



waste data interrogator

A flexible search and report tool for waste data from operator monitoring returns from England

Introduction

The Waste Data Interrogator is a comprehensive database of information about the types and quantities of waste taken for transfer, treatment or disposal to sites permitted by the Environment Agency in England.

There is so much information in the underlying data sets that summarising and publishing it in tables would not do it justice. It would also be extremely complicated for any user to manipulate. This interrogator tool, however, allows you, the user, to run your own queries, and presents the data to you in the way you choose.

The flexibility which this solution provides helps 'power users' (those who need to download and analyse large amounts of data) and users with specific one-off queries. There is no limit to the number of queries you can run.

The tool is designed primarily for use by local authorities and others carrying out research on waste. It offers the opportunity to extract information down to individual sites, waste management activities, and single European Waste Catalogue (EWC) categories if required. You can group reports by geographic area, waste facility or waste type. You can control the level of detail and the layout of results tables.

The tool also provides some standard reports and the ability to create your own reports.

Information for Wales

On 1 April 2013 the responsibilities for environmental regulation were split between the Environment Agency (for England) and Natural Resources Wales (for Wales).

This means that the Environment Agency will be providing data from 2013 for England only. Natural Resources Wales (NRW) will provide data for Wales.

Part 1 explains the main menu and options available.

Part 2 is a user manual. It gives you a step-by-step, button-by-button explanation of how the interrogator works, illustrated by screen-shots of selections and examples of results obtained.

Part 3 sets out a series of worked examples. It starts by showing you a simple query and builds to more complex and detailed results set out in table format.

Part 4 shows you how the standard and WPA reports work with some examples and how to save your own output.

Part 5 sets out the limitations of data collected through site input returns; explains the different waste classifications and facility types; and provides a list of abbreviations.

Use of the data

A licence will be provided with this interrogator. Please note all the requirements before you use the data.

Part 1: The Main Menu

This dataset has been published every year in an interrogatable format on a cd since 2006. We also have provided the datasets as web downloads. We have updated and improved the format and output of the reports available. The new main menu is set out below:



The screenshot shows the '2013 Waste Returns' website. The header includes 'Waste Data Interrogator & Reporting Tool' and 'Copyright (C) Environment Agency 2014'. A navigation bar contains links: Home, Standard Reports, WPA Reports, Interrogator, My Reports, Legal Notice, and About. The main content area is titled 'Waste Data Interrogator & Reporting Tool' and contains a welcome message, a 'Useful Links' sidebar, and a footer with the slogan 'creating a better place'.

2013 Waste Returns
Waste Data Interrogator & Reporting Tool
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Home Standard Reports WPA Reports Interrogator My Reports Legal Notice About

WDI Home

Useful Links
Environment Agency

Waste Data Interrogator & Reporting Tool

Welcome to the Environment Agency's combined Waste Data Interrogator and reporting tool (WDI). It is designed primarily to provide data for waste planners and waste management professionals for undertaking strategic waste management assessments and general waste flow analysis.

The data in the WDI contains details of all waste deposited and removed from permitted waste facilities in England, including hazardous waste, but not waste from exempted facilities such as landspreading or exempt scrap yards. Information for Wales is now provided by Natural Resources Wales (NRW).

The WDI is now supplied with bespoke waste planning reports as well as the fully functional waste interrogator provided in previous years. You can create your own reports as well as drill down into the data to reveal greater detail on waste movements and deposits. You can also save the reports you have created in your own custom folder tab in 'My Reports'

There is also a hazardous waste interrogator for England (separately available) which provides greater detail of hazardous waste arisings and deposits as recorded in the Environment Agency's hazardous waste consignment tracking database. Hazardous waste information for Wales is now provided by NRW.

Please make sure you are fully aware of the legal notice and disclaimer before using the information. This data forms part of the public register provided by the Environment Agency under various statutes and environmental legislation including the Freedom of Information Act 2000.

creating a better place

Home Page

This gives an overview of why we produce the interrogator tool and provides some useful links on the left hand side which includes the summarised waste data on our web-site.

Standard Reports

You can run some configurable standard reports with variables of reporting area and site category. We also provide some one-click reports at national level.

WPA Reports

Reports at WPA level with many different options to produce a tailored output. Variables include waste received and removed by site category, with additional reporting columns such as site details, site type, EWC and SOC levels.

Interrogator

The interrogator tool itself. Details on how it works can be found in Part 2 with a worked example in Part 3 of this guide.

My Reports

You can save the output from the interrogator here.

Legal Notice

This gives you information about how you can use this data

About

This section tells you how you can find out if we have updated the data since its initial release.

Part 2: User Manual

General

Select **Interrogator** from the Main Menu.

You control your selection by pull-down lists, clickable tick-boxes and 'radio buttons' (which is where you choose one item from a given group). You are shown a single screen presented in two panes. You use the left hand pane ('DATA OPTIONS') to select which basic types of data you want to be included in your query. You use the right-hand pane ('REPORT LAYOUT OPTIONS') to specify how much of that data is displayed, how much detail is included and how the report tables are laid out.

For example, set the query in the left-hand pane to request data for a region (say North West), and use the right-hand pane to set the output you'd like to see – say show the results at regional level, sub-regional level (county), Wastes Planning Authority (WPA) level, or district level.

You can set the number format in your output with either a thousand separator as a comma or not in the OPTIONS on the left hand side.

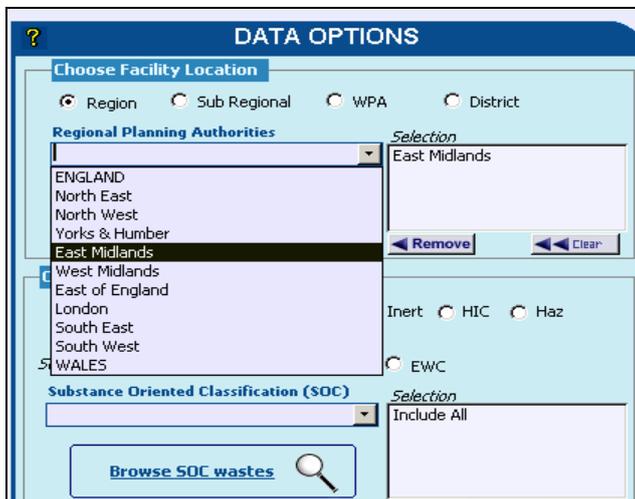
The screenshot displays the 'Waste Data Interrogator & Reporting Tool' interface. The title bar includes 'Copyright (C) Environment Agency 2010' and the 'Agency' logo. The navigation menu contains 'Home', 'Standard Reports', 'WPA Reports', 'Interrogator', 'My Reports', 'Legal Notice', 'About', and 'Exit'. The main interface is divided into two primary panes: 'DATA OPTIONS' on the left and 'REPORT LAYOUT OPTIONS' on the right. A sidebar on the far left is labeled 'Interrogator' and contains an 'OPTIONS' section with a 'default number format' label. The 'DATA OPTIONS' pane includes three sections: 'Choose Facility Location' with radio buttons for Region, Sub Regional, WPA, and District, and a 'Regional Planning Authorities' dropdown; 'Choose Waste Types' with radio buttons for 'All categories or: Inert, HIC, Haz' and a 'Substance Oriented Classification (SOC)' dropdown; and 'Choose Facility Type' with radio buttons for 'By Site Category' and 'By Facility Type'. Each section has a search button and a 'Selection' list. The 'REPORT LAYOUT OPTIONS' pane includes 'Report on Waste Facilities by:' with radio buttons for 'Waste received', 'Waste removed', and 'Number of facilities'; 'Select Data to Display' with 'Show Facility Location By' and 'Show Waste Type By' sections; 'Other Selections' with checkboxes for 'Site details', 'Waste Origin', and 'Waste Fates'; and 'Options for Table Layout' with a 'Dont Show' checkbox and a section to 'Select one of these items to display as columns' with dropdowns for 'Facility Area by:', 'Waste by:', and 'Facility by:'. At the bottom, there are buttons for 'View data', 'Print report', 'Export data', and 'Save'.

