Surrey Local Waste Plan
Proposed Modifications Consultation

Environmental & Sustainability Report: Non-Technical Summary

Revision for the Consultation on the Proposed Modifications to the Surrey WLP

Prepared under the Environmental Assessment of Plans & Programmes Regulations 2004 (Statutory Instrument 2004 No.1633)

January 2020

SURREY

Statement of Purpose

This non-technical summary to the main Environmental & Sustainability Report for the Surrey Waste Local Plan has been prepared by Surrey County Council's Principal Environmental Assessment Officer, who is part of the Natural Environment & Assessment Team within the Planning Development Group of the Highways, Transport & Environment Directorate.

The Minerals & Waste Policy Team has commissioned the strategic environmental assessment and sustainability appraisal, of which this non-technical summary is an output, as part of the waste local plan preparation process.

This non-technical summary provides a synopsis of the information set out in the main Environmental & Sustainability Report that is to be published as part of the proposed modifications consultation for the new Surrey Waste Local Plan.

Statement of Limitations

This non-technical summary has been prepared in line with the requirements set out in Schedule 2 of the Environmental Assessment of Plans & Programmes Regulations 2004 (Statutory Instrument 2004 No.1633).

The preparation of this non-technical summary was undertaken during 2019 and 2020, and the document is based on the information available to Surrey County Council during said period of time.

The scope of this non-technical summary is accordingly factually limited by these circumstances.

Contents

Available as separate documents:

Main Report	*Environmental & Sustainability Report*
Appendix A	*Assessment & Appraisal of the Strategic Options, Strategic Objectives, & Spatial Strategy Options for the Surrey Waste Local Plan*
Appendix B	*Assessment & Appraisal of the Proposed Policies for the Surrey Waste Local Plan*
Appendix C	*Assessment & Appraisal of the Potential Site Allocations for the Surrey Waste Local Plan*
Appendix D	*Assessment & Appraisal of the Industrial Land Areas of Search identified in the Surrey Waste Local Plan*
Appendix E	*Assessment & Appraisal of Allocated Sites & Reasonable Alternatives*
Appendix F	*Review of the Proposed Main Modifications to the Submission version of the Surrey Waste Local Plan & the Need for further Assessment*

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Schedule of Main Alterations to the main Environmental & Sustainability Report (January 2020)

Chapter 1 'Introduction & Approach' (pp.1-16)	Additional text has been added to sub-section 1.C (The framework for the assessment) (pp.5-11) to provide a clearer explanation of the relationship of the assessment objectives to the three aspects of sustainable development (environmental – economic – community/social). Additional text has been added to sub-section 1.E.2 (Sources of Information) (pp.14-16) to cover other assessment work undertaken in parallel to the SEA/SA process.
Chapter 2 'The Surrey Waste Local Plan' (pp.17-84)	Replacement chapter that provides a detailed account of the development of the Surrey Waste Local Plan, including the various alternatives considered and dismissed by the plan making team at different stages of the process. The outcomes of the SEA/SA process are summarised for each part of the Plan and the alternatives consider. The reasons given by the plan making team for the selection or rejection of alternatives are recorded in Chapter of the main ESR.
Chapter 3 'Atmosphere' (pp.85-112)	Additional text has been added to the reporting of the outcomes of the assessment for the proposed policies in sub-sections 3.F.1 (paragraph 3.30, p.97), 3.F.2 (paragraph 3.39, p.101) and 3.F.3 (paragraph 3.46, p.105) to reflect the conclusions of the review of the assessment undertaken in light of the proposed modifications (reported in full in new Appendix F). Additional text has been added (paragraph 3.35, p.99) in sub-section 3.F.1 (pp.96-99) to summarise the outcomes of the detailed air quality assessment undertaken in respect of the nine sites proposed for allocation at the Draft Plan stage.
Chapter 4 'Water Environment' (pp.113-135)	Additional text has been added to the reporting of the outcomes of the assessment for the proposed policies in sub-sections 4.F.1 (paragraph 4.27, p.123), 4.F.2 (paragraph 4.34, p.126) and 4.F.3 (paragraph 4.41, p.129) to reflect the conclusions of the review of the assessment undertaken in light of the proposed modifications (reported in full in new Appendix F). Additional text has been added (paragraph 4.45, p.131) in sub-section 4.F.3 (pp.128-131) to summarise the findings and recommendations made by the strategic flood risk assessment in respect of the nine sites proposed for allocation at the Draft Plan stage.
Chapter 5 'Land, Soils & Materials' (pp.136-159)	Additional text has been added to the reporting of the outcomes of the assessment for the proposed policies in sub-sections 5.F.1 (paragraphs 5.33 and 5.34, pp.146-147), 5.F.2 (paragraph 5.44, pp.150-151) and 5.F.3 (paragraph 5.51, p.153) to reflect the conclusions of the review of the assessment undertaken in light of the proposed modifications (reported in full in new Appendix F).
Chapter 6 'Natural Environment' (pp.160-183)	Additional text has been added to the reporting of the outcomes of the assessment for the proposed policies in sub-sections 6.F.1 (paragraphs 6.22 and 6.23, pp.172-173), and 6.F.2 (paragraph 6.34, p.177) to reflect the conclusions of the review of the assessment undertaken in light of the proposed modifications (reported in full in new Appendix F). Additional text has been added (paragraph 6.30, p.175-176) in sub-section 6.F.1 (pp.171-176) to summarise the outcomes of the Habitat Regulations Assessment for the Plan.
Chapter 7 'Landscape & Townscape' (pp.184-206)	Additional text has been added to the reporting of the outcomes of the assessment for the proposed policies in sub-sections 7.F.1 (paragraphs 7.18 and 7.19, p.196) and 7.F.2 (paragraph 7.30, p.200) to reflect the conclusions of the review of the assessment undertaken in light of the proposed modifications (reported in full in new Appendix F). Additional text has been added (paragraph 7.26, p.199) in sub-section 7.F.1 (pp.195-199) and (paragraph 7.34, p.202) in sub-section 7.F.2 (pp.199-202) to summarise the outcomes of the detailed landscape and visual impact appraisal undertaken in respect of the nine sites proposed for allocation at the Draft Plan stage.

Schedule of Main Alterations to the main Environmental & Sustainability Report (January 2020) *(continued)*

Chapter 8 'Historic Environment' (pp.207-229)	Additional text has been added to the reporting of the outcomes of the assessment for the proposed policies in sub-sections 8.F.1 (paragraph 8.21, p.216), 8.F.2 (paragraph 8.29, p.219) and 8.F.3 (paragraph 8.37, p.223) to reflect the conclusions of the review of the assessment undertaken in light of the proposed modifications (reported in full in new Appendix F).
Chapter 9 'Human Communities' (pp.230-257)	Additional text (paragraphs 9.8 and 9.9, p.232) has been added to the description of baseline conditions in sub-section 9.C.2 (pp.232-233) to ensure that the issue of air quality is covered. Additional text has been added to the reporting of the outcomes of the assessment for the proposed policies in sub-sections 9.F.1 (paragraphs 9.35 and 9.36, pp.239-240), 9.F.2 (paragraph 9.48, pp.244-245) and 9.F.3 (paragraphs 9.59 and 9.60, pp.248-249) to reflect the conclusions of the review of the assessment undertaken in light of the proposed modifications (reported in full in new Appendix F). Additional text has been added (paragraph 9.42, p.242) in sub-section 9.F.1 (pp.238-243) to summarise the outcomes of the detailed transport assessment undertaken in respect of the nine sites proposed for allocation at the Draft Plan stage. Additional text has been added (paragraph 9.44, p.243) in sub-section 9.F.1 (pp.238-243) to summarise the outcomes of the detailed air quality assessment undertaken in respect of the nine sites proposed for allocation at the Draft Plan stage. Additional text has been added (paragraph 9.52, pp.246-247) in sub-section 9.F.2 (pp.243-247) to summarise the findings and recommendations made by the strategic flood risk assessment in respect of the nine sites proposed for allocation at the Draft Plan stage.
References (pp.258-262)	Updated to include the information sources added in section 1.E.2 (pp.14-16) of Chapter 1 of the ESR.

Appendix A (Strategy)	No substantive changes made – the Submission Plan version of the Appendix is republished for completeness.
Appendix B (Policies)	No substantive changes made – the Submission Plan version of the Appendix is republished for completeness.
Appendix C (Candidate Sites)	No substantive changes made – the Submission Plan version of the Appendix is republished for completeness.
Appendix D (Industrial Land Areas of Search)	An additional section (Part D13, pp.314-335) has been added to the Submission Plan version of the Appendix to take account of the outcomes of the Habitat Regulations Assessment process with reference to the Industrial Land Areas of Search (ILAS) and to capture further information presented in the Appendix to the Statement of Common Ground between the County Council and Natural England. Parts D1 to D12 of the Appendix are unchanged from those published alongside the Submission Plan.
Appendix E (Allocated Sites & Reasonable Alternatives)	New appendix added to provide summaries of the outcomes of the SEA/SA process, the Habitat Regulations Assessment process, and other supporting technical assessments (covering air quality, landscape, traffic, flood risk) for the six sites proposed for allocation under Policy 11 a and Policy 11b, and the three alternative sites also proposed for allocation at the Draft Plan stage but removed at the Submission Plan stage.
Appendix F (Proposed Modifications)	New appendix added to provide a review of the assessment work previously undertaken in respect of the eleven policies subject to changes through the proposed Main Modifications.

Non-Technical Summary	Amended to reflect the changes made to the main report and the changes and additions made to the supporting appendices.

Schedule of Key Abbreviations

AGLV	Area of Great Landscape Value
AONB	Area of Outstanding Natural Beauty
AQMA	Air Quality Management Area
CD&E	Construction, demolition & excavation (waste)
C&I	Commercial & industrial (waste)
CPA	County Planning Authority
EIA	Environmental Impact Assessment
EiP	Examination in Public
E&S Report	Environmental & Sustainability Report
EU	European Union
FRA	Flood Risk Assessment
GHG	Greenhouse Gas
HGV	Heavy Goods Vehicle
LA	Local Authority
ILAS	Industrial Land Areas of Search
LNR	Local Nature Reserve
NNR	National Nature Reserve
PDL	Previously Developed Land
RBMP	River Basin Management Plan
NSIP	Nationally Significant Infrastructure Project
SA	Sustainability Appraisal
SAC	Special Area of Conservation
SEA	Strategic Environmental Assessment
SFRA	Strategic Flood Risk Assessment
SNCI	Site of Nature Conservation Importance
SPA	Special Protection Area
SPZ	Source Protection Zone
SSSI	Site of Special Scientific Interest

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Part 1: Introduction & Approach

1.A Purpose of the non-technical summary

1.1 The purpose of this report is to provide a non-technical summary of the Environmental & Sustainability Report (ESR) on the Surrey Waste Local Plan (the Plan). Following the hearings phase of the Examination in Public (EiP) a number of modifications are proposed to eleven of the policies contained in the Plan. The ESR has been revised and updated to take account of those changes, and to address issues and concerns raised during the EiP hearings.

1.2 Full details of the assessments undertaken as part of the Plan preparation process can be found in the main Environmental & Sustainability (E&S) Report and supporting Appendices.

- Appendix A – Strategic Options, Strategic Objectives & Spatial Strategy Options (and alternatives)
- Appendix B – Proposed Policies (as set out in the Submission Plan and alternatives)
- Appendix C – Potential Site Allocations (covers 54 site options)
- Appendix D – Industrial Land Areas of Search (covers 22 areas of land)
- Appendix E – Allocated Sites & Alternatives (covers 9 sites)
- Appendix F – Proposed Modifications to Policies (covers 11 policies).

1.B Assessment framework

1.3 The assessment examined the potential for the component parts of the Plan to give rise to impacts upon a number of different dimensions of the physical, natural and human environments. The framework for the assessment is formed of a suite of objectives that relate to the pathways by which waste related development could result in impacts on the environment and human communities. The assessment objectives and the types of effects that they encompass are set out in Table 1-1.

Table 1-1: Assessment Objectives – Primary & Secondary Focuses

Atmosphere	
Avoid, limit or mitigate emissions of key pollutants from site preparation, facility construction or facility operation; &, from waste transportation & traffic generated by waste management facilities	**Primary Focus:** Protection of the environment **Secondary Focus:** Protection of human health and wellbeing **Secondary Focus:** Protection of habitats and species

Table 1-1: Assessment Objectives – Primary & Secondary Focuses *(continued)*

Atmosphere	
Avoid, limit or mitigate emissions of key greenhouse gases from site preparation, facility construction or facility operation; &, from waste transportation & traffic generated by waste management facilities	**Primary Focus:** Protection of the environment **Secondary Focus:** Protection of human health and wellbeing **Secondary Focus:** Protection of habitats and species **Secondary Focus:** Protection of property
Avoid, limit or mitigate emissions of noise, light or odour from site preparation, facility construction or facility operation	**Primary Focus:** Protection of the environment **Secondary Focus:** Protection of human health and wellbeing **Secondary Focus:** Protection of habitats and species **Secondary Focus:** Protection of property

Water Environment	
Avoid the contamination of water	**Primary Focus:** Protection of the environment **Secondary Focus:** Protection of human health and wellbeing **Secondary Focus:** Protection of habitats and species
Minimise demand for water resources	**Primary Focus:** Protection of the environment **Secondary Focus:** Protection of human health and wellbeing **Secondary Focus:** Protection of habitats and species
Minimise the risks of future flooding	**Primary Focus:** Protection of communities and the economy **Secondary Focus:** Protection of habitats and species **Secondary Focus:** Protection of cultural and educational opportunities and resources

Land, Soil & Materials	
Avoid the use of the best & most versatile agricultural land	**Primary Focus:** Protection of economic resources **Secondary Focus:** Protection of human health and wellbeing **Secondary Focus:** Protection of the environment
Maximise the use of previously developed land	**Primary Focus:** Protection of economic resources **Secondary Focus:** Protection of the environment
Minimise demand for natural resources	**Secondary Focus:** Protection of the environment **Secondary Focus:** Protection of economic resources
Avoid the contamination of land & soils, & facilitate remediation	**Primary Focus:** Protection of the environment **Secondary Focus:** Protection of economic resources **Secondary Focus:** Protection of human health & wellbeing

Natural Environment	
Safeguard irreplaceable biodiversity assets & designated sites.	**Primary Focus:** Protection of the environment **Secondary Focus:** Provision and protection of cultural and educational opportunities and resources

Table 1-1: Assessment Objectives – Primary & Secondary Focuses *(continued)*

Natural Environment	
Create new or improve existing habitat, & ensure development does not result in a net loss in biodiversity.	**Primary Focus:** Protection of the environment **Secondary Focus:** Provision and protection of cultural and educational opportunities and resources **Secondary Focus:** Provision of economic opportunities and key community infrastructure
Prevent harm to geological conservation interests.	**Primary Focus:** Protection of the environment **Secondary Focus:** Provision and protection of cultural and educational opportunities and resources

Landscape & Townscape	
Protect designated & sensitive landscape character, & enable the enhancement of degraded landscapes.	**Primary Focus:** Protection of the environment **Secondary Focus:** Provision and protection of cultural and educational opportunities and resources **Secondary Focus:** Provision and protection of economic opportunities
Protect designated & sensitive townscape character, & enable the enhancement of degraded townscapes	**Primary Focus:** Protection of the environment **Secondary Focus:** Protection of communities **Secondary Focus:** Provision and protection of cultural and educational opportunities and resources **Secondary Focus:** Protection of property **Secondary Focus:** Provision and protection of economic opportunities
Protect or enhance visual amenity through sensitive design.	**Primary Focus:** Protection of communities **Secondary Focus:** Protection of the environment **Secondary Focus:** Provision and protection of cultural and educational opportunities and resources **Secondary Focus:** Protection of property **Secondary Focus:** Provision and protection of economic opportunities

Historic Environment	
Safeguard archaeological assets, including designated sites, & their context & settings, & ensure development is informed by appropriate archaeological information	**Primary Focus:** Protection of the environment **Secondary Focus:** Provision and protection of cultural and educational opportunities and resources **Secondary Focus:** Protection of property **Secondary Focus:** Provision and protection of economic opportunities
Safeguard built heritage assets, including designated sites, & ensure development does not adversely affect the context & setting of built heritage assets.	**Primary Focus:** Protection of the environment **Secondary Focus:** Provision and protection of cultural and educational opportunities and resources **Secondary Focus:** Protection of property (built structures) **Secondary Focus:** Provision and protection of economic opportunities
Safeguard historic landscape assets, including designated sites, & ensure development does not adversely affect the context & setting of historic landscape assets.	**Primary Focus:** Protection of the environment **Secondary Focus:** Provision and protection of cultural and educational opportunities and resources **Secondary Focus:** Protection of property (land) **Secondary Focus:** Provision and protection of economic opportunities

Table 1-1: Assessment Objectives – Primary & Secondary Focuses *(continued)*

Human Communities	
Locate development where the need to travel can be minimised & non-road modes of transport may be feasible.	**Primary Focus:** Protection of the economy **Secondary Focus:** Protection of the atmosphere (carbon emissions and air quality) **Secondary Focus:** Protection of human health and wellbeing
Limit risks of exposure to pollution, nuisance or disturbance as a consequence of new waste development.	**Primary Focus:** Protection of communities **Secondary Focus:** Protection of habitats and species **Secondary Focus:** Protection of property
Limit potential for changes in flood risk as a consequence of new waste development.	**Primary Focus:** Protection of communities and the economy **Secondary Focus:** Protection of habitats and species **Secondary Focus:** Protection of cultural and educational opportunities and resources
Ensure communities have access to waste management facilities & services appropriate to their scale & needs.	**Primary Focus:** Protection of communities (access to waste management infrastructure). **Secondary Focus:** Provision of economic opportunities **Secondary Focus:** Protection of property
Ensure waste development does not deprive communities of other forms of essential development.	**Primary Focus:** Protection of the economy – ensuring the most appropriate use of land **Secondary Focus:** Protection of communities

1.C Assessment method

1.4 The approach to the assessment varied according to which part of the Plan was being assessed. In all cases the assessment was informed by the descriptions of baseline conditions set out in Chapters 3 to 9 of main ESR, augmented for potential site allocations or identified areas of search by the site/area specific information presented in Appendices C, D and F to the main ESR. For each part of the Plan, excepting the Industrial Land Areas of Search (ILAS) identified under Policy 10, one or more alternatives were subjected to a comparable level of assessment (see Table 1-2).

