

South East Capacity Review

Stage 3: Context Review

Scoping Review Of Recycling & Reprocessing Infrastructure in South East England

Prepared for



Final Issue

15th December 2006



Beyond Waste

www.beyond-waste.com

© Beyond Waste 2006

South East Capacity Review

Stage 3: Context Review

Acknowledgements

Beyond Waste gratefully acknowledges the time and valuable input given by the companies and individuals to this project. Special appreciation and gratitude are expressed to the following for their invaluable contributions to this particular stage:

- Kate Aulman SEERA (GIS Support)
- Audrey Jones English Nature

Disclaimer

While Beyond Waste believes that the information and opinions given in this work are sound, all parties must use their own skill and judgement when making use of it. The findings and conclusions given in this report are substantially based on information provided by third parties. Therefore Beyond Waste does not make any claims or warranties, expressed or implied, as to the accuracy or completeness of the information contained in this report and accepts no liability for it.

South East Capacity Review

Stage 3: Context Review

Table of Contents

Introduction	1
Project Structure	1
Item 1: Environmental & Landscape Designations	2
Item 2: Legislative Milestones	6
Summary	9
Index of Maps	
Map 1: Environmental Designations within the South East	2
Map 2: Significant Waste Management Facilities & Environmental Designations	5
Index of Tables	
Table 1: EU wide Factors Affecting End of Life Management of Target Materials	7
Table 2: Points at which Drivers impact the Material Supply Chain	9
Index of Figures	
Figure 1: Legislative Milestone Matrix	6

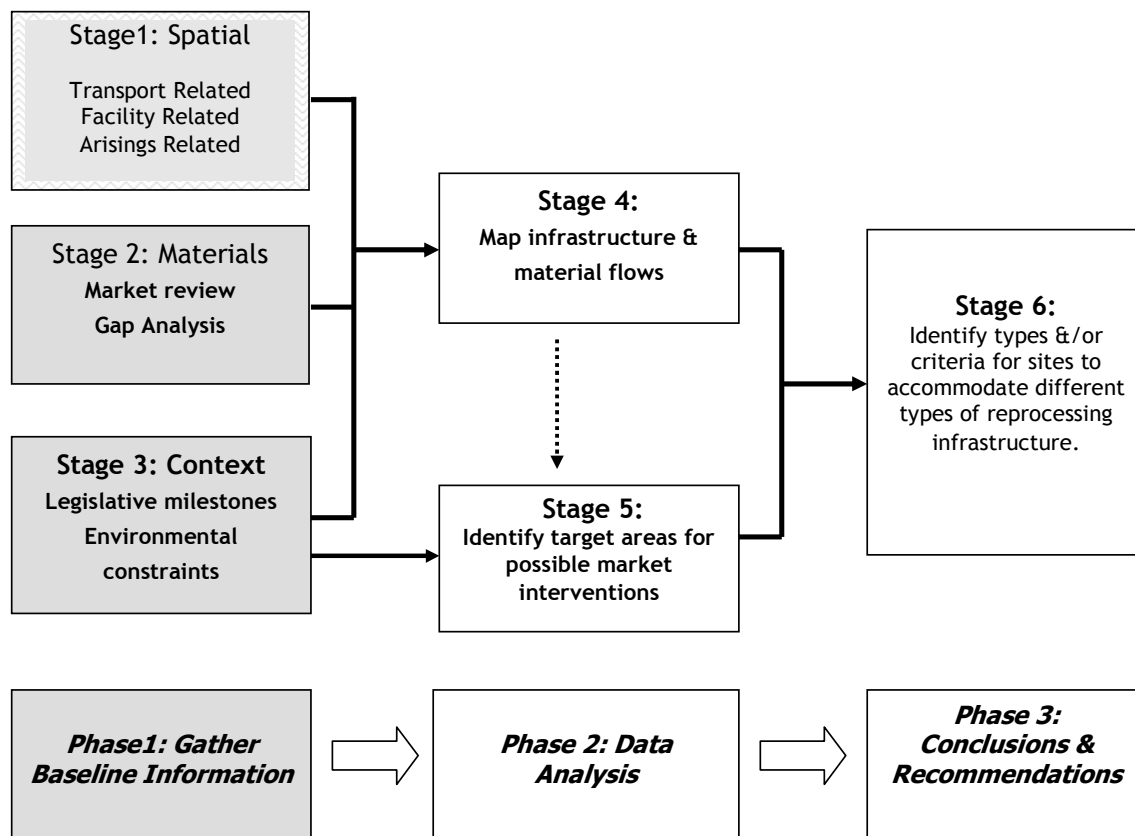
South East Capacity Review

Stage 3: Context Review

Introduction

The South East England Regional Development Agency commissioned Beyond Waste to undertake a scoping review of recycling and reprocessing capacity and associated infrastructure within the region.

