

This guidance note is intended to provide local authority users in England with information on the use of Question 100 (Qu100) in WasteDataFlow¹ including:

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¹ Separate guidance is available on the WDF Guidance page for Qu100 for Scotland and Wales.

1 Introduction

1.1 The purpose of Qu100

Qu100 in WasteDataFlow covers the management of waste (treatment, disposal and transfer to reprocessors). The question makes use of a flow diagram “tree” structure with waste movements shown through progressive “branches” and “sub-branches” to the end destinations. Qu100 provides a visual interface to track material flows. The following are key features of Qu100:

- It enables you to report how all waste is managed within a single question;
- Waste sent through several treatment processes can be recorded;
- Outputs from one facility can be recorded as inputs to another facility;
- You can enter data in broadly the same way for quite different management methods; and
- Data can be viewed and checked using the “waste movement tree”.

WDF Tip: A glossary of terms relating to Qu100 is provided at the end of this document, [here](#).

Appendix 2 (page 42) provides further information on the background and history of Qu100, including on the older WasteDataFlow questions which it replaced when it was introduced.

1.2 The Question 100 screen layout

The Question 100 data entry screen has four areas as shown in Figure 1. The Waste Movement Tree and Waste Input boxes are always shown; the other boxes appear when nodes in the tree are selected and depend on the facility type selected.

1. The “**Waste Movement Tree**” is on the left-hand side and is used to build up a picture of how individual waste types are managed.
2. The “**Waste Input**” box shows:
 - The total tonnage collected for recycling, reuse, composting or residual ‘Tonnes Collected’ that we would normally expect to be accounted for in Qu100.
 - The “Q100 Total Input” is the total tonnage you have recorded at primary/root level nodes in Qu100. We would normally expect this to balance with the “Tonnes Collected” figure once you have completed your data input.
 - The “Q100 Final Output” figure show the total tonnage that has ended up at the ends of all your Qu100 branches at Landfill, Final Destination, Process Loss or Moisture Loss nodes. We would normally expect this to balance with the other two figures in this section.

These figures can be used to check for imbalances between the “Tonnes Collected” and the total entered so far in Qu100 (“Q100 Total Input”). An imbalance could be caused by stockpiling or stock movement or may mean that there are data still to be entered.

An imbalance between total input to Qu100 (“Q100 Total Input”) and the total tonnage recorded at the final nodes of the branches (“Q100 Final Output”) could be correct if there are stockpile movements within treatment facilities which should be explained by a comment. If you do a browser search of the

page for “imbalance” with the tree expanded, this will show you the relevant branches. It does not show errors within a branch which do not result in differences between the primary and final node tonnages.

The “Waste Input” box also shows the Q100 “Material from WDA” tonnage for WCAs only.

3. The “**Waste Details**” box allows you to add branches and edit a selected branch.

When you click on a node within the tree further boxes appear next to the “Waste Details” box and one appears below the “Waste Input” box:

4. The “**Materials**” box appears if you need to enter the tonnage going to a facility by material type. The headings of the “Sources”, “Comments” and “Transfer stations” boxes are nested so that only the selected box is shown at any time.

5. The “**Waste Summary**” box appears when a branch is selected and shows the input tonnage, the tonnages output to various process types and any imbalance for that branch.

Figure 1. Qu100 data entry screen layout.

The screenshot shows the Qu100 data entry interface. At the top, there's a header with 'Enter Data For' set to 'Oct 18' and a 'Question' dropdown set to 'Q100: Waste sent for treatment or disposal'. Below this is a descriptive text for Q100 and a 'Ques List' button. The main area is divided into several sections:

- 1. Waste movement tree:** A large empty box intended for the waste movement tree.
- 2. Waste Input box and 5. Waste Summary box (when branches selected):** A box on the right containing a table of waste input data.

Waste Input	
Tonnes Collected	0.000
Q100 Total Input	0.000
Q100 Material From WDA	0.000
Q100 Final Output	0.000
- 3. Waste Details box:** A box at the bottom left containing form fields for 'Facility Type' (a dropdown menu), 'Facility Name' (a 'Select' button), and 'Waste Stream' (a dropdown menu). Below these fields is a 'Save' button.
- 4. Materials box and Sources, Comments, Transfer stations boxes (when branches selected):** A large empty box on the bottom right intended for these details.

Unlike all the other WDF questions, entering data in Qu100 involves selecting options from drop-down menus (facility/process type, facility name, waste stream type, output type and material) with available options on the menus dependent on previous selections made. Appendix 1 (page 39) includes the options available in the drop-down menus in Qu100 for each facility/process type.

You can load your complete tree structure (but without tonnages or comments) from previous quarters as shown in section 2.2. Your tree will then be ready to populate with new tonnage data. It is likely that only occasional “growth” or “pruning” will be required as waste management practices change. This can easily be done and this updated tree can then be loaded going forward.

1.3 Navigation features

These features to help you to navigate around the question.

Figure 2. Qu100 Navigation options.



1. **Expand and collapse all branches.** Initially Qu100 will only display the primary root level nodes of each branch. Each level of the branch can be expanded and collapsed using the small arrows which link each level. Or the + and – buttons here can expand and collapse all branches in the tree in one go.
2. **Chose which branches you wish the tree to display.** Over time Qu100 trees can grow, in some quarters you may not need to use all sites, or at the end of entering your data it may be that you know there is an imbalance somewhere and would like to jump straight to it. This set of options will allow you to do just that. As you'd expect 'All branches' will show you the whole tree, whilst selecting 'With tonnes' will show only those with tonnages. If a branch has no tonnages at any point the whole branch will be hidden, whilst if there are parts of a branch with 0 tonnages, e.g. only some of the reprocessors from a MRF have been used, only those parts with tonnages will display. Selecting 'Imbalances' will show those branches which have an imbalance somewhere on them.
3. **Filter the tree by a specific site.** If you wish to find a specific site by name you can use the filter button to search for that site. This feature will work in combination with the previous display options, so you could for example decide to search for a site, but if you have multiple instances of it, show only the ones with tonnages or imbalances.
4. **Change the size of the tree window.** Depending on your available screen size, you may wish to change the size of the tree window to best fit the size of the display. These radio buttons allow you to do just that.

2 Completing Question 100

2.1 Different authority types

The only difference in Qu100 between different LA types (WCA, WDA or UA), is a specific process type for recording back-allocation which is only available to WCAs (see section 4.2, page 32). The full range of facility/process types are available to all LAs and, as before, UAs and WDAs are still responsible for recording these activities. WCAs are not required to account for their residual waste treatment; these will still be covered by your WDA (see section 4.1, page 32 – “Avoiding double-counting between WDAs and WCAs”).

A small number of WCAs manage an aspect of their residual waste treatment. If you believe your authority to be one of these, please contact the helpdesk before starting to enter these elements of data, to discuss the particulars of your situation. In this situation you will also need to work with your WDA to ensure no material is counted by both authorities’ returns and that any residual waste managed directly by the WCA is still recorded in the WDA’s return.

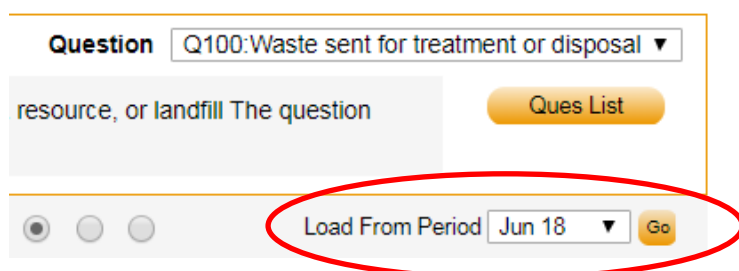
2.2 Loading a previously created tree

Using Qu100 for first time involves defining the structure of the branches, the sites to which your material is sent and how the sites link together as material flows between them. Once your tree is set up, however, you can load the existing tree structure from the previous (or earlier) quarter and then simply enter the tonnages and comments where required, without having to set up the structure from scratch each time.

At the top right corner of the Waste Movement Tree is a drop-down where you can select the month from which you wish to load the tree structure. Simply pick the month you want and then press the “Go” button. A warning message will open to tell you that you are going to overwrite any data you already have in Qu100 in the month you are currently working in.

WDF Warning: Make sure you only load a tree at the start of the data entry process as it will delete the structure and any data you have entered already, and it cannot be recovered. A warning message is displayed to remind you that any existing data will be lost and that in pressing “OK” you will be overwriting any Qu100 tonnages you have already entered into the month you’re in.

Figure 3. Loading a previously created tree.

The screenshot shows a web interface for data entry. At the top, there is a dropdown menu labeled 'Question' with the selected option 'Q100:Waste sent for treatment or disposal'. Below this is a text input field with the placeholder 'resource, or landfill The question' and a yellow button labeled 'Ques List'. At the bottom, there is a 'Load From Period' section. It includes three radio buttons, a dropdown menu currently showing 'Jun 18', and a yellow 'Go' button. This entire 'Load From Period' section is circled in red.








WDF Tip: The “load structure from” drop-down will always default to displaying the most recent month from which a tree can be loaded. This is the case even once a tree has been loaded from a different month.

Loading a tree structure from a previous quarter removes all the final destination nodes from the loaded tree. Use the ‘Auto FD’ function (see section 2.5.4.3) to create final destination nodes with the materials and tonnage matching the facility node.

An XML upload tool for Qu100 is available (as well as one for the other questions). A guidance note showing you how to download and use the XML upload tool can be found on the England Guidance page of the WDF website [here](#).

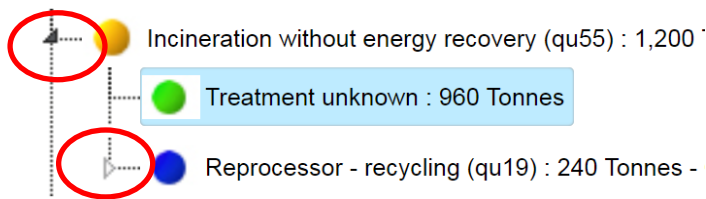
You will see different nodes in your tree have different colours and shapes. They denote the location of the node on the branch and the status of the node based on whether it needs at least one output or “child” to be added. An explanation is provided in Table 1 below.

Table 1. Nodes and their meanings.

Symbol	Explanation
	This is a “root level” node that should have one or more outputs or be confirmed as a final destination with a final destination output. Examples of these would be primary level MRFs, MBTs etc. which would then have outputs to further treatment, disposal or reprocessing facilities.
	This is a “sub-level” node that should have some outputs or be confirmed as a final destination so may be a secondary or tertiary treatment facility or a reprocessor for recycling or reuse.
	This is an end “final destination” node where waste has been confirmed as being recycled, reused or composted so would be found as a child of these facility types. “Moisture loss”, “Process loss” and “Treatment unknown” nodes are alternative branch endings which are also shown with a green circle symbol.
	This is an end node where waste has been landfilled to any type of landfill.
	This node has an imbalance which will need to be fixed or, if it is correct, explained in the comments. OR In the case of a Material Recovery Facility (MRF) this symbol is also used to indicate that the reject rate of the MRF is outside the expected range. Detail of this reject rate can be found in the Waste Summary section to the right-hand side of the screen.
	This is a warning node to let you know that you have added a Facility or Process Type that WDF expects to have one or more outputs. When it disappears, WDF is satisfied that you have added some kind of output. However, it does not mean the data you have added is correct or balances and this should be validated manually; for guidance on this please refer to section 5.1, page 35).
	This indicates that the facility is locked. By default, 12 months after a site is deactivated by the National Authority (and appears in red in Qu100) it will be locked, and you will no longer be able to record data against this site. Rather than simply removing the site from your tree without warning, this icon is a prompt that the site is locked, and you will not be able to roll up your data until the site is changed to an unlocked one. You should check the WDF selection list for an alternative Active listing or contact the Environment Agency using the template email available from the WDF guidance page here if you think a facility should be added or a listing reactivated.