Table 1-2: Approach to the assessment by Plan components

Plan Component	Alternatives	Assessment Notation
Strategic Approach – for the full assessment see Part A1 in Appendix A to the ESR		
Option A – net self-sufficiency	Option B – net import Option C – net export	☒ **Adverse** ☑ **Beneficial** ☒☑ **Adverse & Beneficial** ☐NS **Neutral & not significant**

Plan Component	Alternatives	Assessment Notation
Strategic Objectives – for the full assessment see Part A2 in Appendix A to the ESR		
Version B – eight objectives	Version A – eight objectives	☒ **Adverse** ☑ **Beneficial** ☒☑ **Adverse & Beneficial** ☐NS **Neutral & not significant**
Spatial Strategy – for the full assessment see Part A3 in Appendix A to the ESR		
Option A(2)	Option A(1) Option C Option B Option D	☒ **Adverse** ☑ **Beneficial** ☒☑ **Adverse & Beneficial** ☐NS **Neutral & not significant**
Policies – for the full assessment see Appendix B & Appendix F (Proposed Modifications) to the ESR		
Regulation 19 Version – 16 policies	Regulation 18 version – 16 policies Adopted Surrey Waste Plan – 16 policies	☒ **Adverse** ☒NS **Adverse & not significant** ☑ **Beneficial** ☒☑ **Adverse & Beneficial** ☐NS **Neutral & not significant**
Allocated Sites & Alternatives – for the full assessment see Appendix C & Appendix E to the ESR		
Policy 11 (a & b) – 6 allocated sites	48 alternative sites short-listed through the Plan site identification and evaluation process	☒**H** to ☒**L** **Adverse** ☒NS **Adverse & not significant** ☑**H** to ☑**L** **Beneficial** ☒☑ **Adverse & Beneficial** ☐NS **Neutral & not significant**
Industrial Land Areas of Search (ILAS) – for the full assessment see Appendix D to the ESR		
Policy 10 – 22 ILAS identified	No further alternatives considered – the ILAS form a suite of alternatives – waste related development would not be expected to come forward at all 22 ILAS	☒**H** to ☒**L** **Adverse** ☒NS **Adverse & not significant** ☑**H** to ☑**L** **Beneficial** ☒☑ **Adverse & Beneficial** ☐NS **Neutral & not significant**

1.5 The assessment of the Plan drew on information from the following sources.

- Background information about the various Plan components provided by the team responsible for the preparation of the Plan.
- Digital sources of environmental information held by Surrey County Council.
- Internet based resources covering a range of environmental dimensions and topics.
- Other technical assessments commissioned or undertaken to inform the Plan preparation process, including the Habitat Regulations Assessment

1.6 The main difficulties encountered over the course of the assessment have been:

- Limitations to the amount of detail available about the types of development that could be accommodated on the sites proposed for allocation under Policy 11 of the Plan, or within the Industrial Land Areas of Search (ILAS) identified under Policy 10 of the Plan.
- The variability in the level and depth of information that is available for each aspect of the environment covered by the assessment. For some topics, such as ecology, landscape and the water environment, the amount and quality of data that is readily accessible is of a high standard, whilst for others (e.g. noise, light pollution) good quality background and baseline information is less readily available.

Part 2 Environmental & Sustainability Context for the Surrey Waste Local Plan

2.A The Atmosphere: Issues, Objectives & Baseline Condition

2.1 The atmosphere is a major component of the Earth's physical environment, and is essential to the presence of life on the planet. Human activity can affect the atmosphere, in terms of its chemical composition and physical properties, at the local, regional and global scales. The overarching **sustainability objective** for the atmosphere is that the Plan should seek to avoid, limit or mitigate emissions to the atmosphere from waste related development and associated activities.

2.2 The main **pathways** (see Table 2-1 for associated sustainability objectives) by which waste related development could impact on different aspects of the atmosphere include:

- emissions associated with site preparation and waste facility construction;
- emissions arising from operational waste management processes;
- emissions from traffic generated during the construction and operational phases of waste related development.

Table 2-1: Sustainability objectives for the atmosphere

Impact Pathway	Sustainability objective
Emissions from site preparation, facility construction or facility operation	To avoid, limit or mitigate emissions of key pollutants
	To avoid, limit or mitigate emissions of key greenhouse gases
	To avoid, limit or mitigate emissions of noise, light or odour
Emissions from waste transportation	To avoid, limit or mitigate emissions of key pollutants
	To avoid, limit or mitigate emissions of key greenhouse gases

2.3 **Baseline Conditions – Air Quality:** The county of Surrey is affected by high levels of traffic and congestion, with the resultant transport emissions impacting on air quality at the local level. The main pollutants of concern are nitrogen dioxide and particulate matter. Air quality is poorest in the extreme north of Surrey, and along the major highway corridors that dissect the county, in terms of concentrations of nitrogen dioxide and of particulate matter. Nine of the eleven boroughs and districts that make up the county have declared one or more Air Quality Management Area (AQMA), in areas where the standards set in the National Air Quality Strategy for the safeguarding of human health have or are likely to be exceeded.

2.4 **Baseline Conditions – Greenhouse Gases & Climate:** Estimated total carbon emissions attributable to the county of Surrey fell from 8,817 kilotonnes of carbon dioxide in 2005 to 8,116 kilotonnes of carbon dioxide in 2012, with the change in per capita emissions over that period being from 8.2 tonnes per person to 7.1 tonnes per person. Across Surrey, emissions of carbon per person have, on average, fallen across the eleven districts and boroughs between 2005 and 2012, although figures are typically higher than the Surrey average for those boroughs and districts that have major roads passing through their areas (e.g. the M25, M23 and M3 motorways, and the A3).

2.5 **Baseline Conditions – Noise, Light & Odour**: The disturbed area in Surrey had increased from 58% of the county area in the early 1960s, to 81% in the early 1990s, and 84% by 2007. The least tranquil parts of the county are the boroughs of Spelthorne, Epsom & Ewell, Elmbridge and Runnymede. The boroughs of Surrey Heath, Woking and Reigate & Banstead also experience relatively high levels of disturbance. The next least tranquil areas are the districts of Mole Valley and Tandridge, with the borough of Guildford exhibiting greater levels of tranquillity, and the borough of Waverley the most tranquil part of the county. The more urbanised parts of Surrey, and in particular the north and north west, are more saturated by artificial light than the southern, and particularly south western parts of the county.

2.B The Water Environment: Issues, Objectives & Baseline Condition

2.6 The water environment is a major component of the Earth's physical environment, and is essential to the presence of life on the planet. Human activity can affect the water environment, in terms of its chemical composition and physical properties, at the local, regional and global scales. The overarching **sustainability objective** for the water environment is that the plan should seek to avoid, limit or mitigate the impacts of waste related development and associated activities on the quality and availability of water resources, and on the functioning of floodplains and flow of flood waters.

2.7 The main **pathways** (see Table 2-2 for associated sustainability objectives) by which waste related development could impact upon different characteristics of the water environment include:

- Discharges of effluent arising from site preparation and waste facility construction, and operational waste management processes;
- Demand for water resources arising during site preparation and waste facility construction, and operational waste management processes;
- Changes in flood risk associated with the development of land for waste related purposes.

Table 2-2: Sustainability objectives for the water environment

Impact Pathway	Sustainability objective
Contamination of water	To avoid the contamination of water

Impact Pathway	Sustainability objective
Consumption of water resources	To minimise demand for water resources
Changes in floodplain extent or flow paths	To minimise the risks of future flooding

2.8 **Baseline Conditions – Water Quality:** The county of Surrey encompasses waterbodies and catchments that lie within the Thames River Basin Management Plan (RBMP) area and the South East RBMP area. Of the 95 surface watercourses or lakes (including reservoirs and ponds) with catchments wholly or partly within Surrey, only 4 (4.2%) exhibit 'good' overall status. The majority exhibit either 'moderate' overall status (57 or 58%), or 'poor' overall status (27 or 28.4%), with 7 watercourses or lakes (7.4%) exhibiting 'bad' overall status.

2.9 The principal reasons given for watercourses and waterbodies not achieving the 'good' overall status required by the Water Framework Directive include, pollution from point sources (e.g. water industry sewage works) and diffuse sources (e.g. agriculture), abstraction from watercourses and supporting groundwaters, and physical alterations.

2.10 The majority of the groundwater bodies beneath Surrey exhibit 'poor' overall status, based on data for the 2015 reporting cycle under the Water Framework Directive, due to issues with water availability (quantitative status) or chemical condition (chemical status), or a combination of the two. Six of the groundwater bodies underlying the county are currently classified as exhibiting 'good' overall status.

2.11 **Baseline Conditions – Water Resources:** Water resources management in Surrey is undertaken by a number of different water companies, who are responsible for supplying water to residents and businesses. The activities of the water companies and other industries in respect of the sourcing of water resources (e.g. abstraction) are overseen by the Environment Agency (through the Environmental Permitting regime). All the water companies produce Water Resources Management Plans, statutory plans that explain how they will balance the supply of and demand for water over the period up to 2035.

2.12 Groundwater resources need to be protected from over-abstraction and pollution to ensure that they remain available for use today and into the future, to support rivers and wetland habitats and to provide drinking water. Pressure on water resources is particularly intense in the South East of England, due to the density of the human population.

2.13 **Baseline Conditions – Flooding:** Within Surrey areas subject to Zone 2 or Zone 3 fluvial flood risk are concentrated around the main rivers that dissect the county. In north west Surrey the main sources of fluvial flood risk for the boroughs of Spelthorne, Runnymede and Elmbridge are the river Thames, the river Wey and the river Mole, with the Bourne also forming a source of fluvial flood risk in Runnymede, and the Colne being a further source of fluvial flood risk in north west Spelthorne. For the borough of Epsom and Ewell the main source of fluvial flood risk is the Hogsmill, which flows through the northern part of the borough to its confluence with the river Thames. For the borough of Woking, the river Wey

and the river Bourne form the main sources of flood risk. For the borough of Surrey Heath the main source of fluvial flood risk is the river Bourne

2.14 Surface water flood risk occurs throughout Surrey, and based on Environment Agency data it is estimated that approximately 46,500 properties in the county are at risk from flooding to a depth of more than 0.3 metres during a rainfall event with a 1 in 200 annual chance of occurring. The Surrey Preliminary Flood Risk Assessment identified five areas within the county that are at greatest risk of surface water flooding: Epsom and Ewell; Woking and Byfleet; Caterham and Warlingham; Guildford; and, Reigate and Redhill.

2.15 Groundwater flooding in Surrey is most common in areas with chalk strata, such as the North Downs. It can occur in any area with underlying permeable deposits (for example sandstone, sands and gravels). Localised occurrences have been observed in low-lying areas throughout the county. The risk of groundwater flooding can be affected by development, which alters the natural flow patterns and pathways.

2.C Land, Soils & Materials: Issues, Objectives & Baseline Condition

2.16 The terrestrial environment, in terms of land, soils and geological resources, is a major component of the Earth's physical environment, and is essential to the presence of life on the planet. Human activity can affect the terrestrial environment, in terms of its physical and chemical properties, at the local, regional and global scales. The overarching **sustainability objective** for the terrestrial environment is that the plan should seek to avoid, limit or mitigate the impacts of waste related development and associated activities on the quality and availability of land, soils and natural resources.

2.17 The main **pathways** (see Table 2-3 for associated sustainability objectives) by which waste related development could impact upon different characteristics of the terrestrial environment include:

- Discharges of pollutants arising from site preparation and waste facility construction, and operational waste management processes;
- Demand for natural resources arising during site preparation and waste facility construction, and operational waste management processes;
- Changes in land use associated with development for waste related purposes.

Table 2-3: Sustainability objectives for land, soil & materials

Impact Pathway	Sustainability objectives
Use of land	To avoid the use of the best & most versatile agricultural land To maximise the use of previously developed land
Use of resources derived from the land	To minimise demand for natural resources
Contamination of land & soils	To avoid the contamination of land & soils, & facilitate remediation

2.18 **Baseline Conditions – Land Use:** Large areas of Surrey are rural in character, and 35.7% of the county's land – some 59,688 hectares, is maintained in some form of agricultural production. The majority of agricultural land within Surrey is classed as either Grade 3a (of good quality) or Grade 3b (of moderate quality).

2.19 Surrey has a good track record in the use of previously developed land (PDL) for the provision of new housing. Between 1996 and 2007, the boroughs and districts of Surrey significantly out-performed the England average in terms of the delivery of new housing on previously developed land. Performance dipped below the England average (72%) for the boroughs of Reigate & Banstead (60%) and of Surrey Heath (50%) during the 2008-2011 period.

2.20 Comprehensive data on the extent of contaminated land in Surrey is not available, although the district and borough councils are required to prepare contaminated land registers.

2.21 **Baseline Conditions – Geology & Soil:** The geology of Surrey is diverse ranging from clays overlain by sands and gravels deposited at the end of the last Ice Age in the north west, to the chalk escarpment of the North Downs across the centre of the county, with the sandstones and clays of the Low Weald in the south, and the interbedded clays, silts, siltstones, sands and sandstones of the Hastings Beds which underlie the High Weald.

2.22 The range of soil types encountered across Surrey is strongly influenced by the underlying geology of the county, ranging from free draining sandy soils to impermeable clay based soils.

2.23 **Baseline Conditions – Materials Resources:** According to the 2014/15 Annual Monitoring Report for minerals and waste, Surrey was estimated to have given rise to 2.66 million tonnes of waste in 2014/15. The main categories of waste generated include municipal solid waste, commercial and industrial wastes, and construction and demolition wastes.

2.D The Natural Environment: Issues, Objectives & Baseline Condition

2.24 The natural environment comprises of all the living organisms found on the planet. Plants, fungi and animals form the most visible components of the planets ecosystems, with different species adapted to cope with the wide range of physical conditions encountered across the planet. The overarching **sustainability objective** for the natural environment is that the plan should seek to avoid, limit or mitigate the impacts of waste related development and associated activities on the extent and integrity of habitats, and on the communities and populations of species that depend on them.

2.25 The main **pathways** (see Table 2-4 for associated sustainability objectives) by which waste related development could impact upon different characteristics of the natural environment include:

- Loss of habitat due to land-take;

- Changes in the condition of habitat due to changes in air quality, water quality, flooding or the contamination of soils.
- Changes in the risks of disturbance, damage or harm to which habitats and species are exposed.