Project Structure

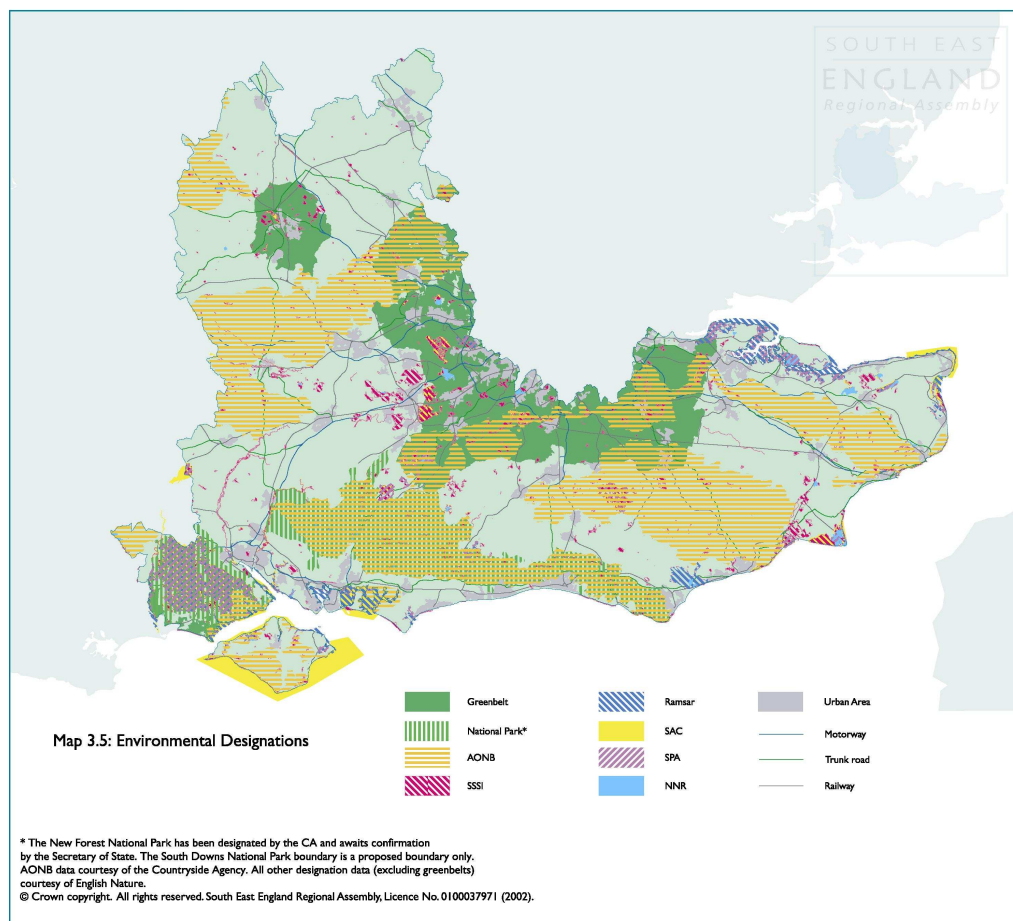


This report summarises the findings of our work on Stage 3 of the project focussed on the context for recycling and reprocessing activity in the South East region. This is defined by the policy context and spatial constraints. The legislative summary draws on various sources including the DEFRA and Environment Agency and letsrecycle.com websites. The spatial data is sourced from SEERA and English Nature.

South East Capacity Review

Stage 3: Context Review

Item 1: Environmental & Landscape Designations



Map 1: Environmental Designations within the South East

Map 1 shows the type and extent of formal environmental designations within the region. It has been produced by SEERA. The background data has been utilised to screen potential sites considered at Stage 6 of the project. The following text has been sourced from the English Nature website¹.