Clicking on the white arrow at a node junction expands the view so you can see the outputs from that branch. Clicking on the arrow (now black) collapses it again, as shown in Figure 4.

Figure 4. Expanding and collapsing the tree one level at a time.



Alternatively, the whole tree can be expanded or collapsed in one go by using the arrow at the top of the tree as shown in Figure 5.

Figure 5. Expanding the whole tree in one go.



WDF Tip: Do not use the Enter/Return button on your keyboard while you are entering data or navigating around your tree as this will take you back to the “Question list” screen. If this does happen, click on the Back arrow on your browser to return to the “Waste Details” page you were working on. Always use the “Save” button to save data or click the cursor into the next box you need to enter data into. If you click Save more than once or try to navigate away from the page before it has refreshed, you may see an error message.

Note: Qu100 does not have a “Question complete” button so it is up to you to ensure you have fully completed it. For example, a red triangle node lets you know that that branch is incomplete; however, you will need to ensure that all your waste has been recorded as going for treatment, reprocessing or landfill or provided a comment to cover remaining discrepancies.

2.3 Amending your tree (deleting or amending branches)

Your loaded tree structure contains all the outputs which were required at that time. If, however, things have changed since then and you need to add or remove facilities, the loaded tree can easily be edited.

Each branch represents a different primary facility which material is sent to and its subsequent outputs and follow-on processes. For example, if collected commingled material is sent to a MRF then this and the subsequent flow of its outputs will be a branch. Collected material sent directly to a landfill will be a branch, collected material sent to an “energy from waste” facility (Incineration with Energy Recovery) and then its outputs will be another, etc.

As shown in Figure 6, each node on the tree has a Delete button within the Waste Details section on the right of the screen.

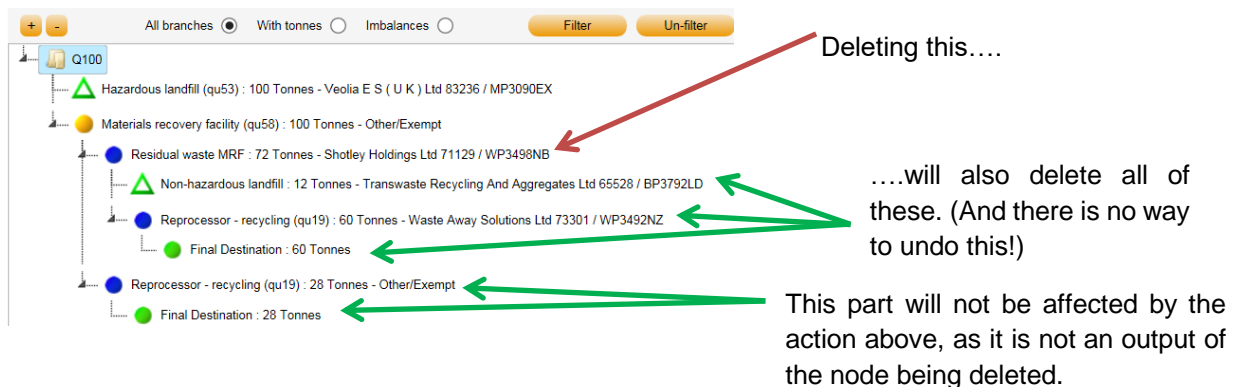
Figure 6. Deleting an existing node.

Waste Details	
Facility Type	Incineration without energy recovery (qu55)
Facility Name	Sita (Lancashire) Ltd Select
Facility Description	<input type="text"/>
Facility Address	Whinney Hill Road, Clayton Le Moors, Accrington, Lancashire
Facility Licence	54099 / WP3791CX
National Facility ID	465
Waste Stream	Residual waste ▼
Tonnes	<input type="text" value="1200"/>

Be careful which node you choose to delete however, as deleting a node will also delete all the nodes under it at the same time, much in the same way that if you were to prune a real tree it would mean the loss of everything from that point onwards on the branch. This can be useful if you want to quickly remove whole branches from your structure; simply delete the root node and everything beneath it will be pruned too.

WDF Warning: *Prune carefully! If you delete part of your tree, all its sub-branches will also be deleted.*

Figure 7. Effects of deleting a node.



You don't have to delete a facility if you simply want to amend the site details, for example when changing contractors. In this case, select the facility on the Waste Movement Tree then click "Select" next to the facility name in the Waste Details section (see Figure 6). You can then select the new facility from the drop-down list or search for it and click "Save" (see section 2.4.2 for details of selecting a site). This can be done at any time in the data entry process.

2.4 Amending your tree (adding new branches or new outputs)

To add new branches to the tree click “Q100” at the top of the tree (it will then be highlighted in blue), or to show a facility sending material to another facility click on the first node, then follow these steps to create the new output.

In the “Waste Details” section at the bottom of the screen choose the Facility/Process Type that you want this new node to represent. For example, to represent material which has been sent to an MBT facility, you will start this branch by selecting the facility/process type “Mechanical Biological Treatment (qu59)”². See Figure 8.

Figure 8. Selecting Facility/process type.

The screenshot shows the 'Waste Details' form with a dropdown menu for 'Facility Type'. The dropdown is open, showing a list of facility types. The option 'Mechanical Biological treatment (qu59)' is circled in red.

Facility Type	Facility Name	Waste Stream
{Select facility type}		
{Select facility type}		
Inert landfill (qu51)		
Non-hazardous landfill (qu52)		
Hazardous landfill (qu53)		
Incineration with energy recovery (qu54)		
Incineration without energy recovery (qu55)		
RDF, autoclave, MHT or similar (qu56)		
Advanced thermal treatment (qu57)		
Materials recovery facility (qu58)		
Mechanical Biological treatment (qu59)		
Anaerobic or Aerobic Digestion Whole Waste (qu60)		
Anaerobic or Aerobic Digestion Segregated (qu61)		
In vessel composting (qu62)		
Windrow or other composting (qu63)		
Residual waste MRF (qu64)		
Other Method (qu65)		
Reprocessor - recycling (qu19)		
Reuse (qu35)		
Exporter - recycling (qu19)		
Exporter - reuse (qu35)		

2.4.1 Reporting waste going to an unknown process

If you do not know what type of treatment or facility the material goes to beyond a certain point in the waste management chain then the option “Treatment unknown” can be selected from the output “Waste Type” drop-down.

For example, it might be that an MBT facility produces RDF but the fate of the RDF is currently not known by the LA. The node will function similarly to the “Process loss” or “Moisture loss” node in that it marks an end-point within the tree for that material. However, please aim to obtain further information about the fate of this material so that in future returns the use of the “Treatment unknown” node can be replaced with the appropriate Facility type. Use of this option will be monitored.

If you have been unable to get a breakdown of the outputs from an incinerator (e.g. Incinerator bottom ash (IBA), Metals from Incinerator bottom ash (mIBA) and/or Fly ash), then you should report the whole output tonnage as “Treatment unknown”. Otherwise, report the solid outputs against the correct materials and the balance as “Process loss”.

² The question number in brackets next to each option in the list is a reminder of the historical question number used for this type of facility, before the advent of Qu100. See Appendix 2, page 44, for more information on those older questions.

“Treatment unknown” should **not** be used after a Composting/Reuse/Recycling Processor or Exporter facility. Recording material going to these facility types indicates that they have undergone the relevant processing for that facility type.

2.4.2 Selecting the site your waste is being processed at

Once you have selected a Facility/Process Type, the next step is to select the site details. To do this, click on the “Select Facility” drop-down. Start typing the site name into the “Select facility” box and the list will return sites related to your search criteria. Alternatively, you can click the “Show all” button and search for the site.

Once you have found the site you wish to use, click on it to select it and the site details will populate the “Waste Details” box as in Figure 9 below.

Figure 9. Site details.

The screenshot shows a form titled "Waste Details" with an orange header. The form contains the following fields and values:

Waste Type	Dry recycle
Facility Type	Reprocessor - recycling (qu19)
Facility Name	Evolve Polymers Limited Select
Facility Description	<input type="text"/>
Facility Address	Hemswell Business Park, Hemswell, Lincolnshire
Facility Licence	73274 / CB3500CE
National Facility ID	20238

At the bottom of the form are two buttons: "Save" and "Cancel".

You can add a description of the facility or the process as a memory prompt in the ‘Facility Description’ box. This will be visible as you edit your tree in the Data Entry screen and to anyone viewing your tree in the Data Authorisation screen after roll-up.

In a very small number of cases we have found that some browsers cannot support this functionality. If you have trouble using the select facility box, please click on the “Show all” link to bring up a list of all your facilities.

Facilities must be added to your selection list before they can be used for the first time. This is done via the “Selection lists” option of the “Management” menu on the top ribbon (see GN4 Section 2: System Management [here](#) for further details). Once added, the facility will appear on the “Facility Name” list in Qu100 and can be selected.

Note: There are four Facility lists in the Selection lists page (an artefact of the pre-Qu100 questions). Three of these are waste management facility types (Recycling Destinations, Reuse Destinations and Waste Treatment and Waste disposal facilities). Waste management facility sites only need to be added to one of these Facility lists (it does not matter which) in order to appear in your Facility Name drop-down list in Q100. The fourth list is “Transfer stations”. Sites on this list are shown in your “Transfer station” box, rather than in the Facility Name drop-down.

Some sites on the facility list appear in **red**. These listings can still be selected, but the red colour means that the facility is no longer marked as an active site on WDF's master list of sites. It is a good idea to search to see if a newer version of the site is available, e.g. following a permit number or company name update. For English LAs, inactive sites will be "locked" 12 months after they are made inactive by the National Authority. You will not be able to roll up data if there is a locked facility in your tree (loaded from a previous period, for example). Locked sites have a padlock icon displayed next to them.

If you send material to a site which you believe is an active permitted waste management site but it is not active on the WDF selection list and is not processing your waste under an exemption, please contact the Environment Agency using the template email in the "EA Selection list update procedure (pdf)" [here](#). They aim to respond within 10 days. The procedure document also gives further information about site/licence types which are not eligible for inclusion. You can check the details of site permits on the EA Public registers website: <https://environment.data.gov.uk/public-register/view/index>

Note: The EA issues other authorisations which are not waste permits and sites with these will not be reactivated or added to the list. These include Carrier & Broker registrations (starting with CB), Packaging Regulation Reprocessor or Producers and WEEE Regulation Registrations. In such cases you need to confirm that the site is a waste management facility or, in the case of a waste carrier/broker/dealer, find out the details of the facilities they send your material to and use those.

2.4.3 "Other/exempt", "Outside UK-EU" or "Outside UK-nonEU"

These listing should be used where the facility operates under an Environment Agency exemption ("**Other/Exempt**"), or where material is sent outside the UK for processing ("**Outside UK-EU**" or "**Outside UK-nonEU**").

If you do not know the specific site where the material is sent to you should use one of the two listings "Site details not known" or "Multiple destinations" as explained below in sections 2.4.4 and 2.4.5.

If the material is going to a permitted waste management site in the UK which is not currently on the WDF selection list (searching using only part of the name or address or the licence/permit number may help) then you can use the "Other/exempt" listing while you check with the EA about having the site added to the selection list.

Where "Other/exempt", "Outside UK-EU" or "Outside UK-nonEU" is used, a Facility Operator box will become available to allow you to record the facility operator's name. Additionally, the Facility Address box will appear as an editable box to record the site's address or destination country (if sending to a site abroad). An example is shown in Figure 10. The facility code box can be used to record the appropriate reference number for the site, e.g. the exemption number.

Figure 10. Site details boxes for “Other/exempt”, “Outside UK-EU” or “Outside UK-nonEU” sites.

Waste Details	
Facility Type	Reprocessor - recycling (qu19)
Facility Name	Other/Exempt Select
Facility Description	Plastics Reprocessor
Facility Operator	Smith & Smith Recycling
Facility Address	1 High Street Sometown
Facility Postcode	AA1 2BB
Facility Code	SSR12345

Optional – for your own information.

