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Department for Environment, Food & Rural Affairs

Strategic Environmental Assessment of the Waste Management Plan for England

Environmental Report

Wood Environment & Infrastructure Solutions UK Limited – September 2019

Report for

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Non Technical Summary

Introduction

This Non-Technical Summary (NTS) provides an overview of the Environmental Report produced as part of the Strategic Environmental Assessment (SEA) of the draft 2019 Waste Management Plan for England (hereafter referred to as the 'draft 2019 WMPE').

The following sections of this NTS:

- provide an overview of the draft 2019 WMPE;
- describe SEA and the key stages of the SEA process including how it has been applied to the draft 2019 WMPE;
- outlines the approach to the SEA of the draft 2019 WMPE, including the assessment framework;
- presents a summary of the findings of the SEA of the draft 2019 WMPE (and reasonable alternatives); and
- set out the next steps in the SEA process.

The assessment, the Environmental Report and this NTS have been completed by Wood Environment & Infrastructure Solutions UK Ltd (Wood) on behalf of the Department for Environment, Food and Rural Affairs (Defra).

The Draft 2019 Waste Management Plan for England and the Reasonable Alternatives

Draft 2019 Waste Management Plan for England

The revised Waste Framework Directive (WFD) requires all Member States to have Directive-compliant waste management plans[1], although with the UK leaving the EU, former EU legislation will not be retained UK law. The Waste (England and Wales) Regulations 2011 (the Waste Regulations) transpose the WFD and stipulate that the Government must produce a Waste Management Plan for England (WMPE) and review it every six years. The Waste Management Plan for England 2013 is the current WMPE (hereafter referred to as the '2013 WMPE') and was published in December 2013.

In accordance with the timescales for review set out in the Waste Regulations, the 2013 WMPE is to be updated so that the Government can provide an up to date overview of waste management in England and fulfil the WFD Article 28 mandatory requirements. The work to prepare the 2019 WMPE in England is being led by Defra and as part of the development of the plan, the Government has ensured that there is an opportunity to comment on a draft 2019 WMPE.

The draft 2019 WMPE is a high level document which is non–site specific. It provides an analysis of the current waste management situation in England and evaluates how it will support implementation of the objectives and provisions of the WFD. The draft 2019 WMPE states that "*Its core aim is to bring current waste*

[1] Directive 2008/98/EC on waste (Waste Framework Directive), available at https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32008L0098&from=EN and Directive (EU) 2018/851) which amended the 2008 Directive, available at: https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32018L0851&from=EN.

management policies under the umbrella of one national plan". The WMPE is to be read in conjunction with the Resources and Waste Strategy (RWS) and the National Planning Policy Waste (NPPW).[2]

The NPPW provides the planning framework to enable local authorities to put forward, through waste local plans, strategies that identify sites and areas suitable for new or enhanced facilities to meet the waste management needs of their areas. The NPPW is to be updated to align with the changes to the NPPF and the RWS.

The RWS sets out how material resources will be preserved by minimising waste, promoting resource efficiency and moving towards a circular economy in England. It highlights how the damage caused to the natural environment will be minimised by reducing and managing waste safely and carefully, and by tackling waste crime. It combines actions the Government will take with firm commitments for the coming years and gives a clear, longer-term policy direction in line with the 25 Year Environment Plan[3]. Other policy documentation that the draft 2019 WMPE identifies as including policies that contribute to the plan include:

- the Clean Growth Strategy[4];
- the Industrial Strategy[5];
- the Litter Strategy[6];
- the UK Plan for Shipments of Wastes[7];
- the National Policy Statements (NPS) for Hazardous Waste[8].

In this context, the draft 2019 WMPE does not introduce new policy; however, it does contain explicit commitments drawn from the documentation outlined above and includes reference to a number of targets derived from the WFD, as follows:

- for household waste, a recycling rate of 50% by 2020;
- for municipal solid waste, a recycling rate of 65% by 2035;
- municipal waste to landfill, a target of 10% or less by 2035.

The WMPE and associated documents, together with local authorities' waste local plans and combined with equivalent plans being produced by the devolved administrations in Scotland, Wales and Northern Ireland, and Gibraltar, will fulfil the requirement in Article 28 of the WFD.

Reasonable Alternatives to the Draft 2019 Waste Management Plan for England

One alternative to the draft 2019 WMPE (as proposed) has been identified as 'reasonable' and has been taken forward for assessment as part of the SEA process, namely the ''direction of travel' alternative. This

[3] HMG (2018) *A Green Future: Our 25 Year Plan to Improve the Environment*, available at: https://www.gov.uk/government/publications/25-year-environment-plan
[4] HMG (2017) *The Clean Growth Strategy: Leading the way to a low carbon future*, available at: https://www.gov.uk/government/publications/clean-growth-strategy
[5] HMG (2017) *Industrial Strategy: building a Britain fit for the future*, available at: https://www.gov.uk/government/publications/industrial-strategy-building-a-britain-fit-for-the-future
[6] HMG (2017) *Litter Strategy for England*, available at: https://www.gov.uk/government/publications/litter-strategy-for-england
[7] Defra et al (2012) *UK Plan for the Shipments of Wastes*, available at: https://www.gov.uk/government/publications/uk-plan-for-shipments-of-waste
[8] Defra (2013) *National Policy Statement for Hazardous Waste: A framework document for planning decisions on nationally significant hazardous waste infrastructure,* available at: https://www.gov.uk/government/publications/hazardous-waste-national-policy-statement

option seeks to consider the potential to move each waste type further up the waste management hierarchy[9], without reference to specific targets. This could provide greater flexibility and potential to exceed current rates or timeframes, thereby encouraging a direction of travel towards more sustainable waste and resource management.

For more information on the draft 2019 WMPE and the alternatives considered, please see Section 2 of the Environmental Report.

What is Strategic Environmental Assessment?

The SEA Directive 2001/42/EC[10] and implementing regulations (the SEA Regulations)[11] require the completion of a SEA according to the process defined in the Directive[12] (and mirrored in the regulations). This includes the identification, description and evaluation of the likely significant effects on the environment of implementing the plan or programme and the proposal of measures to avoid, manage or mitigate any significant adverse effects.

Defra has considered the SEA requirements and has determined that they apply to the 2019 WMPE on a precautionary basis and has undertaken an SEA to ensure a systematic approach to the consideration of the environmental effects of the draft 2019 WMPE (consistent with the approach to the preparation of the 2013 WMPE). In this context, the purpose of the SEA of the 2019 WMPE is:

- to identify, describe and evaluate the likely significant environmental effects of the draft WMPE including reasonable alternatives to the WMPE;
- to help identify appropriate measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the WMPE;
- to provide monitoring measures for the likely significant effects arising from the implementation of the draft WMPE; and
- to demonstrate that the draft WMPE has been developed in a manner consistent with the requirements of the SEA Directive and relevant implementing regulations.

The Environmental Report provides information to help inform the Government's decisions on the preparation of the WMPE.

The main stages of SEA are iterative, building on evidence and consultation responses over time to inform the development of the 2019 WMPE. They include:

- setting the context and objectives, establishing the baseline and deciding on the scope of the assessment in consultation with consultees including the statutory SEA bodies (**Stage A**);
- developing and refining alternatives, assessing the likely direct, indirect and cumulative effects of proposed options and identifying mitigating and monitoring measures (**Stage B**);

[9] In England, the waste hierarchy is both a guide to sustainable waste management and a requirement of the Waste (England and Wales) Regulations 2011. In accordance with it, priority is given to preventing the creation of waste in the first place, followed by preparing waste for reuse; to recycling, and then recovery. Disposal – in landfill for example – is regarded as the least preferable option.
[10] European Union Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment, available at: https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32001L0042&from=EN
[11] The Environmental Assessment of Plans and Programmes Regulations 2004 (SI2004/1633), available at: http://www.legislation.gov.uk/uksi/2004/1633/contents/made
[12] As elaborated under Articles 3 to 10 of the Directive, which require the performance of a screening, scoping, documentation of the state of environment, determination of the likely (non-marginal) environmental impacts, information and consulting the public, decision-making and monitoring of the effects of plans/programmes after their implementation.

- completing an Environmental Report to present the identified likely significant environmental effects of the draft 2019 WMPE, including reasonable alternatives, in a form suitable for public consultation and use by decision-makers (**Stage C**);
- consulting on the draft 2019 WMPE and the Environmental Report (**Stage D**);
- assessing the environmental implications of any significant changes to the draft 2019 WMPE made as a result of public consultation on the draft plan (**Stage D**);
- providing information in a Post Adoption Statement on how the SEA and consultees' opinions were taken into account in deciding the final form of the 2019 WMPE to be published (**Stage D**); and
- undertaking suitable monitoring of the associated impacts of the selected options (**Stage E**).

The main outputs of the SEA of the 2019 WMPE are:

- **the SEA Scoping Report**, which was completed in June 2019 and which set out the context and established the baseline conditions for the assessment and outlined the approach to the SEA of the draft 2019 WMPE;
- **the Environmental Report** (the main report to which this NTS relates), which contains the findings of the assessment of the likely significant environmental effects of the draft 2019 WMPE and reasonable alternatives and which is being issued for public consultation; and
- **the Post Adoption Statement**, which will set out how environmental factors, the Environmental Report and consultees' opinions have been taken into account in deciding the final form of the 2019 WMPE.

For more information on the SEA process and requirements, please see Section 1 of the Environmental Report.

How has the assessment been undertaken?

What has been assessed?

The SEA has been undertaken by assessing the likely significant environmental effects of implementing the draft 2019 WMPE, taking into account the wastes covered by the plan, the waste services identified and the infrastructure outlined, noting that:

- the draft 2019 WMPE is a high level document which is non–site specific;
- the draft 2019 WMPE does not introduce new policies or change the existing policy landscape of how waste is managed in England; its core aim is to bring current waste management policies under the umbrella of one national plan; and
- the draft 2019 WMPE is to be read in conjunction with the RWS and the NPPW.

In addition, the effects of the 'direction of travel' reasonable alternative to the draft 2019 WMPE have been considered.

How have environmental effects been identified?

SEA objectives and guide questions have been established to provide a framework for the assessment; it is against these objectives and guide questions that the draft 2019 WMPE and reasonable alternative have been assessed. The SEA objectives and guide questions used in the assessment of the draft 2019 WMPE reflect the topics contained in Annex I of the SEA Directive and have been informed by:

- a review of plans and programmes and the associated environmental protection objectives identified;
- baseline information and identified key issues;
- the objectives and guide questions developed as part of the SEA of the 2013 WMPE;
- an understanding of the likely generic effects arising from the construction and operation of waste infrastructure and the draft 2019 WMPE; and
- responses received to consultation on the Scoping Report.

The SEA objectives are shown in **Table NTS 1**.

Table NTS 1 Assessment objectives

SEA Topic Area	SEA Objectives	SEA Regulation Topics
Biodiversity and Nature Conservation	1. To protect and enhance biodiversity (habitats, species and ecosystems) working within environmental capacities and limits.	Biodiversity, Flora and Fauna
Population, Economics and Skills	2. To support a strong, diverse and growing economy through the provision of innovative and efficient waste management practices that minimise resource use and waste volumes.	Population
Human Health	3. To ensure the protection and enhancement of human health, safety and wellbeing. 4. To minimise disturbance to local communities.	Population Human Health
Land Use, Geology and Soils	5. To conserve and enhance soil and geology and contribute to the sustainable use of land. 6. To preserve the "best & most versatile" agricultural land.	Soils
Water	7. To protect and enhance water quality and help achieve the objectives of the Water Framework Directive. 8. To protect and enhance surface and ground water levels and flows and ensure sustainable water resource management.	Water
Air Quality	9. To minimise emissions of pollutant gases and particulates and enhance air quality.	Air Human Health Biodiversity, Flora and Fauna
Climatic Factors (including climate change mitigation and adaptation and energy)	10. To minimise greenhouse gas emissions as a contribution to climate change and ensure resilience to any consequences of climate change.	Climatic Factors
Flood Risk and Coastal Change	11. To minimise the risks from coastal change and flooding to people, property, communities and habitats and species, taking into account the effects of climate change.	Water Climatic Factors
Waste and Resources	12. To nurture a circular economy, minimise waste arisings, promote reuse, recovery and recycling, minimise the impact of wastes on the environment and communities and contribute to the sustainable use of natural and material assets.	Material Assets
Traffic and Transport	13. To minimise the volume of traffic and promote more sustainable transport choices.	Biodiversity, Flora and Fauna

SEA Topic Area	SEA Objectives	SEA Regulation Topics
		Population Human Health
Cultural Heritage (including architectural and archaeological heritage)	14. To conserve and enhance the historic environment including designated and non-designated heritage assets and their settings.	Cultural Heritage
Landscape and Townscape.	15. To protect and enhance landscape and townscape quality and visual amenity.	Landscape Cultural Heritage Human Health

In undertaking the assessment of the draft 2019 WMPE and the reasonable alternative against the SEA objectives, consideration has been given to:

- baseline information including existing environmental problems and their evolution;
- the likely activities and potential sources of effects associated with the construction and operation of waste and resources infrastructure;
- the regulatory framework;
- the SEA objective guide questions; and
- Schedule 1 of the SEA Regulations (criteria for determining the likely significance of effects on the environment).

Effects have been described (where possible) in terms of their geographic scale, the timescale over which they could occur, whether the effects would be temporary or permanent, positive or negative, likely or unlikely, frequent or rare. Where numerical information is not available, the assessment has been based on professional judgement and with reference to relevant legislation, regulations and policy.

Section 3 of the Environmental Report provides further information in respect of the approach to the SEA of the draft 2019 WMPE.

What are the likely significant effects of the Draft 2019 Waste Management Plan for England and Reasonable Alternative?

Table NTS 2 summarises the likely significant effects of the draft 2019 WMPE against the 15 SEA objectives, along with the performance of the 'direction of travel' reasonable alternative.

Table NTS 2 Summary of the likely significant effects of the draft WMPE and 'direction of travel' alternative

Alternative	SEA Objective											
	1. Biodiversity	2. Population	3 – 4. Health	5-6. Land use	7-8. Water	9. Air Quality	10. Climatic Factors	11. Flood Risk	12. Waste and Resources	13. Traffic and Transport	14. Cultural Heritage	15. Landscape and Seascape
Draft WMPE	++/-	+	+/?	++	+	+/?	++/?	+	+	?	+	+
Direction of travel	++/-	++	+/?	++	++	+/?	++/?	+	++	?	+/?	++

Key

++ **Significant** positive effect	+ **Minor** positive effect	0 **Neutral** effect	- **Minor** negative effects	-- **Significant** negative effect	? **Uncertain** effect

NB: where more than one symbol is presented in a box it indicates that the SEA has found more than one score for the category. Where a box is coloured but also contains a '?', this indicates uncertainty over whether the effect could be a minor or significant effect although a professional judgement is expressed in the colour used. A conclusion of uncertainty arises where there is insufficient evidence for expert judgement to conclude an effect.

Draft 2019 Waste Management Plan for England

Overall, the assessment contained in the Environmental Report has found that the draft 2019 WMPE will have positive effects across the majority of the SEA objectives, relative to the current baseline. This broadly reflects the socio-economic and environmental benefits associated with sustainable waste management and moving waste up the hierarchy, consistent with the established targets and timeframes.