Choosing your data options

1. Site location

If you are interested in information on a specific area you can use the radio buttons under 'Choose Facility Location'¹ to specify the geographical area(s) you'd like a report on.

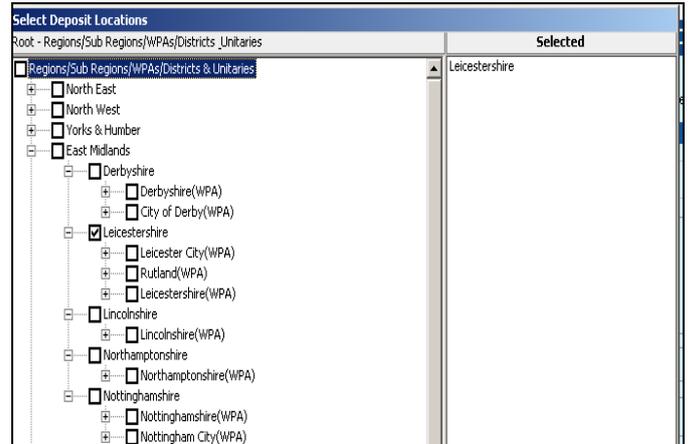
You can select the area(s) you want to include in your query by scrolling down and clicking on the pull-down list. Or you can type the first part of the area name into the selection box and the Interrogator will go straight to the part of the list where it appears. Click the area(s) you wish to select. Your chosen area(s) will appear in the window on the right.



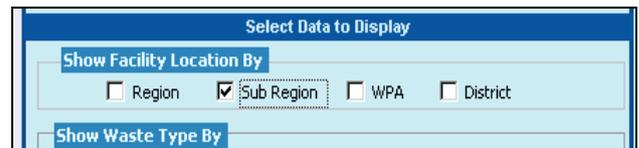
The 'Browse locations' button presents you with a hierarchical system of selection. This is handy if you're not sure of the individual districts within a region or county, and useful if you want to make a composite selection.

Click on the magnifying glass to bring up a graphical view of locations, then check the box(es) for the region(s) you want. Or you can click the + sign to show its sub-regions (counties) or districts/unitary authorities. You can then check the boxes that appear for these constituent authorities to select the precise areas you want information for.

In the example shown below Leicestershire has been chosen.



Once you have selected the area(s) you can control how that data is displayed by the selection you make in the right-hand 'REPORT LAYOUT OPTIONS' pane.



If you've chosen to get data for a single region and you check the box to show facility location by 'Region', the output table will return a single data set. If you check the 'Sub Region' box the query will return data for each sub-region within the selected region.

You can also choose to display data at WPA or district level. If you check more than one of these boxes the results table will show each of your selections in a separate column.

In this example both Sub-Region and WPA are shown. You can get data for individual sites by clicking the 'Include Site details' check box in the 'Other Selections' row.

Facility RPA	Facility Sub Reg	Facility WPA	SOC 1	Hazardous	Hhold/n
East Midlands	Derbyshire	City of Derby WPA	01-Chemical compound wastes	503.612	7
East Midlands	Derbyshire	City of Derby WPA	02-Chemical preparation wastes	360.089	
East Midlands	Derbyshire	City of Derby WPA	03-Other chemical wastes	19.21	
East Midlands	Derbyshire	City of Derby WPA	05-Healthcare and biological wastes	14.79	
East Midlands	Derbyshire	City of Derby WPA	06-Metallic wastes		432
East Midlands	Derbyshire	City of Derby WPA	07-Non-metallic wastes	108.323	143
East Midlands	Derbyshire	City of Derby WPA	08-Discarded equipment	7359.859	32
East Midlands	Derbyshire	City of Derby WPA	09-Animal and vegetal wastes		260
East Midlands	Derbyshire	City of Derby WPA	10-Mixed ordinary wastes	12.846	2005
East Midlands	Derbyshire	City of Derby WPA	12-Mineral wastes	2351	
East Midlands	Derbyshire	Derbyshire WPA	01-Chemical compound wastes	42086.774	63

2. Waste Type

Operators are required to provide information in their site input returns on the types of waste they accept. The majority of operators now use EWC categories to identify waste type. There are more than 900 individual categories which can be grouped into hierarchical systems for reporting purposes.

The most basic of these systems uses three categories:

(1) inert/construction and demolition (sometimes referred to as C&D, or CDEW); (2) household/industrial and commercial, and (3) hazardous.

We have been using this for reporting purposes since 1998/9. It has been widely used by planners and in setting waste strategy targets.

We now have access to more detailed data and we can use more sophisticated classification systems. We use Substance-Oriented Classification (SOC) as the main reporting format but the interrogator also allows you to specify EWC.

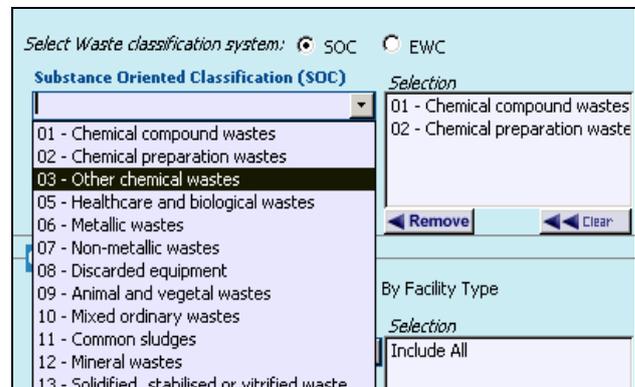
You choose the waste type classification system for your report using the radio buttons under the 'Choose Waste Types' header. The first line in the selection allows you to choose reports which cover 'all' waste or one of the three 'basic' waste categories.

If you click the radio button for 'Inert' or 'Hazardous' waste, all your subsequent choices of location, facility type, and detailed waste category will control how the data is presented, but the only records included in the query will be for inert or hazardous waste respectively.



The second line in the selection pane can be used independently of the first. This allows you to choose the waste classification system you want to appear in your report.

Your choice of radio button will change the selection in the pull-down box. For example, if you select SOC you populate the pull-down box with the 13 standard SOC level 1 categories. You can select as many or as few as you wish. The categories you've chosen appear in the selection window on the right, where you can make further modifications if necessary. In the example below 'Chemical compound wastes' and 'Chemical preparation wastes' have been selected from level 1 of the substance oriented classification.

