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# Wales Waste Information 2012

A summary of the types and quantities of waste handled by permitted waste management facilities in Wales in 2012.

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## **About Natural Resources Wales**

Natural Resources Wales brings together the work of the Countryside Council for Wales, Environment Agency Wales and Forestry Commission Wales, as well as some functions of Welsh Government. Our purpose is to ensure that the natural resources of Wales are sustainably maintained, enhanced and used, now and in the future.

Wales' landscape, environment and wildlife are amongst its greatest resource, worth more than £8bn to the Welsh economy.

- We will work for Wales' economy and enable the sustainable use of natural resources to support jobs and enterprise. We will help businesses and developers to understand and consider environmental impacts when they make important decisions
- We will work for the communities of Wales to protect people and their homes as much as possible from environmental incidents like flooding and pollution. We will provide opportunities for them to learn, use and benefit from Wales' natural resources
- We will work to maintain and improve the quality of the environment for everyone. We will work towards making the environment and natural resources more resilient to climate change and other pressures.

We are the principal adviser to the Welsh Government on the environment, enabling the sustainable development of Wales' natural resources for the benefit of people, the economy and wildlife.

# **Wales Waste Information 2012**

**A summary of the types and quantities of waste handled by permitted waste management facilities in Wales in 2012.**

## **About the data**

Permitted waste management facilities in Wales are required to make returns (which must be quarterly or annually) to us detailing the amounts and types of materials handled, treated or disposed of.

By collecting and summarising this information, we are able to provide data on the material which was deposited (or otherwise dealt with) at permitted waste management facilities.

This information will be useful for local authorities, regional planning bodies and businesses involved in planning for future waste facilities. These pages form one of a series of annual reports summarising our waste data.

# Key Facts

## Waste Managed

During 2012, facilities in Wales managed a total of 7.9 million tonnes of waste.

**Table 1.1 – Active sites in Wales. Multiple use sites have only been counted once and this may affect the final overall figure.**

Site Type	Landfill	Deposit for recovery	Metal Recycling	Incineration with energy recovery	Incineration without energy recovery	Transfer	Treatment	Use of waste	Total
Number of sites active at end of 2010	33	0	145	3	1	217	73	0	472
Number of sites active at end of 2011	30	2	95	3	1	212	81	6	430
Number of sites active during 2012	25	7	90	3	1	222	102	10	460
Tonnes managed in 2010 (000s)	2,303	0	551	23	5	1,813	1,580*	0	6,275
Tonnes managed in 2011 (000s)	2,200	3	677	24	5	1,855	2,174*	63	7,001
Tonnes managed in 2012 (000s)	2,163	92	814	55	5	2,025	2,582	214	7,949

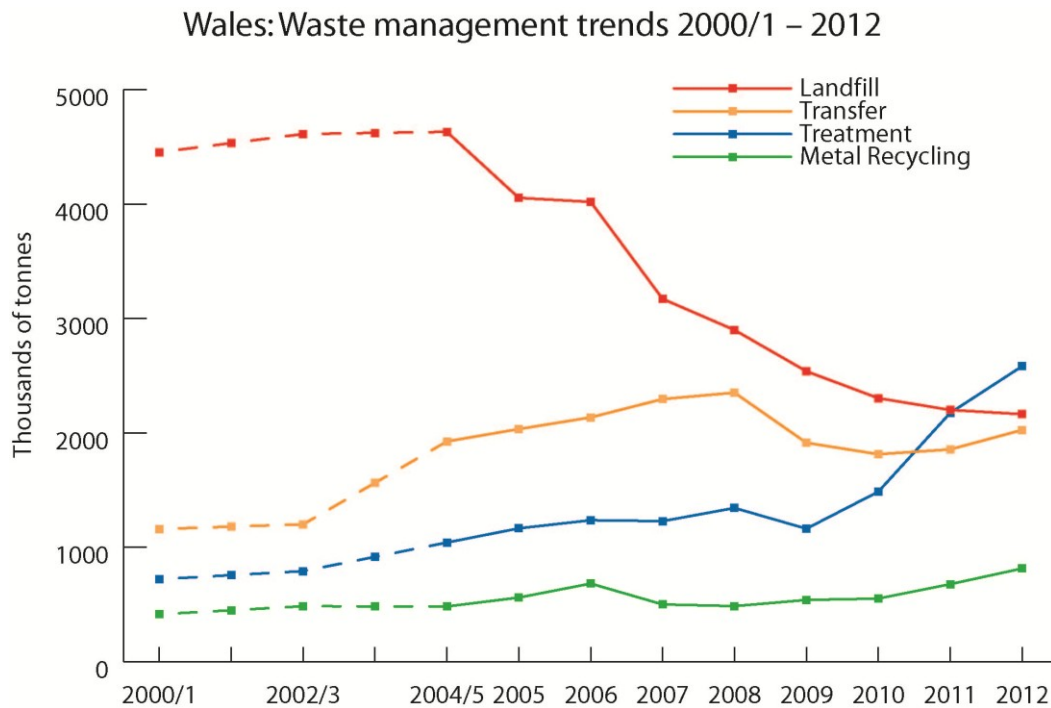
Note: Some of the increase in quantities of waste managed can be attributed to the inclusion within permitting of types of sites previously operating under exemptions before 2010/11. These sites were not required to provide tonnage returns whilst operating under exemptions.