Facility Operator name here

Facility Address here

Facility Postcode here

2.4.4 “Site details not known”

In some situations, LAs may have difficulties in reporting material beyond a certain point, due to contractual difficulties or a delay in obtaining information.

If you know what treatment material undergoes but do not know the specific facility it is sent to (for example, it might be that RDF is destined for incineration but the specific incinerator facility isn't known) please use the facility listing “**Site details not known**” (see Figure 11) This provides a more accurate picture of the state of knowledge around the destination. You will need to add it to the list of sites available to you via the selection list page when using it for the first time.

Figure 11. Listing for “Site details not known”.

National Facility Id	Facility Name	License	Post Code	Address
39611	Site details not known	Unknown	Unknown	Unknown

You will need to provide in the “Comments” box, any information you do have relating to the destination of this material. Please aim to obtain further information about the specific facility this material is sent to, so that in future returns use of the “Site details not known” facility name can be replaced with the details of the appropriate site listing. Use of this option will be monitored.

If the facility is overseas, please continue to use the appropriate Outside UK destination (EU or non-EU).

2.4.5 Reporting multiple destinations

In some cases, material output from a facility is sent to a large number of destinations. If more than 80% of the material goes to one facility then you may use this facility as the destination in your Qu100 tree, and please use the “Comments” box to record information about the other facilities to which material is sent.

If material output from a facility is sent to multiple destinations (e.g. a MRF provides a list of potential destinations but does not tell you which of them your material goes to or in what proportions) and you know what these destinations are but don't know the split of materials or tonnages between them, then the “**Multiple Destinations**” facility can be used. Please provide details in the “Comments” box of the facilities to which the material is sent.

N.B. If you don't know the facilities that are used for the material, then please don't use "Multiple destinations" from the selection list but use the "**Site details not known**" option as described in section 2.4.4 above. Before using the "Multiple Destinations" facility we would encourage you to find the actual sites wherever possible and if more than 80% of material goes to one facility, you can report against this one (with a note in the comments explaining this method of reporting).

2.5 Entering Waste Stream Types, Output Waste Types and Tonnages

2.5.1 Primary/Root nodes

If you are setting up the primary node of a branch (shown by a yellow circle icon) then after selecting a facility/process type and completing the site details, you will need to select the "Waste Stream Type" entering the facility or process. Each facility type or process has designated waste stream types as shown in Table 2. This table is reproduced in [Appendix 1](#).

Table 2. Facility/process types and associated waste input types.

Facility/process type	Waste stream input types available	Tonnage input recording location
All incinerators (Qu54-55) ³ , All landfills (Qu51-53), RDF, MHT, Autoclave or similar (Qu56), Advanced thermal treatment (Qu57), Mechanical Biological treatment (Qu59), Residual waste MRF (Qu64), Anaerobic or Aerobic Digestion Whole waste (Qu60), Other method (Qu65),	Residual waste	Waste details box (total tonnage input) if a Primary node. Materials box (broken down by material) if output (direct or indirect) from any of the following facility/process types: Organic composting facilities (Qu61-63), Reprocessor – recycling (Qu19), Reuse (Qu35), Exporter – recycling, Exporter – reuse.
Materials Recovery Facility (Qu58)	Comingled recycle	Waste details box (total tonnage input) if a Primary node. Materials box (broken down by material) if output (direct or indirect) from any of the following facility/process types ⁴ : Organic composting facilities (Qu61-63), Reprocessor – recycling (Qu19), Reuse (Qu35), Exporter – recycling, Exporter – reuse.
Anaerobic or Aerobic Digestion Segregated (Qu61), In-vessel composting (Qu62), Windrow or other composting (Qu63)	Food waste, Green waste, Mixed green and food waste	Materials box (broken down by material)
Reprocessor – recycling (Qu19), Exporter – recycling (Qu19), Reuse (Qu35), Exporter – reuse (Qu35)	Source-segregated recyclates, Food waste, Green waste, Mixed green and food waste	Materials box (broken down by material)
Material from WDA (<i>available to WCAs only</i>)	Residual waste	Waste details box (total tonnage input)

After selecting the waste stream type, a tonnage must be entered. There are two versions of this stage, as shown in Table 2, depending on whether the site requires a single total tonnage input, or multiple input tonnages broken down by material.

To avoid confusion, where a single total input tonnage is required in the Waste details box (e.g. where the primary node is a residual waste treatment process or Material from WDA), the “Materials” box will not be shown.

2.5.2 Entering tonnages – facility types with only one waste stream available

The “Tonnes” box will appear. Enter the tonnage and click “Save”.

Figure 12. Entering tonnage input where only one waste stream type is available.

The screenshot shows a 'Waste Details' form with the following fields and values:

Waste Details	
Facility Type	Non-hazardous landfill (qu52)
Facility Name	Sita (Lancashire) Ltd Select
Facility Description	<input type="text"/>
Facility Address	Whinney Hill Road, Clayton Le Moors, Accrington, Lancashire
Facility Licence	54099 / WP3791CX
National Facility ID	465
Waste Stream	<input type="text" value="Residual waste"/>
Tonnes	<input type="text"/>
<div><input type="button" value="Save"/> <input type="button" value="Delete"/></div>	

After saving, three sections appear to the right of the “Waste Details” section: “Sources”, “Comments” and “Transfer Stations”. These are overlaid so that the information in only one is shown at any time. Clicking on a heading opens that section and the label background turns from orange to white. Guidance on completing each of these sections is given below. A “Waste Summary” section is also shown (except for landfills) to the right of the tree, below the “Waste Input” section.

In the example in Figure 12 above (a non-hazardous landfill), the only waste stream type available is “Residual waste”. Once you have entered a tonnage (and, if required, completed the “Transfer Station” and “Comments” boxes) and saved, the branch will be complete as there are no expected outputs from a landfill site. Your Waste Management tree will now have a branch with a green triangle node denoting an end node where waste has been landfilled. Other facility types will require further steps to complete the branch.

Remember to click “Save” when you have completed each node!

To add the next branch (primary facility or activity) to your tree simply click “Qu100” again and go through the same process as above.

³ The question number in brackets next to each option in the list is a reminder of the historical question number used for this type of facility, before the advent of Qu100. See Appendix 2, page 44, for more information on those older questions.

⁴ While it is possible to report a MRF taking output from these facility types, in reality we would not expect waste materials to be managed in this way.

2.5.3 Entering tonnages – facility types with more than one waste stream available

For these facilities it is expected that the input will be entered by material type in the “Materials” box rather than being a mixed residual or commingled recycling input.

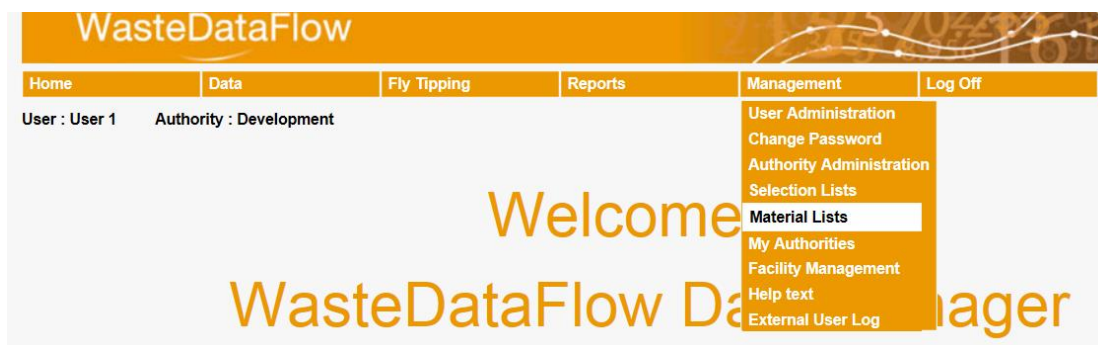
2.5.3.1 Materials

The input tonnage in this case is entered in the “Materials” section under the appropriate material category or categories. The material list shown can be filtered using the radio buttons to show only those with tonnages (“Tonnes only”), your list (“My Materials”), or the full material list (All). To update your list please refer to the “Materials List” option under the “Management” menu as in Figure 13 below. See “GN4: Section 2: System Management” in the WDF System Manual section of the [Guidance](#) page for further details.

Note: The material “Aggregates” is **NOT** to be used by English local authorities.

Enter the input tonnages and click on “Save” in the “Waste Details” box.

Figure 13. Accessing the Materials list page.



For nodes other than Landfill, Process loss, Moisture loss, Treatment unknown or Final destination, you will need to enter details of the process/facility outputs and their destinations. Even if the facility is the end destination for all the material, this needs to be confirmed. This is covered in section 2.5.4.

Some facilities have a limited number of material types available depending on the “waste stream type” (for primary facilities) or “output waste type” (for facilities taking material from another facility) selected as follows:

Table 3. Materials available in data entry for specific output waste types and waste stream types.

Output waste type (op) / Waste stream type (wst)	Material(s) available for data entry, (i.e. all others hidden)
Food Waste (op and wst)	Waste food only
Green Waste (wst)	Green garden waste only
Mixed Green and food waste (wst)	Mixed garden and food waste, Wood for composting, Other compostable waste

If you have different waste materials going to a facility, you may need to create separate branches to report them with the correct output waste type or waste stream type. If you send both Green garden waste (e.g. from municipal parks and gardens and reporting in Q18) and Mixed garden and food waste (e.g. from household kerbside collections in Q10) to the same site, you would need one branch with the Waste stream type “Green waste” for the tonnage from Q18 and one with the Waste stream type “Mixed garden and food waste” for the tonnage from Q10.

2.5.3.2 Sources

Traditionally material recorded in WDF by English LAs has been considered in terms of whether it was “household” or “non-household”, with historic indicators such as the BVPIs⁵ and NIs⁶ built around these definitions. A redefined split of “Waste from Households” or “Waste not from Households” is now being used in the Defra England statistics and at a UK level.

The England Guidance page provides more information about the calculations for the [WfH recycling rate](#) and the Household recycling rate (from the [NI192 comparator](#)).

The “Sources” box allows you to represent the split of materials entering each individual primary facility based on the source types: “Household” and “Non-household”; and “Waste from Households” (WfH) and “Waste not from Households” (WnfH). Use of the “Sources” box, which appears on every root node, is optional, so if you do not wish to use it then it can be left blank and any calculations which require a household:non-household ratio or a WfH:WnfH ratio will use defaults based on tonnages recorded in the appropriate collection questions.

You can enter tonnages into just one of the splits if you don’t know the other and you can enter the source splits for some root nodes and not others. The source split box’s availability at every root/primary node means it allows for a different factor for each root facility. Wherever it is used tonnages within the branch will have that split applied, wherever it is not, collection defaults will be used.

The box contains these two two-way splits:

- Tonnes HH Sources:Tonnes non-HH sources

and

- Tonnes WfH Sources:Tonnes WnfH Sources

Waste from Household:Waste not from Households

These are two different factors, not one factor with four parts. For example, if you had 100t of input and were recording the tonnage in both the splits, the total between HH and non-HH would total 100t; and the WfH: WnfH split would also be expected to total 100t.

Splits can be entered as tonnages to make up the total input (e.g. a total input of 150t may be recorded as 100t from HH sources and 50t from non-HH sources) or as percentages (e.g. 66.7 percent⁷ and 33.3) as this will generate the same factor.

Note: Because the calculation uses the entered figures as a ratio, if you enter only one part of the source split then the system will interpret that as meaning 100% of the material came from that source (e.g. entering no figure for household but a figure for non-household will result in 100% of the tonnage being assigned to non-household). Be careful, therefore, to enter appropriate figures in these source split boxes if they are used.

Note: If no comingled material has been reported in the collection questions, but some materials which are collected as source segregated dry recyclates are sent to a MRF, then you need to record the household:non-household split boxes otherwise that tonnage will not be included in your household tonnage for the comparator calculations for the historic National Indicator (NI) and Best Value Performance Indicator (BVPI) calculations. We would not expect this situation to arise.

⁵ BVPIs: Best Value Performance Indicators.

