



Material guideline: Construction products

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Accessibility This document is available in alternative formats and languages upon request.

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Definitions

asbestos has the same meaning as it has in regulation 42 of the *Environmental Protection (Controlled Waste) Regulations 2004*.

construction and demolition waste (C&D waste) has the same meaning as it has in the *Landfill Waste Classification and Waste Definitions 1996* published by the Chief Executive Officer as amended from time to time.

contaminated, in relation to C&D waste, means; (a) having non-permitted waste in the C&D waste; or (b) having more than the allowed limits of the chemicals and other substances referred to in Table 2 of this Material Guideline; or (c) having chemicals or substances other than those referred to in Table 2 that present or have the potential to present, a risk of harm to human health or the environment and **contamination** in relation to C&D waste has a corresponding meaning.

contaminated, in relation to land, water or a site, has the same meaning as it has in section 4(1) of the *Contaminated Sites Act 2003* and **contamination**, in relation to land, water or a site, has a corresponding meaning.

controlled waste has the same meaning as it has in regulation 2 of the *Environmental Protection (Controlled Waste) Regulations 2004*.

day-to-day operations means the management of staff and the application of operational procedures and/or work instructions used on a site to meet the requirements of this Material Guideline.

discrete sample means a sample collected and analysed individually.

end user means a person who uses recycled construction products.

environmental harm has the same meaning as it has in section 3A of the *Environmental Protection Act 1986*.

lead glass means glass that contains lead oxide as a flux.

non-permitted waste means any waste other than that permitted to be in recycled road base or recycled drainage rock by section 3.1 of this Material Guideline.

producer means a person who processes, mixes, blends or otherwise incorporates C&D waste into recycled construction products.

qualified person means a person possessing relevant tertiary qualifications to a minimum bachelor level such as in environmental science or environmental engineering and a minimum of three years' experience in analysing laboratory results related to soil science or contaminated sites.

recovered glass means glass which is not contaminated and is recovered from source-separated glass recycling streams or screened and refined glass streams. It excludes:

- leaded glass; and
- glass from Cathode Ray Tubes or other glass recovered from electrical equipment, or fluorescent or incandescent lights.

recycled drainage rock means a uniformly blended mixture of coarse grained aggregate typically between 20-27 mm in particle size consisting of a mixture of concrete, rock, brick and other similar rubble material produced from the crushing and screening of C&D waste.

recycled road base means a uniformly blended mixture of coarse and fine aggregate typically <19 mm in particle size consisting largely of concrete produced from the crushing and screening of C&D waste.

routine sampling means sampling and testing that is conducted on a regular basis.

screened and refined glass means the glass recovered from crushed and screened glass streams from materials recovery facilities.

waste has the same meaning as it has in section 3(1) of the *Environmental Protection Act 1986* and section 3(1) of the *Waste Avoidance and Resource Recovery Act 2007*.

1. Introduction

The Department of Environment Regulation (DER) is seeking to encourage the use of waste-derived materials (WDMs) in circumstances where their use does not cause an unacceptable risk to the environment to divert waste from landfill and reduce the demand for raw materials and fossil fuels.

The [Guidance statement: Regulating the use of waste-derived materials](#) was recently developed and published by DER to support this objective. The guidance statement sets out the intention of DER to develop material guidelines that establish specifications for the production and use of WDMs. The guidance statement also sets out the "end-of-waste" criteria that DER will apply through the material guidelines to determine when waste has ceased to be waste.

These criteria are:

- that the production and/or characteristics of the WDM will meet all defined and relevant specifications or standards as evidenced through appropriate quality assurance/sampling and testing systems; and
- that the WDM will be used to replace a raw material and that use will not result in unacceptable impact on the environment.