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\* This data has been changed from the original published data and now includes data from 1 facility that had been omitted in previous years publications

## Key Trends

Fig 1.1 Waste Management Trends



Waste sent to landfill in Wales continued to decrease. This has reduced by 2% (37,000 tonnes) between 2011 and 2012 and by 51% since 2001.

Inputs to permitted transfer facilities increased by 9% between 2011 and 2012.

Inputs to permitted treatment facilities increased by 19% between 2011 and 2012. This may be attributed to an increase of 21 new treatment facilities in Wales during 2012.

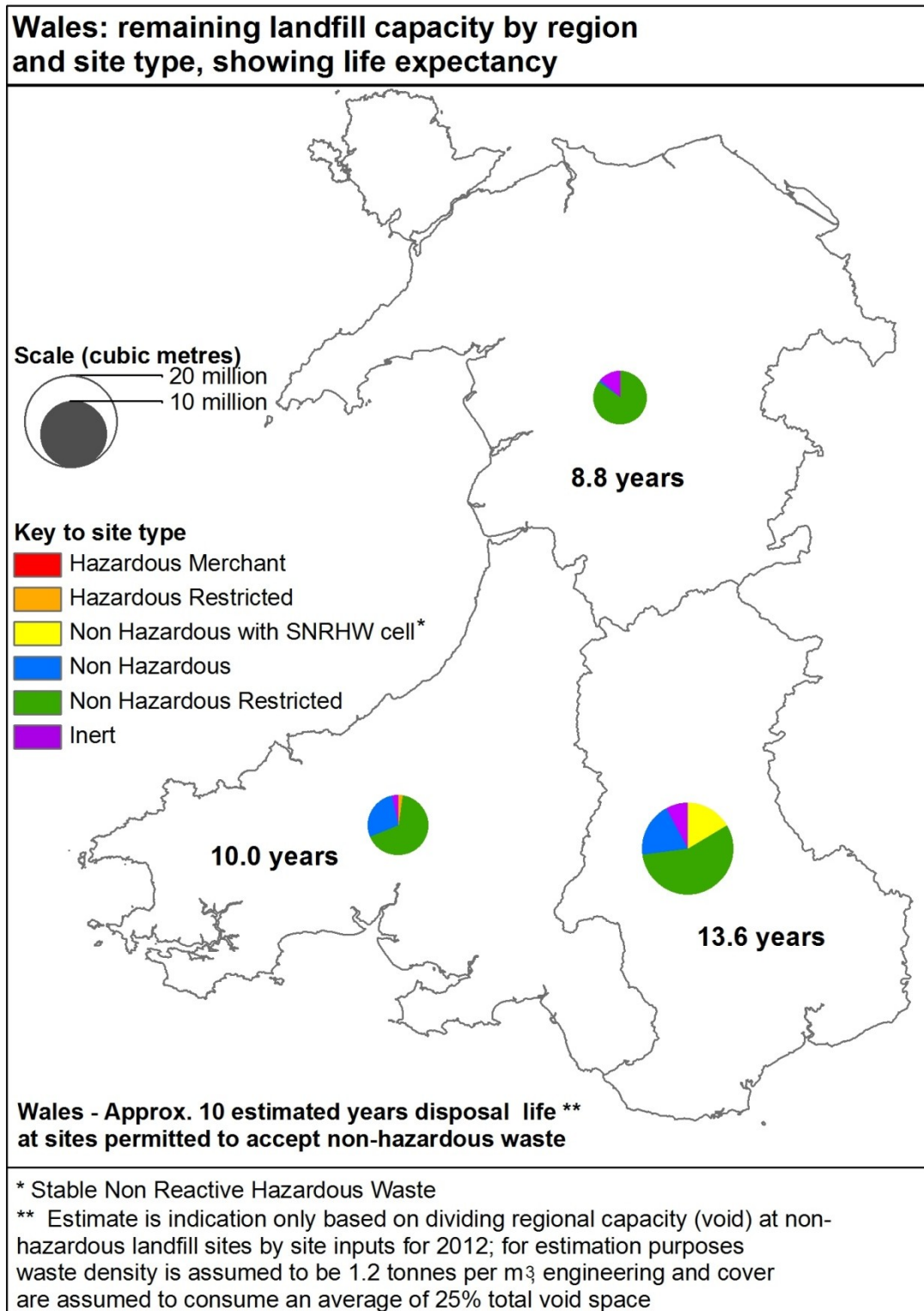
## Landfill Capacity

Remaining capacity at landfill sites decreased by 1.5% during 2012 to 34.5 million cubic metres.

