

## SOMERSET WASTE PARTNERSHIP - RECYCLING END-USES REGISTER 2008/09

**In 2008/09, Somerset residents reused and recycled 128,044 tonnes of waste, which saved an estimated 105,425 tonnes of carbon emissions - equivalent to taking 29,276 cars off the road for a year. 89% was recycled in the UK, with only 11% sent overseas for recycling.**

This is the second annual register to be published by Somerset Waste Partnership of what happens to materials collected for recycling and reuse from Somerset residents. All materials are sent for recycling or reuse. Only contaminated loads may have to be rejected. There were no rejected loads in 2008/09, due to the high quality of recycling from Somerset's kerbside collections and Household Waste Recycling Centres. And, despite the recession and downturn in markets at the end of 2008, all materials collected for recycling by Somerset Waste Partnership continued to secure end-use markets, without any stockpiling first.

The table below details the materials collected in 2008/09 by Somerset Waste Partnership services: kerbside collections, Household Waste Recycling Centres and bring banks, together with materials collected by third parties on which the SWP paid Recycling or Reuse Credits. The table shows the tonnages of materials collected, the collection operator, the reprocessor and the final end use of materials. Also shown are estimates of the carbon saved (Carbon Dioxide equivalent) by recycling and reuse, which have been calculated with assistance from Resource Futures ([www.resourcefutures.co.uk](http://www.resourcefutures.co.uk)) using nationally agreed data sets and the latest carbon saving factors available from life cycle analysis studies.

**BENEFITS OF RECYCLING** - Recycling reduces carbon emissions, both by saving energy in extraction and manufacturing processes and by avoiding the powerful greenhouse gas (methane) emitted from landfilled biodegradable waste, such as paper and food. Recycling also leads to other environmental benefits, such as conserving natural resources from forestry and mining and reducing other forms of pollution.

**EXPORTS** - Somerset Waste Partnership prefers its recycling contractors to supply local UK markets, but it can be more economic to export some materials overseas. For example, demand to reuse clothing is stronger in developing countries. A study commissioned by WRAP ([www.wrap.org.uk](http://www.wrap.org.uk)) found the energy and carbon savings from recycling still out-weighed, by a factor of at least 3 to 1, the energy use and carbon emissions from shipping to China. The situation is further improved as the container ships used would otherwise return empty, after delivering goods manufactured in China to the UK.

NOTE: All materials listed are officially defined as household waste except hardcore, which is defined as municipal waste.

**SOMERSET WASTE PARTNERSHIP** manages waste and recycling services on behalf of all local authorities in Somerset: Mendip District Council, Sedgemoor District Council, Somerset County Council, South Somerset District Council, Taunton Deane Borough Council and West Somerset Council.



KERBSIDE COLLECTIONS	RECYCLED (TONNES)	REUSED (TONNES)	CARBON SAVED (TONNES CO2 EQUIVALENT)	COLLECTION CONTRACTOR	REPROCESSOR	EXPORTED (TONNES)	END USE
PAPER	18,281.27		24,131.28	May Gurney	Aylesford Newsprint, Kent.	0.00	Reprocessed into 100% recycled paper for newsprint
CARDBOARD	213.73		282.12	May Gurney (via Viridor)	Paper & board mills in China: Interactive Paper / Xiamen ITG Group, Haicang / Dongguan Shunyu Paper	213.73	Reprocessed into new cardboard
MIXED PAPER AND CARDBOARD	1,576.98		2,081.61	May Gurney	Sevenside Recycling, Watchet, Somerset	0.00	Reprocessed into new cardboard
YELLOW PAGES	61.67		81.40	May Gurney	Aylesford Newsprint, Kent	0.00	Reprocessed into 100% recycled paper for newsprint
BROWN GLASS	646.78		206.97	May Gurney	O-I Manufacturing UK, Harlow Essex	0.00	Reprocessed into new glass bottles and jars
CLEAR GLASS	4,122.75		1,319.28				
GREEN GLASS	6,580.27		2,105.69				
MIXED GLASS	694.04		222.09		Recresco Ltd, Avonmouth Dock, Bristol	694.04	Sent to European markets to be recycled into new bottles and jars