This document is one of a series of material guidelines that have been developed in accordance with the guidance statement. This material guideline relates to the production of construction products from waste. In particular, it relates to the production of road base and drainage rock as these are two of the most common construction products produced from waste. If recycled road base and recycled drainage rock are produced in accordance with the specifications and procedures, following the testing and record keeping requirements, and for the authorised uses set out in this material guideline, DER will regard them as having ceased to be waste when exercising its regulatory powers.

The *Environmental Protection Act 1986* (EP Act), the *Waste Avoidance and Resource Recovery Act 2007* (WARR Act), the *Waste Avoidance and Resource Recovery Levy Act 2007* (WARR Levy Act), and the regulations made under these Acts regulate waste in various ways.

The purpose of this material guideline is to provide guidance as to when DER will regard road base and drainage rock produced from waste as no longer being waste. This guideline may be updated in the future to include specifications for other types of construction products produced from waste.

Recycled road base and recycled drainage rock that are produced in accordance with the specification and procedures, following the testing and record keeping requirements, and for the authorised uses set out in this material guideline, will be permitted for use throughout Western Australia. The specification, procedures, testing and record keeping requirements and authorised uses are designed to ensure the end use of these products does not pose unacceptable risks to the environment or human health.

Producers should be aware that the storage, sorting, processing and treatment of C&D waste in order to produce recycled road base and recycled drainage rock will still be regulated in accordance with Part V of the EP Act.

End users should be aware that DER does not regulate all aspects of the suitability of recycled construction products for their end use.

It is an end user's responsibility to ensure that the construction products they use are geotechnically suitable and otherwise fit for their purpose and that they do not cause environmental harm, pollution, unreasonable emissions or unauthorised discharges contrary to the EP Act or other legislation.

1.1. Structure of this material guideline

This material guideline is structured as follows.

Section 1 sets out the context and purpose of this material guideline and how it fits into the current regulatory framework.

Section 2 identifies the key waste streams currently used or available for use in the production of recycled construction products. It identifies some of the key contaminants that may be associated with these waste streams and thus must be considered in the product manufacturing process, product specification and sampling and testing regime.

Section 3 contains specifications and procedures that must be met in relation to particular recycled construction products. Section 3 is specifically related to recycled road base and recycled drainage rock. This material guideline has been structured in this manner to allow specifications for additional recycled construction products to be easily added to the document as they are developed.

Section 4 sets out requirements in relation to record keeping and section 5 provides additional information that may be of interest to users of this material guideline.

1.2. Material guideline review

This material guideline will be reviewed by 30 January 2016 to consider its content, application and effectiveness. If there are changes to legislation or policy on which this material guideline is based, this material guideline will be reviewed and updated as required within three months of the change.

2. Sources and characteristics of waste used to produce recycled construction products

Waste-derived construction products are typically produced from C&D waste—i.e. materials in the waste stream which arise from construction, refurbishment or demolition activities.

C&D waste typically consists of a mixture of concrete, bricks, tiles, ceramics, bitumen, asphalt, sand, recovered glass, metals, wood and plastic. According to a report commissioned by the Waste Authority, *Detailed Investigation into Existing and Potential Markets for Recycled Construction and Demolition Materials, July 2008*, C&D waste in the Perth metropolitan area is typically made up of the materials identified in Table 1.

Table 1. Typical composition of C&D waste

Waste Type	% composition by volume
Bricks	29
Soil	28
Concrete	20
Rubble	13
Timber	2
Metals	1
Plasterboard	1
Greenwaste	1
Other (e.g. cardboard, glass, plastic)	5

Depending on the source of the waste and the previous use(s) of the source site, C&D waste may include other contaminants such as hydrocarbons, asbestos and heavy metals. Some of these contaminants will be able to be identified through a visual inspection of the waste or through odours given off by the waste. Many chemical contaminants however may not be readily identifiable through visual or odour inspections.

3. Recycled road base and drainage rock

If recycled road base and recycled drainage rock are produced in accordance with the specifications and procedures, following testing and record keeping requirements, and authorised uses as set out in this material guideline, they will no longer be regarded as waste by DER.