At the end of 2012:

- 8% of capacity was at inert sites;
- 73% of capacity was at non-hazardous sites; and
- 19% of capacity was at restricted user sites (non hazardous and hazardous).
- Approximately 10 years of landfill life is left at sites for non-hazardous wastes in Wales, at 2012 input rates.
- No additional landfill capacity was created this year, but more accurate surveying of sites by operators has indicated more space available at some sites.

Fig 1.2 Landfill capacity



**Regional Variation**

- North: 7% Decrease
- South East: 5% Decrease
- South West: 7% Increase

# Landfill Inputs

**Fig 1.3 Landfill inputs trend**

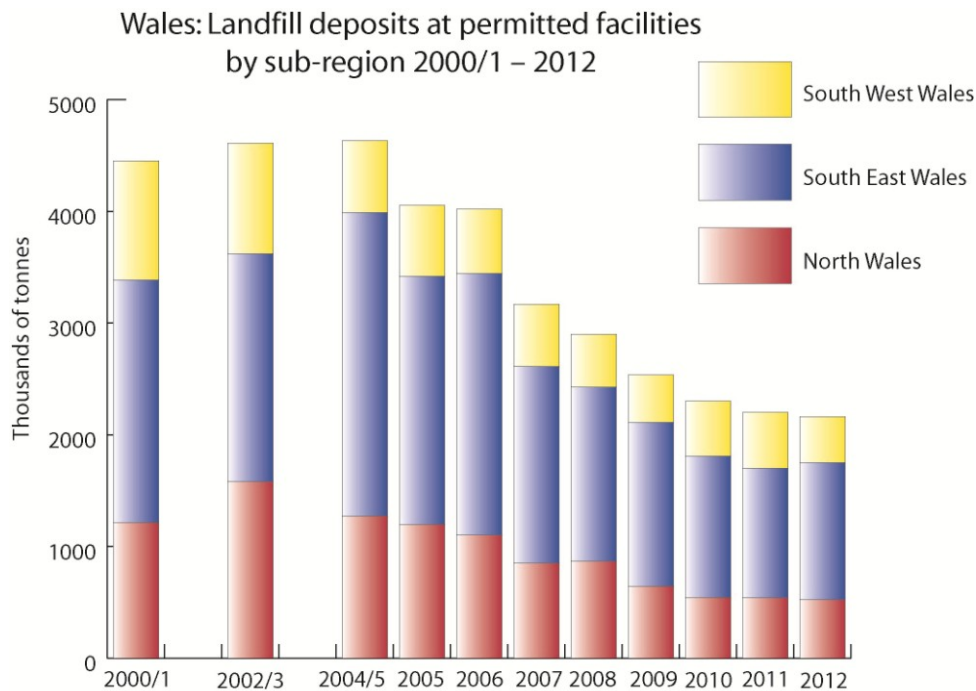


Fig 1.3 shows the waste deposited at permitted landfill facilities in Wales by region from 2001 – 2012.

Waste being sent to landfill in Wales has decreased by 51% since 2001.