The Region has a natural heritage of great richness, a result of a diverse natural environment and the influence of man through the ages. This is epitomised by our coast, where estuaries, salt marsh and shingle are found interlinked with residential and industrial centres. Inland, this interaction is mirrored across rural areas where market towns and farms are woven with some of the finest chalk downland, broadleaved woodland, heathlands and chalk rivers found in the UK. The Region's natural resources have enabled the economic and social development

¹ <http://www.english-nature.org.uk/maps/region.asp?Reg=6>

South East Capacity Review

Stage 3: Context Review

in the South East, and continue to underpin our high quality of life and our capacity to attract talent and investment.

Sussex and Surrey are developed counties and still rich in wildlife. Particularly valuable are the extensive open heaths, the rolling chalk hills of the North and South Downs and the estuaries and river valleys. Many of the urban areas, including the city of Brighton and Hove, contain pockets of land of significance for wildlife and vital to the people who live there.

- The counties are amongst the most wooded in England. Much of this is ancient deciduous woodland which supports some of the finest displays of bluebells in the world. Kingley Vale National Nature Reserve is considered the best example of ancient yew woodland in Britain.
- Great tracts of heathland still exist here, and support rare heathland birds and reptiles.
- The famous white cliffs have unique geological formations, and the spectacular flower rich grasslands of the Downs are of international importance.
- Pevensey Levels in East Sussex and Amberley Wild Brooks in the West are two of the finest surviving examples of the great wetlands which once dominated the landscape.

In **Kent** there are 12 National Nature Reserves and 101 Sites of Special Scientific Interest. (SSSI)

Hampshire and the Isle of Wight has 162 SSSIs (of which 91 fall within the boundaries of internationally important wildlife sites) and 5 National Nature Reserves.

Berkshire, Buckinghamshire and Oxfordshire

From the wide, open rolling downs of West Berkshire to the more intimate landscape of chalk grasslands and beech woodlands in the Chilterns, and from the flower-rich meadows of the upper Thames to the heathland gravels of the London Basin. There are eight National Nature Reserves in this part of the region as well as the original English population of introduced red kites near Stockenchurch. With major communications routes crossing the area this heartland of Southern England is under considerable pressure for housing, industry and recreation.

South East Capacity Review

Stage 3: Context Review

Designations as Constraints on Future Development

Most designations provide an indication of policy presumption for or against development. The majority do not act as absolute prohibition to development but flag the need to scrutinise the merits of siting a particular facility in a particular location. It is important to determine which might be classed as 'show stoppers' and which need to be considered on a site by site basis. SEERA planners were consulted on this and their response was that "the only designations that are real showstoppers are SSSIs and Special Protection Areas and Areas of Conservation. However, to ease the planning process it would be wise to also avoid green belt and particularly AONBs, as only small scale development serving local needs are likely to get permission in these areas."²

SSSIs

In 1992, the Government increased protection for SSSIs within the land use planning system. It withdrew permitted development rights for certain temporary uses of land and indicated that the Secretary of State would generally call in and determine planning applications which would significantly affect sites of national and international conservation importance. It also provided additional advice on the need for Environmental Assessment, and required local planning authorities to consult the conservation agencies about planning applications on land near to and likely to affect a SSSI.

These measures are designed not to prohibit appropriate activities but to ensure that the planning process can properly consider, evaluate and balance the needs and aspirations of the individual against those of the local, national and international community. They ensure that the nature conservation interest is taken fully into account before development, or a change in management practice which would cause damage, is permitted. Nevertheless Government's expectation is that development proposals which would damage SSSIs will normally be refused