Significant positive effects have been identified in respect of biodiversity (SEA Objective 1). This principally reflects the potential for increased waste prevention, reuse and recycling to reduce litter (which can cause harm to both terrestrial and marine ecology) and the extraction and processing of natural resources (which can affect habitats and species). The draft 2019 WMPE has also been assessed as having a significant positive effect on land use, geology and soils (SEA Objectives 5 and 6) due to the potential for the plan to support (inter alia) the decrease in disposal of wastes to landfill, through the movement of material up the waste hierarchy (with associated reductions in land excavation and the potential for contamination by leachates) and increased composting, relative to the current baseline.

By supporting the movement of waste up the hierarchy, the draft 2019 WMPE is expected to help avoid/minimise greenhouse gas (GHG) emissions associated with the extraction of raw materials and manufacturing of products, although some uncertainty remains. The decrease in disposal of wastes to landfill, through the movement of material up the waste hierarchy, will also reduce emissions associated with the decomposition of biodegradable waste. Overall, the draft 2019 WMPE has therefore been assessed as having a significant positive effect on climatic factors (SEA Objective 10) relative to the current baseline.

In-combination with the NPPW, RWS, waste local plans and the 25 Year Environment Plan, as well as equivalent plans being produced by the devolved administrations in Scotland, Wales and Northern Ireland,

and Gibraltar, the draft 2019 WMPE will fulfil the requirements of Article 28 of the WFD. This is expected to generate a significant positive (in-combination) effect on waste and resources (SEA Objective 12).

No overall significant negative effects have been identified during the assessment of the draft 2019 WMPE. The construction and operation of new waste management infrastructure as well as the implementation of new waste collection services and deposit return schemes (DRS) associated with the commitments and targets presented in the draft 2019 WMPE could have a range of negative environmental effects related to, inter alia, land take, landscape and visual impact, vehicle movements and emissions to air and in this context, a minor negative effect has been identified in respect of biodiversity (SEA Objective 1) relative to the current baseline. However, the likelihood of adverse effects occurring, their magnitude and their duration is dependent on the type, scale and location of infrastructure to be developed, the proximity of sensitive receptors and the nature of the associated waste collection services to be implemented. It should also be noted that location of new sites would be identified in the relevant waste local plan (which would themselves be consistent with the policies of the NPPF and NPPW) and which are subject to SEA and HRA, and would require relevant planning permissions (which could include EIA and HRA) and environmental consents to develop and construct. The operation of waste management facilities is also subject to environmental permitting whilst adverse impacts associated with new waste collection services (principally emissions to air and disturbance associated with increased vehicle movements) may be reduced in the future by the transition towards low emission and electric vehicles.

'Direction of travel' reasonable alternative

Under this alternative, consideration would be given to moving each waste stream further up the waste management hierarchy. Like the draft 2019 WMPE, the 'direction of travel' alternative has been assessed as having a positive effect across the majority of the SEA objectives, relative to the current baseline. This reflects the expectation that the alternative would encourage policy and practices that would move waste up the hierarchy thereby generating associated socio-economic and environmental benefits. However, this reasonable alternative would seek to exceed the commitments in the draft 2019 WMPE, either through implementing improvements at a quicker rate, or by exceeding existing targets for landfill avoidance, and waste recovery, reuse and recycling.

The assessment presented in the Environmental Report has identified that this option would be likely to increase the magnitude of positive effects on the SEA objectives relative to the draft 2019 WMPE and in this context, the 'direction of travel' alternative has additionally been assessed as having significant positive effects on population, economics and skills (SEA Objective 2), water (SEA Objectives 7 and 8), waste and resources (SEA Objective 12) and landscape and townscape (SEA Objective 15), alongside the significant positive effects identified in respect of biodiversity (SEA Objective 1), land use, geology and soils (SEA Objectives 5 and 6) and climatic factors (SEA Objective 10) as for the draft 2019 WMPE.

No overall significant negative effects have been identified during the assessment of the 'direction of travel' alternative. However, the assessment has identified that exceeding the targets and commitments contained in the draft 2019 WMPE would be likely to result in an increased need for new waste management facilities and waste collection services such that the potential for associated adverse environmental effects could be increased (relative to the draft 2019 WMPE).

Summary

The Government's preferred option for the WMPE is that it should be a compilation of existing and planned policies. The Government has already announced ambitious measures in the RWS to use resources efficiently and reduce the waste created and will elaborate on these proposals and actions under a new Waste Prevention Programme. The Government has undertaken to evaluate the RWS and refresh it every 5 years. The Government considers it more appropriate to review the effectiveness of policies in the light of evidence from that evaluation.

The 2013 WMPE met the key objectives of the Schedule 1 of the Waste (England and Wales) Regulations 2011. That objective is explained in Article 1 of Schedule 1 of those Regulations i.e. "*to protect the environment and human health by preventing or reducing the adverse impacts of the generation and management of waste and by reducing overall impacts of resource use and improving the efficiency of such use*." The policy measures the Government are now taking forward in the 2019 WMPE take ambitious steps to enhance implementation of that objective and also anticipate measures which will be introduced by the circular economy package. For these reasons, the Government considers that the measures being taken forward will continue to meet the requirements of the Waste (England and Wales) Regulations 2011.

Section 4 and Appendix D of the Environmental Report provide the detailed assessment of the draft 2019 WMPE and reasonable alternative of 'direction of travel'.

Mitigation

Based on the assessment of the draft 2019 WMPE, a range of mitigation measures have been identified. These measures are principally project/service-level mitigation identified to address the potential adverse environmental effects associated with the construction and operation of waste management facilities and waste collection services, as opposed to revisions to the plan itself. **The mitigating measures are summarised in Section 4 of the Environmental Report.**

How will the environmental effects of implementing the Draft 2019 Waste Management Plan for England be monitored?

Once the 2019 WMPE is published, its significant environmental effects will need to be monitored. In the RWS the Government published an indicator framework for monitoring progress against RWS policies and commitments. More information on the reporting mechanism for tracking these indicators will be provided in the upcoming *Resources and Waste Strategy Evaluation Plan*. As no significant negative effects have been identified during the assessment of the draft 2019 WMPE, and taking into account the SEA Directive guidance that existing monitoring arrangements may be used, the draft 2019 WMPE indicators and measures are proposed to be taken forward as the monitoring framework for the purposes of the SEA. This approach will avoid unnecessary duplication and is consistent with the Government's policy goals (as contained in the 25 Year Plan).

Section 5 of the Environmental Report provides further information in respect of the approach to monitoring the effects of the draft 2019 WMPE.

What are the next steps?

This Environmental Report is presented for consultation. Feedback received from consultees will be documented and considered in reviewing the proposals for the draft 2019 WMPE. A Post Adoption Statement will summarise how the SEA and the consultation responses have been taken into account and how environmental consideration have been integrated into the final decisions regarding the 2019 WMPE.

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1. Introduction

This section provides an overview of the draft Waste Management Plan for England, the requirement for Strategic Environmental Assessment and an outline of the assessment stages. It sets out the purpose and content of the Environmental Report and demonstrates how this meets the relevant Strategic Environmental Assessment reporting requirements.

1.1 Overview

1.1.1 The revised Waste Framework Directive (WFD) requires all Member States to have Directive-compliant waste management plans[13], although with the UK leaving the EU, former EU legislation will not be retained UK law. The Waste (England and Wales) Regulations 2011 (the Waste Regulations) transpose the WFD and stipulate that the Government must produce a Waste Management Plan for England (WMPE) and review it every six years.

1.1.2 The Waste Management Plan for England 2013 is the current WMPE (hereafter referred to as the '2013 WMPE') and was published in December 2013. In accordance with the timescales for review set out in the Waste Regulations, the 2013 WMPE is being updated so that the Government can provide an up to date overview of waste management in England and fulfil the WFD Article 28 mandatory requirements. The work to prepare the 2019 WMPE in England is being led by Department for the Environment, Food and Rural Affairs (Defra).

1.1.3 The WMPE focuses on waste arisings and their management. It is a high level document which is non–site specific. It provides an analysis of the current waste management situation in England, and evaluates how it will support implementation of the objectives and provisions of the WFD.

1.1.4 The WMPE is a national plan, produced by a public body, required by legislation and covers waste management. As such, it is within the scope of the Strategic Environmental Assessment (SEA) Directive 2001/42 EC[14] and the relevant UK implementing regulations (the SEA Regulations)[15]. Defra has considered the SEA requirements and has determined that they will apply on a precautionary basis, providing a systematic process to consider the environmental effects of the draft WMPE (consistent with the approach to the preparation of the 2013 WMPE).

1.2 Purpose of this Report

1.2.1 This Environmental Report presents the findings of the SEA of the 2019 WMPE. The purpose of this report is:

- to identify, describe and evaluate the likely significant environmental effects of the draft WMPE including reasonable alternatives to the WMPE;
- to help identify appropriate measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the WMPE;

[13] Directive 2008/98/EC on waste (Waste Framework Directive), available at https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32008L0098&from=EN and Directive (EU) 2018/851) which amended the 2008 Directive, available at: https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32018L0851&from=EN.
[14] European Union Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment, available at: https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32001L0042&from=EN
[15] The Environmental Assessment of Plans and Programmes Regulations 2004 (SI2004/1633), available at: http://www.legislation.gov.uk/uksi/2004/1633/contents/made

- to provide monitoring measures for the likely significant effects arising from the implementation of the draft WMPE; and
- to demonstrate that the draft WMPE has been developed in a manner consistent with the requirements of the SEA Directive and relevant implementing regulations.

1.2.2 The Environmental Report provides information to help inform the Government's decisions on the preparation of the WMPE.

1.2.3 The SEA is an assessment of the draft WMPE only and does not, therefore, consider specific proposals for waste management infrastructure (such proposals are identified and assessed through the waste management planning process - see **paragraph 1.3.6**). However, when considering the likely significant effects that could occur as a result of the draft WMPE, it does, where appropriate, consider the likely activities and potential sources of effects associated with the construction and operation of waste management infrastructure.

1.2.4 The SEA and Environmental Report have been completed by Wood Environment and Infrastructure Solutions UK Ltd (Wood) on behalf of Defra.

1.3 Overview of Waste Management Plan for England

1.3.1 Article 28 of the WFD states that:

"*1. Member States shall ensure that their competent authorities establish, in accordance with Articles 1, 4, 13 and 16, one or more waste management plans.*

Those plans shall, alone or in combination, cover the entire geographical territory of the Member State concerned.

2. The waste management plans shall set out an analysis of the current waste management situation in the geographical entity concerned, as well as the measures to be taken to improve environmentally sound preparing for re-use, recycling, recovery and disposal of waste and an evaluation of how the plan will support the implementation of the objectives and provisions of this Directive."

1.3.2 Article 28 (3) sets out the requirements for the contents of the waste management plan. Article 28 (4) sets out additional items that it may contain. The WFD has been amended by Directive 2018/851. Although non-mandatory until the Directive is transposed, the Plan includes these changes where these could be incorporated in the Plan. Regulations 7 and 8 (and Schedule 1) of the Waste (England and Wales) Regulations 2011 transpose these requirements to the UK.

1.3.3 The government's approach to managing waste reflects the waste management hierarchy. In England, the waste hierarchy is both a guide to sustainable waste management and a requirement of the Waste (England and Wales) Regulations 2011. In accordance with it, priority is given to preventing the creation of waste in the first place, followed by preparing waste for reuse; to recycling, and then recovery. Disposal – in landfill for example – is regarded as the least preferable option.

1.3.4 Consistent with these requirements, the 2019 WMPE will contain the following information (the non-mandatory changes arising from Directive 2018/851 are indicated by text in italics):

- An analysis of the current waste management situation in the geographical entity concerned, as well as the measures to be taken to improve the environmentally sound preparation for re-use, recycling, recovery and disposal of waste and an evaluation of how the plan will support the implementation of the objectives and provisions of the revised WFD.

- The type, quantity and source of waste generated within the territory, the waste likely to be shipped from or to the national territory, and an evaluation of the development of waste streams in the future.
- Existing major disposal and recovery installations, including any special arrangements for waste oils, hazardous waste, *waste containing significant amounts of critical raw materials*, or waste streams addressed by specific Union legislation.
- An assessment of the need for the closure of existing waste installations and for additional waste installation infrastructure in accordance with Article 16 (on the proximity principle). *An assessment of the investments and other financial means, including for local authorities, required to meet those needs is carried out.*
- *Information on the measures to attain the objective laid down in Article 5(3a) of Directive 1999/31/EC (diversion of waste suitable for recycling or other recovery away from landfill) or in other strategic documents covering the entire territory of the Member State concerned.*
- An assessment of existing waste collection schemes*, including the material and territorial coverage of separate collection and measures to improve its operation, of any derogations granted in accordance with Article 10(3), and of the need for new collection schemes.*
- Sufficient information on the location criteria for site identification and on the capacity of future disposal or major recovery installations, if necessary.
- General waste management policies, including planned waste management technologies and methods, or policies for waste posing specific management problems.
- *Measures to combat and prevent all forms of littering and to clean up all types of litter.*
- *Appropriate qualitative or quantitative indicators and targets, including on the quantity of generated waste and its treatment and on municipal waste that is disposed of or subject to energy recovery.*
- Waste management plans shall conform to the waste planning requirements laid down in Article 14 of Directive 94/62/EC, *to the targets laid down in Article 11(2) and (3) of the WFD* and to the strategy for the implementation of the reduction of biodegradable waste going to landfills, referred to in Article 5 of Directive 1999/31/EC, *and for the purposes of litter prevention, to the requirements laid down in Article 13 of Directive 2008/56/EC of the European Parliament and of the Council and Article 11 of Directive 2000/60/EC of the European Parliament and of the Council.*

1.3.5 Schedule 1 to the Waste Regulations sets out other obligations for the WMPE which have been transposed from the WFD.

1.3.6 National planning policy on waste is currently set out in the National Planning Policy for Waste (NPPW)[16]. The NPPW provides the planning framework to enable local authorities to put forward, through waste local plans, strategies that identify sites and areas suitable for new or enhanced facilities to meet the waste management needs of their areas. It outlines the key role that positive planning plays in delivering waste management infrastructure by (inter alia):

- *"ensuring that waste management is considered alongside other spatial planning concerns, such as housing and transport, recognising the positive contribution that waste management can make to the development of sustainable communities;*

[16] MHCLG (2014) *National Planning Policy for Waste*, available at: https://www.gov.uk/government/publications/national-planning-policy-for-waste

- *ensuring the design and layout of new residential and commercial development and other infrastructure (such as safe and reliable transport links) complements sustainable waste management, including the provision of appropriate storage and segregation facilities to facilitate high quality collections of waste;*
- *helping to secure the re-use, recovery or disposal of waste without endangering human health and without harming the environment*".

1.3.7 The NPPW will be reviewed separately.

1.3.8 The Resources and Waste Strategy[17] sets out how material resources will be preserved by minimising waste, promoting resource efficiency and moving towards a circular economy in England. It sets out how the damage caused to the natural environment will be minimised by reducing and managing waste safely and carefully, and by tackling waste crime. It combines actions the Government will take with firm commitments for the coming years and gives a clear longer-term policy direction in line with the 25 Year Environment Plan[18].

1.3.9 The WMPE and associated documents, together with local authorities' waste local plans and combined with equivalent plans being produced by the devolved administrations in Scotland, Wales and Northern Ireland, and Gibraltar, will fulfil the requirement in Article 28 of the WFD.