CANS (TINPLATE STEEL AND ALUMINIUM) AND ALUMINIUM FOIL	1,659.04		4,101.15	May Gurney	AMG Limited, Llanelli, South Wales and Viridor, Priorswood	0.00	AMG separate metals from cans. Steel was sold to Celsa in South Wales, who produce reinforcement and construction steel, and to Huntsman Group who used the steel in a process to produce a white pigment for use in a number of products. Aluminium was smelted into sheets and sold to Novellis to be made into new cans. Tin was sold for high quality end use in electronic and aerospace industries.
	550.08		1,359.80	May Gurney	Bulked up by Viridor and sent for reprocessing to Sims and Alutrade	0.00	Steel was sent to Sims Metals to make new steel products and aluminium to Alutrade in Birmingham to be made into new cans.
FOOD WASTE	10,090.12		1,917.12	May Gurney (via Viridor)	Viridor, In-Vessel Composter (IVC), Dimmer, Nr Castle Cary, Somerset	0.00	Mixed with wood waste and composted in the in-vessel composter. Compost used as soil improver by local farmers.
	1,026.32		195.00		Eco-Composting IVC, Dorset		Mixed with garden waste and composted in the in-vessel composter. Compost used on turf growing fields to replenish soil.
	1,629.42		684.36		Holsworthy AD, Devon		Food waste digested anaerobically to produce a biofertiliser used on agricultural land, and biogas used to generate electricity.

FOOD WASTE CONTINUED	53.46		10.16	May Gurney (via Viridor)	EcoSci IVC, near Exeter, Devon	0.00	Mixed with garden waste and composted in in-vessel composter. Compost used as a soil improver.
	1,428.92		600.15		Greenfinch AD, Shropshire		Food waste digested anaerobically to produce a biofertiliser used on agricultural land and biogas used to generate electricity.
GARDEN WASTE	4,388.30		833.78	May Gurney (via Viridor)	Viridor, Dimmer, Near Castle Cary, Somerset	0.00	Composted in windrows to produce REVIVE compost which is sold at HWRCs for domestic use and in bulk for landscaping and agricultural use
	7,603.27		1,444.62		Viridor, Walpole, Bridgwater, Somerset		
TEXTILES AND FOOTWEAR		399.41	7,588.79	May Gurney	MJ Bowers, Limington near Yeovil, Somerset	299.56	Direct reuse in developing countries or shredded to be made into cotton felt/ wadding/ mops/dusters and industrial wiping cloths.
		163.14	3,099.66		Bulked up by Viridor and sent to JMP Wilcox, Birmingham	122.36	Direct reuse in developing countries or shredded and made into cotton felt/ wadding/ mops/dusters and industrial wiping cloths.
PLASTIC BOTTLES AND PLASTIC BAGS	144.54		216.81	May Gurney	International Recycling Ltd, Lincolnshire	0.00	Plastic bottles sorted, graded and shredded. Pellets then sold on to manufacturers for recycling into items such as films, pipes, compost bins and fleece jackets.
					AWS Eco-plastics, Leicester		Reprocessed into refuse sacks and other films

