For further information and updates on progress or to be put on our mailing list, please visit our website:
www.veolia.co.uk/southdowns

Veolia Environmental Services can supply the details of this document in large print.
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Transforming *your rubbish* into a resource

VEOLIA ENVIRONMENTAL SERVICES

Household waste recycling sites

We can't *bury the problem* any longer

East Sussex and Brighton & Hove residents produce around 400,000 tonnes of waste every year. In the past most of this waste has been landfilled but in addition to capacity running out fast this option is no longer the best environmental solution.

Working in Partnership

As part of Veolia's long-term integrated waste management contract with East Sussex County Council and Brighton & Hove City Council, Veolia operates 14 Household Waste Recycling Sites:

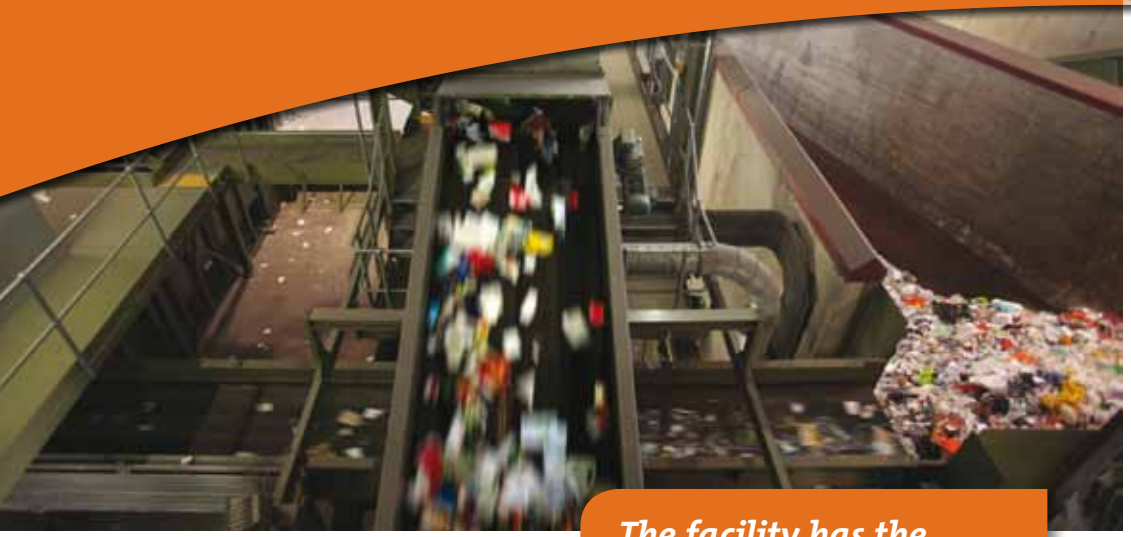
These strategically located sites ensure householders have the opportunity to reuse and recycle more waste, reducing further dependency on landfill and making a positive contribution to society and the environment.

Turning your rubbish into a resource

Our friendly and helpful staff will be pleased to assist you in recycling. The range of materials that can be recycled at the sites are listed below. For information on what can be recycled at your local site please visit our website www.veolia.co.uk/southdowns/HWRS

ITEMS YOU CAN RECYCLE	TURNED INTO
Bric-a-brac/furniture	Second hand use at Hove, donated to YMCA for sale. At ESCC HWRS sold in site shops (excluding electricals)
Aluminium foil	Accepted with metal recycling. Metals sorted and sold back into market for new products
Car batteries and household batteries	Car batteries – the acid and plastic are removed and recycled. Lead is processed into new ingots for the lead industry. Household (dry cell) batteries are treated to remove metallic compounds, plastic and steel cases removed. Remainder processed into metal alloy for further use
Cooking oil	Bio-diesel
Engine oil	Made into recycled fuel oil
Fluorescent tubes/energy saving bulbs	Tubes and bulbs are de-globed and crushed, materials separated and recycled
Fridges/freezers	Harmful material is removed and the remaining metals and plastics are sent for recycling
Green garden waste/Christmas trees	Green waste is composted and sold as compost or as a soil conditioner to local businesses and households
Hardcore/rubble	Aggregate substitute and landfill top cover
Soil	Landfill top cover
TVs/computer monitors	Dismantled, cathode ray tubes treated, remaining materials sent for recycling
Metal items	Metals separated into different types and sold on for reprocessing into new products
Textiles and shoes	Sent to overseas aid projects/items for sale in charity shops/cleaning cloths and rags (eg mattress stuffings)
Timber/wood	Reprocessed into a material suitable for boardmaking (MDF)
Tyres	Part worn tyres remarketed, otherwise reprocessed into soft play surfaces, carpet underlay for example
Glass bottles and jars	New glass bottles and jars
Newspapers, junk mail, white paper	Newspaper, cardboard inner lining
Yellow pages	Paper
Card and cardboard	Typically made into packaging materials
Plastic bottles	A range of products including fleece jackets, sleeping bag fibre and wrappings, garden furniture, watering cans, underground mains drainage
Aluminium cans	Cans and other aluminium products
Steel cans	Cans, car parts, white goods, cycles, cutlery
General rubbish	Landfill or energy recovery
Books	Reuse or recycled
Gas bottles	Refilled and reused
MDF	Used as a renewable energy fuel
Plasterboard	Plasterboard is separated into its component materials and sent on for reuse/recycling
Shoes	Distributed to developing countries around the world or donated to charity shops
Waste electrical and electrical equipment (WEEE)	Separated into component parts for recycling