Source: DEFRA website

<http://www.defra.gov.uk/wildlife-countryside/ewd/ewd08.htm>

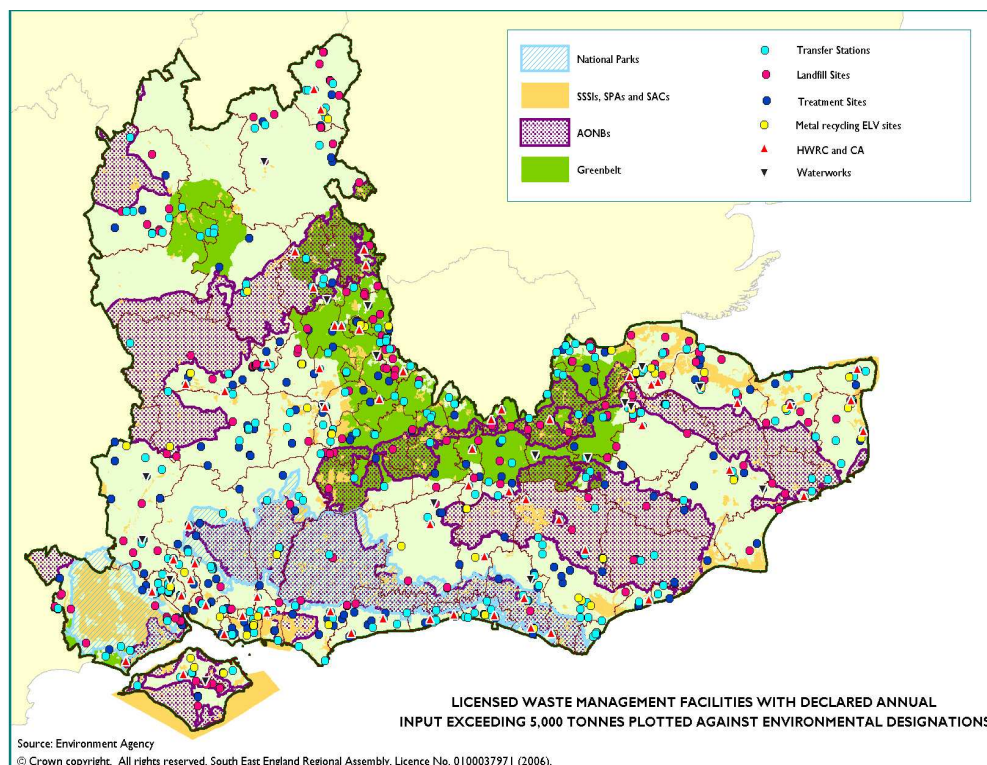
In truth SSSIs are not always going to be showstoppers. It is not uncommon for geological SSSIs to be present in relation to waste management facilities sited in old quarries which expose the geological record. However the siting does not compromise the protected area and English Nature has developed guidelines for retaining exposures on landfill sites in particular. Thus there is a need to distinguish between SSSI on the basis of reason for designation to enable those that might coexist with other uses and those that prevent it for reasons of habitat etc. English Nature has provided data for SSSIs by designations and this has been an input to the site selection work reported in Stage 6.

² David Payne Planning Manager SEERA pers comm

South East Capacity Review

Stage 3: Context Review

Mapping existing waste management facilities against designations gives an indication of the influence designations have had. Facilities have been mapped against designations shown in Map 1 in Map 2.



Map 2: Significant Waste Management Facilities & Environmental Designations

This shows that the areas designated as AONB have relatively few sites located in them. This appears to be as much a function of the relative remoteness of these areas from the principal sources of waste as the protection afforded by the designation itself. By the same token sites are relatively plentiful in the Green Belt which reflects the fact that by its nature Green Belt is in close proximity to urban centres. The National Park designation afforded to the New Forest appears to have acted as a complete brake on siting. The prospect of designation of the South Downs as a national park may act in the same way in future. However the New Forest National Park was only established on 1 March 2005 and prior to that it was an AONB. This highlights a caveat in this exercise in that some sites will have existed prior to designation of an area. Hence the outputs should not be relied upon as an absolute indication of protection offered.³

³ SPAs and SSSIs are designated under the Wildlife and Countryside Act 1981.

AONBs were brought into being by the National Parks and Access to the Countryside Act of 1949.

Green belt was first introduced for London in 1938 and rolled out to England as a whole by a government circular in 1955.

South East Capacity Review

Stage 3: Context Review

Item 2: Legislative Milestones

The matrix in Figure 1 has been prepared plotting the key legislative milestones influencing the development of recycling capacity.