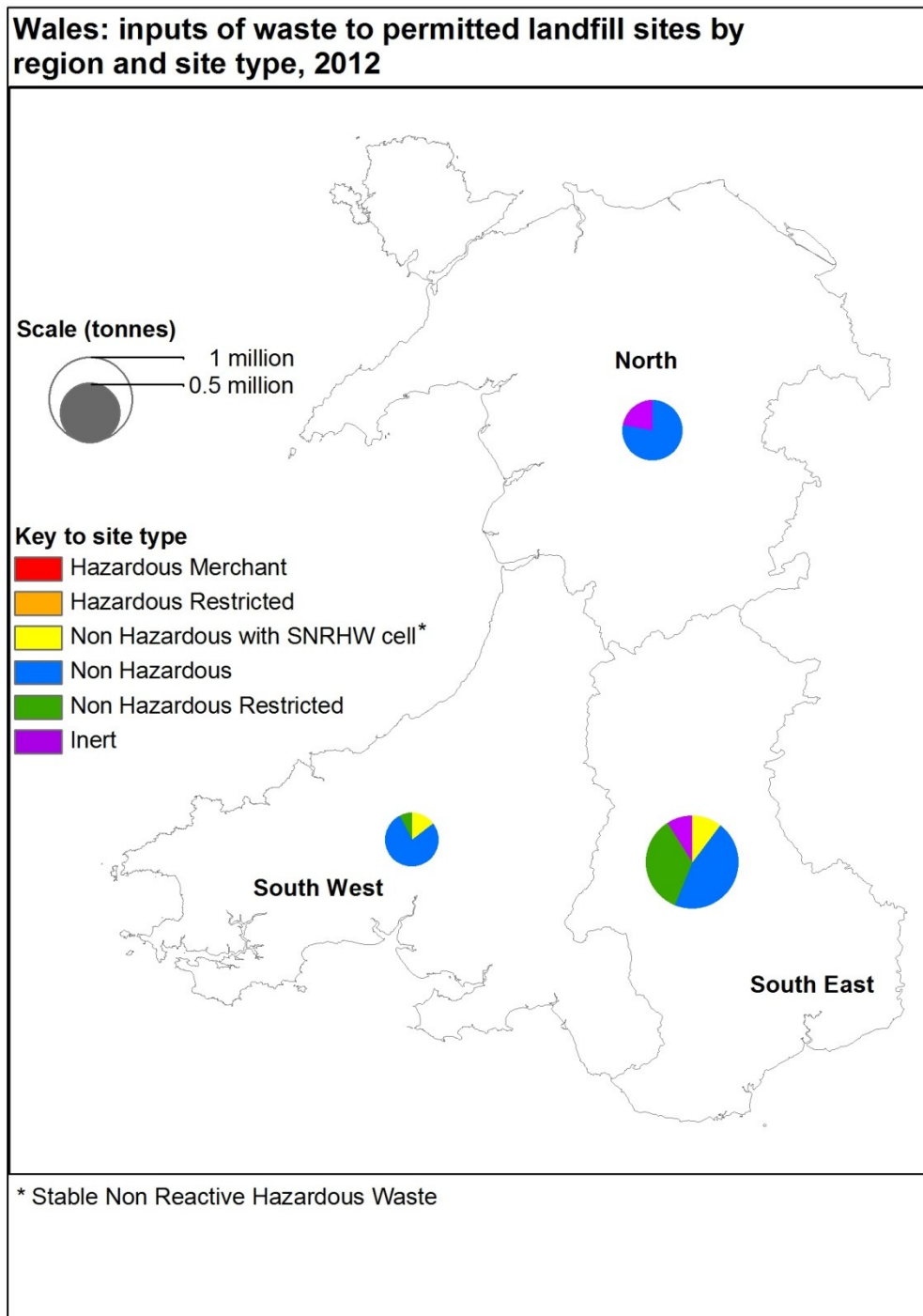
There has been a total reduction of 96% in the amount of Hazardous waste landfilled here in Wales in the same period. Some sites are permitted for Solid Non Reactive Hazardous Waste (SNRHW) but are not actively accepting this type of waste currently.

Note: Data since 2005 has been reclassified into categories used under the PPC permitting of landfills and because of the ban on the co-disposal of waste in landfill in July 2004. Since then we have seen a decrease in landfill waste across Wales.

There were 2.16 million tonnes of waste landfilled in Wales in 2012. This is a 2% reduction compared to the 2.2 million tonnes of waste sent to landfill during 2011. The total tonnage of waste landfilled in Wales has fallen by 51% since 2001.

- In 2012, 1.1 million tonnes of HIC (Household, Industrial & Commercial) waste was sent to landfill.
- A further 627,000 Tonnes of Inert/C&D (Construction & Demolition) waste was landfilled during 2012.
- Approximately 66 tonnes of Hazardous waste was landfilled during 2012 (consisting of mainly insulation material).

**Fig 1.4 Landfill inputs by region**





## Hazardous Waste

In 2012, over 274,000 tonnes of hazardous waste was managed at sites in Wales. This is a decrease of just under 17,000 tonnes since 2011. We are required to monitor all registered hazardous waste movements.

The data published here is a summary of these movements. The same waste may be moved between multiple facilities and each separate movement is recorded. This double counting should be taken into account when using this data.

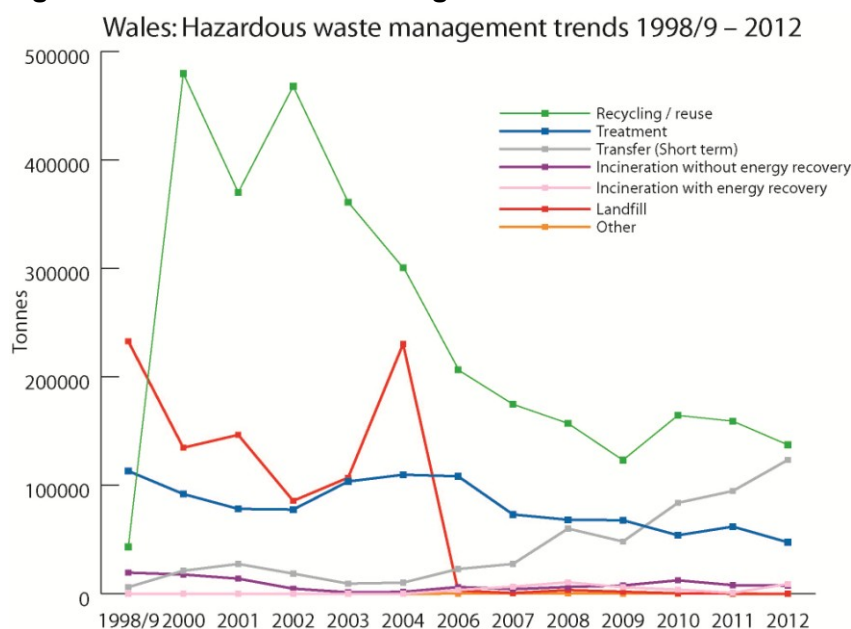
In 2012, just under 325,000 tonnes of hazardous waste was deposited at facilities in Wales. This is an increase of 0.01% since 2011. 201,000 tonnes of this waste arose from outside of Wales and was imported from England, Scotland & Northern Ireland.