Materials recovery



The facility has the potential to process 60,000 tonnes per year

The Material Recovery Facility in Hollingdean, Brighton ensures that recyclables collected from householders by local councils in East Sussex and Brighton & Hove are sorted, and delivered to reputable reprocessing companies, reducing the strain on the planet's limited resources.

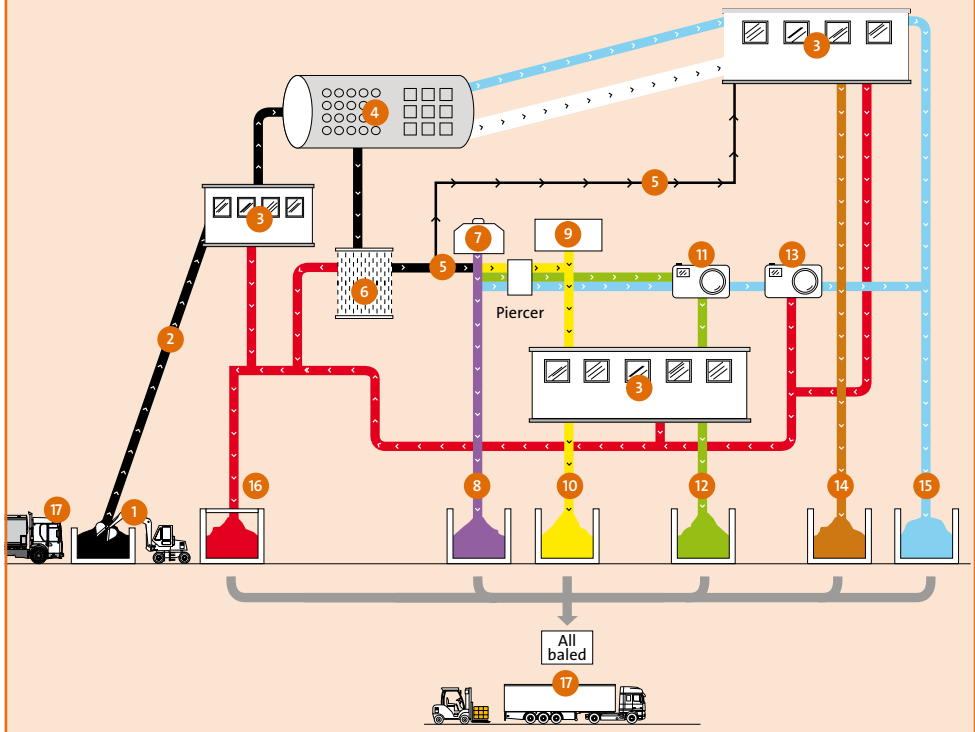
The Hollingdean facility has the capability to process up to 60,000 tonnes per annum, via a modern, clean, automated plant which works by separating the paper products from the containers. Then the process focuses on separating the ferrous and then aluminium cans from the plastic bottles and the paper from the card.

This automated system is supported by a dedicated team of operatives, who contribute significantly to the quality of the materials sent for reprocessing by removing contaminants as they pass through the plant.

Visitors to the facility are welcome, although for safety reasons age restrictions apply, for further information please contact 08453 550550.