Table 2-4: Sustainability objectives for the natural environment

Aspect	Objective
Ecological Networks	Safeguard irreplaceable biodiversity assets & designated sites. Create new or improve existing habitat, & ensure development does not result in a net loss in biodiversity.
Geological Conservation	Prevent harm to geological conservation interests.

2.26 The natural environment of Surrey is primarily composed of semi-natural habitats, which have developed as a consequence of past and ongoing human intervention. Key habitat types encountered across the county include heathlands, calcareous grasslands, and broadleaved and mixed woodlands. The county is also dissected by a number of major rivers, including the Wey, the Mole and the Thames, and by associated wetland habitats.

2.27 **Baseline Conditions – Designated Sites:** Within Surrey there are four sites designated under the EU Wild Bird's Directive (Special Protection Areas or SPAs), three sites designed under the Habitats Directive (Special Areas of Conservation or SACs), and two site designated under the Ramsar Convention on Wetlands of International Importance (Ramsar Sites).

2.28 At the national level, 63 SSSIs are located wholly or partly within the county of Surrey, of which ten are wholly or partly designated for their geological interest. Three of the SSSIs, at Ashtead Common, at Chobham Common, and at Thursley, Hankley & Frensham Commons, are also wholly or partly covered by National Nature Reserve (NNR) designations, In 2016, 98.07% of the area of land covered by SSSIs within the county was in either 'favourable' or 'recovering' condition.

2.29 There are numerous sites designated at the local level for nature conservation purposes. Those include 38 Local Nature Reserves (LNRs), 722 Sites of Nature Conservation Importance (SNCIs), 172 potential SNCIs (pSNCIs), and 30 Regionally Important Geological/Geomorphological Sites (RIGS).

2.30 **Baseline Conditions – Ancient Woodland:** Surrey is an extensively wooded county, with approximately 22.5% (or 37,700 hectares) of its land area under some form of woodland cover, either ancient or recent, of greater than 0.1 hectare. The majority (some 74%) of Surrey's ancient woodland (i.e. areas continuously wooded since at least 1600 AD), is located in the south of the county, within the Wealden Greensand and Low Weald landscape areas.

2.31 **Baseline Conditions – Habitats of Principal Importance:** A range of Priority habitats (see below) occur throughout Surrey, both within and outside designated sites.

- Lowland Heath – of which Surrey has 13% of the national resource.
- Grasslands – including lowland dry acid grassland, lowland calcareous grassland, and lowland meadows (neutral grassland).
- Woodlands – including wood pasture and parkland, lowland beech and yew woodland, lowland mixed deciduous woodland, wet woodland, and traditional orchards.
- Wetlands – including floodplain grazing marsh, lowland fens, eutrophic standing waters, ponds, reedbeds, and rivers.
- Other habitat types – including hedgerows, open mosaic habitats, and arable field margins

2.32 **Baseline Conditions – Protected Species:** The European protected species most likely to be encountered in Surrey are the great crested newt, various species of bats, the hazel (or common) dormouse, and the early gentian, with otters, sand lizards, smooth snakes and natterjack toads also known to occur. Animal species protected under the provisions of the Wildlife & Countryside Act 1981, that are known to occur in Surrey, include the water vole, common lizard, slow-worm, adder, grass snake and roman snail.

2.E Landscape & Townscape: Issues, Objectives & Baseline Condition

2.33 The concept of landscape is defined in the European Landscape Convention (Council of Europe, 2000) as being, "….an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors". The concept of the landscape is not exclusive to rural contexts or areas of great scenic and natural beauty, and applies wherever people and place have a relationship. The overarching **sustainability objective** for the landscape and townscape is that the plan should seek to avoid, limit or mitigate the impacts of waste related development and associated activities on character, and on visual amenity.

2.34 The main **pathways** (see Table 2-5 for associated sustainability objectives) by which waste related development could impact upon different characteristics of the landscape and townscape include:

- Changes in the features and character of an area;
- Changes in visual amenity associated with the introduction of dissonant elements into an area of established character.

Table 2-5: Sustainability objectives for landscape & townscape

Aspect	Objective
Landscape& Townscape Character	Protect designated & sensitive landscape character, & enable the enhancement of degraded landscapes. Protect designated & sensitive townscape character, & enable the enhancement of degraded townscapes

Aspect	Objective
Visual Amenity	Protect or enhance visual amenity through sensitive design.

2.35 **Baseline Conditions – Landscape:** The countryside of Surrey includes landscapes of great beauty and diversity. Just over a quarter of the county (some 44,800 hectares), is designated as Areas of Outstanding Natural Beauty (AONB), with the majority of which is comprised of the Surrey Hills AONB, with a small area of the High Weald AONB extending into the south eastern corner of the county. Other parts of the countryside are designated as Areas of Great Landscape Value (AGLV), which helps to safeguard the landscape setting of a number of towns and to act as a buffer to the AONBs. To the south west the county adjoins part of the northern boundary of the South Downs National Park, which extends across Hampshire, West Sussex and East Sussex.

2.36 The National Character Areas (NCAs) have been defined by Natural England, and divide England into 159 distinct natural areas. Each is defined by a unique combination of landscape, biodiversity, geodiversity, history, and cultural and economic activity. Their boundaries follow natural lines in the landscape rather than administrative boundaries. The landscape of Surrey encompasses parts of eight of the NCAs that cover the south east of England.

- 7.7.1 NCA 114 (Thames Basin Lowlands),
- 7.7.2 NCA 115 (Thames Valley),
- 7.7.3 NCA 119 (North Downs),
- 7.7.4 NCA 120 (Wealden Greensand),
- 7.7.5 NCA 121 (Low Weald),
- 7.7.6 NCA 122 (High Weald),
- 7.7.7 National NCA 129 (Thames Basin Heaths),
- 7.7.8 NCA 130 (Hampshire Downs),

2.37 The 2015 Landscape Character Assessment for the county of Surrey provides a systematic review and evaluation of the landscape character of the county, identifying a total of twenty-three different landscape character types, which sub-divide into numerous landscape character areas.

2.38 **Baseline Conditions – Townscape:** The quality of the built environment, in terms of the design and positioning of buildings, infrastructure and amenity facilities influences the extent to which a place, irrespective of whether it is urban or rural, is perceived to be a pleasant and conducive setting in which to live or do business. Places need to be designed and built for people, providing a setting in which they can feel safe and secure, and that enable them to go about their daily lives with ease. Surrey is the most urbanised shire county in England, but is also perceived as a place the offers a good living environment. The challenge for the future development of the county will be to safeguard and enhance that perception.

2.39 The eleven districts and boroughs in Surrey each contain a number of towns and larger villages in which much of their resident population has been concentrated. Some of the districts and boroughs, particularly those in the north west of the county, have been more extensively affected by urban development than is the case for those in the south, south west and east. The majority of the district and borough councils in Surrey have undertaken townscape or urban character studies as part of the work to inform the development of their Local Plans. In a number of cases that work has been captured in supplementary guidance, which provides advice on the standards that should be observed in the design of new development within different character areas.

2.F The Historic Environment: Issues, Objectives & Baseline Condition

2.40 The historic environment encompasses a wide range of heritage assets, including areas, buildings, features and landscapes that benefit from statutory protection at the national and international levels. Buildings, features, townscapes and landscapes of local significance are also an important part of the historic environment, in their own right, as well as often forming the setting and context for designated heritage assets. The overarching **sustainability objective** for the historic environment is that the plan should seek to avoid, limit or mitigate the impacts of waste related development and associated activities on the heritage assets, and the contexts and settings in which they are situated.

2.41 The main **pathways** (see Table 2-6 for sustainability objectives) by which waste related development could impact upon different characteristics of the historic environment include:

- Damage or destruction of heritage assets as a result of the development, or redevelopment of land;
- Damage of heritage assets as a consequence of changes in air quality, water quality, flooding, or the contamination of soils.
- Changes to the context and setting of heritage assets associated with the introduction of potentially intrusive technologies and practices.

Table 2-6: Sustainability objectives for the historic environment

Aspect	Objective
Archaeological Assets	Safeguard archaeological assets, including designated sites, & their context & settings, & ensure development is informed by appropriate archaeological information
Built Heritage	Safeguard built heritage assets, including designated sites, & ensure development does not adversely affect the context & setting of built heritage assets.
Historic Landscapes	Safeguard historic landscape assets, including designated sites, & ensure development does not adversely affect the context & setting of historic landscape assets.

2.42 The historic environment of Surrey is comprised of a diverse mix of archaeological assets, built heritage and historic landscapes. The county hosts examples of sites and finds that date back to the Neolithic period and the Bronze Age, has a range of buildings and structures including bridges, cottages, houses and castles and manors dating from the Medieval period, roads and villas that date from the Roman occupation, and great and lesser houses and gardens dating from the eighteenth century to the twentieth.

2.43 **Baseline Conditions – Archaeology:** Surrey is host to some 166 Scheduled Monuments (see Table 8-2), including buildings, sites, features and structures, which are of national importance for their historic and heritage interest, and are designated for protection under the *Ancient Monuments & Archaeological Areas Act 1979*. In addition to the nationally important Scheduled Monuments, there are also areas in Surrey protected by local designations. There are some 248 County Sites of Archaeological Importance (CSAIs) distributed across the county, and some 1,077 Areas of High Archaeological Potential (AHAP).

2.44 **Baseline Conditions – Built Heritage:** The built heritage of Surrey is characterised by great variety and good quality (see Table 8-2). The county hosts some 6,534 statutorily Listed Buildings of Grade I, Grade II* and Grade II status, which are recorded on the National Heritage List for England (held by Historic England). The county's stock of Listed Buildings include examples of churches and country houses, buildings that typify the local vernacular style, dwellings and buildings used for agriculture, industry, transport or commerce, and the work of architects of international renown and innovative inclination. There are also some 243 Conservation Areas (see Table 8-2) designated across the county, covering the historic hearts of towns and villages. The most recent *Heritage at Risk* survey, produced by Historic England in 2015, reported that 33 sites located within Surrey were at risk of decay, damage or loss, the lowest number for any county in the south east of England.

2.45 **Baseline Conditions – Historic Landscape:** Two forms of designation that afford protection to the historic landscapes on heritage grounds are the Register of Historic Parks & Gardens (for sites of national importance), and Areas of Special Historic Landscape Value. Surrey is host to many historic parks and gardens, of which 39 are of national importance, and are consequently listed on the Register of Historic Parks & Gardens (see Table 3.F-1). There are also two Area of Outstanding Natural Beauty (AONB) designations located wholly or partly within Surrey, which contain and consequently help to protect numerous historic sites. The Surrey Hills AONB runs across the county from west to east following the North Downs, and part of the High Weald AONB covers the south east corner of the district of Tandridge.

2.G Human Communities: Issues, Objectives & Baseline Condition

2.46 Development can have beneficial effects upon human communities, but may also give rise to adverse impacts that need to be identified and appropriately managed. Well designed, high quality development can enhance the quality of life of the communities that live, work or make other use of it. The overarching **sustainability objective** for human communities is that the plan should seek to avoid, limit or mitigate the impacts of waste related

development and associated activities on the quality and condition of the physical settings in which human communities reside.

2.47 The main **pathways** (see Table 2-7 for associated sustainability objectives) by which waste related development could impact upon the different components that together form human communities include:

- Provision of sufficient capacity to manage the waste materials generated by the county's community;
- Development of land that may have been suitable for other forms of development beneficial to the community (e.g. housing (including affordable housing), urban greenspace, other forms of business or industrial development).
- Development of facilities and operations that may contribute to changes in the physical environment, and in particular emissions to atmosphere and changes in flood risk, which could affect the health and well-being of local populations.
- Development of facilities and operations that may affect the character and amenity of local areas, in particular through changes in traffic composition and volume.

Table 2-7: Sustainability objectives for human communities

Aspect	Objective
Traffic, pollution & nuisance risks	Locate development where the need to travel can be minimised & non-road modes of transport may be feasible.
	Limit risks of exposure to pollution, nuisance or disturbance as a consequence of new waste development.
Flood risk	Limit potential for changes in flood risk as a consequence of new waste development.
Land use	Ensure communities have access to waste management facilities & services appropriate to their scale & needs.
	Ensure waste development does not deprive communities of other forms of essential development.

2.48 **Baseline Conditions – Highways & Traffic:** The county highway network experiences high levels of demand, but is not affected by congestion to the same extent as some metropolitan conurbations. However, congestion does occur during the peak periods and in local hotspots, and rapidly arises when incidents occur or traffic flow is disrupted. The Surrey highway network is particularly susceptible to knock-on effects from congestion on national roads, which can result in increases of through traffic and reduced travel efficiency for local traffic. Key drivers of traffic growth are increased travel demand from additional development, both within and beyond the county, and growing levels of car ownership and use across the county.

2.49 **Baseline Conditions – Pollution, Nuisance & Disturbance:** The county of Surrey is affected by high levels of traffic and congestion, with the resultant transport emissions impacting on air quality at the local level. The main pollutants of concern are nitrogen dioxide and particulate matter. Air quality is poorest in the extreme north of Surrey, and along the

major highway corridors that dissect the county, in terms of concentrations of nitrogen dioxide and of particulate matter. Nine of the eleven boroughs and districts that make up the county have declared one or more Air Quality Management Area (AQMA), in areas where the standards set in the National Air Quality Strategy for the safeguarding of human health have or are likely to be exceeded.

2.50 The disturbed area in Surrey had increased from 58% of the county area in the early 1960s, to 81% in the early 1990s, and 84% by 2007. The least tranquil parts of the county are the boroughs of Spelthorne, Epsom & Ewell, Elmbridge and Runnymede. The boroughs of Surrey Heath, Woking and Reigate & Banstead also experience relatively high levels of disturbance. The next least tranquil areas are the districts of Mole Valley and Tandridge, with the borough of Guildford exhibiting greater levels of tranquillity, and the borough of Waverley the most tranquil part of the county. The more urbanised parts of Surrey, and in particular the north and north west, are more saturated by artificial light than the southern, and particularly south western parts of the county.

2.51 **Baseline Conditions – Flooding:** Within Surrey areas subject to Zone 2 or Zone 3 fluvial flood risk are concentrated around the main rivers that dissect the county. In north west Surrey the main sources of fluvial flood risk for the boroughs of Spelthorne, Runnymede and Elmbridge are the river Thames, the river Wey and the river Mole, with the Bourne also forming a source of fluvial flood risk in Runnymede, and the Colne being a further source of fluvial flood risk in north west Spelthorne. For the borough of Epsom and Ewell the main source of fluvial flood risk is the Hogsmill, which flows through the northern part of the borough to its confluence with the river Thames. For the borough of Woking, the river Wey and the river Bourne form the main sources of flood risk. For the borough of Surrey Heath the main source of fluvial flood risk is the river Bourne

2.52 Surface water flood risk occurs throughout Surrey, based on Environment Agency data it is estimated that approximately 46,500 properties in the county are at risk from flooding to a depth of more than 0.3 metres during a rainfall event with a 1 in 200 annual chance of occurring. The Surrey Preliminary Flood Risk Assessment identified five areas within the county that are at greatest risk of surface water flooding: Epsom and Ewell; Woking and Byfleet; Caterham and Warlingham; Guildford; and, Reigate and Redhill.

2.53 Groundwater flooding in Surrey is most common in areas with chalk strata, such as the North Downs. It can occur in any area with underlying permeable deposits (for example sandstone, sands and gravels). Localised occurrences have been observed in low-lying areas throughout the county. The risk of groundwater flooding can be affected by development, which alters the natural flow patterns and pathways.

2.54 **Baseline Conditions – Waste Management Capacity:** There are currently 15 community recycling centres (CRCs) located around Surrey, where household waste can be recycled or disposed, which complement household waste collection services from households (kerbside) and from local recycling banks. Changes to the CRCs introduced in 2016 have reduced opening hours at all sites and closed some of the smaller sites for one day per

week, but have also established reuse shops at four sites. Use of the CRCs by businesses is being actively managed, through an enhanced van permit scheme, stronger trade waste controls, and charges for non-household waste comprising rubble, soil and plasterboard and tyres. The Patteson Court Landfill is the only such facility in Surrey that accepts household waste, and is subject to a requirement for restoration by 2030. The proportion of Surrey's household waste sent to landfill decreased from 11% in 2013/14 to 6% in 2015/16. Surrey remains reliant on facilities located outside the county for the treatment of residual waste from households and the reprocessing of recyclable materials.