⁶ NIs: National Indicators.

⁷ Please do not add a percentage sign to the box, an error message will be returned upon trying to save a non-numeric character.

2.5.3.3 Comments

Please use this area to provide any supporting information you think might be useful e.g. to clarify any irregularities or imbalances. For waste management processes or waste types where we need specific comments please refer to the site-specific advice sections further on in the guidance.

2.5.3.4 Transfer Stations

Only use this if the waste passes through a transfer station on its way to the site you are currently recording in Qu100. When you open this box you will see your Transfer station selection list, where you can add data on tonnages sent by different transport routes in the relevant boxes. If the required facility is not on the list it can be added via the “Selection list” section of the “Management” menu.

Remember to click “Save” when you have finished!

2.5.3.5 The Waste Summary box

The Waste Input box is shown to the right of the tree whenever you are in a branch or node other than a landfill node or one of the branch-ending nodes (“Final destination”, “Process loss”, “Moisture loss” or “Treatment unknown”). It shows the input tonnage for that node/branch or sub-branch and shows the outputs by facility type and any imbalance between the input and output tonnages. This will help you to find any imbalances that either need to be rectified or explained in the comments.

Figure 14 The Waste Summary box

Waste Summary	
Input Tonnes	100.000
Inert landfill	40.000
Process loss	50.000
Reprocessor - recycling (qu19)	10.000
Total Output Tonnes	100.000
Tonnes Imbalance	0.000

In the case of any Material Recovery Facilities (MRFs) the Waste Summary box will also show a percentage of rejects for the facility as per Figure 15 below. Where the reject rate is less than 3%, or higher than 25% a red warning message will display asking you to double check the figures are correct, and if they are, to add a comment to the node to clarify why the rate is so low, or high. This will also be flagged in the tree by a hollow red triangle on the MRF node.

Note: The reject rate in this box is based on material being sent to landfills, incineration or RDF facilities. It does not include material sent to a secondary MRF or other waste treatment sites, even if the Waste type is “Contamination (process rejects)” or “Contamination (gate rejects)”. The MRF reject rate in the Summary report is based on all outputs which are not sent to a “Reprocessor-recycling”, “Reuse” or “Exporter” facility.

Figure 15 Waste Summary Box MRF Rejects

Waste Summary	
At 2.02% the rejection rate calculated from these figures is outside of the average range that might be expected from a facility of this type. Please comment on what you think the reason for this is.	
Input Tonnes	500.000
Advanced thermal treatment	490.000
Inert landfill	10.100
Total Output Tonnes	500.100
Tonnes Imbalance	-0.100
Percentage Rejects	2.02%
Percentage rejections is the sum of tonnages of materials sent to Landfill, Incineration or RDF as a proportion of total material input to this facility.	

2.5.4 Non-Primary/Root nodes – reporting waste outputs and final destination

To report materials moving from one facility to another, select the facility you want to report the output from in the Waste Management tree (it will then be highlighted in blue). In the “Waste Details” section click on the “New Output” button. The screen will then update the Waste Details section to provide the options required to set up the output. This is the same process as for a new primary node.

The first step is to select the “output waste type” using the drop-down list. The available waste types are determined by the facility type as shown in Table 4 (this table is reproduced in [Appendix 1](#)).

Table 4. Output waste types by facility type.

Facility/process type the output is created from	Output waste types available
All landfills, final destinations	None
All incinerators	Contamination (process rejects), Contamination (gate rejects), Incinerator bottom ash, Process loss, Moisture loss, Treatment unknown, Incinerator fly ash
RDF, autoclave, MHT or similar	Dry recyclate, Contamination (process rejects), Contamination (gate rejects), Refuse-derived fuel, Process loss, Moisture loss, Treatment unknown
Advanced thermal treatment	Dry recyclate, Contamination (process rejects), Contamination (gate rejects), Process loss, Moisture loss, Treatment unknown, Char/slag**
MBT	Dry recyclate, Contamination (process rejects), Contamination (gate rejects), Compost-like output, Refuse-derived fuel, Process loss, Treatment unknown, Moisture loss
Residual MRF and anaerobic digestion (whole residual)	Dry recyclate, Contamination (process rejects), Contamination (gate rejects), Compost-like output, Process loss, Moisture loss, Treatment unknown
Clean MRF	Dry recyclate, Contamination (process rejects), Contamination (gate rejects), Process loss, Moisture loss, Treatment unknown
Reprocessor - recycling, Reuse, Exporter - recycling, Exporter - reuse, Other method,	Dry recyclate, Composting, Contamination (process rejects), Contamination (gate rejects), Compost-like output, Refuse-derived fuel, Incinerator bottom ash, Process loss, Moisture loss, Treatment unknown*, Char/slag**, Incinerator fly ash
Anaerobic or Aerobic digestion (segregated), In-vessel composting and Windrow or other composting	Composting, Contamination (process rejects), Contamination (gate rejects), Compost-like output, Process loss, Moisture loss, Treatment unknown*
Material from WDA (WCAs only)	Dry recyclate, Composting, Compost-like output

*Note: "Treatment unknown", "Refuse-derived fuel", "Incinerator bottom ash" and "Incinerator fly ash" should not be used directly following the facility types: Reprocessor-recycling, Reuse, Exporter-recycling, Exporter-reuse, Anaerobic or Aerobic digestion Segregated, In-vessel Composting and Windrow or other composting.

**Note: Char/slag should not be used by English LAs.

The Output Waste Type is only indicative of the type of waste that leaves a facility. For example, an MBT plant might send treated waste for further separation in a residual MRF (rMRF). The only relevant output type in this situation would be "Contamination (process rejects)", as it is a "rejection" from the MBT, i.e. something it cannot process to a clean output, but in being sent to the rMRF, processing will continue rather than reaching an end-point.

After selecting the Waste Type, select the Facility Type where the output is sent. You will need to select the facility name from your selection list, enter the tonnes output (following the process for a single total

tonnage (section 2.5.2) or multiple waste categories (as above in section 2.5.3) and complete the “Materials”, “Transfer stations” and “Comments” boxes as required.

2.5.4.1 Ending a branch

For each output reported, you must then go on to report what happens to that material at the next facility using the same process as described above until a point is reached where the material goes to landfill, is accepted for reprocessing, or is lost through burning or evaporation. End-points are represented by green icons. To complete Qu100 all branches should end with at least one of these green destination icons.

2.5.4.2 Landfills

In Qu100 once material enters a landfill that is the end of its journey. There are no output options from landfill and so it is deemed as a waste destination and is identified with a green triangle icon.

2.5.4.3 Final Destinations

For wastes going to facilities other than landfill, when you reach what is to be the end of a branch you will need to confirm that the facility is the final destination (for example; for recyclates going to a reprocessor, for composting at a composter, for reuse). The use of the final destination confirmation is a way of stating that a branch has ended and no additional nodes are needed, e.g. to represent further processing.

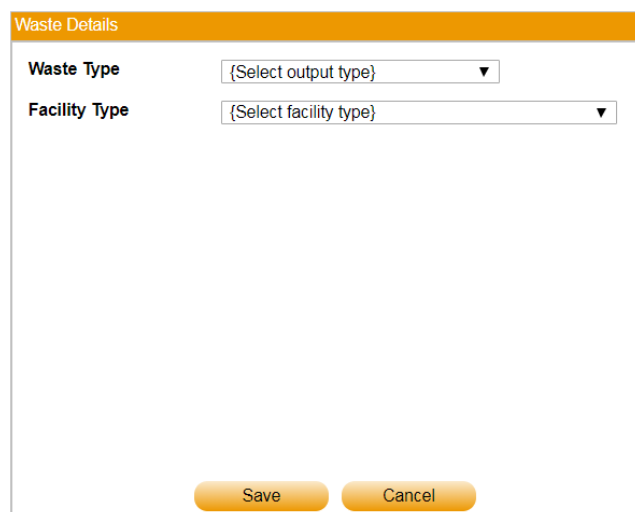
The “Auto Final Destination” (“Auto FD”) button is available for organic facilities (AD segregated, IVC or Windrow and other composting facilities), dry recyclate Reprocessors and Re-use sites as these are the only site types eligible to be recorded as final destinations in WDF. After creating the facility which you wish to confirm as the final destination, the “Auto FD” button appears in the “Waste Details” box as shown in Figure 16.

Figure 16. The “Auto FD” button.

The screenshot shows a web form titled "Waste Details" with a yellow header. The form contains several fields: "Facility Type" (Materials recovery facility (qu58)), "Facility Name" (Sita (Kirklees) Ltd with a "Select" link), "Facility Description" (empty text box), "Facility Address" (Meltham H W R C, Bent Ley Road, Meltham, Huddersfield, West Yorkshire), "Facility Licence" (65436 / WP3692ZU), "National Facility ID" (37193), "Waste Stream" (Comingled recyclate with a dropdown arrow), and "Tonnes" (empty text box). At the bottom, there are four buttons: "Save", "New Output", "Auto FD" (which is circled in red), and "Delete".

Clicking the “Auto FD” button will then display the box shown in Figure 17.

Figure 17. Final destination menu.



The screenshot shows a web form titled "Waste Details". It contains two dropdown menus: "Waste Type" with the placeholder text "{Select output type}" and "Facility Type" with the placeholder text "{Select facility type}". Below the dropdowns are two buttons: "Save" and "Cancel".

Once you have made your selection of "Waste Type" and selected "Final destination" from the "Facility Type" drop-down menu and clicked "Save", the tonnage breakdown is copied automatically from the facility node into a green "Final destination" node in the tree.

2.5.4.4 Process and Moisture losses

As well as material being sent to landfill or entering a reprocessor, it can also end its flow through Qu100 by being lost as part of a treatment process, e.g. weight can be lost during burning processes or as moisture evaporates during a drying process. Weight lost due to combustion or drying or other such "process and moisture losses" can be shown in Qu100.

Significant tonnage may be "lost" from treatment plants e.g. incinerators or MBTs; these must be accounted for alongside reporting of other outputs e.g. bottom ash, CLO, etc. The use of the "Process loss" or "Moisture loss" categories does not feed into any further calculation of e.g. National Indicator comparators, but it does allow for the movement of waste to balance, as shown in the summary box (see section 5.1, page 35).

To create a process or moisture loss, click the "New output" button in the Waste Details section of the site you wish to create the loss from and then pick "Process loss" or "Moisture Loss" from the Waste Type drop-down and fill in the required tonnage.

Note: The "Process loss" and "Moisture loss" output waste types should only be used where residual waste or RDF is being treated, they should **not** be used for collected **source-segregated material** which has been sent for recycling, reuse or composting.

If you have difficulty in reporting some of your material to one of these final destinations, please see the guidance in sections 2.4.4 or 2.4.5.

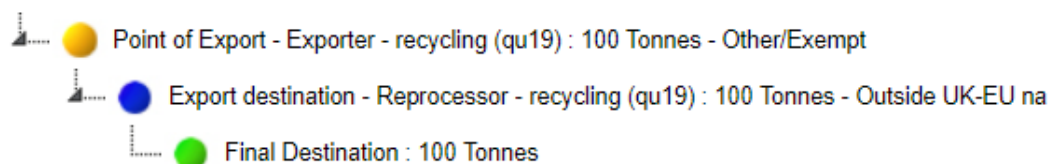
2.5.5 Reporting exports

Where possible, it is very helpful to record the final destination of material sent abroad in addition to the final point the material was handled within the UK (the point of export), which may be a broker. Depending on the material and process type there are a number of ways this activity is to be recorded.