**Table 1.2 Hazardous waste deposited in Welsh waste facilities.**

Year	Incineration with energy recovery	Incineration without energy recovery	Landfill	Long term storage	Recovery	Transfer (Short term)	Treatment	Other	Total
2010	7,237	8,939	453	-	164,428	83,767	53,878	0	318,702
2011	872	7,906	17	-	159,048	94,722	61,874	114	324,554
2012	8,995	7,454	66	-	137,270	123,353	47,437	2	324,578

Table 1.2 shows the comparison between 2010, 2011 & 2012 data. This shows the amounts of hazardous waste deposited in Wales and its fate:

**Fig 1.4 Hazardous waste management trends**

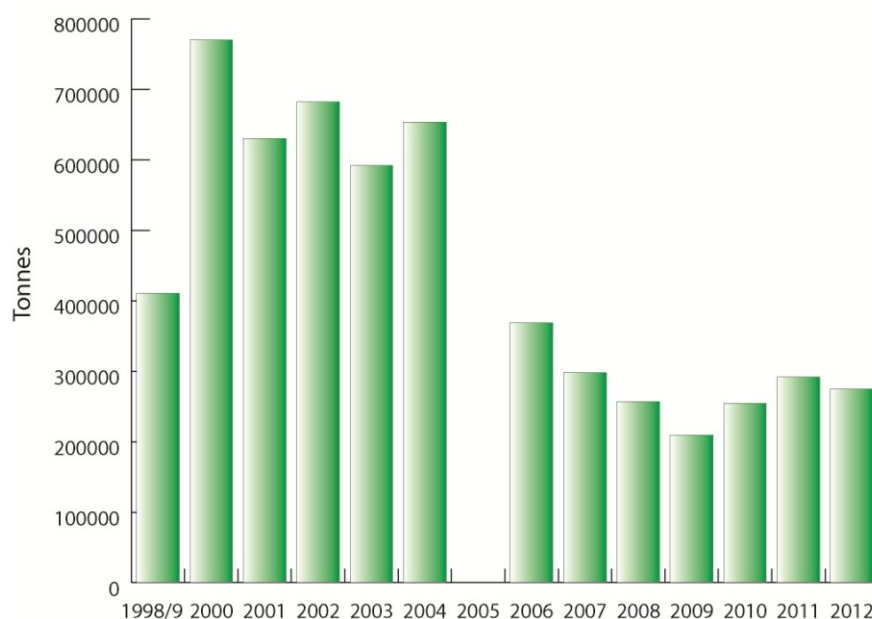


- Treatment of hazardous waste in Wales decreased by 23% (14,437 tonnes)
- Recovery of hazardous waste in Wales decreased by 14% (21,777 tonnes).
- Energy recovery of hazardous waste in Wales increased by 36% (8,123 tonnes)

In 2012, just over 275,000 tonnes of hazardous waste was produced in Wales - a 6% (17,000 tonnes) reduction from the 2011 level.

**Fig 1.5 Wales hazardous waste production trend**

Wales: Hazardous waste production trends 1998/9 - 2012



More hazardous waste is imported into Wales for treatment, recovery or transfer than is exported from Wales for management in facilities in England, Scotland or Northern Ireland.

**Table 1.3 Fate of hazardous waste produced in Wales**

Year	Incineration with energy recovery	Incineration without energy recovery	Landfill	Long term storage	Other Fate	Recovery	Rejected	Transfer (D)	Transfer (R)	Treatment	Total
2012	435	8,975	29,388	4,461	3	131,200	58	18,619	33,470	48,027	274,636
2011	413	10,186	18,385	15,434	22	118,623	122	19,491	42,616	66,332	291,625
2010	489	11,953	15,769	2,973	0	115,774	61	18,331	39,549	49,803	254,701