1.4 Strategic Environmental Assessment

1.4.1 SEA became a statutory requirement for certain plans or programmes following the adoption of the SEA Directive and relevant transposing regulations. The objective of SEA, as defined in the SEA Directive 2001/42/EC is:

"*To provide for a high level of protection of the environment and to contribute to the integration of environmental considerations into the preparation and adoption of plans and programmes with a view to contributing to sustainable development.*"

1.4.2 Throughout the course of the development of a plan or programme, the SEA should seek to identify, describe and evaluate the likely significant effects on the environment of implementing the plan or programme and to propose appropriate measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects.

1.4.3 Defra has considered the SEA requirements and has determined that they apply on a precautionary basis, providing a systematic process to consider the environmental effects of the draft WMPE (consistent with the approach to the preparation of the 2013 WMPE).

Stages of the SEA Process

1.4.4 The SEA Directive and implementing regulations require the completion of a SEA according to the process defined in the Directive[19] and regulations.

1.4.5 The main stages of SEA are iterative, building on evidence and consultation responses over time to inform the development of the WMPE. They include:

[17] HMG (2018*) Our Waste, Our Resources: A Strategy for England*, available at, https://www.gov.uk/government/publications/resources-and-waste-strategy-for-england

[18] HMG (2018) *A Green Future: Our 25 Year Plan to Improve the Environment*, available at: https://www.gov.uk/government/publications/25-year-environment-plan

[19] As elaborated under Articles 3 to 10 of the Directive, which require the performance of a screening, scoping, documentation of the state of environment, determination of the likely (non-marginal) environmental impacts, information and consulting the public, decision-making and monitoring of the effects of plans/programmes after their implementation.

- setting the context and objectives, establishing the baseline and deciding on the scope of the assessment in consultation with the statutory SEA consultation bodies (**Stage A**);
- developing and refining alternatives, assessing the likely direct, indirect and cumulative effects of proposed options and identifying mitigating and monitoring measures (**Stage B**);
- completing an Environmental Report to present the identified likely significant environmental effects of the draft WMPE, including reasonable alternatives, in a form suitable for public consultation and use by decision-makers (**Stage C**);
- consulting on the draft WMPE and the Environmental Report (**Stage D**);
- assessing the environmental implications of any significant changes to the draft WMPE made as a result of public consultation on the draft plan (**Stage D**);
- providing information in a Post Adoption Statement on how the SEA and consultees' opinions were taken into account in deciding the final form of the WMPE to be published (**Stage D**); and
- undertaking suitable monitoring of the associated impacts of the selected options (**Stage E**).

1.4.6 The main outputs of the SEA are:

- **the SEA Scoping Report**, which sets out the context and establishes the baseline conditions for the assessment and outlines the approach to the SEA of the draft WMPE including the assessment objectives and guide questions;
- **the Environmental Report** (this report), which contains the findings of the assessment of the likely significant environmental effects of the draft WMPE and which will be issued for public consultation alongside the draft WMPE; and
- **the Post Adoption Statement**, which will set out how environmental factors, the Environmental Report and consultees' opinions have been taken into account in deciding the final form of the WMPE.

Scoping Consultation

1.4.7 A Scoping Report was issued to the SEA consultation bodies in England (the Environment Agency, Natural England and Historic England) for consultation on the scope of the Environmental Report between 10th June and 15th July 2019.

1.4.8 Comments on any aspect of the Scoping Report were welcomed, although views were particularly sought in response to the following questions:

- Does the Scoping Report set out sufficient information to establish the context for the assessment, both in terms of the scope of the baseline analysis presented, and the plans and programmes reviewed (Section 2, Appendix B and C)? If not, which areas do you think have been missed from the baseline analysis and/or what additional plans or programmes should be included? Alternatively, are there any topics covered in the baseline that are considered to be unnecessary? Similarly, are there any plans and programmes currently included in the review of plans and programmes that is identified as being unnecessary and could be discarded?
- Do the SEA objectives and guide questions cover the breadth of issues appropriate for appraising the effects of the draft WMPE? If not, which objectives and/or guide questions should be amended and how? Are there any additional objectives or guide questions that you believe should be included? Alternatively, are there any objectives and guide questions which are unnecessary and could be removed?
- Do you have any other comments?

1.4.9 Three responses were received to the consultation, one each from the SEA consultation bodies. Views expressed concerned:

- the review of plans and programmes, with additional plans and programmes identified for inclusion e.g. the European Strategy for Plastics in a Circular Economy (2018) and the Statutory Instrument relating to the draft Climate Change Act 2008 (2050 Target Amendment) Order 2019;
- the contextual information for the assessment, with additional information identified as including Heritage Counts (https://historicengland.org.uk/content/heritage-counts/pub/2018/hc2018-heritageindicators/) and the research of the Marine Plastics Research Unit at Plymouth University.
- proposals for amendments to the draft SEA objectives and guide questions e.g. including a reference to natural capital in the guide questions against biodiversity and nature conservation, and amending the cultural heritage guide questions to improve clarity and ensure greater alignment with the historic environment requirements of the National Planning Policy Framework.
- commentary on the proposed timeframe for short-, medium- and long-term effects;
- key issues identified; and
- areas where, in the view of the consultee, the SEA process could encourage greater ambition in the WMPE.

1.4.10 A schedule of consultation responses to the Scoping Report is contained at **Appendix B.**

1.5 Meeting the SEA Requirements

1.5.1 **Table 1.1** details how these requirements have been addressed in this Environmental Report. A quality assurance checklist is contained at **Appendix A**.

Table 1.1 SEA Information Requirements Addressed within this Environmental Report

SEA Information Requirements	Environmental Report Reference
Schedule 2 of the SEA Regulations (SI 2004 No. 1633) sets out the following information requirements:	**The following sections of this Environmental Report address the requirements of the SEA Regulations:**
1. An outline of the contents and main objectives of the plan or programme, and of its relationship with other relevant plans and programmes.	This requirement is addressed in Section 1.3 (Overview of Waste Management Plan for England), Section 2 (The Draft Waste Management Plan for England) and Appendix C.
2. The relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme.	This requirement is addressed in Appendix D of this Environmental Report.
3. The environmental characteristics of areas likely to be significantly affected.	This requirement is addressed in Appendix D of this Environmental Report. Key issues are summarised in Table 3.3.
4. Any existing environmental problems which are relevant to the plan or programme including, in particular, those relating to any areas of a particular environmental importance, such as areas designated pursuant to Council	This requirement is addressed in Appendix D of this Environmental Report.

SEA Information Requirements	Environmental Report Reference
Directive 79/409/EEC on the conservation of wild birds[20] and Council Directive 92/43/EEC (the Habitats Directive[21]).	
5. The environmental protection objectives, established at international, Community or Member State level, which are relevant to the plan or programme and the way those objectives and any environmental considerations have been taken into account during its preparation.	This requirement is addressed in Appendix D and Appendix C of this Environmental Report.
6. The likely significant effects on the environment, including short, medium and long-term effects, permanent and temporary effects, positive and negative effects, and secondary, cumulative and synergistic effects, on issues such as: biodiversity; population; human health; fauna; flora; water; air; climatic factors; material assets; cultural heritage, including architectural and archaeological heritage; landscape; and the inter-relationship between the issues.	This requirement is addressed in Appendix D of this Environmental Report.
7. The measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the plan or programme.	This requirement is addressed in Appendix D of this Environmental Report and summarised in Section 4.4.
8. An outline of the reasons for selecting the alternatives dealt with, and a description of how the assessment was undertaken including any difficulties (such as technical deficiencies or lack of know-how) encountered in compiling the required information.	This requirement is addressed in Section 5.3 of this Environmental Report.
9. A description of the measures envisaged concerning monitoring of environmental conditions	This requirement is addressed in Section 5.4 of this Environmental Report.
10. A non-technical summary of the information provided under paragraphs 1 to 9.	A Non-Technical Summary is provided with this Environmental Report.

1.6 Environmental Report Structure

1.6.1 This Environmental Report is structured as follows:

- **Non-Technical Summary** - provides a summary of the Environmental Report, including information on both the draft WMPE and the key findings of the assessment.
- **Section 1: Introduction** - includes a summary of the draft WMPE, an overview of the proposed scope and contents of the Environmental Report.
- **Section 2: The Draft Waste Management Plan for England** - provides an overview of the draft WMPE, its main objectives and consideration of the reasonable alternatives;

[20] Council Directive 79/409/EEC on the conservation of wild birds. The Directive provides a framework for the conservation and management of, and human interactions with, wild birds in Europe. In the UK, the provisions of the Birds Directive are implemented through the Wildlife & Countryside Act 1981, 1989 c.69 (as amended) and The Conservation (Natural Habitats, &c.) Regulations 1994, S.I 2716, (as amended).

[21] Council Directive 92/43/EEC on the Conservation of natural habitats and of wild fauna and flora (EC Habitats Directive). In the UK the Directive has been transposed into national laws by means of the Conservation (Natural Habitats, & c.) Regulations 1994 (as amended) (see footnote 22) (Habitats Regulations). The 'Habitats Regulations' apply to the UK land area and its territorial sea (to 12 nautical miles from the coast), and are supported by government policy guidance.

- **Section 3: Approach to the Assessment** - sets out the proposed approach to assessment, including any difficulties encountered in completing the assessment;
- **Section 4: Cumulative, Secondary and Synergistic Effects** - sets out the cumulative effects and any relevant mitigating measures, uncertainties and risks;
- **Section 5: Summary of the Assessment** – summarises the assessment, including the effects of the draft WMPE as proposed and the alternatives and the reasons for the rejection of alternatives, and presenting views on implementation and monitoring.
- **Appendix A**: **Quality Assurance Checklist.**
- **Appendix B: Schedule of Scoping Consultation Reponses.**
- **Appendix C: Review of Plans and Programmes.**
- **Appendix D – Detailed Topic Assessments** sets out the assessment in a series of chapters (one for each topic scoped into the assessment) outlining the context and baseline and the likely significant environmental effects of the implementation of the draft WMPE and the reasonable alternatives to it, including mitigating measures, uncertainties and risks.

1.7 Commenting on the Report

1.7.1 The Environmental Report is being issued to the statutory SEA consultation bodies and the public for comment. Please provide your comments back to: wmpeconsultation@defra.gov.uk

2. The Draft Waste Management Plan for England

This section provides an outline of the draft Waste Management Plan for England and consideration of reasonable alternatives to the plan.

2.1 Development of the Waste Management Plan for England

2.1.1 Defra produced the 2013 WMPE following the Government Review of Waste Policy in England 2011[22], which evaluated waste management policies for England and their delivery. A draft plan was developed, subject to public consultation and the completion of an SEA. It was adopted in December 2013.

2.1.2 The 2013 WMPE is being updated so that the Government can provide an up to date overview of waste management in England and fulfil the revised WFD Article 28 mandatory requirements. As part of the development of the 2019 WMPE, the Government has ensured that there is an opportunity to comment on the draft plan and ensure that an SEA has been completed (this report presents the findings of the SEA).

2.1.3 National planning policy on waste is currently set out in the National Planning Policy for Waste. The policy will be updated to align with the changes to the National Planning Policy Framework and the Resources and Waste Strategy.

2.2 The Draft Waste Management Plan for England

2.2.1 The 2019 WMPE supersedes the 2013 WMPE. It provides an overview of waste management in England and fulfils the requirements of Article 28 of the WFD. Although non-mandatory until the Directive is transposed, the plan also includes changes which will be made by the Circular Economy Package[23] where these could be incorporated in the plan. It also includes other required content as set out in Schedule 1 to the Waste Regulations 2011[24]. The requirements are outlined fully in Section 1.3 of this report.

2.2.2 The WMPE covers England as well as the sea adjacent to England as far as the seaward boundary of the territorial sea.

2.2.3 The legal definition of waste is set out in the WFD. It is defined as "*any substance or object which the holder discards or intends or is required to discard*". Within this definition, waste streams are employed to categorise particular types of waste which may be produced by individuals or organisations. Primarily these are:

- household waste and commercial waste of a nature similar to household waste;
- industrial (including agricultural) and other commercial waste;
- industrial waste - construction and demolition waste;

[22] Department for Environment, Food and Rural Affairs (2011) *Government Review of Waste Policy in England 2011*, available at: www.gov.uk/government/uploads/system/uploads/attachment_data/file/69401/pb13540-wastepolicy-review110614.pdf
[23] Directive (EU) 2018/851 of 30 May 2018 amending Directive 2008/98/EC on waste. Non-mandatory changes are indicated by text in italics
[24] SI 2011/988, as amended by SI 2012/1889, & SI 2014/656

- hazardous waste.

2.2.4 The Plan does not apply to wastes that are excluded from the scope of the WFD (by Article 2 of the Directive). For example, radioactive waste and, to the extent that they are covered by other Community legislation, waste waters, are outside the scope of the Waste Framework Directive and are, therefore, not covered by the WMPE.

2.2.5 The draft 2019 WMPE states that "*Its core aim is to bring current waste management policies under the umbrella of one national plan"* and goes onto reference the NPPW, NPPF[25], the RWS and waste local plans. As the WMPE is focused on waste management, the resource management policies of the RWS are outside the scope of the assessment. Other policy documentation that the WMPE identifies as including policies that contribute to the plan include:

- the Clean Growth Strategy[26];
- the Industrial Strategy[27];
- the Litter Strategy[28];
- the UK Plan for Shipments of Wastes[29];
- the National Policy Statements (NPS) for Hazardous Waste[30].

2.2.6 Whilst the draft 2019 WMPE does not introduce any new policies, it does contain a few explicit commitments, drawn from other document such as the RWS:

- "We will continue to work with local authorities [our underlining] to increase household recycling in the short-term to achieve 50% by 2020." (page 12)
- "The waste producer and the waste holder should manage waste in a way that guarantees a high level of protection of the environment and human health. In accordance with the polluter-pays principle, the costs of waste management shall be borne by the original waste producer, or by the current or previous waste holders." (page 14)
- "The Government will introduce measures for England to increase household recycling by requiring all local authorities to collect a consistent set of dry materials from households in England; to collect food waste separately from all households on a weekly basis; and to arrange for garden waste collection where necessary. These measures, together with reforms to municipal business recycling are expected to increase municipal recycling from current levels to 65% *by 2035*." (page 21)
- "Those wishing to dispose of marine waste must demonstrate that appropriate consideration has been given to the internationally agreed hierarchy of waste management options for sea disposal. Waste is not accepted for disposal where appropriate opportunities exist to re-use, recycle or treat the waste without undue risks to either human health or the environment, or disproportionate costs." (page 27)

[25] MHCLG (2019) *National Planning Policy Framework,* available online at: https://www.gov.uk/government/publications/national-planning-policy-framework--2
[26] HMG (2017) *The Clean Growth Strategy: Leading the way to a low carbon future*, available at: https://www.gov.uk/government/publications/clean-growth-strategy
[27] HMG (2017) *Industrial Strategy: building a Britain fit for the future*, available at: https://www.gov.uk/government/publications/industrial-strategy-building-a-britain-fit-for-the-future
[28] HMG (2017) *Litter Strategy for England*, available at: https://www.gov.uk/government/publications/litter-strategy-for-england
[29] Defra et al (2012) *UK Plan for the Shipments of Wastes*, available at: https://www.gov.uk/government/publications/uk-plan-for-shipments-of-waste
[30] Defra (2013) *National Policy Statement for Hazardous Waste: A framework document for planning decisions on nationally significant hazardous waste infrastructure,* available at: https://www.gov.uk/government/publications/hazardous-waste-national-policy-statement

- "The network of waste disposal installations for recovery of mixed household wastes] must enable waste to be disposed of, or be recovered, in one of the nearest appropriate installations, by means of the most appropriate methods and technologies, in order to ensure a high level of protection for the environment and public health….This principle must be applied when decisions are taken on the location of appropriate waste facilities" (page 34).
- "Strategic policy-making authorities are required to cooperate with each other, and other bodies, when preparing, or supporting the preparation of policies which address strategic matters, including policies contained in waste local plans" (page 35)
- "We have committed to funding the net costs of new burdens on local authorities arising from new statutory duties introduced to increase consistency in recycling and we will work with local government bodies to develop our assessment of costs and changes necessary." (page 39)

2.2.7 The RWS identifies five key milestones:

- to work towards all plastic packaging placed on the market being recyclable, reusable or compostable by 2025;
- to work towards eliminating food waste to landfill by 2030;
- to eliminate avoidable[31] plastic waste over the lifetime of the 25 Year Environment Plan;
- to double resource productivity[32] by 2050; and
- to eliminate avoidable waste of all kinds by 2050

2.2.8 The draft WMPE includes reference to a number of targets, derived from the WFD and which can support progress on the five key milestones of the RWS:

- for household waste, a recycling rate of 50% by 2020;
- for municipal solid waste, a recycling rate of 65% by 2035;
- municipal waste to landfill, a target of 10% or less by 2035.