Recycling and Reuse: The "Exporter - recycling" and "Exporter - reuse" facility types need to be used to record the final UK site (following on from other earlier sites if appropriate, e.g. a MRF). This will then be followed by a "Recycling Reprocessor" or "Reuse" facility, against which the details of the foreign destination site would be recorded using either of the sites, "Outside UK-EU" or "Outside UK nonEU"

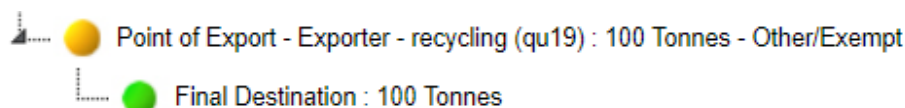
as appropriate. The example below (Figure 18) sets out how this would look within your tree structure if you were sending recycling abroad. The facility descriptions “Point of Export” and “Export destination” could be replaced by more specific information relevant to you.

Figure 18. Export example.



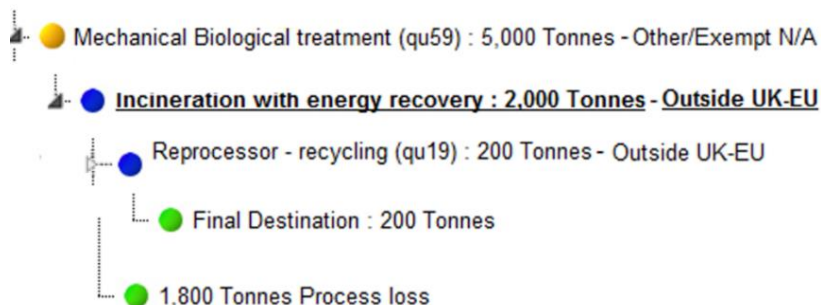
If you do not know whether the material is sent to facilities in the EU or outside the EU, then a final destination node can be created directly from the Exporter but a comment should be included in the comment box of the Exporter node. See example below (Figure 19).

Figure 19. Export example (EU or non-EU destination not known).



For anything other than recycling or reuse (e.g. RDF), you need to record the final UK site using the appropriate facility type, (e.g. MBT, MRF or rMRF) and then an “Outside UK” site (with the assumption that the UK site represents the point of export). For example, Figure 20 shows how an MBT (site A) is producing RDF which is sent to Europe to be burnt at an EfW facility. In this case the MBT is deemed to be the point of export.

Figure 20. Export from Residual treatment.



2.5.6 Reporting rejected recyclates

Material (with the exception of certain materials collected separately, usually at CA sites, which will be addressed below) which is collected for recycling but rejected at the point of collection, i.e. prior to being sent to a MRF or a recycling, reuse or composting facility, should be reported as “Tonnage collected for recycling but actually rejected/disposed” in the relevant collection question. You must not then report these tonnages anywhere else in your return. For the purposes of the Household recycling rate (NI192 comparator) and the Waste from Households calculations, this material is determined to have been sent to landfill.

WEEE and Rubble: In most cases you are not required to report rejections of materials occurring after material has been accepted by a reprocessor. Exceptions to this are WEEE and Rubble. If you have information about rejections from these facilities, you should report them in Qu100 either as “Contamination (gate rejects)” or “Contamination (process rejects)” as appropriate.

Separately collected materials at CA sites: If material such as Wood, Plasterboard or Carpets is separately collected for recycling at a CA site but is subsequently, e.g. due to market conditions or quality issues, sent for disposal or incineration it should be reported as below.

Scenario 1: Material is sorted at the CA site or a Reprocessor and some is rejected and the rest is recycled.

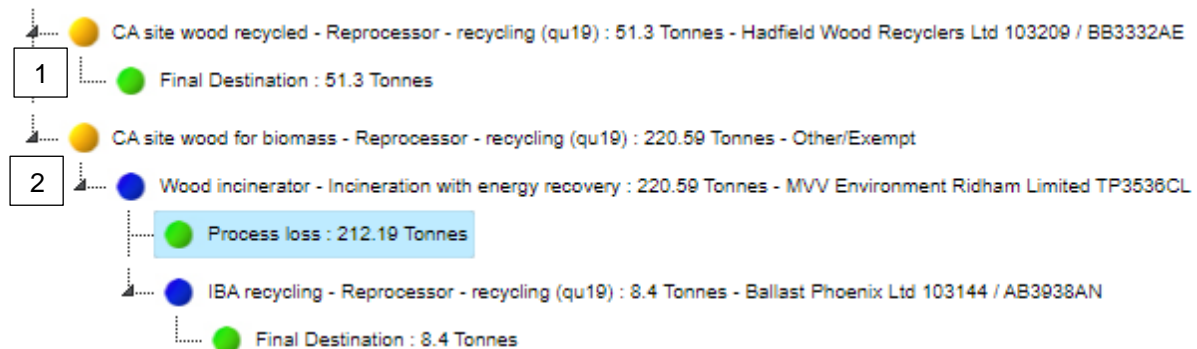
The tonnage collected is reported in **Qu14** (WDA) or **Qu16** (UA or WCA).

1. In Qu100 create a Reprocessor branch for the recycled tonnage with the reprocessor as the facility. Complete the branch with a “Final destination” node.
2. Create a separate Reprocessor branch for the rejected material using the CA site(s) as the facility. The whole tonnage is then reported as an output using the waste output type “Contamination (gate rejects)” going to the facility where it is disposed or incinerated. Remember to complete any incineration branches with outputs from the facility. If you do not have a breakdown of the incinerator outputs (Incinerator bottom ash, Metals from incinerator bottom ash etc.), please report all the output as “Treatment unknown”.

If materials (e.g. metal fixings) are recovered from the wood sent for incineration, these can be reported as an output from the primary Reprocessor node. Create a Reprocessor-recycling node with the Waste type “Dry recyclates” then finish with a Final Destination node. Metal fixings would be reported as “Other scrap metal”.

The resulting branches should look similar to the example below in Figure 21.

Figure 21. Scenario 1 Example wood waste management.



Scenario 2: Material is separately collected for recycling at the CA site but the whole tonnage is rejected to disposal or incineration.

The whole tonnage collected must be recorded in **Qu23** (Civic amenity site: household or Civic amenity site: non-household) with a comment stating that X tonnes was source-segregated material.

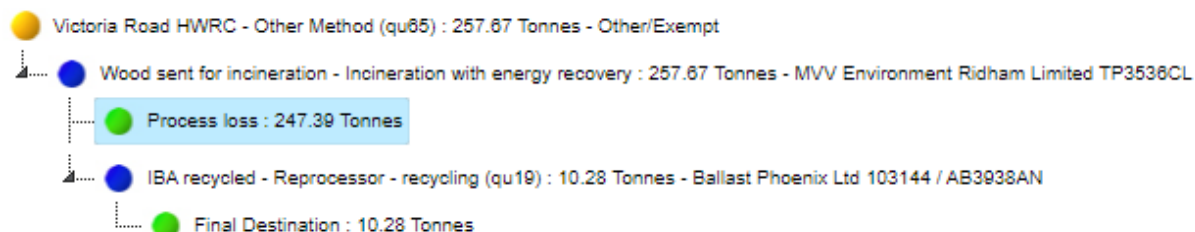
UAs or WDAs must then report this tonnage in their Q100 tree. WCAs must make sure their WDA records this material being sent for disposal/incineration in Qu100 in their return as primary residual waste treatment facilities are not to be used by WCAs in their returns.

1. Create an “Other method (Qu65)” facility node (the CA site) with a comment stating this is the relevant material (e.g. Wood) collected separately at CA sites. As this is a residual waste facility, the tonnage is entered in the “Tonnes” box in the Waste details section, rather than against the specific material.
2. The whole tonnage is then reported as an output from the “Other method” node using the waste output type Contamination (gate rejects) going to the facility where it is disposed or incinerated.

Remember to complete any incineration branches with outputs from the facility. If you do not have a breakdown of the incinerator outputs (Incinerator bottom ash, Metals from incinerator bottom ash etc.), please report all the output as "Treatment unknown".

The resulting branch should look like the example below in Figure 22.

Figure 22. Scenario 2 Example wood waste management.



3 Site-specific examples of waste movements

The subsections below highlight some examples of how waste movements may be recorded in Qu100. The specific waste flows given in the examples are unlikely to mirror your situation exactly however it is hoped they provide a guide to how common processes can be recorded in Qu100. For further tailored support please contact the WDF helpdesk with details of your waste movements to hand.

3.1 Landfill

Probably the simplest waste flow to replicate in Qu100 is that of material being sent straight to landfill. The example below shows how the tonnages and types of landfill required can be replicated in Qu100.

In the example below a total of 10,000t of material is to be sent to non-hazardous landfill, between two different sites, 50t of hazardous material to landfill and 500t of inert material. The section to the left of Figure 23 shows how this could be thought of in a flow diagram and then to the right how it would be set up in Qu100. Four root landfill nodes have been set up to represent the four sites, each with the type of landfill designated and input tonnage recorded.

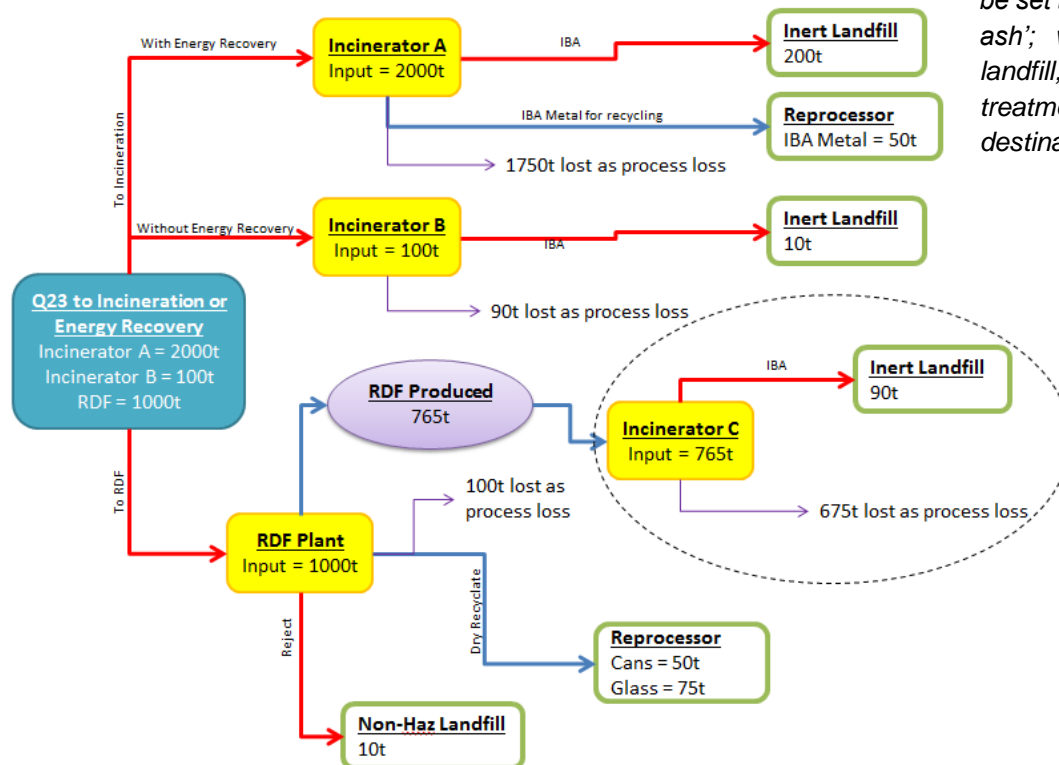
Figure 23. Example of material being sent directly to landfill.