AUTOMOTIVE BATTERIES	22.35		N/A*	May Gurney	G&P Batteries, Darlaston, West Midlands	0.00	Separated into fractions and re-processed into new batteries or reused as raw material i.e. scrap metal and plastic
	14.29		N/A*		Bulked up by Viridor and sent to Bidwell Metals Ltd, Radstock, Bath & NE Somerset	0.00	Batteries separated into different fractions, i.e. metal and plastic for reuse in manufacturing.
ENGINE OIL	7.12		13.53	May Gurney	Chemical Recoveries, Avonmouth	0.00	Reprocessed into low-grade fuel oil for asphalt plants and generators.
<b>BRING BANKS</b>	<b>RECYCLED (TONNES)</b>	<b>REUSED (TONNES)</b>	<b>CARBON SAVED (TONNES CO2 EQUIVALENT)</b>	<b>COLLECTION CONTRACTOR</b>	<b>REPROCESSOR</b>	<b>EXPORTED (TONNES)</b>	<b>END USE</b>
PAPER	473.77		625.38	Perry's Recycling	Aylesford Newsprint, Kent	0.00	Reprocessed into 100% recycled paper for newsprint
MIXED PAPER AND CARDBOARD	1,911.03		2,522.56	Perry's Recycling	Paper and Board mills in China	1,911.03	Recycled into corrugated packaging or liner paper on plaster board for the building industry.
	339.54		448.19	Sevenside Recycling	Watchet Paper Mill, Somerset	0.00	Reprocessed into new cardboard

BROWN GLASS	42.50		13.60	Perry's Recycling	O-I Manufacturing UK, Harlow, Essex	0.00	Recycled into new bottles and jars.
CLEAR GLASS	103.68		33.18				Recycled into new bottles and jars.
GREEN GLASS	156.76		50.16		Recresco Ltd, Avonmouth Dock, Bristol	156.76	Sent to European markets to be recycled into new bottles and jars
MIXED CONTAINER GLASS	21.56		6.90	Burnham Waste Disposal	Recycled Glass, Highbridge	0.00	Reprocessed into decorative glass chippings
	1,323.16		423.41	Thamesdown Recycling	Berrymans various locations UK	0.00	Reprocessed into new bottles and jars
	330.85		105.87	May Gurney	O-I Manufacturing UK, Harlow, Essex		Reprocessed into new bottles and jars
CANS (TINPLATE STEEL AND ALUMINIUM)	91.35		225.82	Thamesdown Recycling	Steel cans sent to AMG, Llanelli	0.00	Steel sold to Celsa in South Wales who produce reinforcement and construction steel and to Huntsman Group who used the steel in a process to produce a white pigment for use in a number of products.
					Aluminium cans sent to Novellis. Warrington		Smelted into aluminium ingots for production of new aluminium cans

PLASTIC BOTTLES	616.34		924.51	Veolia Environmental Services (deliver for baling to Viridor, Priorswood, Somerset)	International Recycling Ltd, Lincolnshire	616.34	Plastic bottles sorted, graded and shredded. Pellets then sold on to manufacturers for recycling into items such as films, pipes, compost bins and fleece jackets.
DRINKS CARTONS AND TETRA PAK	6.09		N/A*	Recresco for Tetra Pak	Paper mills in Sweden arranged by Tetra Pak	6.09	Cartons pulped with aluminium and polythene separated off. Paper fibre recycled into new paper and board products. The remaining mix of plastic and aluminium used to make a board for furniture, to generate energy or separated into aluminium and plastic for recycling.
<b>THIRD PARTIES</b>	<b>RECYCLED (TONNES)</b>	<b>REUSED (TONNES)</b>	<b>CARBON SAVED (TONNES CO2 EQUIVALENT)</b>	<b>COLLECTOR</b>	<b>REPROCESSOR</b>	<b>EXPORTED (TONNES)</b>	<b>END USE</b>
PAPER	3.74		4.94	Haselbury Plucknett Parochial Church	Martock Waste Paper, Somerset	0.00	Reprocessed into new fibres for the paper and board industry
CARDBOARD	30.16		39.81	Dowlish Wake Recreation Field Committee	Martock Waste Paper, Somerset	0.00	Reprocessed into new fibres for the paper and board industry
	15.52			Woodland Trust	SCA Recycling, Wales & Severnside Recycling		Reprocessed into new fibres for the paper and board industry
	44.95			Donyatt Church Restoration Fund	Martock Waste Paper, Somerset		Reprocessed into new fibres for the paper and board industry