2.3 Reasonable Alternatives to the Waste Management Plan for England

2.3.1 As part of the SEA process, environmental reports are required to present specific information concerning reasonable alternatives to the plan or programme. Article 5 (1) of the SEA Directive 2001/42/EC requires that "*an environmental report shall be prepared in which the likely significant effects on the environment of implementing the plan or programme, and reasonable alternatives taking into account the objectives and the geographical scope of the plan or programme, are identified, described and evaluated*" [our underlining]. Information to be provided includes "*an outline of the reasons for selecting the alternatives dealt with*" (Annex I (h)).

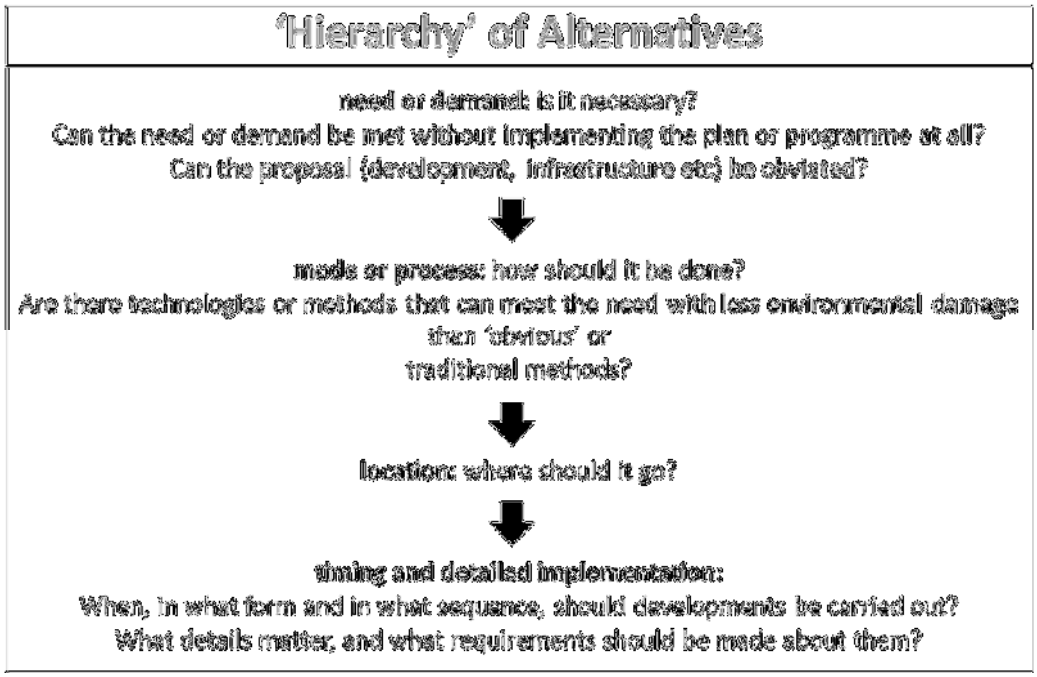
2.3.2 The European Commission guidance[33] on the SEA Directive discusses possible interpretations of handling 'reasonable alternatives' as required by Article 5(1). It states that "*The alternatives chosen should be realistic. Part of the reason for studying alternatives is to find ways of reducing or avoiding the significant adverse effects of the proposed plan or programme*". Echoing this, Government

[31] Plastic waste is 'avoidable' when the plastic could have been reused or recycled; when a reusable or recyclable alternative could have been used instead; or when it could have been composted or biodegraded in the open environment.
[32] Resource productivity is a measure of the value (in terms of GDP) we generate per unit of raw materials we use in the economy.
[33] European Commission (2001) *Implementation of Directive 2001/42 on the assessment of the effects of certain plans and programmes on the environment*

guidance[34] of the SEA states "*Only reasonable, realistic and relevant alternatives need to be put forward. It is helpful if they are sufficiently distinct to enable meaningful comparisons to be made of the environmental implications of each*".

2.3.3 In considering the reasonable alternatives to the draft WMPE, the EC and Government guidance, and the reference to "*reasonable, realistic and relevant alternatives …and sufficiently distinct to enable meaningful comparison"* has been followed. In order to provide a logical structure to the development of any reasonable alternatives, specific reference has been made to Appendix 6 of the Government's SEA guidance concerning a 'hierarchy' of alternatives (see **Figure 2.1**).

Figure 2.1 Hierarchy of Alternatives



2.3.4 The questions contained in this hierarchy, together with the approach taken in the 2013 SEA[35] of the WMPE and the experience of Scotland[36] and Wales[37], have been taken into account when considering the reasonable alternatives for the 2019 WMPE. The alternatives identified focus specifically on whether a WMPE is necessary, how it should be done and the extent to which it should specify locations for future development. In this context, and consistent with the hierarchy, the following alternatives to the draft WMPE (as proposed) have been identified:

- **Is it necessary?** To address this, the alternative of 'no WMPE' is considered.
- **How should it be done?** To address this, the following alternatives are considered:

[34] Office of the Deputy Prime Minister et al (2005) *A Practical Guide to the Strategic Environmental Assessment Directive. Available from* https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/7657/practicalguidesea.pdf [Accessed June 2019]

[35] Eunomia (2013) *Waste Management Plan for England: Strategic Environmental Assessment: Environmental Report.* Final Report for Defra. Available at https://consult.defra.gov.uk/waste/https-consult-defra-gov-uk-waste/

[36] SIStech, Enfusion and MWH (2009), *Strategic Environmental Assessment: Scottish National Waste Management Plan 2009,* Environmental Report and Sottish Government (2015) *Making Things Last: Consultation On Creating A More Circular Economy In Scotland*" SEA Environmental Report

[37] Welsh Government (2013) *Towards Zero Waste One Wales: One Planet - The Post Adoption Statement of the Waste Prevention Programme for Wales*

- the presentation of all the components necessary to meet the requirements of the WFD in a single integrated plan, with the flexibility to introduce new policies to affect the existing waste management policy landscape;
- an approach that establishes more ambitious targets for waste recycling and residual disposal, accelerating the likelihood of achieving preferred environmental outcomes when compared to commitments in the WMPE;
- an approach that provides a direction of travel that exceeds or varies existing waste commitments without being specific (in consequence it could include the provision of ambitions or objectives but avoids the provision of quantified targets or dates for waste streams or sectors).

- **Where should it go?** To address this, the following alternative is considered:
  - a site-specific WMPE.

2.3.5 These alternatives to the 2019 WMPE as proposed are considered in more detail below together with the rationale as to whether or not they should be taken forward for assessment as part of the SEA process.

2.3.6 With regard to the timing and detailed form of implementation (the fourth question in the hierarchy of alternatives in **Figure 2.1**), whilst both are fundamental aspects of implementation of the WMPE and will be considered in the SEA, they are also issues that are addressed in detail as part of the waste local planning process, consistent with the planning framework provided by the National Planning Policy for Waste (NPPW)[38] and the National Planning Policy Framework (NPPF)[39].

2.3.7 The 2013 WMPE SEA considered reasonable alternatives to the plan based on differing potential plan outcomes for each waste stream[40] covered by the plan. Whilst it is recognised that considering the effects of differing plan outcomes is not the same as considering the effects of the reasonable alternatives themselves, the 2013 Environmental Report highlighted a number of challenges in the development of the reasonable alternatives that led to the approach being taken:

- there was insufficient detail regarding the implementation measures proposed which created uncertainties;
- there were a very wide range of alternative measures which might be considered 'reasonable' which would therefore require the assessment of a very wide range of alternatives, each of which would need, in order for it to be properly evaluated, an indication of the specifics of its design;
- a wide range of possible policy alternatives could be considered capable of delivering similar, if not exactly the same, outcomes.

2.3.8 The approach was developed in consultation with the statutory consultees reflecting the nature of the WMPE, although it is noted that a number of public consultation comments were made regarding the lack of alternative policies proposed in the Environmental Report[41].

[38] MHCLG (2014) *National Planning Policy for Waste*, available at: https://www.gov.uk/government/publications/national-planning-policy-for-waste

[39] MHCLG (2019) *National Planning Policy Framework*, available at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/779764/NPPF_Feb_2019_web.pdf

[40] Household waste; commercial and industrial waste; and construction and demolition waste. Note hazardous waste appeared to be scoped out of the reasonable alternatives.

[41] Defra (2013) *Waste Management Plan for England Post Adoption Statement*. Available at: https://www.gov.uk/government/publications/waste-management-plan-for-england

2.3.9 The following subsections outline the alternatives to the WMPE that have been identified, consistent with the guidance on SEA, the hierarchy of alternatives and more recent SEA practice. Factors that affect their reasonableness are discussed and the resulting reasons for their selection or rejection are provided.

No WMPE

2.3.10 It is normal practice when undertaking an SEA to include a "business as usual" option or "do nothing option" when assessing the environmental impacts of alternative scenarios to a proposed plan. Under the 'no WMPE' alternative, a WMPE would not be prepared or published. In its absence, waste management in England would reflect a range of existing policy commitments including (inter alia):

- Resources and Waste Strategy (RWS);[42]
- National Planning Policy for Waste (NPPW);[43]
- Clean Growth Strategy;[44],
- Industrial Strategy;[45]
- Litter Strategy;[46]
- UK Plan for Shipments of Wastes;[47]
- National Policy Statements (NPS) for Hazardous Waste[48] and for Renewable Energy Infrastructure[49] (in so far as it relates to facilities which recover energy from waste).

2.3.11 Given that the draft WMPE does not introduce new policies or change the policy landscape of how waste is managed in England, it could be argued that the 'no WMPE' option differs little from an option where a WMPE is published; however, the WMPE does provide a single plan that links the multiple sources of waste management policy within a coherent framework. Its publication also ensures that the mandatory requirements of the revised WFD Article 28 are met. These requirements include:

- an analysis of the current waste management situation in England and the waste management measures to be taken to support the implementation of the objectives and provisions of the WFD;
- the type, quantity and source of waste generated within the territory, the waste likely to be shipped from or to the national territory, and an evaluation of the development of waste streams in the future; and
- an assessment of existing waste collection schemes and of the need for new collection schemes;

[42] HMG (2018) *Our Waste, Our Resources: A Strategy for England*, available at, https://www.gov.uk/government/publications/resources-and-waste-strategy-for-england
[43] MHCLG (2014) *National Planning Policy for Waste*, available at: https://www.gov.uk/government/publications/national-planning-policy-for-waste
[44] HMG (2017) https://www.gov.uk/government/publications/clean-growth-strategy
[45] HMG (2017) https://www.gov.uk/government/publications/industrial-strategy-building-a-britain-fit-for-the-future
[46] HMG (2017) https://www.gov.uk/government/publications/litter-strategy-for-england
[47] https://www.gov.uk/government/publications/uk-plan-for-shipments-of-waste
[48] https://www.gov.uk/government/publications/hazardous-waste-national-policy-statement
[49] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/47856/1940-nps-renewable-energy-en3.pdf

- an assessment of the need for the closure of existing waste installations and for additional waste installation infrastructure.

In the absence of the WMPE, to address these requirements would require reference to further sources of information (e.g. Defra statistics on waste[50] and/or waste local plans).

2.3.12 The Waste (England and Wales) Regulations 2011 (the Waste Regulations) transpose the WFD and stipulate that the Government must produce a Waste Management Plan and review it every six years. In consequence, not to prepare and publish a WMPE would leave the UK government in breach of its own regulatory requirements. On this basis, it is the Government's view that 'no WMPE' would not be a reasonable alternative.

2.3.13 **It is the Government's view that whilst it is common practice for SEAs to contain a "business as usual" option or "do nothing" option, given the regulatory requirements to prepare, publish and update the WMPE, 'no WMPE' is not a reasonable alternative. In particular, it is not reasonable or realistic to intentionally create a position where the Government is in breach of its own regulations. In consequence, the 'no WMPE' alternative has not been taken forward for consideration in the SEA**.

A single integrated plan

2.3.14 Under this alternative, it is proposed to ensure that the framework of separate plans, policies and strategies completed to fulfil the requirements of Article 28 of the WFD would be combined into a single integrated plan. This minimises duplication, avoids the need for cross referencing to separate plans, strategies or policies and aids clarity and currency.

2.3.15 Whilst the argument can superficially be made for simplicity, given the myriad of commitments such a single document would contain, in practice the unification of some eleven[51] national documents, of differing purpose and function presents significant practical difficulties. For example:

- it would require all component documents to be up to date and that an integrated and harmonised programme of work would be continued to ensure that all relevant sources continue to be up to date;
- it does not provide the flexibility to permit revision where component documentation is linked and changed e.g. the relationship between the NPPW and the NPPF;
- some of the proposed source documents have a distinct statutory purpose e.g. the NPSs, and their use as the primary basis for the examination by the Examining Authority, and for decisions by the Secretary of State, in considering development consent applications for nationally significant infrastructure.

If a single integrated plan were intended to be comprehensive, there could also be an argument that waste local plans would need to be included, given that these include strategies that identify sites and areas suitable for new or enhanced facilities to meet the waste management needs of their respective communities. In consequence, there remains a question whether the single integrated plan approach is a realistic option, given the practical challenges that the compilation of such a document would create.

[50] Defra (2018), *UK Statistics on Waste*. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/683051/UK_Statisticson_Waste_statistical_notice_Feb_2018_FINAL.pdf [Accessed July 2019]

[51] WMPE, NPPW, RWS, Clean Growth Strategy, Industrial Strategy, Litter Strategy, UK Plan for Shipments of Wastes, NPS (x2), National Infrastructure Delivery Plan and UK Statistics on Waste

2.3.16 A potential benefit of a single integrated plan would be the possibility that it could include new waste management policies, rather than simply providing a co-ordinating framework for existing waste management policies. However, to then be considered a reasonable alternative to the current WMPE, it would require articulation of the new policies (rather than merely establishing the principle that it could contain new policies). As was noted in the SEA of the 2013 WMPE, this would then require consideration of a very wide range of alternative measures which might be considered 'reasonable', not to mention 'realistic and relevant'.