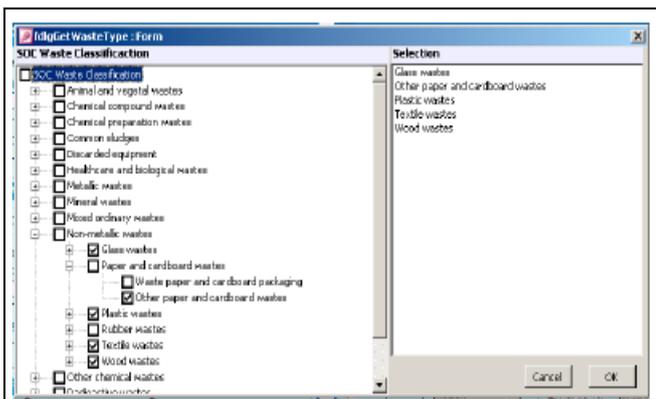


If you click the EWC radio button you populate the pull-down menu with a list of EWC waste types, ordered by Chapter.

Using the browser

You can use the browse facility together with your radio button choice to provide a more sophisticated selection by waste type. When you click the SOC radio button the magnifying glass brings up a hierarchical selection matrix based on the 13 top-level SOC categories. You can then use the + signs to expand your selection options in order to choose categories at the next, more detailed, level. You can then select the waste types you want information for by clicking the check-boxes.

The hierarchy allows you to create complex queries using the SOC classification. In the example shown we are seeking information on recyclable materials and have chosen glass, plastic, textiles and wood, together with other paper and cardboard wastes from the non-metallic wastes SOC category. We've excluded 'Waste paper and cardboard packaging' and 'Rubber wastes'.



Reporting options

You can use the 'REPORT LAYOUT OPTIONS' pane on the right to specify the level of detail you'd like in the results table, within the parameters you've already set in the 'Data Options' pane. There are a series of checkboxes under the 'Show Waste Type By' header that allow you to do this.

The selections available in the 'REPORT LAYOUT OPTIONS' pane change to reflect the query you've set in the data pane. For example, if you've chosen SOC in 'Data Options' you can display the data in the output table showing the results broken down to SOC level 1, 2 or 3. You can show all three in separate columns by checking all the boxes or you can choose any combination of them. In the example shown we've chosen to show both SOC levels 1 and 2 in our results table.



You can also use the checkboxes on the right of the pane to display additional information about your selection, such as which basic waste category ('Category') it falls into or the form of the waste ('Waste form') (solid, liquid, sludge, etc).

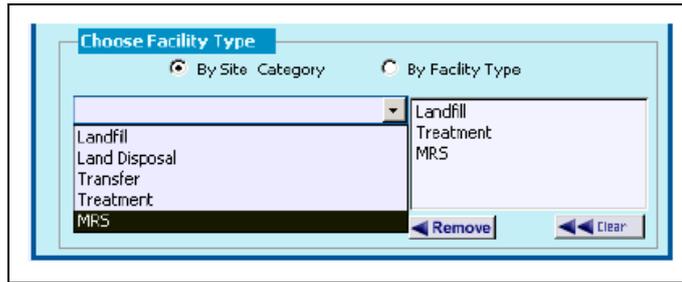
Facility	Sub Region	SOC 1	SOC 2	Landfill	Treatment
Derbyshire		01-Chemical co	Acid, alkalies or salts		2930.3
Derbyshire		01-Chemical co	Spent chemical catalysts		178
Derbyshire		01-Chemical co	Spent solvents		6729.1
Derbyshire		01-Chemical co	Used oils		7621.7
Derbyshire		02-Chemical pri	Mixed chemical wastes		43.3
Derbyshire		02-Chemical pri	Off-specification chemical wastes	343.06	2794.1
Derbyshire		03-Other chemi	Chemical deposits and residues	5.4	33362.6
Derbyshire		03-Other chemi	Industrial effluent sludges	562.3	1719
Derbyshire		06-Metallic was	Ferrous metal waste and scrap		23
Derbyshire		06-Metallic was	Mixed metal wastes		131.6

3. Facility type

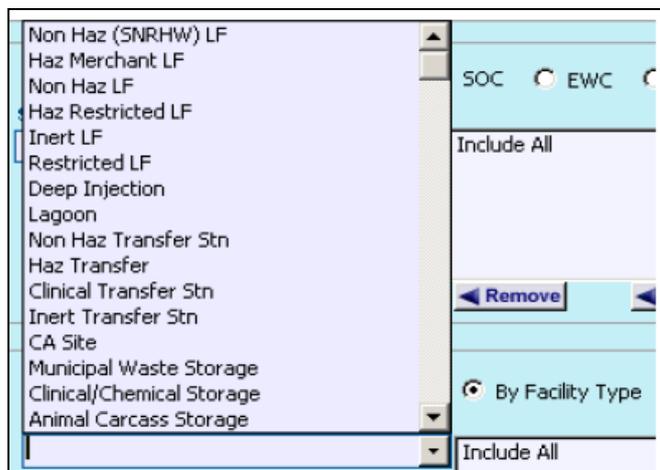
We record input data against a set of facility types. These are based on categories in the regulations for permitting, charging and inspection, and are known within the Environment Agency as 'A' codes.

We've reported site input data using these categories since 1998/9, which gives continuity and some potential for comparability/trend analysis. The classification is currently in transition as we are changing our permitting systems to reflect the Environmental Permitting Regulations 2007 (EPR). We use a set of 'A' codes which were modified to reflect changes introduced by the Landfill Directive in 2004/5 (when new classes of landfill site were introduced). In the future there will be more changes to reflect the impact of EPR.

Choose the facility types you would like information for using the radio buttons under the 'Choose Facility Type' header. You can choose 'By Site Category' or 'By Facility Type'. 'Site category' offers a generic listing of facilities, grouped according to the type of activity undertaken on site, for example grouping all landfill together. Click on the drop-down list to select the category(s) you want information for. Your selection appears in the right-hand window. In the example shown below, landfill, treatment and metal recycling have been chosen.

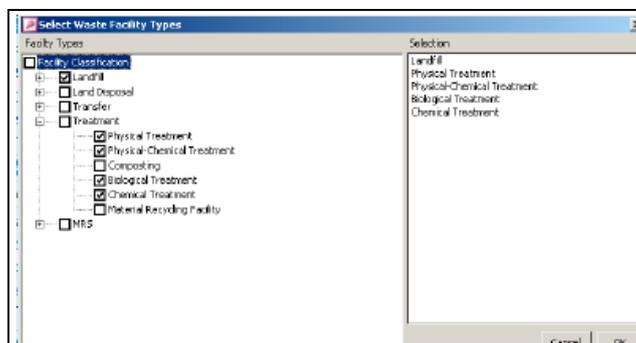


If you click the 'By Facility Type' button you will get a longer selection list. This allows you to specify the facilities to be reported at the highest possible level of disaggregation (individual) from the available data.



Using the browser

As with the 'Location' and 'Waste Type' selection tools, the browser button brings up a pick list that allows more precise selection, and the selection of categories from different levels of the hierarchy. The example below will produce information on all landfill inputs together with inputs to physical, physico-chemical, biological and chemical treatment plants.