ITEMS RECYCLED HERE	TURNED INTO
Newspapers, junk mail, paper	Newspaper
Card	Cardboard
Cardboard	Insulation
Plastic bottles	Fleece jackets, watering cans, street signage
Aluminium cans	Cans
Steel cans	Cans, car parts, white goods, cycles, cutlery

Materials recovery – how it works



KEY

1. Bag splitter
2. Material loaded onto conveyor belt
3. Manual sort cabins
4. Trommel
5. Air knife
6. Disc screen
7. Ferrous separator
8. Ferrous bunker
9. Aluminium separator
10. Non-ferrous bunker
11. Plastic optical sort
12. Plastic bunker
13. Paper optical sort
14. Cardboard bunker
15. Mixed paper bunker
16. Residue bay
17. Vehicles in and out

- Mixed
- Residue
- Non-ferrous metal
- Ferrous metal
- Plastic
- Oversize items
- Card
- Mixed paper

Enclosed composting facility

The facility produces an organic soil conditioner

Designed to process both kitchen waste and green garden waste, this modern facility is capable of processing up to 46,000 tonnes per annum of biodegradable waste received from local council kerbside collection schemes and via the 14 Household Waste Recycling Sites throughout East Sussex and Brighton & Hove.

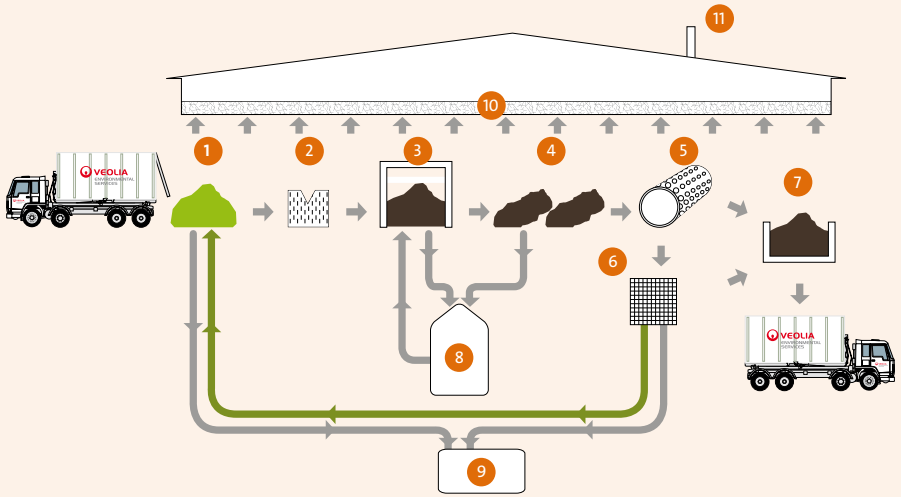
In addition to the benefit of diverting more waste away from landfill, this recycling process will generate a top-quality soil conditioner, contributing further to the protection of the environment by reducing the pressure on natural peat bogs.

The compost used by farmers, horticulturists, landscapers and keen gardeners meets Animal By-Product Regulations and is Quality Certified.

Visitors to the facility are welcome, although for safety reasons age restrictions apply, for further information please contact 08453 550550.

YOUR RUBBISH	TURNED INTO
Grass, prunings, leaves, fallen fruit, organic compostable kitchen waste	Soil conditioner for use in gardens, parks and agricultural land

Composting – how it works



KEY

1. Tipping hall
2. Shredder
3. Tunnels
4. Maturation hall
5. Screener
6. Windsifter
7. Storage bunker
8. Water treatment system
9. Residue container
10. Odour control system
11. Chimney

The biodegradable waste materials are delivered to an enclosed delivery hall where any obvious contamination is removed.

The materials are then shredded, mixed and loaded into a series of enclosed tunnels. Every tunnel acts as a highly efficient biological reactor where temperature, moisture and oxygen levels are monitored continuously to ensure optimum conditions for accelerated degradation are met and to guarantee full batch traceability and quality control.

Air drawn from the processing areas is filtered to clean up any odorous substances in the air before being released via the chimney. Any condensate or leachate produced is re-circulated within the process.

The compost is then removed for a final period of maturation, after which it is graded and marketed. The whole process takes about 8-12 weeks.

Energy recovery facility

Residual black bag waste is used to generate electricity

Following on from the need to reduce and re-use as much waste as possible, recycling and composting is always the next step. Thereafter residents across East Sussex and Brighton & Hove put out their remaining residual black bag waste, which historically has been sent to landfill.