2.55 **Baseline Conditions – Land Availability:** Large areas of Surrey are rural in character, and 35.7% of the county's land – some 59,688 hectares, is maintained in some form of agricultural production. The majority of agricultural land within Surrey is classed as either Grade 3a (of good quality) or Grade 3b (of moderate quality).

2.56 Surrey has a good track record in the use of previously developed land (PDL) for the provision of new housing. Between 1996 and 2007, the boroughs and districts of Surrey significantly out-performed the England average in terms of the delivery of new housing on previously developed land. Performance dipped below the England average (72%) for the boroughs of Reigate & Banstead (60%) and of Surrey Heath (50%) during the 2008-2011 period.

2.57 Comprehensive data on the extent of contaminated land in Surrey is not available, although the district and borough councils are required to prepare contaminated land registers.

Part 3 The Surrey Waste Local Plan – An Overview

3.A The development of the Surrey Waste Local Plan

3.1 This part of the non-technical summary for the ESR provides an overview of the development of the Surrey Waste Local Plan. The key components of the submitted Plan, and the alternatives that were considered during the plan preparation process, are summarised below.

3.2 **Strategy** – The overarching strategy for the Plan is to make provision for net self-sufficiency in the county with reference to waste management capacity. The SEA/SA (Appendix A to the ESR) considered two alternatives to the preferred option of net self-sufficiency. See section 2.B.1 of Chapter 2 of the ESR for further details and discussion.

3.3 **Vision** – The overarching direction for the Plan, in terms of the preferred strategy option of net-self-sufficiency, is articulated in the vision statement. The vision for the Surrey WLP was defined and refined during the earliest stages of Plan development. The vision statement was not subject to assessment, as it is too broad to enable meaningful assessment.

3.4 **Strategic Objectives** – The vision for the Plan is expanded on and given further definition through a suite of strategic objectives. The SEA/SA (Appendix A to the ESR) considered the two different versions of the strategic objectives proposed at the Draft and Submission stages of Plan development. See section 2.B.2 of Chapter 2 of the ESR for further details and discussion.

3.5 **Spatial Strategy** – The spatial strategy for the Plan provides guidance as to the locations in which waste related development could be appropriately located. The SEA/SA (Appendix A to the ESR) considered the proposed spatial strategy, an earlier version and a number of alternative approaches to the distribution of waste related development across the county. See section 2.B.3 of Chapter 2 of the ESR for further details and discussion.

3.6 **Policies** – The submission version of the Plan includes 17 separate policies (Policy 11 is split into part (a) and part (b)) that provide a framework within which decisions can be made in respect of specific proposals for waste related development. The SEA/SA (Appendix B to the ESR) considered the proposed policies, earlier versions of those policies, and the equivalent or relevant extant policies of the adopted Surrey Waste Plan (2008/09) the latter two categories constituting the 'reasonable alternatives' to the proposed policies. Amendments to 11 of the policies are identified in the Main Modifications to the Plan and have been reviewed to ascertain the need for further assessment (see Appendix F to the ESR). See section 2.B.4 of Chapter 2 of the ESR for further details and discussion.

3.7 **Sites for Allocation** – The Plan includes 6 separate sites that have been proposed for allocation, as either strategic waste facilities (under Policy 11a) or, in the case of one of those sites, as a dry mixed recyclables facility (under Policy 11b). The SEA/SA (Appendix C to the ESR) considered 58 separate candidate sites, from which the 6 selected for allocation were chosen. See section 2.B.5 of Chapter 2 of the ESR for further details and discussion. A summary of further assessment work undertaken in respect of the nine sites that were proposed for allocation at the Draft Plan stage is provided in Appendix E to the ESR.

3.8 **Areas of Search** – The Plan includes 22 areas of search situated within existing or proposed industrial land that have been identified as locations that could accommodate some form of waste related development alongside other established, or allocated, industrial and employment uses. The SEA/SA (Appendix D to the ESR) considered all 22 of the areas that have been identified in the Plan under Policy 10. See section 2.B.6 of Chapter 2 of the ESR for further details and discussion.

3.B The submitted Surrey Waste Local Plan & Proposed Modifications

3.9 The vision articulated in the submission version of the Plan is presented in Box 3-A. The vision is high level, and establishes a number of aspirational guiding principles for the Plan. The changes proposed to the Plan as main modifications do not include any alterations to the vision as set out in the submission version Plan.

Box 3-A: The vision for the Plan (Submission version)

"To enable sufficient waste management capacity to support Surrey's nationally important economy. To develop the circular economy in Surrey where residents & businesses produce less waste & treat more waste as a resource by re-use, recycling & recovery. To recognise, protect & enhance Surrey's environment & maintain the high standards of wellbeing enjoyed by our residents when permitting waste facilities."

3.10 The strategic objectives proposed in the submission version of the Plan are presented in Box 3-B. The strategic objectives follow the guiding principles set out in the proposed vision, and establish a framework for the spatial strategy and individual policies set out in the Plan. The spatial strategy proposed for the Plan is presented in Box 2-C. The changes proposed to the Plan as main modifications do not include any alterations to either the strategic objectives or the spatial strategy as set out in the submission version Plan.

Box 3-B: Strategic Objectives for the Plan (Submission version)

Strategic Objective 1: To make sure enough waste management capacity is provided to manage the equivalent amount of waste produced in Surrey.

Strategic Objective 2: To encourage development which supports sustainable waste management at least in line with national targets for recycling, recovery & composting.

Strategic Objective 3: To manage waste by disposal to land as an option of last resort, but recognise that it is important for managing residual waste that cannot be treated in any other way.

Box 3-B: Strategic Objectives for the Plan (Submission version)

Strategic Objective 4: To retain & make best use of existing sites for waste development through safeguarding against non-waste development & supporting improvement of facilities.

Strategic Objective 5: To direct new facilities to locations that are most suitable for waste development.

Strategic Objective 6: To encourage innovation & best practice which provide opportunities to minimise the impact of waste development on communities & the environment.

Strategic Objective 7: To keep waste movement by road to minimum practicable levels & support options for sustainable transport.

Strategic Objective 8: To work closely with our partners such as Surrey Waste Partnership, District & Borough councils & other WPAs to deliver the SWLP.

Box 3-C: The spatial strategy for the Plan (Submission version)

"Surrey has a need for additional waste management capacity. This need is provided for by generally safeguarding existing capacity, & by appropriate extensions & enhancements, to existing facilities & by the development of new facilities in suitable locations.

Land is allocated to provide certainty that sufficient waste management capacity could be developed to meet the requirements for future waste management in Surrey. However, sites allocated within the Green Belt are not preferred over suitable, deliverable locations which might exist outside the Green Belt.

Waste management development not involving disposal to land is prioritised on previously developed land (PDL) not in the Green Belt. PDL may include sites & areas identified for employment uses, industrial & storage purposes, redundant agricultural & forestry buildings & their curtilages. Redevelopment of suitable sites in existing waste management use is encouraged where improvement & diversification would lead to an increase in appropriate management capacity.

At the same time, waste management development for new or improved facilities should be in the best possible locations to minimise impact on the environment & amenity. This includes conserving & enhancing the character of the Surrey Hills & High Weald Areas of Outstanding Natural Beauty.

Sustainable transport options in Surrey are limited, however, through the delivery of new or improved waste management facilities a network of sustainable facilities is encouraged. This should include sites which are well-connected to sources of waste, such as main centres of population & employment by road or rail.

By encouraging a network of waste management facilities which are well-connected to sources of waste movements of vehicles, especially heavy goods vehicles (HGVs), the county council is seeking to avoid significant adverse impacts from vehicles on residents.

Areas which are likely to offer opportunities for waste development in accordance with this Spatial Strategy include urban areas & towns located close to the boundary with London, & the large towns of Guildford, Woking, Reigate/Redhill & Farnham."

3.11 In total seventeen proposed policies (see Box 2-D) were included in the submission version of the Plan, covering a range of matters covering the need for additional waste management capacity, the management of existing capacity, and the protection of communities and the environment from harmful effects. Three of the proposed policies

(policy 10, policy 11(a) and policy 11(b)) identify areas and specific locations in which the development of waste management facilities would be acceptable in principle. The changes proposed to the Plan as main modifications include alterations to the eleven of the policies (highlighted in **bold text** in Box 2-D) from those set out in the submission version Plan.

3.12 The need for further assessment of the modified policies has been evaluated, with the conclusions of that work set out in Appendix F to the ESR. In summary the review, taking account of the reasons given for each proposed change, concluded that no further detailed assessment needed to be undertaken in respect of the amended wording of each policy affected by the main modifications. The intent and impact of each affected policy would be largely unaltered from that assessed at the submission Plan stage. The assessment summaries and associated discussion of mitigation measures set out in Appendix B to the ESR have been updated (see Parts F2 to F12 in Appendix F to the ESR) to reflect all relevant proposed policy amendments.

Box 3-D: Policies of the Plan (Submission version + Main Modifications)
Policy 1: Need for waste development
Policy 2: Recycling & recovery (other than inert construction, demolition and excavation waste and soil recycling facilities) [Main Modification (MM) 1]
Policy 3: Recycling of inert construction, demolition and excavation waste [MM1d]
Policy 4: Sustainable construction and waste management in new development [MM2]
Policy 5: Recovery of inert waste to land
Policy 6: Disposal of non-inert waste to land [MM4]
Policy 7: Safeguarding [MM6]
Policy 8: Improvement or extension of existing facilities [MM7]
Policy 9: Green Belt [MM8]
Policy 10: Other areas suitable for development of waste management facilities (excluding disposal) [MM9]
Policy 11a: Strategic waste site allocations (i) Former Weylands Sewage Treatment Works, Walton-on-Thames; (ii) Land to the North East of Slyfield Industrial Estate, Guildford; (iii) Land adjoining Leatherhead Sewage Treatment Works, Randalls Road, Leatherhead; (iv) Oakleaf Farm, Horton Lane, Stanwell Moor; (v) Land at Lambs Business Park, Terra Cotta Road, South Godstone
Policy 11b: Allocation of a site for a household waste materials recycling facility (i) Land adjacent to Trumps Farm, Kitsmead Lane, Longcross
Policy 12: Wastewater treatment works [MM10]
Policy 13: Sustainable design
Policy 14: Protecting Communities & the Environment (policy title changed from 'Development Management' as part of the main modifications to the Plan) [MM17]
Policy 15: Transport & connectivity [MM18]
Policy 16: Community engagement

3.C The wider policy context for the submission version of the Plan

3.13 The SEA Regulations require that environmental reports include an outline of the relationship of the proposed Plan to other relevant plans and programmes. Section 1.3 (pp.11-17) of the submission version of the Plan provides a review of the main legislation and policy documents that afford the context within which the Plan would be delivered. A brief summary of the legislation and policies identified in that part of the submission version of the Plan is provided below.

- EU Waste Framework Directive (2008/98/EC) – covered in paragraphs 1.3.1.1 to 1.3.1.3 (p.11) of the Submission version of the Surrey WLP.
- EU Hazardous Waste Directive (1991/689/EC) – covered in paragraphs 1.3.2.1 to 1.3.2.2 (pp.11-12) of the Submission version of the Surrey WLP.
- EU Landfill Directive (1999/31/EC) – covered in paragraphs 1.3.3.1 to 1.3.3.2 (p.12) of the Submission version of the Surrey WLP.
- EU Waste Incineration Directive (2000/76/EC) - – covered in paragraphs 1.3.4.1 to 1.3.4.2 (p.12) of the Submission version of the Surrey WLP.
- EU Circular Economy Action Plan – covered in paragraphs 1.3.5.1 to 1.3.5.2 (p.12) of the Submission version of the Surrey WLP.
- The Planning & Compulsory Purchase Act 2004, and the Town & Country Planning (Local Planning) (England) Regulations 2012 – covered in paragraphs 1.3.6.1 to 1.3.6.3 (p.13) of the Submission version of the Surrey WLP.
- The Localism Act 2011 – covered in paragraphs 1.3.7.1 to 1.3.7.2 (p.13) of the Submission version of the Surrey WLP.
- The Waste (England & Wales) Regulations 2011 – covered in paragraph 1.3.8.1 (p.13) of the Submission version of the Surrey WLP.
- The National Planning Policy Framework 2018 – covered in paragraphs 1.3.9.1 to 1.3.9.5 (pp.13-14) of the Submission version of the Surrey WLP.
- The National Planning Policy for Waste 2014 – covered in paragraphs 1.3.10.1 to 1.3.10.3 (pp.14-15) of the Submission version of the Surrey WLP.
- The Waste Management Plan for England 2013 – covered in paragraphs 1.3.11.1 to 1.3.11.3 (p.15) of the Submission version of the Surrey WLP.
- Other national policy documents, including the Industrial Strategy (2017), the Clean Growth Strategy (2017), the 25 Year Environment Plan (2018), and the draft Clean Air Strategy (2018) – covered in paragraph 1.3.12.1 (p.15) of the Submission version of the Surrey WLP.
- Regional Spatial Strategy for the South East of England (revoked, excepting policy NRM6: Thames Basin Heaths SPA) – covered in paragraph 1.3.13.1 (p.15) of the Submission version of the Surrey WLP.
- Surrey Waste Plan 2008 – covered in paragraph 1.3.14.1 (p.15) of the Submission version of the Surrey WLP.
- Surrey Minerals Plan 2011 – covered in paragraph 1.3.15.1 (pp.15-16) of the Submission version of the Surrey WLP.

- Aggregates Recycling Joint Development Plan Document 2013 – covered in paragraph 1.3.16.1 (p.16) of the Submission version of the Surrey WLP.
- Minerals Site Restoration Supplementary Planning Document 2011 – covered in paragraph 1.3.17.1 (p.17) of the Submission version of the Surrey WLP.
- Joint Municipal Waste Management Strategy – covered in paragraphs 1.3.20.1 to 1.3.20.2 (p.17) of the Submission version of the Surrey WLP.

3.14 In addition to those legal instruments and policy documents listed in Section 1.3 of the submission version of the Plan, future waste development proposals in Surrey brought forward under the Plan will be delivered within the context of the Local Plans prepared and adopted by each of the eleven borough and district councils. Applications for planning permission for waste related development will need to address the requirements of relevant policies in the appropriate Local Plan for the area in which the application site is located. Those policies relevant to proposals for waste related development are likely to include those concerned with the protection of the environment and communities from adverse impacts.

3.15 Also relevant to the determination of planning applications for waste related development brought forward under the Plan will be emerging and adopted Neighbourhood Plans, of which there are a growing number in place or in preparation across the county. As for Local Plans, planning applications for waste related development will need to address the requirements of the relevant Neighbourhood Plan for the locality in which the application site is situated.

3.16 A third area of planning policy relevant to the submission version of the Plan but not addressed in that document, are the National Policy Statements prepared and issued by Government in respect of the Nationally Significant Infrastructure Project (NSIP) regime. Whilst the Plan would be the principal planning policy document of relevance to applications for waste related development seeking permission through the Town & Country Planning Act route, there are a number of categories of waste development (hazardous waste facilities; wastewater facilities; geological disposal infrastructure) for which the NSIP is, or will be, an option.

3.17 A fourth area of planning policy that may be relevant to the determination of planning applications for some waste related development proposals will be the adopted Local Plans, including minerals and waste plans, of adjoining authorities. At the county level that would include East Sussex, Hampshire, Kent, West Sussex and the Greater London Authority, and the Royal Borough of Windsor & Maidenhead and Slough Borough Council to the north west. To the south the emerging Local Plan for the South Downs National Park will also be of relevance.

3.18 A final area of policy relevant to the determination of planning applications for waste related development in Surrey will be the published Management Plans for the Surrey Hills AONB, and for the High Weald AONB.

Part 4 Assessment Summary & Recommendations for Mitigation & Monitoring

4.A Summary of Assessment Findings for Plan components & Alternatives

4.1 This part of the non-technical summary for the ESR provides summary of the findings of the assessment of the Surrey Waste Local Plan. The outcomes of the assessment for the key components of the submitted Plan, and the alternatives that were considered during the plan preparation process, are summarised in the following sections.

4.A.1 Overview of assessment conclusions for the strategy options

4.2 The assessment found there to be little difference between the three strategy options in terms of the potential for significant environmental effects (see Table 4-1). Performance was equivalent for all three options in respect of the water environment, land, soils and material resources, the natural environment, landscape and townscape, and the historic environment. With reference to impacts on different aspects of the atmosphere, option B performed worst, followed by option A with option C performing best, in relative terms. With reference to impacts on human communities, both option A and option B had the potential to deliver beneficial impacts in respect of within county provision of additional waste management facilities.

