place services

Essex County Council

Essex County Council & Southend-on-Sea Borough Council Replacement Waste Local Plan: Pre-Submission

Sustainability Appraisal and Strategic Environmental Assessment

Environmental Report: Non-Technical Summary

February 2016

Contents

List of Tables

Glossary of Acronyms

ANGSt	Accessible Natural Greenspace Standard
AD	Anaerobic Digestion
ALC	Agricultural Land Classification
AONB	Areas of Outstanding Natural Beauty
AQMA	Air Quality Management Area
BAP	Biodiversity Action Plan
BARR	Buildings At Risk Register
CD&E	Construction, Demolition and Excavation Waste
CH&P	Combined Heat and Power
C&I	Commercial and Industrial wastes
CPZ	Countryside Protection Zone
CWS	County Wildlife Site
DCLG	Department for Communities and Local Government
DEFRA	Department for Environment, Food and Rural Affairs
DPD	Development Plan Document
EA	Environment Agency
EC	European Community
ECC	Essex County Council
EEC	European Economic Community
EHER	Essex Historic Environment Record
ELV	End of Life Vehicle
EU	European Union
FZ	Flood Zone
GIS	Global Information System
GWh	Giga Watt per hour
ha	Hectare
HARR	Heritage at Risk (in Essex) Register
HEC	Historic Environment Characterisation
HRA	Habitats Regulations Assessment
kW	Kilo Watt
LCA	Landscape Character Areas
LDF	Local Development Framework
LNR	Local Nature Reserves
LoWS	Local Wildlife Sites
MGB	Metropolitan Green Belt
MLP	Minerals Local Plan
MRF	Materials Recycling Facility
MW	Mega Watt
NNR	National Nature Reserve

NO2	Nitrogen Dioxide
NPPF	National Planning Policy Framework
ODPM	Office of the Deputy Prime Minister
PAS	Planning Advisory Service
PDL	Previously Developed Land
PM10	Particle Matter
PPS	Planning Policy Statement
PRoW	Public Right of Way
RCHW	Recycling Centres for Household Waste
RWLP	Replacement Waste Local Plan
SA	Sustainability Appraisal
SA/SEA	Sustainability Appraisal incorporating the Strategic Environmental Assessment
SAC	Special Areas for Conservation
SARS	Strategic Aggregate Recycling Site
SBC	Southend Borough Council
SEA	Strategic Environmental Assessment
SFRA	Strategic Flood Risk Assessments
SM	Scheduled Monuments
SPA	Special Protection Area
SPZ	Source Protection Zone
SSSI	Site of Special Scientific Interest
SuDS	Sustainable Drainage Systems
TPO	Tree Preservation Order
WCA	Waste Collection Authority
WDA	Waste Disposal Authority
WDD	Waste Development Document
WPA	Waste Planning Authority

1 Introduction

Essex County Council (ECC) and Southend-on-Sea Borough Council (SBC) commissioned Place Services to undertake an independent Sustainability Appraisal (SA) incorporating Strategic Environmental Assessment (SEA) on the Replacement Waste Local Plan: Pre-Submission 2016.

1.1 The Waste Local Plan: Pre-Submission 2016

SEA Directive requires: 'An outline of the contents and main objectives of the plan or programme, and of its relationship with other relevant plans and programmes.' Annex I (a)

As part of its work on the new Waste Local Plan, ECC and SBC as Waste Planning Authorities (WPAs) have prepared a Replacement Waste Local Plan Pre-Submission document for public consultation.

The Pre-Submission document builds on the WPAs' previous progress towards a Waste Development Document (WDD), incorporating a Core Strategy, Site Allocations and Development Management Policies, under the previous planning system. The change from a WDD to a WLP brings the document in line with current planning policy terminology, including revisions in approach to reflect new policy requirements, hence the need for a new consultation. The components of the plan are the same, and the WLP contains:

- Site allocations for waste management facilities
- Strategic Objectives and policy direction
- Development management policies

The Plan has been through a number of stages to get to this point. These are:

- WDD Issues and Options (2010)
- WDD Preferred Approach (2011)
- RWLP Revised Preferred Approach (2015)

All of these iterations of the Plan have been made available for consultation and have been accompanied by a Sustainability Appraisal.

1.2 Sustainability Appraisal (SA) / Strategic Environmental Assessment (SEA)

SEA originates from the European Directive 2001/42/EC "on the assessment of the effects of certain plans and programmes on the environment" (the 'SEA Directive') which came into force in 2001. It seeks to increase the level of protection for the environment; integrate environmental considerations into the preparation and adoption of plans and programmes; and promote sustainable development.

The aim of the SEA is to identify potentially significant environmental effects created as a result of the implementation of the plan or programme

SA examines the effects of proposed plans and programmes in a wider context, taking into account economic, social and environmental considerations in order to promote sustainable development. It is mandatory for Local Plans to undergo a Sustainability Appraisal.

1.3 The Aim and Structure of this Report

The Environmental Report responds to Stages B and C of the Sustainability Appraisal process. This document summaries the key impacts emanating from the Sustainability Appraisal of the Waste Local Plan Pre-Submission 2016. This document:

- Tests the local Plan objectives against the sustainability appraisal framework;
- Develops the Local Plan options including reasonable alternatives;
- Evaluates the likely effects of the Local Plan and alternatives;
- Considers ways of mitigating adverse effects and maximising beneficial effects; and
- Proposes measures to monitor the significant effects of implementing the Local Plan.

2 Sustainability Context, Baseline and Objectives

2.1 Introduction

The following section outlines the key findings of the Scoping Report which includes an outline of the plans and programmes, the baseline information profile for the Plan Area, together with the Sustainability Objectives. Annex C accompanying the main report sets out the detailed Sustainability Appraisal Framework and the Site Pro forma.

2.2 Plans and Programmes

Local Plans must comply with existing policies, plans and programmes at national and regional levels and strengthen and support other local plans and strategies. It is therefore important to identify and review those policies, plans and programmes and Sustainability Objectives which are likely to influence the Plan at an early stage.

Table 1: Key Documents

International / National Plans and Programmes
National Planning Policy Framework (Mar 2012)
National Planning Policy for Waste (2014)
The Environmental Assessment of Plans and Programmes Regulations 2004
The Public Services (Social Value) Act 2012
EU Landfill Directive
EU Waste Framework Directive
Infrastructure Bill 2014/15
Highways Act 1980
Flood and Water Management Act 2010
The Flood Risk Regulations 2009
Land Drainage Act 1991
Environmental Protection Act 1990
Water Framework Directive
EU Air Quality Directive 2008
Wildlife and Countryside Act 1981
Biodiversity 2020: A strategy for England's wildlife and ecosystem services (2011)
Countryside and Rights of Way Act 2000
Natural Environment White Paper (2011)
Active People Survey (Public Health England 2014)
The Public Health Outcomes Framework 2013-2016

The South East Local Enterprise Partnership Strategic Economic Plan
National Highways and Transportation survey (2013/14)
National Waste Management Plan for England 2013
Waste Prevention Programme for England
Accessible Natural Greenspace Standards (Natural England using 2008 baseline)
Council of Europe's European Landscape Convention 2000
Historic England Good Practice Advice notes
County (inc. Southend) Plans and Programmes
Updated Waste Capacity Gap Report 2016 (including Topic Paper 1: Waste Capacity Gap Update [2015])
ECC and Southend-on-Sea Borough Council Waste Local Plan (2001)
ECC Replacement Minerals Local Plan (2014)
Joint Health and Wellbeing Strategy for Essex 2013-2018
The Strategic Economic Plan for Essex 2015-2021
Local Transport Plan 2011
Speed Management Strategy (Mar 2010, with 2014 draft version)
Traffic Management Strategy (Mar 2005)
The Joint Municipal Waste Management Strategy for Essex 2007-2032
ECC SuDS Design and Adoption Guide (draft 2014)
Essex Local Flood Risk Management Strategy (Feb 2013)
Essex Surface Water Management Plans (Dec 2013)
Essex Rights of Way Improvement Plan (May 2009)
Essex Biodiversity Action Plan 2011
District / Borough plans and programmes
Local Plan Core Strategy Revised Preferred Options (2014) note – a Draft Local Plan (2016) due to go out on public consultation at time of writing Basildon District Local Plan Saved Policies (Sep 2007)
Braintree District Council Local Plan Issues and Scoping document (2015), Braintree District Core Strategy (Sep 2011), Braintree District Council Local Plan Review (2005)
Brentwood Borough Council Local Development Plan (emerging), Adopted Brentwood Replacement Local Plan (Aug 2005) + Saved Policy Direction Aug 2008
Castle Point (new) Local Plan (emerging), Castle Point Local Plan Saved Policies (Sep 2007)
Chelmsford City Council Local Plan Issues and Options (2015), Chelmsford City Council Core

Strategy and Development Control Policies (Focused Review 2013), Site Allocations Plan (2012), North Chelmsford Area Action Plan (2011)
Colchester Borough Council Local Plan (emerging), Colchester Local Plan Focused Review (2014)
Epping Forest Local Plan (emerging), Epping Forest Combined Local Plan (1998) and Alterations (2006) Policy Document (Feb 2008)
Harlow Local Plan 2031 (emerging), Adopted Replacement Harlow Local Plan (Jul 2006) + Saved Policy Direction (2009)
Maldon District Local Plan (emerging), Maldon District Rural Allocations Plan (emerging), Maldon District Replacement Local Plan And Saved Policies (Nov 2008)
Rochford District Allocations Plan (2014), Rochford District Core Strategy (2011)
Tendring Local Plan (emerging), Tendring District Local Plan (Dec 2007)
Uttlesford District Council Local Plan (emerging), Uttlesford Adopted Local Plan (Jan 2005), Saved Policy Direction (Dec 2007)
Southend-on-Sea Borough Council Core Strategy (2007), Southend-on-Sea Borough Council Development Management DPD – Revised Proposed Submission (2014), Southend-on-Sea Borough Council Southend Central Area Action Plan (SCAAP) DPD – Proposed Submission (2012)
Conservation Area Appraisals and Management Plans (District level, across the Plan Area)
Green Infrastructure Strategies (for Harlow, Southend, Caste Point, Basildon, Colchester and Tendring [at present])

2.3 Key Baseline Issues and Problems and the Likely Evolution of the Plan Area without Implementation of the Plan

Annex B details the complete Baseline Information profile for the Plan Area relevant to the content of the Plan.

The identification of key sustainability issues and problems facing the Plan Area assist in the finalisation of a set of relevant Sustainability Objectives which would set the framework for the appraisal of the Plan during its preparation. The sustainability objectives are also derived from the review of plans and programmes and a strategic analysis of the baseline information. The following table sets out the key baseline issues and problems and the likely evolution of the Plan Area without implementation of the plan, alongside a relevant Sustainability Objective to identify the problem as relevant to the Plan.

The appraisal will then be able to evaluate, in a clear and consistent manner, the nature and degree of impact and whether significant effects are likely to emerge from the Plan's proposed policies.

Table 2: Key Sustainability Issues and Problems and State of environment in absence of the Plan

Key Issues	Description / Supporting Evidence	State of environment in absence of the Plan	Sustainability Objective (SO)
Protecting international biodiversity designations	There are 10 SPA sites in the Plan Area (also Ramsar sites) which include Hamford Water, parts of the Colne and Blackwater estuaries, and the Dengie Marshes which cover approximately 30,524 ha and include coastal areas, estuaries, rivers and lakes/reservoirs.	Although biodiversity and ecological designations are protected internationally and nationally, allocating sites and devising policy criteria in a locally relevant plan-led system enables input by ecology specialists on a site-by-site basis and the best outcomes in light of all alternatives. Without factor in these designations, and general biodiversity concerns, the Plan could lead to inappropriate site allocations and policies that do not reflect the situation.	1) To protect and enhance biodiversity and geological diversity throughout Essex and Southend.
	There are 2 SAC areas in the Plan Area; a large coastal area known as Essex Estuaries stretching from Shoeburyness to Jaywick Sands; and Epping Forest.		
Protecting UK based and local biodiversity designations	In the Plan Area there are 81 SSSIs covering a total of 36,322 ha.		
	There are 7 National Nature Reserves (NNRs) located in the Plan Area.		
	There are currently 48 LNRs in the Plan Area.		
	Ancient Woodlands in the Plan Area cover approximately 12,800ha. or 3.5% of the County		

Key Issues	Description / Supporting Evidence	State of environment in absence of the Plan	Sustainability Objective (SO)
	In the Plan Area there are more than 1,440 LoWS covering over 13,000ha and together with statutorily protected areas they represent the minimum habitat to maintain current levels of wildlife.		
Ensuring policy exists that protects water quality	Surface water drainage can pollute waters; particularly petrol, oil, grease and metals from vehicles associated with the management of ELV facilities and landfill leachate.	Without the Plan's policy direction, it is possible that permissions are granted without suitable conditions. Water quality issues such as these are often tackled through initiatives on sustainable drainage systems. Without exploring flooding as a site assessment criteria and policy requirement, the Plan could exacerbate flooding issues through inappropriate development.	2) To maintain and enhance water quality and resources.

Key Issues	Description / Supporting Evidence	State of environment in absence of the Plan	Sustainability Objective (SO)
	Adherence to the measures in the Water Framework Directive to achieve good qualitative and quantitative status of all water bodies.	The plan will set the policy direction of what is acceptable in terms of waste management and those of facilities. The allocation of sites will also look at water related criteria; particularly relevant considering the range of water bodies in the Plan Area, including coastal waters and numerous estuaries. The nature of waste management can lead to a deterioration of water quality. Without this being an important consideration in the assessment of site allocations and policy requirements, water quality could worsen in the Plan Area through waste development and management.	
Flood risk	The National Planning Policy Framework seeks to avoid inappropriate development in areas at risk of flooding, but where development is necessary, to ensure that it is safe and does not increase flood risk elsewhere.	Site selection criteria, as well as a Flood Risk Assessment, are used to identify whether broad potential future locations for development represent the most appropriate choices in terms of flood risk. Without the Plan, the level of detail used to inform decisions of a strategic nature would not be as robust, especially regarding cumulative impacts. In addition, policy content can be used to set conditions on developments, or determine their	3) To minimise the risk and impact of flooding.
	Surface water flood risk is relatively high in Essex with all main settlements being ranked in the top 1,000 settlements most susceptible to surface water flooding.		

Key Issues	Description / Supporting Evidence	State of environment in absence of the Plan	Sustainability Objective (SO)
	Significant levels of flood risk have been identified along the Essex coast and inland along river stretches.	refusal in areas of flood risk. Without this being an important consideration in the assessment of site allocations and policy requirements of flooding issues, the baseline could worsen in the Plan Area through inappropriate waste development and management.	
	Large areas of Southend are susceptible to both fluvial and tidal flooding.		
Protecting soils	In the Plan Area, approximately 75% of the land area is considered agricultural land and over half of this is of high grade soils.	The quality of agricultural land has protection within the NPPF, however for economic reasons only. The Plan would be the predominant document in which to protect the wider sustainability aspects of such land from unsuitable waste related development. Without such a focus, development may arise on high quality land.	4) To maximise the sustainable use of land and the protection of soils, safeguarding the best and most versatile agricultural land.
	There are significant areas of Grade 1 agricultural land within Tendring and Rochford Districts, and smaller areas within Maldon District and Colchester Borough.		
Ensuring the sustainable use of land	New and safeguarded waste management facilities should be located in order to adhere to all relevant themes of sustainable development singularly and collectively.	The absence of the Plan could result in permissions being given for a range of facilities that, although the principle of development may be acceptable, would not conform to a spatial distribution strategy across the Plan Area.	

Key Issues	Description / Supporting Evidence	State of environment in absence of the Plan	Sustainability Objective (SO)
Protecting national and local heritage designations and their settings.	There are 13,991 listed buildings in the Plan Area; 272 of which are of exceptional interest (grade I) and 759 which are particularly important buildings of more than special interest (grade II*).	Although heritage and historic designations are protected nationally, allocating sites and devising policy criteria in a locally relevant plan-led system enables input by historic environment specialists on a site-by-site basis and the best outcomes in light of all alternatives. Without such a focus, there could be frequent and significant harm to historic assets and their settings throughout the Plan Area.	5) To conserve and enhance the historic environment, heritage assets and their settings
	There is a fairly even distribution of listed buildings within the Plan Area; however more in Uttlesford and Braintree and also around the town of Colchester.		
	The known archaeological resource in the Plan Area is very varied and highly significant; approximately 37,240 records of archaeological sites and finds.		
	Throughout the Plan Area there are 304 Scheduled Monuments, 228 designated Conservation Areas, 38 historic parks and gardens, and 1 of only 46 Registered Battlefield sites in the country.		

Key Issues	Description / Supporting Evidence	State of environment in absence of the Plan	Sustainability Objective (SO)
Protecting important designated and locally significant landscapes	In the Plan Area there is one AONB, Dedham Vale, which lies on the border of Suffolk and Essex covering an area of 90 sq km.	Although landscape designations are protected nationally, allocating sites and devising policy criteria in a locally relevant plan-led system enables input by landscape specialists on a site-by-site basis resulting in the best outcomes in light of all alternatives. Waste development by nature can be harmful to landscapes. Without such a strong focus on protection and mitigation through a plan-ked system, development could occur in high quality landscapes in the Plan Area.	6) To minimise the impact on landscape and townscape character.
	There are 9 local authorities in the Plan Area that have land classified as being within the Metropolitan Green Belt. There are also local authorities within the Countryside Protection Zone.		
	There are many protected lanes in the Plan Area which have significant historic and landscape values. There are also over 100 special verges designated in the Plan Area.		
Transport related air quality issues in key areas	Air quality in Essex is generally good. The largest concentration of industrial processes in Essex are along the Thames Estuary.	Without adequate policy protection, it is conceivable that facilities might be located in unsuitable areas in relation to AQMAs.	7) To protect air quality in the Plan area.
	There are currently 15 Air Quality Management Areas within the Plan Area. Brentwood has the highest number of designated AQMAs with five of these located along the A12.		

Key Issues	Description / Supporting Evidence	State of environment in absence of the Plan	Sustainability Objective (SO)
	Levels of air pollution are generally similar in both rural and urban areas, with exceptions being those Air Quality Management Areas (AQMAs) in or around urban areas. All sites monitored have seen a significant fluctuation in results.		
Energy consumption from transport	In the Plan Area the largest proportion of energy consumption in 2010 was within the transport sector which accounted for 39.3% of the total energy consumed.	The Plan has scope to include energy from waste (EfW) facilities if viable and suitable in proposed locations. The likelihood of such proposals being permitted, and in the correct locations, is likely to be weaker in the absence of the Plan.	8) To maximise energy efficiency, the proportion of energy generated from renewable sources and adaptability to climate change.
	There has been a reduction in fuel consumed on all roads by HGV vehicles in the Plan Area with the exceptions of the M25 at Brentwood and A-roads in Uttlesford.		
Opportunities for Energy from Waste (EfW) facilities	Within the Plan Area there are 18 renewable energy schemes either built or in the planning system. These combine to produce a maximum total of 105.5 MW, with the energy generating capacity for two further biomass facilities and a solar farm yet to be accounted for. A number of AD and landfill facilities generate energy from waste.	An absence of the Plan's strategic commitment to minimise waste miles could give rise to inappropriate transport distances to facilities from the sources of waste.	

Key Issues	Description / Supporting Evidence	State of environment in absence of the Plan	Sustainability Objective (SO)
Promote waste prevention and material and energy prior to disposal.	In Essex and Southend, 342,882 tonnes which accounts for 49% of the total household waste was sent to landfill in 2012/13.	Without the Plan it is likely that waste would not be appropriately managed, especially on a strategic scale.	9) To ensure the sustainable management of waste, minimise the quantity of waste landfilled and to maximise the re-use, recovery and recycling of waste.
Addressing capacity deficits in relevant waste streams	There are few facilities that managed organic waste arisings, especially in rural areas and there is a forecasted deficit in capacity requirements over the Plan period.		
	At present, there are no energy recovery facilities either operational or under construction although there is one with planning permission at Rivenhall.		
	In line with anticipated growth in the Plan Area, it will be important to make sure there is adequate biological treatment capacity for the management of organic waste.		
	In line with anticipated growth in the Plan Area, it will be important to make sure there is adequate inert (CD&E) waste recycling capacity. An amount of inert (CD&E) waste is also imported from London and increases the potential arisings requiring management in the Plan Area.		

Key Issues	Description / Supporting Evidence	State of environment in absence of the Plan	Sustainability Objective (SO)
The capacities of strategic routes	There are persistent network efficiency issues on a number of strategic inter-urban routes - the A12 and M25 and M11 have widely recognised issues with poor reliability and delays. Congestion is common on specific sections of the Council-managed network, including sections of the A127, A130 and A414.	The Plan should seek the correct allocations to reduce waste miles and also explore the validity of sustainable transportation; neither of which could be managed on a strategic scale without the Plan. The impacts of any development on local roads can be negative, and a plan-led system will seek to alleviate these impacts through appropriate site allocations and policy requirements.	10) To promote the sustainable transport of waste and materials within Essex and Southend where viable, and to ensure safe highways access where necessary.
Reducing waste miles	Long distance waste travel occurs where larger or specialist facilities are required for that waste type.		
Importing London waste	Essex and Southend accept London's waste for management. This includes all three main waste streams, non-hazardous, construction, demolition and excavation and hazardous wastes, with the majority being CD&E (inert) and non-hazardous waste. The adopted London Plan 2015 commits to London working towards managing the equivalent of 100% of waste arising (excluding CDEW) inside their Plan Area by 2016. The Pre-Submission Waste Local Plan makes allowances for a proportion of London's CDEW as informed by the Duty to Co-operate.		
Health impacts, and perceived health impacts on neighbouring receptors	Health impacts associated with dust, noise and odour are difficult to ascertain where impacts are mitigated through a plan-led system.	Impacts related to dust, noise and odour may increase without those policies in the Plan that ensure such impacts are mitigated.	11) To protect health and well-being in the Plan Area.