3.1 Product specification

Subject to the qualifications in this section, recycled road base and recycled drainage rock may consist only of concrete, bricks, tiles, ceramics, asphalt, natural rock, sand/or and recovered glass.

In order to meet the product specification of this material guideline, recycled road base or recycled drainage rock must:

- a) meet the definition of recycled road base or recycled drainage rock respectively in this material guideline;
- b) not exceed the limits for chemical concentration and other attributes of road base and recycled drainage rock listed in Table 2;
- c) not contain any acid sulfate soil or copper chrome arsenate (CCA) treated timber; and
- d) not contain more than 1 per cent by weight (combined) of other C & D wastes (other than concrete, bricks, tiles, ceramics, asphalt, natural rock, sand and recovered glass).

Table 2. Road base and drainage rock product specification

Chemical and other attributes	Limit (mg/kg 'dry weight' unless otherwise specified)
1. Metals	
Arsenic	20
Cadmium	1
Total chromium	75
Copper	100
Lead	200
Mercury	1
Nickel	60
Zinc	200
2. Organic compounds	
Benzene	1
Toluene	50
Ethyl benzene	100
Xylene (total)	180
Total recoverable hydrocarbons (C ₆ -C ₁₀)	100
Total recoverable hydrocarbons (C ₁₀ -C ₃₆)	420
Polycyclic aromatic hydrocarbons (PAH)	40
3. Physical	

pH	6 to 9*
4. Inorganic species	
Asbestos	0.001% weight/weight

Notes

*While the average surface pH of aged concrete will normally be within the acceptable pH range of 6 to 9, fresh concrete and newly crushed concrete may have a pH of between 11 and 13. At levels exceeding pH 9, the risk of mobilisation of heavy metals (such as arsenic, aluminium, molybdenum, vanadium) increases which may lead to adverse environmental impacts.

Fresh concrete should not be used in either road base or drainage rock until the pH is within the acceptable limits for pH of between 6 to 9.

Where the pH of crushed concrete exceeds the prescribed pH limit for the intended use, the material should be stockpiled until such time as sufficient carbonation has occurred to reduce the pH to between 6 to 9.

3.2 Operational control procedures

This section sets out the operational control procedures that must be adopted by producers at sites producing recycled road base and recycled drainage rock from C&D waste to ensure that the product specification is achieved and the risks to the environment from using the products are acceptable.

These operational control procedures are not intended to set out requirements in relation to occupational health and safety issues associated with the production of these recycled construction products from C&D waste. Producers should ensure they are aware of their responsibilities under occupational health and safety legislation and implement appropriate controls to protect their employees and other persons such as visitors to the premises.

It is likely that most sites on which recycled road base and recycled drainage rock are produced from C&D waste will need to be licensed by DER under Part V of the EP Act. Part V licences will contain conditions to prevent, control, abate or mitigate pollution or environmental harm arising from the licensed activities. If producers wish to produce recycled road base and/or recycled drainage rock which will not be considered by DER to be waste if used for the authorised uses set out under heading 3.4 below on their licensed site, the requirements contained in this material guideline must be met in addition to any requirements set through the conditions of their Part V licence.

This material guideline has intentionally not duplicated the requirements of the *Guidelines for managing asbestos at construction and demolition waste recycling facilities*, DEC (2012) (Asbestos Guidelines); however, requirements of these guidelines must be met by producers in addition to the requirements set out in the following sections.

3.2.1 Pre-acceptance procedures

Prior to accepting C&D waste for the production of recycled road base or recycled drainage rock, producers must seek as much information as possible on the source of the C&D waste. The information which must be sought includes:

- the source site of the waste;
- the previous use of the source site;

- whether the source site is classified as a contaminated site; and
- any known contamination of the source site or waste.

This information must be used to determine the extent of product sampling and testing as detailed in section 3.3.