4.3 Given the limited difference between the options in terms of the potential for harmful impacts on a range of environmental receptors, there are no environmental grounds to suggest that the choice of option A as the preferred approach for the Plan is inappropriate or irrational. Neither of the rejected alternatives could be considered to be a substantially preferable option in environmental terms.

Table 4-1: Summary of assessment findings for the strategic approach options

Assessment Objectives/Impact Pathways	Surrey WLP Strategy Options		
	Option A	Option B	Option C
Assessment for the Atmosphere			
To avoid, limit or mitigate emissions of key pollutants from waste management facilities / waste transport	☒☑	☒	☒☑
To avoid, limit or mitigate emissions of key greenhouse gases from waste management facilities / waste transport	☒	☒	☒
To avoid, limit or mitigate emissions of noise, light or odour	☒	☒	☒☑

☒ Adverse impacts	☑ Beneficial impacts	☒☑ Combination of adverse & beneficial impacts

Table 4-1: Summary of assessment findings for the strategic approach options (continued)

Assessment Objectives/Impact Pathways	Surrey WLP Strategy Options		
	Option A	Option B	Option C
Assessment for the Water Environment			
Avoid water contamination	☒	☒	☒
Minimise demand for water resources	☒	☒	☒
Minimise future flood risk	☒	☒	☒
Assessment for the Land, Soils & Materials			
Avoid use of best & most versatile agricultural land	☒	☒	☒
Maximise use of previously developed land	☒☑	☒☑	☒☑
Minimise natural resource demands	☒	☒	☒
Avoid land & soil contamination	☒	☒	☒
Assessment for the Natural Environment			
Safeguard irreplaceable biodiversity assets & designated sites	☒	☒	☒
Create new or improve existing habitats, & avoid net loss of biodiversity	☒☑	☒☑	☒☑
Prevent harm to geological conservation interests	☒	☒	☒
Assessment for the Landscape & Townscape			
Protect designated & sensitive or intrinsic landscape character	☒	☒	☒
Protect designated & sensitive or intrinsic townscape character	☒	☒	☒
Protect or enhance visual amenity	☒	☒	☒
Assessment for the Historic Environment			
Safeguard archaeological assets / Protect context & setting	☒	☒	☒
Safeguard built heritage assets / Protect context & setting	☒	☒	☒
Safeguard historic landscape asset / Protect context & setting	☒	☒	☒
Assessment for Human Communities			
Minimise road traffic & promote non-road modes	☒	☒	☒
Minimise pollution & nuisance	☒	☒	☒☑
Minimise future flood risks	☒	☒	☒
Provide appropriate waste management facilities	☑	☑	☒
Avoid sterilisation of land by waste development	☒	☒	☒☑

☒ Adverse impacts	☑ Beneficial impacts	☒☑ Combination of adverse & beneficial impacts

4.A.2 Overview of assessment conclusions for the strategic objective

4.4 The assessment consider the way in which the objectives operate in combination, rather than focussing on individual objectives, which meant that account could be taken of the extent to which a commitment to the mitigation or management of adverse impacts on the environment and local communities had been embedded into the Plan through the proposed objectives. The assessment found there to be some notable differences between the two versions of the strategic objectives for the Plan in terms of the potential for significant environmental effects (see Table 4-2). Overall the later version of the objectives, from the Draft and Submission versions of the Plan, reflected greater consideration of the potential for waste related development to give rise to environmental harm, and were considered to have taken better account of the need to protect communities and the environment from avoidable impacts than did the earlier version of the objectives.

Table 4-2: Summary of assessment findings for the strategic objectives

Assessment Objectives/Impact Pathways	Version A	Version B
Assessment for the Atmosphere		
To avoid, limit or mitigate emissions of key pollutants from waste management facilities / waste transport	☒☑	☒☑
To avoid, limit or mitigate emissions of key greenhouse gases from waste management facilities / waste transport	☒/☒☑	☒/☒☑
To avoid, limit or mitigate emissions of noise, light or odour	☒	☒☑
Assessment for the Water Environment		
Avoid water contamination	☒	☒☑
Minimise demand for water resources	☒	☒☑
Minimise future flood risk	☒	☒☑
Assessment for the Land, Soils & Materials		
Avoid use of best & most versatile agricultural land	☒	☒☑
Maximise use of previously developed land	☒	☒☑
Minimise natural resource demands	☑	☑
Avoid land & soil contamination	☒	☒☑
Assessment for the Natural Environment		
Safeguard irreplaceable biodiversity assets & designated sites	☒	☒☑
Create new or improve existing habitats, & avoid net loss of biodiversity	☒	☒☑
Prevent harm to geological conservation interests	☒	☒☑

☒ Adverse impacts	☑ Beneficial impacts	☒☑ Combination of adverse & beneficial impacts

Table 4-2: Summary of assessment findings for the strategic objectives (continued)

Assessment Objectives/Impact Pathways	Version A	Version B
Assessment for the Landscape & Townscape		
Protect designated & sensitive or intrinsic landscape character	☒	☒☑
Protect designated & sensitive or intrinsic townscape character	☒	☒☑
Protect or enhance visual amenity	☒	☒☑
Assessment for the Historic Environment		
Safeguard archaeological assets / Protect context & setting	☒	☒☑
Safeguard built heritage assets / Protect context & setting	☒	☒☑
Safeguard historic landscape asset / Protect context & setting	☒	☒☑
Assessment for Human Communities		
Minimise road traffic & promote non-road modes	☒☑	☒☑
Minimise pollution & nuisance	☒	☒☑
Minimise future flood risks	☒	☒☑
Provide appropriate waste management facilities	☑	☑
Avoid sterilisation of land by waste development	☒	☒

☒ Adverse impacts	☑ Beneficial impacts	☒☑ Combination of adverse & beneficial impacts

4.A.3 Overview of assessment conclusions for the proposed spatial strategy & alternatives

4.5 The assessment found there to be little difference between the five spatial strategy options in terms of the potential for significant environmental effects (see Table 4-3). Performance was equivalent for all five options in respect of the different aspects of the atmosphere, the water environment, the use of previously developed land and natural resources, the contamination of soils or land, the natural environment, townscape and visual amenity, archaeology and built heritage, and impacts on human communities. With reference to impacts on geological conservation interests, option C performed best with the other four options all presenting risks of harmful effects. With reference to impacts on agricultural land, option B performed best with the other four options all presenting risks of harmful effects. With reference to impacts on landscape character, options A2 and C performed best with the other three options all presenting risks of harmful effects. With reference to impacts on historic landscapes and their settings, options A2 and B performed best with the other three options all presenting risks of harmful effects.

4.6 Given the limited difference between the options in terms of the potential for harmful impacts on a range of environmental receptors, there are no environmental grounds to

suggest that the choice of option A2 as the preferred approach for the Plan is inappropriate or irrational. None of the rejected alternatives could be considered to be a substantially preferable option in environmental terms.

Table 4-3: Summary of assessment findings for the spatial strategy options

Assessment Objectives/Impact Pathways	Spatial Strategy Options				
	A1	A2	B	C	D
Assessment for the Atmosphere					
To avoid, limit or mitigate emissions of key pollutants from waste management facilities / waste transport	☒	☒	☒	☒	☒
To avoid, limit or mitigate emissions of key greenhouse gases from waste management facilities / waste transport	☒	☒	☒	☒	☒
To avoid, limit or mitigate emissions of noise, light or odour	☒	☒	☒	☒	☒
Assessment for the Water Environment					
Avoid water contamination	☒	☒	☒	☒	☒
Minimise demand for water resources	☒	☒	☒	☒	☒
Minimise future flood risk	☒	☒	☒	☒	☒
Assessment for the Land, Soils & Materials					
Avoid use of best & most versatile agricultural land	☒	☒	☒☑	☒	☒
Maximise use of previously developed land	☑	☑	☑	☑	☑
Minimise natural resource demands	☑	☑	☑	☑	☑
Avoid land & soil contamination	☒	☒	☒	☒	☒
Assessment for the Natural Environment					
Safeguard irreplaceable biodiversity assets & designated sites	☒	☒	☒	☒	☒
Create new or improve existing habitats, & avoid net loss of biodiversity	☒☑	☒☑	☒☑	☒☑	☒☑
Prevent harm to geological conservation interests	☒	☒	☒	☐ NS	☒
Assessment for the Landscape & Townscape					
Protect designated & sensitive or intrinsic landscape character	☒	☐ NS	☒	☐ NS	☒
Protect designated & sensitive or intrinsic townscape character	☒	☒	☒	☒	☒
Protect or enhance visual amenity	☒	☒	☒	☒	☒
Assessment for the Historic Environment					
Safeguard archaeological assets / Protect context & setting	☒	☒	☒	☒	☒
Safeguard built heritage assets / Protect context & setting	☒	☒	☒	☒	☒
Safeguard historic landscape asset / Protect context & setting	☒	☒☑	☒☑	☒	☒

☒ Adverse impacts	☑ Beneficial impacts	☒☑ Combination of adverse & beneficial impacts

Table 4-3: Summary of assessment findings for the spatial strategy options (continued)

Assessment Objectives/Impact Pathways	Spatial Strategy Options				
	A1	A2	B	C	D
Assessment for Human Communities					
Minimise road traffic & promote non-road modes	☒	☒	☒	☒	☒
Minimise pollution & nuisance	☒	☒	☒	☒	☒
Minimise future flood risks	☒	☒	☒	☒	☒
Provide appropriate waste management facilities	☑	☑	☑	☑	☑
Avoid sterilisation of land by waste development	☒	☒	☒	☒	☒

☒ Adverse impacts	☑ Beneficial impacts	☒☑ Combination of adverse & beneficial impacts

4.A.4 Overview of assessment conclusions for the proposed policies & alternatives (adopted Surrey Waste Plan policies)

4.7 The assessment found there to be little difference between the three suites of policies considered in terms of the potential for significant environmental effects (see Table 2-D). The table (Table 4-4) presents information that covers all of the policies proposed in the Submission version and Draft version of the Surrey WLP, and as many of the policies set out in adopted Surrey Waste Plan as were relevant to the environmental impact pathways under consideration. Each row in the table relates to either the Submission or Draft versions of the Surrey WLP, or the adopted Surrey Waste Plan, with the coloured blocks on each row indicating how many policies within that plan were classed as being likely to give rise to adverse or beneficial impacts, to a combination of adverse and beneficial impacts, or to have no impact on the environmental receptor of interest.

4.8 Performance was broadly equivalent for all three suites of policies in respect of the different aspects of the environment and human communities covered by the assessment. Given the limited difference between the alternatives in terms of the potential for harmful impacts on a range of environmental receptors, there are no environmental grounds to suggest that the suite of policies taken forward in the submission Plan as the preferred approach is inappropriate or irrational. None of the alternatives covered by the assessment could be considered to be a substantially preferable option in environmental terms.

Table 4-4: Summary of assessment findings for the different suites of policies

Impact Pathways	Policy Performance	Plan
Assessment for the Atmosphere		
Pollutant emissions from waste management	☒ ☑ NS	**Sub SWLP**
	☒ ☑ ☒☑ NS	**Drft SWLP**
	☒ ☑ NS	**SWP 2009**

☒ Adverse impacts	☑ Beneficial impacts	☒☑ Combination of adverse & beneficial impacts	NS Neutral & not significant

Table 4-4: Summary of assessment findings for the different suites of policies (continued)

Impact Pathways	Policy Performance	Plan
Assessment for the Atmosphere		
Pollutant emissions from waste transport	☒ ☑ ☒☑ NS	Sub SWLP
	☒ ☑ ☒☑ NS	Drft SWLP
	☒ ☑ NS	SWP 2009
Greenhouse gases emissions from waste management	☒ ☑ ☒☑ NS	Sub SWLP
	☒ ☑ ☒☑ NS	Drft SWLP
	☒ ☑ ☒☑ NS	SWP 2009
Greenhouse gas emissions from waste transport	☒ ☑ ☒☑ NS	Sub SWLP
	☒ ☑ ☒☑ NS	Drft SWLP
	☒ ☑ NS	SWP 2009
Noise, light & odour emissions	☒ ☑ ☒☑ NS	Sub SWLP
	☒ ☑ ☒☑ NS	Drft SWLP
	☒ ☑ NS	SWP 2009
Assessment for the Water Environment		
Avoid water contamination	☒ ☑ ☒☑ NS	Sub SWLP
	☒ ☑ ☒☑ NS	Drft SWLP
	☒ ☑ ☒☑ NS	SWP 2009
Minimise demand for water resources	☒ ☑ ☒☑ NS	Sub SWLP
	☒ ☑ ☒☑ NS	Drft SWLP
	☒ ☑ NS	SWP 2009
Minimise future flood risk	☒ ☑ ☒☑ NS	Sub SWLP
	☒ ☑ ☒☑ NS	Drft SWLP
	☒ ☑ NS	SWP 2009
Assessment for the Land, Soils & Materials		
Avoid use of best & most versatile agricultural land	☒ ☑ ☒☑ NS	Sub SWLP
	☒ ☑ ☒☑ NS	Drft SWLP
	☒ ☑ ☒☑ NS	SWP 2009

☒	Adverse impacts	☑	Beneficial impacts	☒☑	Combination of adverse & beneficial impacts	NS	Neutral & not significant

Table 4-4: Summary of assessment findings for the different suites of policies (continued)

Impact Pathways	Policy Performance	Plan
Assessment for the Land, Soils & Materials		
Avoid use of best & most versatile agricultural land	☒ ☑ ☒☑ NS	Sub SWLP
	☒ ☑ ☒☑ NS	Drft SWLP
	☒ ☑ ☒☑ NS	SWP 2009
Maximise use of previously developed land	☑ ☒☑ NS	Sub SWLP
	☒ ☑ ☒☑ NS	Drft SWLP
	☑ ☒☑ NS	SWP 2009
Minimise natural resource demands	☒ ☑ ☒☑ NS	Sub SWLP
	☒ ☑ ☒☑ NS	Drft SWLP
	☒ ☑ ☒☑ NS	SWP 2009
Avoid land & soil contamination	☒ ☑ NS	Sub SWLP
	☒ ☑ ☒☑ NS	Drft SWLP
	☒ ☑ ☒☑ NS	SWP 2009
Assessment for the Natural Environment		
Safeguard irreplaceable biodiversity assets & designated sites	☒ ☑ ☒☑ NS	Sub SWLP
	☒ ☑ ☒☑ NS	Drft SWLP
	☒ ☑ ☒☑ NS	SWP 2009
Create new or improve existing habitats, & avoid net loss of biodiversity	☑ ☒☑ NS	Sub SWLP
	☑ ☒☑ NS	Drft SWLP
	☑ ☒☑ NS	SWP 2009
Prevent harm to geological conservation interests	☒ ☑ ☒☑ NS	Sub SWLP
	☒ ☑ ☒☑ NS	Drft SWLP
	☒ ☑ NS	SWP 2009
Assessment for the Landscape & Townscape		
Protect designated & sensitive or intrinsic landscape character	☒ ☑ ☒☑ NS	Sub SWLP
	☒ ☑ ☒☑ NS	Drft SWLP
	☒ ☑ ☒☑ NS	SWP 2009

☒	Adverse impacts	☑	Beneficial impacts	☒☑	Combination of adverse & beneficial impacts	NS	Neutral & not significant

Table 4-4: Summary of assessment findings for the different suites of policies (continued)

Impact Pathways	Policy Performance	Plan
Assessment for the Landscape & Townscape		
Protect designated & sensitive or intrinsic townscape character	☒ ☑ NS	Sub SWLP
	☒ ☑ ☒☑ NS	Drft SWLP
	☒ ☑ NS	SWP 2009
Protect or enhance visual amenity	☒ ☑ ☒☑ NS	Sub SWLP
	☒ ☑ ☒☑ NS	Drft SWLP
	☒ ☑ ☒☑ NS	SWP 2009
Assessment for the Historic Environment		
Safeguard archaeological assets / Protect context & setting	☒ ☑ ☒☑ NS	Sub SWLP
	☒ ☑ ☒☑ NS	Drft SWLP
	☒ ☑ ☒☑ NS	SWP 2009
Safeguard built heritage assets / Protect context & setting	☒ ☑ ☒☑ NS	Sub SWLP
	☒ ☑ ☒☑ NS	Drft SWLP
	☒ ☑ ☒☑ NS	SWP 2009
Safeguard historic landscape asset / Protect context & setting	☒ ☑ ☒☑ NS	Sub SWLP
	☒ ☑ ☒☑ NS	Drft SWLP
	☒ ☑ ☒☑ NS	SWP 2009
Assessment for Human Communities		
Minimise road traffic & promote non-road modes	☒ ☑ ☒ ☑ NS	Sub SWLP
	☒ ☑ ☒ ☑ NS	Drft SWLP
	☒ ☑ NS	SWP 2009
Minimise pollution & nuisance	☒ ☑ ☒ ☑ NS	Sub SWLP
	☒ ☑ ☒☑ NS	Drft SWLP
	☒ ☑ NS	SWP 2009
Minimise future flood risk	☒ ☑ NS	Sub SWLP
	☒ ☑ ☒ ☑ NS	Drft SWLP
	☒ ☑ NS	SWP 2009

☒	Adverse impacts	☑	Beneficial impacts	☒☑	Combination of adverse & beneficial impacts	NS	Neutral & not significant

Table 4-4: Summary of assessment findings for the different suites of policies (continued)

Impact Pathways	Policy Performance	Plan
Assessment for Human Communities		
Provide appropriate waste management facilities	☑	**Sub SWLP**
	☑	**Drft SWLP**
	☑	**SWP 2009**
Avoid sterilisation of land by waste development	☒	**Sub SWLP**
	☒	**Drft SWLP**
	☒	**SWP 2009**

☒	Adverse impacts	☑	Beneficial impacts	☒☑	Combination of adverse & beneficial impacts	NS	Neutral & not significant

4.A.5 Review of assessment conclusions for the Surrey WLP policies in light of the modifications proposed following the Examination in Public

4.9 In total eleven main modifications are proposed in respect of the text of a number of the policies of the Surrey WLP (see below), each of which has been reviewed to ascertain whether further assessment work needed to be undertaken in light of the proposed changes (see Appendix F to the ESR). On review, and taking account of the reasons stated for the proposed change, it is concluded that no further assessment needs to be undertaken in respect of any of the amended policy wording. The intent and impact of each of the amended policies would be largely unaltered from that assessed prior to submission of the Plan. No further assessment is required, and the conclusions and recommendations of the earlier assessment made in respect of all of the amended Policies, as captured in Appendix B to the ESR, remain valid.