Choosing report layout options

1. Select type of data required

You can produce reports using three different sets of numerical data: 'Waste received' (site inputs); 'Waste removed' (outputs); and 'Number of facilities'.



i) Waste received

The default setting is tonnes of 'Waste received'. When you choose this option your queries will produce results showing site inputs in tonnes. 'Waste received' is a complete dataset and shows all deposits (inputs) at waste management facilities permitted by the Environment Agency. This data is part of a time series going back to 1998/9 and can be used for time series and trend analysis. Information on waste origin is a sub-set of 'Waste received'.

ii) Waste removed

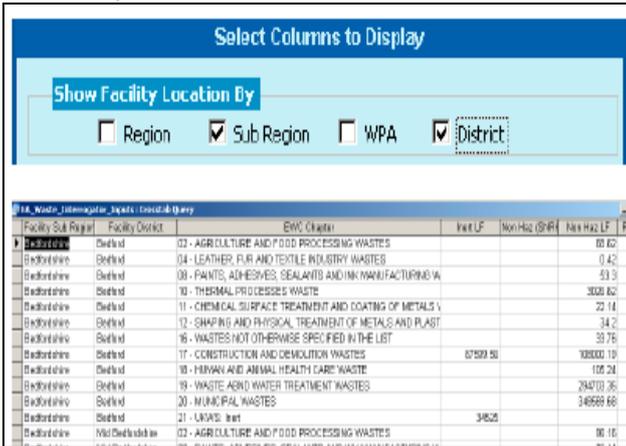
The interrogator also contains information on the tonnages of waste removed from permitted facilities (now also required). Waste removed is not equivalent to waste inputs. In general it is limited to transfer and treatment activities. We have less detailed information on waste removed, as we cannot quality-check the data, and we only have robust information from 2005, so effectively this dataset is less robust than site inputs. It is the basis for reports on waste outputs and fates.

iii) Number of facilities

In addition to tonnage data (inputs and outputs) the database can also provide information on numbers of facilities. When you choose 'Number of facilities' your query will return lists showing counts of the numbers of facilities of the type(s) you've selected in the geographical area(s) you've selected. These queries will not return any information on waste type.

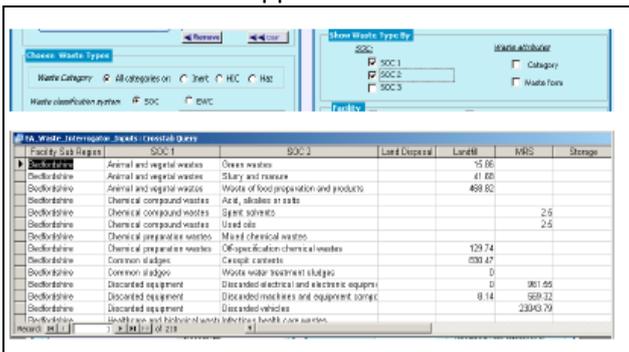
2. Select columns to display

The central section of the right-hand pane allows you to control the level of detail to display. You can choose the geographical level you want to show in the results table by using the check-boxes in the 'Show Facility Location By' row. If you want the query to return more than one level, for example 'Sub Region' (county) and 'District', check both boxes. The county and district returns will appear in separate columns as shown in the example below.



3. Waste type

The 'Show Waste Type By' section adapts to reflect the waste classification system you've chosen in the left-hand pane. If you've selected SOC the display options available are SOC 1, SOC 2 and SOC 3, representing the three standard groupings. If you select more than one level the results will appear in different columns.



If you've chosen EWC, the display options available are EWC Chapter (2-figure), EWC Sub-chapter (4-figure), and EWC Code (6-figure). This allows you to access data for individual EWC categories.



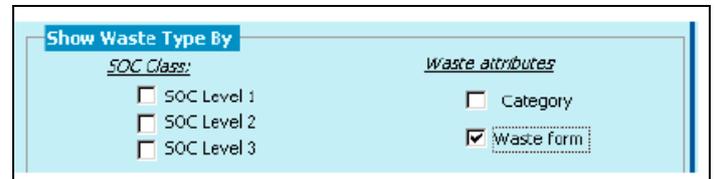
Basic Waste Category

You can choose to display the basic waste category by ticking the 'Category' box under 'Waste attributes' on the right of the screen. This will insert an additional column in your results table, showing which of the three basic waste categories the waste types selected in your query belong to (inert/C&D; household/Industrial/commercial; or hazardous). In the example below tonnages of SOC level 2 waste types for sub regions are shown, with an additional column identifying the Basic Waste Category.

Facility Sub Region	Basic Waste Cat	SOC 2	Tonnes F
Nottinghamshire	Hhold/Ind/Com	Combustion wastes	6118
Northamptonshire	Inert/C+D	Naturally occurring minerals	4886
Leicestershire	Inert/C+D	Naturally occurring minerals	4192
Nottinghamshire	Inert/C+D	Naturally occurring minerals	3848
Northamptonshire	Hhold/Ind/Com	Sorting residues	3567
Nottinghamshire	Hhold/Ind/Com	Household and similar wastes	3446
Lincolnshire	Hhold/Ind/Com	Waste water treatment sludges	3317
Leicestershire	Hhold/Ind/Com	Household and similar wastes	2938
Lincolnshire	Hhold/Ind/Com	Waste of food preparation and products	2792
Derbyshire	Inert/C+D	Construction and demolition wastes	2584

Waste form

You can also choose to display the 'Waste form' – solid, liquid, sludge, etc – by ticking the relevant box on the right of the pane. This will display the information in an additional column in your results table.



4. Facility

If you've selected 'Include All' or several categories or types of facility in the left-hand pane, you can also use the 'By Site Category' and 'By Facility Type' checkboxes in the 'Choose Facility Type' row. This will then include a breakdown of site types in the results table.

Facility RPA	Site Category	Tonnes Received
South East	Landfill	949196
London	Transfer	707736
East of England	Landfill	662456
North West	Transfer	58199
South East	Transfer	541582
Yorks & Humber	Landfill	526159
South East	Treatment	524953
North West	Treatment	522272
North West	Landfill	517612
East of England	Transfer	442530
Yorks & Humber	Transfer	437136

The example below shows part of the results table for waste removed.

SOC 1	Fate	East Midlands
01-Chemical compound wastes	Incinerator	212.319
01-Chemical compound wastes	Landfill	1453.625
01-Chemical compound wastes	Recovery	35536.736
01-Chemical compound wastes	Transfer	1000.446
01-Chemical compound wastes	Treatment	1486.506
01-Chemical compound wastes	Unknown	6686.375
02-Chemical preparation wastes	Incinerator	170.920
02-Chemical preparation wastes	Landfill	183.308
02-Chemical preparation wastes	Recovery	1472.295
02-Chemical preparation wastes	Transfer	170.23

Facility RPA	Facility Type	Tonnes Received
East Midlands	Non-Haz Waste Transfer	17705
East Midlands	Non Hazardous LF	15641
East Midlands	Inert LF	14072
East Midlands	Metal Recycling	10605
East Midlands	Physical Treatment	7566
East Midlands	Non Haz (SNRHW) LF	6502
East Midlands	Physical-Chemical Treatment	5974
East Midlands	Haz Waste Transfer	5916
East Midlands	Restricted LF	589
East Midlands	Biological Treatment	5431

6. Table layout options

The radio buttons and pull-down lists in the lower section of the right-hand pane give you more control over formatting your results tables.

When you click a radio button and select one of the pull-down categories you create a table from the data you've chosen using the selected category as the column headers. The example below shows how you can transform the table above – showing waste type, fate and quantity – into something that is more useful and easier to understand.

In this case the 'Waste output fates' button was selected. This reordered the data into a table with fates set out in columns.