Key Issues	Description / Supporting Evidence	State of environment in absence of the Plan	Sustainability Objective (SO)
The capacities of strategic routes and local roads	There are persistent network efficiency issues on a number of strategic inter-urban routes - the A12 and M25 and M11 have widely recognised issues with poor reliability and delays. Congestion is common on specific sections of the Council-managed network, including sections of the A127, A130 and A414.	Without the evidence base of the Plan, which includes specialist highways input, it is likely that permissions would be granted in less sustainable locations..	12) To minimise public nuisance from waste treatment and disposal and from access to and from facilities.
Noise impacts from waste facilities	Ambient or environmental noise is defined as noise which is either unwanted or harmful. Some waste facilities can create noise that could impact on sensitive receptors	The cumulative impact of new facilities regarding noise on sensitive receptors might not be considered in the absence of a plan-led system. Similarly a plan-led approach will ensure mitigation and locational criteria for different types of waste facilities.	
Supporting economic growth and associated projects	Economic growth and development in the Plan Area has to be supported by appropriate facilities that adhere to the waste hierarchy.	The Plan will help ensure that appropriate facilities support growth and significant infrastructure projects in terms of the capacities and locations of facilities.	13) To support economic development in the Plan Area, including jobs arising from waste related activities.
Providing jobs in waste related industries	The relationship between the location of facilities and key centres for growth.	The Plan can ensure that large scale facilities are in proximity to key centres of population and growth. It can also ensure that waste development occurs in areas that support economic growth. Policies also exist that ensure that the waste development does not give rise to any loss of wider economic benefits.	

Key Issues	Description / Supporting Evidence	State of environment in absence of the Plan	Sustainability Objective (SO)
		Without such an approach it is likely that economic growth would suffer in the Plan Area.	

2.4 The Appraisal of Policies

The SA of the Plan appraises the document's policies against the Sustainability Objectives (SOs) outlined in the SA framework. The aim is to assess the sustainability effects of the Plan following implementation. The appraisal will look at the secondary, cumulative, synergistic, short, medium and long-term permanent and temporary effects in accordance with Annex 1 of the SEA Directive, as well as assess alternatives and suggest mitigation measures where appropriate. The findings will be accompanied by an appraisal matrix which will document the effects over time.

For clarity, within this Environmental Report, appraisals will be set out in the same format as shown in the following table.

Table 3: Impact on Sustainability Objectives

	Sustainability Objectives (SO)												
	1	2	3	4	5	6	7	8	9	10	11	12	13
Short Term													
Medium Term													
Long Term													

The content to be included within the table responds to those 'significant effects' of the policy or element of the Plan subject to appraisal. Appraisals will also look at the following:

- Temporal effects;
- Secondary, Cumulative and Synergistic effects;
- The appraisal of Alternatives;
- Impacts on indicators; and
- Proposed mitigation measures / recommendations

These, and 'significant effects' are further described in the following sub-sections.

2.4.1 Description of 'Significant Effects'

The strength of impacts can vary dependant on the relevance of the policy content to certain sustainability objectives or themes. Where the policies have been appraised against the SA/SEA Sustainability Objectives the following key has been used to illustrate a range of possible impacts:

++	Significantly Positive	-	Negative
+	Positive	- -	Significantly Negative
/	Uncertain	0	No impact

Commentary is also included to describe the significant effects of the policy on the sustainability objectives.

2.4.2 Description of 'Temporal Effects'

The appraisals of the policies contained within the Plan recognise that impacts may vary over time. Three time periods have been used to reflect this and are shown in the appraisal tables as S (short term), M (medium term) and L (long term). For the purpose of the policy elements of the Plan S, M and L depict:

(S) Short term and (M) Medium Term: Early stages of the plan period.

(L) Long term: Latter stages of the plan period / restoration / beyond restoration (where relevant)

2.4.3 Description of 'Secondary, Cumulative and Synergistic Effects'

In addition to those effects that may arise indirectly (secondary effects), relationships between different policies will be assessed in order to highlight any possible strengthening or weakening of impacts from their implementation together. Cumulative effects respond to impacts occurring directly from two different policies together, and synergistic effects are those that offer a strengthening or worsening of more than one policy that is greater than any individual impact.

2.4.4 Description of 'Alternatives Considered'

Planning Practice Guidance states that reasonable alternatives are the different realistic options considered by the plan-maker in developing the policies in its plan. They must be sufficiently distinct to highlight the different sustainability implications of each so that meaningful comparisons can be made. The alternatives must be realistic and deliverable.

Alternatives for the direction of policies will be appraised and chronicled alongside each appraisal, together with the reason for their rejection / non-progression.

2.4.5 Description of 'Proposed Mitigation Measures / Recommendations'

Negative or uncertain impacts may be highlighted within appraisals. As such, mitigation measures may be needed and these will be highlighted in this section for each policy where relevant. In addition to this, this section will also include any recommendations that are not directly linked to negative or uncertain impacts, but if incorporated may lead to sustainability improvements.

3 The Strategy

3.1 The Proposed Vision

	Sustainability Objectives (SO)												
	1	2	3	4	5	6	7	8	9	10	11	12	13
Short Term	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Medium Term	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Long Term	+	+	+	+	+	+	+	+	++	+	+	+	+

The Vision focuses on waste management, and as such the only significant effect will be realised for Sustainability Objective 9 (defined as 'to ensure the sustainable management of waste landfilled, to maximise the re-use, recovery and recycling of waste and to promote the minimisation of waste produced at source'). The Vision strongly adheres to this objective through a commitment to the specifics of the Waste Hierarchy without disregarding the Plan Area's key issues and requirements. Conformity to other Sustainability Objectives is more directly adhered to in the Plan's policies appraised elsewhere in this document, although minor positive impacts across all the Sustainability Objectives can be expected through the Vision, where it iterates national requirements and guidance in a local context.

3.1.1 Temporal Effects

As the Vision focuses on the Plan Area in 2032, no short or medium term impacts have been predicted although it should be recognised that steps taken in the short and medium term will themselves give rise to positive impacts. The Plan's policies focus on how the Vision is achieved throughout the plan period, and these have been subject to appraisal elsewhere in this document. As such the Significant Effects section of the Vision appraisal focuses on the long term temporal impacts.

3.1.2 Secondary, Cumulative and Synergistic Effects

A commitment to moving waste management up the waste hierarchy, particularly recycling, is also consistent with the minerals supply hierarchy as specified in the Adopted MLP, which has further synergistic positive impacts on Sustainability Objective 4 (To maximise the sustainable use of land and the protection of soils, safeguarding the best and most versatile agricultural land).

3.1.3 Alternatives Considered

- Alternative 1: To plan more strictly for self-sufficiency

	Sustainability Objectives (SO)												
	1	2	3	4	5	6	7	8	9	10	11	12	13
Alternative 1	/	+	+	-	+	/	/	+	+	/	/	/	++
Reason for rejection: The Preferred Vision's concept of planning for net self-sufficiency 'where practicable' aligned the Vision with current national guidance, which states that 'there are clearly some wastes which are produced in small quantities for which it would be uneconomic to have a													

facility in each local authority'. The alternative of strict net self-sufficiency, iterating the national stance before the NPPF, was re-explored and rejected for the reason that local circumstances dictate that this is not a practicable approach. The alternative of strict net self-sufficiency would, for example, require facilities for waste streams that are better managed outside the Plan Area. The plan's evidence base supports a notion that these facilities are not considered practical to be provided within the local context of the Plan Area and as such the alternative of strict self-sufficiency was rejected, and the Pre-Submission Vision has been selected in order to meet national requirements in a local context.

3.1.4 Proposed Mitigation Measures / Recommendations

No mitigation methods have been recommended.

3.2 The Strategic Objectives

RWLP Objectives	Sustainability Objectives (SA Objectives)												
	1	2	3	4	5	6	7	8	9	10	11	12	13
1 Maximise waste prevention	0	0	0	0	0	0	0	0	++	0	0	0	0
2 Re-use, Recycling & Recovery	0	0	0	+	0	0	0	0	++	0	0	0	0
3 Safeguarding existing infrastructure	0	0	0	++	0	0	0	0	+	0	0	0	0
4 Self-sufficiency / London waste	0	0	0	+	0	0	0	0	++	0	0	0	0
5 Site Allocations and flexibility	0	0	0	0	0	0	0	0	++	0	0	0	0
6 Reduce greenhouse gas emissions	0	0	0	+	0	0	+	++	0	+	0	0	+
7 Sustainable economic growth	0	0	0	0	0	0	0	++	0	0	0	0	++
8 Health / Amenity / Environment	+	0	0	0	0	/	0	0	0	0	++	+	0

There will be significant positive impacts on SA Objective 4 (to maximise the sustainable use of land and the protection of soils, safeguarding the best and most versatile agricultural land) through safeguarding and enhancing existing strategic waste infrastructure (SO3). There will also be minor positive impacts through reducing the amount of waste sent to landfill (SO2), net self-sufficiency (SO4) and promoting development on appropriate employment land in urban areas (SO6) where

they promote the sustainable use of land.

There will be significant positive impacts on SA Objective 8 (to maximise energy efficiency, the proportion of energy generated from renewable sources and adaptability to climate change) through SO6, which pursues opportunities for energy recovery and utilisation, and also SO7 which seeks to use waste as a resource as a source of energy.

There will be significant positive impacts on SA Objective 9 (to ensure the sustainable management of waste landfilled, to maximise the re-use, recovery and recycling of waste and to promote the minimisation of waste produced at source) through seeking to maximise waste prevention (SO1), increasing the quantity and quality of waste re-used, recycled and recovered (SO2) achieving and delivering net self-sufficiency (SO4) and ensuring suitable strategic site allocations are made to meet predicted demand regarding all relevant facilities (SO5). There will also be positive impacts through safeguarding and enhancing existing infrastructure (SO3).

There will be significant positive impacts on SA Objective 11 (to protect human health and well-being and maintain the quality and quantity of public open space amenity across Essex and Southend) where SO8 seeks to ensure that new waste facilities are well operated to reduce the potential adverse effects on human health, amenity and the environment.

There will be significant positive impacts on SA Objective 13 (to maximise opportunities for economic development, including jobs, arising from waste related activities) where SO7 seeks to maximise opportunities for sustainable economic growth by using waste as a resource for local industry and a source of energy. Similarly, there will be a minor positive impact where waste development is promoted on appropriate employment land in urban areas (SO6), which is likely to correlate with planned housing growth in the plan period.

There is a single uncertain element arising from SO8 on landscape and townscape character (SA Objective 6), where it is unclear whether this issue is sufficiently covered under ‘general amenity’.

3.2.1 Temporal Effects

There will be no temporal effects regarding the impacts of the Strategic Objectives.

3.2.2 Secondary, Cumulative and Synergistic Effects

Despite SA Objectives 2 (water quality), 3 (flooding), 5 (historic environment) and 6 (landscape / townscape) not having been met directly by the Strategic Objectives, a number of indirect impacts will arise from the successful implementation of the Strategic Objective 8. Strategic level waste development plans can not be expected to focus directly on these SEA Objectives, but rather account for any impacts on receptors that may occur as a result of the plan’s primary focus. Similarly, although sustainable methods of waste transportation (SA Objective 10) are not specifically mentioned within any of the Strategic Objectives, there will be indirect cumulative impacts on this objective through reducing the amount of waste at its source (SO1) and reducing imports from London (SO3).

3.2.3 Alternatives Considered and Reasons for Rejection

No specific alternative approaches to the Strategic Objectives have needed identification for consideration and assessment for the purposes of Sustainability Appraisal.

3.2.4 Proposed Mitigation Methods / Recommendations

There is scope for the Strategic Objectives to cover landscape, townscape and the historic

environment more clearly, possibly within Strategic Objective 8, where the issue is not directly relevant to environmental or amenity concerns. Despite this though the SA is satisfied that these issues are sufficiently covered in other Plan Policies and also through the site assessment methodology used to select appropriate sites.

3.3 The Overall Spatial Strategy

	Sustainability Objectives (SO)												
	1	2	3	4	5	6	7	8	9	10	11	12	13
Short Term	/	/	/	++	/	/	/	/	++	++	/	/	++
Medium Term	/	/	/	++	/	/	/	/	++	++	/	/	++
Long Term	/	/	/	++	/	/	/	/	++	++	/	/	++

There will be significant positive impacts on the sustainable management of waste (SO9), the sustainable transportation of waste (SO10) and economic growth (SO13) in line with the Spatial Strategy's commitments to allocating and safeguarding strategic sites, the identification of suitable employment areas for which waste management facilities are deemed suitable (Areas of Search) and a general distribution focused on key centres for growth. There will also be significant positive impacts on the sustainable use of land (SO4) through the exploration of the co-location of facilities and with compatible non-waste development. The strategy has been broadly assessed as having uncertain impacts on the remaining Sustainability Objectives where they relate to local level issues that can not be adequately covered at this scale. These impacts have been explored in the appraisal of the Plan's policies and can be found elsewhere in this report.

3.3.1 Temporal Effects

The temporal effects of the Spatial Strategy will remain largely uncertain for the majority of the Sustainability Objectives due to the flexible nature of the approach in response to growth. The positive impacts highlighted above will remain and are likely to strengthen in the long term, particularly regarding the sustainable management of waste (SO9).

3.3.2 Secondary, Cumulative and Synergistic Effects

There will be positive cumulative impacts in relation to the sustainable transportation of waste within Policy 12, which deals more specifically with this requirement.

3.3.3 Alternatives Considered

- Alternative 1: Expansion and co-location with existing facilities;
- Alternative 2: Existing key urban centres of population and growth;
- Alternative 3: De-centralised approach;
- Alternative 4: Areas with limited existing capacity; or
- Alternative 5: A hybrid option

	Sustainability Objectives (SO)												
	1	2	3	4	5	6	7	8	9	10	11	12	13
Alternative 1	/	/	/	+	/	/	/	/	+	/	/	/	+
Reason for rejection: This approach would lead to certain areas, such as the north west of the Plan Area, to continue to be less well served. The approach is similarly inflexible regarding its response to growth across the Plan Area, particularly since the removal of top down regional growth targets and the requirements of the NPPF for Local Planning Authorities (LPAs) to objectively assess their needs for growth. For these reasons this alternative has been rejected.													
Alternative 2	/	/	/	/	/	/	/	/	++	++	/	/	+
Reason for rejection: This approach would singularly also lead to certain areas, again such as the north west of the Plan Area, to continue to be less well served. The approach, although responding better to expected growth in the Plan Area than Alternative 1, can also be considered inflexible regarding its response to growth across the Plan Area since the removal of top down regional targets and the requirements of the NPPF for Local Planning Authorities (LPAs) to objectively assess their needs for growth. This could lead to growth being focussed outside existing settlements. The alternative is limited in its scope to adapt to changing circumstances in the Plan Area and for these reasons this alternative has been rejected.													
Alternative 3	/	/	/	/	/	/	/	/	+	/	/	/	+
Reason for rejection: The alternative alone does not allow for economies of scale. The local level provision of facilities would require a lot more mitigation of individual impacts and improvements to the rural road network specific to each facility and with negligible secondary benefits. For these reasons the alternative has been rejected.													
Alternative 4	/	/	/	/	/	-	-	/	- -	-	/	/	-
Reason for rejection: The alternative fails to respond to the proximity principle within the Plan Area and may be seen as too heavily influenced by London imports. Whilst areas of limited capacity are known, these may not accurately respond to a waste capacity need, particularly as waste data is not able to be collated at a district or smaller level. The alternative would also require significant improvement of infrastructure routes, which is not a feasible approach. For these reasons the option was rejected.													
Alternative 5	/	/	/	+	/	/	/	/	- -	+	/	/	/
Reason for rejection: The Integrated Waste Management Facility at Stanway is not a Preferred Site allocation as the planning permission previously granted has now expired. This would see the Plan underproviding. As such, this Spatial Strategy option can not be considered viable or a reasonable alternative.													

3.3.4 Proposed Mitigation Measures / Recommendations

No mitigation measures have been recommended.

3.4 Policy 1: Need for Waste Management Facilities

	Sustainability Objectives (SO)												
	1	2	3	4	5	6	7	8	9	10	11	12	13
Short Term	0	0	0	0	0	0	0	0	++	0	0	0	0
Medium Term	0	0	0	0	0	0	0	0	++	0	0	0	0
Long Term	0	0	0	0	0	0	0	0	++	0	0	0	0

The Policy will have significantly positive impacts on the sustainable management of waste (SO9) in response to the preferred methodology for forecasting arisings for each of the waste streams. The Policy is flexible in adapting to possible changes over the Plan period and has been formulated in line with national guidance (Planning Practice Guidance), requirements and the principles of the Waste Hierarchy. The approach factors in growth for non-hazardous organic waste, directly responding to the possible implications of housing growth and in consideration of few adopted District-level Local Plans in the Plan Area (with growth calculated from objectively assessed need). This approach can respond to this, and in line with the Spatial Strategy and the proximity-principle, with a focus on those locations that the largest amount of growth is most likely to be experienced.

3.4.1 Temporal Effects

There will be no temporal effects as a result of this Policy. The flexibility of the approach allows the WPA to plan effectively for future uncertainty surrounding growth levels in the Plan Area over the Plan Period.

3.4.2 Secondary, Cumulative and Synergistic Effects

This Policy can respond to changes in growth in the Plan Area in accumulation with the Spatial Strategy and the proximity-principle, with a focus on those locations that the largest amount of growth is most likely to be experienced. There will therefore be positive cumulative impacts on a large number of relevant sustainability objectives with the Spatial Strategy.

3.4.3 Alternatives Considered using (previous) Revised Preferred Approach (2015) Methodology

- Alternative 1: CD&E –reflecting an increase in arisings based on economic growth (including a mid-range scenario between a theoretical uplift of capacity on existing facilities [maximum recycling efficiency] and a reliance on existing facilities at current capacities).
- Alternative 2A: CD&E - an increase in arisings based on economic growth (including a best case scenario, reflecting a maximum recycling efficiency estimate only.
- Alternative 2B: CD&E – an increase in arisings based on economic growth (including the worst case scenario, reflecting the capacity of existing facilities only).
- Alternative 3: (C&I) - a scenario that factors in local arising estimations only.

	Sustainability Objectives (SO)												
	1	2	3	4	5	6	7	8	9	10	11	12	13
Alternative 1	0	0	0	0	0	0	0	0	+	0	0	0	0
Reason for rejection: Regarding inert waste, the Revised Preferred Approach (2015) approach to deriving a baseline figure for arisings assumed an increase in arisings during the Plan period based on a mid-range scenario of two scenarios reflecting the best and worst case of estimating arisings. This would be managed by a mid-range scenario between a theoretical uplift of capacity on existing facilities (maximum recycling efficiency) and a reliance on existing facilities at current capacities. This can be seen to run contrary to the waste chapter of Planning Practice Guidance (PPG), which states that 'Waste planning authorities should start from the basis that net arisings of construction and demolition waste will remain constant over time'. For this reason this alternative has been rejected.												
	Sustainability Objectives (SO)												
	1	2	3	4	5	6	7	8	9	10	11	12	13
Alternative 2A	0	0	0	0	0	0	0	0	/	0	0	0	0
Reason for rejection: This alternative would have issues through a reliance on existing facilities to maximise their efficiency. This would also be dependent on significantly reconfiguring existing sites, which is unlikely to be viable across all sites, and it would also potentially have significant cost implications, with site reconfiguration not necessarily being suitable for environmental reasons on individual sites. For these reasons, the alternative was rejected.													
Alternative 2B	0	0	0	0	0	0	0	0	-	0	0	0	0
Reason for rejection: This alternative does not factor in any planned growth in the Plan Area or London, and is similarly inflexible to any changes in arisings within the Plan period. This would also be dependent on significantly refiguring existing sites, which is unlikely to be viable across all sites, would have significant cost implications, and may not be suitable for environmental reasons on individual sites. For these reasons, the alternative was rejected.													
Alternative 3	0	0	0	0	0	0	0	0	+	0	0	0	0
Reason for rejection: It has been identified within the NPPW that Greater London net imports to the Plan Area requires specific consideration and for this reason it is considered that the Plan's approach must align with that forecasted in the adopted London Plan 2015. In addition, Essex County Council had been involved in the Duty to Co-operate process that governed the formation of the London Plan 2015 and it is now considered prudent to plan based on its forecasts. For these reasons, the alternative was rejected.													

3.4.4 Proposed Mitigation Measures / Recommendations

No mitigation measures have been recommended.