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2020
ACROSS ALL WASTE STREAMS													
All		Landfill Tax escalator to £3/tonne/annum							Landfill Tax £35/tonne				
			Pretreat all waste landfilled			Pretreat all waste landfilled							
		Review of Transfrontier shipment regulations	Waste Framework Directive Recovery Review										
MATERIAL SPECIFIC MEASURES													
Packaging		recover 65%	recover 67%	recover 69%	recover 60% by Dec 31 UK recover 70%								
Paper		66	68	69	60% (70)								
Glass		55	61	65	60% (71)								
Wood		19	20	20.5	15% (21)								
Plastic		22	22.5	23	22.5% (23.5)								
Packaging (Courtauld Commitment)					Design out Packaging Waste Growth		Deliver absolute reductions in packaging waste (March)						
WEEE			recovery/ recycling and collection target met (31 Dec)		new recovery/ recycling and collection target set (31 Dec)								
Fridges (ODS Regulations)	methyl bromide production banned				hydrochlorofluorocarbons phase out commences							hydrochlorofluorocarbons banned (Jan 1)	
ELV			85% reuse/ recovery, 80% reuse/ recycling, (Jan 1) Targets reassessed									95% reuse/ recovery, 85% reuse/ recycling (Jan 1)	
		MAC Directive to minimise emissions of F-gases from vehicle air conditioning systems											
Tyres	Shredded tyres banned from haz landfill		Shredded tyres banned from non haz landfill (July 16)										
Combustible I.e. Plastic, Tyres, ELV/WEEE residue, Paper, Card, Wood		WID Applies (Dec 28)		IPPC Applies (submit Mar 06)	LOPlant Directive Applies (pre 1987 plant)								
Biodegradable Combustible I.e. Paper, Card & Wood		ROCS Review										ROCS end	
Hazardous Elements of ELV & WEEE	Co disposal ceases												
	Pretreat all landfilled haz waste	Hazardous Landfill WAC											
	Stable Haz WACS												
	SW Producer registration												
WASTE STREAM SPECIFIC CONTROLS													
MSW													
Biodegradable I.e. Paper, Card & Wood		Landfill Allowance Trading Scheme (WET)		LATS FIRST REVIEW			75% 1995 BMW to landfill			50% 1995 BMW to landfill	EC Reviews if Final BMW Target		35% 1995 BMW to landfill
All							Separately collect at least 2 materials (HWRA)						
All		40% recovery 25% recycling & composting HW (WS 2k)					45% recovery 30% recycling & composting HW (WS 2k)					67% recovery 33% recycling & composting HW (WS 2k)	
All			25% recycling & composting via LA Best Value targets		Revised recycling & composting BVPI targets								
WASTE STREAM SPECIFIC CONTROLS													
C&I													
All		National landfill reduction target 85% of 1998 levels											
BW= biodegradable waste, HW= household waste, HWRA= Household Waste Recycling Act, ODS = Ozone Depleting Substances, ROCS = Renewable Obligation Certificates, WET = Waste & Emissions Trading Bill, WFD = Waste Framework Directive, WID= Waste Incineration Directive, WML = waste management licensing WS2k = Waste Strategy 2000													
	denotes preliminary/out to consultation												
	denotes compliance deadline for EU law												
	denotes compliance deadline for UK law												
	denotes compliance deadline for UK policy												
	denotes difference between policy targets and absolute deadlines i.e. where there is scope for slippage & investment risk												

Figure 1: Legislative Milestone Matrix

Formatted: Font: Bold

South East Capacity Review

Stage 3: Context Review

Each target material is subject to legislative pressures that create a need to manage them by routes other than landfill in each EU Member State. These can take the form of promoting measures that pull materials into the recycling system or inhibiting measures that push materials from landfill. Table 1 outlines the relevant factors.