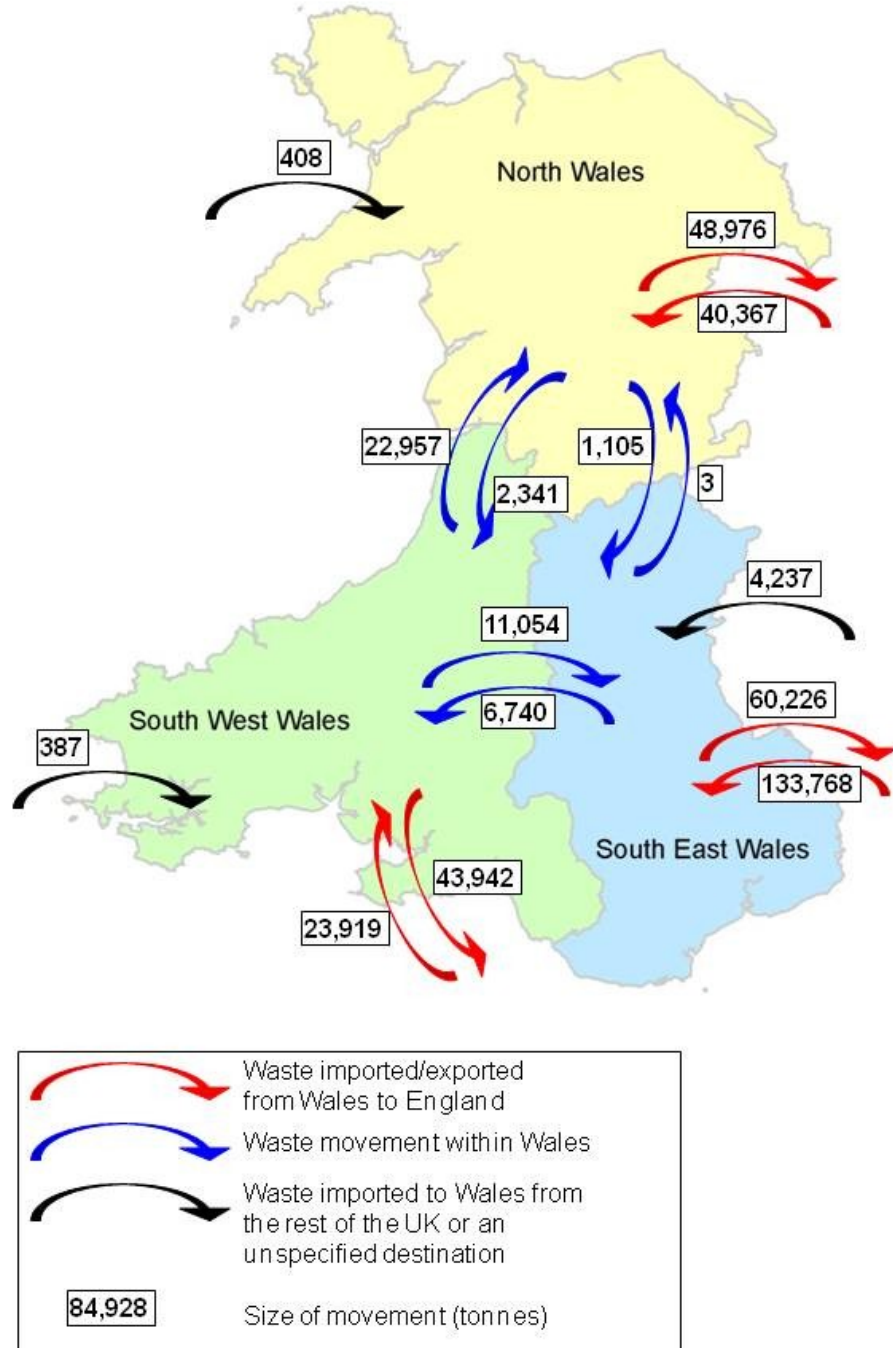
Table 1.3 shows the comparison between 2010, 2011 and 2012 hazardous waste production data for Wales and its fate within England and Wales, between 2010 and 2012:

- Landfill of hazardous waste produced in Wales increased in by 60% (11,003 tonnes)
- Treatment of hazardous waste produced in Wales decreased by 28% (18,305 Tonnes)
- Recovery of hazardous waste produced in Wales increased by 11% (12,577 Tonnes)
- Energy recovery from hazardous wastes produced in Wales increased by 5% (22 tonnes)

Thermal Process Waste (inorganic), Oil and Oil/Water Mixtures and C&D Waste and Asbestos are some of the biggest sectors contributing to these figures.