2.3.17 An approach which was based around the elaboration of alternative implementation measures would therefore require the appraisal of a very wide range of alternatives, each of which would need, in order for it to be properly evaluated, an indication of the specifics of its design. Such an approach may not be deemed proportionate or realistic.

2.3.18 It is also noted that some of the component documents contain policies outside the scope of the WFD e.g. the RWS. Therefore, the utility and need of including whole documents is questioned, or whether consideration would need to be given to separating those elements required to meet the WFD from those that are not, with the resulting uncertainties with regard to the approach. Necessarily then, it could lead to the retention of two revised documents, thereby losing some of the value of 'simplification'.

2.3.19 **It is the Government's view that when the practical aspects of combining the separate documentation into a single integrated plan are taken into account, any advantages offered are outweighed by the difficulties to the extent that the alternative cannot be considered reasonable, viable or realistic. In consequence, the 'single integrated plan' alternative has not been taken forward for consideration in the SEA**.

More ambitious target based plan

2.3.20 The draft WMPE includes reference to a number of targets:

- for household waste, a recycling rate of 50% by 2020;
- for municipal solid waste, a recycling rate of 65% by 2035;
- municipal waste to landfill, a target of 10% or less by 2035.

2.3.21 When England's performance is considered within the context of these targets and the performance of other European countries, there is potential scope for improvement. For example, the most recent statistics[52] show that for household waste, the recycling rate for England was 45.2% for 2017. In comparison, the national recycling rates for municipal waste for other European countries[53] was equal or greater to 50% in six countries (with Germany achieving the highest rate of 64%). As the RWS notes, the "*progress in England has recently stalled for both domestic and business waste recycling. There has been insufficient action to drive better quantity and quality in recycling*". In consequence, there is potential to reframe the scope of the existing targets for England in the WMPE to drive a further improvement in performance.

2.3.22 Reflecting current performance and scope for improvement, there is then the potential to introduce targets that could then be applied to the different categories of waste covered by the WMPE:

- household waste and commercial waste of a nature similar to household waste;
- industrial (including agricultural) and other commercial waste;

[52] https://www.gov.uk/government/organisations/department-for-environment-food-rural-affairs/series/waste-and-recycling-statistics
[53] EEA (2019) *Indicators – waste recycling*. Available at: https://www.eea.europa.eu/data-and-maps/indicators/waste-recycling-1/assessment [Accessed July 2019]

- industrial waste - construction and demolition waste;
- hazardous waste.

2.3.23 For example, the household waste recycling target could be increased or the target date brought forward. In this regard, in February 2019 the Government published a consultation on measures to increase recycling from households and businesses. The Government has now completed its analysis of submissions and provided its response[54]. The Government states in its response, "*The consultation on consistency was concerned with measures to improve the quantity and quality of what we recycle both at home and at work in England. We believe that these measures would help to transform recycling in England and to increase recycling rates significantly above 50%, towards the much higher recycling rate of 65%.*"

2.3.24 However, targets may not be needed for all waste types. For example, against the WFD target to recover 70% of non-hazardous construction and demolition waste by 2020, the annual recovery rate for Construction and Demolition in England has remained at around 92% since 2010. In 2016, the recovery rate was 92.1%.

2.3.25 In consequence, further work is required to define the waste types to be included and the targets to be established to ensure that they are sufficiently challenging, credible, appropriate and supported by stakeholders. This could not be carried out within the timeframe for publication of the WMPE but with further thinking and evidence could potentially be achievable in the future.

2.3.26 **It is the Government's view that including more ambitious targets could represents a realistic alternative to the current draft WMPE; however, to be credible, significant further work is required regarding the specificity of the targets, and their applicability to sectors and waste types. In consequence, whilst it is viable, it is not realistic or reasonable at this stage. The 'more ambitious target' based alternative has not, therefore, been taken forward for consideration in the SEA**.

Direction of travel

2.3.27 Whilst potentially less ambitious than that set out in the previous target based alternative, this option seeks to consider the potential to move further up the waste management hierarchy for each waste type, thereby encouraging a direction of travel, but in a manner that is less prescriptive and which could present greater flexibility to exceed current rates or timeframes. It avoids the need for specificity in policy measures and is also broadly compatible with the approach taken in the SEA of the 2013 WMPE to reasonable alternatives as it would be presented as an increase in, or a reduction in, the quantity of waste:

- prevented;
- sent for preparation for re-use;
- recycled;
- sent for other forms of recovery; or
- sent for disposal.

2.3.28 The effects could be considered for each waste stream covered by the WMPE, as follows:

- household waste and commercial waste of a nature similar to household waste;

[54] Defra (2019) *Consultation outcome: consistency in recycling collections in England: executive summary and government response*, available at https://www.gov.uk/government/consultations/waste-and-recycling-making-recycling-collections-consistent-in-england/outcome/consistency-in-recycling-collections-in-england-executive-summary-and-government-response

- industrial (including agricultural) and other commercial waste;
- industrial waste - construction and demolition waste;
- hazardous waste.

2.3.29 **It is the Government's view that including a 'direction of travel' alternative represents a reasonable and realistic alternative to the current draft WMPE and is compatible with the approach taken in the SEA of the 2013 WMPE. In consequence, the 'direction of travel' alternative has been taken forward for consideration in the SEA.**

A site specific WMPE

2.3.30 Article 28 of the WFD specifies that the WMPE should contain, amongst other things, "*sufficient information on the location criteria for site identification and on the capacity of future disposal or major recovery installations, if necessary*". The 2019 WMPE is non-site specific; the locational information is in part contained with the NPPW and NPPF. These planning policies are then taken into account by local authorities:

- in assessing the suitability of areas and sites for waste development within local plans; and
- in determining planning applications.

It is then the detailed policies and site allocations of individual local waste plans that provide the information relating to the location of waste management facilities.

2.3.31 An alternative to the approach would be for the WMPE to be more specific in terms of the identification of sites to be developed for waste management.

2.3.32 However, to take a site-specific approach for waste management would represent a departure from the current approach to spatial planning in England and would be inconsistent with the current NPSs, NPPW and NPPF (which was most recently revised in February 2019).

2.3.33 The implementation of a site-specific approach for waste management would require significant evidence in terms of need, appropriateness and ongoing relevance that would duplicate the existing statutory planning process and could lead to unnecessary conflicts. For example, under this alternative, the Government would be making assumptions about the nationally and locally significant infrastructure required and the locations needed. As such, it could be in conflict with waste local plans which also identify and allocate sites for waste infrastructure to meet local community needs or could constrain future local site identification and selection. On this basis, it is the Government's view that the existing approach to waste management spatial planning remain the most appropriate.

2.3.34 In addition, it is noted that the environmental effects of the current spatial planning framework for waste management (in terms of the NPPW, the NPSs and waste local plans) are assessed within the context of the SEA Directive and Regulations. There is the potential risk that whilst any SEA of a site-specific WMPE would be undertaken, it could not provide the level of detail necessary to ensure that all more localised effects have been identified, described and evaluated.

2.3.35 **It is the Government's view that including a 'site specific WMPE' alternative does not represent a reasonable and realistic alternative to the current draft WMPE and is incompatible with the current approach to spatial planning in England. In consequence, the 'site-specific WMPE' alternative has not been taken forward for consideration in the SEA.**

2.4 Conclusion

2.4.1 Following the application of the reasonableness test in compliance with Article 5(1) of the SEA Directive, one alternative to the draft WMPE (as proposed) has been identified as reasonable and has been taken forward for appraisal as part of this SEA, namely the ''direction of travel' alternative'.

3. Approach to the Assessment

This section describes the approach to the assessment of the WMPE. It draws on relevant contextual information to define the scope of the assessment (in terms of the issues considered, the geographic extent and the timeframe) and sets out the SEA objectives and guide questions that comprise the assessment framework. The section then outlines how this assessment framework will be used to assess the WMPE and any reasonable alternatives.

3.1 Scope of the Assessment

3.1.1 The aim of the SEA is to identify, describe and evaluate the likely significant effects of implementing the WMPE on the environment. Schedule 2 of the SEA Regulations require that the assessment includes information on the "*likely significant effects on the environment, including on issues such as: biodiversity; population; human health; fauna; flora; soil; water; air; climatic factors; material assets; cultural heritage, including architectural and archaeological heritage; landscape; and the inter-relationship between the issues referred to*".

3.1.2 In considering the scope of the effects to include with the SEA, reference has been made to Schedule 1 'Waste prevention and management plans', Part 1 (objectives) of the Waste Regulations which states that one of the objectives of the WMPE is:

"3. *To ensure that waste management is carried out without endangering human health, without harming the environment and, in particular—*

(a) without risk to water, air, soil, plants or animals;

(b) without causing a nuisance through noise or odours; and

(c) without adversely affecting the countryside or places of special interest."

3.1.3 In consequence, to consider the extent to which this objective has been realised, the effects on biodiversity; population; human health; fauna; flora; soil; water; air; cultural heritage; and landscape have been scoped into the assessment.

3.1.4 These issues have been supplemented by consideration of the:

- key policy objectives identified from the review of other plans and programmes relevant to the assessment of the WMPE (**Appendices C and D**);
- the environmental issues arising from the analysis of the baseline (**Table 3.3 and Appendix D**); and
- the 2013 SEA of the WMPE which noted that the scope of the SEA was limited to the impacts of the management of wastes, as defined by the revised Waste Framework Directive. This means that, among other things, radioactive waste, decommissioned explosives and waste water were excluded from the scope of both the Plan and the assessment.

3.1.5 In **Table 3.1**, each of the 12 SEA topic areas is considered in turn. In this instance, none of the topic areas have been scoped out of the assessment. This is consistent with the SEA of the 2013 WMPE.

Table 3.1 Basis for Scoping Out Topic Areas from the SEA

SEA Topic Area	Included in WMPE SEA?	Justification for scoping the topic out of the SEA
Biodiversity	Yes	Included within SEA framework. .
Population	Yes	Included within SEA framework.
Human Health	Yes	Included within SEA framework.
Fauna	Yes	Included within SEA framework.
Flora	Yes	Included within SEA framework.
Soils	Yes	Included within SEA framework.
Water	Yes	Included within SEA framework.
Air	Yes	Included within SEA framework.
Climatic factors	Yes	Included within SEA framework.
Material assets	Yes	Included within SEA framework.
Cultural Heritage	Yes	Included within SEA framework.
Landscape	Yes	Included within SEA framework.

Geographic Scope

3.1.6 The WMPE is for England, which is defined in Regulation 7 (3)(a) of the Waste Regulations as including "*the sea adjacent to England out as far as the seaward boundary of the territorial sea*."

3.1.7 Reflecting the geographic extent of the plan, the SEA will consider the potential effects of the draft WMPE in England (including in the marine environment). The SEA of the 2013 WMPE did not identify any effects outside England, and whilst none are expected from the assessment of the 2019 WMPE, if any identified effects do extend outside England, these will also be described and assessed. As waste is a devolved matter, devolved administrations are responsible for producing a Plan for their areas, and it is noted that in this regard, for the previous plans produced for Scotland and Wales, the accompany SEAs did not identify any effects on England.

3.1.8 As noted in **Section 1.3**, as the WMPE is non-site specific, the SEA will not assess any site-specific proposals for waste and resources infrastructure. In this regard, the NPPW provides the planning framework to enable local planning authorities to put forward, through waste local plans, strategies that identify sites and areas suitable for new or enhanced facilities to meet the waste management needs of their areas. Under Section 19(5) of the Planning and Compulsory Purchase Act 2004, local planning authorities are required to carry out an appraisal of sustainability of the waste local plan and in undertaking this requirement, local planning authorities must also incorporate the requirements of the SEA Directive. In consequence, local planning authorities are responsible for ensuring that the likely significant effects on the environment of allocating new sites for development have been identified, described and evaluated. Planning applications for individual development proposals need to be consistent with the planning policies of the local plan, and depending on the scale and likely effects of the development may also then be subject to the requirements of Environmental Impact Assessment (EIA) Regulations[55] and the Habitats Regulations[56].

[55] Town and Country Planning (Environmental Impact Assessment) Regulations 2017
[56] Conservation of Species and Habitats Regulations 2017

Timescales

3.1.9 When considering the timing of potential effects of the draft WMPE, the assessment has classified effects as 'short,' 'medium' or 'long-term.' This reflects an intention to capture the differences that could arise at different timescales, consistent with the requirements of Schedule 1 (2)(a) of the SEA Regulations where the assessment of the effects should have regard to "*the probability, duration, frequency and reversibility of the effects*".

Table 3.2 below summarises the timescales applied in the SEA informed by the 6 year duration of the plan. Short-term will be considered as up to 1 year, medium-term (from 1 year to 6 years (the end of the plan)) and long-term will for the period beyond 6 years (beyond the lifetime of the plan).

Table 3.2 Duration of Short, Medium and Long Term

Estimated Length (years)	Duration
0-1 years	Short
>1-6 years	Medium
Over 6 years	Long

3.2 Key Issues Relevant to the Draft Waste Management Plan

3.2.1 For each topic considered within the SEA, and from the analysis of current and projected baseline conditions, a number of issues have been identified as being relevant to the draft WMPE and SEA. These are presented in **Table 3.3**. The issues identified and the trend information summarised in the table is taken from the analysis of the baseline information presented in **Appendix D**. References are presented as appropriate. The final column presents a reference to the relevant SEA objectives and indicates how these issues have been reflected within the assessment framework (see **Table 3.4**).