3.2.2 Acceptance procedures

All loads of C&D waste destined for use in the production of recycled road base and/or recycled drainage rock must be inspected and checked as outlined in Figure 1 to identify whether any of the following grounds for suspecting contamination exist:

1. Discolouration of the waste;
2. The presence of hydrocarbon staining;
3. The presence of odours that would indicate that acid sulfate soil or other contaminants are present in the waste; or
4. The presence of non-permitted waste.

To ensure a thorough inspection is undertaken, all loads of C&D waste must be spread over a sufficiently large area to enable a comprehensive inspection and odour check of the material to be undertaken.

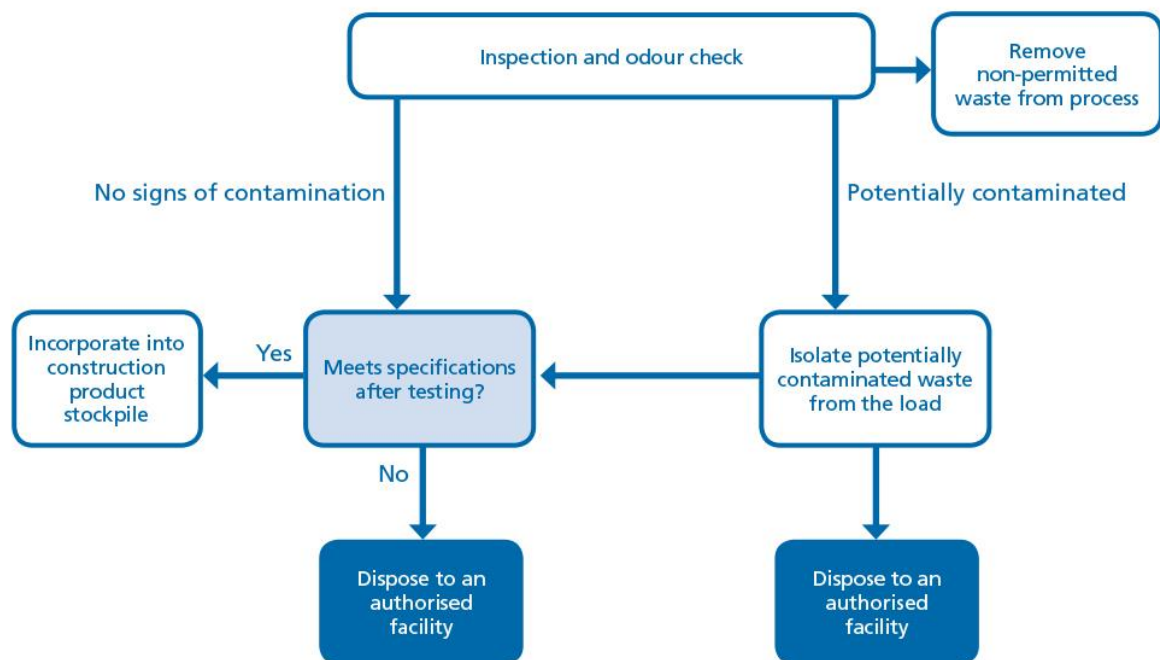
When an inspection and odour check identifies the potential contamination of a load with non-permitted waste only, the load must be sorted to remove the non-permitted waste before it can be incorporated into recycled road base or recycled drainage rock.

When an inspection and odour check identifies other potential contamination of a load, the load must not be used to produce recycled road base or recycled drainage rock unless the potentially contaminated waste can be, and is, isolated from the rest of the load or testing is carried out on the potentially contaminated waste and confirms that it is not contaminated.

When potentially contaminated waste is isolated from a load, the remainder of the load can be used to produce recycled road base or recycled drainage rock. The potentially contaminated waste must be disposed of to a facility authorised to accept it or subject to testing to confirm it meets the product specification in section 3.1. The potentially contaminated waste must not be used to produce recycled road base or recycled drainage rock until test results have confirmed it is suitable for inclusion in the production process. All sampling and testing must take place in accordance with section 3.3.