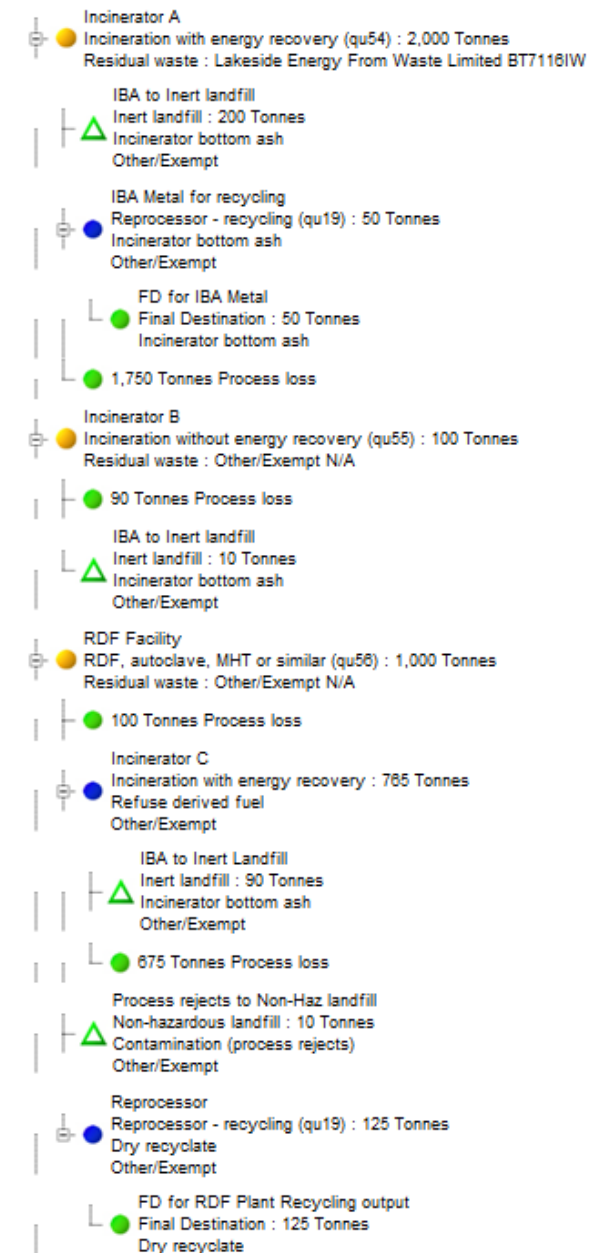
3.2 Incinerators and RDF

In this example a total of 3,100t of residual material has been collected which is sent on for treatment at two different incinerators and one RDF production plant. The section within the dashed ring represents additional detail which wouldn't have been recorded prior to Qu100 but can now be captured, i.e. material sent on to secondary treatment.

Figure 24. Example of material sent for Incineration or energy recovery.



WDF Tip: Wherever IBA or IBA metal is recorded the output waste type should be set to 'incinerator bottom ash'; whether this be at landfill, reprocessor/further treatment or final destination level.



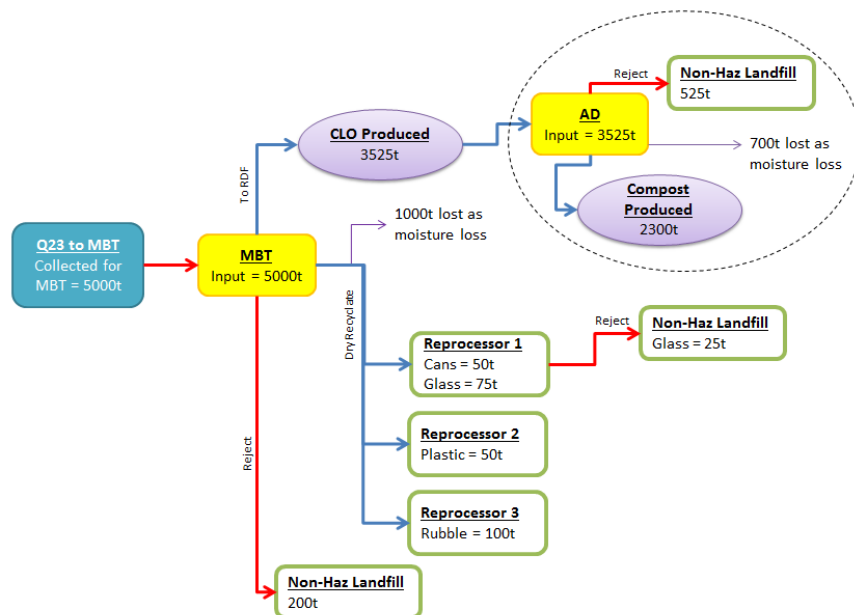
3.3 Mechanical Biological Treatment (MBT)

Here 5,000t of residual material has been sent to an MBT. The initial MBT process has generated a number of recycle tonnages which are sent on to three different reprocessors; 200t of material rejected directly to landfill; 1,000t of the original input tonnage has been lost as moisture loss; and 3,525t of compost-like output (CLO) has been produced. Of the glass recycling produced, 25t has been rejected at the gate of the reprocessor.

The CLO has then been sent on for further processing at an AD facility where 525t of the output has been sent to landfill, 700t is moisture loss and 2900t has been applied to a suitable composting application. The section within the dashed ring represents additional detail which wouldn't have been recorded prior to Qu100 but can now be captured, i.e. material sent on to secondary treatment.

Note – Use the material “Other compostable waste” and the waste type “Compost-like output” for organic material output from residual waste treatment.

Figure 25. Example of material sent to an MBT producing CLO.



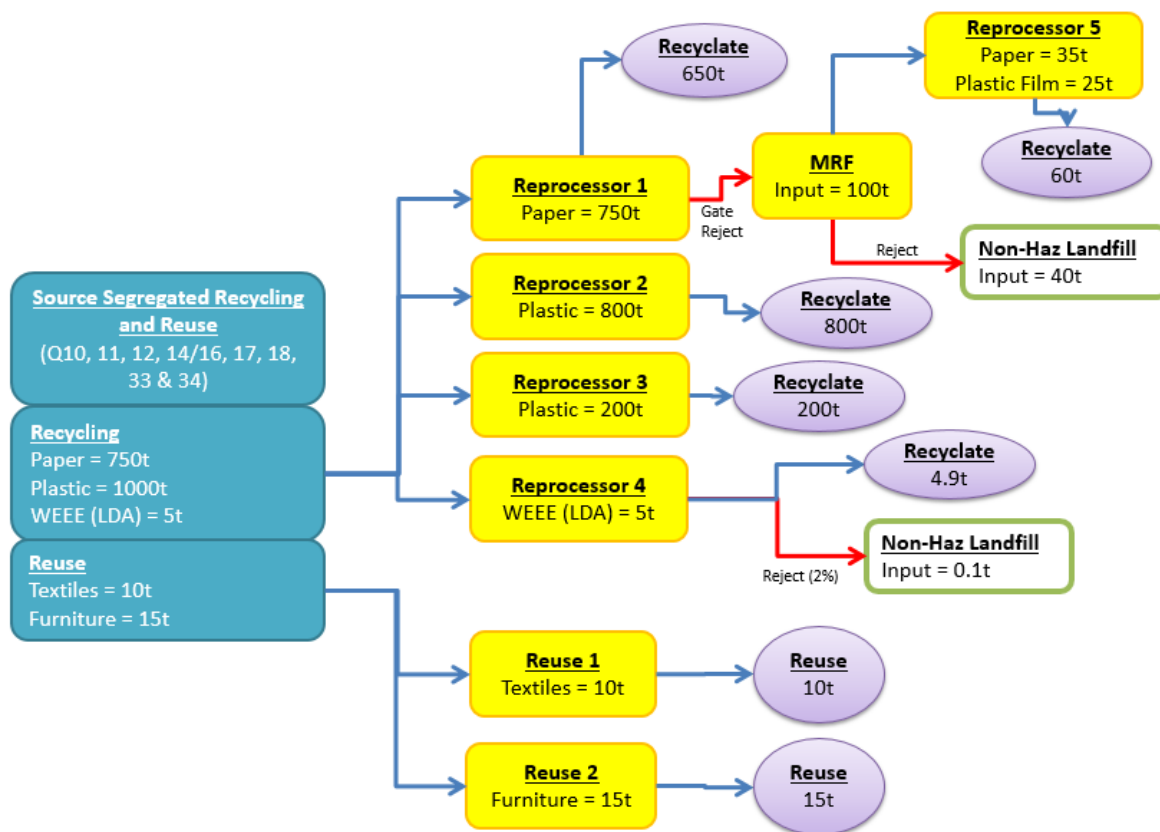
- Mechanical Biological treatment (qu59) : 5,000 Tonnes - Other/Exempt
- Anaerobic or Aerobic Digestion Whole Waste : 3,525 Tonnes - Other/Exempt
- Final Destination : 3,000 Tonnes
- △ Non-hazardous landfill : 525 Tonnes - Other/Exempt
- △ Non-hazardous landfill : 200 Tonnes - Other/Exempt
- Reprocessor - recycling (qu19) : 125 Tonnes Other/Exempt
- △ Non-hazardous landfill : 25 Tonnes - Other/Exempt
- Final Destination : 100 Tonnes
- Reprocessor - recycling (qu19) : 50 Tonnes - Other/Exempt
- Final Destination : 50 Tonnes
- Reprocessor - recycling (qu19) : 100 Tonnes - Other/Exempt
- Final Destination : 100 Tonnes
- 1,000 Tonnes Moisture loss

3.4 Reprocessors (recycling and reuse)

Material collected as segregated recycling or reuse (i.e. not commingled) will likely go directly to reprocessors in Qu100. This example shows how Qu100 has the flexibility to record rejected material going to secondary treatment for further processing as per the MRF following reprocessor 1.

Something you will notice when recording reuse tonnages is that the waste stream types and output waste type options do not include specific options for reuse. In these situations, please use the waste stream type of “Source-segregated Recycling” and Output waste type of “Dry Recyclate”.

Figure 26. Example of segregated recycling and reuse sent to reprocessors.

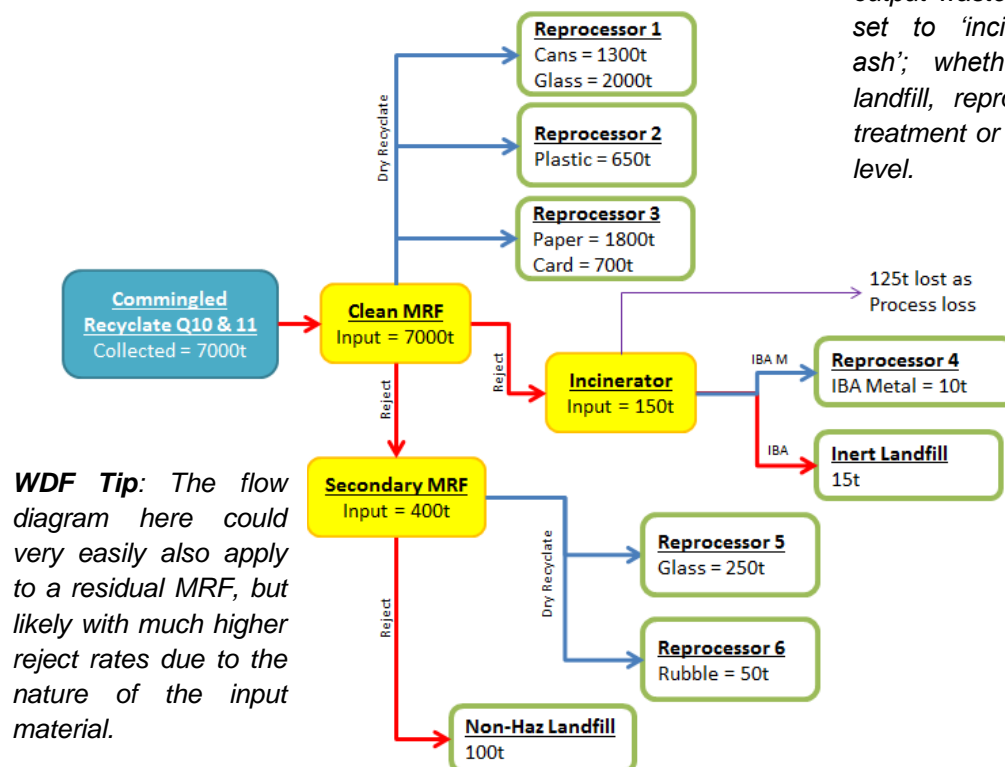


- Reprocessor - recycling (qu19) : 750 Tonnes - Other/Exempt
- Materials recovery facility : 100 Tonnes - Other/Exempt
- △ Non-hazardous landfill : 40 Tonnes - Other/Exempt
- Reprocessor - recycling (qu19) : 60 Tonnes - Other/Exempt
- Final Destination : 60 Tonnes
- Final Destination : 650 Tonnes
- Reprocessor - recycling (qu19) : 800 Tonnes - Other/Exempt
- Final Destination : 800 Tonnes
- Reprocessor - recycling (qu19) : 200 Tonnes - Other/Exempt
- Final Destination : 200 Tonnes
- Reprocessor - recycling (qu19) : 5 Tonnes - Other/Exempt
- △ Non-hazardous landfill : .1 Tonnes
- Final Destination : 4.9 Tonnes
- Reuse (qu35) : 10 Tonnes - Other/Exempt
- Final Destination : 10 Tonnes
- Reuse (qu35) : 15 Tonnes - Other/Exempt
- Final Destination : 15 Tonnes

3.5 Material recovery facilities (MRFs)

A large proportion of WCAs and UAs collect material commingled, with the MRF element of Qu100 as the one treatment process previously available to WCAs. Here 7,000t of commingled material has been input to the MRF. In Qu100 there is the ability to record rejections sent to incineration and also what happens to the output from that EfW facility, in order to portray the final destinations of the material. The example also shows how rejections treated in a secondary MRF can be set up.