MIXED PAPER AND CARDBOARD	37.22		49.13	Seavington News	Martock Waste Paper, Somerset	0.00	Reprocessed into new fibres for the paper and board industry
	133.56			Gemini Carnival Club	Martock Waste Paper, Somerset		Reprocessed into new fibres for the paper and board industry
	16.59			East Coker Scout Group	Dorchester Waste Paper		Reprocessed into new fibres for the paper and board industry
	31.14			First Williton Scouts	Sevenside, Watchet Paper Mill, Somerset		Reprocessed into new cardboard
MIXED CONTAINER GLASS	9.60		1.44	Yeovil Town Council	Viridor Glass, St Helens	0.00	Glass processed and sold for manufacture of flat glass, fibreglass for insulation and for making new bottles and jars.
TEXTILES AND FOOTWEAR		569.02	10,811.38	Bag it up, Green World, Salvation Army, British Heart Foundation, European Recycling Co.		483.67	Clothing sold to second hand clothing traders in the UK and developing countries for reuse. Around 15% of non-reusable clothing recycled into industrial wiping cloths or similar.
FURNITURE		67.13	181.25	Furnequip (Frome and Glastonbury)		0.00	Sold on by each organisation for reuse at low prices to people in their areas on benefits or with low incomes.
		217.25	586.58	Furnicare (Chard and Yeovil)			
		92.21	248.97	Home Furniture Services Trust, Taunton			
		19.87	53.65	Engage West Somerset			
BOOKS		1.01	N/A*	British Heart Foundation (BHF)			Books sold in shops to fund BHF's projects

HOUSEHOLD WASTE RECYCLING CENTRES	RECYCLED (TONNES)	REUSED (TONNES)	CARBON SAVED (TONNES CO2 EQUIVALENT)	COLLECTION CONTRACTOR	REPROCESSOR	EXPORTED (TONNES)	END USE
PAPER	1,199.85		1,583.80	Viridor	Aylesford Newsprint, Kent.	0.00	Reprocessed into 100% recycled paper for newsprint
	100.00		132.00		Watchet Paper Mill, Somerset	0.00	Reprocessed into new cardboard
CARDBOARD	7,526.07		9,934.41	Viridor	Paper & board mills in China: Interactive Paper / Xiamen ITG Group, Haicang / Dongguan Shunyu Paper	7,526.07	Reprocessed into new cardboard
MIXED CONTAINER GLASS	1,534.33		230.15	Viridor	Viridor Glass in St Helens for reprocessing, then passed on to glassfibre insulation industry	0.00	Reprocessed into loft insulation
CANS (TINPLATE STEEL AND ALUMINIUM) AND ALUMINIUM FOIL	94.84		234.44	Viridor	Corus Can Route, Swindon, and Alutrade	0.00	Steel sold to Corus for recycling and aluminium to Alutrade in Birmingham. The recovered steel was made into a number of materials such as car doors, fridge panels, construction steel. The aluminium was smelted into ingots and made into new aluminium cans.

GARDEN WASTE	7,792.35		1,480.55	Viridor	Viridor, Priorswood, Taunton, Somerset	0.00	Composted in Windrows to produce REVIVE compost sold at HWRCs for domestic use and in bulk for agricultural use.
	8,171.55		1,552.59	Viridor	Viridor, Dimmer, Near Castle Cary, Somerset		
	7,516.14		1,428.07	Viridor	Viridor, Walpole, Bridgwater, Somerset		
	4,834.29		918.52	Viridor	Cricket St Thomas, Somerset		
	1,909.45		362.80	Viridor	Monksham Farm, Somerset		
	939.76		178.55	Viridor	Smokey Farm, Somerset		
TEXTILES AND FOOTWEAR		886.82	0.00	Viridor	JMP Wilcox, Birmingham	665.12	Direct reuse in developing world or shredded to be made into cotton felt/wadding/mops/dusters and industrial wiping cloths.
PLASTIC BOTTLES	854.30		1,281.45	Viridor (baled at Priorswood MRF, Somerset)	International Recycling Ltd, Lincolnshire	854.30	Plastic bottles sorted, graded and shredded. Pellets sold to manufacture items such as films, pipes, compost bins and fleece jackets.
PLASTIC BAGS	2.50		3.75		AWS Eco-plastics, Leicester	0.00	Reprocessed into refuse sacks and other films

