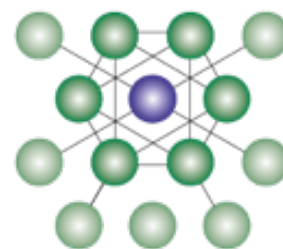# Press Release: WasteCost®Lite

GBE

Green Building Encyclopaedia

WasteCost® lite

Waste Calculator

**Don't let them tell you
'waste segregation will cost more money'
without asking
'and how much will it save?'**

National Green Specification (NGS) have developed an early version of its **WasteCost® lite** Calculator for construction new-build.

Brian Murphy the founder of NGS and GBE website says "I haven't been quite so excited about number crunching for a long time and I am amazed by the results. This is compelling stuff for Constructors, Quantity Surveyors, Cost Consultants and Constructors Buying Departments alike.

This has the potential to encourage the industry into segregating its waste to facilitate reclaim, recovery, reuse and recycling, where most just see this requirement as another financial burden forced upon them by the environmentalist."

This will show that compliance with Landfill Directives, Hazardous Waste Regulations, requirements for European Waste Catalogue identification on Waste Transfer Note, need not be just another learning curve to climb but a way forwards towards a large financial savings, good business sense, and opportunities to report on Key Performance Indicators once sites introduce waste segregation.

At the moment the Waste Calculator is **incredibly simple**, rough and ready, *but it works*, it still needs refinement, and further development into areas other than new-build, for example refurbishment, demolition, retail re-fit, landscape.

The idea for the waste calculator was inspired by a seminar by Barry Smith at Simons Construction Ltd. (SCL) at a series of Site Waste Management Plan (SWMP) workshops run earlier with EnviroWise, Constructing Excellence, Environment Agency, Scottish Environment Protection Agency (SEPA), United Kingdom Centre for Economic and Environment Development (UKCEED) and NGS.

Let me tell you what it does.

It introduced the then Waste Aware Scotland (WAS) and Institute of Civil Engineers (ICE) waste colour coding and an expansion of it by BRE and NGS to help align it with Building Research Establishment's (BRE) SMARTWaste and other waste definitions.

It asks the user for:
• Number of buildings, ground floor footprint area, number of floors, it calculates floor area, that bit is easy.
• Local waste collection/haulage costs, it already contains defaults based on SCL and UKCEED data.

- Which waste segregation streams the project will adopt; the more the better it seems.
- What construction type: with further development you could to choose the closest construction from Brick and Pitch, Glass and Steel frame, Concrete frame, wriggly tin and steel frame, timber frame, using BRE SMARTWaste data.
- The building's use: choose from domestic, innovative housing, office, industrial,

Users can even change:
- Size of skips/containers you will use in each waste stream; defaults are already included.
- Waste stream % from their own past experience; ranges of defaults are included for different construction types from BRE data and from SCL.

It then calculates using:
- National statistics from BRE SMARTWaste data (currently 2001 figures) NGS will seek BRE's support in updating these figures but don't hold your breath!
- Different construction type waste stream % splits using BRE data.
- Different building use waste stream % splits using BRE data
- Default waste collection rates; £/m3 and £/tonne, based on SCL, UKCEED data.
- Current waste collection rates; some predictions from SCL and some interpolation
- Material densities to deal with inconsistent between CuYd and m3 or tonnage information

And it generates: (at the moment only for new construction).
- Predicted volumes and tonnage for each waste stream and the project total.
- Cost of removal of each waste stream and the project total.
- The cost of introducing each waste segregation stream and the project total.
- The savings made by introducing each waste stream and the project total.
- The difference between the costs and savings above (this is so compelling and it is difficult to get poor returns!)
- How this might be affected by price rises in the future (even more compelling)

Future refinements will include:
- Skip filling efficiency for different waste streams; default are mostly 55% from BRE data, but this may be improved as different materials may pack better.
- Changing from defaults to your own data in more areas.

In future it could also generate:
- Cost of the materials being thrown away
- Potential resale value of materials being thrown away
- KPI figures against national averages (using BRE 2001 data and Constructing Excellence 2004 data promised)
- EPI figures against national averages
- Potential Savings by reducing 5% safety-margin over-orders by x%
- Embodied Energy in materials in the waste stream
- Embodied energy saved by not throwing it away

NGS intends also to include guidance information and links to NGS Website Specification Preliminaries and Appendix on Construction, Demolition & Alteration resource recovery, management and waste minimisation and to other published information sources.

An earlier version of this MS Excel file was available on CD for free from NGS at seminars and exhibitions.
The version launched on the GBE Website is Version 8 and it includes user instruction

Notes to Editors:

Brian Murphy is the founder of NGS launched in November 2001
GreenSpec website launched 2003 it set out to become the Encyclopedia of Sustainable Construction a one-stop shop for everything.
It provides product pages, design guidance, material property comparison pages, durability and whole life data, articles by experts, image bank, etc.
GreenBuildingEncyclopaedia was launched in 2015 to deliver specifications, CPD, tools, calculators, etc.

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