Table 3.3 Key Issues Relevant to the Waste Management Plan for England

Topic	Summary of Key Issues	WMPE SEA Objectives link
1. Biodiversity and Nature Conservation	Relevance to the Waste Management Plan and SEA • The construction of infrastructure, including waste management infrastructure, has the potential to affect biodiversity and ecosystem resilience. Impacts may be direct (for example, the loss of, or damage to, habitats and species) or indirect (for example, disturbance due to noise and emissions to air associated with construction works).[57] • The operation of waste management infrastructure (including landfills) could result in emissions to air, soils and water,[58] which have the potential to affect habitats and species and wider ecosystem resilience.[59]	Objective 1: Biodiversity and Nature Conservation Objectives 3 & 4: Human Health Objectives 5 & 6: Land Use, Geology and Soils Objectives 7 & 8: Water

[57] Natural England (2008) *State of the Natural Environment Report*. Available online at: http://publications.naturalengland.org.uk/file/63039
[58] HM Government (2018) *Our Waste, Our Resources: A Strategy for England: Technical Annex*. Available online at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/765915/rws-evidence-annex.pdf
[59] Natural England (2008) *State of the Natural Environment Report*. Available online at: http://publications.naturalengland.org.uk/file/63039

Topic	Summary of Key Issues	WMPE SEA Objectives link
	• Transport, including waste collection logistics, could impact upon habitats through pollution and climate change.[57] • The release of litter into the environment, including marine litter, can cause severe harm to species.[60,61] • Former landfill sites can be reclaimed to become nature and wildlife sites, with benefits for biodiversity.[62] • Using the waste hierarchy to improve resource efficiency could reduce the extraction of raw materials. The per-kg environmental impacts of secondary materials are estimated to be an order of magnitude lower than for primary materials.[63] • Waste practices may affect the spread of invasive species, for example through the disposal of soil or plant material contaminated with invasive non-native plants.[64] <u>Key Trends</u> • Special Areas of Conservation (SACs), Sites of Community Importance (SCIs), Special Protection Areas (SPAs) and Ramsar sites are important for biodiversity at the international level. The total extent of land and sea in the UK protected by national and international designations has increased from 15.4 million hectares in December 2013 to 28.0 million hectares at the end of March 2018. This increase is almost entirely down to the designation of inshore and offshore marine sites.[65] • Since 2005, the percentage of features or area of Areas/Sites of Special Scientific Interest (A/SSSIs) in favourable or recovering condition has increased from 67% to 86% in 2013 and remained stable at 85% in 2018. This change reflects improved management of sites, but may also be affected by a greater number of sites/features having been assessed over time.[22] • The annual review of UK Biodiversity Indicators comprises 50 measures (of which of 7 are not assessed in the long term and 10 are not assessed in the short term). Of the 43 long-term measures, 23 show an improvement, compared to 10 of the measures that were deteriorating (an improvement from 13 in the previous report). Of the 43 short term measures, 16 show an improvement, as compared to 9 in decline (compared to 10 in the previous report).[66] • The Joint Nature Conservation Committee's (JNCC) third review of the UK's SPA network has identified that whilst total numbers of breeding seabirds / waterbirds, and of non-breeding waterbirds, have increased, total numbers of breeding birds of prey have declined.[67]	Objective 9: Air Quality Objective 10: Climatic Factors Objective 11: Flood Risk and Coastal Change

[60] Keep Britain Today (2018) *Journal of Litter and Environmental Quality: Volume 2, Number 1*. Available online at: https://www.keepbritaintidy.org/sites/default/files/resource/15913_Journal%20of%20Litter%20and%20Environmental%20Quality_v7-online%20%281%29.pdf
[61] European Environment Agency (2016) *Litter in our seas.* Available online at: https://www.eea.europa.eu/signals/signals-2014/close-up/litter-in-our-seas
[62] Essex Wildlife Trust (2019) *Thurrock Thameside Nature Park*. Available online at: https://www.essexwt.org.uk/nature-reserves/thurrock-thameside
[63] OECD (2019) *Global Material Resources Outlook to 2060: Economic Drivers and Environmental Consequences*. Available online at: https://read.oecd-ilibrary.org/environment/global-material-resources-outlook-to-2060_9789264307452-en#page1
[64] GOV.UK (2019) *Stop invasive non-native plants from spreading*. Available online at: https://www.gov.uk/guidance/prevent-the-spread-of-harmful-invasive-and-non-native-plants
[65] Joint Nature Conservation Committee (2018) *Protected Areas*. Available online at: http://jncc.defra.gov.uk/page-4241
[66] Defra (2018) *UK Biodiversity Indicators 2018*. Available online at: http://jncc.defra.gov.uk/pdf/UKBI_2018.pdf
[67] Joint Nature Conservation Committee (2016) *The status of UK SPAs in the 2000s: the third network review*. Available online at: http://jncc.defra.gov.uk/pdf/UKSPA3_StatusofUKSPAsinthe2000s.pdf

Topic	Summary of Key Issues	WMPE SEA Objectives link

	• Birds in the UK are showing changes in abundance and distribution, predominantly moving northwards, in a way that is consistent with a changing climate.[68]
	• Key pressures and risks in respect of biodiversity and nature conservation that are relevant include, inter-alia:[59]
	  ○ population growth;
	  ○ habitat loss and fragmentation by development;
	  ○ agricultural intensification and changes in agricultural management practices;
	  ○ changes in woodland and forestry management;
	  ○ water abstraction, drainage or inappropriate river management;
	  ○ lack of appropriate habitat management;
	  ○ atmospheric pollution (acid precipitation, nitrogen deposition);
	  ○ water pollution from both point and wider (diffuse) agricultural sources;
	  ○ climate change and sea level rise;
	  ○ recreational pressure and human disturbance; and
	  ○ invasive and non-native species.	

2. Population, Economics and Skills	Relevance to the Waste Management Plan and SEA • The growing population within the UK[69] will increase population densities and, in-turn, has the potential to increase the pressure on resources. However the UK is becoming more resource efficient, and is currently reducing waste and increasing production of secondary materials.[58] • Commercial and industrial organisations have key roles to play in designing out waste and preparing items for reuse.[58] • Consumer behaviour influences waste generation, littering/disposal and waste management operations, for example, whether consumers choose to recycle household waste, or purchase products that are able to be recycled or reused.[58] • The construction of waste management infrastructure can represent a significant capital investment with the potential to create employment opportunities, deliver supply chain benefits and contribute to skills development in the working population, depending on the scale of investment. • The construction and operation of waste management infrastructure including landfill sites has the potential to adversely affect businesses and communities, principally due to disruption. • Changes to waste collections may alter employment opportunities in the waste sector in the medium and long term.[70,71] • Under the polluter-pays principle, the costs of waste management should be borne by the original waste producer and potentially the	Objective 2: Population, Economics and Skills Objectives 3 & 4: Human Health

[68] RSPB (2017). *The State of the UK's Bird's 2017*. Available online at: https://www.rspb.org.uk/globalassets/downloads/documents/conservation-science/220-0653-17-18-sukb-2017-web-20-3-18.pdf
[69] Office for National Statistics (2018) *Overview of the UK population*. Available online at: https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/articles/overviewoftheukpopulation/november2018
[70] Zero Waste Scotland (2017) *Deposit Return Evidence Summary*. Available online at: https://www.zerowastescotland.org.uk/sites/default/files/Deposit%20Return%20Evidence%20Summary.pdf
[71] Defra (2019) *Introducing a Deposit Return Scheme on beverage containers*. Available online at: https://consult.defra.gov.uk/environment/introducing-a-deposit-return-scheme/supporting_documents/depositreturnconsultia.pdf

Topic	Summary of Key Issues	WMPE SEA Objectives link
	distributor. This may result in the costs of disposing an item being more accurately reflected in the price of a product.[72] However a packaging producer responsibility system could lead to the full net costs of managing packaging waste being paid by producers.[58] Key Trends • The current UK population is generally increasing and is projected to reach 74.3 million by 2039, a rise of 9.7 million people. Assumed net migration accounts for 51% of the projected increase, with natural increase (more births than deaths) accounting for the remaining 49% of growth.[73] • The respective indicators and areas of multiple deprivation show that there continues to be deprivation in specific areas of England.[74] These areas may be particularly vulnerable to increases in living costs. Those who live in the most deprived places in the country, also live in the places where there is the most litter, graffiti and dog fouling.[75] • There are current uncertainties over future market conditions and whilst current financial conditions are stable, the Bank of England has highlighted a number of domestic and international risks in the short term that could test the resilience of the financial system.[76]	
3. Human Health	Relevance to the Waste Management Plan and SEA • There are potential health impacts associated with the waste industry due to emissions to air, however the risk is very small.[77,78] There are also occupational effects on health for waste collection workers due to vehicle emissions, accidents and manual handling.[79] • Methane emissions from landfill can also cause concerns, however the decreasing use of landfill, coupled with the robust monitoring of such sites, have lessened this issue.[80] • Noise and odour nuisance from the construction and operation of waste management infrastructure can also have adverse effects on human health and wellbeing.	Objective 2: Population, Economics and Skills Objectives 3 & 4: Human Health

[72] Scottish Government (2018) *Making Things Last: a circular economy strategy for Scotland: 7. Producer Responsibility for reuse and recycling.* Available online at: https://www.gov.scot/publications/making-things-last-circular-economy-strategy-scotland/pages/11/
[73] ONS (2015) *National Population Projections: 2014-based Statistical Bulletin*. Available online at: https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationprojections/bulletins/nationalpopulationprojections/2015-10-29
[74] DCLG (2015) *The English Indices of Deprivation 2015*. Available online at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/465791/English_Indices_of_Deprivation_2015_-_Statistical_Release.pdf
[75] Keep Britain Tidy (2015) How clean is England? The Local Environmental Quality Survey of England 2014/15. Available online at: https://www.keepbritaintidy.org/sites/default/files/resources/KBT_How_Clean_Is_England_LEQSE_Report_2015.pdf
[76] Bank of England (2018) *Financial Stability Report: Executive summary June 2018*. Available online at: https://www.bankofengland.co.uk/financial-stability-report/2018/june-2018
[77] Defra (2004) *Review of Environmental and Health Effects of Waste Management: Municipal Solid Waste and Similar Wastes*. Available online at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/69391/pb9052a-health-report-040325.pdf
[78] Public Health England (2014) *Incinerators and public health*. Available online at: https://www.gov.uk/government/publications/incinerators-and-public-health
[79] WRAP & CIWM (2009) *Scoping study of potential health effects of fortnightly residual waste collection and related changes to domestic waste systems*. Available online at: http://www.wrap.org.uk/sites/files/wrap/Scoping%20study%20of%20potential%20health%20effects%20of%20fortnightly%20waste%20collection%20Final1.pdf
[80] Health Protection Agency (2011) *Impact on Health of Emissions from Landfill Sites*. Available online at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/334356/RCE-18_for_website_with_security.pdf

Topic	Summary of Key Issues	WMPE SEA Objectives link
	• Reliable removal of waste from households and business has human health benefits, through the avoidance of the breakdown of waste in residential areas, and spread of pests in unmanaged waste.[79] • Hazardous waste is not permitted to be exported from the UK to developing countries, and waste must only be exported for recovery when it will be treated in facilities that operate to a broadly equivalent standard to those in the UK.[81] These legislative controls aim to prevent harm to human health as a result of processing the UK's waste elsewhere in the world, although illegal shipments may still result in harmful practices. • There is considerable uncertainty regarding the effects on microplastics on health.[82] <u>Key Trends</u> • Health inequalities exist in many communities. This is due to a number of factors (and the interplay between them) including housing quality, economic wellbeing, employment, lifestyle, heredity factors, cultural and environmental factors.[36] • Sustained exposure to elevated air pollution levels (including exposure to elevated concentrations of particulate matter, oxides of nitrogen and sulphur) contributes to respiratory illness.[83] • Life expectancy at birth in the UK has reached its highest level on record for both males and females. From 1982 to 2017, life expectancy at birth has increased from 70.8 to 79.2 years for males and 76.8 to 82.9 years for females.[84]	
4. Land Use, Geology and Soils	<u>Relevance to the Waste Management Plan and SEA</u> • Soils are a non-renewable resource vulnerable to changes in land use. • The construction of waste management infrastructure such as sorting plants, Energy from Waste sites, fleet depots has the potential to affect land use and soil. Impacts may be direct (for example, the loss of, or damage to, land and soil from new development) or indirect (for example, the location of new infrastructure affecting adjacent land uses). The appropriate management and control of soils and sediments that are excavated, moved and/or stored during construction is key to their long-term sustainability.[85] • Secondary impacts from waste management include soil and water contamination e.g. from historic landfills resulting in ground contamination[86] and littering into local environs, with 14% of sites	Objective 1: Biodiversity and Nature Conservation Objectives 3 & 4: Human Health Objectives 5 & 6: Land Use, Geology and Soils Objectives 7 & 8: Water Objective 10: Climatic Factors

[81] Defra (2013) *Waste Management Plan for England*
[82] SAPEA (2019) *A Scientific Perspective on Microplastics in Nature and Society*. Available online at: https://www.sapea.info/wp-content/uploads/report.pdf
[83] WHO (2014) *Burden of disease from ambient air pollution for 2012*. Available online at: www.who.int/phe/health_topics/outdoorair/databases/AAP_BoD_results_March2014.pdf?ua=1
[84] ONS (2018) *National life tables, UK: 2015 to 2017*. Available online at: https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/lifeexpectancies/bulletins/nationallifetablesunitedkingdom/2015to2017
[85] Defra (2009) *Construction Code of Practice for the Sustainable Use of Soils on Construction Sites*. Available online at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/716510/pb13298-code-of-practice-090910.pdf
[86] Environment Agency (2002) *Dealing with contaminated land in England*. Available online at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/313967/dealing_with_contaminated_land_i.pdf

Topic	Summary of Key Issues	WMPE SEA Objectives link
	surveyed across England in 2017/18 not meeting an acceptable standard for litter.[87] • Minimising demand for landfills by supporting greater recycling and recovery of materials could help to protect geomorphological functions and services. • The use of composted organic waste on land can have beneficial effects on soil quality (depending on the content and quality of the compost).[88] • Using the waste hierarchy to improve resource efficiency could reduce the extraction of raw materials in other countries e.g. by open-cast mining, which can have detrimental effects on soils and land use. <u>Key Trends</u> • The principal land uses in the UK are grassland, arable/horticulture and forestry. The 2011 UK National Ecosystem Assessment classifies 6.8% of the UK's land area as urban.[89] • Approximately 1.6% of the land in the UK has been affected by contamination from industrial activity, although this is progressively being addressed as sites are redeveloped.[90] Disturbance of contaminated sites carries the risk of pollution pathways being created or re-opened for any existing ground contamination. • There is currently increasing pressure on rural and agricultural land from developers as urban areas expand.[91] Future population growth leading to an increase in the need for housing and related urban development infrastructure will put more pressure on protected land including important geological sites. • Soils in England continue to be affected by human actions including intensive agriculture, historic levels of industrial pollution and urban development, making them vulnerable to erosion (by wind and water), compaction and loss of organic matter. • The use of landfills should decrease in time due to stringent targets and legislation however local authorities must continue to monitor landfill, as closed and historic landfills present a risk of leaching of leachate and toxins into local lands and waterways. • There may be a capacity gap in waste management infrastructure of between -3.8Mt and 8.5Mt[92], which depending on requirements and locations, may require changes in land use and infrastructure. • As the climate (including temperature and rainfall patterns) changes in the future, it is likely that soils have the potential to be further	

[87] Keep Britain Tidy (2018) *Litter in England: The Local Environmental Quality Survey of England 2017/18*. Available online at: https://www.keepbritaintidy.org/sites/default/files/resources/National%20Litter%20Survey%20201718.pdf
[88] SEPA (2015) *Organic waste and its benefits to soil*. Available online at: https://www.sepa.org.uk/media/120196/organic_waste_benefits_to_soil.pdf
[89] UNEP (2011) *UK National Ecosystem Assessment, Synthesis of Key Findings 2011*. Available online at: http://uknea.unep-wcmc.org/Resources/tabid/82/Default.aspx
[90] Department for International Trade (2015) *Land remediation: Bringing brownfield sites back to use*. Available online at: https://www.gov.uk/government/publications/land-remediation-bringing-brownfield-sites-back-to-use/land-remediation-bringing-brownfield-sites-back-to-use
[91] Defra (2018) *A Green Future: Our 25 Year Plan to Improve the Environment Annex 1: Supplementary evidence report* (page 51). Available online at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/673492/25-year-environment-plan-annex1.pdf
[92] Tolvik Consulting (2017) *UK Residual Waste: 2030 Market Review*. Available online at: http://www.esauk.org/application/files/6015/3589/6453/UK_Residual_Waste_Capacity_Gap_Analysis.pdf