- **Policy 2** – Recycling & recovery (other than inert construction, demolition & excavation and soil recycling facilities) – a number of clarifying changes to the text are proposed as Main Modification 1 (MM1). See Part F2 of Appendix F to the ESR for further details.
- **Policy 3** – Recycling of inert construction, demolition and excavation waste – a number of clarifying changes to the text are proposed as Main Modification 1d (MM1d). See Part F3 of this Appendix to the ESR for further details.
- **Policy 4** – Sustainable construction and waste management in new development – a number clarifying changes to the text are proposed as Main Modification 2 (MM2). See Part F4 of this Appendix to the ESR for further details.
- **Policy 6** – Disposal of non-inert waste to land – a single clarifying change to the text is proposed as Main Modification 4 (MM4). See Part F5 of this Appendix to the ESR for further details.
- **Policy 7** – Safeguarding – a number of clarifying changes to the text are proposed as Main Modification 6 (MM6). See Part F6 of this Appendix to the ESR for further details.

- **Policy 8** – Improvement or extension of existing facilities – a number of clarifying changes to the text are proposed as Main Modification 7 (MM7). See Part F7 of this Appendix to the ESR for further details.
- **Policy 9** – Green Belt – a number of clarifying changes to the text are proposed as Main Modification 8 (MM8). See Part F8 of this Appendix to the ESR for further details.
- **Policy 10** – Areas suitable for development of waste management facilities – a number of clarifying changes to the text are proposed as Main Modification 9 (MM9). See Part F9 of this Appendix to the ESR for further details.
- **Policy 12** – Wastewater Treatment Works – a number of clarifying changes to the text are proposed as Main Modification 10 (MM10). See Part F10 of this Appendix to the ESR for further details.
- **Policy 14** – Development Management – a number of clarifying changes to the title and text are proposed as Main Modification 17 (MM17). See Part F11 of this Appendix to the ESR for further details.
- **Policy 15** – Transport and Connectivity – a number of clarifying changes to the text are proposed as Main Modification 18 (MM18). See Part F12 of this Appendix to the ESR for further details.

4.A.6 Overview of assessment conclusions for the proposed site allocations & alternatives

4.10 The assessment found there to be little difference between the 6 allocated sites identified in the submission version of the Plan and the 48 alternatives in terms of the potential for significant environmental effects (see Table 4-5). The table (Table 4-5) presents information that covers all 54 of the sites considered for allocation in the Submission version and Draft version of the Surrey WLP against each of the environmental impact pathways under consideration. Each row in the table relates to all of the sites identified for allocation in the Submission version of the Plan (the 6 'allocated sites'), and all the 'alternative sites' rejected from further consideration at the draft or Submission stages. The coloured blocks on each row indicate how many of the 54 sites were classed as being likely to give rise to adverse impacts (ranging in significance from 'high' though to 'low' or 'not significant'), to beneficial impacts (ranging in significance from 'high' though to 'low'), or to have no impact on the environmental receptor of interest.

4.10.1 Atmosphere: Performance was broadly equivalent across the allocated and alternative sites with reference to the question of impacts on air quality and the climate, and in terms of the potential for noise, light and odour emissions.

4.10.2 Water Environment: For the water environment there was little difference between the allocated sites and the alternatives with respect to impacts on water quality, and for water resource implications the six allocated sites performed better than eleven of the identified alternatives. In terms of flood risk, the proposed allocated sites performed better than eight of the alternatives, and were equivalent to the remaining forty alternatives.

4.10.3 Land, Soils & Materials: In terms of land use two of the allocated sites and eleven of the alternatives were found to have potential implications for agricultural land, with the remainder of the allocated sites and alternatives having no impact on such resources. Only two of the allocated sites were identified as having the potential to make a contribution in terms of the re-use of previously developed land, compared with thirty-seven of the alternatives. In terms of enabling the minimisation of demands for natural resources all six of the allocated sites and forty-six of the alternatives were considered to have similar levels of potential. Performance was broadly similar across the allocated sites and the alternatives with reference to risks of soil or land contamination.

4.10.4 Natural Environment: In terms of risks to designated sites and irreplaceable biodiversity assets, the six allocated sites and thirty eight of the alternative sites were found to present equivalent risks of significant impacts. For the loss of existing habitat the risks were similar for the allocated sites and the alternatives. None of the allocated sites or the alternatives were considered to present a risk of significant impacts to geological conservation interests.

4.10.5 Landscape & Townscape: In terms of risks to designated sites and sensitive landscapes, the risks of significant impacts were broadly equivalent with reference to their distribution across the allocated sites and the alternatives, with a similar situation noted with reference to sensitive townscapes. In terms of risks to visual amenity the six allocated sites and forty-five of the alternative sites were found to present equivalent risks of significant impacts.

4.10.6 Historic Environment: The risks of significant impacts to designated and other archaeological assets, and their contexts and settings were broadly equivalent in terms of their distribution across the allocated sites and the alternatives. Similar conclusions were reached with reference to the potential for impacts on built heritage assets, and historic landscape assets and interests.

4.10.7 Human Communities: Performance was broadly equivalent across the allocated and alternative sites with reference to the potential for significant traffic impacts and the potential for noise, light and odour emissions. In terms of flood risk, the proposed allocated sites performed better than eight of the alternatives, and were equivalent to the remaining forty alternatives. All six allocated sites and forty-six of the alternatives were assessed as being equivalent in terms of the potential for the provision of additional waste management capacity. There were limited differences in the implications of waste related development of the proposed allocated sites and the alternatives with reference to the sterilisation of land for other forms of development.

4.11 Given the limited difference between the allocated sites and the alternatives considered in terms of the potential for harmful impacts on a range of environmental receptors, there are no environmental grounds to suggest that the suite of sites taken forward in the submission Plan as the preferred option for land allocation is inappropriate or irrational. No alternative combination of the sites assessed could be considered to be a substantially preferable option to the sites proposed in environmental terms.

Table 4-6: Summary of assessment findings for the allocated sites & the alternative candidate sites

Impact Pathways	Allocated Site & Alternative Candidate Site Performance			
Assessment for the Atmosphere				
Air quality impacts (facilities)	**6 allocated sites** & 46 alternative sites ☒H & ☒H/M			2 alt sites ☒M
GHG emissions (facilities)	**6 allocated sites** & 19 alternative sites ☒L	29 alternative sites ☒NS		
Noise, Light & Odour (facilities)	**5 allocated sites** & 45 alternative sites ☒H & ☒H/M			**1 allocated site** & 3 alternative sites ☒M & ☒M/L
Air Quality Impacts (transport)	**6 allocated sites** & 45 alternative sites ☒H & ☒H/M			3 alt sites ☒M & ☒M/L
GHG emissions (transport)	**6 allocated sites** & 48 alternative sites ☒NS			
Assessment for the Water Environment				
Avoid water contamination	**1 allocated site** & 22 alternative sites ☒H	**5 allocated sites** & 26 alternative sites ☒M		
Minimise demand for water resources	11 alternative sites- ☒H	**3 allocated sites** & 20 alternative sites ☒M	**3 allocated sites** & 17 alternative sites ☒L	
Minimise future flood risk	2 alt. sites ☒H	6 alternative sites ☒M	**6 allocated sites** & 40 alternative sites ☒L	

☒H & ☒H/M	☒M & ☒M/L	☒L	☒NS	☑H	☑M	☑L	☐NS
High / High – Medium significance adverse impact	Medium / Medium – Low significance adverse impact	Low significance adverse impact	Adverse & not significant	High significance beneficial	Medium significance beneficial	Low significance beneficial	Neutral & not significant

Table 4-6: Summary of assessment findings for the allocated sites & the alternative candidate sites *(continued)*

Impact Pathways	Allocated Site & Alternative Candidate Site Performance					
Assessment for the Land, Soils & Materials						
Best & most versatile agricultural land	**1 allocated site** & 4 alternative sites ☒H	**1 allocated site** & 6 alternative sites ☒M	1 alt site ☒L	**4 allocated sites** & 37 alternative sites ☐NS		
Maximise use of previously developed land	4 alternative sites ☑H	**2 allocated sites** & 33 alternative sites ☑M		**4 allocated sites** & 11 alternative sites ☐NS		
Minimise natural resource demands	**6 allocated sites** & 46 alternative sites ☑M					2 alt. sites ☑L
Avoid land & soil contamination	**1 allocated site** & 21 alternative sites ☒H		**4 allocated sites** & 10 alternative sites ☒M		**1 allocated site** & 17 alternative sites ☒L	
Assessment for the Natural Environment						
Biodiversity assets & designated sites	**6 allocated sites** & 38 alternative sites ☒H					10 alternative sites ☒M
Habitat gain / loss avoidance	**3 allocated sites** & 12 alternative sites ☒H	**1 allocated site** & 4 alternative sites ☒M		**2 allocated sites** & 32 alternative sites ☒L		
Geological conservation interests	**6 allocated sites** & 48 alternative sites ☐NS					

☒H & ☒H/M	☒M & ☒M/L	☒L	☒NS	☑H	☑M	☑L	☐NS
High / High – Medium significance adverse impact	Medium / Medium – Low significance adverse impact	Low significance adverse impact	Adverse & not significant	High significance beneficial	Medium significance beneficial	Low significance beneficial	Neutral & not significant

Table 4-6: Summary of assessment findings for the allocated sites & the alternative candidate sites *(continued)*

Impact Pathways	Allocated Site & Alternative Candidate Site Performance		
Assessment for the Landscape & Townscape			
Landscape character	**3 allocated sites** & 24 alternative sites ☒H	11 alternative sites ☒M	**3 allocated sites** & 13 alternative sites ☒L
Townscape character	**3 allocated sites** & 19 alternative sites ☒H	**3 allocated sites** & 28 alternative sites ☒M	1 alt site ☒L
Visual amenity	**6 allocated sites** & 45 alternative sites ☒H	3 alternative sites ☒M	
Assessment for the Historic Environment			
Archaeological assets	4 alternative sites ☒H	**5 allocated sites** & 13 alternative sites ☒M	**1 allocated site** & 31 alternatives sites ☒L
Archaeological asset context & setting	**6 allocated sites** & 29 alternative sites ☒H	11 alternative sites ☒M	8 alternative sites ☒L
Built heritage assets	**2 allocated sites** & 13 alternative sites ☒H	**3 allocated sites** & 33 alternative sites ☒M	**1 allocated site** & 2 alt. sites ☒L
Built heritage asset context & setting	**5 allocated sites** & 30 alternative sites ☒H	**1 allocated site** & 17 alternative sites ☒ M	**1 all. site** ☒L

☒H & ☒H/M	☒M & ☒M/L	☒L	☒NS	☑H	☑M	☑L	☐NS
High / High – Medium significance adverse impact	Medium / Medium – Low significance adverse impact	Low significance adverse impact	Adverse & not significant	High significance beneficial	Medium significance beneficial	Low significance beneficial	Neutral & not significant

Table 4-6: Summary of assessment findings for the allocated sites & the alternative candidate sites *(continued)*

Impact Pathways	Allocated Site & Alternative Candidate Site Performance			
Assessment for the Historic Environment				
Historic landscape asset	7 alternative sites ☒H	**1 allocated site** & 9 alternative sites ☒M	**5 allocated sites** & 32 alternative sites ☒L	
Historic landscape asset context & setting	**2 allocated sites** & 11 alternative sites ☒H	**2 allocated sites** & 34 alternative sites ☒M	**2 allocated sites** & 3 alternative sites ☒L	
Assessment for Human Communities				
Road transport & alternatives	**6 allocated sites** & 43 alternative sites ☒M & ☒M/L	5 alternative sites ☒L		
Pollution & nuisance	**5 allocated sites** & 45 alternative sites ☒H & ☒H/M	**1 allocated site** & 3 alternative sites ☒M & ☒M/L		
Flood risk	2 alt. sites ☒H	6 alternative sites ☒M	**6 allocated sites** & 40 alternative sites ☒L	
Waste management facility provision	**6 allocated sites** & 46 alternative sites ☑M	2 alt. sites ☑L		
Sterilisation of land by waste development	**6 allocated sites** & 19 alternative sites ☒H & ☒H/M	29 alternative sites ☒M & ☒M/L		

☒H & ☒H/M	☒M & ☒M/L	☒L	☒NS	☑H	☑M	☑L	☐NS
High / High – Medium significance adverse impact	Medium / Medium – Low significance adverse impact	Low significance adverse impact	Adverse & not significant	High significance beneficial	Medium significance beneficial	Low significance beneficial	Neutral & not significant

4.A.7 Summary of main findings of the Habitat Regulations Assessment & other supporting technical assessments

4.12 In addition to the SEA and SA, a Habitat Regulations Assessment (HRA) was undertaken (July 2018, January 2019 and final version dated January 2020) to examine the likely significant effects of the development of waste management facilities on land situated within Surrey on those SPAs, SACs and Ramsar Sites that are located within Surrey or within 10 kilometres of the county boundary. That assessment considered all six of the sites proposed for allocation under Policy 11 (a & b), the three sites proposed for allocation at the Draft Plan stage, and the twenty-two ILAS covered by Policy 10. Facilities that would make use of thermal treatment processes to manage waste (i.e. incineration, gasification, pyrolysis) were identified as being of particular concern, due the capacity of such facilities to contribute to nutrient nitrogen deposition on sensitive habitats over relatively long distances. The HRA drew on modelling work undertaken as part of the detailed air quality assessment to make recommendations as to the suitability of the proposed allocated sites and ILAS for development as thermal treatment based waste management facilities, which have been incorporated into the Plan through the key development issues identified for the allocated sites and the key environmental sensitivities identified for the ILAS. Further details of the findings of the HRA (incorporating further information set out in the Appendix to the Statement of Common Ground between the County Council and Natural England) are summarised in Appendix E to the ESR, and are set out in full in the final version of the HRA report for the Plan (dated January 2020).

