

Designing out Waste Tool for Buildings

Quick Start Guide, Version 1.0

The Designing out Waste Tool for Buildings (DoWT-B) is a freely accessible online resource that will help you to:

- identify opportunities to design out waste in buildings projects;
- record design solutions pursued to reduce material consumption or wastage;
- calculate the impact of these solutions, including savings in project costs, waste to landfill and embodied carbon;
- compare the performance of different projects / alternative designs; and
- provide an indicative waste forecast for your Site Waste Management Plan (SWMP).

The Tool is available at <http://nwtool.wrap.org.uk/>, and should be used in conjunction with WRAP's Designing out Waste Guide: a Design Team Guide for Buildings, available at www.wrap.org.uk/designingoutwaste.

The Tool can be used iteratively during outline design, as different options will become relevant as the design is developed. An indicative waste forecast requires only outline project data and can be completed in 10–20 minutes. Subsequent analysis of design solutions and their impacts will require more input from the design team, depending on project size. This time and effort can result in significant financial savings and environmental benefits.

Users:	<ul style="list-style-type: none"> ▪ Design team – architect
When:	<ul style="list-style-type: none"> ▪ RIBA stage A to C
Inputs:	<ul style="list-style-type: none"> ▪ Basic project details (GIFA etc) ▪ Design team thinking on options to design out waste and their effects
Cost:	<ul style="list-style-type: none"> ▪ Short amount of time needed to complete analysis ▪ Tool is free to use
Benefits:	<ul style="list-style-type: none"> ▪ Identify top opportunities for waste reduction and cost saving at an early stage – enabling design team to focus effort ▪ Provide input for an outline Site Waste Management Plan ▪ Include potential savings in tender specification so that tender prices can reflect design decisions ▪ Use results to demonstrate Corporate Responsibility

The 4 steps below explain how to use the Designing out Waste Tool for Buildings, including a diagram to illustrate the user journey. If you would like more detailed guidance on using the Tool, you can download the DoWT-B Full User Guide from the 'Download options' menu in the Tool.

1. Getting started

Create an account

You can use your existing Net Waste Tool login details if you have an account. Otherwise, complete the basic registration form on the Login screen at <http://nwtool.wrap.org.uk/>. You will receive an auto-generated email welcoming you to the Tool. You can begin using the Tool immediately after registering.

Create a new project

After logging in, you will arrive at your 'My Projects' page. From here you can create a new project:

- To set up a new project from scratch, click on 'Add new project' (top left)
- To use one of your existing projects as a template for a new project, click on 'Use as template'. You will be prompted to re-name the project, which will then appear as a new project under your 'My Projects' tab. Click on the project name to enter the project.
- To use a saved WRAP project as a template for your new project, go to the 'Example projects' tab, click on 'Use as template' and proceed as above.

Enter basic project details

The Tool will now take you to the 'Project Details' screen. Enter your project data, or edit the existing project data if you are using an existing project. Help text will display for some data fields when you put your cursor in the field. You can switch off the auto-help text at the top right of your screen (display auto help). Enter project data as best you can. Remember you are aiming to create an indicative rather than a detailed waste forecast. You can refine the project data as the design progresses.

View/edit assumptions

The Tool will now take you to the 'View/edit assumptions' screen. The Tool has applied a default specification to your project, based on the project and building type. If you select a mixed use project, the Tool will assume different finishes to suit each type of use. You can change the specification for any element. The Tool can only apply one specification per element (other than for services). When the project specification has been developed in more detail, you may choose to generate a more accurate waste forecast using the Net Waste Tool.

2. Analysing your project

Project performance

After checking your project's specification, the Tool will take you to the 'Performance' screen. On this screen you can view results, or print out a report. This report compares building elements to help design teams focus their effort on the elements that consume or waste the most material. WRAP suggests you use this report to inform your Design Review Workshop. This workshop is described in detail in the design team guide.

Solutions & impacts

If you decide to select solutions to reduce material consumption and/or waste in the design, the next screen 'Solutions & impacts' allows you record these solutions and their impacts on project costs and waste to landfill. The 'Solutions & impacts' screen provides the following functions:

- **Project log** – the table at the top of the screen lists the building elements, and shows their estimated material consumption and wastage. The table also provides a record of the number of design solutions and impacts that have been recorded for each element.
- **Performance** – the left-hand section of the screen shows the material consumption and wastage estimates by material type.
- **Solutions** – this section can be used to record design solutions. You should choose the correct element and design principle that relate to your solution. All of the solutions for the selected element will be recorded in the table below.
- **Impacts** – after recording each design solution, you can enter the impacts as prompted by the Tool. The impacts you record will be different for each design principle; for example, solutions recorded under Design for Reuse and Recovery will require you to enter your proposed quantity of reclaimed material to be for that element.

