to be assessed and approved by the EPA on a case by case basis.

Table 1: Approved activities and requirements for imported materials

Activity	Material type for acceptance at site	Regulator	Approval mechanism	Material end use
Rehabilitation	Fill material ('clean fill') - soil, sand, clay or rock	ERR	Compliance with Industrial Waste Resource Regulations (IWRG) – see EPA Publications IWRG621 and 1624 Confirm with ERR whether ERR approval is required	Site rehabilitation Site maintenance
	Recycled concrete and/or bricks, reprocessed into engineered/structural fill	ERR	Confirm with ERR whether ERR approval is required	Site rehabilitation
	Recycled concrete and/or bricks, reprocessed into engineered/structural fill	EPA	Material must meet the definition and specifications outlined in Compliance with EPA Publications IWRG621, IWRG631 and 1624	Site rehabilitation Site maintenance
	Acid sulfate soils	EPA and council	In accordance with the EPA publication <i>Industrial Waste Management Policy – Waste Acid Sulphate Soils</i> (No. S125) the owner/occupier must be licensed and approved by the EPA under the <i>EP Act</i> to disposal or reuse of waste acid sulfate soil. An environment management plan developed in accordance with S125 is also required to be approved by the EPA. Planning approval from council	Site rehabilitation
	Acid sulfate soils	ERR	ERR approval of Work Plan/Work Plan Variation via Risk Management Plan and rehabilitation plan	Site rehabilitation
	Drilling mud (where the soil component meets the requirements for classification as	ERR	Compliance with EPA Guideline IWRG621 Compliance with EPA Classification for Drilling Mud -	Site rehabilitation

Activity	Material type for acceptance at site	Regulator	Approval mechanism	Material end use
	fill material ('clean fill') and the liquid contains only water)		2015/205 Confirm with ERR whether ERR approval is required	
Materials recycling	Solid inert industrial waste including concrete, bricks, tiles and asphalt. Excess wet concrete mixture (without free liquid)	EPA	Materials must comply with EPA Publication 1624 (max. 100mm particle size) and must only be used on site for temporary haul road construction Note: this material must be removed prior to the area being filled or site rehabilitation	Used on site for temporary haul road construction
	Solid inert industrial waste including concrete, bricks, tiles and asphalt. Excess wet concrete mixture (without free liquid)	ERR	Confirm with ERR whether ERR approval is required Note: must be reprocessed into engineered/structural fill for use in site rehabilitation	Site rehabilitation
	Solid inert industrial waste including concrete, bricks, tiles, asphalt, timber, metals, glass etc. Excess wet concrete mixture (without free liquid)	Council	Planning approval from Council	Recycled into a saleable product
	Green waste for mulching	ERR	In accordance with the rehabilitation plan Must be free from any contamination and fit for purpose Confirm with ERR whether ERR approval is required	Recycled into mulch and used in rehabilitation

Activity	Material type for acceptance at site	Regulator	Approval mechanism	Material end use
	Green waste for mulching	Council	<p>Planning approval from council</p> <p>Must be free from any contamination and fit for purpose</p> <p>In accordance with the Scheduled Premises Regulations 2017, the premises must have a monthly organic matter capacity of:</p> <ul style="list-style-type: none"> - less than 100 tonne (or 200m³) per month; or - less than 70 tonne (or 140m³) with a production of less than 50 tonnes of compost <p>Otherwise an EPA works approval and licence will be required</p>	Recycled into mulch for resale
Importing inert materials for blending with quarry material	Concrete, bricks, or other suitable materials	Council	Confirm with council to determine if existing planning permit for extraction covers this activity or whether a separate planning permit is required for materials recycling or whether existing use rights apply.	For sale as blended product
Importing inert materials for blending with quarry material	Concrete, bricks, or other suitable materials	ERR	Confirm with ERR whether ERR approval is required	For sale as blended product Rehabilitation

1.5.1 Unsuitable imported materials

Table 2 lists materials/wastes that should not be accepted on a mine or quarry site. It also identifies appropriate destinations for these materials.

