

Waste Management for Brownfield Sites

A Developer's Perspective

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Overview

- Introducing Fairview
- Landfill Regulations, Landfill Tax & Remediation Tax Relief
 - Implications for site operations
 - Effects on remedial solution of choice
- Site Waste Management Plans
 - Implementation on site and documentation
- Definition of Waste
 - Development Industry Code of Practice

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Introduction

- Fairview have over 40 years experience as a residential developer in the South-East
- We focus on delivering value-for-money homes to a high standard, mainly in urban settings
- We have been involved in the reclamation of more than 300 brownfield sites
- In response to stricter legislative requirements Fairview set up a dedicated Environment Department in 1991

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Introduction

- The Environment Department consider
 - Risk to human health & the environment
 - Remediation options
 - Waste treatment, handling and disposal requirements
 - Licensing and permitting requirements

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Introduction

- Currently 100% of our developments are on brownfield land
- 85% require some degree of remediation



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Legislation / Guidance

Environmental Protection Act

Environmental Protection (Duty of Care) Regulations

Finance Act

Guidance Remediation Position Statements

Waste Management Licensing Regulations

Environment Act

R&D66

Landfill Regulations

Hazardous Waste Regulations

Landfill Tax Regulations

The Way Forward???

Environmental Permitting Regulations

Site Waste Management Plans Regulations

The Definition of Waste

Development Industry Code of Practice

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Landfill Regulations

- Requirement for pre-treatment of all wastes prior to disposal
- 'Three-point test':
 1. It must be a physical, thermal, chemical or biological process, including sorting
 2. It must change the characteristics of the waste
 3. It must do so in order to:
 - a) reduce its volume; or
 - b) reduce its hazardous nature; or
 - c) facilitate its handling; or
 - d) enhance recovery

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Landfill Regulations

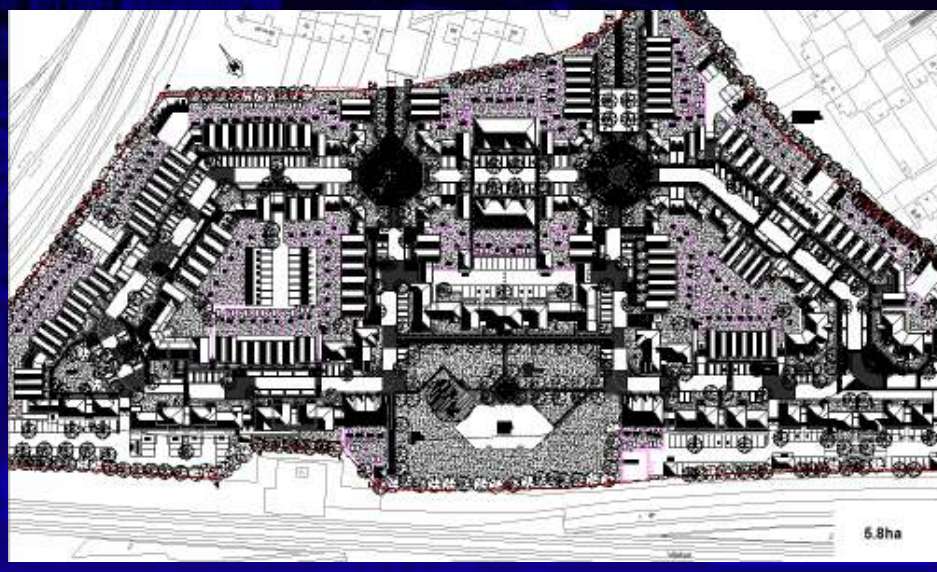
- Pre-treatment can add value to sites where soil is
 - Surplus to requirements
 - Unsuitable for end-use
- ➔
- Reduced volume
'Lower' category of waste
- Pre-treatment has no direct benefit where
 - Reduction in volume is negligible
 - A 'lower' waste category is unachievable
 - There is no room and/or time to treat waste on site

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Landfill Regulations



Landfill Regulations



Landfill Tax

- Lower 'inactive' rate £2.50/tonne
- Standard rate £32/tonne
 - Rising £8/year for at least the next 2-3 years
- Contaminated land exemption phased out by 31 March 2012
 - No further applications after 1 Dec 2008
- Significant implications for sites that are
 - Heavily contaminated
 - Small
 - High density
 - Urban

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Remediation Tax Relief

- Qualifying land remediation loss
 - 150% of the qualifying land remediation expenditure
 - 16% tax credit is payable
 - e.g. £100K remediation expenditure * 150% = £150K * 16% = £24K tax credit payable
- The extra landfill tax revenue will extend to tax relief on derelict land expenditure and the removal of Japanese Knotweed by treatment from 1 April 2009
- Tax credits only payable at the end of each accounting period

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Site Waste Management Plans

- Site Waste Management Plans Regulations came into force 6 April 2008
- Apply to all projects on construction sites starting after 1 July 2008, with a total estimated project value >£300K
- Additional requirements for projects >£500K will apply to all new build construction sites

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Site Waste Management Plans

- Preparation
- Implementation
- Review

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Site Waste Management Plans

- Preparation
 - Assign responsibilities
 - Drafting the SWMP: Environment Department
 - Overall responsibility: Construction Director
 - Site implementation: Area Construction Manager
 - Data Collection: Site Manager & Gatekeeper
 - Estimate project cost
 - Design for waste reduction
 - Identify waste streams and assess opportunities for waste reduction
 - Quantify waste reduction