Topic	Summary of Key Issues	WMPE SEA Objectives link
	degraded, as a result of both the direct and indirect impacts of climate change.[93]	
5. Water	Relevance to the Waste Management Plan and SEA • There is considerable pressure on water resources in many parts of the UK, particularly the south east and east of England, which can in turn affect water quality.[94] • Many historic landfills were opened - and closed – without being suitably lined or capped to today's standards. This means that leachate may escape from the sites and enter into any underground waterways.[80] • The construction and operation of infrastructure, including waste management infrastructure, could have adverse impacts on water quality due to, for example, pollution and discharges. • Resource extraction and manufacturing may require water and have adverse effects on water quality, which could be avoided through the designing out of waste, and reuse and recycling of products and materials.[58] • Inland waterways can act as litter transport pathways to the marine environment. Key Trends • Coastal, estuarine and river water quality has improved since 1990.[95] • There is a legacy of groundwater pollution in the UK from historical mining and other industrial activities, although this is progressively being addressed as sites are remediated as part of site redevelopment.[90] • Many waterbodies are subject to pressure from multiple sources including rural diffuse pollution, waste water discharges, acidification and urban diffuse pollution, that pose a risk to water quality[96]. • Demand for water is expected to increase from a growing population alongside industrial, agricultural and commercial pressures.[97] • Climate change is expected to have significant impacts on the water environment. The risk of prolonged and more severe droughts is increasing, which in turn risks the increasing use of drought restrictions measures and consequent effects on the environment, people and the economy.[98]	Objective 1: Biodiversity and Nature Conservation Objectives 3 & 4: Human Health Objectives 5 & 6: Land Use, Geology and Soils Objective 7: Water Objective 10: Climatic Factors
6. Air Quality	Relevance to the Waste Management Plan and SEA • Air quality is sensitive to changes in traffic volume and emissions from other sources such as construction plant and machinery.	Objective 1: Biodiversity and Nature Conservation Objectives 3 & 4: Human Health

[93] UK Committee on Climate Change (2017) *UK Climate Change Risk Assessment*. Available online at: https://www.theccc.org.uk/uk-climate-change-risk-assessment-2017/
[94] Environment Agency (2007) *Areas of water stress: final classification*. Available at: http://publications.environment-agency.gov.uk/PDF/GEHO1207BNOC-E-E.pdf
[95] Office for National Statistics (2015) *Sustainable Development Indicators*. Available online at: http://www.ons.gov.uk/peoplepopulationandcommunity/wellbeing/articles/sustainabledevelopmentindicators/2015-07-13
[96] Environment Agency (2017) *Plausible future scenarios for water and the water environment to 2030 and 2050.* Available online at: https://www.gov.uk/government/publications/plausible-future-scenarios-for-the-water-environment-to-2030-and-2050
[97] Environment Agency (2013) *The case for change - current and future water availability*. Available online at: http://webarchive.nationalarchives.gov.uk/20140328154328/http://cdn.environment-agency.gov.uk/geho1111bvep-e-e.pdf
[98] Water UK (2016) *Water resources long term planning framework (2015-2065)*. Available online at: http://www.preventionweb.net/publications/view/50354

Topic	Summary of Key Issues	WMPE SEA Objectives link
	• Logistical movements for waste collections and associated emissions are a source of airborne pollutants.[79,99] • Emissions to air from processing and operations includes the release of dust from bulking stations and any combustion gases at energy from waste plants, pyrolysis, anaerobic digestion sites or the flaring of methane at landfills[100]. These could be reduced by keeping materials in use for longer. • Emissions from well managed municipal waste incinerators make a small contribution to local concentrations of air pollutants.[78] • Increases in recycling and a reduction of landfilling could have beneficial effects on air quality. • The avoidance of waste generation and the reuse of materials could reduce the requirement for manufacture of materials and products, saving energy and preventing emissions to air associated with energy generation.[58] <u>Key Trends</u> • Air quality has improved in the UK over the last fifty years[101] as a result of the switch from coal to gas and electricity for heating of domestic and industrial premises, stricter controls on industrial emissions, and higher standards for the composition of fuel and tighter regulations on emissions from motor vehicles. However, poor air quality, particularly due to vehicle emissions, remains an issue for community health and for biodiversity, especially in/downwind of urban areas and major transport networks. • A relatively large number of Air Quality Management Areas are located in urban areas, many of which have been designated due to high NO_2 and PM_{10} levels.[102] • Historical emissions from the combustion of fossil fuels, particularly coal, have resulted in high levels of sulphur and nitrogen deposits in wetter parts of the UK such as northern England and the Welsh uplands. This has resulted in acidification and nitrogen eutrophication in some areas.[103]	Objectives 5 & 6: Land Use, Geology and Soils Objective 7: Water Objective 9: Air Quality Objective 13: Traffic and Transport
7. Climatic Factors (including climate change mitigation and adaptation and energy)	<u>Relevance to the Waste Management Plan and SEA</u> • Greenhouse gas (GHG) emissions from the waste sector accounts for 4% of the UK's total emissions.[104] Emissions of methane from landfill accounted for the majority of these emissions (92%), while the	Objective 1: Biodiversity and Nature Conservation Objective 2: Population, Economics and Skills Objectives 3 & 4: Human Health

[99] Defra (2018) *Our Waste, Our Resources: A Strategy for England*. Available online at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/765914/resources-waste-strategy-dec-2018.pdf

[100] Defra (2013) *Waste Management Plan for England: Environmental Report* (section 10.3). Available online at: https://consult.defra.gov.uk/waste/https-consult-defra-gov-uk-waste/supporting_documents/Final%20Environmental%20Report_10%206%2013%204.pdf

[101] Defra (2016) *Emissions of Air Pollutants in the UK, 1970 to 2015*. Available online at: https://www.gov.uk/government/statistics/emissions-of-air-pollutants

[102] Defra UK AIR (2019) *AQMAs interactive map*. Available online at: https://uk-air.defra.gov.uk/aqma/maps

[103] Eutrophication is the enrichment of an ecosystem with chemical nutrients, typically compounds containing nitrogen and phosphorus, and whilst it can be natural, can also be man-made. Man-made eutrophication is commonly associated with elevated levels of nutrient enrichment arising from waste water treatment works discharges into rivers which can lead to algal blooms, decomposition or organic matter and deoxygenation of waters.

[104] BEIS (2019) *Final UK greenhouse gas emissions national statistics 1990-2017*. Available online at: https://www.gov.uk/government/collections/final-uk-greenhouse-gas-emissions-national-statistics

Topic	Summary of Key Issues	WMPE SEA Objectives link
	treatment of waste water and the biological treatment, composting and incineration of waste were also key sources.[105] • The energy requirements associated with different types of waste management infrastructure will vary, with the scope for the use of renewable energy greater for certain infrastructure types than for others. • Use of energy from waste (EfW) plants could provide a contribution to local District Heat Networks or industrial use of heat. The generation of gas/electricity from waste can also avoid the use of energy derived from fossil fuels. • The avoidance of waste generation and the reuse of materials in accordance with the waste hierarchy could reduce the requirement for manufacture of materials and products, saving energy and reducing GHG emissions.[58] • Infrastructure, including waste management infrastructure, may be vulnerable to the effects of climate change such as flood risk and coastal change. <u>Key Trends</u> • The input of greenhouse gases (e.g. CO_2, CH_4, N_2O, O_3) resulting from fossil fuel usage, agriculture and other land uses have been linked with atmospheric warming and climate change.[106] • Fossil fuel dependency is high and is likely to remain so for some time.[107] • Emissions from the waste sector significantly declined by 70% from 1990 to 2017 in England, largely due to a reduction in biodegradable waste going to landfill, investment in methane capture technology and improved management at landfill sites.[63] • It is anticipated that waste related emissions will continue to reduce through increased use of cleaner technologies alongside a reduced demand for landfill sites.[63] • The application of policies higher up the waste hierarchy could reduce the throughput of material into EfW facilities. This has the potential to reduce emissions from such sites given the reduction in materials being fed into the plants. • Legally binding EU and Government targets (the Climate Change Act 2008 and subsequent revisions, The Climate Change Act 2008 (2050 Target Amendment) Order 2019, The Carbon Budgets Order 2009) seek to reduce emissions (based on a carbon budget of $MtCO_2$ equivalent) to net zero by 2050. The Government has confirmed its intention within the Fifth Carbon Budget to reduce UK greenhouse gas emissions by 57% by 2032 relative to 1990 levels.[108] • Changes in temperature and rainfall patterns, along with more frequent extreme weather events, create the situation where a greater degree of resilience will have to be incorporated into plans and proposals.	Objectives 7 & 8: Water Objective 9: Air Quality Objective 10: Climatic Factors Objective 11: Flood Risk and Coastal Change Objective 13: Traffic and Transport

[105] Committee on Climate Change (2019) *Net Zero – Technical Report.* Available online at: https://www.theccc.org.uk/wp-content/uploads/2019/05/Net-Zero-Technical-report-CCC.pdf
[106] Intergovernmental Panel on Climate Change (2015) *Synthesis Report - Summary for Policymakers*. Available online at: http://www.ipcc.ch/pdf/assessment-report/ar5/syr/AR5_SYR_FINAL_SPM.pdf
[107] BEIS (2019) *Digest of United Kingdom Energy Statistics (DUKES) 2019*. Available online at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/822305/DUKES_2019_MASTER_COPY.pdf
[108] Committee on Climate Change (2019) *Carbon budgets: how we monitor emissions targets*. Available online at: https://www.theccc.org.uk/tackling-climate-change/reducing-carbon-emissions/carbon-budgets-and-targets/

Topic	Summary of Key Issues	WMPE SEA Objectives link
	• The UK's Climate Projections (UKCP18) show that the UK as a whole is likely to experience hotter, drier summers, warmer, wetter winters and rising sea levels, particularly in the south east of England. This is likely to have a significant effect on a range of environmental conditions.[109] • Sensitive ecosystems are likely to come under increasing pressure as a result of climate change.	
8. Flood Risk and Coastal Change	Relevance to the Waste Management Plan and SEA • Flood risk presents a planning issue in the development of infrastructure projects (including waste infrastructure), both in terms of the infrastructure itself being flooded during its construction and operational phases and the changes to flood risk resulting from the infrastructure, such as increased run-off raising the flood risk in downstream areas. Litter in inland waterways/waste water systems can also present a flood risk. Key Trends • Approximately 5.4 million properties in England are at risk from flooding (combined surface water, river or coastal), although the degree of risk varies.[110,111] • The UK Climate Change Risk Assessment 2017 projected that the number of residential properties in England exposed to flooding more frequently than 1:75 years (on average) increases from 860,000 today to between 1.2 million and 1.7 million properties in 2080, depending on the scenario considered.[112] • Sea levels are rising, with worst case scenarios of a 1.15m increase in sea level by 2100 (with up to 0.83m more likely) when compared to 1981-2000 average.[113] • Coastal erosion is occurring along 17% of the UK coastline.[114] Many coastal sites (especially in the south and east of the England) are already prone to erosion, due to their underlying geology, coupled with rising sea levels and increased storm intensity.	Objective 2: Population, Economics and Skills Objectives 3 & 4: Human Health Objectives 7 & 8: Water Objective 10: Climatic Factors Objective 11: Flood Risk and Coastal Change
9. Resources and Waste	Relevance to the Waste Management Plan and SEA • The UK generated 222.9 million tonnes of total waste in 2016. Nearly two thirds of this (61%) was generated by construction, demolition and excavation, with commercial and industrial waste accounting for 19% of the total, and households responsible for a further 12%.[115]	Objective 1: Biodiversity and Nature Conservation Objective 2: Population, Economics and Skills

[109] Met Office (2019) *UKCP18 Science Overview: Executive Summary*. Available online at: https://www.metoffice.gov.uk/binaries/content/assets/metofficegovuk/pdf/research/ukcp/ukcp18-overview-summary.pdf
[110] Environment Agency (2016) *Adapting to a changing climate: The Environment Agency's second adaptation report under the Climate Change Act*. Available online at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/526000/climate-adrep-environment-agency.pdf
[111] Environment Agency (2015) *Managing flood and coastal erosion risks in England: 1 April 2014 to 31 March 2015*. Available online at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/447646/LIT_10125_FCERM_Annual_Report_2014_to_2015.pdf
[112] UK CCC ASC (2017) *UK Climate Change Risk Assessment 2017 Evidence Report – Summary for England*. Available online at: https://www.theccc.org.uk/wp-content/uploads/2016/07/UK-CCRA-2017-England-National-Summary-1.pdf
[113] Met Office (2019) *UKCP18 Science Overview: Executive Summary*. Available online at: https://www.metoffice.gov.uk/binaries/content/assets/metofficegovuk/pdf/research/ukcp/ukcp18-overview-summary.pdf
[114] Marine Climate Change Impacts Partnerships (2013) *Impacts of climate change on coastal erosion*. Available online at: http://www.mccip.org.uk/media/1256/2013arc_sciencereview_09_ce_final.pdf
[115] Defra (2019) *UK Statistics on Waste (March 2019)*. Available online at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/784263/UK_Statistics_on_Waste_statistical_notice_March_2019_rev_FINAL.pdf

Topic	Summary of Key Issues	WMPE SEA Objectives link
	• The UK imports around 167 million tonnes of goods and raw materials from abroad each year, including almost 1 million tonnes of waste materials. The UK also exports approximately 16.3 million tonnes of materials for recycling per year.[116,117] • The circular economy encourages producers to rethink the way products are designed and produced; to ensure assets and resources remain in use as long as possible, whilst being easily disassembled at the end of their lifespan to allow components to be reused elsewhere. • The avoidance of waste, reuse of products and recycling can reduce the need for resource extraction and manufacturing using primary materials. • Infrastructure projects, including waste infrastructure, have the potential to require resources and generate waste during both construction and operation. <u>Key Trends</u> • The majority of UK trend data shows an ongoing improvement in UK waste management practices, both in terms of a reduction in the level of waste generation and a greater use of sustainable alternatives to landfill.[118] • 'Recycling and other recovery' was the most common final waste treatment type in the UK. The UK recycling rate for 'waste from households' was 45.7% in 2017, showing an overall increase from 40.4% in 2010.[72] • The consumption of non-renewable sources will deplete overall stocks and may result in a scarcity of resources for future generations. • A growing market is emerging for second hand products,[119,120] which could keep items in use for longer and out of waste streams. This may also avoid new products being manufactured. • The UK government, through the RWS for England and other strategies such as the Litter Strategy, is continuing to seek new opportunities to reduce waste; from carrier bag charges, elimination of single use plastics, extended producer responsibility, introduction of DRS, and policies to deliver a 65% recycling rate for municipal solid waste among others.	Objectives 3 & 4: Human Health Objectives 5 & 6: Land Use, Geology and Soils Objectives 7 & 8: Water Objective 9: Air Quality Objective 10: Climatic Factors Objective 12: Waste and Resources Objective 13: Traffic and Transport
10. Traffic and Transport	<u>Relevance to the Waste Management Plan and SEA</u> • Mileage travelled by heavy goods vehicles involved in household waste management activities is estimated to account for 0.5% of all vehicle movements.[77] Changes to collections may alter vehicle movements; if this resulted in an increase in vehicles, this could add pressure to the road networks in congested areas.	Objective 1: Biodiversity and Nature Conservation Objective 2: Population, Economics and Skills