Table 2: Unsuitable imported materials

Material Type	Appropriate Destination
Domestic waste – unless approved in Work Plan/Work Plan variation with EPA/Council approvals (but generally not permitted)	Licensed municipal landfill
Prescribed industrial waste (PIW) – including contaminated soil	Premises licensed by EPA to accept PIW of the appropriate category (e.g. landfill or treatment facility)
Acid sulfate soils (ASS) – unless approved in Work Plan/Work Plan variation with EPA/Council approvals (refer to Table 1)	Premises licensed to accept acid sulfate soils – refer to EPA or ERR for licensed premises
Tyres	Offsite Recycling facility
Industrial waste - other than solid inert waste for recycling on site (with required approvals in place)	Transfer station, offsite recycling facility or premises licensed by EPA to accept the waste (e.g. landfill)

1.6 Waste requiring additional approvals for use on-site

If a quarry is accepting materials for a recycling use, planning approval from council must be in place, i.e. a permit that covers the activity or in the form of existing use rights.

1.6.1 Recycling and Transfer Stations

A transfer station is not a suitable operation within a work authority or mining licence area. An operator who wishes to run a transfer station should obtain a planning permit and excise the site from the work authority or mining licence area.

Note: storing redundant material/waste generated onsite before disposal/recycling is not included in the definition of transfer station under this section.

In circumstances where there is currently no approval in place but solid inert materials such as concrete are on site, it may still be appropriate for the site to apply for a planning permit for a materials recycling facility. This may allow the site to process existing material for recycling (rather than having to remove the materials from the site) and to accept new material for recycling in future.

ERR supports the practice of recycling solid inert industrial waste within a work authority area where the recycling activity is well managed and has planning approval. Approval may be in the form of a planning permit (see 1 below) or alternatively, existing use rights may apply (see 2 below).

1. *Planning permit* – under the Victoria Planning Provisions (VPP), a planning permit is required to operate a materials recycling facility. Unless there is already a permit in place that covers this activity, the quarry operator needs to seek approval from the local council. It is likely that any permit application will be referred by council to ERR for comment.

2. *Existing use rights* – existing use rights may apply to a site if a recycling activity has occurred for more than 15 years, or it meets other criteria set by the local council. Where existing use rights do apply, the site may not need a planning permit to continue to operate as a recycling facility. The proponent must satisfy the council that the site has been used for recycling continuously for a period of 15 years without a break of two years or more. The proponent should contact council to seek advice on what pieces of information would be required to demonstrate that existing use rights apply.

Further information on planning requirements and how they apply to a specific premise should be sought from the relevant local council.

If a site meets the above criteria for existing use rights for recycling activities, ERR reserves the right to excise a recycling operation from the work authority area if it is deemed incompatible with the scale, operation or expected closure of the existing extractive operation.

1.6.2 Waste disposal site or landfill

The operation of a landfill or waste disposal site is not a suitable activity within a work authority area. To operate a landfill an EPA works approval and licence is required along with a planning permit for 'refuse disposal', unless the operator is taking waste from a facility on site they need to be scheduled under the regional waste groups plan. The operator should contact the local waste group in the first instance. ERR requires the site to be excised from the work authority before accepting waste.

If materials that could be recycled (such as concrete) are deposited onsite without appropriate planning approvals in place, the EPA may determine that the site is an unlicensed landfill. This is particularly likely where materials are stored unprocessed for an undefined timeframe. This could potentially result in EPA enforcement action (see Section 1.6.3).

1.6.3 Enforcement and rectification

Where imported materials are not used or recycled appropriately or an approval is not in place to conduct the activity, they remain industrial wastes and must be deposited at a site that is licensed to accept them. It is an offence under the EP Act to:

- deposit, dump, discard or abandon industrial waste on an unlicensed site
- deposit, dump, discard or abandon industrial waste on a licensed site without the licence holder's knowledge or consent
- permit industrial waste to be deposited, dumped, discarded or abandoned at an unlicensed site
- permit industrial waste to be deposited, dumped, discarded or abandoned at a licensed site without the licence holder's knowledge or consent.