3.5 Policy 2: Safeguarding Waste Management Sites and Infrastructure

	Sustainability Objectives (SO)												
	1	2	3	4	5	6	7	8	9	10	11	12	13
Short Term	/	/	/	+	/	/	/	+	++	+	+	+	++
Medium Term	/	/	/	+	/	/	/	+	++	+	+	+	++
Long Term	/	/	/	+	/	/	/	+	++	+	+	+	++

There will be positive impacts on SO8 in the safeguarding of facilities that may include energy generation and also ensuring that neighbouring development does not conflict with this function through Waste Consultation Areas. There will also be positive impacts on SO10 through protecting facilities from any neighbouring development that may compromise the sustainable transportation of waste. Further positive impacts are associated with SO11 and SO12, where a degree of certainty is added to the Plan's generally flexible approach. Significant positive impacts will be realised for economic growth (SO13) in line with added flexibility regarding non-waste development in WCAs, specifically should there be wider economic benefits than the retention of the site or the infrastructure for waste use, and alternative provision is made for the displaced waste use. This element of the policy has been newly added to the policy since the Revised Preferred Approach 2015 consultation and is considered a more sustainable overall approach. The Plan's approach to safeguarding existing and allocated sites allows certainty regarding wellbeing, any impacts surrounding nuisance, and also employment opportunities regarding and resulting from strategic and non-strategic sites during the plan-period.

3.5.1 Temporal Effects

Although impacts will not differ over time, it should be noted that all the positive effects of sustainable waste management can exist in perpetuity as a result of this Policy. In particular it ensures economic certainty within the waste industry.

3.5.2 Secondary, Cumulative and Synergistic Effects

There will be secondary positive impacts on human health (SO11) and public nuisance (SO12). Although not the focus of the Policy, Waste Consultation Areas will indirectly protect neighbouring development from the impacts of waste facilities where presumably incompatible development will be directed to other sites post consultation from the WPA. The Policy ensures that any new development proposed within the WCAs would be objected to unless compatible with existing or future waste operations; however the WCAs themselves are also likely to act as a buffer to impacts perceived to be resulting from the waste facility.

3.5.3 Alternatives Considered to Safeguarding

- Alternative 1: Safeguard existing permanent permissions, consistent with WLP policies only;
- Alternative 2: Safeguard existing permanent permissions and waste plan site allocations with an area/capacity or strategic importance exceeding 3ha only;
- Alternative 3: Safeguard existing permanent permissions and waste plan site allocations with an area/capacity or strategic importance over 100,000tpa only.

	Sustainability Objectives (SO)												
	1	2	3	4	5	6	7	8	9	10	11	12	13
Alternative 1	/	/	/	/	/	/	/	+	++	+	+	+	/
Reason for rejection: Singularly, this approach was not deemed to adequately meet the capacity needs of the Plan Area because allocated sites may not be able to be delivered due to incompatible uses being established in their proximity in the future. For this reason the alternative was rejected as the sole approach to safeguarding.													
Alternative 2	/	/	/	/	/	/	/	+	++	+	+	+	+
Reason for rejection: Singularly, this approach would potentially discount otherwise sustainable sites based on their size only. Also the qualifying threshold for what was considered 'of strategic importance' may not be appropriate across the Plan Area in response to the Spatial Strategy and the need for safeguarding small-scale but important facilities, for example Transfer Stations. For this reason the alternative was rejected as the sole approach to safeguarding.													
Alternative 3	/	/	/	/	/	+	/	+	++	/	+	+	+
Reason for rejection: Singularly, this approach would potentially discount otherwise sustainable sites based on their throughput only. Also the qualifying threshold for what was considered 'of strategic importance' may not be appropriate across the Plan Area in response to the Spatial Strategy and the need for safeguarding small-scale but important facilities, for example Transfer Stations. For this reason the alternative was rejected as the sole approach to safeguarding.													

3.5.4 Alternatives Considered to Waste Consultation Areas

- Alternative 1: Issues and Options (Issue 18) B – To only safeguard those types of waste facilities which have greater potential for adverse effects on people and the environment;
- Alternative 2: Issues and Options (Issue 18) C – The number and extent of Waste Consultation Zones should be established by local planning authorities through Local Development Frameworks, to take account of local circumstances;

	Sustainability Objectives (SO)												
	1	2	3	4	5	6	7	8	9	10	11	12	13
Alternative 1	0	0	0	/	0	0	0	+	+	+	0	0	0
Reasons for rejection: The alternative approach does not directly conform to the function of the Plan, or the WPA, in terms of safeguarding sites integral to waste management in the Plan Area. As such this approach was rejected.													
Alternative 2	0	0	0	/	0	0	0	/	/	/	0	0	0
Reasons for rejection: The determination of WCAs by district level LPAs would not have positive impacts for the sustainable management of waste in the Plan Area. Similarly, the issue is best managed at the appropriate tier due to extent of the Plan Area as a whole, the need for a strategic approach, and economies of scale. The notion is not compatible with the requirements of the NPPW and is beyond the remit of LPAs. For these reasons the approach was rejected.													

3.5.5 Proposed Mitigation Measures / Recommendations

No mitigation measures have been recommended

4 Strategic Waste Management Allocations

4.1 Policy 3: Strategic Site Allocations

Sites for: BIOLOGICAL WASTE MANAGEMENT														
Site Ref.	Temp Effect	Sustainability Objectives (SO)												
		1	2	3	4	5	6	7	8	9	10	11	12	13
W29 Bellhou-se	S / M	/	-	++	++	/	-	/	/	+	+	- -	++	++
	L	/	-	++	++	/	-	/	/	+	+	/	++	++
W3 Basildon WWTW	S / M	/	-	/	/	+	/	++	0	++	+	-	++	++
	L	/	-	/	/	+	/	++	0	++	+	/	++	++
W20 Courtau-ld Road	S / M	/	-	++	/	++	/	++	0	++	+	-	+	++
	L	/	-	++	/	++	/	++	0	++	+	/	+	++
IWMF2 - Rivenhall	S / M	+	-	++	-	++	-	++	++	++	+	- -	++	++
	L	+	-	++	-	++	-	++	++	++	+	/	++	++
Sites for: INERT WASTE RECYCLING														
Site Ref.	Temp Effect	Sustainability Objectives (SO)												
		1	2	3	4	5	6	7	8	9	10	11	12	13
W32 Crumps Farm	S / M	/	-	- -	-	/	-	/	0	+	+	/	++	+
	L	/	-	- -	-	/	-	/	0	+	+	/	++	+
W8 Elsenham	S / M	+	++	++	/	-	-	/	0	+	+	-	++	/
	L	+	++	++	/	-	-	/	0	+	+	/	++	/
W7 Sandon East	S / M	+	-	- -	/	+	+	++	0	++	/	-	+	++
	L	+	-	- -	/	+	+	++	0	++	/	/	+	++
L(n)1R Slough Farm	S / M	+	-	++	++	/	/	++	0	+	/	-	+	++
	L	+	-	++	++	/	/	++	0	+	/	/	+	++
L(i)10R Blackley (Site 1)	S / M	+	-	++	++	+	/	++	0	+	+	- -	++	++
	L	+	-	++	++	+	/	++	0	+	+	/	++	++
W13 Wivenhoe Quarry	S / M	/	-	++	-	++	/	/	0	++	/	- -	+	++
	L	/	-	++	-	++	/	/	0	++	/	/	+	++
W31 Morses	S / M	+	++	++	/	/	/	/	0	++	+	-	++	++
	L	+	++	++	/	/	/	/	0	++	+	/	++	++

Lane														
L(i)17R Newport Quarry	S / M	/	-	++	-	+	++	++	0	+	/	-	+	+
	L	/	-	++	-	+	++	++	0	+	/	/	+	+
Site for: OTHER WASTE MANAGEMENT														
Site Ref.	**Temp Effect**	**Sustainability Objectives (SO)**												
		1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**
IWMF2 Rivenhall	S / M	+	-	++	-	++	/	++	++	++	+	- -	++	/
	L	+	-	++	-	++	/	++	++	++	+	/	++	/
Sites for: INERT LANDFILL														
Site Ref.	**Temp Effect**	**Sustainability Objectives (SO)**												
		1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**
L(n)7R Little Bullocks A22	S / M	/	- -	- -	++	/	/	/	0	+	+	- -	++	+
	L	/	- -	- -	/	0	/	0	0	0	0	/	0	0
L(n)1R Slough Farm	S / M	+	- -	++	++	/	/	++	0	+	/	- -	+	++
	L	/	- -	++	/	0	/	0	0	0	0	/	0	0
L(i)10 Blackley (Site 1)	S / M	+	- -	++	++	+	/	++	0	+	+	- -	++	++
	L	/	- -	++	/	0	/	0	0	0	0	/	0	0
L(i)6 Sandon	S / M	-	- -	- -	++	+	/	++	0	++	/	- -	++	++
	L	/	- -	- -	/	0	/	0	0	0	0	/	0	0
L(i)5 Sunnym-ead	S / M	/	- -	++	++	/	++	/	0	+	/	- -	+	++
	L	/	- -	++	/	0	/	0	0	0	0	/	0	0
L(i)17R Newport Quarry	S / M	/	- -	++	-	+	++	++	0	+	/	- -	+	+
	L	/	- -	++	/	0	/	0	0	0	0	/	0	0
L(n)5 Bellhou-se	S / M	/	- -	++	++	+	+	/	0	++	+	- -	++	++
	L	/	- -	++	/	0	/	0	0	0	0	/	0	0
L(i)15 Fingring-hoe	S / M	/	- -	++	/	+	++	++	0	++	++	- -	++	++
	L	/	- -	++	/	0	/	0	0	0	0	/	0	0
Sites for: (STABLE NON-REACTIVE) HAZARDOUS WASTE LANDFILL														
Site Ref.	**Temp Effect**	**Sustainability Objectives (SO)**												
		1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**

L(n)8R Little Bullocks	**S / M**	/	**- -**	**++**	**++**	+	-	/	0	+	+	**- -**	**++**	/
	L	/	**- -**	**++**	/	0	/	0	0	0	0	/	0	0

- As can be seen from the above there will be largely positive impacts from the allocated sites. Despite this, overall water quality (SO2) in the Plan Area could be seen to suffer from the allocations. It should be noted however that many of these impacts will be localised and that development principles, exist within the Plan for each site to ensure that such impacts are appropriately mitigated. In addition, Policy 10 of the Plan has integrated a stronger stance on the protection of water quality, in response to these highlighted impacts.
- A majority proportion of those impacts predicted for landscape quality (SO6) are either uncertain or negative, which translate as moderate to high impacts. The cumulative impact of landscapes in the Plan Area could be seen to deteriorate as a result of the allocations; however again, development principles exist to mitigate such impacts on a site-by-site basis.
- The Plan's allocated sites can be seen to have a large degree of negative impacts on health and well-being (SO11), associated largely with one or more sensitive receptors (properties) being in close proximity to sites and/or PROWs being on or adjacent to sites. Whilst the extent of these negative impacts appears significant, it should be acknowledged that a single property being within 250m of the allocation (regardless of facility type) qualified for a negative score and that such an impact would be capable of mitigation. It should also be acknowledged that, in line with the proximity principle, allocations in close proximity to key centres of growth are invariably more likely to encounter properties in their vicinity. Development principles exist for all the allocated sites, as specified in Appendix B of the Plan, and these contain a number of measures to protect local amenity. In addition, PROWs will have to be re-routed should they be disrupted and the Environment Agency addresses odour issues through the Pollution regime. As such, the negative impacts highlighted are unlikely to be forthcoming from any of the proposals.
- There will be a significant positive cumulative impact on employment opportunities from waste management (SO13) resulting from the allocated sites' proximity to key towns and centres for growth.

4.1.1 Cumulative Impacts of the Strategic Site Allocations by Broad Area

It should be noted that this section explores those impacts where clusters of sites exist, or where any other similarities between sites have been identified and discussed. The potential for cumulative impacts have been identified on the following clusters or groupings of sites as follows:

- L(n)8R, L(n)7R, and W32 (Uttlesford cluster 1)
- W7 and L(i)6 (Chelmsford cluster)
- L(n)5 and W29 (Colchester cluster
- L(i)15, L(i)5 and W13 (Colchester / Tendring cluster)
- W3 and W20 (Basildon cluster)
- W8 and (Li)17R (Uttlesford cluster 2)

The potential for cumulative impacts on these clusters is explored in the following tables.

Table 4: Cumulative Impacts of sites L(n)8R, L(n)7R and W32

Site Ref.	Temp Effect	Sustainability Objectives (SO)												
		1	2	3	4	5	6	7	8	9	10	11	12	13
L(n)8R Little Bullocks	S / M	/	- -	++	++	+	-	/	0	+	+	- -	++	/
	L	/	- -	++	/	0	/	0	0	0	0	/	0	0
L(n)7R Little Bullocks A22	S / M	/	- -	- -	++	/	/	/	0	+	+	- -	++	+
	L	/	- -	- -	/	0	/	0	0	0	0	/	0	0
W32 Crumps Farm	S / M	/	-	- -	-	/	-	/	0	+	+	/	++	+
	L	/	-	- -	-	/	-	/	0	+	+	/	++	+

- The sites of L(n)8R, L(n)7R and W32 are all in close proximity to each other, and share a lot of impacts as a result. It can be seen that, in addition to there being significant negative impacts on water quality (SO2) as a result of each allocation individually, there may be further cumulative negative impacts on this objective. The Plan however, recognises the shared impacts of these sites, and although grouped and allocated for different facility types within the Plan, looks at them as a suite of allocations. Each site has different development principles in Appendix B of the Plan that are closely linked and relevant to each specific use, but there will be shared common benefits. The need for a hydrological assessment for site L(n)8R ensures that water quality issues are addressed in terms of hazardous landfill operations in the area. Inert recycling at site W32 will have a lesser impact on water quality and has been raised due to the proximity of a water body and can be mitigated through the requirements of Policy 10, which includes added emphasis on potential water quality issues. It is therefore viewed that the recommendation has been sufficiently factored into the Plan, where effective measures to mitigate the impacts on water quality in the area will be sought and adequately addressed.
- All of the sites will have uncertain impacts on biodiversity, due to their proximity to a LoWS. It is therefore possible that any impacts could magnify cumulatively. The SA at the Revised Preferred Approach (2015) stage indicated that a stance on mitigation would be required for the individual sites. The development principles for both landfill sites state that the LoWS would require protection for example through an appropriate buffer of at least 15m and that existing vegetation should be protected and retained. This seeks to alleviate the possible impacts resulting from these sites.
- Although the sites can be seen to have appropriate transport infrastructure individually, the SA at the Revised Preferred Approach (2015) stage highlighted the cumulative impact of these sites on the localised transport network, and that these would have to be explored in further detail due to their proximity to each other. The development principle for L(n)7R states that a vehicle routing agreement is required to ensure the site would be accessed via the existing access for Crumps Farm onto Stortford Road (B1256) to travel via the A120/M11 and that an internal haul road would be required between the site and the Crumps Farm access. It is considered that this individual requirement would go some way to alleviate the cumulative impact that could arise from this cluster of allocated sites.
- No other significant negative cumulative impacts have been highlighted that can not be

mitigated through each site individually. This includes those impacts associated with sensitive receptors within 250m of each site.

Table 5: Cumulative Impacts of sites W7 and L(i)6

Site Ref.	Temp Effect	Sustainability Objectives (SO)												
		1	2	3	4	5	6	7	8	9	10	11	12	13
W7 Sandon East	S / M	+	-	- -	/	+	+	++	0	++	/	/	+	++
	L	+	-	- -	/	+	+	++	0	++	/	/	+	++
L(i)6 Sandon	S / M	-	- -	- -	++	+	/	++	0	++	/	- -	++	++
	L	/	- -	- -	/	0	/	0	0	0	0	/	0	0

- Regarding the cumulative impacts of the two sites at Sandon, it should be noted the area of L(i)6 includes the area of W7 and has been appraised as such in this SA. With that in mind, the appraisal of L(i)6 can be seen as reflective of the cumulative impacts of the two Sandon sites.
- The Sandon sites both have a range of negative impacts on water quality (SO2) and flooding (SO3). Despite this, there will be no further cumulative impacts, due to different water bodies being affected that are distinctly separate to specific areas of the site and as such unrelated to each other. The proportion of the site in FZ3 is very small in comparison to the total size of the site and the planning permission of the current operation on the site ensures that there will be no impacts resulting from the allocated uses.
- The SA at the Revised Preferred Approach (2015) stage stated that the cumulative impact of these sites on the localised transport network would also have to be explored in further detail due to their proximity to each other. It should be noted the development principles for the combined site states that improvements will be required to the A1114 (Essex Yeomanry Way) /Southend Road southbound off slip road and that a traffic management/priority control system to manage the single width private haul road in the vicinity of the site access, or alternative solution e.g. road widening/passing bays will be required. These development principles, outlining issues and opportunities to be addressed, sufficiently remove the possibility of cumulative negative impacts on transport where implemented.
- No other significant negative cumulative impacts have been highlighted that can not be mitigated through each site individually.

Table 6: Cumulative Impacts of sites L(n)5 and W29

Site Ref.	Temp Effect	Sustainability Objectives (SO)												
		1	2	3	4	5	6	7	8	9	10	11	12	13
L(n)5 Bellhou-se	S / M	/	- -	++	++	+	+	/	0	++	+	- -	++	++
	L	/	- -	++	/	0	/	0	0	0	0	/	0	0
W29 Bellhou-se	S / M	/	-	++	++	/	-	/	/	+	+	- -	++	++
	L	/	-	++	++	/	-	/	/	+	+	/	++	++

- Although considered a single site, the site contains two different operations, namely biological treatment and inert landfill, and these have therefore been assessed separately. Proposed activities on the Bellhouse allocation can be seen to have negative impacts on water quality (SO2) due to the proximity of water bodies to both portions of the site and biodiversity (SO1) due to the presence of nearby LoWSs. The two different operations on site could lead to cumulative impacts on both of these objectives. The development principles for the combined site identifies these issues as a single theme, and states that an appropriate buffer of at least 15m would be provided around CO5 8 Gol Grove and Hanging Wood Local Wildlife Sites and the Roman River. Any new scheme will need to be the consistent with the approved restoration scheme for the existing landfill site. As such, it is considered that there would be no cumulative impacts associated with water quality (SO2) or biodiversity (SO1).
- In addition, both operations can be seen to have significantly negative impacts on health and well-being (SO11) due to sensitive receptors (properties) being located within 250m of the combined site area. Again, cumulative impacts are not expected to occur, through the existence of a combined site development principle that states that limits on duration (hours of operation) and noise standards (from noise sensitive properties including Bellhouse Farm) would be required in the interests of protecting local amenity. In addition, any potential odour issues will be addressed by the Environment Agency in the interests of protecting local amenity.

Table 7: Cumulative Impacts of sites W13, L(i)15 and L(i)5

Site Ref.	Temp Effect	Sustainability Objectives (SO)												
		1	2	3	4	5	6	7	8	9	10	11	12	13
W13 Wivenhoe Quarry	S / M	/	-	++	-	++	/	/	0	++	/	- -	+	++
	L	/	-	++	-	++	/	/	0	++	/	/	+	++
L(i)15 Fingring-hoe	S / M	/	- -	++	/	+	++	++	0	++	++	- -	++	++
	L	/	- -	++	/	0	/	0	0	0	0	/	0	0
L(i)5 Sunnym-ead	S / M	/	- -	++	++	/	++	/	0	+	/	- -	+	++
	L	/	- -	++	/	0	/	0	0	0	0	/	0	0

- The sites of W13, L(i)15 and L(i)5 have been grouped where they are located in a broadly similar location, and also in regard to their possible impacts on biodiversity through the international designation of the Colne Estuary as an SPA and Ramsar. In addition to development principles for these sites stating that likely significant effects on the nearby international wildlife sites need to be considered, it should additionally be noted that the Plan, as per the recommendation of the HRA, states that 'planning permission for waste management development within or otherwise affecting an international site (Natura 2000 site) will only be granted where the conclusions of a project-level Habitats Regulations Assessment (HRA), as required for those proposals highlighted within the HRA of the Plan, demonstrate that the proposal will have no adverse impacts on the integrity of any site, either alone or in combination with other plans or projects.' Screening distances are also provided as a guide for potential applicants in relation to the triggers for project-level HRA. The inclusion of this requirement in the Plan will effectively determine whether any impacts

on internationally designated sites are likely. Additionally, project-level HRA will also identify the impacts of proposals in combination with other relevant projects, plans and programmes within the Plan Area. As such there will be no cumulative impacts on biodiversity.

- The sites also have individual negative impacts on water quality (SO2), associated with water bodies in or adjacent to the sites. The differences between negative impacts and significantly negative impacts in the case of these sites is related to the use; landfill warranting more significant impacts due solely to the nature of waste disposal. It is recommended that the mitigation of these water quality issues is included as a development principle for each site. Despite this, and although no development principles exist for any of these sites regarding water quality issues currently, the general theme of water quality has been given additional weight in Policy 10 of the Plan. As such, and in accordance with Policy 10, 'proposals for waste management development will be permitted where it can be demonstrated that the development would not have an unacceptable impact (including cumulative impact in combination with other existing or permitted development) on…(b) The quality and quantity of water within water courses, groundwater and surface water.' This effectively alleviates any concerns regarding the cumulative impacts of water quality regarding this cluster of sites.
- Any cumulative impacts associated with the individual significant negative impacts highlighted for health and well-being (SO11) on all of the sites, are effectively neutralised by each site's development principles that require dust mitigation measures, limits on duration (hours of operation) and noise standards (from noise sensitive properties) in the interests of protecting local amenity.