Figure 1: Acceptance procedures

Construction Products—After pre-acceptance:



This flowchart is intended as a visual summary of the acceptance procedures set out in the Material Guideline: Construction Products, and should be read with that Guideline.

3.2.3 Waste processing controls

Once C&D waste has been inspected and dealt with by a producer in accordance with section 3.2.2, operators must continue to undertake inspections and odour checks of the waste at all stages of their production process. Suspected contamination identified at any stage of the process must be handled in accordance with section 3.2.2 above.

Producers must manage the size of their stockpiles of C&D waste such that they can clearly demonstrate that the sampling frequencies set out in section 3.3 of this document (or reduced sampling frequencies where approved by the Chief Executive Officer of DER) are being met. To facilitate compliance with this requirement, it is recommended that the size of each stockpile does not exceed 4,000 tonnes.

Blending of materials, to produce recycled road base and recycled drainage rock is permitted providing each of the streams being blended meets the product specification. Producers must not use clean materials to dilute contamination levels in other wastes. This means that sampling and testing of the different streams of materials to be blended must take place prior to the blending activity being undertaken.

3.3 Product sampling and testing

To ensure that recycled road base and recycled drainage rock have been produced to the required product specification, it is necessary for product testing to be undertaken by producers as detailed below.

Sampling must be conducted by a suitably trained person. Samples must be stored and tested in accordance with the relevant guidelines from DER's guideline for *Assessment and management of contaminated sites* (2014) (identified at section 5), to ensure that data obtained are accurate and representative.

Sampling and testing of recycled road base and recycled drainage rock for asbestos contamination, including the interpretation of results, must be in accordance with the Asbestos Guidelines. Sampling and testing for all other parameters must be undertaken in accordance with the following sections.

Recycled road base and recycled drainage rock must be sampled from either stockpiles or conveyors.

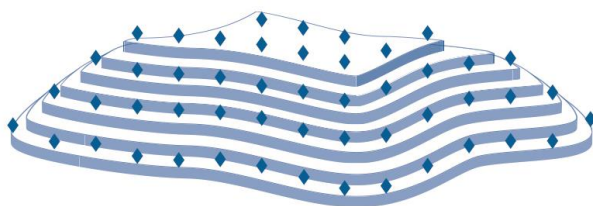
3.3.1 Sampling

All stockpiles of recycled road base and recycled drainage rock must be sampled using a 3-dimensional systematic grid design as outlined in Figure 2 to identify whether any non-permitted wastes or other suspected contaminants are present.

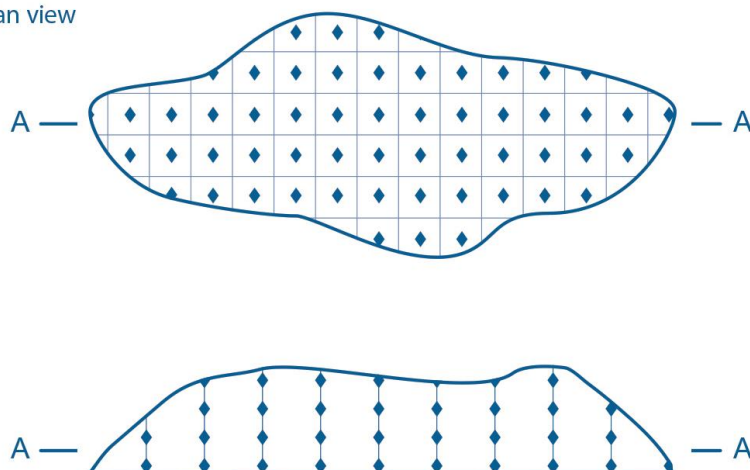
For stockpiles, a 3-dimensional systematic grid sampling design must be applied to account for spatial variability. Sampling should be uniformly distributed throughout the stockpile, including sampling at depth, width and breadth.