**Fig 1.6 Hazardous waste movements**

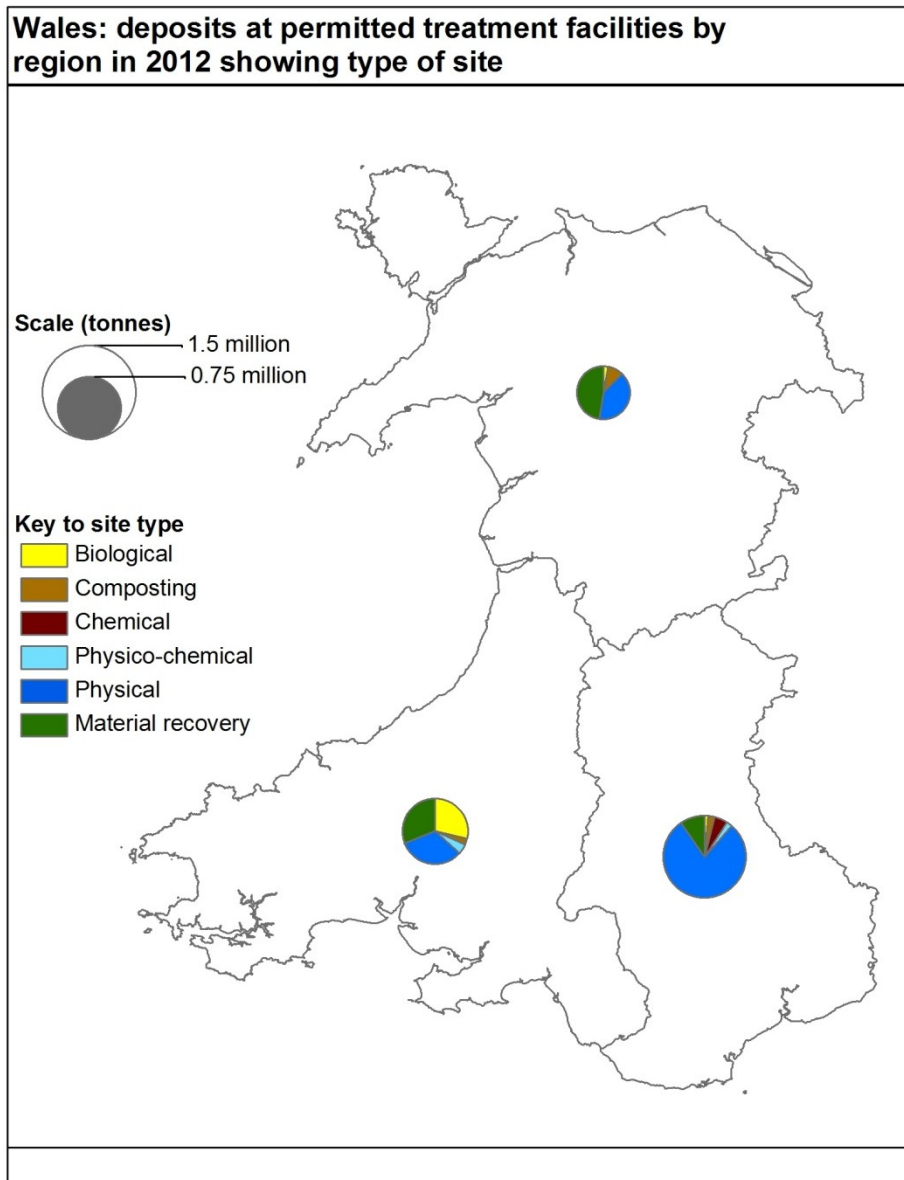
Wales: Hazardous waste movement 2012



## Transfer, Treatment & Metal Recycling Facilities

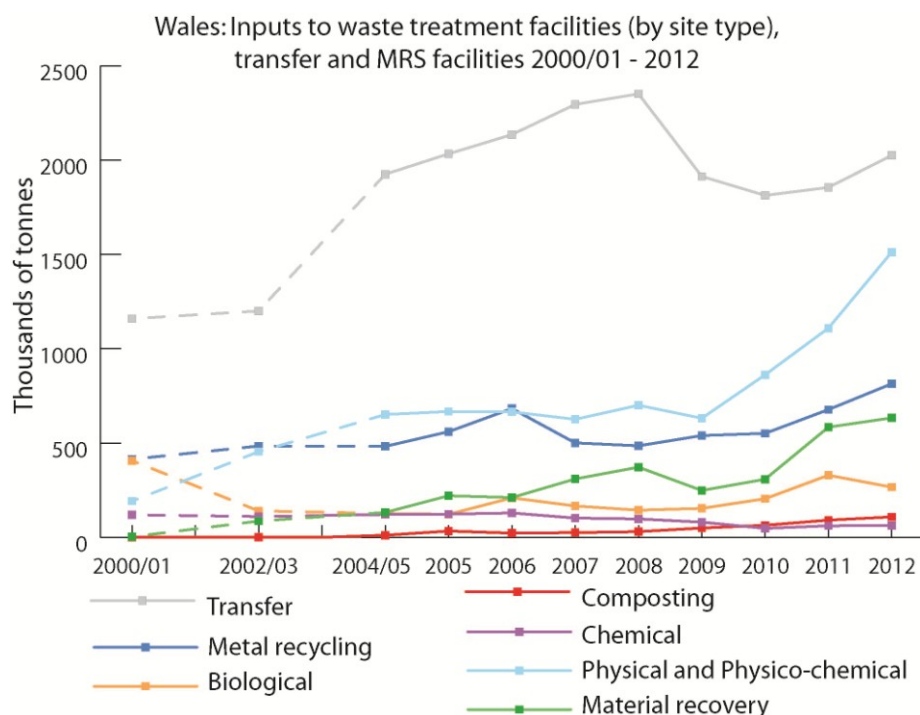
Over 5.3 million tonnes of waste was handled through permitted transfer, treatment and metal recycling facilities in Wales during 2012.