Table 8: Cumulative Impacts of sites W3 and W20

Site Ref.	Temp Effect	Sustainability Objectives (SO)												
		1	2	3	4	5	6	7	8	9	10	11	12	13
W3 Basildon WWTW	S / M	/	-	/	/	+	/	++	0	++	+	-	++	++
	L	/	-	/	/	+	/	++	0	++	+	/	++	++
W20 Courtau-ld Road	S / M	/	-	++	/	++	/	++	0	++	+	-	+	++
	L	/	-	++	/	++	/	++	0	++	+	/	+	++

- As can be seen from the above comparative assessments of the sites W3 and W20 in Basildon, there are a number of significant positive impacts associated with minimising environmental effects, and in the sustainable management of waste (SO9).
- The cumulative impact of these sites on the localised transport network (SO10) would have to be explored in further detail, due to the sites being located in very close proximity to another. This was an issue raised in the SA of the Revised Preferred Approach (2015). Since then, development principles for the sites have been included within the Plan to address specific issues and / or opportunities. With regard to site W3 Basildon WWTW, confirmation will be needed as to how internal access arrangements in relation to Courtauld Road in order to adequately alleviate any cumulative impacts.
- No other significant negative cumulative impacts have been highlighted that can not be mitigated through each site individually.
- Any cumulative impacts associated with the individual negative impacts highlighted for

health and well-being (SO11) on the sites, are effectively neutralised by the fact that any potential odour issues will be addressed by the Environment Agency in the interests of protecting local amenity.

Table 9: Cumulative Impacts of sites W8 and L(i)17R

Site Ref.	Temp Effect	Sustainability Objectives (SO)												
		1	2	3	4	5	6	7	8	9	10	11	12	13
L(i)17R Newport Quarry	S / M	/	- -	++	-	+	++	++	0	+	/	- -	+	+
	L	/	- -	++	/	0	/	0	0	0	0	/	0	0
W8 Elsenham	S / M	+	++	++	/	-	-	/	0	+	+	-	++	/
	L	+	++	++	/	-	-	/	0	+	+	/	++	/

- The sites of W8 and L(i)17R are unlikely to have many cumulative impacts, as can be seen above. It should be noted that, in the case of L(i)17R (Newport), the impacts highlighted for inert landfill have been explored for the purposes of this cumulative assessment.
- These sites have been explored as a cluster due to the uncertain transport impacts (SO10) associated with Newport and any subsequent implications this might have on the local road network which could affect the allocation at Elsenham. However, the development principles regarding Newport Quarry state that, 'a vehicle routing agreement is required to ensure the site is accessed via the existing access to Newport Quarry and via the Main Road network (and) consideration would need to be given at the planning application stage to the safe operation of the road bridge over the railway line west of the site access and the requirement for any additional traffic management.' With this in mind, no cumulative impacts have been identified for this objective.

5 Areas of Search & Locational Criteria

5.1 Policy 4: Areas of Search

	Sustainability Objectives (SO)												
	1	2	3	4	5	6	7	8	9	10	11	12	13
Short Term	0	/	0	+	0	0	/	0	++	+	0	0	/
Medium Term	0	/	0	+	0	0	/	0	++	+	0	0	/
Long Term	0	/	0	+	0	0	/	0	++	+	0	0	/

There will be significant positive impacts on the sustainable management of waste (SO9) through the approach of designating Areas of Search around suitable B2 and / or B8 land as defined in the Local Plans of the districts, boroughs and City in the Plan Area. This allows flexibility within the Plan period in terms of providing sufficient facilities, but also in any instances where it can be justified that a direct site allocation is not suitable, through assessed maintenance of the Plan-led system prior to other, non-allocated locations being submitted. This therefore has a minor positive impact on the sustainable use of land (SO4). Minor positive impacts will also be realised for the transportation of waste (SO10) through the locations specified, and the access criteria against which potential sites have been assessed.

There will be no impacts on a large amount of the Sustainability Objectives in line with their initial assessment being undertaken through the Areas of Search criteria in the Areas of Search Methodology and Assessment document. Despite this however, uncertain impacts have been predicted for water quality (SO2) where the possibility of sites being located in close proximity to water bodies has not been taken into account. It is acknowledged however that any negative impacts in this regard are unlikely on B2 and / or B8 land uses, particularly in existing or allocated employment sites in district-level Local Plans. There will also be uncertain impacts on air quality (SO7) where criteria to protect such (e.g. factoring in the locations of, and impacts on, AQMAs) do not exist in the Areas of Search Methodology and Assessment document; however again it should be acknowledged that the report does not seek to allocate any new areas beyond those already existing or allocated in district-level Local Plans.

There will be uncertain impacts on economic growth and employment opportunities (SO13) where the possible eventual development of B2 or B8 land for waste management facilities is done so to the detriment of any alternative identified employment need in specific sectors and areas. To a lesser extent, although possible however, is that waste infrastructure supports other employment uses and could give rise to increased employment opportunities itself.

5.1.1 Temporal Effects of the approach to identifying Areas of Search

There will be no temporal effects resulting from this Policy.

5.1.2 Secondary, Cumulative and Synergistic Effects of the approach to identifying Areas of Search

There will be a cumulative strengthening of the Spatial Strategy's notion of distribution throughout the Plan Area resulting from this Policy.

5.1.3 Alternatives Considered for the approach to identifying Areas of Search

- Alternative 1: To not identify suitable B2 (General Industry) and / or B8 (Storage or Distribution) land for the consideration of waste management facilities.
- Alternative 2: To expand the area of search to employment areas beyond B2 and B8 use classes.
- Alternative 3: To safeguard portions / units of identified suitable areas.

	Sustainability Objectives (SO)												
	1	2	3	4	5	6	7	8	9	10	11	12	13
Alternative 1	0	0	0	/	0	0	0	0	/	/	0	0	0
Reasons for rejection: The alternative would not respond to planning for flexibility within the Plan period. In addition, the approach may see applications for required facilities coming forward on land that does not respond to key centres of growth or in line with the Spatial Strategy. For these reasons this alternative was rejected.													
Alternative 2	0	/	0	/	0	0	/	0	++	/	0	0	/
Reasons for rejection: Under the Use Class Order, waste management facilities are considered sui generis (‘in a class of its own’) and therefore do not fit under a specific use class. It is, however, considered that of the Use Classes available, B2 and B8 represent the closest fit, as many waste processing activities are similar to the processes that take place on industrial estates. The alternative would likely see incompatibility between uses and there would likely be less interest from landowners of non-B2 / B8 uses to develop their land for waste management facilities. For this reason the alternative was rejected.													
Alternative 3	0	/	0	+	0	0	/	0	++	+	0	0	/
Reasons for rejection: This alternative could not be considered viable. The potential of a specific proposal coming forward from within any such area has not been demonstrated by interested landowners or developers due to the high-level nature of the Areas of Search exercise. As such the alternative was rejected.													

5.1.4 Proposed Mitigation Measures / Recommendations for the approach to identifying Areas of Search

No mitigation measures have been recommended.

5.2 Policy 5: Enclosed Waste Facilities

	Sustainability Objectives (SO)												
	1	2	3	4	5	6	7	8	9	10	11	12	13
Short Term	0	0	0	++	0	0	/	++	++	++	0	+	+
Medium Term	0	0	0	++	0	0	/	++	++	++	0	+	+
Long Term	0	0	0	++	0	0	/	++	++	++	0	+	+

There will be significant positive impacts on the sustainable use of land (SO4) and transport (SO10) through co-location and a focus on previously developed land; energy (SO8) through a favourable stance on CHP proposals; and the sustainable management of waste (SO9) through a

flexible approach that will assess proposals on their individual merits.

There will also be minor positive impacts on economic growth / job creation (SO13) through the majority of locational criteria focusing enclosed sites in current or traditional employment areas. Minor positive impacts will also be realised on public nuisance and access (SO12) through the utilisation of existing infrastructure and a general presumption against sites in previously undeveloped areas.

Uncertainty has been predicted regarding transport related air quality (SO7) due to many enclosed facilities being compatible with, and suitable within, existing industrial areas that may already experience large movements of vehicles.

5.2.1 Temporal Effects

There will be no temporal effects as a result of this Policy.

5.2.2 Secondary, Cumulative and Synergistic Effects

There will be secondary positive impacts on biodiversity (SO1), cultural heritage (SO5), landscape (SO6), and health and well-being (SO11) resulting from the majority of criteria responding to co-location, existing industrial sites, redundant farm buildings and brownfield land. The impacts on biodiversity and landscape will also be strengthened through the policy specifying that enclosed thermal facilities would need additional criteria and additional site assessment work to demonstrate that new facilities are more appropriate to those that are allocated.

5.2.3 Alternatives Considered

- Alternative 1: To have separate location criteria for the enclosed waste facilities of, materials recycling / recovery and waste transfer stations (Alternative 1A); metal recycling and vehicle dismantling (Alternative 1B); in-vessel composting (Alternative 1C); clinical waste (Alternative 1D); MBT, autoclaving and AD (Alternative 1E); and inert waste recycling (1F).

	Sustainability Objectives (SO)												
	1	2	3	4	5	6	7	8	9	10	11	12	13
Alternative 1A	0	0	0	++	0	0	/	0	++	+	0	/	+
Alternative 1B	+	0	0	++	0	+	/	0	++	+	0	+	+
Alternative 1C	0	0	0	++	0	0	/	0	++	+	0	+	+
Alternative 1D	0	0	0	++	0	0	/	0	+	++	0	/	+
Alternative 1E	0	0	0	++	0	0	/	++	++	+	0	+	+
Alternative 1F	0	0	0	++	0	0	++	0	++	++	0	/	+
Reasons for rejection: Although the alternative is not significantly different from the impacts predicted for the Pre-Submission policy approach, the single approach to enclosed waste facilities can be considered a more flexible approach. The alternative could be considered as more restrictive, limiting certain facilities to specific types of site and the preferred Policy approach instead seeks to direct them to broadly acceptable locations and determine them on their own merits. For these reasons the approach of separate locational criteria for specific facility types has been rejected, albeit with certain elements progressed to inform the Pre-Submission approach to												

the Policy.

5.2.4 Proposed Mitigation Measures / Recommendations

No mitigation measures have been recommended.

5.3 Policy 6: Open Waste Facilities

	Sustainability Objectives (SO)												
	1	2	3	4	5	6	7	8	9	10	11	12	13
Short Term	0	0	0	++	0	0	/	0	++	++	0	+	+
Medium Term	0	0	0	++	0	0	/	0	++	++	0	+	+
Long Term	0	0	0	++	0	0	/	0	++	++	0	+	+

There will be significant positive impacts resulting from the Policy's approach to open waste facilities on the sustainable use of land (SO4) and transport (SO10) through co-location and a focus on brownfield land; and the sustainable management of waste (SO9) through the assessment of sites on their individual merits in line with changing needs.

There will also be minor positive impacts on economic growth / job creation (SO13) through the majority of locational criteria focusing open sites in existing industrial areas. Minor positive impacts will also be realised on public nuisance and access (SO12) through the utilisation of existing infrastructure and a general presumption against sites in previously undeveloped areas.

Uncertainty has been predicted regarding transport related air quality (SO7) due to many facilities being compatible with, and suitable within, existing industrial areas that may already experience large movements of vehicles.

5.3.1 Temporal Effects

There will be no temporal effects as a result of this Policy.

5.3.2 Secondary, Cumulative and Synergistic Effects

There will be secondary positive impacts on biodiversity (SO1), cultural heritage (SO5), landscape (SO6), and health and well-being (SO11) resulting from the majority of criteria responding to co-location, existing industrial sites, redundant farm buildings and brownfield land.

5.3.3 Alternatives Considered

- Alternative 1: To have separate location criteria for the open (air) waste facilities of, outdoor composting (Alternative 1A); Waste Water Treatment Works (Alternative 1B); and inert waste recycling (Alternative 1C).

	Sustainability Objectives (SO)												
	1	2	3	4	5	6	7	8	9	10	11	12	13
Alternative 1A	/	0	0	++	/	+	0	0	++	/	0	/	+
Alternative 1B	0	+	/	++	0	0	0	0	++	+	0	+	+

Alternative 1C	0	0	0	++	0	0	++	0	++	++	0	/	+

Reasons for rejection: Although the alternative is not significantly different from the Preferred Approach (2015) approach, the changes made can be considered a more flexible approach. The alternative could be considered as more restrictive, limiting certain facilities to specific types of site and the Preferred Approach (2015) instead seeks to direct them to broadly acceptable locations and on their own merits. For these reasons the approach has developed. Although the alternative is not significantly different from the impacts predicted for the Pre-Submission policy approach, the single approach to open waste facilities can be considered a more flexible approach. The alternative could be considered as more restrictive, limiting certain facilities to specific types of site and the preferred Policy approach instead seeks to direct them to broadly acceptable locations and determine them on their own merits. For these reasons the approach of separate locational criteria for specific facility types has been rejected, albeit with certain elements progressed to inform the Pre-Submission approach to the Policy.

5.3.4 Proposed Mitigation Measures / Recommendations

No mitigation measures have been recommended.

5.4 Policy 7: Nuclear Waste Treatment and Storage at Bradwell-on-Sea

	Sustainability Objectives (SO)												
	1	2	3	4	5	6	7	8	9	10	11	12	13
Short Term	0	0	0	++	0	0	0	0	++	++	0	0	+
Medium Term	0	0	0	++	0	0	0	0	++	++	0	0	+
Long Term	0	0	0	++	0	0	0	0	++	++	0	0	+

There will be significant positive impacts associated with the sustainable use of land (SO4) and the sustainable management of waste (SO9) through the criterion of storage only being acceptable within the Nuclear Licensed Areas at Bradwell. There will also be significant positive impacts regarding the sustainable transportation of waste (SO10) where VLLW, LLW and ILW would be received, stored and processed at source.

There will be a minor positive impact on economic growth (SO13) through the Policy considering Bradwell's selection as a Nationally Significant Infrastructure Project for future nuclear power generation.

5.4.1 Temporal Effects

There will be no temporal effects resulting from this Policy.

5.4.2 Secondary, Cumulative and Synergistic Effects

There will be secondary, or indirect positive impacts on biodiversity (SO1), water quality (SO2) and flooding (SO3) where the Policy seeks to minimise any adverse impacts on the environment. There will also be positive secondary impacts on health and well-being (SO11) and nuisance and access (SO12) through the approach to minimising the impacts on human health associated with minimising impacts. These impacts will be minimised in accordance with the same site assessment criteria and method used for selecting allocated sites within the Plan, as set out in the additional

consultation documents surrounding the Site Assessment & Allocations Report.

5.4.3 Alternatives Considered

The following reasonable alternative was considered, along with its reason for rejection:

- Alternative 1: Permission for nuclear or radioactive waste (except low level clinical waste) will not be favoured and the Councils will seek to ensure that any nuclear wastes continue to be disposed of and/or reprocessed at appropriate national facilities (Issues and Options 2010)

	Sustainability Objectives (SO)												
	1	2	3	4	5	6	7	8	9	10	11	12	13
Alternative 1	/	0	0	+	0	+	/	0	/	/	0	0	0
Reasons for rejection: Although not necessary to allocate new sites to deal with non-nuclear VLLW, the Plan must still set out the means by which new facilities would be assessed. The alternative can be considered an inflexible approach in line with the possibility that Bradwell is selected as a Nationally Significant Infrastructure Project for future nuclear power generation. For this reason, the alternative was rejected.													

5.4.4 Proposed Mitigation Measures / Recommendations

No mitigation measures have been recommended.

5.5 Policy 8: Non-Nuclear Very Low-Level and Low-Level Radioactive Waste

	Sustainability Objectives (SO)												
	1	2	3	4	5	6	7	8	9	10	11	12	13
Short Term	0	0	0	++	0	0	0	0	++	0	0	0	+
Medium Term	0	0	0	++	0	0	0	0	++	0	0	0	+
Long Term	0	0	0	++	0	0	0	0	++	0	0	0	+

There will be significant positive impacts associated with the sustainable use of land (SO4) and the sustainable management of waste (SO9) through the requirements to identify a need to manage waste arising from within Essex and Southend-on-Sea in the first instance, alongside proposed developments (including landfill) demonstrating that they are the most appropriate and acceptable development in relation to the Waste Hierarchy.

There will be minor positive impacts on waste related employment opportunities (SO13) through the Policy's flexibility in being positioned to respond to any proven need, where adequately demonstrated, for non-nuclear LLW and VLLW facilities within the Plan Area and in line with the Spatial Strategy.

5.5.1 Temporal Effects

There will be no temporal effects resulting from this Policy.

5.5.2 Secondary, Cumulative and Synergistic Effects

There will be secondary, or indirect positive impacts on biodiversity (SO1), water quality (SO2) and flooding (SO3) where the Policy seeks to minimise any adverse impacts on the environment. There will also be positive secondary impacts on health and well-being (SO11) and nuisance and access (SO12) through the approach to minimising the impacts on human health associated with minimising impacts.

5.5.3 Alternatives Considered

- Alternative 1a: Permission for nuclear or radioactive waste disposal (except low level clinical waste) will not be granted and the Councils will seek to ensure that any nuclear wastes continue to be disposed of and/or reprocessed at appropriate national facilities.
- Alternative 1b: Assess the potential of existing non-hazardous landfill sites within the Plan Area for disposal of certain LLW and VLLW.

	Sustainability Objectives (SO)												
	1	2	3	4	5	6	7	8	9	10	11	12	13
Alternative 1a	/	0	0	+	0	+	/	0	/	/	0	0	0
Reasons for rejection: A Government commissioned report (Data collection on solid low-level waste from the non-nuclear sector DECC [2008[) stated that this waste stream is likely to reduce over the Plan period, and because there was sufficient capacity nationally to treat the non-nuclear LLW arising in Essex and Southend-on-Sea, there is no requirement to make further provision for non-nuclear radioactive waste facilities. This has previously been the stance taken by the Plan throughout the plan-making process and was explored initially at the Issues and Options (2010) stage; however, in order for the Waste Local Plan to be able to respond to any changing circumstances, it has been considered that a requirement exists to set out a policy stance on non-nuclear LLW and VLLW. For this reason, the alternative has since been rejected.												
	Sustainability Objectives (SO)												
	1	2	3	4	5	6	7	8	9	10	11	12	13
Alternative 1b	/	0	0	+	0	+	/	0	/	/	0	0	0
Reasons for rejection: The alternative to assess the potential of existing non-hazardous landfill sites within the Plan Area for the disposal of certain LLW and VLLW has been rejected as a single method for the management of this waste, with a separate policy having been formulated to deal with locational criteria for landfill proposals. The approach to only consider the potential of existing non-hazardous landfill sites within the Plan Area for disposal of certain LLW and VLLW can be seen as inflexible in regards to the possibility of capacity being needed to manage this waste stream.													

5.5.4 Proposed Mitigation Measures / Recommendations

No mitigation measures have been recommended.

5.6 Policy 9: Waste Disposal Facilities

	Sustainability Objectives (SO)												
	1	2	3	4	5	6	7	8	9	10	11	12	13
Short Term	+	0	0	++	0	++	0	++	++	+	+	0	0
Medium Term	+	0	0	++	0	++	0	++	++	+	+	0	0
Long Term	+	0	0	++	0	++	0	++	++	+	+	0	0

There will be significantly positive impacts on the sustainable management of waste (SO9) through the Policy's criteria and flexibility to ensure that capacity exists over the Plan Period for the landfilling of waste. There will also be significantly positive impacts on the sustainable use of land / agricultural land (SO4), and landscapes (SO6) through the benefits of landfill of the appropriate materials for restoration purposes. Further significant positive impacts will be realised on energy (SO8) where applicants would have to demonstrate how proposals for non-inert landfill are required to demonstrate the capture of landfill gas for energy generation by the most efficient means.

There will be minor positive impacts on biodiversity (SO1), transport (SO10) and health and well-being (SO11) where any proposals that come forward on land use types not identified above will be assessed on their merits, based on the policies in the adopted RWLP.

5.6.1 Temporal Effects

There will be no temporal effects resulting from this Policy.

5.6.2 Secondary, Cumulative and Synergistic Effects

There will be significant positive impacts associated with the sustainable management of waste (SO9) and landscape (SO6) with this Policy's stance in accumulation with the plan's policy stance on Landraising (Policy 13).

5.6.3 Alternatives Considered

- Alternative 1: Location for landfill - void space within allocated mineral sites only
- Alternative 2: Location for landfill - within extensions to existing landfill facilities
- Alternative 3: To have separate locational criteria for the landfill requirements of, Inert landfill (Alternative 3A); non-hazardous landfill (Alternative 3B); and hazardous landfill (Alternative 3C)
- Alternative 4: To state different criteria for the landfill proposals of different types of waste

	Sustainability Objectives (SO)												
	1	2	3	4	5	6	7	8	9	10	11	12	13
Alternative 1	/	+	/	+ +	+	+	/	/	+ +	+	+	+	0
Reasons for rejection: It was considered that this approach would not be viable as it could conflict with the restoration proposals and requirements of minerals sites in the Adopted MLP. As such it was rejected for this purpose.													

