

Waste Audits

Waste Audits and the Planning Process

Policy 37 of the South Gloucestershire Minerals and Waste Local Plan requires developers to prepare and submit a waste audit, to demonstrate that they have given positive and imaginative consideration to reducing excavation and demolition waste in the design and construction of their schemes.

This leaflet explains in more detail what is required of a waste audit.

Although much of the excavation material and demolition waste from building, engineering and construction activities may be inert, such waste often includes degradable and hazardous material (e.g. paint, timber, plastics, paper).

POLICY 37

PLANNING APPLICATIONS FOR CONSTRUCTION AND ENGINEERING PROJECTS WHICH WILL GENERATE WASTE AS PART OF THE DEVELOPMENT PROCESS ITSELF WILL ONLY BE PERMITTED WHERE:

- (A) OPPORTUNITIES FOR WASTE REDUCTION AND RE-USE IN THE DEVELOPMENT PROCESS HAVE BEEN ADEQUATELY ADDRESSED AND INCORPORATED, AS APPROPRIATE, INTO THE DEVELOPMENT PROPOSALS; AND**
- (B) ON-SITE WASTE RE-USE PROPOSALS DO NOT PREJUDICE THE OVERALL ACCEPTABILITY OF THE DEVELOPMENT**

This Council expects a waste audit to be submitted with any planning application for development where waste material will be generated as part of the development process itself. Audits will not be required for householder applications, but will be required for all other applications where the site is to be cleared of existing buildings and structures before construction occurs, or where the site area is 0.5ha or more.

Council officers will be happy to discuss the content of a waste audit, or whether an audit is required, with applicants before or during the planning application process.

At the outline planning application stage, a waste audit may not be feasible. In these circumstances the Council will make use of planning conditions to require an audit when the reserved matters details are submitted.

Towards Sustainable Waste Management

The Government requires us to re-think our attitude to waste and the way we manage it.

The construction industry is a major producer of waste and is also a great consumer of resources. In 1999 72.5 million tonnes of construction and demolition waste was produced in England and Wales (Source: SWMA 2000, Environment Agency). But much of the construction and demolition waste which is produced can be re-used or recycled, or value can be recovered from it. The rising costs of disposing of waste has encouraged the construction industry to look at ways of minimising waste production and increasing recycling. There are environmental and economic benefits to be gained from this.

Waste minimisation in the construction industry can make a big contribution towards achieving sustainable waste management. This leaflet deals with the waste which results from excavation and demolition activities prior to construction, rather than with waste from the construction process itself.

What is a Waste Audit?

A waste audit is a written document which demonstrates that opportunities for the reduction, recycling and re-use of excavation and demolition waste have been considered in a development, by:

- ▶ *itemising the volume and nature of material that will arise from clearing and preparing a site ready for development (including any imported material); and*
- ▶ *detailing how this material is to be reused or disposed of.*

Materials that arise on a site come from two main sources:

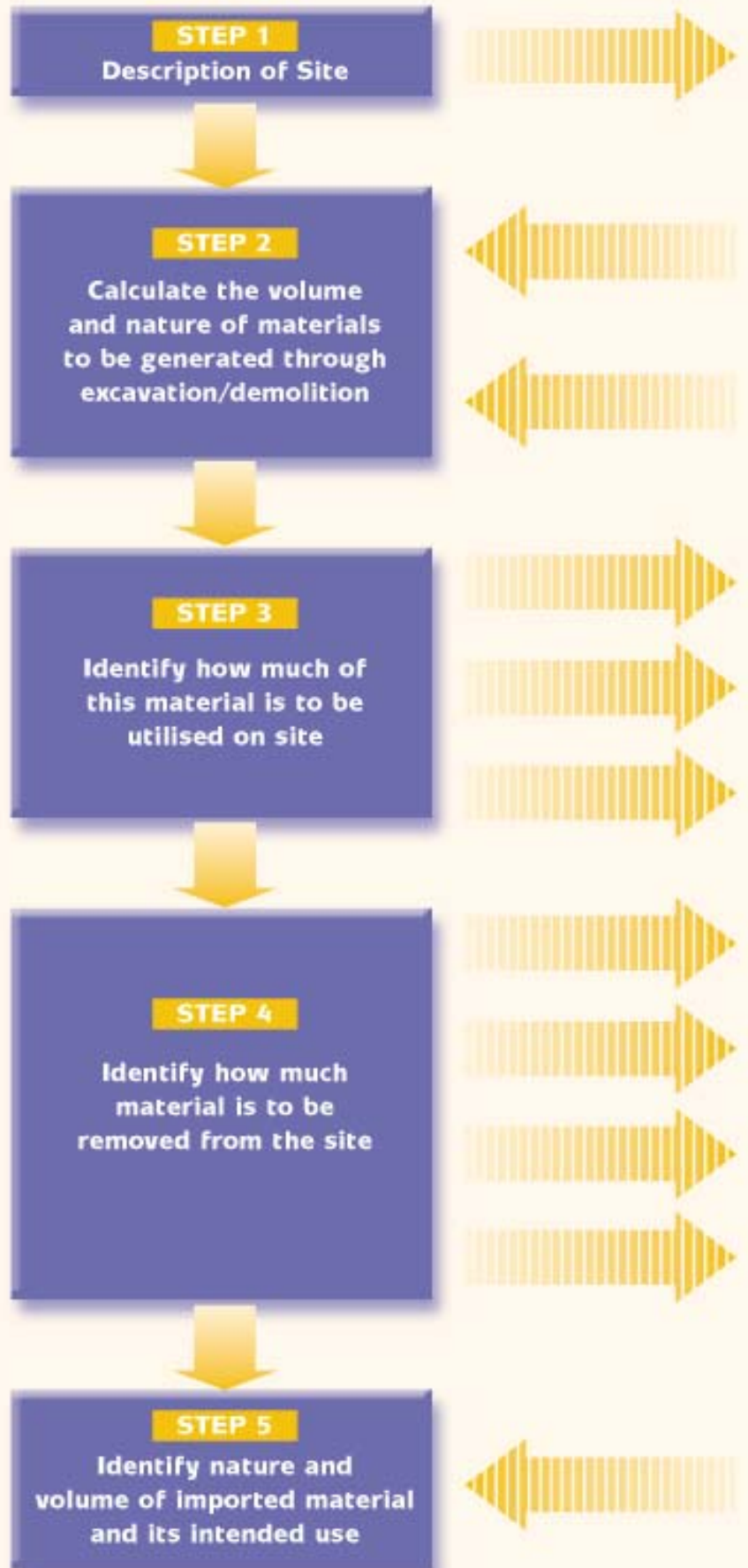
- ▶ *demolition of on-site buildings, structures and fixtures, and the clearing of existing foundations, etc;*
- ▶ *excavation of spoil in preparing the land for development, including the excavation of new foundations, service trenches, roadways and sewers.*



