



NSW Full Cost of Landfill Calculator

The *Full Cost of Landfill Calculator* is a comprehensive and robust decision support tool that provides local government with a mechanism to determine a baseline figure for the 'real' cost of sending waste to landfill.

To achieve the waste and resource recovery targets for 2014, NSW needs to recover more resources from residual wastes that are disposed of to landfill. By enabling local council decision makers to more accurately calculate the true cost of landfill disposal, the calculator can help councils to:

- enhance their waste and resource recovery decision making processes
- determine landfill charges that adequately cover costs
- plan for landfill replacement
- explore resource recovery alternatives
- assess carbon management options
- justify budget requests.

Environmental and social costs

A unique feature of the calculator is its ability to calculate the social cost of carbon. This is based on an estimate of the methane emissions. A greenhouse gas estimation model is incorporated into the tool to calculate a default value, alternatively a value can be entered by the user.

The tool is conservative in its estimation of costs in that it does not include other environmental and social externalities as no reliable Australian estimates of cost are available.

Inputs to the Calculator

To get the best results from this tool it is essential that you enter accurate, up to date information. The range of information you can enter into the calculator includes:

- site details such as landfill age, capacity and throughput
- direct financial costs such as operating and administration costs (including minor capital costs), overheads and major capital expenditure
- the net costs of any resource recovery activities on the site (which are accounted for separately), entering this information is optional
- other financial costs which includes post operating costs (site rehabilitation, closure, aftercare, income and future sales/ uses of the land) and site value
- the option to enter a waste levy value and to calculate the potential financial liability of a Carbon Pollution Reduction Scheme (CPRS) or Carbon Tax using methane emissions.

Outputs of the Calculator

You can specify how to display the results for the landfill and/or the waste management centre in three ways:

- dollars per tonne of waste landfilled
- dollars per cubic metre of waste landfilled
- annual costs for the selected financial year.

How to use this tool

Step 1 – Save the worksheet to your computer

The Calculator has been developed to be compatible with Microsoft Excel 2003 and Microsoft Excel 2007. Choose the version that will work with your computer and copy it to your computer. The tool saves the data inputted with each step and cannot be run from a CD.

Step 2 – Open the worksheet and enable macros

The tool uses scripts (Macros) to automate and simplify the process. Each time you open the tool you will be asked to approve the use of macros, choose **Enable Macros**.

Step 3 – Entering data into the tool

To start entering data select the 'Start' button. The tool will immediately ask 'do you wish to continue the previous saved version.' Select 'Yes' if you wish to start a new calculation or are returning to the tool after saving and closing it.

If you select, 'No', any data contained in the tool will be overwritten and a message stating 'this will over-write your latest saved version' will appear. Press 'OK' if you wish to start a new calculation or 'Cancel' to go back to the latest saved version.

At any time while using the tool you can click on 'User Guide' or 'Definitions' and this will take you to further information for that section. Click 'Back' to return to the calculator.

Navigate through the steps and the tool by clicking the button with the description of the step (e.g. 'Site Details – Input') located at the top and bottom of each screen/page.

Step 4 – Tips for using the calculator

When using the calculator:

- press the 'Save' button regularly to ensure data entered is saved
- to calculate the CPRS liability, you must enter a date that is post 2013 in Section A1 'Site Details' under 'financial year for assessment'
- the calculator provides a snapshot of the costs of landfill over one year, it does not provide a profile of costs over time
- to calculate the environmental impact of climate change from landfill methane emissions select the 'Main Page' tab, then check the 'Include environmental assessment' box and enter tool.

To receive your free copy of the tool visit the OEH website (formerly DECCW) www.environment.nsw.gov.au and download a registration form.

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