Alternative 2	/	+	/	+	/	/	/	/	+	+	/	/	+
Reasons for rejection: This alternative would be dependent upon mineral extraction preceding landfilling. Extending a landfill that is not associated with mineral extraction would not be preferable to filling existing void spaces that require it for restoration. However, in reality most allocated inert landfill sites are extensions either to existing landfill or mineral sites (on the proviso that mineral extraction is feasible in the first instance) and so this approach is not as dissimilar to the Policy as it may seem. As a sole approach however it was rejected, with elements progressed to the preferred Policy approach and Site Assessment Criteria.													
Alternative 3A	0	0	0	++	0	++	0	0	+	+	0	0	0
Alternative 3B	+	0	0	++	+	++	0	++	++	0	+	+	0
Alternative 3C	+	0	0	++	+	++	0	0	++	0	+	+	0
Reasons for rejection: It was considered limiting and inflexible to have separate criteria for non-allocated landfill sites. Proposals for a specific type of landfill may be compatible with extensions for existing landfill for another type. The approach could also be seen to be in conflict with elements of the spatial strategy and the proximity principle; where landfill capacity of a certain type may be required in more specific broad locations than this approach could deliver. For these reasons the alternative was rejected.													
Alternative 4	+	0	0	++	0	++	0	++	++	+	+	0	0
Reasons for rejection: The Revised Preferred Approach (2015) explored an amalgamated approach to landfill, incorporating elements of the 2011 Preferred Approach. Since consultation on the revised Preferred Approach (2015), the Policy has progressed from stating different criteria for landfill proposals of different types of waste. Despite this, the impacts highlighted in the SA of both the Revised Preferred Approach (2015) and Policy 9 are similar, and the implementation of each is not distinctly different. Despite this, the Revised Preferred Approach (2015) can be considered less flexible than that of Policy 9 in the Pre-Submission Plan and for that reason was rejected.													

5.6.4 Proposed Mitigation Measures / Recommendations

No mitigation measures have been recommended.

6 Development Management Policies

6.1 Policy 10: Development Management Criteria

	Sustainability Objectives (SO)												
	1	2	3	4	5	6	7	8	9	10	11	12	13
Short Term	++	++	+	+	++	++	+	0	0	++	++	++	0
Medium Term	++	++	+	+	++	++	+	0	0	++	++	++	0
Long Term	++	++	+	+	++	++	+	0	0	++	++	++	0

Significant positive impacts will be realised for the historic environment (SO5) where waste management development proposals will only be acceptable where it can be demonstrated that the development would not have an unacceptable impact on the historic environment including heritage and archaeological assets and their settings. Further significant positive impacts will be realised regarding landscape character (SO6) regarding the appearance, quality and character of the landscape, countryside and visual environment and any local features that contribute to its local distinctiveness.

There will be significant positive impacts on health and well-being (SO11) through the Policy's stance on Public Open Space, the definitive Public Rights of Way network and outdoor recreation facilities. Further significant impacts will be realised for public nuisance and access (SO12) through avoiding unacceptable impacts on local amenity (including noise levels, odour, air quality, dust, litter, light pollution and vibration).

There will also be significant positive impacts on water quality (SO2) through the Policy's approach to avoiding unacceptable impacts on the quality and quantity of water within water courses, groundwater and surface water. Similarly there will be significant positive impacts on transport (SO10) through the Policy's stance on the safety and capacity of the road and other transport networks.

It was stated in the SA of the Revised Preferred Approach (2015) that there will be positive impacts on biodiversity (SO1) but despite this, negative impacts of proposals could be experienced on Natura 2000 sites within certain distances. It added that the Habitats Regulations Assessment (HRA) stressed that the flexible approach of the Plan could result in negative impacts on Natura 2000 sites, particularly in accumulation with other developments, plans and programmes within the Plan Area over the plan period. The Pre-Submission Policy has factored in this recommendation, and also the recommendation of the HRA in including a requirement that proposals for waste management facilities will have to demonstrate that they would not have an unacceptable impact on internationally, nationally or locally designated sites. The supporting text, in elaborating on what would be required to demonstrate this, includes the possible need for project-level HRA to accompany certain schemes in certain locations. The Policy, as a result, will now have significant positive impact on biodiversity (SO1).

There will be minor positive impacts on flooding (SO3) through the Policy's stance on the capacity of existing drainage systems. There will also be minor positive impacts on the sustainable use of land, soils and agricultural land (SO4) where waste management development proposals will only be acceptable where they avoid unacceptable impacts on agricultural land, in particular loss of Grades 1, 2 or 3a agricultural land.

It was also stated in the SA of the Revised Preferred Approach (2015) that there will be an uncertain impact on air quality (SO7) where air quality issues were not directly covered. The policy has since been amended to include air quality, resulting in a minor positive impact.

6.1.1 Temporal Effects

There will be no temporal effects resulting from this Policy.

6.1.2 Secondary, Cumulative and Synergistic Effects

There will be no secondary, cumulative or synergist effects resulting from this Policy.

6.1.3 Alternatives Considered

- Alternative 1: To have separate policies on the following development management issues – Health Impact Assessments, landscape and townscape, and biodiversity.
- Alternative 2: To adopt the Revised Preferred Approach (2015) criteria and policy content

	Sustainability Objectives (SO)												
	1	2	3	4	5	6	7	8	9	10	11	12	13
Alternative 1	++	+	+	+	/	++	+	/	/	/	++	+	/

Reasons for rejection: Analysis of the consultation responses, the Annual Monitoring Report, Waste Local Plan policies, and input from Development Management officers indicated that rationalising policy into a single preferred approach dealing with DM issues would be most appropriate. The criteria put forward were selected with the aim of addressing all of the key issues without unnecessary repetition. Thus this alternative of multiple single policy issues was rejected.

	Sustainability Objectives (SO)												
	1	2	3	4	5	6	7	8	9	10	11	12	13
Alternative 2													

Reasons for rejection: The range of criteria stated in the Policy is similar to the Previous Revised Preferred Approach (2016) approach to development management criteria. Despite this, the Pre-Submission Policy elaborates on certain issues and criteria, predominantly in the supporting text, offering a stronger and more sustainable stance on issues such as transport networks, air quality and water quality. Notably the Policy also has an increased focus on protecting internationally, nationally and locally designated wildlife sites, with an notable inclusion that proposals may be required to be accompanied with a project-level HRA in certain instances and within specific distances, which was lacking and a criticism of the Revised Preferred Approach (2015) approach. As such, the Policy approach has been selected in favour of the approach espoused in the Revised Preferred Approach (2015), which has since been rejected.

6.1.4 Proposed Mitigation Measures / Recommendations

The SA of the Revised Preferred Approach (2015) recommended that, ‘the supporting text highlights the range of sites with international designation in the Plan Area, and recognises the fact that the impacts of development on biodiversity should be fully understood; however it is recommended that this Policy, or the supporting text, be expanded to reflect the possibility of impacts on Natura 2000 sites in line with the findings of the HRA. The policy could be more specific as to the possible requirements of the developer to, in accompaniment to any planning application, undertake project-level HRA or Appropriate Assessment to ascertain the implications of development on such designations and in accumulation with other developments, plans and programmes in the Plan Area.’ The WPAs, through Policy 10, have factored in this

recommendation, and the approach has been amended accordingly. The policy now includes that proposals for waste management facilities will have to demonstrate that they would not have an unacceptable impact on internationally, nationally or locally designated sites and the supporting text, in elaborating on what would be required to demonstrate this, includes the possible need for project-level HRA to accompany certain schemes in certain locations.

6.2 Policy 11: Mitigating and Adapting to Climate Change

	Sustainability Objectives (SO)												
	1	2	3	4	5	6	7	8	9	10	11	12	13
Short Term	0	++	++	0	/	/	++	++	+	++	+	0	0
Medium Term	0	++	++	0	/	/	++	++	+	++	+	0	0
Long Term	0	++	++	0	/	/	++	++	+	++	+	0	0

There will be significant positive impacts on water quality (SO2) where proposals for new waste management facilities should incorporate water efficient design measures. Similarly, proposals will not be permitted where they fail to demonstrate that there would not be an unacceptable risk to the quantity and quality of surface water and groundwaters, or impediment to groundwater flow. As well as aiming to ensure that emissions are reduced, there will be significant positive impacts on flood risk (SO3) where proposals will only be permitted where there would not be an unacceptable risk of flooding on site or elsewhere and where existing and proposed flood defences are protected. Proposals should also set out their use of sustainable drainage systems where applicable.

There will be significant positive impacts resulting from this Policy on air quality (SO7) through a commitment to reduce carbon emissions directly from waste management facilities in construction and operation, as well as regarding associated transport movements. This also applies for renewable energy generation (SO8) through proposals being required to set out how they support opportunities for decentralised and renewable or low-carbon energy supply, a requirement to minimise carbon emissions through energy efficient design measures and the requirements included within section 3 of the policy for all those proposals capable of producing energy or a fuel from waste. Section 3 of the policy is a new inclusion at this stage of the Plan and is viewed as clearly setting out the requirements of proposals for the purpose of maximising energy production from waste activities and exploring it in all relevant proposals. This is viewed as a more sustainable approach than previous iterations of this Policy. There will also be significant positive impacts on transport (SO10) where proposals for new waste facilities should set out how the location and transportation related to the development will limit carbon emissions, as well as incorporating proposals for sustainable travel including travel plans where appropriate.

There will be minor positive impacts on the sustainable management of waste (SO9) through increasing the energy efficiency of waste management facilities that are adaptable to future climatic conditions, and the recovery of energy in relevant instances. The Policy is unlikely to impact on moving waste management up the waste hierarchy in the Plan Area, thus positive impacts are limited. There will be positive impacts on health (SO11) in so far as a reduction in carbon emissions from waste management facilities will minimise any related air quality issues. This has impacts on human health; however the policy is not relevant to the rest of this objective's criteria.

Uncertain impacts are predicted on the historic environment (SO5) and landscape character (SO6) where design measures specific to energy and water efficiency may not be compatible with nearby historical assets or local landscape features, and the implementation may be difficult in certain circumstances. Despite this, negative impacts are unlikely to occur as a result of the wider strategy

and are effectively neutralised by the criteria of Policy 10.

6.2.1 Temporal Effects

There will be no temporal effects resulting from this Policy.

6.2.2 Secondary, Cumulative and Synergistic Effects

There will be secondary positive impacts on biodiversity (SO1) through a reduction in carbon emissions and the impacts on water bodies (SO2) and reduced flood risk (SO3) which can impact negatively on species and habitats. Similarly, there will be a secondary positive impact on public nuisance and access (SO12) through a reduction in emissions that could affect local and neighbouring developments were this Policy not implemented. Similarly, the indirect impacts on neighbouring uses in regards to flood risk and access arrangements should also be positive through detailed criteria to minimise flooding and travel plans where appropriate.

6.2.3 Alternatives Considered

There have been no distinctively alternative approaches developed for mitigating and adapting to climate change. It is considered that no possible alternative approaches could be deemed reasonable for the purposes of the SA. Any alternative approaches would not reflect national policy requirements of WPAs in formulating a Waste Local Plan or the evidence base of the Plan itself.

6.2.4 Proposed Mitigation Measures / Recommendations

No mitigation measures have been recommended.

6.3 Policy 12: Transport and Access

	Sustainability Objectives (SO)												
	1	2	3	4	5	6	7	8	9	10	11	12	13
Short Term	0	0	0	0	0	0	+	0	0	++	0	+	0
Medium Term	0	0	0	0	0	0	+	0	0	++	0	+	0
Long Term	0	0	0	0	0	0	+	0	0	++	0	+	0

There will be significant positive impacts on transport (SO10) through seeking opportunities for the transportation of waste by rail or water in the first instance. It should be acknowledged that the use of rail or water in transporting waste may result in an increase in the distance waste travels, due to the nature of the required infrastructure, however these are more sustainable options in terms of both emissions and congestion. This increase in waste miles via rail or wharf transhipment facilities may result in more cross boundary movements, however the approach strikes a good balance between increasing sustainable transportation within the realms of what is practicable in terms of cost and impacts on the road infrastructure. The Policy accepts that road infrastructure is still likely to be utilised predominantly for the transportation of waste in the Plan Area, and addresses this with a hierarchical approach to access arrangements so as not to significantly impact on local roads and the general population. The Policy is therefore a viable and realistic approach.

Additionally there will be a minor positive impact on minimising public nuisance / access (SO12) through an approach to waste transportation that seeks to, in part, minimise situations where

HGVs will directly impact on local residential amenity. There will also be positive impacts on air quality (SO7) through seeking opportunities for the transportation of waste by rail or water in the first instance. It is felt that a large number of the Sustainability Objectives are better covered in other Policies regarding the locational criteria of facilities and the development management criteria stated in Policy 10.

6.3.1 Temporal Effects

There will be no temporal effects resulting from this Policy.

6.3.2 Secondary, Cumulative and Synergistic Effects

There will be no secondary, cumulative or synergistic effects resulting from this Policy.

6.3.3 Alternatives Considered

- Alternative 1: An approach of seeking to reduce transport distances by taking account of where the majority of waste arises and the destination of recycled, treated and recovered outputs and residual waste for disposal (with an additional focus on regional interchange centres and inter-urban/intra-urban routes with existing capacity as defined by the main highway network)

	Sustainability Objectives (SO)												
	1	2	3	4	5	6	7	8	9	10	11	12	13
Alternative 1	+	0	0	0	+	+	+	0	0	++	+	+	/
Reasons for rejection: The alternative was considered too broadly focused on the location of facilities in line with the proximity principle. This approach would result in very few facilities being appropriate or available in line with the spatial strategy and the capacity gap requirements of the Plan. For these reasons, the alternative was rejected in favour of an approach that additionally factors in the suitability of access into and out of any site and the nature of the roads that the vehicles use in line with local Route Hierarchy Plans relevant to the Plan Area.													

6.3.4 Proposed Mitigation Measures / Recommendations

No mitigation measures have been recommended.

6.4 Policy 13: Landraising

	Sustainability Objectives (SO)												
	1	2	3	4	5	6	7	8	9	10	11	12	13
Short Term	++	+	+	++	+	++	0	0	++	0	+	0	++
Medium Term	++	+	+	++	+	++	0	0	++	0	+	0	++
Long Term	++	+	+	++	+	++	0	0	++	0	+	0	++

There are likely to be positive impacts on biodiversity (SO1), the sustainable use of land and agricultural land (SO4), landscape (SO6) and sustainable waste management (SO9) where landraising would only be acceptable for the restoration of mineral extraction sites or for essential

engineering projects or where it would provide a significant improvement to damaged or degraded land and/or provide a greater environmental or agricultural land value than the previous land use.. This would also see positive impacts on economic growth through the approach's acknowledgement of the need for inert material for infrastructure projects.

A range of minor positive impacts will additionally be realised due to the approach's restrictions regarding the use of inert material for landraising. This approach will limit the potential negative impacts on water quality (SO2), flooding (SO3), the historic environment (SO5) and well-being (SO11) by ensuring that landraising occurs only where necessary and not to the detriment of these factors as could otherwise be expected with a less restrictive stance.

6.4.1 Temporal Effects

There will be no temporal effects as a result of this Policy at this stage. The Sustainability Appraisal of the potential criteria for a landraising policy in the WDD Issues and Options (2010) document highlighted long term significant positive impacts associated with biodiversity, landscape and the sustainable use of land (SO1, SO6 and SO4) only due to the restoration implications of landraising, however these have been extended into the short and mid-term due to ECC, as the MPA, having a recently adopted Minerals Local Plan in addition to the need for the restoration of historic landfill sites.

6.4.2 Secondary, Cumulative and Synergistic Effects

There are likely to be positive cumulative and synergistic impacts on the majority of the Sustainability Objectives through all inert landfill and landraise proposals having to meet the policies in the RWLP once adopted. In addition, there will be significant positive impacts associated with the sustainable management of waste (SO9) and landscape (SO6) with this Policy's stance in accumulation with the plan's policy stance on Waste Disposal (Policy 9).

6.4.3 Alternatives Considered

- Alternative 1: To adopt a less restrictive 'locational criteria' based approach to landraising - Revised Preferred Approach stage (2015)

	Sustainability Objectives (SO)												
	1	2	3	4	5	6	7	8	9	10	11	12	13
Alternative 1	-	0	0	-	0	-	0	0	- -	/	0	0	0
Reasons for rejection: The alternative would not reflect the recycling of inert material as defined within the Waste Hierarchy. In addition, there would be less material available that would be required for restoration purposes; of great benefit and importance within the Plan Area in respect of existing mineral voids and the Plan's approach to Waste Disposal (Policy 9).													

6.4.4 Proposed Mitigation Measures / Recommendations

No mitigation measures have been recommended

6.5 Policy 14: Landfill Mining and Reclamation

	Sustainability Objectives (SO)												
	1	2	3	4	5	6	7	8	9	10	11	12	13
Short Term	+	+	0	0	0	0	0	+	+	0	+	0	+
Medium Term	+	+	0	0	0	0	0	+	+	0	+	0	+
Long Term	/	/	/	/	/	/	/	/	/	/	/	/	/

There will be no significant impacts on any of the Sustainability Objectives through this Policy. There will be minor positive impacts on biodiversity (SO1), water quality (SO2), energy generation (SO8), the sustainable management of waste (SO9), human health (SO11) and economic growth (SO13) through the approach to only permit the mining of waste in instances of sites endangering human health or the environment, or where required to facilitate major infrastructure projects and where there would be additional energy yield. These impacts will not extend into the long term.

6.5.1 Temporal Effects

The long term effects of this Policy are uncertain. This surrounds any newly created void space from mining and these locations may or may not be suitable or sustainable for landfill in line with modern requirements and the Site Assessment Methodology of the RWLP. The Plan states that any widespread re-working could affect the perceived lifetime of sites. Currently landfills are temporary use of land, which would be returned to another use, whether this be for agriculture, biodiversity or local amenity. If old sites are re-opened, this may (re)introduce blight into the area.

6.5.2 Secondary, Cumulative and Synergistic Effects

There may be long term negative synergistic impacts on the Plan's Spatial Strategy where the mining of waste could create new void space for landfill that do not conform to the Spatial Strategy and requirements of void space to serve particular areas / key centres of growth.

6.5.3 Alternatives Considered

- Alternative 1: To not have a policy on the mining of waste - Revised Preferred Approach (2015)

	Sustainability Objectives (SO)												
	1	2	3	4	5	6	7	8	9	10	11	12	13
Alternative 1	/	/	0	0	0	0	0	0	0	0	/	0	/
Reasons for rejection: Although in the shorter term it is difficult to see how the reworking of general landfills, notably those containing municipal solid waste, could yield worthwhile revenue to offset the costs (including environmental assessments, securing planning and other consents and any necessary mitigation), the RWLP must remain flexible. As such, this alternative was rejected in favour of including a policy on the mining of waste.													

6.5.4 Proposed Mitigation Measures / Recommendations

No mitigation measures have been recommended.

7 Conclusions

7.1 The Vision, Strategic Objectives and Spatial Strategy

	Sustainability Objectives (SO)												
	1	2	3	4	5	6	7	8	9	10	11	12	13
Vision	+	+	+	+	+	+	+	+	++	+	+	+	+
Strategic Objs	+	0	0	++	0	/	+	++	++	+	++	+	++
Spatial Strategy	/	/	/	+	/	/	/	/	+ +	+ +	/	/	++

- The Vision focuses on waste management, and as such the only significant effect will be realised for Sustainability Objective 9 (defined as 'to ensure the sustainable management of waste landfilled, to maximise the re-use, recovery and recycling of waste and to promote the minimisation of waste produced at source'). The Vision strongly adheres to this objective through a commitment to the specifics of the Waste Hierarchy without disregarding the Plan Area's key issues and requirements.
- The Strategic Objectives will have significant positive impacts on SO4 (to maximise the sustainable use of land and the protection of soils, safeguarding the best and most versatile agricultural land), SO8 (to maximise energy efficiency, the proportion of energy generated from renewable sources and adaptability to climate change); SO9 (to ensure the sustainable management of waste landfilled, to maximise the re-use, recovery and recycling of waste and to promote the minimisation of waste produced at source); SO11 (to protect human health and well-being and maintain the quality and quantity of public open space amenity across Essex and Southend); and SO13 (to maximise opportunities for economic development, including jobs, arising from waste related activities). There is a single uncertain impact on landscape and townscape character (SO6) where it is unclear whether this issue is covered under 'general amenity'. It should be acknowledged however that there will be indirect positive impacts on a number of the Sustainability Objectives assessed as having 'no impact'.
- The Spatial Strategy will have significant positive impacts on the sustainable management of waste (SO9), the sustainable transportation of waste (SO10) and economic growth (SO13) in line with commitments to allocating and safeguarding strategic sites, a network of LACW transfer stations and a general distribution focused on key centres for growth.

7.1.1 Recommendations Regarding the Proposed Vision, Strategic Objectives and Spatial Strategy

- There is scope for the Strategic Objectives to cover landscape, townscape and the historic environment more clearly, possibly within Strategic Objective 8, where the issue is not directly relevant to environmental or amenity concerns.