Figure 2. Three-dimensional systemic grid sampling pattern

Oblique view



Plan view



In addition, to determine whether the recycled road base or recycled drainage rock meets the specification for the 'permitted other wastes' parameters in Section 3.1, 100–120kg of every 1000 tonnes of product must be removed from stockpiles or conveyors for sampling. Sampling must be targeted at any recycled road base or recycled drainage rock that contains suspected non-permitted wastes. Each sample must be weighed and the weight recorded. The sample must then be hand sorted into permitted wastes (as specified in Section 3.1) and non-permitted wastes. The non-permitted waste fraction must be weighed. If the weight of the non-permitted waste fraction exceeds 1 per cent of the total sample weight, the stockpile of recycled road base or recycled drainage rock from which the sample was taken will not be considered to have met the product specification.

3.3.2 Routine sampling

When routine sampling is carried out from stockpiles, discrete samples must be collected from stockpiles of recycled road base and recycled drainage rock at a rate of 20 samples per 4,000 tonnes or seven samples per 1,000m³ of material.

When routine sampling is carried out from conveyors, discrete samples must be collected from conveyors of recycled road base and recycled drainage rock at a rate of

one sample per 140m³ of material.

Additional samples must be taken where an inspection and/or odour check has identified evidence of potential contamination. The number of additional samples must be proportionate to the volume of potentially contaminated material within the stockpile. A written record of the volume of potentially contaminated material and the number of additional samples taken should be made and retained on the site.

When routine sampling is carried out from conveyors, discrete samples must be collected from the conveyor belt line at the frequency of one sample per 140m³ of material.

3.3.3 Reduced sampling frequency

Once producers have demonstrated that their procedures are able to consistently produce recycled road base and/or recycled drainage rock that meet the product specification and that they undertake their activities to a high standard, DER may authorise a reduced routine sampling rate down to five samples per 4,000 tonnes (or one sample per 600m³) of material.

The criteria that DER will use to consider and determine whether to authorise a reduction in routine sampling requirements are:

- whether the producers procedures for the production of recycled road base and/or recycled drainage rock have been validated by DER inspection to comply with this Material Guideline, and following inspection, routine sampling has demonstrated that the product specification has been consistently achieved by the producers for a continuous six month period;
- whether a representative quantity and range of wastes have been processed in the six months of product testing carried out;
- whether DER has confirmed by inspection or audit that the conditions of the Part V licence (if one is held) are being met; and
- whether DER has undertaken any enforcement action in relation to the activities at the premises in the last six months.

All requests for a reduced routine sampling rate must be submitted in writing to the Chief Executive Officer of DER and must be supported by evidence addressing the above criteria.

When a reduced routine sampling rate is approved, DER will provide written notification of the approval to the producer and will continue to monitor that producer's operational procedures to ensure they continue to comply with this material guideline. DER's monitoring of these procedures will be further supported by the annual process audits required by section 3.3.5 and the results of the product sampling.

The Chief Executive Officer of DER may withdraw an approval to implement a reduced routine sampling rate when non-compliance with this material guideline is identified. Where the Chief Executive Officer of DER withdraws an approval for a reduced routine sampling rate the producer will be provided with reasons for the withdrawal.

In the event that an approval for a reduced route sampling rate is withdrawn by the

Chief Executive Officer of DER, the producer will only be granted a further approval for a reduced routine sampling rate if they make a new reduced routine sampling rate request and demonstrate that they have:

1. implemented appropriate measures to prevent a re-occurrence of the non-compliance(s) that caused the previous approval for a reduced routine sampling rate to be withdrawn; and
2. ensured that routine sampling at the non-reduced rate of 20 samples per 4000 tonnes of material for stockpiles and one sample per 140m³ of material for conveyors has demonstrated that the product specification has been consistently achieved by the producer for a continuous six month period following the implementation of the measures identified in point 1 above.