**Fig 1.7 Transfer, treatment and metal recycling sites deposits and location**



- 2012 saw approximately 2.5 million tonnes of waste treated at permitted facilities in Wales. This is a 22% increase (442,000 tonne) compared to 2011.
- In 2012, there was a 37% (393,000 tonnes) increase in waste going to Physical Treatment sites in comparison to the 2011 data. .
- Waste inputs to Metal Recovery sites increased by 20% compared to that of the 2011 data.

**Fig 1.8 transfer, treatment and metal recycling sites trends**



## Transfer Stations

Over 1.8 million tonnes of waste was accepted at Welsh transfer stations in 2012. Wastes from transfer stations will go onto other facilities in Wales or will be exported. 275,078 tonnes of waste was sent on to further transfer sites during 2012. This is a 15% increase on the 2011 figures.

Note: The same waste may be moved between multiple facilities and each separate movement is recorded. This double counting should be taken into account when using this data.

Table 1.4 shows the breakdown of wastes from transfer stations being recovered, treated, incinerated, landfilled or sent to further transfer facilities.

**Table 1.4 Destination of outputs from transfer stations 2012**

Destination of waste (facility type)	Transfer station outputs to each facility type (tonnes)	Transfer station outputs to each facility types (% of total output)
Incinerator	9,939	1%
Landfill	544,646	30%
Recovery	680,160	38%
Transfer	275,078	15%
Treatment	85,273	5%
Unknown	204,987	11%

81% (1.466 million tonnes) of waste leaving Welsh transfer stations went to further facilities in Wales, with the remaining 18% (318,000 tonnes) being exported to England or further afield for final disposal or recovery, 11% of the further destinations are not reported.

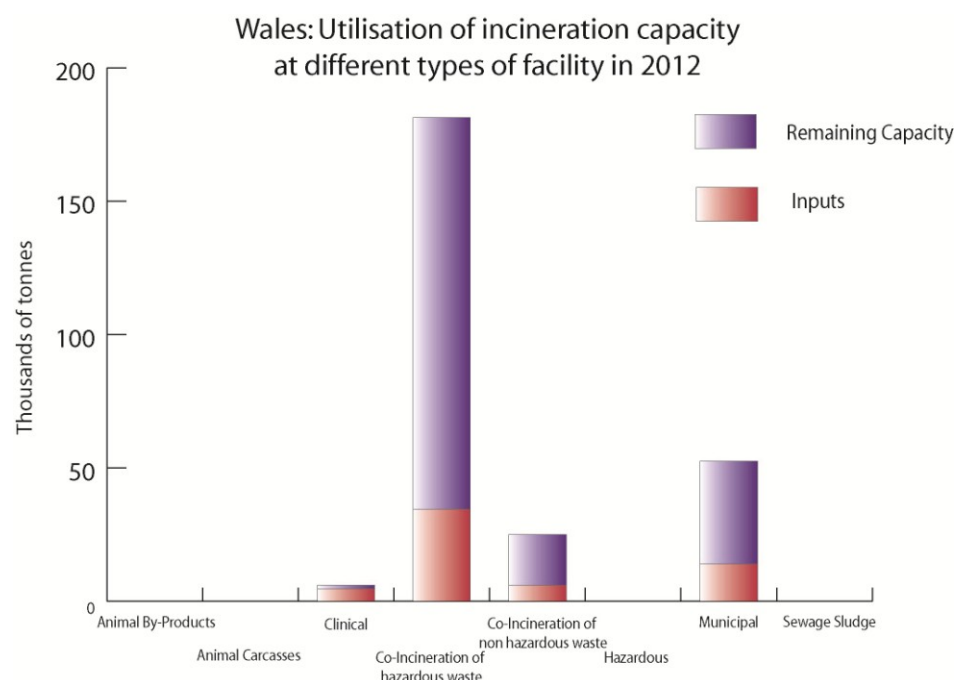
## MBT, Compost & Anaerobic Digestion

A total of 374,000 tonnes of waste was biologically treated & composted in Wales in 2012.

- This is a decrease of 45,000 tonnes to 2011 reported tonnages.
- 108,000 tonnes of biodegradable waste was composted in Wales during 2012.
- 16,000 tonnes of waste treated by anaerobic digestion in 2012.

## Incineration

**Fig 1.9 incineration capacity**



We only report on facilities that accept waste from off-site sources. It does not include facilities that burn their own in-house process waste.

- 59,000 tonnes of waste was incinerated during 2012 at facilities in Wales - a slight increase from 2011.
- 55,000 tonnes of this waste was incinerated at facilities with energy recovery in Wales taking municipal and other wastes.
- There were 264,868 tonnes of permitted waste incineration capacity in Wales at the end of 2012.

Two cement kilns are permitted to co-incinerate refuse derived fuel (RDF). The permitted capacities are approximately 221,000 tonnes per annum in North Wales and 26,000 tonnes in South East Wales. However, very little of this capacity is currently utilised for RDF. There should not be a reliance on this capacity for future planning.