7.2 The Policies (Excluding Strategic Allocations [Policy 3])

	Sustainability Objectives (SO)												
	1	2	3	4	5	6	7	8	9	10	11	12	13
Policy 1	0	0	0	0	0	0	0	0	++	0	0	0	0
Policy 2	/	/	/	+	/	/	/	+	++	+	+	+	++
Policy 4	0	/	0	+	0	0	/	0	++	+	0	0	/
Policy 5	0	0	0	++	0	0	/	++	++	++	0	+	+
Policy 6	0	0	0	++	0	0	/	0	++	++	0	+	+
Policy 7	0	0	0	++	0	0	0	0	++	++	0	0	+
Policy 8	0	0	0	++	0	0	0	0	++	0	0	0	+
Policy 9	+	0	0	++	0	++	0	++	++	+	+	0	0
Policy 10	++	++	+	+	++	++	+	0	0	++	++	++	0
Policy 11	0	++	++	0	/	/	++	++	+	++	+	0	0
Policy 12	0	0	0	0	0	0	+	0	0	++	0	+	0
Policy 13	++	+	+	++	+	++	0	0	++	0	+	0	++
Policy 14	+	+	0	0	0	0	0	+	+	0	+	0	+

- The Plan's policies, excluding Policy 3 which looks at Strategic Site Allocations and has been explored separately, will have significant positive impacts on all of the Sustainability Objectives. Most clearly, they can be seen to adhere to the Plan's principle aim; that being the sustainable management of waste (SO9) in the Plan Area.
- The Plan will also have a large number of significant positive impacts on the sustainable use of land, predominantly as a result of the Plan's locational criteria policies.
- The Plan's general approach to the sustainable transportation of waste, emanating through the majority of Policies, will also give rise to a large number of significantly positive impacts.
- The Plan can be seen to have a comparatively large amount of uncertain impacts on Sustainability Objective 7, regarding air quality. This is due to the Plan's approach to co-location of waste management facilities with non-waste development, predominantly resulting from the Areas of Search and locational criteria. This is due to the possibility of existing industrial areas, the preferred locations identified as suitable for such co-location, already experiencing large movements of vehicles. It should be acknowledged however, that the principle of development, including waste development as a compatible and similar use to industrial uses, is already established and designed on such sites.

7.2.1 Recommendations Regarding the Policies (Excluding Strategic Allocations)

One recommendation has been made to the Plan's Strategic Objectives. This is:

- Strategic Objectives - There is scope for the Strategic Objectives to cover landscape, townscape and the historic environment more clearly, possibly within Strategic Objective 8, where the issue is not directly relevant to environmental or amenity concerns. Despite this

though the SA is satisfied that these issues are sufficiently covered in other Plan Policies and also through the site assessment methodology used to select appropriate sites.

There are no other recommendations to any of the Policies at this stage. Recommendations have been factored into the Plan at various stages of the SA and plan-making process. These are highlighted below:

- Policy 10 - The SA of the Revised Preferred Approach (2015) recommended that, 'the supporting text highlights the range of sites with international designation in the Plan Area, and recognises the fact that the impacts of development on biodiversity should be fully understood; however it is recommended that this Policy, or the supporting text, be expanded to reflect the possibility of impacts on Natura 2000 sites in line with the findings of the HRA. The policy could be more specific as to the possible requirements of the developer to, in accompaniment to any planning application, undertake project-level HRA or Appropriate Assessment to ascertain the implications of development on such designations and in accumulation with other developments, plans and programmes in the Plan Area.' The WPAs, through Policy 10, have factored in this recommendation, and the approach has been amended accordingly. The policy now includes that proposals for waste management facilities will have to demonstrate that they would not have an unacceptable impact on internationally, nationally or locally designated sites and the supporting text, in elaborating on what would be required to demonstrate this, includes the possible need for project-level HRA to accompany certain schemes in certain locations.

7.3 The Strategic Site Allocations (Policy 3)

The following table shows the sustainability impacts of the strategic site allocations of the Plan.

Sites for: BIOLOGICAL WASTE MANAGEMENT													
Site Ref.	Temp Effect	Sustainability Objectives (SO)											
		1	2	3	4	5	6	7	8	9	10	11	12	13
W29 Bellhou-se	S / M	/	-	++	++	/	-	/	/	+	+	- -	++	++
	L	/	-	++	++	/	-	/	/	+	+	/	++	++
W3 Basildon WWTW	S / M	/	-	/	/	+	/	++	0	++	+	-	++	++
	L	/	-	/	/	+	/	++	0	++	+	/	++	++
W20 Courtau-ld Road	S / M	/	-	++	/	++	/	++	0	++	+	-	+	++
	L	/	-	++	/	++	/	++	0	++	+	/	+	++
IWMF2 - Rivenhall	S / M	+	-	++	-	++	-	++	++	++	+	- -	++	++
	L	+	-	++	-	++	-	++	++	++	+	/	++	++
Sites for: INERT WASTE RECYCLING													
Site Ref.	Temp Effect	Sustainability Objectives (SO)											
		1	2	3	4	5	6	7	8	9	10	11	12	13
W32 Crumps Farm	S / M	/	-	- -	-	/	-	/	0	+	+	/	++	+
	L	/	-	- -	-	/	-	/	0	+	+	/	++	+

W8 Elsenham	S / M	+	++	++	/	-	-	/	0	+	+	-	++	/
	L	+	++	++	/	-	-	/	0	+	+	/	++	/
W7 Sandon East	S / M	+	-	- -	/	+	+	++	0	++	/	-	+	++
	L	+	-	- -	/	+	+	++	0	++	/	/	+	++
L(n)1R Slough Farm	S / M	+	-	++	++	/	/	++	0	+	/	-	+	++
	L	+	-	++	++	/	/	++	0	+	/	/	+	++
L(i)10R Blackley (Site 1)	S / M	+	-	++	++	+	/	++	0	+	+	- -	++	++
	L	+	-	++	++	+	/	++	0	+	+	/	++	++
W13 Wivenhoe Quarry	S / M	/	-	++	-	++	/	/	0	++	/	- -	+	++
	L	/	-	++	-	++	/	/	0	++	/	/	+	++
W31 Morses Lane	S / M	+	++	++	/	/	/	/	0	++	+	-	++	++
	L	+	++	++	/	/	/	/	0	++	+	/	++	++
L(i)17R Newport Quarry	S / M	/	-	++	-	+	++	++	0	+	/	-	+	+
	L	/	-	++	-	+	++	++	0	+	/	/	+	+
Site for: OTHER WASTE MANAGEMENT														
Site Ref.	**Temp Effect**	**Sustainability Objectives (SO)**												
		1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**
IWMF2 Rivenhall	S / M	+	-	++	-	++	/	++	++	++	+	- -	++	/
	L	+	-	++	-	++	/	++	++	++	+	/	++	/
Sites for: INERT LANDFILL														
Site Ref.	**Temp Effect**	**Sustainability Objectives (SO)**												
		1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**
L(n)7R Little Bullocks A22	S / M	/	- -	- -	++	/	/	/	0	+	+	- -	++	+
	L	/	- -	- -	/	0	/	0	0	0	0	/	0	0
L(n)1R Slough Farm	S / M	+	- -	++	++	/	/	++	0	+	/	- -	+	++
	L	/	- -	++	/	0	/	0	0	0	0	/	0	0
L(i)10 Blackley (Site 1)	S / M	+	- -	++	++	+	/	++	0	+	+	- -	++	++
	L	/	- -	++	/	0	/	0	0	0	0	/	0	0
L(i)6 Sandon	S / M	-	- -	- -	++	+	/	++	0	++	/	- -	++	++
	L	/	- -	- -	/	0	/	0	0	0	0	/	0	0

L(i)5 Sunnym-ead	**S / M**	/	- -	++	++	/	++	/	0	+	/	- -	+	++
	L	/	- -	++	/	0	/	0	0	0	0	/	0	0
L(i)17R Newport Quarry	**S / M**	/	- -	++	-	+	++	++	0	+	/	- -	+	+
	L	/	- -	++	/	0	/	0	0	0	0	/	0	0
L(n)5 Bellhou-se	**S / M**	/	- -	++	++	+	+	/	0	++	+	- -	++	++
	L	/	- -	++	/	0	/	0	0	0	0	/	0	0
L(i)15 Fingring-hoe	**S / M**	/	- -	++	/	+	++	++	0	++	++	- -	++	++
	L	/	- -	++	/	0	/	0	0	0	0	/	0	0
Sites for: (STABLE NON-REACTIVE) HAZARDOUS WASTE LANDFILL														
Site Ref.	**Temp Effect**	**Sustainability Objectives (SO)**												
		1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**
L(n)8R Little Bullocks	**S / M**	/	- -	++	++	+	-	/	0	+	+	- -	++	/
	L	/	- -	++	/	0	/	0	0	0	0	/	0	0

- The Strategic Site Allocations can be seen to have a range of positive and negative impacts on the sustainability objectives. Their comparison to alternative sites however indicates that these offer the most sustainable solutions, especially in regard to both capacity gap requirements and conformity to the principles and rationale of the Plan's Spatial Strategy.
- The Strategic Site Allocations have changed since the Revised Preferred Approach (2015). This is largely due to some sites now not being promoted for some specific facility types, the withdrawal of others from the process, the re-assessment of sites in response to the consultation of the Revised Preferred Approach (2015) stage Plan, and also the update to the Waste Capacity Gap Report.
- In focusing on the allocations' negative impacts, most can be seen as individual impacts associated with the nature and principle of waste management facilities, and a cautious approach to assessment regarding the impacts on social indicators and general amenity.
- Particularly, this has responded to negative impacts being predicted for well-being (SO11) should any properties lie within 250m of sites, and also water quality (SO2) where water bodies lie within or adjacent to sites. It should be acknowledged however that individual impacts can often be mitigated on site and those impacts highlighted above do not factor in the development principles stated in Appendix B of the Plan that outline issues and opportunities to be addressed on a site-by-site basis. These principles exist in response to negative impacts highlighted, and have been identified for this reason.

7.3.1 Cumulative Impacts of the Strategic Site Allocations by Sustainability Objective

This section looks at the combined impacts of the allocated sites per Sustainability Objective. This goes some way to highlight the cumulative and synergistic impacts of all the sites in total. These impacts are elaborated on and explained in the corresponding commentary. The following table indicates the proportion (and number) of all sites that have a specific impact on each Sustainability

Objective.

Table 10: Cumulative Impacts of all Preferred Sites by Sustainability Objective

Sustainability Objectives (SO)	Cumulative Impacts of all Preferred Sites
1 Biodiversity	9 | 12 | 1
2 Water	2 | 11 | 9
3 Flooding	17 | 1 | 4
4 Sustainable use of land	10 | 6 | 6
5 Cultural Heritage	4 | 10 | 7 | 1
6 Landscape	4 | 2 | 11 | 5
7 Air Quality	13 | 5 | 4
8 Energy	2 | 1 | 19
9 Waste management	10 | 12
10 Transport	1 | 13 | 8
11 Health & well-being	1 | 7 | 14
12 Nuisance and access	14 | 8
13 Economic growth	15 | 4 | 3

- As can be seen from the above there will be largely positive impacts from the allocated sites. Despite this, overall water quality (SO2) in the Plan Area could be seen to suffer from the allocations. It should be noted however that many of these impacts will be localised and that development principles, exist within the Plan for each site to ensure that such impacts are appropriately mitigated. In addition, Policy 10 of the Plan has integrated a stronger stance on the protection of water quality, in response to these highlighted impacts.
- A majority proportion of those impacts predicted for landscape quality (SO6) are either uncertain or negative, which translate as moderate to high impacts. The cumulative impact of landscapes in the Plan Area could be seen to deteriorate as a result of the allocations; however again, development principles exist to mitigate such impacts on a site-by-site basis.
- The Plan's allocated sites can be seen to have a large degree of negative impacts on

health and well-being (SO11), associated largely with one or more sensitive receptors (properties) being in close proximity to sites and/or PROWs being on or adjacent to sites. Whilst the extent of these negative impacts appears significant, it should be acknowledged that a single sensitive use being within 250m of the allocation (regardless of facility type) reduced the stated impacts accordingly and in fact such an impact would be capable of mitigation. It should also be acknowledged that, in line with the proximity principle, allocations in close proximity to key centres of growth are invariably more likely to encounter sensitive uses in their vicinity. Development principles exist for all the allocated sites, as specified in Appendix B of the Plan, and these contain a number of measures to protect local amenity. In addition, PROWs will have to be re-routed should they be disrupted and the Environment Agency addresses odour issues through the Pollution regime. As such, the negative impacts highlighted are unlikely to be forthcoming from any of the proposals.

- There will be a significant positive cumulative impact on employment opportunities from waste management (SO13) resulting from the allocated sites' proximity to key towns and centres for growth.

7.3.2 Recommendations Regarding the Strategic Site Allocations

There are no recommendations to any of the Sites at this stage. Recommendations have been factored into the Plan at various stages of the SA and plan-making process. These are highlighted below:

- The sites of L(n)8R, L(n)7R and W32 are all in close proximity to each other, and share a lot of impacts as a result. It can be seen that, in addition to there being significant negative impacts on water quality (SO2) as a result of each allocation individually, there may be further cumulative negative impacts on this objective. The Plan however, recognises the shared impacts of these sites, and although grouped and allocated for different facility types within the Plan, looks at them as a suite of allocations. Each site has different development principles in Appendix B of the Plan that are closely linked and relevant to each specific use, but there will be shared common benefits. The need for a hydrological assessment for site L(n)8R ensures that water quality issues are addressed in terms of hazardous landfill operations in the area. Inert recycling at site W32 will have a lesser impact on water quality and has been raised due to the proximity of a water body and can be mitigated through the requirements of Policy 10, which includes added emphasis on potential water quality issues. It is therefore viewed that the recommendation has been sufficiently factored into the Plan, where effective measures to mitigate the impacts on water quality in the area will be sought and adequately addressed.
- The sites of W13, L(i)15 and L(i)5 have been grouped where they are located in a broadly similar location, and also in regard to their possible impacts on biodiversity through the international designation that exists of the Colne Estuary (SPA, Ramsar). In addition to development principles for these sites stating that likely significant effects on the nearby international wildlife sites need to be considered, it should additionally be noted that the Plan, as per the recommendation of the HRA, states that 'planning permission for waste management development within or otherwise affecting an international site (Natura 2000 site) will only be granted where the conclusions of a project-level Habitats Regulations Assessment (HRA), as required for those proposals highlighted within the HRA of the Plan, demonstrate that the proposal will have no adverse impacts on the integrity of any site, either alone or in combination with other plans or projects.' Screening distances are also provided as a guide for potential applicants in relation to the triggers for project-level HRA. The inclusion of this requirement in the Plan will effectively determine whether any impacts

on internationally designated sites are likely. Additionally, project-level HRA will also identify the impacts of proposals in combination with other relevant projects, plans and programmes within the Plan Area. As such there will be no cumulative impacts on biodiversity.

- In the SA of the Revised Preferred Approach (2015) it was recommended that mitigation measures should be incorporated where possible in a forthcoming site related policy post-consultation, due to significant negative impacts having been highlighted for health and well-being (SO11). This was associated with the loss of a PROW and proximity to properties at the W29 Bellhouse site. It should be noted that the development principles stated for this site in the Pre-Submission Plan include those related to hours of operation and noise standards. It should also be noted that the Environment Agency will also address any potential odour issues in the interests of protecting local amenity. It is considered at this stage that the recommendations of the SA have been successfully factored into the Plan.
- In the SA of the Revised Preferred Approach (2015) it was recommended that significant negative impacts associated with flooding (SO3) resulting from W7 Sandon, due to portions of the site being in Flood Zone 3 would require effective mitigation. This issue is sufficiently covered by the Plan's policies. Mitigation was also recommended for L(i)10R regarding the site's negative impact on well-being (SO11) resulting from its location to nearby properties. This has been addressed in the development principles for the site which state that dust mitigation measures, limits on duration (hours of operation) and noise standards (from noise sensitive properties) will be established in the interests of protecting local amenity. The approach taken by the WPAs to cover these issues in policy and development principles can be seen to have successfully factored in the recommendations of the Revised Preferred (2015) stage SA.
- At the Revised Preferred Approach (2015) stage, it was stated that a negative impact on well-being (SO11) will exist for IWMF2 due to the proximity of nearby properties, which will require mitigation. The development principles for the site, as listed in Appendix B of the Plan, state that dust mitigation measures, limits on duration (hours of operation) and noise standards (from noise sensitive properties) will be established in the interests of protecting local amenity. As a result, the recommendation of the AS has been successfully factored into the Plan.
- Site L(n)8R will have a negative impact on well-being (SO11) associated with a small number of properties within 250m of the site boundary. It was stated within the SA of the Revised Preferred Approach (2015) that this impact on sensitive receptors should be mitigated within any forthcoming site policy. It is considered that the development principles formulated for this site as stated in Appendix B of the Plan adequately address this recommendation.

8 Monitoring

The significant sustainability effects of implementing a Local Plan must be monitored in order to identify unforeseen adverse effects and to be able to undertake appropriate remedial action. The Sustainability Framework contained in Annex C accompanying this report contains suggested indicators in order to monitor each of the Sustainability Objectives, however these may not all be collected due to limited resources and difficulty in data availability or collection.

Guidance stipulates that it is not necessary to monitor everything included within the Sustainability Framework, but that monitoring should focus on significant sustainability effects, e.g. those that indicate a likely breach of international, national or local legislation, that may give rise to irreversible damage or where there is uncertainty and monitoring would enable preventative or mitigation measures to be taken.

Upon adoption the Plan will be accompanied by an Adoption Statement which will outline those monitoring indicators most appropriate for future monitoring of the Plan in line with Regulation 16 of the Environmental Assessment of Plans and Programmes Regulations 2004.

9 Next Steps – Consulting on the Sustainability Appraisal

This Environmental Report will be subject to consultation. There are three statutory consultees that are required to be consulted for all Sustainability Appraisal and Strategic Environmental Assessment documents. These are:

- The Environment Agency;
- Natural England; and
- English Heritage.

In addition to these, consultation will seek to engage the wider community in order to encompass comprehensive public engagement. Essex County Council and Southend-on-Sea Borough Council may additionally wish to invite comments from focussed groups, relevant stakeholders and interested parties.

All comments on the content of this Environmental Report should be sent to:

Minerals and Waste Planning
Policy Team
Essex County Council
County Hall
Chelmsford
Essex
CM1 1QH

Email: mineralsandwastepolicy@essex.gov.uk
Telephone: 03330 139 808

Comments can also be made in the relevant section of the Council's consultation portal: http://consult.essexcc.gov.uk/portal/.

10 Appendix A – Reasons for Selecting Site Allocations in Light of Reasonable Alternatives

This Appendix offers an explanation as to why the Plan's allocations have been preferred over alternative sites. in the case of alternative sites, the reason for rejection is set out.

Table 11: Appraisal of sites put forward for Enclosed Waste Facilities: In-vessel composting facilities

Sites for: IN-VESSEL COMPOSTING FACILITIES														
Site Ref.	Temp Effect	Sustainability Objectives (SO)												
		1	2	3	4	5	6	7	8	9	10	11	12	13
W3	S / M	+	-	/	++	+	++	++	0	++	+	-	++	++
	L	+	-	/	++	+	++	++	0	++	+	/	++	++
Preferred Site – Reason for allocation:		The site scored highly against other sites considered for allocation in the Waste Site Assessment Report. It is also considered suitable to meet the capacity gap requirements and its conformity to the general principles of the Spatial Strategy and the proximity principle. This site is preferred for its suitability for allocation for biological treatment, although the specific facility type has not been determined at this point. An amendment to the impacts previously highlighted in the SA of the Revised Preferred Approach (2015) regarding health and well-being (SO11) on Site W3 (Basildon WWTW) has also been made. This is due to there being sensitive receptors within 250m of the site. As such the previously highlighted uncertain impacts are now judged to be negative. The site is also now recognised as being in FZ2 (previously erroneously judged to be in FZ1 for some uses) which sees an amendment to the impacts highlighted for flooding (SO3) as uncertain, where previously they were considered significantly positive.												
W7	S / M	+	-	- -	/	/	+	++	0	++	/	/	+	++
	L	+	-	- -	/	/	+	++	0	++	/	/	+	++
Preferred Site – Reason for allocation:		Not allocated for use as biological treatment. Has been allocated in the Plan for another use.												

W8	**S / M**	+	++	++	/	-	-	/	0	+	+	-	++	/
	L	+	++	++	/	-	-	/	0	+	+	/	++	/
Reason for rejection:		Not allocated for use as biological treatment. Has been allocated in the Plan for another use. An amendment has been made since the SA of the Revised Preferred Approach (2015) regarding historic environment impacts at W8 - Elsenham. Uncertain impacts were previously highlighted for certain facility types due to moderate issues regarding the historic environment (SO5), however a re-assessment of the site has led to a major impact issue (which may be acceptable subject to mitigation) being highlighted for all facility types. As such impacts are now negative.												
W20	**S / M**	+	-	++	/	++	+	++	0	++	+	-	+	++
	L	+	-	++	/	++	+	++	0	++	+	/	+	++
Preferred Site – Reason for allocation:		The site scored highly against other sites considered for allocation in the Waste Site Assessment Report in consideration also of its suitability to meet the capacity gap requirements and its conformity to the general principles of the Spatial Strategy and the proximity principle. This site is preferred for its suitability for allocation for biological treatment, although the specific facility type has not been determined at this point. An amendment has also been necessary for the impact on water quality (SO2) previously stated on site W20 Courtauld Road. The alteration to the route of the Nevendon Brook now sees it run along the eastern boundary of the proposed site. As such previously significantly positive impacts are now negative due to the proximity of this water body.												
W21	**S / M**	+	-	- -	/	+	- -	++	0	+	+	- -	++	++
	L	+	-	- -	/	+	- -	++	0	+	+	/	++	++
Reason for rejection:		The site is within the Greenbelt.												
W30	**S / M**	-	-	- -	/	+	- -	/	0	++	+	-	++	++
	L	-	-	- -	/	+	- -	/	0	++	+	/	++	++
Reason for rejection:		The site is within the Greenbelt.												
W32	**S / M**	/	-	- -	-	/	-	/	0	+	+	/	++	+

	L	/	-	- -	-	/	-	/	0	+	+	/	++	+
Reason for rejection:		Not allocated for use as biological treatment. Has been allocated in the Plan for another use. W32 Crumps Farm will see an amendment from the Revised Preferred Approach (2015) SA. This responds to impacts regarding the sustainable management of waste (SO9) and an amendment from the significantly positive impact previously stated to a minor positive. This has been reassessed due to parts of the site not having relevant planning / history.												
SIE5	**S / M**	+	++	++	++	++	+	/	0	++	- -	++	++	++
	L	+	++	++	++	++	+	/	0	++	- -	/	++	++
Reason for rejection:		At the Revised Preferred Approach (2015) stage, the site was deemed to have scored highly against other sites considered for allocation in the Waste Site Assessment Report in consideration also of its suitability to meet the capacity gap requirements and its conformity to the general principles of the Spatial Strategy and the proximity principle. This site was, as a result, a preferred allocation for its suitability for allocation for biological treatment. Since then, the site has been considered to not be suitable in Highway Terms and/or does not comply with Transport Policy. This is due to Grange Road being of an insufficient width to allow two HGVs to pass satisfactorily.												