3.3.4 Sample analysis and interpreting results

All samples must be submitted to and tested by a laboratory with current National Association of Testing Authorities accreditation for the parameter being measured. Laboratory limits of detection must be below the product specification limit for that parameter.

All samples must be tested for the attributes listed Table 2.

When information obtained by a producer about the source site of C&D waste accepted at their site for the production of recycled road base or recycled drainage rock identifies a previous use or a contaminated site classification that indicates contaminants (including those which may emit electromagnetic radiation) may be present in the C&D waste, additional testing of the products produced from these loads must take place.

DER's guideline for *Assessment and management of contaminated sites* (2014) (identified at section 5), identifies common contaminant types that may be present as a result of a previous land use or potentially contaminating activity.

When waste arising from a site with a previous land use referred to in the above named document is used to produce recycled road base or recycled drainage rock, the recycled construction products must also be tested for any contaminants identified in that document for the previous land use in addition to the parameters included in Table 2.

Laboratory analytical reports must include:

- a statement of the limit of detection of the analysis undertaken for each parameter in Table 2;
- the concentration of each parameter in each sample using the relevant units specified in Table 2; and
- quality assurance/quality control (QA/QC) protocols and results, consistent with reporting requirements in the relevant guidelines from DER's guideline for *Assessment and management of contaminated sites* (2014) (identified at section 5).

Results from laboratory analysis must not be averaged across samples.

If the testing results for one or more of the parameters referred to in Table 2 in a

sample are outside of the product specification limits in Table 2 the producer has one of two options:

- a) Undertake repeat sampling consistent with the sampling rates required in section 3.3.1 of the potentially contaminated material where a sample point shows results outside the product specification limits in Table 2. If the results of the repeated sampling shows that all parameters are within the product specification limits specified in Table 2 no further sampling of the stockpile is required. Where results show one or more parameters are not within the product specification limits specified in Table 2 all potentially contaminated material in the stockpile must be isolated and removed from the stockpile. This material removed from the stockpile must not be used to produce recycled road base or recycled drainage rock.
- b) Isolate and remove the contaminated material in the stockpile with laboratory analysis results not within the limits contained in Table 2 and ensure it is not used to produce recycled road base or recycled drainage rock.

When testing for parameters other than those set out in Table 2 is required, a qualified person must assess the results to determine whether any chemical or substances other than those referred to in Table 2 present in the sampled material presents an unacceptable risk of harm to human health or the environment if it is used for the authorised product uses in section 3.4. The qualified person must document their determination in writing together with evidence of their qualifications as a qualified person. The producer of the sampled material must retain this documentation.

If the qualified person determines that the use of the contaminated material would constitute an unacceptable risk of harm to human health or the environment, the material must not be used for any of the uses set out in section 3.4.

A stockpile or conveyor load of recycled road base or recycled drainage rock will only be considered to have met the product specification set out in this Material Guideline if:

- a) testing carried out in accordance with section 3.3.1 shows that the sample from the stockpile or conveyor load does not contain non-permitted wastes in excess of the limits imposed under section 3.1; and
- b) laboratory analysis (not including original results where repeated sampling was undertaken in accordance with this section) identifies that all parameters referred to in Table 2 are within the product specification limits in Table 2 for all samples from the stockpile or conveyor load; and
- c) any chemical or substance other than those referred to in Table 2 found to be present in the stockpile or conveyor load has been determined by a qualified person not to present an unacceptable risk of harm to human health or the environment.

3.3.5 Management and audit

Producers must develop and implement documented procedures and/or work instructions for their employees to ensure that they comply with this material guideline.

A producer must arrange for a qualified person who is not involved with the day-to-day operations of their site to audit their compliance with this material guideline at least annually and produce a report on the audit. A qualified person may be a member of

staff from a similar site, a consultant or a representative of an appropriate industry body who otherwise meets the criteria set out in the definition of “qualified person”.