Where non-compliance is detected, the EPA can issue a clean-up notice requiring the removal of the material or undertake further enforcement action as necessary.

1.7 Disclaimer

The contents and checklists in this guideline do not represent legal advice and are provided as guidance to assist industry with compliance. The guideline is not intended to replace or amend mining licence or work authority holders' legal obligations. It is the responsibility of each licence or authority holder to comply with their legal obligations.

2 Imported materials categories and uses

Materials imported into mine and quarry sites predominantly consist of:

- clean fill material - this can be clean 'waste' soil. Soil is generally imported for site maintenance or site rehabilitation, and may be from rural sites and domestic or commercial developments
- solid inert industrial waste (concrete, bricks etc.) being used as engineered/structural fill or for recycling (e.g. concrete for crushing)

These materials are described below in more detail along with a description of PIW.

Whilst this section covers the type of materials most likely to be encountered at a mine or quarry it does not refer to all potential material types.

The material descriptions are based on the EPA's *Industrial Waste Resource Guidelines* (Publications IWRG631 2009, IWRG621 2009 and IWRG600.2 2010).

2.1 Fill material

Fill material consists of waste soil (clay, silt and/or sand), gravel and rock composed of naturally occurring materials. This material type consists of waste soil (clay, silt and/or sand), gravel and rock composed of naturally occurring materials.

It is free from industrial waste such as bricks, and has contaminant levels below those specified in the EPA's *Soil hazard categorisation and management* (Publication IWRG621, 2009).

Where the soil does not meet these requirements, it is considered a waste and must be managed accordingly.

2.1.1 Fill for rehabilitation purposes

'Clean fill' material may be used for site rehabilitation in accordance with the site rehabilitation plan (see section 3.2). For a new risk-based work plan or a work plan variation, the proponent need to demonstrate how the imported material will be managed during the life of operation. This may be demonstrated in the format of an IMMP.

Industrial waste that is processed to meet the definition of engineered/structural outlined in the EPA's Industrial Waste Fact Sheet (Publication 1624, May 2016) can be brought onsite and used for rehabilitation in accordance with the site rehabilitation plan.

Other material types cannot be used in rehabilitation unless a site-specific approval has been provided by ERR and the EPA.

2.2 Industrial waste

According to the EPA Industrial Waste Fact Sheet (Publication 1624, May 2016), industrial waste includes waste arising from all commercial, industrial or trade activities. Solid inert waste is a type of industrial waste that includes, but is not limited to, concrete, bricks, asphalt, dry timber, plastic and metals. These waste materials are often sourced from building construction or demolition, renovations or repairs, and road construction and maintenance. Solid inert waste is the main material imported onto a quarry site for the purpose of recycling.

For industrial waste to be recycled it must be suitable for processing into products that are fit for purpose, of consistent quality and used as a substitute for new materials. Where these materials cannot be recycled, they are required to be taken to a licensed landfill, licensed treatment facility or transfer station.

Operators proposing to reuse industrial wastes should consider the recommendations and practices outlined in the EPA's Industrial Waste Fact Sheet (Publication 1624, May 2016) to understand the distinction between an 'industrial waste resource', which can be recycled or used on site, and a 'waste'.

2.2.1 Solid inert industrial waste as a resource

The EPA's Industrial Waste Fact Sheet (Publication 1624, May 2016) specifies the conditions that need to be satisfied to use industrial waste as engineered/structural fill or for haul roads. To reuse industrial waste, it must be:

- suitable for processing to a specification (for example *Vic Roads Standard Specification 820 – Crushed Concrete for Pavement Sub-base and Light Duty Base*)
- consistent in quality and fit for purpose
- suitable for use as a substitute for new materials

For example, at quarry sites, this would typically involve the importation of waste concrete or bricks from a demolition site which are then reprocessed (crushed) to a specified size and made available for resale or reuse as a quarry product substitute, for example road base product or temporary haul road material.

