

For the April 2009 reporting period onwards there are some changes to WasteDataFlow questions to allow the materials going to recycling following treatment of the residual waste stream to be included in the Mass Balance

### Recycling from the Residual Stream

Currently more recycling is being recovered from the residual stream than in previous years. So recording this has become important to ensure the completeness of the data and the accuracy of the NILAS mass balance.

Within WDF question number 19 records the materials collected for recycling (by type) going to each recycling/reprocessor facility. The assumption that the figures in Qu19 are from the 'collected' stream can be used in balancing checks and performance and analytical reports.

The solution therefore needed to keep the figures 'recycling from residual' separate from the 'collected for recycling'. We looked at adding fields into Qu19, but this was thought to make Qu19 too complicated. So the solution chosen was to create a copy of Qu19 that we have imaginatively named Qu19a.

This question 19a operates in exactly the same way as Qu19 but should be used to record recycled material recovered by treatment of the residual waste stream. In effect this means those tonnages entered as recycling output in questions 54 to 65 (excluding qu58 the main MRF question which already goes into Qu19).

### What is the effect of answering Qu19a

Currently only recycle from waste collected for recycling (Qu19) is used in the mass balance. The mass balance will now include waste sent for recycling that has been extracted from residual waste following treatment. This waste will contribute to  $Div_T$  and  $Div_B$  in the mass balance. This means that it will affect the RB% too (waste sent for landfill is multiplied by the RB% to calculate BMW landfilled.)

Inclusion of the recyclable materials in the mass balance will affect individual authorities differently depending on the quantities of residual waste recycled and the biodegradability of that material.

The main change is to the RB% (see table at the end of this document) The Qu19a rejects will also be used in a part of the PI calculation.

Do I need to answer Qu19a

In order to ensure consistency the NIEA have made it compulsory that District Councils in Northern Ireland answer Qu19a if they answer any of the residual waste treatment questions.

Recycling Materials Flow, Qu70

The tonnages in Qu19a will give the total of material weights going to individual reprocessors. Qu70 which was introduced last scheme year has been expanded so that you can track the tonnage of each material sent to recycling from each of questions 56, 57, 59, 60, 64 and 65. . Questions 54 and 55 have a metal output that could be recycled but as this is only one material type it is not included in Qu70.

Do I need to answer Qu70

NIEA have made it compulsory for District Councils to answer Q70, if they input data into any of the residual waste treatment questions.

### Example Mass Balance accounting for Qu19a

	Residual Municipal Waste	Remains the same	
MSW <sub>T</sub>	Total Collected Municipal Waste	Remains the same	Total MSW Arising (total residual plus collected for recycling and re-use) - rubble Recycling and reuse tonnages from Q10, 11, 12, 16, 17, 18, 33, 34 (including collection rejects) plus residual waste from Q23 - Rubble
	BMW %	Remains the same	Northern Ireland figure under NILAS Deemed percentage of biodegradable component of municipal waste in Northern Ireland.
BMW <sub>T</sub>	Total Biodegradable Municipal Waste	Remains the same	$BMW\% \times MSW_T$
Div <sub>T</sub>	Total Collected Municipal Waste Diverted	Increased by all of Qu19a	Total Net Diversion (sent for recycling or reuse, Q19 & Q35. See Material Summary cell Q38) Recycling & Reuse tonnages sent to final destination Q19 & 35 minus any tonnage rejected at the gate of the reprocessor
Div <sub>B</sub>	Biodegradable Content of Diverted Waste	Increased by biodegradable quantity of Qu19a.	Nominal biodegradable content of each material (see Material Summary) multiplied against the Net total collected municipal waste diverted in Q19 & 35 (Div <sub>T</sub> ).
Res <sub>T</sub>	Total Residual Waste	Reduced by all Qu19a	$MSW_T - Div_T$
Res <sub>B</sub>	Biodegradable Content of Residual Waste	Reduced by biodegradable quantity of Qu19a	$BMW_T - Div_B$
RB%	Residual Biodegradable Percentage	Change depends on Qu19a biodegradable element	$(Res_B / Res_T) \times 100$
L <sub>D</sub>	Directly Landfilled Municipal Waste	Remains the same	Tonnage of waste sent directly to landfill Q51-53
L <sub>Th</sub>	Landfilled after Thermal Treatment	Remains the same	Tonnage of Incinerator Bottom Ash sent to landfill Q54 & 55 and tonnage of char/slag sent to landfill Q57
L <sub>MBT</sub>	Landfilled after MBT	Remains the same	Tonnage sent to landfill Q59
MBT <sub>RF</sub>	MBT Reduction Factor	1	Site-specific factor by which MBT reduces RB%
L <sub>OT</sub>	Landfilled after Other Treatment	Remains the same	Output tonnage of waste sent to landfill from Q56, 60, 64, 65. Residue to landfill Q61, 62 & 63.
Div <sub>R</sub>	Rejected Diverted	Increase by Qu19a rejects	Recycling and reuse reject tonnages from Q10, 11, 12, 16, 17, 33, 34. Rejects at the gate of the reprocessor Q19 & 35. Plus MRF rejects to landfill (Q58)
BMW <sub>L</sub>	Biodegradable Municipal Waste Landfilled	(same x RB%) + (same x same) + (same x (RB% x same)) + (same x RB%) + (higher x RB%)	$(L_D \times RB\%) + (L_{Th} \times 0) + (L_{MBT} \times (RB\% \times MBT_{RF})) + (L_{OT} \times RB\%) + (Div_R \times RB\%)$