Figure 27. Example of tonnage flows from a MRF.



WDF Tip: The flow diagram here could very easily also apply to a residual MRF, but likely with much higher reject rates due to the nature of the input material.

WDF Tip: Wherever IBA or IBA metal is recorded the output waste type should be set to 'incinerator bottom ash'; whether this be at landfill, reprocessor, further treatment or final destination level.

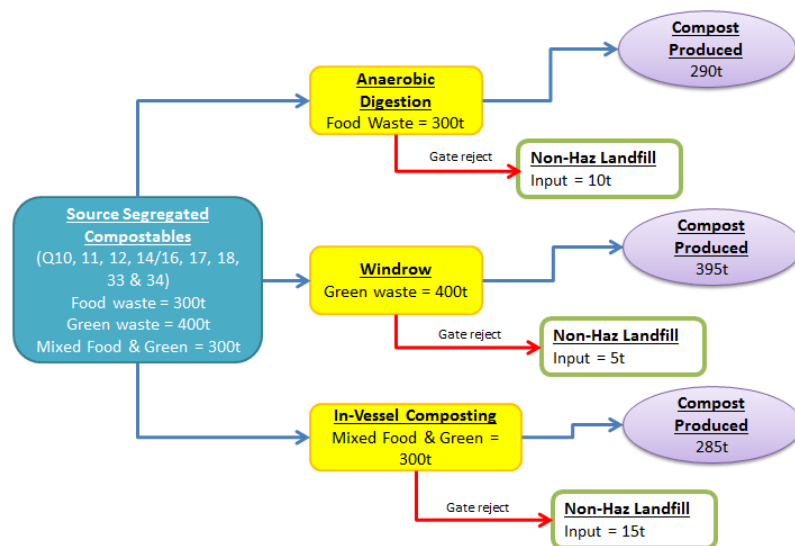
- Materials recovery facility (qu58) : 7,000 Tonnes - Other/Exempt
- Reprocessor - recycling (qu19) : 3,300 Tonnes - Other/Exempt
 - Final Destination : 3,300 Tonnes
- Reprocessor - recycling (qu19) : 650 Tonnes - Other/Exempt
 - Final Destination : 650 Tonnes
- Reprocessor - recycling (qu19) : 2,500 Tonnes - Other/Exempt
 - Final Destination : 2,500 Tonnes
- Incineration with energy recovery : 150 Tonnes - Other/Exempt
 - 125 Tonnes Process loss
 - △ Inert landfill : 15 Tonnes - Other/Exempt
- Reprocessor - recycling (qu19) : 10 Tonnes - Other/Exempt
 - Final Destination : 10 Tonnes
- Materials recovery facility : 400 Tonnes - Other/Exempt
 - Final Destination : 400 Tonnes
- Reprocessor - recycling (qu19) : 250 Tonnes - Other/Exempt
 - Final Destination : 250 Tonnes
- Reprocessor - recycling (qu19) : 50 Tonnes - Other/Exempt
 - Final Destination : 50 Tonnes
- △ Non-hazardous landfill : 100 Tonnes - Other/Exempt

3.6 Composting (AD, Windrow and IVC).

Note: See section 2.5.4.4 for clarification of not recording process or moisture losses for source-segregated waste

This example shows how to record source-segregated organic material in Qu100. Here there are three tonnages of organic materials which have been recorded as segregated input tonnages in the collection questions. In the example all three material streams have had some material rejected at the gate of the reprocessor. **Note: the requirement is to record only as far as the gate rejections i.e. you are not required to report process rejections, moisture loss and process loss from organic waste treatment processes dealing with source-segregated organic waste.**

Figure 28. Example of material sent to various composting treatments.



- Anaerobic or Aerobic Digestion Segregated (qu61) : 300 Tonnes - Other/Exempt N/A
- △ Non-hazardous landfill : 10 Tonnes - Other/Exempt
- Final Destination : 290 Tonnes
- In vessel composting (qu62) : 300 Tonnes - Other/Exempt N/A
- △ Non-hazardous landfill : 15 Tonnes - Other/Exempt
- Final Destination : 285 Tonnes
- Windrow or other composting (qu63) : 400 Tonnes Other/Exempt N/A
- △ Non-hazardous landfill : 5 Tonnes Other/Exempt
- Final Destination : 395 Tonnes

4 Qu100 data entry scenarios affecting WDAs and their WCAs

4.1 *Avoiding double-counting between WDAs and WCAs*

In Qu100 WCAs have available to them facility or process types relating to the treatment of residual waste (such as landfill options, MBT, etc.) but a WCA cannot take on the responsibility for reporting these from the WDA. In fact, doing so will likely double-count these operations as the WDA will be recording them.

Therefore, we ask that WCAs only report the following facility/process types at the root/primary level:

- Material Reprocessing Facility (MRF) (Qu58)⁸;
- Reprocessor – Recycling (Qu19);
- Exporter – Recycling;
- Reuse (Qu35);
- Exporter – Reuse;
- Anaerobic or Aerobic Digestion Segregated (Qu61);
- In-vessel Composting (Qu62);
- Windrow or other Composting (Qu63); and where back allocation is occurring;
- Material from WDA.

There are situations where a WCA has some responsibility for the treatment of their residual waste. If you believe this relates to your authority, please pass details of tonnages and materials as well as the destinations for the waste to your WDA so they can report it in their return.

4.2 *Back-allocation in Qu100*

This section is not applicable to UAs.

The concept of back-allocation is discussed at greater length in the WDF guidance document GN19: “How to report street sweepings”. In essence it is a method by which WCAs can benefit from the treatment of residual waste they collect, but which is treated by their WDA. Discussions around the application of back-allocation should be led at a local level between a WDA and its constituent WCAs.

Where residual waste is collected by a WCA which is subsequently processed by their WDA and recyclates are recovered and “back-allocated” to the original collection authority, the process below should be followed.

⁸ The question number in brackets next to each option in the list is a reminder of the historical question number used for this type of facility, before the advent of Qu100. See Appendix 2, page 44, for more information on those older questions.

Back-allocation example:

In this example 100t of residual material is collected by the WCA. This is then taken by the WDA and processed (e.g. via a residual MRF (rMRF)) to recover some of the recyclable materials it contains. This results in 70t remaining as a residual output which is sent to landfill. Of the 30t of recycling 20t is sent to Reprocessor A, which ultimately rejects 5t of it at the gate. The remaining 10t of recycling from the rMRF is sent to Reprocessor B with all of it being accepted for recycling.

How the WDA should record:

The tonnages are to be recorded in the same way as they would if back-allocation were not occurring. Using the example above it would be as follows:

Q23 – All 100t recorded against the appropriate collection method

Qu100 – 100t input to the appropriate treatment (here a rMRF).

- 70t output to landfill
- 20t output to reprocessor A
 - reprocessor A has two outputs
 - 5t of gate rejections to landfill
 - 15t of recyclate confirmed by the use of a final destination
- 10t of output to reprocessor B
 - 10t of recyclate confirmed by the use of a final destination

Comments should be added to the reprocessor nodes A and B to note that this material is back-allocated to the WCA. In reality it is likely that a single tonnage recorded in Qu100 will be broken down between a number of WCAs, in which case this breakdown should be described in the comments of the relevant reprocessor node.

Figure 29. Back-allocation example (WDA).

**How the WCA should record:**

In the example above for the WDA, 25t of the 100t collected as residual waste was ultimately sent to a final recycling destination. It is this 25t which is then back-allocated to the WCA (N.B. not the 30t with 5t of rejections).

All material which is classed as residual waste at the point of collection, irrespective of future treatment, should be recorded as such in Qu23.

Q23 – All 100t recorded against the appropriate collection method.

Qu100 – 25t input to the facility type “Material from WDA” (N.B. this must be selected as a root-level node), which has a waste stream type of residual waste. Only 25t is entered here as only 25t was ultimately recycled by the WDA.

- 15t output to the first reprocessor (only the 20t of material eventually accepted as recycle from the WDA's return should be recorded by the WCA).
- 15t of recycle confirmed by the use of a “Final destination” node.
- 10t of output to the second reprocessor.
- 10t of recycle confirmed by the use of a “Final destination” node.

Figure 30. Back-allocation example (WCA).



What is the point of back-allocation?

The benefit of recording back-allocation in this way for the WDA is that waste movements are recorded in a way which correctly represents how the material is collected and processed. Back-allocation only affects the return in terms of the comments which have been used.

For the WCA all the material is being correctly recorded as material collected as residual waste. Then in Qu100 the use of the “Material from WDA” process allows the back-allocated tonnages to be clearly identified and so can be included in applicable calculations such as the comparator calculation for the historic National Indicator 192 (NI192), but then omitted from any figures which feed through to WDA calculations (as the WDA has recorded the recycling tonnages in their own return, any fed through from the WCA would be double-counting).

5 Checking and validating Qu100

5.1 During data entry

If you click on a node of your tree structure, the “Waste Summary” box will open on the right-hand side, below the “Waste Input” box.

The Waste Summary provides the input tonnage for the node it relates to as well as its direct outputs; this allows you to check for each node that the whole input tonnage has been accounted for in the outputs. Figure 31 provides an example for an MBT with several output routes. It shows that the tonnages detailed in secondary nodes balance the tonnage input for the MBT facility.


Figure 31. Waste Summary (balanced).




Waste Summary	
Input Tonnes	12570.140
Moisture loss	1662.900
Non-hazardous landfill	1248.150
RDF, autoclave, MHT or similar	8127.890
Reprocessor - recycling (qu19)	1531.200
Total Output Tonnes	12570.140
Tonnes Imbalance	-0.000

While the Waste Movement Summary shows the tonnage entered as input and outputs for the facility, it does not guarantee that the data are correct as these should be checked against information from your internal sources and contractors. It also does not show that all the tonnage outputs have been accounted for at the next stage of the process. These should be checked separately (a more comprehensive set of balance checks are provided on the validation summary sheet’s “Qu100 Balance” tab). In the figure above, for example, 8,127.89t has been sent to “RDF, autoclave, MHT or similar” but it is shown with a hollow red triangle icon and the text shows that there is an imbalance of 120.39t. The Waste Movement Summary for that sub-branch is shown in Figure 32. Here there are unallocated tonnages which you need to take steps to record.

Figure 32. Waste movement summary (unbalanced).