The EPA's Industrial Waste Fact Sheet (Publication 1624, May 2016) lists the responsibilities and practices necessary to demonstrate that an imported material is being reused as engineered/structural fill or for haul roads, and is therefore considered an industrial waste resource. Key aspects include (but are not limited to):

- The material can be processed to meet a particular engineering or design standard and is fit for this purpose
 - For engineered/structural fill this will typically be standards such as *VicRoads Standard Specification 820 –Crushed Concrete for Pavement Sub Base*. This includes the final product meeting allowable foreign particle (contamination) specifications e.g. Vic Roads 820 (2% for Class 2, 3% for Class 3)
- A market or clearly specified future use or need for the final product has been identified
 - The material is brought onto the site with the intention of being recycled and is consigned for reuse or recycling.
 - A schedule for material processing has been developed to reflect the identified market. This schedule would be flexible and updated according to market demand
- Details of the source of the material are recorded as specified in the IMMP (see section 3 and Appendix B) and no Prescribed Industrial Waste is accepted on site
 - The source may include a specific construction or demolition site or the previous business that handled the material (such as a bin hire company)
- Details of destination and relevant stakeholders for the imported materials are maintained
 - For example, whether the material is to be used in road construction, on internal roads, asphalt manufacture.

2.2.2 Industrial waste remaining a waste

Situations where materials brought onto site remain an industrial waste and results in an offence under the EP Act, i.e. the material is not suitable to use on-site, include but are not limited to:

- when minimal or no crushing or processing is occurring or is planned, while the volume of material continues to grow
- when contamination cannot be removed or different materials cannot be separated sufficiently to meet a specification
- when the material is stored or stockpiled for future processing without a clear understanding of the future need for its use.

Where imported materials are not used or recycled appropriately, or an approval is not in place to conduct the activity, they remain industrial wastes and must be deposited at a site that is licensed to accept them. It is an offence under the EP Act to:

- deposit, dump, discard or abandon industrial waste on an unlicensed site
- deposit, dump, discard or abandon industrial waste on a licensed site without the licence holder's knowledge or consent
- permit industrial waste to be deposited, dumped, discarded or abandoned at an unlicensed site
- permit industrial waste to be deposited, dumped, discarded or abandoned at a licensed site without the licence holder's knowledge or consent.

Where non-compliance is detected, the EPA can issue a clean-up notice requiring the removal of the material or undertake further enforcement action as necessary.

2.3 Prescribed industrial waste and unsuitable wastes

2.3.1 Prescribed industrial wastes

Prescribed industrial wastes are not permitted to be received within a work authority area.

These wastes have the potential to adversely impact human health and the environment. They may be from an industrial, trade or commercial source or be contaminated soils. Commonly these soils are contaminated with hydrocarbons, metals, herbicides or other pesticides and can be similar in appearance to clean fill material.

Asbestos is also classified as a prescribed industrial waste.

Liquid waste is PIW unless it is (i) trade waste; or (ii) industrial waste water managed in accordance with specifications acceptable to the EPA.

These wastes are classified as hazard category A, B or C in accordance with the following EPA guidance:

- IWRG631 Solid industrial waste hazard categorisation and management
- IWRG621 Soil hazard categorisation and management

An EPA licence is likely to be required to import, store, treat, reprocess or dispose of prescribed industrial waste within a premise.

3 Imported Materials Management Plan

To demonstrate best practice and site compliance with relevant legislation, it is encouraged that all sites accepting imported material have an Imported Materials Management Plan (IMMP) in place before receiving material. Ultimately it is the operator's responsibility to ensure the correct practices are in place for the material type being imported onto site.

An IMMP should establish the recommendations and practices outlined in EPA's Industrial Waste Fact Sheet (Publication 1624, May 2016). This includes describing how materials are accepted and managed on site. In particular, it should detail how the recommended practices outlined in the following subsections are being implemented. The level of detail required will depend on the scale of the activity taking place. Appendix B provides examples of items that should be considered for inclusion in the IMMP.