Waste Audit Checklist

Suggested checklist of information to include in a Waste Audit

NB Not all of this checklist may be relevant to your development



Include details of buildings, structures and fixtures.
Re-use potential of buildings, etc.

NB An archaeological assessment may be required

Ground investigations, including risk assessment as appropriate, to establish ground conditions and in-situ materials, including geotechnical testing, chemical analysis, topsoil volume calculations, nature of waste materials and their suitability for future uses.

Assess opportunities for waste minimisation in design

Details of materials from demolition of buildings/structures and excavation of roadways/foundations/services, etc, including surface clearance of vegetation.

In establishing pre-construction levels

Techniques/methods for spoil improvement, soil handling, storage, etc

In landscaping and site profiling

Materials handling and processing arrangements

In the construction itself

Material intended for a specific project elsewhere

Material to a recycling/salvage merchant

Contaminated material for treatment or disposal

Landfill and/or other specified disposal method (excluding contaminated material) including composting

External Source

Ways to Reduce Excavation & Demolition Waste

To be successful, waste minimisation must be integrated into the design process. Although the contractor, by adopting techniques which involve re-use and recycling, has a significant part to play in reducing the amount of waste which is generated, he is constrained by the overall design for the site. Thinking waste minimisation at the outset of a project is therefore key to successfully reducing the amount of potential waste and the subsequent need to dispose of the material.

Potential sources of excavation & demolition waste	Points to consider in the design process to minimise waste	Further information/Points to note
On-site buildings & structures	Consider retention of the buildings, with or without renovation/alterations.	
	Where buildings/structures are to be demolished, are the construction materials suitable for salvaging and reuse?	<i>Consider appropriate demolition techniques</i>
	Can salvaged material from the site be re-used in the new development, with or without processing or treatment?	<i>If material goes off-site, is a productive use being found for it? If material requires treatment or processing will this affect works programme?</i>
Clearing foundations, roadways, etc	Can the material be re-used on-site as a substitute for aggregate material in lower specification uses, such as sub-bases?	<i>Does the material require processing (e.g. crushing/ screening) before it can be re-used? Is mobile plant to be used on-site?</i>
	Can the material be re-used on site in higher specification uses?	<i>Under Part I of the Environmental Pollution Act 1990, all crushers (including mobile plant) are required to have a Local Authority Air Pollution Authorisation to control emissions. Prior to any commencement of operations, the Council will require either an application for an authorisation to be submitted, or proof that an authorisation has already been issued by another local authority. Developers should contact the Council's Pollution Team for more details. Where mobile plant is to be operated on the site, developers should provide details of the proposed duration of the crushing activity, the proposed hours of operation, the proposed location of the plant within the site, and the steps which are to be taken to minimise noise at the site boundaries</i>
Excavated Spoil (i.e. soil, rock and other ground materials)	Consider ways to minimise the volumes of spoil generated:-	<i>There are various methods which can be used to improve spoil for re-use:</i>
	<ol style="list-style-type: none"> (1) Balance the volume of cut material against the volume of re-usable fill material; (2) Don't over-design (e.g. foundations) (3) Treat the material so that it is suitable for use (e.g. compaction, surcharging, in-situ mixing, stabilisation); (4) Utilise construction methods which allow material to be re-used (e.g. safe and correct storage of materials to prevent damage, avoid wet weather, drain areas and materials, staged construction); (5) Contain or treat contaminated material to avoid removal; (6) Minor relaxation of earthworks specifications to allow spoil to be used; (7) Use of no dig technology. 	<ul style="list-style-type: none"> * Segregating different spoils in handling and storage operations; * Using safe and correct storage for raw materials; * Screening materials to suitable grades. <p><i>In addition, where spoil is to be used in the construction process, these methods may be appropriate:</i></p> <ul style="list-style-type: none"> * Soil Reinforcement * Layering the Soil where excavated material is susceptible to moisture * Mixing soil with lime or cement additives <p><i>Has the site been contaminated? If so, or if you're not sure, the developer is responsible for carrying out a thorough investigation of the site, assessing the risk that the contamination poses, and satisfying the Council that appropriate remedial action can and will be taken to make the site safe for the proposed use. This is a requirement of the planning application process. Developers should contact the Council's Pollution Team for further advice on what would be required.</i></p> <p><i>Recovery or Disposal of Waste On- or Off-site</i> <i>The storage, recovery or disposal of materials, whether on-site or off-site, may require a Waste Management Licence or to be registered as exempt from the need for a licence. The Environment Agency should be contacted for details.</i></p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p><i>The developer has a legal obligation in the Duty of Care under Section 34 of the Environmental Protection Act 1990. This is a very important obligation aimed at controlling unauthorised and potentially illegal practices.</i></p> </div>