5. Other selections

'Include Site details'

When you tick this box you produce reports listing annual inputs or outputs for individual sites. The site is identified by its name. The example below shows part of a list of sites.

Facility Sub Region	Site Name	Operator	Permit Type
Northamptonshire	Sidgate Lane Landfill	SITA UK Limited	LO4 : Non Hazardous LF
Lincolnshire	Mobile Plant	Whites Recycling Ltd	SR2010 No4: Mobile plant for land
Derbyshire	ERIN LANDFILL	Vividor Limited	LO2 : Non Haz (SNRHW) LF
Leicestershire	COTESBACH LANDFILL	Lafarge Aggregates Ltd	LO2 : Non Haz (SNRHW) LF
Nottinghamshire	Sims Metal	Sims Group U K Ltd	A20 : Metal Recycling Site (mixed)
Nottinghamshire	Recycling & Transfer Station	Wastecycle Ltd	A16 : Physical Treatment Facility
Nottinghamshire	Staple Quarry Landfill Site	Waste Recycling Limited	LO4 : Non Hazardous LF
Nottinghamshire	Cottam Ash Lagoons	EDF Energy (Cottam Power) Ltd	LO7 : Restricted LF
Lincolnshire	Bourne Effluent Treatment Pla	Christian Salvesen Food Services Ltd	A23 : Biological Treatment Facility
Leicestershire	NEW ALBION LANDFILL SITE	Veolia ES Landfill Limited	LO4 : Non Hazardous LF

SOC 1	Incinerator	Landfill	Recovery	Transfer	Treatment	Unknown
01-Chemical compound wastes	212.319	1453.625	35536.736	1000.446	1486.506	6686.375
02-Chemical preparation wastes	170.920	103.300	1472.295	170.23	1047.013	1073.0
03-Other chemical wastes	34.166	48126.05	22315.953	73.126	25406.458	2325.7
05-Healthcare and biological wastes	579.498	16.67	47.828		737.742	1036.7
06-Metallic wastes		2662.589	640227.513	753.249	761.703	415771.9
07-Non-metallic wastes	24961.044	14633.032	502479.398	6662.126	6452.391	385202
08-Discarded equipment	0.5	1109.61	71222.734	100.252	4906.499	20202.3
09-Animal and vegetal wastes	1.94	20204.381	139784.151	333.12	34116.681	52331.9
10-Mixed ordinary wastes	15411.072	885732.037	190085.015	33940.842	26352.866	529471.9
11-Common sludges			447704.203		57773.158	1172

Waste Fates

(This option is only available when you have selected the 'Waste Removed' radio button)

When you check this box you add a column to your results table showing annual outputs from the selected facilities by fate. Fate data (what happens to waste that leaves the site, and where it is then taken) is recorded on site return forms. Operators are asked to choose from a list limited to six options (incinerator; landfill; recycling; reprocessing; transfer; and unknown).

The 'Options for Table Layout' section of the right-hand pane allows you to choose facility location, waste type and facility type as columns. This adds structure to your results tables. You can use the linked pull-down lists to specify the level of detail in the columns.

Options for Table Layout

Select one of these items to display as columns

Facility Area by: Sub Region
 Origins by: Region

Waste by: Basic Waste Cat

Facility by: Site Category

Waste output fates - Transfer, Treatment, LF, Recycling, Incineration

In the example below, 'Sub Region' has been selected in a query on waste inputs by facility type. It produces a results table with facility types in the rows and sub regions (counties) as column headings.

Facility Type	Bedfordshire
Biological Treatment	11914
CA Site	133677
Car Breaker	109
Chemical Treatment	8
Clinical Transfer Stn	268
Composting	37776
ELV Facility	1723
Haz Transfer	73090
Inert LF	368657
Inert Transfer Stn	184
Lagoon	
Material Recycling Facility	
Metal Recycling	133816
Non Haz (SNRHW) LF	
Non Haz LF	2375957

Similarly, if you click the 'Waste by' radio button and select 'Basic Waste Categories', you produce the following result:

Facility Type	Hazardous
Biological Treatment	17913.1
CA Site	17408.4
Car Breaker	45149.8
Chemical Treatment	23859.8
Clinical Transfer Stn	994.8
Composting	
ELV Facility	17648.9
Haz Transfer	49251.2
Inert LF	

Waste origin

(This option is only available when you report by 'Site category' or 'Facility type' and 'Waste received').

The Operator site return form asks for information on the 'Origins' of the waste that comes into a site. Where data is supplied the entry is normally completed showing the town or county where the waste came from. This is the closest the interrogator can come to providing information on waste arisings.⁵

If you click the 'Origins' radio button and select from the pull-down list you can generate a results table showing where the waste deposited in the area came from.

Facility Type	East Midlands	East of England	London	North West
Non-Hazardous LF				
Haz Restricted LF				
Inert LF		1053.3	575793.53	
Non Haz (SNRHW) LF	10825.75	96144.54	588616.76	
Non Haz LF	11997.86	545220.7	1087517.36	48
Restricted LF				

The query shown below asked for waste deposits broken down by SOC level 1. The results table shows the quantity of waste deposited and the regions it came from. The list of origins – shown as column headings in the results table below – includes Scotland, Northern Ireland and 'Outside UK'.

In the example below, a substantial quantity of waste is shown as 'NOT CODEABLE'. This is the quantity of waste where operators have not completed the field asking for the origin of the waste.

If you also wanted to know where waste originating in the a region was exported to, you would have to run a series of queries for each region and extract the data on waste originating in the region from them.

SOC 1	Hazardous Merch	Hazardous Res	Inert LF	Non Haz (SNRH)	Non Haz
01-Chemical compound	27.76			45.13	
02-Chemical preparatio	0.52			343.06	
03-Other chemical was	878.91			1513.44	12
06-Metallic wastes	1.1			4.66	
07-Non-metallic wastes	14.68			494.71	15
08-Discarded equipmer	1026.9			18.18	
09-Animal and vegetal				600.18	
10-Mixed ordinary wast	26137.059		9691	508342.4	11837
11-Common sludges					
12-Mineral wastes	55546.81	2955.36	1397579.658	138890.821	34

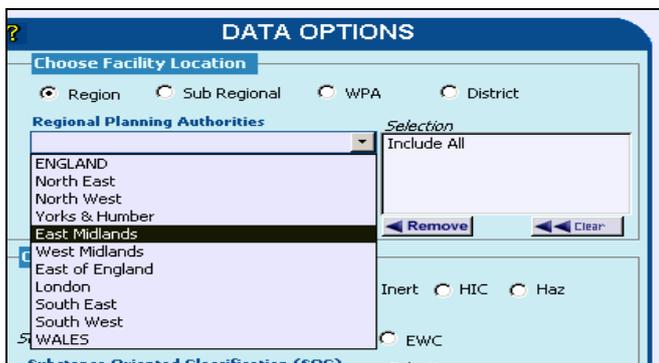
Part 2: Worked Examples

These worked examples are designed to demonstrate how the interrogator works. They are presented in a series of steps that take you from a simple starting point to a complex query. All the examples are based on the 2010 data set. The examples all assume you are starting from the default settings when you open the interrogator.

1. How much waste was deposited in the planning region East Midlands?

On the 'DATA OPTIONS' pane, select **East Midlands** from the pull-down list by clicking on the **down arrow** button. See Figure 1 below:

Figure 1



DATA OPTIONS

Use the data options section to filter out, or limit, the data you want in your report.