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Site Waste Management Plans

- Preparation (cont'd)
 - Forecast waste streams
 - Type and origin
 - Identify waste management options
 - Estimate % reduction, reuse and recycling on/off site and disposal

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Site Waste Management Plans

- Implementation
 - ▶ Training
 - Toolbox Talks by the Environment Department
 - Roles and responsibilities
 - Materials handling & waste procedures on site
- ▶ Data collection
 - Site waste data log
 - Collate to record actual waste stream quantities
 - Assess reason for variance
 - Modify procedures as required



FNI Number: FNI 334
 Site Name: Goods Station Road Enter Data

SITE WASTE DATA LOG

Date/Time

Waste Management Contractor (incl. driver's name and vehicle registration)

Receiving Landfill/Recycling facility

Hazardous Waste Containment Note (references, EA / Landfill)

Waste Transfer Note Number

Container Reference

Container size/type

Has waste been compacted (tick one)

Normal/Uncompacted (4% void space) Slightly Compacted (2% void space) Machine Compacted (5% void space) Other - Specify % void space

Number of containers

Overall weight of containers in tonnes

Work package that the waste is coming from (tick one):

Demolition Contaminated soil Substructure Soil from re-grating Superstructure Internal Construction Finishes Services

Waste management route - is the container being sent for one (tick one):

Trade Reuse Offsite Reuse Onsite Recycling Offsite Recycling Recovery (sorting/compacting/incineration) Disposal (landfill)

Is the container segregated for reuse, recycling or recovery?

Enter percentage of wastes below (in 5% increments):

Bricks (170102)	%	Files and Ceramics (170103)	%
Concrete (17010)	%	Inert (1701)	%
Insulation (170604)	%	Metals	%
Packaging (1501)	%	Gypsum (170802)	%
Timber (170201)	%	Plastics (170203)	%
Electrical and Electronic Equipment (200301)	%	Floor Coverings (soft)	%
Oils (1301)	%	Furniture (200307)	%
Canteen/ Office/ Adhoc (200301)	%	Liquids	%
Oils (1301)	%	Soils (1705)	%
Asphalt and Tar (1703)	%	Hazardous Materials	%
Other	%	Mixed (170904)	%

NOTES:

For soils (1705) enter waste classification

Inert	%	origin of waste (stockpile, trial pit, borehole ref.)
Non-Hazardous, Low rate tax	%	
Non-Hazardous, Regular rate tax	%	
Hazardous	%	



Site Waste Management Plans

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Site Waste Management Plans

- Project Review
 - How successful was the implementation of the SWMP?
 - Explanation of any deviations from the SWMP
 - Actions planned for future projects

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Definition of Waste: CoP

- Open for consultation until 15th May
www.claire.co.uk → News and Events → News
- Provide best practice for the development industry when assessing:
 - i. If materials are classified as waste or not and
 - ii. Determining when treated waste can cease to be waste for a particular use
- Provide an auditable system to demonstrate that the CoP has been adhered to on a site by site basis

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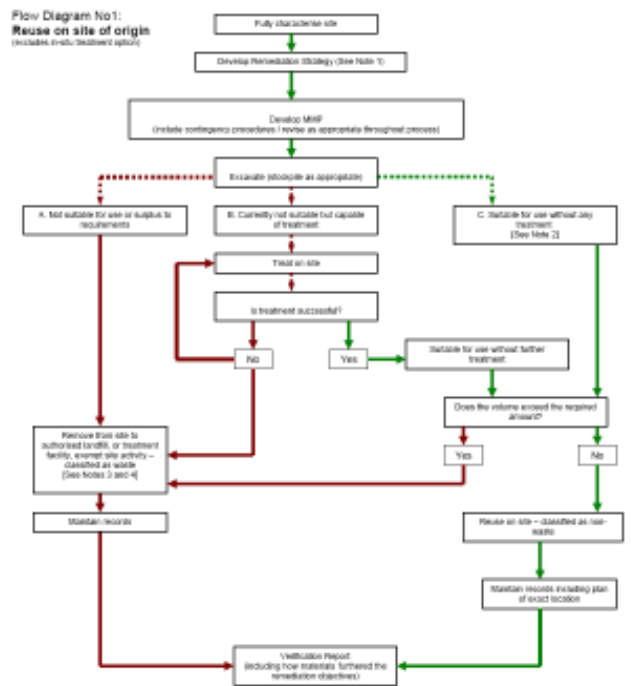
Definition of Waste: CoP

- Self regulation & professional integrity
- Qualified Person
- Applies to
 - Excavated uncontaminated and contaminated material from manmade and natural sources
 - Materials arising from remediation, redevelopment, development and includes re-grading
- The CoP supports and builds upon “Definition of waste: Developing greenfield and brownfield sites” (April 2006)

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Definition of Waste: CoP

- Key principles
 - **Suitability** for use, without any further treatment
 - **Certainty** of use
 - **Quantity** – only the appropriate quantity is used
- Lines of evidence
 - Remediation Strategy or Design Statement
 - Material Management Plan
 - Verification Report
 - Final levels / Mass Balance
 - Signed declaration



Definition of Waste: Development Industry Code of Practice consultation document www.claire.co.uk