Potential sources of excavation & demolition waste	Points to consider in the design process to minimise waste	Further information/Points to note
<p>Excavated Spoil (i.e. soil, rock and other ground materials) CONT.</p>	<p>Consider ways to use the spoil on site:-</p> <p>(1) Landscaping through land reprofiling or raising (e.g. reducing angle of slopes);</p> <p>(2) Visual barriers or features, noise bunds, etc;</p> <p>Can any of the surface vegetation be retained ?</p>	<p><i>Re-using spoil material on-site must be in a way which is integral to the overall design of the development, as well as ensuring that any site re-profiling would not give rise to damage to ecological, archaeological or landscape features, or other environmental concerns such as an increased risk of flooding or pollution. For example, bunding around the periphery of sites will not be acceptable unless this is in keeping with the local landscape character and the design for the remainder of the site. In addition, such features are likely to alter drainage patterns, flood plains and flooding regimes. The design and positioning of features must not be visually intrusive or an obstruction.</i></p> <p><i>In all cases, due care and attention must be paid in the design and construction of any earthworks/landscaping schemes to ensure that they do not cause problems for re-use due, for example, to inadequate drainage, soil erosion, or an inability to establish vegetation.</i></p> <p><i>Where vegetation needs to be cleared, consider ways to re-use vegetation on-site (eg. re-using wood in seating, sculptures etc, and composting/chipping of materials for use on site)</i></p>

Further Information

Waste Audits - Waste & Minerals Team/Development Control East Team, South Gloucestershire Council, Civic Centre, Kingswood, South Glos BS15 9TR; Development Control West Team, South Gloucestershire Council, Castle Street, Thornbury, Bristol, BS35 1HF (Tel 01454 868686) <http://www.southglos.gov.uk>

Noise, plant authorisation, contaminated land - Pollution Team, Community Resources, South Gloucestershire Council, Castle Street, Thornbury, Bristol, BS35 1HF (Tel 01454 868686) <http://www.southglos.gov.uk>

Technical advice on minimising waste in development - Various CIRIA Reports, particularly R179, SP122, SP133, SP134, and C513, Construction and Industry Research and Information Association, London SW1P 3AU (Tel 020 7222 8891) <http://www.ciria.org.uk>

Waste Licensing - Environment Agency, Rivers House, East Quay, Bridgwater, Somerset. <http://www.environment-agency.gov.uk>

Technical advice on environmental effects of aggregate recycling - "Controlling the Environmental Effects of Recycled and Secondary Aggregates Production" (DETR, Feb 2000) <http://www.odpm.gov.uk>

Glossary of Terms

Aggregates - Sand, gravel and crushed rock and other bulk materials which are suitable for use in the construction industry as concrete, mortar, finishes or roadstone or for use as a construction fill or railway ballast.

Landfill - The deposit of waste onto and into land. Where tipping raises the level of the land above original ground contours, this is often referred to as landraising.

Recycling - Recovering re-usable materials from waste or using a 'waste' material for a positive purpose.

Spoil - Soil, rock or other ground materials excavated.

Waste - Material which is no longer wanted and requires to be disposed of.

This guidance should not be read in isolation, but with all other relevant planning policies of the Council.

Consultation Process

A draft version of this guidance was subject to advertisement and public consultation in February/March 2002. As a result of the comments received, a revised leaflet was considered by the Council and the final version was adopted on July 8th 2002. Full details of the consultation process are available from the Council.

NB This leaflet deals with excavation and demolition waste only, and not with surplus materials, packaging and waste from the construction process itself.



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