Where a mine or quarry operator proposes importing fill material for rehabilitation, ERR may require an IMMP as a condition of a new risk-based work plan or a work plan variation. Where planning approval is required for materials recycling, council may include a requirement to develop an IMMP or similar to demonstrate how this activity is going to be managed.

The IMMP should detail operational practices that will help ensure compliance with laws for importing materials. Depending on the volume and type of materials imported, not all recommended practices will be relevant for all sites. Some of these practices may already part of the mining licence or work authority requirements for overall site management. They are discussed below because they are important in managing imported materials and sites may need to tailor their practices specifically to address this activity.

3.1 Contamination management and prevention

Contamination is a key risk associated with importing materials. If not managed appropriately, contamination can result in a lasting liability and risk of enforcement action. Every effort must be made to prevent contaminated material from entering the site in the first place.

Note section 3.1.6 provides management recommendations in the event that contaminated materials are inadvertently received on site.

3.1.1 Sourcing the material

The following are the recommended operational measures and checks for quality assurance when material is being sourced for the site:

- Ask for prior notification of delivery of material. Find out what the material is, the expected quantity, origin of the material and any laboratory sample results (for soils in particular).
- Prepare guidance material for clients so they are aware of what will/will not be accepted on site.
- Where applicable, require a soil assessment report to confirm that any soil coming on site is free from contamination. The assessment must be in accordance with EPA requirements.
- Avoid accepting mixed loads of imported materials – request producers to separate them at the source site.

3.1.2 Delivery to site

The following are the recommended operational measures and checks for material at delivery to the site (e.g. at the quarry entrance/weighbridge/mine entrance gate):

- Display prominent signage advising all delivery truck drivers to report to the weighbridge or site office on arrival.
- Require all drivers complete a delivery checklist before depositing material including information such as:
 - vehicle registration
 - driver's name
 - delivery company name
 - source of material, see Appendix C for an example checklist
- Require the quarry operator to fill out a pre-acceptance inspection checklist, see Appendix D for an example checklist.

3.1.3 Site security

The site should be secured so that material cannot be brought on site undetected. The following are the recommended operational measures for site security.

- The imported material stockpile area should be fenced with access via a gate operated by pass /key/code/quarry personnel to prevent unauthorised entry.
- Consider installing cameras to monitor activity and to help identify the vehicle involved if unauthorised dumping is discovered.
- Entry to the entire site should only be through monitored access gates to prevent illegal dumping of waste anywhere on site

3.1.4 Sorting

To meet specifications and client requirements, keep different materials separate before and after processing. The recommended operational measures for sorting of imported materials includes the following:

- Set up designated and sign-posted areas for different materials e.g. brick, concrete, rock, soil. This will ensure that the materials are not mixed and then require resorting.
- Remove other materials such as metal reinforcement or incidental plastics.
- Have bins on site to collect incidental recyclable materials such as metals, plastics and general waste, and arrange for them to be removed from site as required.
- Store the final products separately from incoming materials and other site materials to ensure no contamination occurs.

3.1.5 Stockpiling materials

Stockpiling of unprocessed material or fill materials is sometimes required as part of the resource recovery/rehabilitation process. For materials recycling, this is most likely to occur when there is an oversupply of a material in the market. Stockpiling of any combustible materials must be done in accordance with the EPA publication 1667.1 *Management and Storage of Combustible Recyclable and Waste Materials Guideline*.

However, this is distinct from stockpiling to avoid the costs of waste disposal or where there is no legitimate future use for the material, which is an offence under the EP Act. The recommended operational measures include the following:

- Specify the maximum amount of imported material that can be accepted on site at any one time. This will be determined by the size of the storage areas, the capacity to process on site and the demand for the product at a given time. These will change over time due to factors such as site alterations, and market supply and demand fluctuations.
- Where the limit is reached, the site should be closed to deliveries to ensure stockpiles do not grow beyond what can be processed and sold. As demand for the product returns or there are confirmed orders, deliveries can recommence.
- Ensure erosion, runoff and dust from imported material stockpiles is controlled and contained.
- Where practical, bring fill material on site just before using it for rehabilitation. This will help minimise soil being washed away and minimise the opportunity for weeds to grow.