Audits must address:

- whether the producer's procedures for the production of recycled road base and/or recycled drainage rock comply with this material guideline;
- whether the producer's recycled road base and/or recycled drainage rock complies with the specifications in this material guideline;
- the effectiveness and implementation of the producer's operational control procedures;
- the effectiveness and results of the producer's product testing; and
- the producer's retention of relevant records and documents.

A producer must maintain copies of audit reports so that they can either be inspected by, or produced to, DER inspectors upon request.

3.4 Authorised product use

Under this material guideline, recycled road base and recycled drainage rock can be used by end users as detailed in Table 3 below.

Table 3. Recycled construction product applications

Product	Authorised use
Recycled road base	As sub base in road and pavement construction and other hardstand areas such as footpaths and car parks for urban residential, public open space and commercial and industrial land uses only
Recycled drainage rock	As sub base in road and pavement construction and other hardstand areas such as footpaths and car parks for urban residential, public open space and commercial and industrial land uses only As pipe bedding in underground projects for urban residential, public open space and commercial and industrial land uses only.

It is an end user's responsibility to ensure that use of recycled road base and recycled drainage rock complies with the user's obligations under any written law and the general law.

To prevent leaching into sensitive environments, recycled road base and recycled drainage rock should not be used:

- within 100m of wetlands; or
- on land used for the cultivation of food crops for human consumption; or
- within 100m of a waterway (perennial or ephemeral) or a marine environment.

4. Recordkeeping

Records are an important aspect of site operations and there should be a clear and logical system for keeping records at all premises operating under this material guideline. The following records must be retained by producers for a period of five years:

- details of all waste, including the type and quantity and all information obtained at the pre-acceptance stage as required by section 3.2.1, used to produce recycled road base and/or recycled drainage rock;
- documentation associated with the inspection and sampling and testing of waste and recycled road base and/or drainage rock;
- written determinations made by qualified personnel (including evidence of their qualifications as a qualified person) when testing for parameters other than those set out in Table 2 is required; and
- audit reports.

The records maintained by a producer should be adequate to enable waste accepted by a producer to be tracked from its source site, to its supply to an end user as a recycled construction product.

A producer must maintain copies of the records referred to above in electronic or hard-copy form so that they can either be inspected by, or produced to, DER inspectors upon request.

5. Further information and contacts

Department of Commerce—Worksafe

For more information about asbestos in the workplace and working with hazardous chemicals, visit the Worksafe website at:

www.commerce.wa.gov.au/WorkSafe or Telephone: 1300 307 877

Department of Environment Regulation

For more information about licensing and works approvals visit the Department of Environment Regulation website at the following link or Telephone: 6467 5000

www.der.wa.gov.au/our-work/licences-and-works-approvals

For more information about contaminated sites visit the Department of Environment Regulation website at the following link or Telephone 1300 762 982

www.der.wa.gov.au/your-environment/contaminated-sites

Department of Environment Regulation, *Assessment and management of contaminated sites* (2014) www.der.wa.gov.au/your-environment/contaminated-sites/61-contaminated-sites-guidelines

Department of Environment Conservation, (2012), *Guidelines for managing asbestos at construction and demolition waste recycling facilities*.

[Guidelines for managing asbestos at construction and demolition waste recycling facilities](#)

Department of Health

For more information on asbestos material and contaminated sites, visit the Department of Health website at the following links or Telephone: 9388 4999

www.public.health.wa.gov.au/3/1144/2/contaminated_sites.pm

www.public.health.wa.gov.au/3/1143/2/asbestos_in_the_home.pm

Guidelines for the assessment, remediation and management of asbestos-contaminated sites in Western Australia (2009).

www.public.health.wa.gov.au/cproot/3763/2/Guidelines%20for%20Asbestos-Contaminated%20Sites%20-%20May%202009.pdf

Landgate

For more information about the location of acid sulfate soil risk areas, visit the Landgate website at:

<https://www2.landgate.wa.gov.au/bmvf/app/waatlas/>