Table 12: Appraisal of sites put forward for Enclosed Thermal Facilities: Combined Heat and Power Facilities (CHP)

Sites for: COMBINED HEAT AND POWER FACILITIES (CHP)														
Site Ref.	**Temp Effect**	**Sustainability Objectives (SO)**												
		1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**
IWMF2	**S / M**	+	-	++	-	++	-	++	++	++	+	- -	++	/
	L	+	-	++	-	++	-	++	++	++	+	/	++	/
Allocated Site – Reason for allocation:		At present, the Waste Disposal Authority is exploring long term options surrounding the final destination for the stabilised residual waste output of the Tovi Eco Park Facility. Currently the 200,000t output of the facility is exported from the Plan Area. A competitive tender process will identify the long-term management solution for this waste, which includes continued exportation from the Plan Area. However, in line with net self-sufficiency, the Plan includes IWMF2 as a site allocation for 'other waste management' which could accommodate this waste.												

		It should be noted that a change in a positive impact identified in the SA at the Revised Preferred Approach (2015) stage for IWMF2 – Rivenhall has been necessary at this stage regarding SO2 (water quality). This is due to a number of water bodies being within the existing adjacent operational quarry and the presence of a lake located north of the IWMF as part of the mineral restoration. The site will now have a negative impact on water quality as identified. In addition, a significant negative impact was highlighted for flooding due to the site being partly within FZ2 and FZ3; however it has been re-assessed that the vast majority of the site sits within FZ1 - a very small portion of the access track to the site goes over a waterway (River Blackwater) designated as both FZ2 and FZ3 however, a bridge over the waterway significantly reduces the risk of the access road flooding. The site has also re-assessed as having significant positive impacts on the historic environment (SO5) where the listed and ancillary buildings at Woodhouse Farm are to be archaeologically recorded and renovated under the present approved application.											
W3	**S / M**	/	-	/	/	+	/	++	/	++	+	-	++	++
	L	/	-	/	/	+	/	++	/	++	+	/	++	++
Reason for rejection:		While close to the source of waste W3 Basildon is considered to be too small a site to accommodate a facility of the nature needed to meet this specific need. The site is however allocated for another use. An amendment to the impacts previously highlighted in the SA of the Revised Preferred Approach (2015) regarding health and well-being (SO11) on Site W3 (Basildon WWTW) has also been made. This is due to there being sensitive receptors within 250m of the site. As such the previously highlighted uncertain impacts are now judged to be negative. The site is also now recognised as being in FZ2 (previously erroneously judged to be in FZ1 for some uses) which sees an amendment to the impacts highlighted for flooding (SO3) as uncertain, where previously they were considered significantly positive. There will also now be uncertain impacts on landscape (SO6) for enclosed-thermal and open-air facilities as well as uncertain impacts on biodiversity due to the site being within 10km of internationally designated sites.											
W7	**S / M**	/	-	- -	/	/	-	++	/	++	/	-	+	++
	L	/	-	- -	/	/	-	++	/	++	/	/	+	++
Reason for rejection:		Not as sustainable, and did not score as highly as other sites considered for allocation for CHP. The site is however allocated for another use.												
W8	**S / M**	/	++	++	/	-	-	/	/	+	+	-	++	/

	L	/	++	++	/	-	-	/	/	+	+	/	++	/
Reason for rejection:		Not as sustainable, and did not score as highly as other sites considered for allocation for AD. The site is however allocated for another use. An amendment has been made since the SA of the Revised Preferred Approach (2015) regarding historic environment impacts at W8 - Elsenham. Uncertain impacts were previously highlighted for certain facility types due to moderate issues regarding the historic environment (SO5), however a re-assessment of the site has led to a major impact issue (which may be acceptable subject to mitigation) being highlighted for all facility types. As such impacts are now negative.											
W27	**S / M**	/	++	++	/	/	- -	++	/	+	+	-	++	++
	L	/	++	++	/	/	- -	++	/	+	+	/	++	++
Reason for rejection:		Not as sustainable, and did not score as highly as other sites considered for allocation for AD.												
W31	**S / M**	/	++	++	/	/	-	/	/	++	+	-	++	++
	L	/	++	++	/	/	-	/	/	++	+	/	++	++
Reason for rejection:		It is noted in the commentary for W31 in the Site Assessment Report that should an Energy from Waste facility include flues it would have significant negative impacts (requiring an amendment to a red score using the methodology of that assessment) given the high number of residential neighbours within 250m of the site. For this reason, the site was rejected for use as CHP. The site is however allocated for another use. An amendment since the Revised Preferred Approach (2015) stage SA regards the previous positive impact stated for the sustainable management of waste (SO9). This has been amended to a significant positive impacts associated with its positive waste use / permission history.											

Table 13: Appraisal of sites put forward for Enclosed Thermal Facilities: Anaerobic Digestion / Biogas (AD)

Sites for: ANAEROBIC DIGESTION (AD) / BIOGAS													
Site Ref.	**Temp Effect**	**Sustainability Objectives (SO)**											
		1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**

IWMF2	**S / M**	+	-	++	-	++	-	++	++	++	+	- -	++	/
	L	+	-	++	-	++	-	++	++	++	+	/	++	/
Allocated Site – Reason for allocation:		The site scored highly against other sites considered for allocation in the Waste Site Assessment Report. It is also considered suitable to meet the capacity gap requirements and its conformity to the general principles of the Spatial Strategy. The site has been allocated for Biological Treatment and it could be developed as AD if required in the Plan period. It should be noted that a change in a positive impact identified in the SA at the Revised Preferred Approach (2015) stage for IWMF2 – Rivenhall has been necessary at this stage regarding SO2 (water quality). This is due to a number of water bodies being within the existing adjacent operational quarry and the presence of a lake located north of the IWMF as part of the mineral restoration. The site will now have a negative impact on water quality as identified. In addition, a significant negative impact was highlighted for flooding due to the site being partly within FZ2 and FZ3; however it has been re-assessed that the vast majority of the site sits within FZ1 - a very small portion of the access track to the site goes over a waterway (River Blackwater) designated as both FZ2 and FZ3 however, a bridge over the waterway significantly reduces the risk of the access road flooding. The site has also re-assessed as having significant positive impacts on the historic environment (SO5) where the listed and ancillary buildings at Woodhouse Farm are to be archaeologically recorded and renovated under the present approved application.												
W1	**S / M**	+	-	++	-	+	- -	/	/	++	- -	/	- -	++
	L	+	-	++	-	+	- -	/	/	++	- -	/	- -	++
Reason for rejection		The site is not considered to be suitable in Highway Terms and/or does not comply with Transport Policy.												
W3	**S / M**	/	-	/	/	+	/	++	/	++	+	-	++	++
	L	/	-	/	/	+	/	++	/	++	+	/	++	++
Allocated Site – Reason for allocation:		The site scored highly against other sites considered for allocation in the Waste Site Assessment Report. It is also considered suitable to meet the capacity gap requirements and conforms to the general principles of the Spatial Strategy and the proximity principle. This site is preferred for its suitability for allocation for biological treatment, although the specific facility type has not been determined at this point. An amendment to the impacts previously highlighted in the SA of the Revised Preferred Approach (2015) regarding health and well-being (SO11) on Site W3 (Basildon WWTW) has also been made. This is due to there being												

		sensitive receptors within 250m of the site. As such the previously highlighted uncertain impacts are now judged to be negative. The site is also now recognised as being in FZ2 (previously erroneously judged to be in FZ1 for some uses) which sees an amendment to the impacts highlighted for flooding (SO3) as uncertain, where previously they were considered significantly positive. There will also now be uncertain impacts on landscape (SO6) for enclosed-thermal and open-air facilities as well as uncertain impacts on biodiversity due to the site being within 10km of internationally designated sites.												
W7	**S / M**	/	-	**- -**	/	/	-	**++**	/	**++**	/	-	+	**++**
	L	/	-	**- -**	/	/	-	**++**	/	**++**	/	/	+	**++**
Reason for rejection:		Not as sustainable, and did not score as highly as other sites considered for allocation for AD. Has been allocated in the Plan for another use.												
W8	**S / M**	/	**++**	**++**	/	-	-	/	/	+	+	-	**++**	/
	L	/	**++**	**++**	/	-	-	/	/	+	+	/	**++**	/
Reason for rejection:		Not as sustainable, and did not score as highly as other sites considered for allocation for AD. Has been allocated in the Plan for another use. An amendment has been made since the SA of the Revised Preferred Approach (2015) regarding historic environment impacts at W8 - Elsenham. Uncertain impacts were previously highlighted for certain facility types due to moderate issues regarding the historic environment (SO5), however a re-assessment of the site has led to a major impact issue (which may be acceptable subject to mitigation) being highlighted for all facility types. As such impacts are now negative.												
W13	**S / M**	/	-	**++**	-	**++**	/	/	/	**++**	/	**- -**	+	**++**
	L	/	-	**++**	-	**++**	/	/	/	**++**	/	/	+	**++**
Reason for rejection:		The site scored relatively well against other sites considered for allocation in the Waste Site Assessment Report. It was considered suitable to meet the capacity gap requirements and conforms to the general principles of the Spatial Strategy and the proximity principle. As such, this site was a preferred site at the Revised Preferred Approach (2015) stage. Since the Revised Preferred Approach (2015) stage, the site owner / developer has specified that Treatment – Anaerobic Digestion/Biogas is no longer promoted for consideration on the site.												

W17	**S / M**	/	-	++	++	+	+	++	/	++	- -	- -	- -	++
	L	/	-	++	++	+	+	++	/	++	- -	/	- -	++
Reason for rejection		The site is not considered to be suitable in Highway Terms and/or does not comply with Transport Policy.												
W20	**S / M**	/	-	++	/	++	/	++	/	++	+	-	+	++
	L	/	-	++	/	++	/	++	/	++	+	/	+	++
Allocated Site – Reason for allocation:		The site scored highly against other sites considered for allocation in the Waste Site Assessment Report. It is also considered suitable to meet the capacity gap requirements and conforms to the general principles of the Spatial Strategy and the proximity principle. This site is preferred for its suitability for allocation for biological treatment, although the specific facility type has not been determined at this point. An amendment has also been necessary for the impact on water quality (SO2) previously stated on site W20 Courtauld Road. The alteration to the route of the Nevendon Brook now sees it run along the eastern boundary of the proposed site. As such previously significantly positive impacts are now negative due to the proximity of this water body. There will also now be an uncertain impact on landscape (SO6), and amendment to the previously stated positive impact, due to a re-assessment of the site for enclosed thermal facilities. This is also the case for biodiversity (SO1) due to a re-assessment of the site for enclosed thermal facilities due to the proximity of internationally designated sites.												
W21	**S / M**	/	-	- -	/	+	- -	++	/	+	+	- -	++	++
	L	/	-	- -	/	+	- -	++	/	+	+	/	++	++
Reason for rejection:		The site is within the Greenbelt.												
W29	**S / M**	/	-	++	++	/	-	/	/	+	+	- -	++	++
	L	/	-	++	++	/	-	/	/	+	+	/	++	++
Allocated Site – Reason for allocation:		The site scored highly against other sites considered for allocation in the Waste Site Assessment Report. It is also considered suitable to meet the capacity gap requirements and conforms to the general principles of the Spatial Strategy and the proximity principle. This site is preferred for its suitability for allocation for biological treatment, although the specific facility type has not been determined at this point.												
W31	**S / M**	/	++	++	/	/	-	/	/	++	+	-	++	++

	L	/	++	++	/	/	-	/	/	++	+	/	++	++
Reason for rejection:		Not as sustainable, and did not score as highly as other sites considered for allocation for AD. Has been allocated in the Plan for another use. An amendment since the Revised Preferred Approach (2015) stage SA regards the previous positive impact stated for the sustainable management of waste (SO9). This has been amended to a significant positive impacts associated with its positive waste use / permission history.												
W32	**S / M**	/	-	- -	-	/	-	/	/	+	+	/	++	+
	L	/	-	- -	-	/	-	/	/	+	+	/	++	+
Reason for rejection:		Not as sustainable, and did not score as highly as other sites considered for allocation for AD. Has been allocated in the Plan for another use. W32 Crumps Farm will see an amendment from the Revised Preferred Approach (2015) SA. This responds to impacts regarding the sustainable management of waste (SO9) and an amendment from the significantly positive impact previously stated to a minor positive. This has been reassessed due to parts of the site not having relevant planning / history.												
SIE5	**S / M**	/	++	++	++	++	+	/	/	++	- -	++	++	++
	L	/	++	++	++	++	+	/	/	++	- -	/	++	++
Reason for rejection:		At the Revised Preferred Approach (2015) stage, the site was deemed to have scored highly against other sites considered for allocation in the Waste Site Assessment Report. It was also considered suitable to meet the capacity gap requirements and conformed to the general principles of the Spatial Strategy and the proximity principle. This site was, as a result, a preferred allocation for its suitability for allocation for biological treatment. Since then, the site has been considered to not be suitable in Highway Terms and/or does not comply with Transport Policy. This is due to Grange Road being of an insufficient width to allow two HGVs to pass satisfactorily.												

Table 14: Appraisal of sites put forward for Open Air Facilities: Construction, Demolition and Excavation Waste (CD&EW) Recycling Facilities (or inert recycling/soil screening and non-inert recycling)

Sites for: CONSTRUCTION, DEMOLITION AND EXCAVATION (CD&EW) RECYCLING FACILITIES (OR INERT AND NON-INERT RECYCLING)													
Site Ref.	**Temp Effect**	**Sustainability Objectives (SO)**											
		1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**
L(i)4R	**S / M**	/	-	++	++	/	- -	/	0	++	/	- -	/	++
	L	/	-	++	++	/	- -	/	0	++	/	/	/	++
Reason for rejection		The site is within the Green Belt.												
L(i)7	**S / M**	/	-	++	++	/	++	/	0	++	+	- -	++	++
	L	/	-	++	++	/	++	/	0	++	+	/	++	++
Safeguarded site – Reason for safeguarding:		The granting of planning permission for this activity means that this site must now be considered to contribute towards the total waste capacity in the Plan Area. Allocation of the site to support this activity is therefore unnecessary.												
L(i)10R	**S / M**	+	-	++	++	+	/	++	0	+	+	- -	++	++
	L	+	-	++	++	+	/	++	0	+	+	/	++	++
Allocated Site – Reason for allocation:		The site scored highly against other sites considered for allocation in the Waste Site Assessment Report. It is also considered suitable to meet the capacity gap requirements and conforms to the general principles of the Spatial Strategy and the proximity principle.												
L(i)17R	**S / M**	/	-	++	-	+	++	++	0	+	/	-	+	+
	L	/	-	++	-	+	++	++	0	+	/	-	+	+
Allocated Site – Reason for allocation		Site L(i)17R Newport Quarry was put forward during the Revised Preferred Approach (2015) consultation. The site scored highly against other sites considered for allocation in the Waste Site Assessment Report and was identified as being able to meet inert landfill and recycling needs particularly in the west of the County. For these												

		reasons the site has been allocated for both inert recycling and inert landfill.												
L(n)1R	**S / M**	+	-	++	++	/	/	++	0	+	/	-	+	++
	L	+	-	++	++	/	/	++	0	+	/	/	+	++
Allocated Site – Reason for allocation:		The site scored highly against other sites considered for allocation in the Waste Site Assessment Report. It is also considered suitable to meet the capacity gap requirements and conforms to the general principles of the Spatial Strategy and the proximity principle.												
L(n)6R	**S / M**	-	-	- -	++	+	- -	/	0	++	+	-	++	++
	L	-	-	- -	++	+	- -	/	0	++	+	/	++	++
Reason for rejection		The site is within the Green Belt.												
L(n)7R	**S / M**	/	-	- -	++	/	/	/	0	+	+	/	++	+
	L	/	-	- -	++	/	/	/	0	+	+	/	++	+
Reason for rejection:		The WPAs do not consider that this site would be capable of operating independently for this specific use with other sites at Crumps Farm / Little Bullocks Farm having been allocated. The site however has been allocated for another use. There is an amendment from the SA of the Revised Preferred Approach (2015) regarding an erroneous impact on the sustainable management of waste (SO9) at site L(n)7R – Little Bullocks Farm Site A22. This is due to the site being Greenfield land with no planning history within the specific red-line boundary of the site. As such, the significant positive impact highlighted at the Revised Preferred Approach (2015) stage SA has been amended to be a minor positive impact. In addition, the site was also previously erroneously judged to have significant positive impacts on flooding (SO3) for certain uses / facilities, however a small amount of the site is within FZ3. As such the site will now have significantly negative impacts on this objective. A re-assessment of the site now also indicates that there will moderate impacts on landscape which will give rise to an uncertain impact on SO6; an amendment of a significantly positive score highlighted in the SA at the Revised Preferred Approach (2015) stage.												
L(n)8R	**S / M**	/	-	++	++	+	-	/	0	+	+	- -	++	/
	L	/	-	++	++	+	-	/	0	+	+	/	++	/

Reason for rejection:		The WPAs do not consider that this site would be capable of operating independently for this specific use with other sites at Crumps Farm / Little Bullocks Farm having been allocated. The site has however been allocated in the Plan for another use. There is an amendment from the SA of the Revised Preferred Approach (2015) regarding an erroneous impact on the sustainable management of waste (SO9) at site L(n)8R. This is due to the site being Greenfield land with no planning history within the specific red-line boundary of the site. As such, the significant positive impact highlighted at the Revised Preferred Approach (2015) stage SA has been amended to be a minor positive impact. A re-assessment of the site now also indicates that there will moderate to major effects on landscape which will give rise to an negative impact on SO6; an amendment of an uncertain score highlighted in the SA at the Revised Preferred Approach (2015) stage.											
W1	**S / M**	+	-	++	++	+	/	/	0	++	- -	/	- -	++
	L	+	-	++	++	+	/	/	0	++	- -	/	- -	++
Reason for rejection		The site is not considered to be suitable in Highway Terms and/or does not comply with Transport Policy.												
W3	**S / M**	+	-	/	++	+	/	++	0	++	+	-	++	++
	L	+	-	/	++	+	/	++	0	++	+	/	++	++
Reason for rejection:		The WPAs have decided to prioritise meeting the forecasted biological recovery capacity need over the recycling of inert waste. This approach will reduce the amount of biological waste going to landfill. Sending biological waste to landfill, rather than inert waste, is considered to have greater environmental impacts, given the potential for such waste to generate bio-aerosols and greenhouse gases. As a result, this site has not been allocated for inert recycling and has been allocated in the Plan for biological treatment. An amendment to the impacts previously highlighted in the SA of the Revised Preferred Approach (2015) regarding health and well-being (SO11) on Site W3 (Basildon WWTW) has also been made. This is due to there being sensitive receptors within 250m of the site. As such the previously highlighted uncertain impacts are now judged to be negative. The site is also now recognised as being in FZ2 (previously erroneously judged to be in FZ1 for some uses) which sees an amendment to the impacts highlighted for flooding (SO3) as uncertain, where previously they were considered significantly positive.											
W7	**S / M**	+	-	- -	/	+	+	++	0	++	/	/	+	++
	L	+	-	- -	/	+	+	++	0	++	/	/	+	++