Project comparison

If you would like to compare the performance of different designs or specifications, you can generate a Project Comparison report. To do this, you first need to create different projects that you can compare. You may choose to do this by creating new projects from scratch, or (more likely) by creating alternative versions of an existing project using the 'Use as Template' function on the My Projects screen. You can then select the projects you want to compare and click on 'Compare Projects Report'.

3. Managing your project

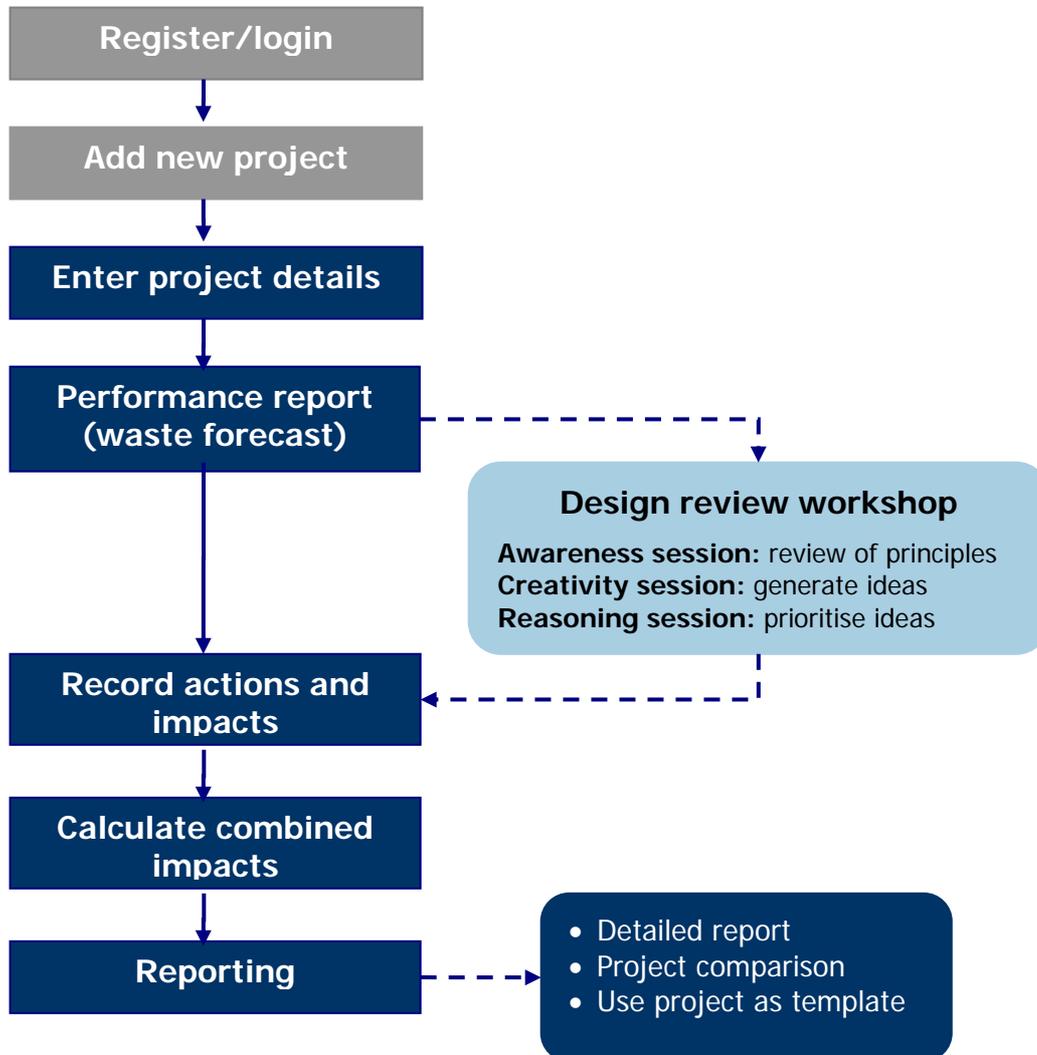
Generate & Download reports

All the information generated for your project, including your recorded solutions and impacts, can be downloaded as a comprehensive spreadsheet from the 'Reporting' screen. This information can be used to communicate savings to your client, or to add waste prevention actions to the project's Site Waste Management Plan.

Relationship with other WRAP tools

The DoWT-B and the Net Waste Tool have a common landing page and utilise the same registration details. However, projects cannot be transferred from one tool to another. The Net Waste Tool is designed to be used once project quantities are available, and therefore requires more input data than the DoWT-B. Waste forecast details from the DoWT-B and the Net Waste Tool cannot be directly generated as a Site Waste Management Plan; however, results from spreadsheet reports can be cut and pasted into the project Site Waste Management Plan.

4. User journey



Disclaimer:

WRAP, Cyril Sweett and Solstice Associates believe the content of this guide and the associated Tool to be correct as at the date of writing. However, factors such as prices, wastage rates and levels of recycled content are subject to change and users of the Tool should check with their suppliers to confirm the current situation.

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