The majority of this residual waste will soon be delivered to the Energy Recovery Facility, where it will be used to produce electricity.

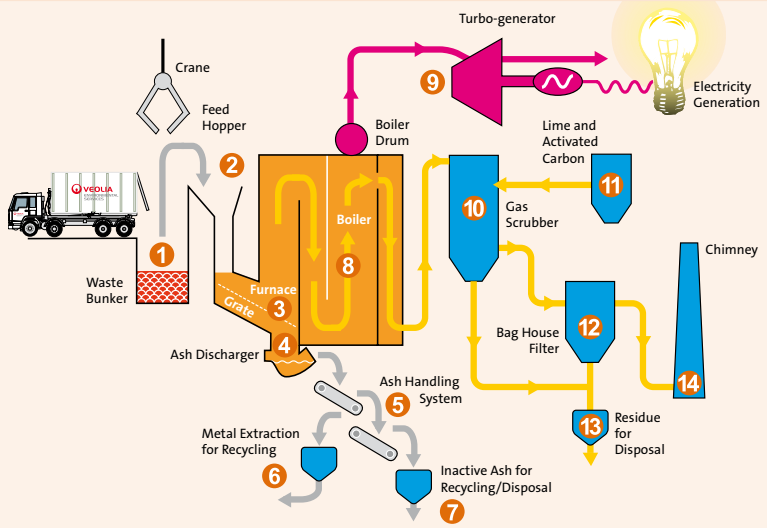
It will export about 16.5 Megawatts into the national grid, enough to power 25,000 homes continuously for example, thus turning waste into a resource.

Visitors to the facility are welcome, although for safety reasons age restrictions apply, for further information please contact 08453 550550.

ITEMS YOU CAN RECYCLE	TURNED INTO
Residual black bag waste	Electricity (power and light)

Energy recovery – how it works

The Energy Recovery Facility will generate electricity sufficient to power more than 25,000 homes.



Collection and combustion

After various materials have been separated for recycling via kerbside recycling schemes or the network of Household Waste Recycling Sites, the majority of the remaining waste can be processed at the Energy Recovery Facility.

The residual waste is tipped into a bunker **(1)** within the waste reception hall and placed by a crane into a feed hopper **(2)**. It then passes down a feed chute onto the grate **(3)**. The action of the grate mixes and agitates the waste to allow it to burn fully.

The process reduces the waste volume received by up to 90%. The burnt-out ash passes through the ash discharger **(4)** onto an ash handling system **(5)**. Here metals are extracted for recycling **(6)**. All these processes take place within enclosed areas. The remaining ash is sent for processing and reuse within the construction industry or for disposal **(7)**.

Electricity production and air pollution control

Hot gases produced in the combustion process pass through a water tube boiler **(8)** where they are cooled; the water heated by the gases then becomes steam. A turbo-generator **(9)** uses the steam to produce electricity both for the facility's consumption and for export to the electricity distribution network. There is also the potential to make steam or hot water available for district heating should this prove practicable.

The gases from the boiler go through an extensive flue gas cleaning process. This consists of a gas scrubber **(10)** where the acid gases are neutralised and activated carbon **(11)** is added to remove other pollutants. Finally, a fabric filter **(12)** removes any remaining particulates. The resulting residue (less than 3% of the original waste) captured in the flue gas cleaning process is then sent either to a specialist recycler or to a facility licensed to dispose of this type of waste **(13)**. The cleaned gases are finally released to the atmosphere through the twin chimneys **(14)**.

Waste transfer station

There are four waste transfer stations in East Sussex and Brighton & Hove, some of which share the same site as other waste processing facilities. Each waste transfer station is designed to receive residual household waste, dry recyclables and street cleansing waste.

Firstly they are delivery points for local waste collection vehicles, ensuring more time is spent by the local council's resource in delivering their services than travelling long distances to unload.

Each waste transfer station is designed to receive residual household waste, dry recyclables and street cleansing waste

Secondly the delivered material is then transferred onto much larger vehicles, capable of transporting up to four times as much as a kerbside collection vehicle. This transfer delivers a significant reduction in the amount of vehicle miles needed to move the waste, thereby reducing local traffic and the associated environmental impact.

The residual waste material is sent to an Energy Recovery Facility or landfill and the recyclable material is either sent to a sorting facility or direct to the appropriate reprocessor for recycling, such as glass.