3.1.6 Contamination and hazardous materials management

The primary mechanism to prevent contamination is to implement the practices outlined in section 3.1 when a delivery arrives at the mine or quarry entrance. The following recommendations apply in the event that contaminated material inadvertently enters the site.

- If a contaminated load is discovered, contact the producer and ask them to pick up the load for appropriate disposal or accept charges for the cost of appropriate disposal.
- If waste has been illegally dumped on site by unknown persons, its management becomes the responsibility of the work authority holder. This may include contaminant testing, transport and disposal to a landfill or other suitable facility as appropriate.
- Persons caught illegally dumping waste on site should be reported to the EPA and banned from accessing the site.

3.1.7 Environmental and community impacts

A number of other impacts are associated with the importation of materials to a site. These include the following:

- *Weeds and pests.* These should be managed as part of a wider site pest management program and in accordance with the existing planning permit and work authority.
- *Noise and dust generation.* These impacts must be managed in accordance with the existing work authority and planning permit to ensure that impacts beyond the boundary of the site meet compliance levels. The operation (particularly any sorting and crushing) should be strategically located away from the site boundary and in particular away from residential properties to reduce noise or dust issues.

3.2 Site rehabilitation and closure

Imported materials have implications both for the rehabilitation of the site and for its closure once the mine or quarry operations have ceased.

3.2.1 Materials used in site rehabilitation

Rehabilitation of the site occurs progressively (worked out or surplus areas are rehabilitated while extractive operations continue) and continues once extractive operations have ceased. A key part of this is filling/landscaping the site to meet the requirements for its final land use which as a minimum must achieve the objectives of a safe and stable landform of all extractive areas and minimise the visual impact of the site.

It is anticipated that for the majority of sites, the filling material imported for rehabilitation will be clean fill material. However, if a site proposes to use another inert industrial waste material (e.g. concrete) then approval must be sought from EPA as well as ERR.

In any case the material must be fit for purpose and used in accordance with the rehabilitation plan and IMMP that forms part of the approved work plan.

If a work plan is not required for the site (and there is no rehabilitation plan), then rehabilitation must be completed in accordance with the relevant Code of Practice (e.g. Code of Practice for Small Quarries).

3.2.2 Redundant equipment and materials

Before leaving the site, the mining licence or work authority holder should undertake the following, where applicable:

- remove all equipment used for processing the imported material, unless such infrastructure is part of the approved rehabilitation plan
- remove any waste arising from a recycling operation (e.g. metal reinforcement from concrete) and take it to an appropriately licensed facility (e.g. landfill or treatment facility)
- remove any unprocessed material and dispose to landfill or other appropriate site
- sell, dispose or re-home any remaining processed material.

Where there is a planning permit in place, for the extractive industry or a recycling facility, the local council may impose specific requirements before the permit holder can leave the site.

3.2.3 Post-operations

In some circumstances a former mine or quarry site will be used as a materials recycling facility after rehabilitation of the site. Once the rehabilitation has been completed and the work authority has been surrendered, ERR has no continuing role in the management or administration of the site.

Note that the site continues to fall under the jurisdiction of the local council and/or the EPA.

4 References

EPA (1999), *Industrial Waste Management Policy – Waste Acid Sulfate Soils*, No. S125

EPA (2009), *Acid Sulfate Soil and Rock*. Publication No. 655.1. Website: www.epa.vic.gov.au

EPA (2009), *Industrial Waste Resource Guidelines – Solid industrial waste hazard categorisation and management*. Publication No. IWRG631. Website: www.epa.vic.gov.au

EPA (2009), *Industrial Waste Resource Guidelines – Soil hazard categorisation and management*. Publication No. IWRG621. Website: www.epa.vic.gov.au

EPA (2010), *Industrial Waste Resource Guidelines – Waste Categorisation*. Publication No. IWRG600.2. Website: www.epa.vic.gov.au