By selecting 'East Midlands' the report will only return totals for waste sites in the East Midlands planning region.

You are now ready to view the data. Click on the **View data** button on the lower right-hand side of the interrogator form.

The results will be displayed in a query window (see Figure 2 below) and the total should be **12,478,702** tonnes. As no report layout options are selected, all East Midlands inputs are grouped together in a single row showing total waste inputs.

Figure 2

GROUP Headir	Tonnes Receive
Totals	12478702.109

Don't clear your screen yet – the next example will continue with the same planning region.

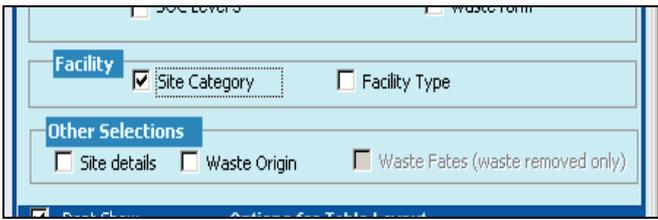
2. East Midlands – deposits by basic site category

In Example 1 we found out how much waste was deposited in East Midlands, but not how the waste was managed. We don't know how much of it went to landfill sites, transfer facilities or treatment plants.

The basic site categories currently in use are: Landfill; Land disposal; Treatment; Transfer; and Metal Recycling Sites (MRS). We can easily get the totals by these categories by one additional click of the mouse.

With East Midlands still selected from the previous example, click on the tick-box entitled **Site Category** in the REPORT LAYOUT OPTIONS pane.

Figure 3



REPORT LAYOUT OPTIONS

The layout options pane is used to set, or limit, what data fields you want on your report.

In the previous example we didn't select anything in this section and the report returned one row of data

Now click on the **View data** button to see the results (Figure 4):

Figure 4

Site Categor	Tonnes Receive
Landfill	4314133.371
Treatment	3282078.83
Transfer	2864659.268
MRS	1151951.449
On/In Land	23404.36

You will see the totals against each basic site category. These will add up to the total calculated in Example 1. Click on the **Export data** button to save this data to an Excel spreadsheet and check the sum totals. Note the total for landfill is **4,314,133** tonnes. We will be working on that next.

To recap, the settings so far are:

- Data Options/Choose Facility Location: Select '**East Midlands**'
- Report Layout Options/Facility: Tick box '**Site Category**'

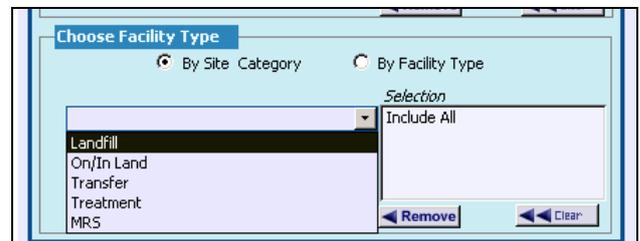
Don't clear your screen yet as the next example will use these settings. Close the report window by clicking on the **X** button.

3. Landfill in East Midlands by landfill type

Now that we know the total amount of waste and how it was managed, we want to look in more detail at landfill activities and associated waste quantities for East Midlands. Make sure you have the same selections from Examples 1 and 2.

To show only landfill sites in East Midlands we will use the **DATA OPTIONS** section to filter the data. In the **Choose Facility Type** box, select **Landfill** from the pull down list. See Figure 5 below:

Figure 5



Now go to the **REPORT LAYOUT OPTIONS** section and click on the Facility Type tick-box in the **Facility** box. See Figure 6 below:

Figure 6



That's it. You can now click on the **View data** button to see the results as shown in Figure 7. The totals should add up to **4,314,133 tonnes**.

Figure 7

Site Categor	Facility Type	Tonnes Receive
Landfill	Non Hazardous LF	1564175.662
Landfill	Inert LF	1407270.658
Landfill	Non Haz (SNRHW) LF	650252.581
Landfill	Restricted LF	589133.18
Landfill	Hazardous Merchant LF	100345.929
Landfill	Hazardous Restricted LF	2955.36

To recap, so far we have selected:

- Data Options/Choose Facility Location: Select 'East Midlands'
- Data Options/Choose Facility Type: Select 'Landfill'
- Report Layout Options/Facility: Tick box 'Site Category'
- Report Layout Options/Facility: Tick box 'Facility Type'

Remember to close the report window before you continue. Don't clear your settings, though.

3. What types of waste went to landfill in East Midlands?

We now want to look at waste types going to landfill in East Midlands. We can choose from two waste classification systems for viewing the data, the EWC and the SOC. We will use the SOC Level 1 in this example, which is grouped into 13 headings.

Keeping the settings you have so far selected in the previous examples, go to the **REPORT LAYOUT OPTIONS** section and click on the **SOC Level 1** check-box in the **Show Waste Type By** box. See Figure 8 below.

Figure 8

Now click on the **View data** button to see the results in Figure 9:

Figure 9

SOC 1	Site Categor	Facility Type	Tonnes Receive
12-Mineral wastes	Landfill	Inert LF	1397579.658
10-Mixed ordinary wastes	Landfill	Non Hazardous LF	1183731.282
12-Mineral wastes	Landfill	Restricted LF	589133.18
10-Mixed ordinary wastes	Landfill	Non Haz (SNRHW) LF	508342.4
12-Mineral wastes	Landfill	Non Hazardous LF	343057.11
12-Mineral wastes	Landfill	Non Haz (SNRHW) LF	136890.821
12-Mineral wastes	Landfill	Hazardous Merchant LF	55546.81
10-Mixed ordinary wastes	Landfill	Hazardous Merchant LF	26137.059
13-Solidified, stabilised or vitrified waste	Landfill	Hazardous Merchant LF	16712.19
07-Non-metallic wastes	Landfill	Non Hazardous LF	15239.12
03-Other chemical wastes	Landfill	Non Hazardous LF	12451.07

We have now got a list of 42 lines and four columns, but it is not easy to read. It would be useful if landfill facility types were displayed as column headings rather than items of data.

We can do this by using the functionality built in to the **Options for Table Layout** section at the foot of the **REPORT LAYOUT OPTIONS** section. See Figure 10 below:

Figure 10

Select the **Facility by** radio button which will highlight the pull-down list box next to it. The default is 'Site Category', but we are working with landfills and want to see the facility types, so from the pull-down list select **Facility Type**. See Figure 11.

Figure 11

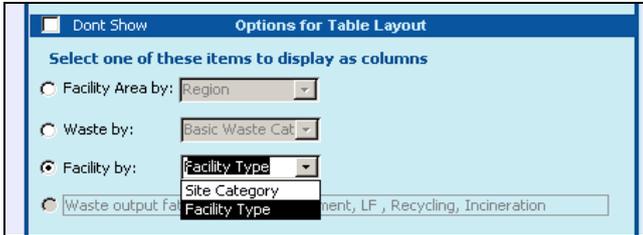


Table layout

This method of displaying data is often referred to as **cross-tabulation**. It is similar to the way **pivot tables** are created in **Excel**.

Now click on the **View data** button to see the results as shown in Figure 12. As you can see, the report is much clearer.