DRINKS CARTONS AND TETRA PAK	43.51		N/A*	Viridor	Collected by Recresco on behalf of Tetra Pak and sent to paper mill in Sweden	43.51	Cartons pulped and aluminium and polythene separated off. The paper fibre is recycled into plasterboard liner. The remaining mix of plastic and aluminium is used in furniture, to generate energy or separated into pure aluminium and plastic for recycling.
FRIDGES/ FREEZERS	971.39		N/A*	Viridor	Sims Metals, South Wales	0.00	CFCs recovered from refrigeration gases and insulation panels. Metals, plastics and foam separated for use in manufacturing.
ELECTRICAL	4,270.79		5,722.86	Viridor	Sims Metals, South Wales	0.00	Metals, plastics, glass, batteries and printed circuit boards separated and baled for use in manufacturing.
BRIC A BRAC		165.96	1,460.45	Viridor	Sent to various local outlets via collection agents at each HWRC	0.00	Sold locally for reuse
SPECTACLES		0.50	N/A*	Viridor	Red Cross	0.01	Cleaned, graded and exported to Africa for reuse.
TONER CARTRIDGES	1.10		N/A*	Viridor	Recycling Appeal - funds raised going to Children's Hospice South West	0.00	Separated out into individual varieties and either reused or deconstructed and recycled.
FLUORESCENT TUBES AND CFLS	6.00		N/A*	Viridor	Lampcare Complete Lamp Recycling, Harlow	0.00	Lamps deconstructed into glass, mercury, gas and metals and different components recycled.

AUTOMOTIVE AND HOUSEHOLD BATTERIES	205.99		N/A*	Viridor	Bidwell Metals Ltd, Radstock, Bath & NE Somerset	0.00	Batteries separated into different fractions, i.e. metal and plastic for reuse in manufacturing.
ENGINE OIL	247.48		470.21	Viridor	Augean Plc, Avonmouth	0.00	Oils recovered and blended for use as a biofuel.
PLATE GLASS	158.30		23.75	Viridor	Viridor Glass in St Helens for reprocessing, then to insulation industry	0.00	Reprocessed into glassfibre loft insulation
SCRAP METAL	6,385.34		8,556.36	Viridor	Sims Metals, South Wales JC Thomas & Sons, Glastonbury, Somerset Hallett Metal Recycling, Crewkerne	0.00	Broken down into separate components, baled and recycled
TYRES	253.78		N/A*	Viridor	Tyre Renewals, Castle Cary, Somerset	0.00	Tyres shredded and granulated, with granules sorted to provide different grades for children's play areas, equestrian surfaces and other recycled products.

WOOD	3,544.83		17.72	Viridor	Kronospan, Wrexham	0.00	Made into new wood panels such as MDF and chipboard
					Viridor composting sites in Somerset (see above)	0.00	Mixed with food waste and composted in the in-vessel composter at Dimmer. Compost used as soil improver by local farmers.
PLASTERBOARD	363.88		N/A*	Viridor	New West Recycling, Avonmouth	0.00	Plasterboard is processed to separate the gypsum and paper. Gypsum is reprocessed into new plasterboard, and paper is reprocessed into a variety of new paper materials.
HARDCORE AND SOIL	23401.31 **		0.00	Viridor	Reprocessed by Viridor	0.00	Used in landscaping or track construction on landfill sites **

\* No figures available for Carbon savings

\*\* Not counted as recycling for National Indicators and excluded from recycled totals

SOMERSET WASTE PARTNERSHIP	RECYCLED excludes ** (TONNES)	REUSED (TONNES)	CARBON SAVED COMPARED WITH LANDFILL (TONNES CO2 EQUIVALENT)	EXPORTED (%)	EXPORTED (TONNES)	TOTAL RECYCLING AND REUSE (TONNES)
TOTALS	125,462	2,582	105,425	11%	13,593	128,044



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