...  RDF, autoclave, MHT or similar : 8,127.89 Tonnes - SITA UK Limited PP3734SE *** imbalance 120.39

...  Incineration with energy recovery : 8,007.5 Tonnes - MVV Environment Ridham Limited TP3536CL *** imbalance 8,007.5

Waste Summary	
Input Tonnes	8127.890
Incineration with energy recovery	8007.500
Total Output Tonnes	8007.500
Tonnes Imbalance	120.390

As discussed in section 2.5.4, for residual waste treatment processes including RDF, imbalances between the inputs and outputs due to process and moisture losses can be accounted for with the use of the Output Waste Types “Moisture loss” or “Process loss”, so there should be no unallocated tonnages within Qu100 as a result of these losses. These output types should not, however, be used for source-segregated recycling or organic waste.

Moisture loss may occur during storage at a transfer station, and this may result in an imbalance when the actual tonnages entering a facility are recorded. In this case a note should be made in the Comments box or as a response to the online query if one is raised. This situation would cause an imbalance between the tonnage of material collected and the tonnage sent, rather than an imbalance within a Q100 branch.

In some cases, there will be an imbalance in a quarter's data due to stockpile movements (material stockpiled before or after processing at a facility or material previously stockpiled entering the process or leaving the facility) or a lengthy process which means that material does not leave the site in the same quarter as it arrives. In these cases, it would be expected that the tonnages should approximately balance over the course of a year. Again, a comment should be added confirming the difference in input and output for the quarter is due to material movements.

5.2 Validation following data roll-up

Once your return has been rolled up to Level 10, the data entered are processed and available in the Validation Summary sheet so you can check what has been entered before rolling up further or rolling down to make changes. See the following guidance notes for further information on how to use the validation sheet to check your data:

- [GN62a: How to use the validation spreadsheet](#)
- [GN65: Resolving validation checks query by query](#)

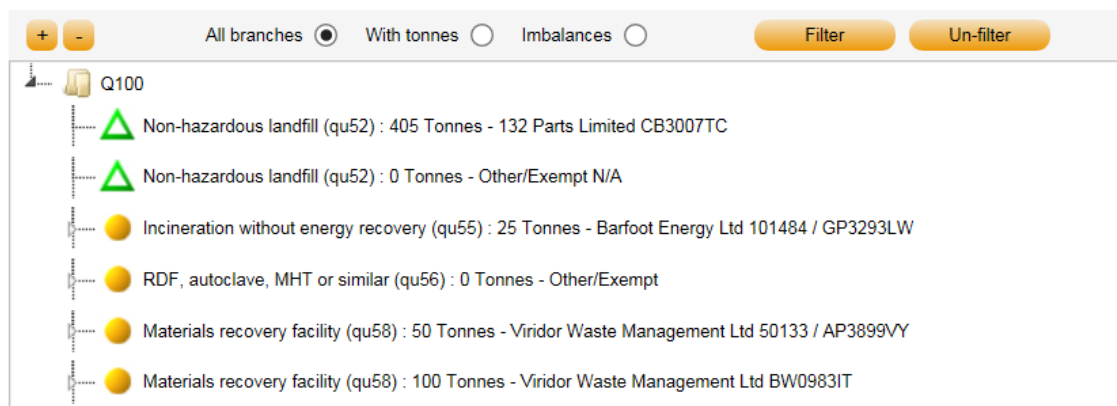
When you roll up from Level 10 (via the Data Authorisation page) you will be presented with the validation queries from the Validation Summary sheet and asked to provide a response for each before rolling up and submitting to Level 30.

6 Glossary

- **Node** – A point of information along a branch of the waste movement tree. Each represents a step along the journey taken to process or dispose of waste following collection.
- **Branch** – A string of linked nodes. E.g. a commonly created branch may be that of a MRF > Reprocessors > Final Destinations



- **Waste Movement Tree** – The list of branches which together represent the methods and facilities used to process waste following collection.



- **Facility or Process** – A type of treatment facility or process type. In the most part the two terms are interchangeable such as for a MRF or MBT, however elements such as “Material from WDF” would only be classed as a process and not a facility type.
- **Element** – A universal way of referring to a part of Qu100 without being specific as to its type of location.
- **Root/Primary Node/Process/Facility** – The first Node/Process/Facility on a branch (and in the case of a primary landfill, the only node on a branch). These will be yellow-coloured nodes other than where landfills are placed at the root/primary level.
- **Sub-level (Secondary, Tertiary, etc.) Node/Process/Facility** – The second, third, fourth etc. Node/Process/Facility on a branch.
- **Parent Node/Process/Facility** – A node on the tree from which there is an output or “child”. For example, most root facilities will be parents to other facilities, other than facilities such as primary landfills, where there would be no further outputs.
- **Child Node/Process/Facility** – A node on the tree which is an output of another Node/Process/Facility.

An example of naming in action

In many cases an element of the waste movement tree can be more than one of the items above:

Figure 33. Terminology example.



The landfill ★ as the first branch in the tree is a root or primary level node, as well as a leaf level node/process/facility; it is neither a parent nor a child.

The incinerator with energy recovery ★ is a tertiary level node; it is child to the RDF node and grandchild to the MRF. It is another leaf level facility as it sits at the end of the branch that it is part of.

Appendix 1 – Facility/process type, Waste input type, Waste output type and Materials tables

Facility/process type	Waste stream input types available	Tonnage input recording location
All incinerators (Qu54-55), All landfill (Qu51-53), RDF, MHT, Autoclave or similar (Qu56), Advanced thermal treatment (Qu57), Mechanical Biological treatment (Qu59), Residual waste MRF (Qu64), Anaerobic or Aerobic Digestion Whole waste (Qu60), Other method (Qu65)	Residual waste only	Waste details box (total tonnage input) if a Primary node. Materials box (broken down by material) if output (direct or indirect) from any of the following facility/process types: Organic composting facilities (Qu61-63), Reprocessor – recycling (Qu19), Reuse (Qu35), Exporter – recycling (Qu19), Exporter - reuse (Qu35)
Materials Recovery Facility (Qu58)	Commingled recyclates only	Waste details box (total tonnage input) if a Primary node. Materials box (broken down by material) if output (direct or indirect) from any of the following facility/process types*: Organic composting facilities (Qu61-63), Reprocessor – recycling (Qu19), Reuse (Qu35), Exporter – recycling (Qu19), Exporter – reuse (Qu35)
Anaerobic or Aerobic Digestion Segregated (Qu61), In-vessel composting (Qu62), Windrow or other composting (Qu63)	Food waste, Green waste, Mixed green and food waste	Materials box (broken down by material)
Reprocessor – recycling (Qu19), Exporter – recycling (Qu19), Reuse (Qu35), Exporter – reuse (Qu35)	Source segregated recyclate, Food waste, Green waste, Mixed green and food waste	Materials box (broken down by material)
Material from WDA (<i>available to WCAs only</i>)	Residual waste	Waste details box (total tonnage input)

*Note – although it is possible to record a clean MRF taking output from the listed facility types, these are not output-input combinations we would expect to see.

Facility/process type the output is created from	Output Waste types available
All landfills, final destinations	None
All incinerators	Contamination (process rejects), Contamination (gate rejects), Incinerator bottom ash, Process loss, Moisture loss, Treatment unknown, Incinerator fly ash
RDF, autoclave, MHT or similar	Dry recyclate, Contamination (process rejects), Contamination (gate rejects), Refuse-derived fuel, Process loss, Moisture loss, Treatment unknown
Advanced thermal treatment	Dry recyclate, Contamination (process rejects), Contamination (gate rejects), Process loss, Moisture loss, Treatment unknown, Char/slag**
MBT	Dry recyclate, Contamination (process rejects), Contamination (gate rejects), Compost-like output, Refuse-derived fuel, Process loss, Treatment unknown, Moisture loss
Residual MRF and anaerobic digestion (whole residual)	Dry recyclate, Contamination (process rejects), Contamination (gate rejects), Compost-like output, Process loss, Moisture loss, Treatment unknown
Clean MRF	Dry recyclate, Contamination (process rejects), Contamination (gate rejects), Process loss, Moisture loss, Treatment unknown
Other method, Reprocessor - recycling, Reuse, Exporter - recycling, Exporter - reuse	Dry recyclate, Composting, Contamination (process rejects), Contamination (gate rejects), Compost-like output, Refuse-derived fuel, Incinerator bottom ash, Process loss, Moisture loss, Treatment unknown*, Incinerator fly ash, Char/slag**
Anaerobic or Aerobic digestion (segregated), In-vessel composting and Windrow or other composting	Composting, Contamination (process rejects), Contamination (gate rejects), Compost-like output, Process loss, Moisture loss, Treatment unknown**
Material from WDA (WCAs only)	Dry recyclate, Composting, Compost-like output

*Note: "Treatment unknown", "Refuse-derived fuel", "Incinerator bottom ash" and "Incinerator fly ash" should not be used directly following the following facility types: Reprocessor-recycling, Reuse, Exporter (recycling), Exporter (reuse), Anaerobic digestion (segregated), In-vessel composting and Windrow or other composting.

** Note: "Char/slag" should not be used by English LAs.

Material	
Green glass	Post-consumer, non-automotive batteries
Brown glass	Car tyres
Clear glass	Van tyres
Mixed glass	Large vehicle tyres
Paper	Mixed tyres
Card	Furniture
Books	Rubble
Mixed paper & card	Soil
Steel cans	Plasterboard
Aluminium cans	Vegetable Oil
Mixed cans	Mineral Oil
Plastics	Aluminium foil
Mixed Plastic Bottles	Aerosols
PET [1]	Bric-a-brac
HDPE [2]	Composite food and beverage cartons
PVC [3]	Fire extinguishers
LDPE [4]	Gas bottles
PP [5]	Ink & toner cartridges
PS [6]	Mattresses
OTHER PLASTICS [7]	Paint
Green garden waste only	Textiles & footwear
Waste food only	Textiles only
Mixed garden and food waste	Footwear only
Wood for composting	Carpets
Other compostable waste	Video tapes, DVDs and CDs
Wood	Yellow Pages
Chipboard and mdf	Other materials
Composite wood materials	Bicycles
WEEE - Large Domestic Appliances	Commingle materials
WEEE - Small Domestic Appliances	Carpets
WEEE - TVs and Monitors	Absorbent Hygiene Products (AHP)
WEEE - Fluorescent tubes and other light bulbs	Aggregates*
WEEE - Fridges & Freezers	Incinerator Bottom Ash
Other Scrap metal	Metals from Incinerator Bottom Ash
Automotive batteries	

*Note: The material category Aggregates is **not** to be used by English local authorities.

Appendix 2 – Background to Question 100

When and why Qu100 was introduced

Question 100 (Qu100) replaced an earlier set of questions in WasteDataFlow which covered the management of waste (treatment, disposal and transfer to reprocessors). It has a different layout from those older WDF questions.

The Qu100 interface was first introduced to a trial group of Welsh local authorities (LAs) for the October to December 2011 reporting period. After a gradual roll-out across Welsh LAs, for whom it became mandatory from April 2013, it was introduced in Scotland in April 2013 and became mandatory for all Scottish LAs from the October to December 2013 reporting period.

Qu100 was opened to a selection of English LAs (UAs and “families” of WDAs and their WCAs) on a voluntary basis starting with data for April to June 2014 (2014-15 Quarter 1), with additional groups of LAs volunteering from a starting point of data for October to December 2014 (2014-15 Quarter 3) or January to March 2015 (2014-15 Quarter 4). All English LAs moved to Qu100 for data entry from Qtr1 2015-16 (April – June 2015).

Questions replaced by Qu100

From 2015-16 Qtr1 (April – June) Qu100 replaced the following waste management questions in WasteDataFlow for all English LAs:

- Qu19, Qu19a (Recycling Destination);
- Qu35 (Reuse Destination);
- Qu51-53 (Landfill);
- Qu54-57 (Incineration);
- Qu58 (Clean Material Recycling Facility);
- Qu59 (Mechanical Biological Treatment);
- Qu60-61 (Anaerobic Digestion);
- Qu62-63 (Composting);
- Qu64 (Residual Material Recycling Facility);
- Qu65 (Other method); and
- Qu70 (Recyclates separated from residual waste).

In addition, completing the optional “source split” section found on the root node of each branch replaces any previous use of Qu69 (Household/non-household split).