Figure 12

SOC 1	Hazardous Mer	Hazardous Res	Inert LF	Non Haz (SNRH)	Non Hazardous	Restricted LF
01-Chemical compound wastes	27.76			45.13		48.3
02-Chemical preparation wastes	0.52			343.06		559.55
03-Other chemical wastes	878.91			1513.44		12451.07
06-Metallic wastes	1.1			4.66		60.1
07-Non-metallic wastes	14.68			494.71		15239.12
08-Discarded equipment	1026.9			18.18		21.6
09-Animal and vegetal wastes				600.18		8185.8
10-Mixed ordinary wastes	26137.059		9691	508342.4		1183731.282
11-Common sludges						120.19
12-Mineral wastes	55546.81	2955.36	1397579.658	136890.821	343057.11	589133.18

Finally, close the report window and click on the **Export data** button. This will export this table to an Excel spreadsheet and add up the totals. The total should be **4,314,133 tonnes** as indicated in Example 2. This completes the worked examples.

Part 4: Standard and WPA Reports

Standard Reports

You can run some configurable standard reports with variables of reporting region and site category. We also provide some one-click reports at national level. This section explains how to do this.

The screenshot displays the 'Standard Reports' configuration page. It features a navigation menu on the left with sections for 'Reports' (including 'Eng & Wales Site Lists' and 'Site list by Planning Regions') and 'Standard Reports'. The main content area is divided into two columns: 'Configureable Reports' and 'One-click Reports'. Below these columns are dropdown menus for 'Reporting area' (set to 'ENGLAND and WALES') and 'Site Category' (set to 'Landfill'). A selected report is highlighted: 'Waste Types (EWC Chapter) for Landfill in North East'. At the bottom right, there are buttons for 'Export To Excel' and 'View Report'.

Configurable reports

There are five configurable reports that you can run.

You can select your reporting criteria from:

- one of the ten former planning regions or England and Wales
- one of the five main site categories; landfill, transfer, treatment, metal recycling or disposal in or on land.

Site category totals

This report gives you the total tonnages by each deposit WPA and site type.

Waste types (SOC)

This report gives you tonnages in the main SOC categories by deposit WPA and site type.

Waste types (EWC chapter)

This report gives you tonnages in the main EWC categories by deposit WPA and site type.

Origins (RPA)

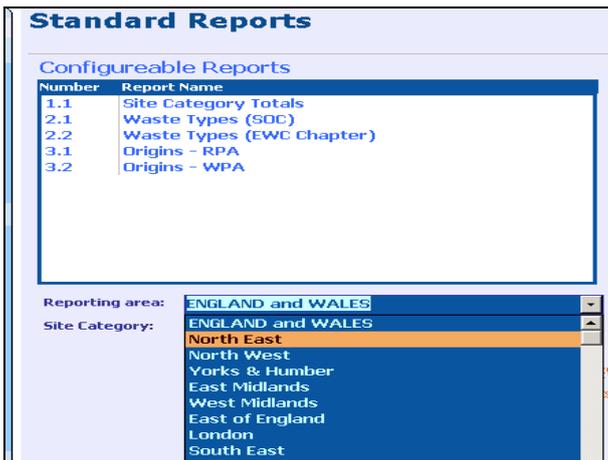
This report gives you the total tonnages by main waste category, deposit WPA and the regional origins of the waste.

Origins (WPA)

This report gives you the total tonnages by main waste category, deposit WPA and the WPA origins of the waste.

Steps to run a report

Select your reporting area and site category.



EWC chapter / Site category

This report gives the total tonnage by main site type and EWC chapter.

SOC chapter / Site category

This report gives the total tonnage by main site type and SOC chapter.

Waste removed / Site Category / SOC Group

These reports give the tonnage of waste removed by either site category and fate or SOC group and fate.

Steps to run a report

Select your one-click report.



Click the **View Report** button to view the data.



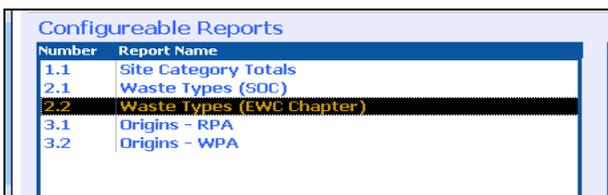
Click the **Export to Excel** button to save the data in Excel format.

Lists of sites that have submitted returns

You can generate lists of sites that have submitted returns by clicking the links on the left hand side of this reporting pane. You can select site category at a national level or all site categories at a regional level.



Select the configurable report you are interested in.



Click the **View Report** button to view the data.



Site Category Totals for Landfill in ENGLAND and WALES : Crosstab Query						
Site Cat	Planning Region	Totals	Hazardous Mer	Hazardous Res	Inert LF	Nt
Landfill	East Midlands	4314133	100346	2955	1407271	
Landfill	East of England	6624565			1841402	
Landfill	London	1403537	32920		219372	
Landfill	North East	3197113	106748		1099570	
Landfill	North West	5176121	71253		294560	
Landfill	South East	9491966	64621	28108	2244379	
Landfill	South West	3870722	57048		442881	

Click the **Export to Excel** button to save the data in Excel format.

One-click reports

There are ten one-click reports that you can run. These reports are all for England and Wales only.

Site categories

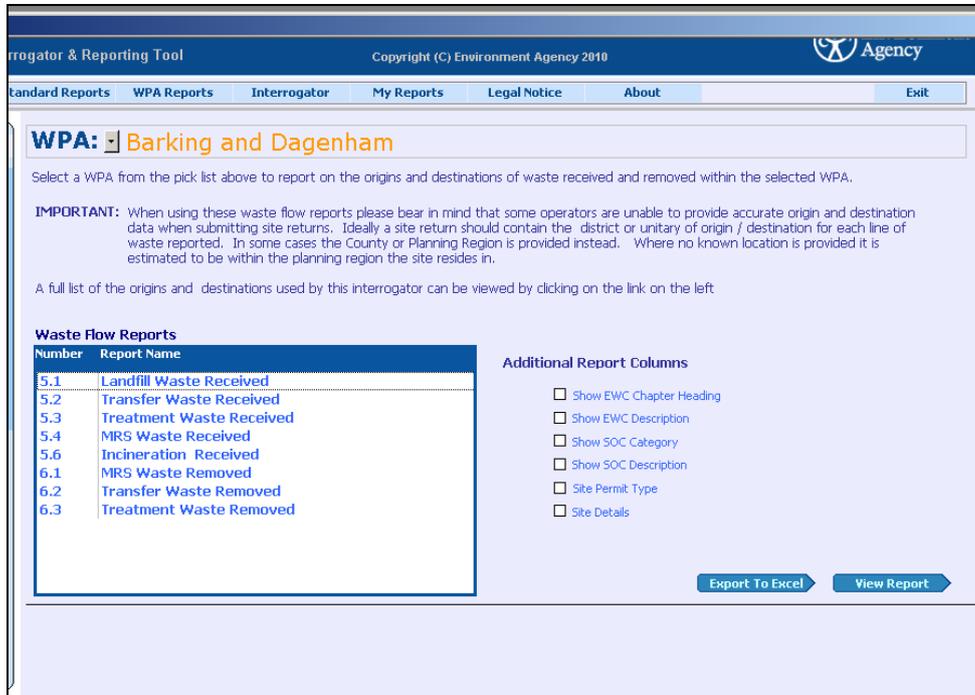
This report gives the total tonnage by main site type.