Material	Promotor	Inhibitor
Paper/Card	Packaging Directive recycling targets	Landfill Directive BMW diversion targets
Glass	Packaging Directive recycling targets. ELV & WEEE recycling targets	
Plastic	Packaging Directive recycling targets ELV & WEEE recycling targets	Ban on farm tips
Wood	Packaging Directive recycling targets	Landfill Directive BMW diversion targets
WEEE	WEEE Directive recycling targets	Ozone Depleting Substances Regulations Hazardous Waste Directive & Landfill Directive ban on co-disposal (CRTs)
ELV	ELV Directive recycling targets	
Tyres	ELV Directive recycling targets	Landfill Directive ban

Table 1: EU wide Factors Affecting End of Life Management of Target Materials
Regulatory Uncertainty

Figure 1 presents a snapshot of regulatory drivers on different waste streams. While we have endeavoured to account for the uncertainty in implementation by use of the arrow, experience shows the prospect offered by measures to deliver certain tonnages of materials are by no means guaranteed. There are a number of points between adoption of a Directive and actual implementation that present risks to planning of capacity.

European Level

Many measures have an inbuilt review target review requirement. For example Article 7 of the ELV Directive includes a commitment to review the 2015 recycling targets by the end of 2005 to take into account, amongst others, of the development of the material composition of vehicles. This might be seen as an opportunity to increase or decrease targets according to the progress towards initial targets. In the case of ELV the initial conclusions of the review is that consideration be given to reducing the 2015 reuse and recycling target from 85% and freezing it at 80% in line with the 2006 target level as established by the Directive whilst holding the 2015 target for reuse and recovery at 95%. This is on the basis that the costs imposed by going beyond the 2006 targets are not matched by an equivalent environmental benefit, as no recycling markets exist for the bulk of the materials, which can be recovered by post shredder treatment in any event, at much lower costs.

South East Capacity Review

Stage 3: Context Review

There is also an important shift in policy emphasis marked by the recent Thematic Strategy on the Prevention and Recycling of Waste⁴. This is heralding a review and rationalisation of existing legislation with the prospect of relaxation on the key issue of when waste may cease to be a waste, a focus on reducing the environmental impact of production and consumption and a much greater emphasis on justification of new measures through life cycle assessment.

National Implementation

Once Directives have been adopted they must be transposed into national legislation. This legislation may then require further mechanisms to be established to implement the requirements on the ground. Delays can be encountered here. An example here is the late postponement of implementation of WEEE Take Back in UK.

Even when implemented how requirements are interpreted can have a major influence. For example the successful lobbying of the Commission to allow shredded tyres to be used as engineering material in landfill sites or the last minute *volte face* on the ban on landfilling meat based foodstuffs under the Animal By-products Order.

Finally once implemented into law the effective delivery of material for recycling relies on effective enforcement. For example the decision by the Environment Agency to only view WEEE delivered separately to CA sites as being subject to Directive requirements means that there is considerable doubt that the predicted quantities of small WEEE will materialise for recycling. Similarly local authorities are seeking commitment from central Government around the imposing of fines on local authorities that fail to comply with the Landfill Directive BMW diversion targets. In the case of the ELV Directive the target review exercise established that only 50% of ELVs appeared to be captured by the collection system.

⁴ <http://ec.europa.eu/environment/waste/strategy.htm>

South East Capacity Review

Stage 3: Context Review

Policy Context

Table 2 applies the different legislative and policy drivers to the different stages of the recycle source to market model.

	Regulatory Driver	Other
SOURCE	Waste Related	Evolution of Products
	Product Related	
COLLECTION/LOGIST		Fuel Duty Escalator
		Road Pricing
		Waste Miles & CO2
		Voluntary measures
REPROCESSING	TFS review	
	ROCs & CCL	
	IPPC & BAT	
	H&S for MRFs	
PRODUCT	H&S content	Minimum standards
	Packaging Essential Requ	% recycled content
	ROHS	
MARKET		Buy local procurement

Table 2: Points at which Drivers impact the Material Supply Chain

Summary

This section has detailed the spatial constraints on and legislative drivers for developing recycling and reprocessing capacity. A large part of the region is covered by designated areas which require that new capacity be sensitively sited. However the evidence suggests that in most cases designations in themselves may not be insurmountable barriers to development.

The review of the legislative framework demonstrates that while it is extensive there is inherent uncertainty in planning capacity. Potential investors will undertake detailed assessment associated with each requirement to identify and understand the potential value chain offered and look to anticipate all possible risk factors.

Notwithstanding this uncertainty, the prospect of returns offered by these measures continues to attract investment from the more entrepreneurial/less risk averse players in the sector.

Beyond Waste

15.12.06