EPA (2015), *EPA Classification for Drilling Mud - 2015/205*. Website: www.epa.vic.gov.au

EPA (2016), *Industrial Waste Fact Sheet*, Publication No. 1624. Website: www.epa.vic.gov.au

EPA (2017), *Designing, Constructing and Operating Composting Facilities*. Publication No. 1588.1. Website: www.epa.vic.gov.au

EPA(2017), *Management and Storage of Combustible Recyclable and Waste Materials Guideline*. Publication 1667.1. Website: www.epa.vic.gov.au

VicRoads (2011), *Standard Specification Section 820 - Crushed Concrete for Pavement Subbase and Light Duty Base*.

Victoria Government (2013), *Getting Full Value – The Victorian Waste and Resource Recovery Policy*. Website: www.delwp.vic.gov.au



5 Appendices

Appendix A: Legislative Framework

Mineral Resources (Sustainable Development) Act 1990

Victoria's extractive industries operate in accordance with the provisions of the *Mineral Resources (Sustainable Development) Act 1990* (MRSDA). The MRSDA addresses licensing and approvals and other issues including compensation, rehabilitation and royalties for the mining and extractive industries. The purpose of the MRSDA is to encourage mineral exploration and economically viable mining and extractive industries which make the best use of, and extract the best value from, earth resources in a way that is compatible with the economic, social and environmental objectives of the state. The MRSDA is administered by Earth Resources Regulation (ERR).

Environment Protection Act 1970

The *Environment Protection Act 1970* (EP Act) is the overarching legislation for protecting the quality of Victoria's environment. It is the primary legislation under which waste is managed in Victoria. It outlines which premises are scheduled and therefore subject to licensing and works approval. All extractive industry sites in Victoria are required to comply with the EP Act, in addition to the requirements set under the MRSDA. The EP Act is administered by the EPA.

Waste hierarchy

A central concept to waste management in Victoria is that of resource efficiency. The EP Act establishes the principles of waste hierarchy for Victoria, which provides that waste should be managed in accordance with the following order of preference as illustrated in **Figure 1**.

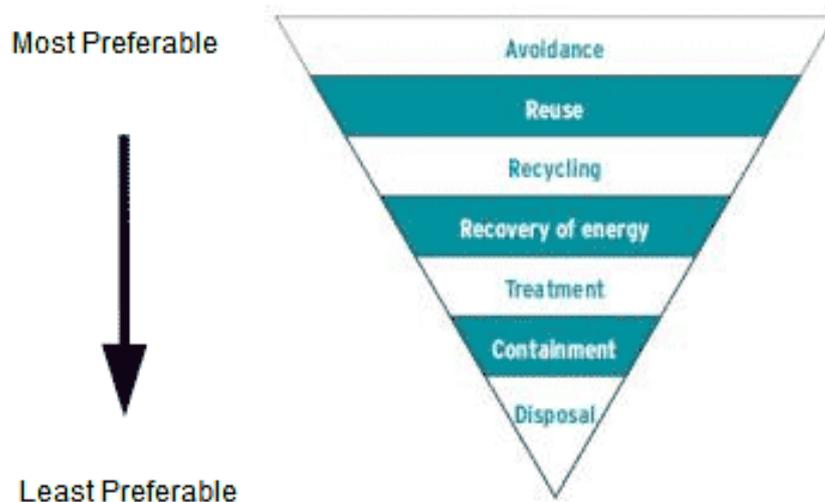


Figure 1: Waste hierarchy (EPA Victoria, 2016)

Appropriate reuse and recycling is the preferred method of managing waste materials rather than disposal to landfill.

Planning and Environment Act 1987

The *Planning and Environment Act 1987* establishes a framework for planning the use, development and protection of land in Victoria in the present and long-term interests of all Victorians. The Victoria Planning Provisions (VPP) are made pursuant to this Act and provide a standard format for all Victorian planning schemes. In particular, the VPP set out the type of activities that require a planning permit.