Planning region / site categories

This report gives the total tonnage by main site type and planning region.

WPA Reports

You can run some standard reports based on a selected Waste Planning Authority (WPA). This section explains how you can do this



There are eight waste flow reports based on waste received, waste removed and site category. The output for each report is:

- Site category e.g. landfill
- Site type e.g. inert landfill
- Name of WPA selected
- Recorded origin as submitted e.g. district.
- Recorded origin – WPA location
- Tonnage

You can also add additional data columns to these reports. These are:

- EWC chapter
- EWC chapter description
- SOC category
- SOC category description
- Site permit type
- Site details

Selecting the WPA

From the drop-down box at the top of the screen select the WPA you want to run a report on.



Selecting the report

From the Waste Flow Reports box select the report you wish to run.

Waste Flow Reports	
Number	Report Name
5.1	Landfill Waste Received
5.2	Transfer Waste Received
5.3	Treatment Waste Received
5.4	MRS Waste Received
5.6	Incineration Received
6.1	MRS Waste Removed
6.2	Transfer Waste Removed
6.3	Treatment Waste Removed

Then check the boxes of any additional data columns you wish to add to your report.

Additional Report Columns

Show EWC Chapter Heading

Show EWC Description

Show SOC Category

Show SOC Description

Site Permit Type

Site Details

Finally click on the **View Report** button to see your output on the screen or on the **Export to Excel** button to save your report in Excel format.

My Reports

This menu option allows you to save the queries you have run for future use.

After you have selected your report options on the **interrogator** screen, you can either:

- View the report
- Print the report
- Export the data
- Save your report

After viewing your data you can save the report for future use.

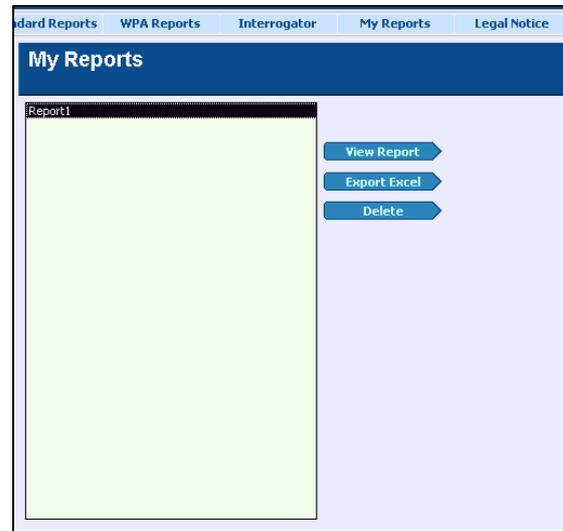
To save a report:

Click the **save** button.

Type a name for your report when asked.

To view a saved report:

Select the My Reports menu option.



Select a report from the list.

By clicking the buttons on the right you can:

- View a report
- Export a report to excel
- Delete a report

Part 5: About the data

This section explains the legislative requirements of this data and how waste data reporting has evolved over the last fifteen years.

Data submission

All the information in the Waste Data Interrogator is submitted by operators as a requirement of their permit.

Waste management operations with environmental permits are required to provide quarterly or annual returns showing:

- the types and quantities of waste they received
- the types and quantities of waste they removed after carrying out the waste management activity

The submission also requires details of origin and destination of wastes and, for waste removed and their intended fate. We refer to the submission as a **waste return**.

Some operators legally challenged the requirement to provide details of origin and destination in 2004. They claimed that some of the data being sought was beyond environmental monitoring requirements and onerous to collect and supply. The High Court upheld their challenge. As a result, although we ask for this data, provision is not a mandatory requirement.

Although many operators provide this data, some do not. If you run queries drawing on this data you should use the results with care because of this missing data.

Data coverage

Our data on quantities of waste produced and deposited is also incomplete because not all sites that handle waste are subject to the same regulatory regime. Many are not required to submit waste returns data.

Facilities exempt from permitting and those that are not subject to the permitting regime are not included. This means that a significant proportion of waste that is recovered or re-used does not appear in our records.

We are introducing the requirement for permitted processes that reprocess/use waste like paper mills, the metal recovery sector and cement kilns to submit waste input returns in the future.

Similarly not all incineration activities we regulate have this requirement in their permits. This makes it difficult to identify total quantities of waste recycled or recovered with any certainty. Again, the introduction of the requirement for this sector is ongoing.

Waste classification

'Basic' waste classification

Historically, variations in the way waste inputs were recorded by different counties and site types led us to adopt a 'lowest common denominator' approach to waste reporting. In essence, this 'basic' classification identified inert/construction and demolition and hazardous wastes. We reported the remaining residual waste as mixed household, industrial and commercial.

A requirement to report waste inputs using European Waste Catalogue (EWC) codes (see below) was introduced in 2004. This provided much-needed consistency and a much greater level of detail. Unfortunately, the codes are based on physical characteristics and, except for major industrial activities, do not differentiate by source. For example, the category 'household and similar' covers both municipal waste and the mixed general industrial and commercial waste produced by businesses.

EWC/List of Wastes Regulation (LOWR)

The EWC was introduced in the 1990s and has gone through a number of revisions. It is a hybrid classification. It began as a means to record (primarily) hazardous wastes produced by major industrial sectors. It evolved to include generic waste streams such as oils, solvents, construction & demolition and household wastes, reflecting the needs of developing legislation. It is a hierarchical classification system that divides wastes into 20 chapters (2-figure), each with sub-chapters (4-figure) and individual waste codes (6-figure). There are more than 900 individual codes. The EWC became unwieldy and difficult to use for several reasons:

- a) frequent duplication of waste types between chapters;
- b) 'mirror' codes where hazardous and non-hazardous wastes shared the same code, hazardous waste being identified by an *;
- c) '99s' – each sub-chapter had a catch-all 'other' waste code (for example 10.01.99). These did not identify waste type adequately and tended to be overused.

Recent revisions have addressed some of these problems. The latest version of the catalogue, now known as the 'List of Wastes' has given 'mirror' hazardous waste codes their own entry and reduced the number of '99' categories.

SOC – Substance-Oriented Classification

The Substance-Oriented Classification was introduced in an annex to the European Waste Directive (Eurostat) of 2004. It is based on the EWC but regroups waste categories into substance-based classes. This avoids the repetition of the List of Wastes. It provides the structure for obligatory bi-annual waste reporting to Europe under Eurostat. The SOC breaks down into three levels of 13, 39 and 71 categories. Most European reporting requirements are met by levels 1 or 2.

SOC categories were revised by the EC in late 2010. but this was not applied to 2010 data. The dataset reports to the new categories from 2012.

Facility type

We record input data against a set of facility types. These are based on categories established in the regulations for permitting, charging and inspection, known as 'A' codes. We've reported site input data using these categories since 1998/9, which gives continuity and some potential for comparability/trend analysis.

Our permitting systems are evolving continuously to reflect the introduction of new legislation, the most recent being the Environmental Permitting Regulations (EPR). Further changes in facility type reporting are inevitable as new legislation is introduced.

Glossary of abbreviations

C&D/CDEW	Construction & Demolition
EPR	Environmental Permitting Regulations 2007
EWC	European Waste Catalogue
PPC	Pollution Prevention and Control
SOC	Substance-Oriented Classification
UKWC	UK Waste Classification
WML	Waste Management Licensing
WPA	Waste Planning Authority