

# Management of non-aggregate waste

## Background

This work on the management of non-aggregate waste has been funded by the Construction Resources and Waste Platform (CRWP) which is funded by Defra and managed by AEA and BRE. This piece of work looks at the current drivers for non-aggregate waste arising from the construction sector and how it is currently managed, predominately through Waste Transfer Stations (WTS). This provides Government with evidence for sound policy making in this area:

## Key Messages

Landfill tax has continually risen since its inception. This has incentivised the following of a waste hierarchy for aggregate construction waste.

Construction activities have led to a large proportion of non-aggregate material, such as plasterboard, timber, plastic and insulation that also need to be managed using the same hierarchical structure. However, the end use markets and WTS capacities for these materials are not as readily available. This has led to an increase in flytipping of non-aggregate construction waste.

Defra's waste strategy policy makers have determined that data on the management of non-aggregate waste should be collected as a priority. The following objectives have been established to provide information on how aggregate waste is being managed.

- To identify through the SMARTWaste Plan Tool and a literature survey, initial destinations of construction related wastes;
- To obtain data on non-aggregate wastes being managed by a number of waste transfer stations;
- To provide recommendations for improving confidence in consolidated data.

With the requirement of Site Waste Management Plans for projects over £300,000 in England, companies are now beginning to develop better measurement and data collection for the amount of waste arising and how it is managed. As part of this companies are now beginning to take a greater interest in their non-aggregate waste and the service provided by their waste management contractors'.

Targets have been set for waste in the England which includes diverting half of all waste from landfill by 2012 and a target to reduce the amount of non-aggregate waste arising by half by 2015. In addition, the newly adopted revised Waste Framework Directive sets a target to reuse, recycle and recover at least 70% of C & D waste by 2020.

## Survey Findings

End markets are developing for non-aggregate waste. From a qualitative survey undertaken, metals, plasterboard and cardboard products all have developing or established end markets in place. It is recommended that research and development of such facilities is actively encouraged and supported to help secondary markets grow.

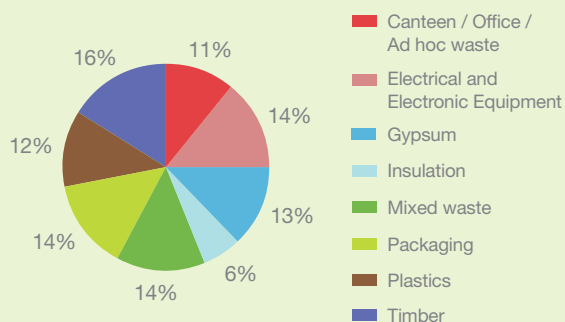
There is a financial issue with the separation of plastics to make recycling a feasible option for this material however the most problematic material for WTS's is timber. End markets for timber such as MDF and chipboard production vary on a month to month basis and so are unreliable. Pre-treated timber is even more problematic as very little can be recycled or reused and there are limitations on incineration.

The average overall recycling rate (by weight) of the WTS's interviewed was above 70%; this includes non-aggregate waste. The overall recycling rate was not known for individual material types.

Based on BRE's SMARTWaste Plan data a large proportion of the waste is sent off-site without being treated at a WTS. On construction sites for example, it is common practice to send excavated soils for use by other sites. It is also general practice for larger companies to have waste carriers' licence and waste exemptions that means a WTS need not be involved in transporting the soils from site.

The results of this study show that 20% of the overall tonnage of waste produced on site is transported to WTS for treatment and processing. The type of treatment depends on the waste material in question. The average overall recycling rate of the WTS was 77% by weight, which suggests that a high level of material segregation for recycling is practiced by most WTS, though this does include aggregate waste.

The SMARTWaste Plan identified recycling rates for specific products as detailed below:



## Recommendations

The recommendations drawn from this study are to either further assist the data available from WTS or the level of investment needed to improve the ability of WTS's to recycle and identify suitable end markets.

- Development of a waste measurement tool for WTS**  
 Obtaining a national picture on waste flow rates through WTSs to help develop suitable markets to deal with different types and quantities of materials in the future.
- Establish a benchmarking/assessment scheme for WTS**  
 A suitable scheme to record the performance of WTS. A benchmarking scheme will encourage the waste management sector to continually improve.
- Review of plasterboard recycling facilities and their locations**  
 Undertake a logistics feasibility study for plasterboard recycling facilities to establish the quantities of plasterboard needed to ensure a cost efficient process. This study will also establish the acceptance criteria of each recycler.
- Research on potential end markets for pre treated and non pre treated timber**  
 Establishing the quantities of both treated and non-treated timber produced by the construction, refurbishment and demolition sectors to identify potential end markets.
- Provide financial support to WTS with plastic identification equipment**  
 As site segregation of plastics is not cost efficient or practical it is more feasible for WTS to recover plastic materials. Financial incentive may be required to kick start this practice and the Government may be required to set a target for the recycling of plastic materials in the manufacturing of all plastic products.

## PROJECT PARTNERS