4.13 In addition to the SEA and SA, a detailed study (*Surrey Waste Local Plan: Air Quality Impact Assessment*, AECOM, July 2018) was commissioned to examine the likely air quality impacts on human and environmental receptors of the development of thermal treatment facilities on the nine sites proposed for allocation at the Draft Plan stage. That assessment considered four different types and scales of thermal treatment facilities, and predicted the likely deposition of a range of pollutants of concern at sensitive receptors situated around each site. For the nine sites considered for allocation at the Draft Plan stage the detailed air quality assessment recommended that for human health receptors the development of any scale or type of thermal treatment facility could be acceptable, subject to detailed assessment at the planning application stage. Further details of the findings of the detailed air quality assessment are summarised in Appendix E to the ESR.

4.14 In addition to the SEA and SA, a detailed study (*Level 2 Strategic Flood Risk Assessment*, Peter Brett Associates, May 2018) was commissioned to examine the flood risk implications of the development of waste management facilities on the nine sites proposed for allocation at the Draft Plan stage. For three of the nine sites (at Slyfield, at Leatherhead and at Earlswood) it was noted that they coincided in part with areas of land subject to Zone 2 and Zone 3 fluvial flood risk, but it was considered feasible to utilise those sites so that any waste development would remain safe throughout its lifetime, subject to site specific flood risk assessment and a site specific flood evacuation plan. For the remaining six sites it was noted that those were subject to low probability of fluvial flooding and low or manageable risks of surface water or groundwater flooding, and was therefore recommended that

those sites could be developed safely and in accordance with the requirements of the NPPF in respect of flood risk management. Further details of the findings of the strategic flood risk assessment are summarised in Appendix E to the ESR.

4.15 In addition to the SEA and SA, a detailed study (*Surrey Landscape & Visual Sensitivity Study of Potential Waste Sites*, Land Use Consultants, May 2018) was commissioned to examine the likely landscape and visual impacts of the development of waste management facilities on the nine sites proposed for allocation at the Draft Plan stage. The detailed landscape and visual impact assessment recommended that the sites had varying abilities to accommodate a range of waste facilities, ranging from 'medium' to 'low' ability for mass burn incinerators, through to 'high' ability for composting operations. The Lambs Business Park site was identified as least able to accommodate a large scale thermal treatment facility. Further details of the findings of the detailed air quality assessment are summarised in Appendix E to the ESR.

4.16 In addition to the SEA and SA, a detailed study (*Waste Local Plan – Transport Study: Site Assessments*, July 2018) was commissioned to examine the likely traffic impacts of the development of waste management facilities on the nine sites proposed for allocation at the Draft Plan stage. For the nine sites considered for allocation at the Draft Plan stage the detailed transport assessment recommended that all the proposed sites could accommodate some scale of waste management facility, subject to detailed assessment at the planning application stage. Only one of the proposed sites (the land west of Leatherhead Sewage Treatment Works in Leatherhead) was considered to be capable of accommodating a large scale (>120,000 tpa) facility on transport grounds. Further details of the findings of the detailed air quality assessment are summarised in Appendix E to the ESR.

4.A.8 Overview of assessment conclusions for the alternative areas of search

4.17 The assessment found there to be little difference between the 22 ILAS identified under Policy 10 of the submission version of the Plan in terms of the potential for significant environmental effects (see Table 4-7). The table (Table 4-7) presents information that covers all 22 of the ILAS identified under Policy 10 of the Submission version of the Surrey WLP against each of the environmental impact pathways under consideration. Each row in the table relates to all 22 of the ILAS identified in the Submission version of the Plan. The coloured blocks on each row indicate how many of the 22 ILAS were classed as being likely to give rise to adverse impacts (ranging in significance from 'high' though to 'low' or 'not significant'), to beneficial impacts (ranging in significance from 'high' though to 'low'), or to have no impact on the environmental receptor of interest.

4.18 Performance was broadly equivalent across the ILAS in respect of the different aspects of the environment and human communities covered by the assessment. Given the limited difference between the proposed ILAS in terms of the potential for harmful impacts on a range of environmental receptors, and taking account of the fact that not all of them would be expected to come forward with proposals for waste development over the lifetime of the Plan, there are no environmental grounds to suggest that the suites of ILAS identified in the submission Plan as the preferred option for such provision is inappropriate or irrational.

Table 4-7: Summary of assessment findings for the identified Industrial Land Areas of Search

Impact Pathways / Objectives	Industrial Land Area of Search Performance			
Assessment for the Atmosphere				
Air quality impacts (facilities)	22 ILAS ☒H & ☒H/M			
GHG emissions (facilities)	22 ILAS ☒L			
Noise, light & odour	22ILAS ☒H & ☒H/M			
Air quality impacts (transport)	22 ILAS ☒H & ☒H/M			
GHG emission (transport)	22 ILAS ☒NS			
Assessment for the Water Environment				
Avoid water contamination	11 ILAS ☒H	11 ILAS ☒M		
Minimise demand for water resources	6 ILAS ☒H	7 ILAS ☒M	9ILAS ☒L	
Minimise future flood risk	9 ILAS ☒H	4 ILAS ☒M	9 ILAS ☒L	
Assessment for the Land, Soils & Materials				
Best & most versatile agricultural land	1 ILAS ☒H	1 ILAS ☒NS	20 ILAS ☐NS	

☒H & ☒H/M	☒M & ☒M/L	☒L	☒NS	☑H	☑M	☑L	☐NS
High / High – Medium significance adverse impact	Medium / Medium – Low significance adverse impact	Low significance adverse impact	Adverse & not significant	High significance beneficial	Medium significance beneficial	Low significance beneficial	Neutral & not significant

Table 4-7: Summary of assessment findings for the identified Industrial Land Areas of Search *(continued)*

Impact Pathways / Objectives	Industrial Land Area of Search Performance		
Assessment for the Land, Soils & Materials			
Maximise use of previously developed land	20 ILAS ☑M	2 ILAS ☐NS	
Minimise natural resource demands	22 ILAS- ☑M		
Avoid land & soil contamination	7 ILAS ☒H	14 ILAS ☒M	1 ILAS ☒L
Assessment for the Natural Environment			
Biodiversity assets & designated sites	19 ILAS ☒H	3 ILAS ☒M	
Habitat gain / loss avoidance	5 ILAS ☒H	17 ILAS ☐NS	
Geological conservation interests	22 ILAS ☐NS		
Assessment for the Landscape & Townscape			
Landscape character	10 ILAS ☒H	4 ILAS ☒M	8 ILAS ☒L
Townscape character	14 ILAS ☒H	8 ILAS ☒M	
Visual amenity	22 ILAS ☒H		

☒H & ☒H/M	☒M & ☒M/L	☒L	☒NS	☑H	☑M	☑L	☐NS
High / High – Medium significance adverse impact	Medium / Medium – Low significance adverse impact	Low significance adverse impact	Adverse & not significant	High significance beneficial	Medium significance beneficial	Low significance beneficial	Neutral & not significant

Table 4-7: Summary of assessment findings for the identified Industrial Land Areas of Search *(continued)*

Impact Pathways / Objectives	Industrial Land Area of Search Performance							
Assessment for the Historic Environment								
Archaeological assets	3 ILAS ☒H	11 ILAS ☒M	8 ILAS ☒L					
Archaeological asset context & setting	18 ILAS ☒H						4 ILAS ☒M	
Built heritage assets	18 ILAS ☒H						1 ILAS ☒M	3 ILAS ☒L
Built heritage asset context & setting	19 ILAS ☒H						2 ILAS ☒M	1 ILAS ☒L
Historic landscape asset	2 ILAS ☒H	6 ILAS ☒M	14 ILAS ☒L					
Historic landscape asset context & setting	8 ILAS ☒H		14 ILAS ☒M					
Assessment for Human Communities								
Road transport & alternatives	21 ILAS ☒M							1 ILAS ☒L
Pollution & nuisance	22 ILAS ☒H & ☒H/M							
Flood risk	9 ILAS ☒H		4 ILAS ☒M		9 ILAS ☒L			
Waste management facility provision	22 ILAS ☑M							
Sterilisation of land by waste development	17 ILAS ☒H						5 ILAS ☒M	

☒H & ☒H/M	☒M & ☒M/L	☒L	☒NS	☑H	☑M	☑L	☐NS
High / High – Medium significance adverse impact	Medium / Medium – Low significance adverse impact	Low significance adverse impact	Adverse & not significant	High significance beneficial	Medium significance beneficial	Low significance beneficial	Neutral & not significant

4.B Overall conclusions for the Plan, & recommendations for mitigation & monitoring

4.19 Overall conclusions from the assessment of the Plan are set out in the following table (Table 4-8) for each of the topics covered by the assessment objectives. An outline is also provided of the types of mitigation measures that could be deployed to manage the impacts of waste development. Options for monitoring and reporting on the environmental and wider sustainability impacts of the Plan are also outlined.

Table 4-8: Assessment Summary, Mitigation Measures & Monitoring Options

Topic	Discussion	Mitigation	Monitoring
Impacts on the Atmosphere			
Air Quality	Without mitigation the Plan could give rise to adverse impacts on air quality from the construction and operation of waste management facilities, and the transportation of waste materials by road. One site proposed for allocation (Oakleaf Farm, Stanwell Moor) under Policy 11a is located within a designated AQMA, close to other emission sources (i.e. M25 motorway and Heathrow Airport), and several of the ILAS identified under Policy 10 are located within or close to areas of poor air quality.	Mechanisms to address impacts on air quality have been embedded into the Plan through policies 13 (sustainable design), 14 (protection of communities and the environment) (as modified), and 15 (transport and connectivity) (as modified). Mitigation measures (e.g. filtrations systems, scrubber units, etc.) for a particular development are best identified at the planning application stage, but the Plan policy framework provides the CPA with the means to require that such measures be identified and integrated into proposals.	Performance could be monitored and reported on in terms of the following indicators: • No. applications granted within designated AQMAs. • No. applications refused on air quality impact grounds. • No. applications granted with conditions to control emissions to air.
Climate Change	Waste management processes including thermal treatment and waste transportation will result in the consumption of energy and give rise to carbon emissions. The scale of emissions from any given facility will be depend on its size, the technologies / processes used, the wastes handled, and the modes of transport used. The recovery of energy from waste presents opportunities to reduce reliance on fossil fuels and contribute to the transition to a lower carbon economy. Overall however, the Plan is likely to result in waste development that makes a net contribution to carbon emissions at the county level.	Mechanisms to address impacts on climate change have been embedded into the Plan through policies 13 (sustainable design) and 15 (transport and connectivity) (as modified). Mitigation measures (e.g. energy savings equipment, electric vehicle charging points, etc.) for a particular development are best identified at the planning application stage, but the Plan policy framework provides the CPA with the means to require that such measures be identified and integrated into proposals.	Performance could be monitored and reported on in terms of the following indicators: • No. applications refused on climate change grounds. • No. applications granted for facilities with energy saving / efficiency measures. • No. applications granted with conditions attached to control traffic generation.

Topic	Discussion	Mitigation	Monitoring
Impacts on the Atmosphere			
Noise, Light & Odour	The construction and operation of waste management facilities, and the servicing of those facilities by heavy and light goods vehicles, will give rise to nuisance (i.e. noise, light pollution, odour). Most of sites proposed for allocation under Policy 11 (a & b) of the Plan are located relatively close to residential properties or other sensitive receptors, the amenity of which could be affected by waste development.	Mechanisms to address impacts on nuisance have been embedded into the Plan through policies 14 (protection of communities and the environment) (as modified), and 15 (transport and connectivity) (as modified). Mitigation measures (e.g. acoustic fencing, PIR controlled lighting, odour control units, etc.) for a particular development are best identified at the planning application stage, but the Plan policy framework provides the CPA with the means to require that such measures be identified and integrated into proposals.	Performance could be monitored and reported on in terms of the following indicators: • No. applications granted with conditiojns attached to control emissions of noise. • No. applications granted with conditions attached to control the use of on-site lighting. • No. applications granted with conditions attached to control odour. • No. applications refused on nuisance grounds.
Impacts on the Water Environment			
Water Quality	Without mitigation the Plan could give rise to impacts on water quality, due to waste management facility construction and operation. One of the sites proposed for allocation (land north east of Slyfield Industrial Estate, Guildford) under Policy 11 coincides with a groundwater Source Protection Zone (SPZ3 – Total Catchment), and several of the ILAS identified under Policy 10 are located within or in close proximity to areas subject to poor water quality.	Mechanisms to address impacts on water quality have been embedded into the Plan through policy 14 (protection of communities and the environment) (as modified). Mitigation measures (e.g. impermeable membranes, bunding and containment, water treatment infrastructure, etc.) for a particular development are best identifiedat the planning application stage, but the Plan policy framework provides the CPA with the means to require that such measures be identified and integrated into proposals.	Performance could be monitored and reported on in terms of the following indicators: • No. applications granted for land that coincides with designated SPZs. • No. applications refused on water quality impact grounds. • No. applications granted with conditions to control releases to the water environment.
Water Resources	The waste management facilities, processes and technologies will require water to function. The scale of demand from any given facility will depend on its size, the type of technologies / processes employed, and the types of waste handled. There may be scope, depending on facility design and operational requirements, to make use of rainwater harvesting or greywater recovery techniques to meet some demand. Overall however, the Plan is likely to result in additional demand for water resources.	Mechanisms to address impacts on water resources are embedded into the Plan through policies 13 (sustainable design) and 14 (protection of communities and the environment) (as modified). Mitigation measures (e.g. rainwater harvesting infrastructure, greywater recovery infrastructure, water efficiency equipment, etc.) for a particular development are best identified at the planning application stage, but the Plan policy framework provides the CPA with the means to require that such measures be identified and integrated into proposals.	Performance could be monitored and reported on in terms of the following indicators: • No. applications refused on water availability grounds. • No. applications granted where facility includes water management and/or efficiency measures. • No. applications granted with conditions to control water consumption.

Topic	Discussion	Mitigation	Monitoring
Impacts on the Water Environment			
Flood Risk	The construction and operation of waste management facilities could, depending on location, have impacts on existing levels of flood risk from fluvial and surface water sources. All six sites proposed for allocation under Policy 11 (a & b) of the Plan are located in areas at low risk of flooding from fluvial and non-fluvial sources. Nine of the ILAS identified under Policy 10 are subject to high (>1.0% AEP) flood risk, but as established industrial estates are already subject to built development.	Mechanisms to address impacts on flood risk are embedded into the Plan, through policies 13 (sustainable design), and 14 (protection of communities and the environment) (as modified). Mitigation measures (e.g. attenuation ponds, swales, infiltration cells, etc.) for a particular development are best identified at the planning application stage, but the Plan policy framework provides the CPA with the means to require that such measures be identified and integrated into proposals.	Performance could be monitored and reported on in terms of the following indicators: • No. applications granted with conditions to control surface water or fluvial flood risk. • No. applications refused on flood risk grounds.
Impacts on Land, Soils & Materials			
Agricultural Land	Without mitigation the Plan could give rise to impacts on agricultural land, due to the construction and operation of waste management facilities. One site proposed for allocation (Trumps Farm, Longcross) under Policy 11(b) is undeveloped land of potentially high agricultural quality, as is one of the ILAS (Land around Burntcommon Warehouse, Send) identified under Policy 10.	Mechanisms to address impacts on high quality agricultural land are embedded into the Plan through policy 14 (protection of communities and the environment) (as modified). The only mitigation approach that would be viable would be the avoidance of the best and most versatile agricultural land.	Performance could be monitored and reported on in terms of the following indicators: • No. applications granted where best and most versatile agricultural land would be affected. • No. applications refused due to impact on the best and most versatile agricultural land.
Previously Developed Land	The Plan could give rise to a combination of beneficial and adverse impacts on previously developed land, due to the construction and operation of waste management facilities. Two sites proposed for allocation (Weylands, Walton-on-Thames and Oakleaf Farm, Stanwell Moor) under Policy 11(a) comprise previously developed land, and most of the ILAS identified under Policy 10 are developed or previously developed land. Three sites proposed for allocation (Slyfield Industrial Estate, Guildford; Randalls Road, Leatherhead; Lambs Business Park, South Godstone) have been subject to previous land use in terms of the extraction of minerals or the deposit of waste.	Mechanisms to promote the use of previously developed land are embedded into the Plan through the spatial strategy and policies 10 and 11 (a & b). No mitigation measures are proposed, as the impact of the Plan would be broadly beneficial with reference to promoting and enabling the re-use of previously developed land.	Performance could be monitored and reported on in terms of the following indicators: • No. applications granted for sites comprised of previously developed land.