Allocated Site – Reason for allocation:		The site scored relatively highly against other sites considered for allocation in the Waste Site Assessment Report. It is also considered suitable to meet the capacity gap requirements and conforms to the general principles of the Spatial Strategy and the proximity principle. The WPAs have decided to prioritise meeting the forecasted biological recovery capacity need over the recycling of inert waste. This approach will reduce the amount of biological waste going to landfill. Sending biological waste to landfill, rather than inert waste, is considered to have greater environmental impacts, given the potential for such waste to generate bio-aerosols and greenhouse gases. As a result, this site was a preferred site for biological treatment at the Revised Preferred Approach (2015) stage. It scored highly against other sites considered for allocation in the Waste Site Assessment Report, was also considered suitable to meet the capacity gap requirements and conformed to the general principles of the Spatial Strategy and the proximity principle. Since the Revised Preferred Approach (2015) stage, it has been determined that the previous five preferred sites for biological treatment can deliver a total of 259,000tpa which is over and above the 217,000tpa needed. As the site W7 Sandon East scored significantly lower than the other four sites and those four sites on their own would provide sufficient capacity it has been discounted for biological waste treatment. The site has instead been allocated for inert recycling.											
W8	**S / M**	+	++	++	/	-	-	/	0	+	+	-	++	/
	L	+	++	++	/	-	-	/	0	+	+	/	++	/
Allocated Site – Reason for allocation:		The site scored highly against other sites considered for allocation in the Waste Site Assessment Report. It is also considered suitable to meet the capacity gap requirements and conforms to the general principles of the Spatial Strategy and the proximity principle. An amendment has been made since the SA of the Revised Preferred Approach (2015) regarding historic environment impacts at W8 - Elsenham. Uncertain impacts were previously highlighted for certain facility types due to moderate issues regarding the historic environment (SO5), however a re-assessment of the site has led to a major impact issue (which may be acceptable subject to mitigation) being highlighted for all facility types. As such impacts are now negative.											
W13	**S / M**	/	-	++	++	++	++	/	0	++	/	- -	+	++
	L	/	-	++	++	++	++	/	0	++	/	/	+	++
Allocated Site – Reason for		At the Revised Preferred Approach (2015) stage, this site was not allocated for inert recycling as its preferred												

allocation:		use was for biological treatment. This was due to the WPAs having decided to prioritise meeting the forecasted biological recovery capacity need over the recycling of inert waste in order to reduce the amount of biological waste going to landfill. It should be noted that since the Revised Preferred Approach (2015) stage, the site owner / developer of site W13 (Wivenhoe Quarry Plant Area, Colchester) has specified that Anaerobic Digestion/Biogas is no longer to be promoted on the site. As the site also scored highly against other sites considered for inert recycling allocation in the Waste Site Assessment Report and due to its suitability in meeting the capacity gap requirements and conformity to the general principles of the Spatial Strategy and the proximity principle, the site has now been selected for inert recycling.												
W14	**S / M**	/	-	++	++	++	++	/	0	++	- -	-	- -	++
	L	/	-	++	++	++	++	/	0	++	- -	/	- -	++
Reason for rejection		The site is not considered to be suitable in Highway Terms and/or does not comply with Transport Policy.												
W15	**S / M**	-	-	++	/	+	-	/	0	++	/	-	+	/
	L	-	-	++	/	+	-	/	0	++	/	/	+	/
Reason for rejection:		Not as sustainable, and did not score as highly as other sites considered for allocation in the Waste Site Assessment Report. In addition, there is an application for another incompatible use (housing) on the site which is pending. Since the Revised Preferred Approach (2015) stage, the impact highlighted in the SA for landscape (SO6) has needed amendment from significantly negative to minor negative. This is due to a re-assessment of the site.												
W18	**S / M**	/	++	++	++	+	/	/	0	++	- -	-	- -	++
	L	/	++	++	++	+	/	/	0	++	- -	/	- -	++
Reason for rejection		The site is not considered to be suitable in Highway Terms and/or does not comply with Transport Policy.												
W19	**S / M**	+	++	++	-	++	- -	++	0	+	+	-	++	++
	L	+	++	++	-	++	- -	++	0	+	+	/	++	++
Reason for rejection		At the Revised Preferred Approach (2015) stage the Council initially allocated this site, despite it failing the Stage 2 sieving criterion of being located within the Green Belt. Despite being located in the Green Belt, W19 was at												

		that stage deemed to have fewer other negative impacts than the sites for inert recycling that passed Stage 2. At this Pre-Submission stage however, the decision to allocate has been reversed which is consistent with other sites that also failed at Stage 2 due to being located within the Green Belt.											
W21	**S / M**	+	-	**- -**	/	+	**- -**	**++**	0	+	+	**- -**	**++**	**++**
	L	+	-	**- -**	/	+	**- -**	**++**	0	+	+	/	**++**	**++**
Reason for rejection:		The site is within the Greenbelt.											
W24	**S / M**	+	-	**++**	-	**++**	/	**++**	0	**++**	**- -**	/	**- -**	-
	L	+	-	**++**	-	**++**	/	**++**	0	**++**	**- -**	/	**- -**	-
Reason for rejection		The site is not considered to be suitable in Highway Terms and/or does not comply with Transport Policy.											
W31	**S / M**	+	**++**	**++**	/	/	/	/	0	**++**	+	-	**++**	**++**
	L	+	**++**	**++**	/	/	/	/	0	**++**	+	/	**++**	**++**
Allocated Site – Reason for allocation:		The site scored highly against other sites considered for allocation in the Waste Site Assessment Report in consideration also of its suitability to meet the capacity gap requirements and conforms to the general principles of the Spatial Strategy and the proximity principle. An amendment since the Revised Preferred Approach (2015) stage SA regards the previous positive impact stated for the sustainable management of waste (SO9). This has been amended to a significant positive impacts associated with its positive waste use / permission history.											
W32	**S / M**	/	-	**- -**	-	/	-	/	0	+	+	/	**++**	+
	L	/	-	**- -**	-	/	-	/	0	+	+	/	**++**	+
Allocated Site – Reason for allocation:		At the Revised Preferred Approach (2015) stage, this site was not selected. The site promoter put forward three proposals for inert recycling in this location: L(n)7R (55,000tpa), L(n)8R (30,000tpa) and W32 (80,000tpa) and previously L(n)7R was selected for inert recycling. The WPAs do not consider that three separate inert waste facilities at each of these three sites within the Little Bullocks / Crumps Farm operation would be capable of operating independently of each other and simultaneously from a practical standpoint. For this reason only one of the proposed sites has been included as a site allocation for inert waste recycling. W32 Crumps Farm has been selected because it provides for the most efficient use of the total waste site in											

		conjunction with other existing and permitted operations. It has the largest potential capacity of the three proposals (80,000tpa), is located closer to the highway and would not displace any part of landfill operation on L(n)7R. L(n)8R is a less appropriate location for an inert recycling operation and has been selected for taking hazardous waste. W32 Crumps Farm will see an amendment from the Revised Preferred Approach (2015) SA. This responds to impacts regarding the sustainable management of waste (SO9) and an amendment from the significantly positive impact previously stated to a minor positive. This has been reassessed due to parts of the site not having relevant planning / history.											
W35	**S / M**	/	-	++	-	/	/	/	0	++	- -	-	- -	+
	L	/	-	++	-	/	/	/	0	++	- -	/	- -	+
Reason for rejection		The site is not considered to be suitable in Highway Terms and/or does not comply with Transport Policy.												
SIE5	**S / M**	+	++	++	++	++	+	/	0	++	- -	++	++	++
	L	+	++	++	++	++	+	/	0	++	- -	/	++	++
Reason for rejection:		Since the Revised Preferred Approach (2015) stage, the site has been considered to not be suitable in Highway Terms and/or does not comply with Transport Policy. This is due to Grange Road being of an insufficient width to allow two HGVs to pass satisfactorily.												

Table 15: Appraisal of sites put forward for Open Air Facilities: Windrow Composting Facilities

Sites for: WINDROW COMPOSTING FACILITIES													
Site Ref.	**Temp Effect**	**Sustainability Objectives (SO)**											
		1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**
W7	**S / M**	+	-	- -	/	+	+	++	0	++	/	/	+	++
	L	+	-	- -	/	+	+	++	0	++	/	/	+	++
Reason for rejection:		The WPAs have decided to prioritise meeting the forecasted biological recovery capacity need over the recycling of inert waste. This approach will reduce the amount of biological waste going to landfill. Sending biological waste to												

		landfill, rather than inert waste, is considered to have greater environmental impacts, given the potential for such waste to generate bio-aerosols and greenhouse gases. As a result, this site was a preferred site for biological treatment at the Revised Preferred Approach (2015) stage. It scored highly against other sites considered for allocation in the Waste Site Assessment Report, was also considered suitable to meet the capacity gap requirements and conformed to the general principles of the Spatial Strategy and the proximity principle. Since the Revised Preferred Approach (2015) stage, it has been determined that the previous five preferred sites for biological treatment can deliver a total of 259,000tpa which is over and above the 217,000tpa needed. As the site W7 Sandon East scored significantly lower than the other four sites and those four sites on their own would provide sufficient capacity it has been discounted for biological waste treatment. The site has instead been allocated for inert recycling.											
W8	**S / M**	+	++	++	/	-	-	/	0	+	+	-	++	/
	L	+	++	++	/	-	-	/	0	+	+	/	++	/
Reason for rejection:		This site has not been allocated for use for open windrow composting as it is also proposed for inert waste recycling, which has a greater capacity gap. Therefore, it is recommended as suitable for allocation for inert waste recycling instead and has been allocated for this use instead. An amendment has been made since the SA of the Revised Preferred Approach (2015) regarding historic environment impacts at W8 - Elsenham. Uncertain impacts were previously highlighted for certain facility types due to moderate issues regarding the historic environment (SO5), however a re-assessment of the site has led to a major impact issue (which may be acceptable subject to mitigation) being highlighted for all facility types. As such impacts are now negative.											
W21	**S / M**	+	-	- -	/	+	- -	++	0	+	+	- -	++	++
	L	+	-	- -	/	+	- -	++	0	+	+	/	++	++
Reason for rejection:		The site is within the Greenbelt.												
W24	**S / M**	+	-	++	-	++	/	++	0	++	- -	/	- -	-
	L	+	-	++	-	++	/	++	0	++	- -	/	- -	-
Reason for rejection		The site is not considered to be suitable in Highway Terms and/or does not comply with Transport Policy.												
W25	**S / M**	+	-	++	-	+	/	/	0	- -	- -	- -	- -	++

	L	+	-	++	-	+	/	/	0	- -	- -	/	- -	++
Reason for rejection		The site was not considered to be suitable in Highway Terms and/or did not comply with Transport Policy. This site has since been withdrawn by the site owner / developer.												
W29	**S / M**	/	-	++	++	+	+	/	0	++	+	- -	++	++
	L	/	-	++	++	+	+	/	0	++	+	/	++	++
Allocated Site – Reason for allocation:		The site scored highly against other sites considered for allocation in the Waste Site Assessment Report. It is also considered suitable to meet the capacity gap requirements and conforms to the general principles of the Spatial Strategy and the proximity principle. This site is preferred for its suitability for allocation for biological treatment, although the specific facility type has not been determined at this point.												
W30	**S / M**	-	-	- -	/	+	- -	/	0	++	+	-	++	++
	L	-	-	- -	/	+	- -	/	0	++	+	/	++	++
Reason for rejection:		The site is within the Greenbelt.												

Table 16: Appraisal of sites put forward for Open Air Facilities: Inert Landfill Sites

Sites for: INERT LANDFILL SITES														
Site Ref.	**Temp Effect**	**Sustainability Objectives (SO)**												
		1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**
L(i)4R	**S / M**	/	- -	++	++	/	- -	/	0	++	/	- -	+	++
	L	/	- -	++	/	0	/	0	0	0	0	/	0	0
Reason for rejection		The site is within the Green Belt.												
L(i)5	**S / M**	/	- -	++	++	/	++	/	0	+	/	- -	+	++
	L	/	- -	++	/	0	/	0	0	0	0	/	0	0
Allocated Site – Reason for		The site scored highly against other sites considered for allocation in the Waste Site Assessment Report. It is also												

allocation:		considered suitable to meet the capacity gap requirements and conforms to the general principles of the Spatial Strategy and the proximity principle. The decision to prioritise sites for the treatment of biological waste over inert waste recycling and also not to take sites forward where located in the greenbelt has resulted in fewer sites being available for inert waste treatment. As a consequence, the need for sites suitable for inert waste landfill has increased. There is therefore a continued need for the same preferred sites previously identified in the Revised Preferred Approach as L(i)10R Blackley Quarry, L(n)7R – Little Bullocks Farm site, L(n)1R Slough Farm, L(i)6 Sandon and L(i)5 Sunnymead, Elmstead and Heath Farms											
L(i)6	**S / M**	-	- -	- -	++	+	/	++	0	++	/	- -	++	++
	L	/	- -	- -	/	0	/	0	0	0	0	/	0	0
Allocated Site – Reason for allocation:		The site scored highly against other sites considered for allocation in the Waste Site Assessment Report. It is also considered suitable to meet the capacity gap requirements and conforms to the general principles of the Spatial Strategy and the proximity principle. The decision to prioritise sites for the treatment of biological waste over inert waste recycling and also not to take sites forward where located in the greenbelt has resulted in fewer sites being available for inert waste treatment. As a consequence, the need for sites suitable for inert waste landfill has increased. There is therefore a continued need for the same preferred sites previously identified in the Revised Preferred Approach as L(i)10R Blackley Quarry, L(n)7R – Little Bullocks Farm site, L(n)1R Slough Farm, L(i)6 Sandon and L(i)5 Sunnymead, Elmstead and Heath Farms											
L(i)7R	**S / M**	/	- -	++	++	/	++	/	0	++	+	- -	++	++
	L	/	- -	++	/	0	/	0	0	0	0	/	0	0
Safeguarded site – Reason for safeguarding:		The grant of planning permission for this activity means that this site must now be considered to contribute towards the total waste capacity in the Plan Area. Allocation of the site to support this activity is therefore unnecessary.											
L(i)10R	**S / M**	+	- -	++	++	+	/	++	0	+	+	- -	++	++
	L	/	- -	++	/	0	/	0	0	0	0	/	0	0
Allocated Site – Reason for allocation:		The site scored highly against other sites considered for allocation in the Waste Site Assessment Report. It is also considered suitable to meet the capacity gap requirements and conforms to the general principles of the Spatial Strategy and the proximity principle.											

		The decision to prioritise sites for the treatment of biological waste over inert waste recycling and also not to take sites forward where located in the greenbelt has resulted in fewer sites being available for inert waste treatment. As a consequence, the need for sites suitable for inert waste landfill has increased. There is therefore a continued need for the same preferred sites previously identified in the Revised Preferred Approach as L(i)10R Blackley Quarry, L(n)7R – Little Bullocks Farm site, L(n)1R Slough Farm, L(i)6 Sandon and L(i)5 Sunnymead, Elmstead and Heath Farms											
L(i)13	**S / M**	/	- -	++	/	+	/	/	0	++	/	- -	+	+
	L	/	- -	++	/	0	/	0	0	0	0	/	0	0
Reason for rejection:		There is an application for another incompatible use (housing) on the site which is pending.												
L(i)15	**S / M**	/	- -	++	/	+	++	++	0	++	++	- -	++	++
	L	/	- -	++	/	0	/	0	0	0	0	/	0	0
Allocated Site – Reason for allocation:		Fingringhoe Quarry (Li15) was submitted as a site suitable for inert waste landfill by the landowner as part of the call for sites. Despite scoring well in the Waste Site Assessment Report, and being considered suitable for inert waste disposal, at the Revised Preferred Approach (2015) stage the WPAs chose not to include Fingringhoe Quarry as a preferred site allocation where it was considered that the inert fill material to be used at this site would be entirely sourced from London and imported to the site by barge via Ballast Quay Wharf. Waste arising in Essex or Southend-on-Sea would not be used to fill the void space (currently being created by the extraction of sand and gravel) and thus the site was not taken forward. Since then the site promoter, through their representation (through the Revised Preferred Approach [2015] consultation) and subsequent correspondence, has been able to satisfy the Waste Planning Authorities that a reasonable portion of inert fill material to be used at this site can be sourced from within the Plan Area. For this reason, and the fact that an existing mineral void exists at the quarry, the site has now been allocated to contribute in meeting void space requirements..											
L(i)16	**S / M**	+	- -	- -	/	+	- -	++	0	+	+	- -	++	++
	L	/	- -	- -	/	0	/	0	0	0	0	/	0	0
Reason for rejection :		The site is within the Green Belt.												
L(i)17R	**S / M**	/	- -	++	-	+	++	++	0	+	/	- -	+	+

	L	/	**- -**	**++**	/	0	/	0	0	0	0	/	0	0
Allocated Site – Reason for allocation:		Site L(i)17R Newport Quarry was put forward during the Revised Preferred Approach (2015) consultation. The site scored highly against other sites considered for allocation in the Waste Site Assessment Report and was identified as being able to meet inert landfill and recycling needs particularly in the west of the County. For these reasons the site has been allocated for both inert recycling and inert landfill.												
L(n)1R	**S / M**	+	**- -**	**++**	**++**	/	/	**++**	0	+	/	**- -**	+	**++**
	L	/	**- -**	**++**	/	0	/	0	0	0	0	/	0	0
Allocated Site – Reason for allocation:		The site scored highly against other sites considered for allocation in the Waste Site Assessment Report. It is also considered suitable to meet the capacity gap requirements and conforms to the general principles of the Spatial Strategy and the proximity principle. The decision to prioritise sites for the treatment of biological waste over inert waste recycling and also not to take sites forward where located in the greenbelt has resulted in fewer sites being available for inert waste treatment. As a consequence, the need for sites suitable for inert waste landfill has increased. There is therefore a continued need for the same preferred sites previously identified in the Revised Preferred Approach as L(i)10R Blackley Quarry, L(n)7R – Little Bullocks Farm site, L(n)1R Slough Farm, L(i)6 Sandon and L(i)5 Sunnymead, Elmstead and Heath Farms												
L(n)5	**S / M**	/	**- -**	**++**	**++**	+	+	/	0	**++**	+	**- -**	**++**	**++**
	L	/	**- -**	**++**	/	0	/	0	0	0	0	/	0	0
Allocated Site – Reason for allocation:		Despite scoring well as part of the site selection process the large L(n)5 Bellhouse site (which currently takes non-hazardous wastes and has an agreed restoration plan) was not taken forward as part of the Revised Preferred Approach. This was due to reservations that it was close to other sites in this area near Colchester (such as L(i)7 Stanway). However, given re-assessment it is prudent to now include it as an inert landfill site. It should be noted that a change in a significant positive impact identified in the SA at the Revised Preferred Approach (2015) stage for L(n)5 – Bellhouse has been necessary at this stage regarding SO6 (landscape). This is due to a re-assessment which has established that there would be a minor adverse effect regarding views from receptors (properties and a PROW).												
L(n)7R	**S / M**	/	**- -**	**- -**	**++**	/	/	/	0	+	+	/	**++**	/

	L	/	**- -**	**- -**	/	0	/	0	0	0	0	/	0	0
Allocated Site – Reason for allocation:		The site scored highly against other sites considered for allocation in the Waste Site Assessment Report. It is also considered suitable to meet the capacity gap requirements and conforms to the general principles of the Spatial Strategy and the proximity principle. The decision to prioritise sites for the treatment of biological waste over inert waste recycling and also not to take sites forward where located in the greenbelt has resulted in fewer sites being available for inert waste treatment. As a consequence, the need for sites suitable for inert waste landfill has increased. There is therefore a continued need for the same preferred sites previously identified in the Revised Preferred Approach as L(i)10R Blackley Quarry, L(n)7R – Little Bullocks Farm site, L(n)1R Slough Farm, L(i)6 Sandon and L(i)5 Sunnymead, Elmstead and Heath Farms There is also an amendment from the SA of the Revised Preferred Approach (2015) regarding an erroneous impact on the sustainable management of waste (SO9) at site L(n)7R – Little Bullocks Farm Site A22. This is due to the site being Greenfield land with no planning history within the specific red-line boundary of the site. As such, the significant positive impact highlighted at the Revised Preferred Approach (2015) stage SA has been amended to be a minor positive impact. In addition, the site was also previously erroneously judged to have significant positive impacts on flooding (SO3) for certain uses / facilities, however a small amount of the site is within FZ3. As such the site will now have significantly negative impacts on this objective. A re-assessment of the site now also indicates that there will moderate impacts on landscape which will give rise to an uncertain impact on SO6; an amendment of a significantly positive score highlighted in the SA at the Revised Preferred Approach (2015) stage.											
L(n)8R	**S / M**	/	**- -**	**++**	**++**	+	-	/	0	+	+	**- -**	**++**	/
	L	/	**- -**	**++**	/	0	/	0	0	0	0	/	0	0
Reason for rejection:		This is the only landfill site that has been proposed as suitable for taking hazardous waste, which may be required during the plan period. The site has been allocated for the landfill of hazardous waste and as such rejected for allocation for inert landfill in the Plan. There is an amendment from the SA of the Revised Preferred Approach (2015) regarding an erroneous impact on the sustainable management of waste (SO9) at site L(n)8R. This is due to the site being Greenfield land with no planning history within the specific red-line boundary of the site. As such, the significant positive impact highlighted at the Revised Preferred Approach (2015) stage SA has been amended to be a minor positive impact. A re-assessment of the site now also indicates that there will moderate to major effects on landscape which will give rise to an negative impact on SO6; an amendment of an uncertain score highlighted in the SA at the Revised											

	Preferred Approach (2015) stage.

Table 17: Appraisal of sites put forward for Open Air Facilities: Hazardous Landfill Sites

Sites for: HAZARDOUS LANDFILL SITES													
Site Ref.	**Temp Effect**	**Sustainability Objectives (SO)**											
		1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**
L(n)8R	**S / M**	/	**- -**	**++**	**++**	+	-	/	0	+	+	**- -**	**++**	/
	L	/	**- -**	**++**	/	0	/	0	0	0	0	/	0	0
Preferred Site – Reason for allocation:		This is the only landfill site that has been proposed as suitable for taking hazardous waste. It has not been allocated for alternative uses as preferred use was for a stable non-reactive hazardous landfill and allocated accordingly in the Plan. There is an amendment from the SA of the Revised Preferred Approach (2015) regarding an erroneous impact on the sustainable management of waste (SO9) at site L(n)8R. This is due to the site being Greenfield land with no planning history within the specific red-line boundary of the site. As such, the significant positive impact highlighted at the Revised Preferred Approach (2015) stage SA has been amended to be a minor positive impact. A re-assessment of the site now also indicates that there will moderate to major effects on landscape which will give rise to an negative impact on SO6; an amendment of an uncertain score highlighted in the SA at the Revised Preferred Approach (2015) stage.											

place services

Essex County Council

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Published February 2016