Appendix B: Imported Materials Management Plan Checklist

This checklist outlines items that should be considered for inclusion in an IMMP. Where relevant, examples are also provided to demonstrate how this might be implemented.

IMMP Checklist of potential inclusions	Examples
Show all areas to be used for imported material storage and processing in relation to sensitive stakeholders and other operational areas of the site, such as site office, weighbridge, quarry pit, etc.	Include an aerial photo with mark-ups showing features of the site where material is stored and processed
Provide evidence of the approval that allows the acceptance and processing of imported materials	Include a copy of the work plan section, planning permit, EPA licence or letter confirming that existing use rights apply
List the type of materials and quantities that will be accepted and managed on site	Evidence of input materials, processing, products and sales to be kept on site
Outline potential/known uses for the final product and a likely processing schedule to reflect this	
Reference to the procedure for collecting documentation from the producer or transporter to demonstrate the material origin and waste classification	Checklist to be filled out by driver (see Appendix 3). Require results of samples taken (if relevant). Require proof of origin for material showing site occupier and address
Reference to the fire risk assessments and management procedures that may be required in accordance with EPA Publication 1667.1 where required	
Reference to the procedure outlining how each load of incoming material is screened for contamination before coming on site	Pre-acceptance checklist completed by quarry (see Appendix 4)
Reference to the procedure to ensure contaminants are identified, separated, treated and/or disposed of off-site in accordance with EPA requirements	
Specify criteria used to determine when material needs to be sampled in accordance with EPA's Soil Hazard Categorisation and Management Guide (IWRG621) before it is accepted	Requirement for all soil to be accompanied by an assessment report confirming that it is clean fill material
Specification that is used to determine what products are being produced on site	VicRoads Standard Section 820 - Crushed Concrete for Pavement Sub-base and Light Duty Base. Other specifications provided by clients. Requirement that Haul Road Construction materials to be less than 50mm in size for pavements and 100mm for basic road formation and stabilisation materials.
Reference to noise, dust and community consultation procedures, including complaints handling, specific to the storage of imported materials	

IMMP Checklist of potential inclusions	Examples
Pest and weed management, specific to the storage of imported materials	
Reference to procedures outlining how occurrences of illegal dumping will be managed	
How client details and checklists will be maintained	Maintain a register for collecting these details that is kept by the quarry manager

Appendix C: Delivery Driver Checklist

The table below provides an example of a checklist to be filled out by delivery driver to meet the requirements of this Guideline.

#	Requirement	Details	Information supplied Y / N / NA
1	Date of delivery		
2	Truck/vehicle registration number		
3	Drivers name		
4	Transport company name (if different to the sourcing company)		
5	Company they are making the delivery for		
6	Type of material being delivered		
7	Quantity in current load		
8	Number of additional loads expected		
9	Source site description including address		
10	Attach any sampling results		

Appendix D: Delivery Checklist for Site Personnel

The checklist below is an example of the checklist to be filled out by site personnel (at weighbridge or other appropriate location depending on site set up).

Checklist aspect	Details
Type of material	<input type="checkbox"/> Concrete <input type="checkbox"/> Bricks <input type="checkbox"/> Ceramics <input type="checkbox"/> Soil <input type="checkbox"/> Other (please specify):
Does the site have approval to accept this type of material?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Is the delivery driver checklist filled out adequately?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the records available to confirm origin of material and contaminated status (if required)?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Has a visual inspection of the imported material been conducted?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Confirm details provided by the driver	Material type: Quantity: Sample results (if required):
Can you observe any inert contamination in the load (e.g. plastic, metal, tiles, etc.)?	<input type="checkbox"/> No <input type="checkbox"/> Yes If yes, what is the type of contamination: Estimated % of contamination:
Any prescribed waste visible (e.g. asbestos) or other unacceptable waste (e.g. putrescible waste)?	<input type="checkbox"/> No <input type="checkbox"/> Yes
Based on assessment, is the load suitable to accept on site?	<input type="checkbox"/> Yes <input type="checkbox"/> No

Authorised by the _____ (example Hon.)
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