Topic	Discussion	Mitigation	Monitoring
Impacts on Land, Soils & Materials			
Use of Resources	The management of waste will enable the recovery of energy and materials and present opportunities to reduce demand for primary natural resources. The Plan makes provision for the recovery and recycling of materials from a range of waste streams, including household waste, and the recovery of energy from those components of the waste stream that require disposal.	No mitigation measures are proposed, as the impacts of the Plan on the recovery and recycling of material resources are expected to be beneficial in nature.	Performance could be monitored and reported on in terms of the following indicators: • No. type and capacity of new waste recovery or recycling facilities delivered.
Contamination of Land & Soils	The construction and operation of waste management facilities, and their servicing by heavy and light goods vehicles could give rise to risks of land contamination and soil damage. The majority of sites proposed for allocation under Policy 11 (a & b) of the Plan are located on land that could be susceptible to adverse impacts as a consequence of contamination and/or compaction arising from the construction and operation of waste development.	Mechanisms to address contamination and other impacts on land and soil are embedded into the Plan through policy 14 (protection of communities and the environment) (as modified). Mitigation measures (e.g. investigation and remediation, installation of impermeable membranes, soil management protocols, etc.) for a particular development are best identified at the planning application stage, but the Plan policy framework provides the CPA the means to require that such measures be identified and integrated into proposals.	Performance could be monitored and reported on in terms of the following indicators: • No. applications granted with conditions to control land contamination risks. • No. applications granted with conditions to control soil management and handling. • No. applications refused on land contamination or soil management grounds.
Impacts on the Natural Environment			
Safeguard irreplaceable assets & sites	Without mitigation the Plan could give rise to adverse impacts on irreplaceable ecological assets and sites, due to construction and operation of waste management facilities, and waste transportation by road. All the sites proposed for allocation under Policy 11 (a & b) are located within 2.5 kilometres of ecological sites of at least national importance, as are 19 of the ILAS identified under Policy 10. None of the allocated sites or ILAS coincide with designated ecological sites of at least national importance, but there are risks of indirect effects on ecological assets associated with the types of waste management facilities that could be developed, and with the traffic that would be generated by those facilities.	Mechanisms to address potential impacts on designated sites of national or higher level ecological interest are embedded into the Plan through policy 14 (protection of communities and the environment) (as modified). Mitigation measures (e.g. restrictions on technology type, installation of filtration systems, scrubber units, HGV movement limits, vehicle routing agreements, etc.) for a particular development are best identified at the planning application stage, but the Plan policy framework provides the CPA with the means to require that such measures be identified and integrated into proposals.	Performance could be monitored and reported on in terms of the following indicators: • No. applications granted within 2.5 km of SSSIs, NNRs, SPAs, SACs or Ramsar Sites. • No. applications refused on ecological impact grounds with reference to designated sites. • No. applications granted with conditions to control impacts on sensitive ecological receptors.

Topic	Discussion	Mitigation	Monitoring
Impacts on the Natural Environment			
Habitat creation & improvement	The Plan is unlikely to give rise to major opportunities for the improvement of existing habitats, or the creation of new habitat. None of the sites proposed for allocation under Policy 11 (a & b) are of sufficient size or type to present opportunities for substantial habitat creation, and three of the allocations (Slyfield Industrial Estate, Guildford; Randalls Road, Leatherhead; Trumps Farm, Longcross) are currently areas of undeveloped land that could experience net biodiversity loss as a consequence of development. In the case of the Trumps Farm, the presence of Ancient Woodland within the site boundary would limit the developable area. Five of the ILAS identified under Policy 10 encompass or adjoin land of ecological interest and value, including Ancient Woodland within or adjacent to the identified areas of land, which would need to be taken into account at the development proposal stage.	Mechanisms to address impacts on existing habitats and on opportunities for habitat creation are embedded into the Plan through policies 13 (sustainable design) and 14 (protection of communities and the environment) (as modified). Mitigation measures (e.g. offsite biodiversity compensation, translocation of animal species, etc.) for a particular development are best identified at the planning application stage, but the Plan policy framework provides the CPA with the means to require that such measures be identified and integrated into proposals.	Performance of the Plan could be monitored and reported on in terms of the following indicators: • No. applications granted on land with intrinsic ecological value or interest. • No. applications refused on ecological impact grounds with reference to habitat loss. • No. applications granted with specific conditions attached to require habitat creation and long term management as part of the scheme of development.
Geological Conservation	The Plan is unlikely to give to adverse impacts on geological conservation interests due to the development of the allocated sites (Policy 11(a & b)) or the ILAS listed under Policy 10. There is a theoretical possibility that development on windfall sites could affect land also designated for protection on grounds of its geological conservation interest, which could result in damage to those assets.	Mechanisms to address impacts on geological conservation interests are embedded into the Plan through policy 14 (protection of communities and the environment) (as modified). Mitigation measures (e.g. creation and management of rock stores, preservation by record, etc.) for a particular development are best identified at the planning application stage, but the Plan policy framework provides the CPA with the means to require that such measures be identified and integrated into proposals.	Performance could be monitored and reported on in terms of the following indicators: • No. applications refused on grounds of impacts on geological conservation interests. • No. applications granted with conditions requiring the long term management of geological conservation interests.

Topic	Discussion	Mitigation	Monitoring
Impacts on Landscape & Townscape			
Landscape Character	Without mitigation the Plan could give rise to adverse impacts on landscape character due to the construction and operation of waste management facilities. Three sites proposed for allocation (Slyfield Industrial Estate, Guildford; Randalls Road, Leatherhead; Lambs Business Park, South Godstone) under Policy 11(a) are located close to sensitive landscape assets, as are ten of the ILAS identified under Policy 10. Development of large scale facilities or those with tall structures (e.g. chimney stacks, flues) could be intrusive and impact on nearby sensitive landscape assets.	Mechanisms to address impacts on landscape character are embedded into the Plan through policies 13 (sustainable design) and 14 (protection of communities and the environment (as modified)). Mitigation measures (e.g. scale, massing, appearance, site landscaping, etc.) for a particular development are best identified to at the planning application stage, but the Plan policy framework provides the CPA with the means to require that such measures be identified and integrated into proposals.	Performance could be monitored and reported on in terms of the following indicators: • No. applications granted within or adjoining designated landscapes. • No. applications refused on landscape impact grounds. • No. applications granted with conditions to control impacts on the landscape.
Townscape Character	Without mitigation the Plan could give rise to adverse impacts on townscape character due to the construction and operation of waste management facilities. Three sites proposed for allocation (Slyfield Industrial Estate, Guildford; Oakleaf Farm, Stanwell Moor; Lambs Business Park, South Godstone) under Policy 11(a) are close to sensitive townscape assets, as are fourteen of the ILAS identified under Policy 10. Development of large scale facilities or those with tall structures (e.g. chimney stacks, flues) could be intrusive and impact on nearby sensitive townscape assets.	Mechanisms to address impacts on townscape character are embedded into the Plan through policies 13 (sustainable design) and 14 (protection of communities and the environment (as modified)). Mitigation measures (e.g. scale, massing, appearance, site landscaping, etc.) for a particular development are best identified at the planning application stage, but the Plan policy framework provides the CPA with the means to require that such measures be identified and integrated into proposals.	Performance could be monitored and reported on in terms of the following indicators: • No. applications granted within or adjoining designated townscapes assets. • No. applications refused on townscape impact grounds. • No. applications granted with conditions to control impacts on townscape assets.
Visual Amenity	Without mitigation the Plan could give rise to adverse impacts on visual amenity due to the construction and operation of waste management facilities. All the sites proposed for allocation under Policy 11 (a & b) are close to sensitive visual receptors, as are all twenty-two of the ILAS identified under Policy 10. Development of large scale facilities or those with tall structures (e.g. chimney stacks, flues) could be intrusive and impact on nearby sensitive visual receptors.	Mechanisms to address impacts on visual amenity are embedded into the Plan through policies 13 (sustainable design) and 14 (protection of communities and the environment (as modified)). Mitigation measures (e.g. scale, massing, appearance, site landscaping, etc.) for a particular development are best identified at the planning application stage, but the Plan policy framework provides the CPA with the means to require that such measures be identified and integrated into proposals.	Performance could be monitored and reported on in terms of the following indicators: • No. applications refused on visual amenity grounds. • No. applications granted with conditions to control impacts on visual amenity.

Topic	Discussion	Mitigation	Monitoring
Impacts on the Historic Environment			
Archaeological Assets	Without mitigation the Plan could give rise to adverse impacts on archaeological assets and their contexts and settings due to the construction and operation of waste management facilities. None of the sites proposed for allocation under Policy 11 (a & b) coincide with archaeological assets but all are close enough to one or more such assets to potentially impact on context and setting. Eighteen of the ILAS identified under Policy 10 are close enough to one or more archaeological assets to potentially impact on context and setting. As yet undiscovered archaeological assets could be affected by development at any of the allocated sites or ILAs.	Mechanisms to address impacts on archaeological assets are embedded into the Plan through policy 14 (protection of communities and the environment) (as modified). Mitigation measures (e.g. prior site investigation and recording, preservation by record, removal or in situ, design of buildings and site landscaping, etc.) for a particular development are best identified at the planning application stage, but the Plan policy framework provides the CPA with the means to require that such measures be identified and integrated into proposals.	Performance could be monitored and reported on in terms of the following indicators: • No. applications granted within or adjoining designated archaeological assets. • No. applications refused on archaeological impact grounds. • No. applications granted with conditions to control impacts on archaeological assets.
Built Heritage	Without mitigation the Plan could rise to adverse impacts on built heritage assets or their contexts and settings due to the construction and operation of waste management facilities. Two sites proposed for allocation (Slyfield Industrial Estate, Guildford; Randalls Road, Leatherhead) under Policy 11(a) are close to sensitive built heritage assets, and five are close enough to one or more such assets to potentially impact on context and setting. Eighteen of the ILAS identified under Policy 10 are close enough to one or more built heritage assets to potentially impact on the asset, and nineteen of the ILAs are close enough to potentially impact on context and setting.	Mechanisms to address impacts on built heritage assets are embedded into the Plan through policy 14 (protection of communities and the environment) (as modified). Mitigation measures (e.g. scale, massing, design, site landscaping, etc.) for a particular development are best identified at the planning application stage, but the Plan policy framework provides the CPA with the means to require that such measures be identified and integrated into proposals.	Performance could be monitored and reported on in terms of the following indicators: • No. applications granted encompassing, within or adjoining built heritage assets. • No. applications refused on built heritage impact grounds. • No. applications granted with conditions to control impacts on built heritage assets.
Historic Landscape	Without mitigation the Plan could give rise to adverse impacts on historic landscape character due to the construction and operation of waste management facilities. None of the sites proposed for allocation under Policy 11 (a & b) are close to historic landscape assets, but two (Slyfield Industrial Estate, Guildford; Trumps Farm, Longcross) are sufficiently close to impact on context and setting. Two of the ILAS identified under Policy 10 are located sufficiently close to potentially impact on historic landscape assets, and eight ILAS are close enough to impact on context and setting.	Mechanisms to address impacts on historic landscape character are embedded into the Plan through policy 14 (protection of communities and the environment) (as modified). Mitigation measures (e.g. scale, massing, design, site landscaping, etc.) for a particular development are best identified at the planning application stage, but the Plan policy framework provides the CPA with the means to require that such measures be identified and integrated into proposals.	Performance could be monitored and reported on in terms of the following indicators: • No. applications granted within or adjoining historic landscape assets. • No. applications refused on historic landscape impact grounds. • No. applications granted with conditions to control impacts on historic landscape assets.

Topic	Discussion	Mitigation	Monitoring
Impacts on the Human Communities			
Traffic Generation	Without mitigation the Plan could give rise to adverse impacts on highways capacity and traffic due to the construction and operation of waste management facilities, and waste transportation by means of road. Most of the sites allocated under Policy 11 (a & b) would be serviced by road, in many cases necessitating the use of non-primary roads, as are all of the ILAS identified under Policy 10. One allocated site (Lambs Business Park, South Godstone) has potential for access by means other than the highways network, due to the presence of an existing rail siding and an adjoining rail line.	Mechanisms to address impacts on the highways network and traffic levels are embedded into the Plan through policy 15 (transport and connectivity) (as modified). Mitigation measures (e.g. HGV number limits, HGV routing agreements, etc.) for a particular development are best identified at the planning application stage, but the Plan policy framework provides the CPA with the means to require that such measures be identified and integrated into proposals.	Performance could be monitored and reported on in terms of the following indicators: • No. applications refused on highways impact grounds. • No. applications granted with conditions to control vehicle movements and/or vehicle routing.
Pollution, Nuisance & Disturbance	The construction and operation of waste management facilities, and their servicing by heavy and light goods vehicles, will give rise to incidences of pollution and nuisance, including noise disturbance, light pollution, and odour. The majority of sites proposed for allocation under Policy 11 of the Plan are located in relatively close proximity to residential properties or other sensitive receptors, the amenity of which could be adversely affected by waste related development. One site proposed for allocation (Oakleaf Farm, Stanwell Moor) under Policy 11a is located within a designated AQMA, close to other emission sources (i.e. M25 motorway and Heathrow Airport), and several of the ILAS identified under Policy 10 are located within or close to areas of poor air quality.	Mechanisms to address pollution and nuisance are embedded into the Plan through policies 13 (sustainable design), 14 (protection of communities and the environment) (as modified), and 15 (transport and connectivity). Mitigation measures (e.g. acoustic fencing, PIR controlled lighting, odour control units, etc.) for a particular development are best identified at the planning application stage, but the Plan policy framework provides the CPA with the means to require that such measures be identified and integrated into proposals.	Performance could be monitored and reported on in terms of the following indicators: • No. applications granted within designated AQMAs. • No. applications refused on air quality or nuisance grounds. • No. applications granted with conditions to control emissions to air and/or nuisance.
Flood Risk	The construction and operation of waste management facilities could, depending on location, have impacts on existing levels of flood risk from fluvial and surface water sources. All six sites proposed for allocation under Policy 11 (a & b) of the Plan are located in areas at low risk of flooding from fluvial and non-fluvial sources. Nine of the ILAS identified under Policy 10 are subject to high (>1.0% AEP) flood risk, but as established industrial estates are already subject to built development.	Mechanisms to address impacts on flood risk are embedded into the Plan, through policies 13 (sustainable design), and 14 (protection of communities and the environment) (as modified). Mitigation measures (e.g. attenuation ponds, swales, infiltration cells, etc.) for a particular development are best identified at the planning application stage, but the Plan policy framework provides the CPA with the means to require that such measures be identified and integrated into proposals.	Performance could be monitored and reported on in terms of the following indicators: • No. applications granted with conditions to control surface water or fluvial flood risk. • No. applications refused on flood risk grounds.

Topic	Discussion	Mitigation	Monitoring
Impacts on the Human Communities			
Provision of Waste Management Facilities	The management of waste materials by means of a range of processes and technologies, including thermal treatment, at a range of locations across Surrey will address future needs for waste management capacity. The type and scale of capacity to be delivered at any given location is not specified by the Plan, with the exception of the site allocated at Trumps Farm near Longcross, but sufficient land is identified to accommodate the facilities needed to meet projected future demand for waste management capacity across a range of waste streams.	No mitigation measures are proposed, as the impacts of the Plan on waste management capacity are expected to be beneficial in nature.	Performance could be monitored and reported on in terms of the following indicators: • No. new waste management facilities delivered on allocated sites or on land within identified areas of search. • Capacity (tpa) of new waste management facilities delivered as a proportion of the additional capacity needed to meet projected future demand for each waste stream.
Sterilisation of land by waste management development	The development of new waste management facilities on land allocated or identified in the Plan, or on windfall sites, would prevent the development of that land for non-waste uses. The development of the allocated sites could, in theory, sterilise areas of land that might otherwise be suitable for residential development, and could contribute to the county's identified need for new housing. The development of vacant land within the identified ILAS for waste management purposes could, in theory, preclude its use for other forms of commercial or industrial development that might offer superior economic benefits and employment opportunities to those afforded by waste related development.	No mitigation measures are proposed, as the suitability of the allocated sites and areas of search as locations for waste related development has been established, in principle, through the Plan preparation process.	Performance could be monitored and reported on in terms of the following indicators: • Area of land granted permission for waste development split between sites allocated or identified in the Plan and windfall sites.