[116] HMRC (2017) *HMRC trade data, all commodity codes*. Available online at: https://www.uktradeinfo.com/statistics/BuildYourOwnTables/Pages/Home.aspx
[117] HMRC (2017) *HMRC trade data, all waste commodity codes*. Available online at: https://www.uktradeinfo.com/statistics/BuildYourOwnTables/Pages/Home.aspx
[118] Tolvik Consulting (2017) *UK Residual Waste: 2030 Market Review*. Available online at: http://www.esauk.org/application/files/6015/3589/6453/UK_Residual_Waste_Capacity_Gap_Analysis.pdf
[119] European Commission (2014) *Flash Eurobarometer 388: Attitudes of Europeans towards Waste Management and Resource Efficiency*. Available online at: http://ec.europa.eu/commfrontoffice/publicopinion/flash/fl_388_en.pdf
[120] CIWM (2016) *Reuse in the UK and Ireland – a 'State of the Nations' report for the Chartered Institution of Wastes Management*. Available online at: https://www.ciwm.co.uk/Custom/BSIDocumentSelector/Pages/DocumentViewer.aspx?id=QoR7FzWBtisamYEcWSfL6SxAJRLAPT9vBc%252bTYqJHvnk4x6Vs7OvblCqRbvdFeQO815NlcYg2tcAXWIngFm8ZnZdcmRrxViHOPh%252fy6VW9Zy0Cy1AJ708iABJPjQg%252bFJx5xfECiCkK0AMZjqmupb2Vrh8wqpHNbXf2

Topic	Summary of Key Issues	WMPE SEA Objectives link
	• The distance between generation of waste and the location of appropriate management facilities affects how far waste must be transported. • The construction and operation of infrastructure projects (including waste infrastructure) could result in increased traffic volumes, depending on the scale of the project, which can lead to increased congestion on road networks and driver delay, in addition to wider environmental impacts. • There is a need to transport and collect waste safely, as waste could escape to the environment if not transported appropriately. <u>Key Trends</u> • Parts of the UK's transport network exceed capacity at peak times.[121] • Increasing levels of congestion are being experienced on the UK's strategic road network, with road traffic forecast to increase.[122] • Investment in transportation infrastructure is likely to be needed to meet future demand and support economic growth. • There is a need to reduce the need to travel and facilitate a shift towards more sustainable modes of transport.[63] • Total rail freight is forecast to grow by 3% annually to 2043.[123] The UK Government has identified a need for development of strategic rail freight interchanges and new high-speed lines. • There is an overall downward trend for domestic coastal water transport for freight goods. Freight goods movement via inland waterways has remained largely static since 2015.[124]	Objectives 3 & 4: Human Health Objective 9: Air Quality Objective 10: Climatic Factors Objective 13: Traffic and Transport Objective 15: Landscape and Townscape
11. Cultural Heritage (including architectural and archaeological heritage)	<u>Relevance to the Waste Management Plan and SEA</u> • Effects on air quality, dust and climate change have the potential to affect heritage assets and the enjoyment of them. • The construction and operation of infrastructure (including waste management infrastructure) could have adverse impacts on the significance of heritage assets directly through the loss of, or damage to, assets and their setting, depending on scale and location of works. • Wetlands are fragile and vulnerable to subtle changes arising from development that can affect paleoenvironmental deposits and archaeological assets.[125] • The effects of litter can affect heritage assets and the enjoyment of them, and can be particularly challenging to clean without causing damage. <u>Key Trends</u> • England has approximately 376,470 listed building entries, 19,854 scheduled monuments, 1,635 registered historic parks and gardens,	Objective 1: Biodiversity and Nature Conservation Objective 2: Population, Economics and Skills Objectives 5: Land Use, Geology and Soils Objective 9: Air Quality Objective 10: Climatic Factors Objective 14: Cultural Heritage Objective 15: Landscape and Townscape

[121] Department for Transport (2018) *Transport Statistics Great Britain 2018*. Available online at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/787488/tsgb-2018-report-summaries.pdf
[122] Department for Transport (2015) *Road Traffic Forecasts 2015*. Available online at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/411471/road-traffic-forecasts-2015.pdf
[123] Department for Transport (2014) *National Policy Statement for National Networks*. Available online at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/387222/npsnn-print.pdf
[124] Department for Transport (2014) *Domestic Waterborne Freight: UK 2015 (Revised)*. Available online at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/620296/dwf-2015-revised.pdf
[125] Historic England (2019) *Wetland Heritage.* Available online at: https://historicengland.org.uk/research/current/discover-and-understand/landscapes/wetland-heritage/

Topic	Summary of Key Issues	WMPE SEA Objectives link
	approximately 9,790 conservation areas, 47 registered historic battlefields, 52 designated wrecks and 19 World Heritage Sites.[126] • The settings of some heritage assets are at risk from new development.[127] • Scheduled monuments in rural areas are at risk from agricultural practices, land disturbance and unrestricted plant, scrub or tree growth.[128] • Climate change poses an unknown risk to wetland archaeological remains, which may be exacerbated by future climate scenarios.[81]	
12. Landscape and Townscape	Relevance to the Waste Management Plan and SEA • The construction and operation of infrastructure (including waste management infrastructure) can have adverse impacts on landscape character, visual amenity and tranquillity. Where infrastructure is located in areas of high landscape value (for example, National Parks), these effects could be significant. • The visual impact of waste infrastructure such EfW plants with a large footprint can be an issue of opposition among residents.[129] • The increase in recycling and recovery of wastes has led to a reduction in the demand for landfills in the UK, which can have adverse visual impacts when operational. Former landfill sites can be reclaimed to become nature and wildlife sites, with associated landscape benefits.[130] • Littering and fly-tipping can also have adverse visual impacts on a local scale.[87] The design of the built environment can also affect the ease of keeping it clear of litter. Key Trends • National Parks cover 9.3% of the land area in England,[131] and AONBs cover 18% of England and Wales.[132] • Key issues that could affect landscape include the effects of climate change (and effects arising from the increased frequency and intensity of storm and flood events, increased likelihood of droughts and the anticipated increased in wildfires); new infrastructure and development pressures; changes to agricultural practices; and loss of woodland.[133]	Objective 1: Biodiversity and Nature Conservation Objective 2: Population, Economics and Skills Objectives 3 & 4: Human Health Objectives 5: Land Use, Geology and Soils Objective 14: Cultural Heritage Objective 15: Landscape and Townscape

[126] Historic England (2017) *The Extent and Nature of Heritage Protection*. Available online at: https://historicengland.org.uk/advice/hpg/generalintro/extent-and-nature-of-hp/
[127] Historic England (2017) *Good Practice Advice in Planning.* Available online at https://historicengland.org.uk/images-books/publications/gpa3-setting-of-heritage-assets/
[128] Historic England (2019) *Scheduled Monuments at Risk.* Available online at: https://historicengland.org.uk/advice/heritage-at-risk/archaeology/scheduled-monuments-at-risk/
[129] BBC (2017) *Washington waste energy plant opposed by thousands.* Available online at: https://www.bbc.co.uk/news/uk-england-tyne-42013359
[130] Essex Wildlife Trust (2019) *Thurrock Thameside Nature Park*. Available online at: https://www.essexwt.org.uk/nature-reserves/thurrock-thameside
[131] National Parks (2016) *National park facts and figures.* Available online at: http://www.nationalparks.gov.uk/learningabout/whatisanationalpark/factsandfigures
[132] National Association of AONBs (2017) *Areas of Outstanding Natural Beauty*. Available online at: http://www.landscapesforlife.org.uk/
[133] Natural England (2008) *State of the Natural Environment 2008*. Available online at: http://publications.naturalengland.org.uk/publication/31043

3.3 Assessment Framework

3.3.1 Establishing appropriate SEA objectives and guide questions is central to assessing the effects of the draft WMPE on the environment. The SEA objectives and guide questions used in the assessment of the draft WMPE reflect the topics scoped into the assessment and have been informed by:

- the review of plans and programmes and the associated environmental protection objectives identified (see **Appendix C**);
- the baseline information and key issues identified (see **Table 3.3 and Appendix D**);
- the objectives and guide questions developed as part of the SEA of the 2013 WMPE; and
- a broad understanding of the likely generic effects arising from the construction and operation of waste infrastructure and the draft WMPE;
- responses to the scoping consultation.

3.3.2 Broadly, the objectives present the preferred environmental outcomes, which typically involve minimising detrimental effects and enhancing positive effects. Associated guide questions have been developed for each SEA objective to provide a detailed framework against which the draft WMPE can be assessed. The inclusion of guide questions do not necessarily mean that an effect is expected and will be identified, merely that it permits consideration of whether such an effect may occur.

3.3.3 The assessment objectives and guide questions are presented in **Table 3.4**. These were presented in draft in the Scoping Report and have been revised following completion of the scoping consultation, reflecting the responses received.

Table 3.4 Revised (Post Scoping Consultation) Assessment Objectives and Guide Questions

SEA Topic Area	SEA Objectives	Guide Questions	SEA Regulation Topics
Biodiversity and Nature Conservation	1. To protect and enhance biodiversity (habitats, species and ecosystems) working within environmental capacities and limits.	• Will the draft WMPE protect and/or enhance internationally designated nature conservation features and sites e.g. Special Areas of Conservation, Special Protection Areas, Ancient Woodlands, Marine Protected Areas and Ramsar Sites? • Will the draft WMPE protect and/or enhance nationally designated nature conservation sites e.g. Sites of Special Scientific Interest? • Will the draft WMPE protect and/or enhance priority species and habitats or species of conservation concern? • Will the draft WMPE affect non-designated habitats and species including protected species? • Will the draft WMPE affect the structure, function and resilience of natural systems (ecosystems)? • Will the draft WMPE lead to an improvement in natural capital and a net gain in biodiversity?	Biodiversity, Flora and Fauna
Population, Economics and Skills	2. To support a strong, diverse and growing economy through the provision of innovative and efficient waste management practices that minimise resource use and waste volumes	• Will the draft WMPE help to ensure that sufficient waste infrastructure is in place to meet increased demand associated with population growth and to support economic development? • Will the draft WMPE help to ensure that all residents have equal access and ability to participate in waste and resource management practices irrespective of location? • Will the draft WMPE provide employment and skills development opportunities in areas of low employment or youth retention rates? • Will the draft WMPE support the incorporation of waste as a resource into community practices and infrastructure e.g. through, recycling feedstock to small reprocessors or recovery into local District Heating Networks? • Will the draft WMPE support business and businesses to grow? • Will the draft WMPE affect the social infrastructure and amenities available to local communities? • Will the WMPE facilitate a reduction in the need to export waste overseas?	Population
Human Health	3. To ensure the protection and enhancement of human health, safety and wellbeing. 4. To minimise disturbance to local communities.	• Will the draft WMPE adversely affect human health by resulting in increased nuisance and disruption (e.g. as a result of increased noise levels, change in air quality or loss amenity)? • Will the draft WMPE disproportionately affect communities already identified as vulnerable / at risk? • Will the draft WMPE affect opportunities for recreation and physical activity?	Population Human Health
Land Use, Geology and Soils	5. To conserve and enhance soil and geology and contribute to the sustainable use	• Will the draft WMPE have an effect on soil quality/function, variety, extent and/or compaction levels? • Will the draft WMPE increase the risk of land	Soils

SEA Topic Area	SEA Objectives	Guide Questions	SEA Regulation Topics
	of land. 6. To preserve the "best & most versatile" agricultural land	contamination? • Will the draft WMPE protect and/or enhance Geological Conservation Sites, important geological features and geophysical processes and functions? • Will the draft WMPE change patterns of land use or affect best and most versatile agricultural land?	
Water	7. To protect and enhance water quality and help achieve the objectives of the Water Framework Directive. 8. To protect and enhance surface and ground water levels and flows and ensure sustainable water resource management.	• Will the draft WMPE protect and improve surface, ground, estuarine and coastal water quality and quantity? • Will the draft WMPE prevent the deterioration of Water Framework Directive waterbody status (or potential)? • Will the draft WMPE ensure a new activity or new physical modification does not prevent the future achievement of good status for a water body? • Will the draft WMPE pose a significant demand upon any areas of limited or pressured water supplies? • Will the draft WMPE ensure the sustainable and resilient supply of water resources?	Water
Air Quality	9. To minimise emissions of pollutant gases and particulates and enhance air quality.	• Will the draft WMPE affect air quality? • Will the draft WMPE create a nuisance for people or wildlife (from dust or odours)? • Will the draft WMPE increase traffic movements and provide a detrimental effect to those living near principal routes?	Air Human Health Biodiversity, Flora and Fauna
Climatic Factors (including climate change mitigation and adaptation and energy)	10. To minimise greenhouse gas emissions as a contribution to climate change and ensure resilience to any consequences of climate change.	• Will the draft WMPE help to ensure a low carbon design solution to the design and delivery of waste management services including infrastructure? • Will the draft WMPE lead to an increase in low carbon energy use? • Will the draft WMPE increase resilience to the effects of climate change? • Will the draft WMPE promote climate change adaptation (including rising temperatures and more extreme weather events)? • Will the draft WMPE be responsive to new and evolving legislative changes aiming to reduce carbon emissions to net zero by 2050?	Climatic Factors
Flood Risk and Coastal Change	11. To minimise the risks from coastal change and flooding to people, property, communities and habitats and species, taking into account the effects of climate change.	• Will the draft WMPE help to avoid development in areas of flood risk and, where possible, reduce flood risk? Where development in flood risk areas cannot be avoided, will the WMPE ensure that appropriate mitigation measures are applied to avoid increasing flood risk and, where possible, reduce flood risk? • Will the draft WMPE affect the resilience of infrastructure, places, communities and habitats and species to future flooding? • Will the draft WMPE help to avoid development in areas affected by coastal erosion and not affect coastal processes and/or erosion rates?	Water Climatic Factors
Waste and Resources	12. To nurture a circular economy, minimise waste arisings, promote	• Will the draft WMPE affect the use of limited natural resources?	Material Assets

SEA Topic Area	SEA Objectives	Guide Questions	SEA Regulation Topics
	reuse, recovery and recycling, minimise the impact of wastes on the environment and communities and contribute to the sustainable use of natural and material assets.	• Will the draft WMPE require additional infrastructure and resources? • Will the draft WMPE make best use of existing infrastructure and resources? • Will the draft WMPE help achieve government and national targets for minimising, recovering and recycling waste? • Will the draft WMPE affect waste practices and behaviours in residents and businesses? • Will the draft WMPE affect community level or national capabilities to re-use, recycle and recover materials? • Will the draft WMPE support a circular economy?	
Traffic and Transport	13. To minimise the volume of traffic and promote more sustainable transport choices**.**	• Will the draft WMPE help to minimise traffic volumes? • Will the draft WMPE affect congestion? • Will the draft WMPE help to minimise the direct effects of transport such as noise and vibration, air pollution and carbon emissions, severance of communities and wildlife habitats and safety concerns? • Will the draft WMPE encourage alternative and sustainable means of transporting freight, waste and minerals, where possible?	Biodiversity, Flora and Fauna Population Human Health
Cultural Heritage (including architectural and archaeological heritage)	14. To conserve and enhance the historic environment including designated and non-designated heritage assets and their settings.	• Will the draft WMPE affect the significance of internationally and nationally designated heritage assets and their settings? • Will the draft WMPE affect non-designated heritage assets and their settings? • Will the draft WMPE conserve and enhance the historic environment including landscapes, townscapes, buildings, structures and archaeological remains? • Will the draft WMPE affect the fabric and setting of historic buildings, places or spaces that contribute to local distinctiveness, character and appearances?	Cultural Heritage
Landscape and Townscape.	15. To protect and enhance landscape and townscape quality and visual amenity.	• Will the draft WMPE lead to detrimental visual impacts? • Will the draft WMPE affect the purposes and/or special qualities of protected/designated/culturally important landscapes and their setting? • Will the draft WMPE provide opportunities to enhance nationally and locally designated landscapes, townscapes and seascapes and their settings? • Will the draft WMPE affect the intrinsic character or setting of local landscapes, townscapes and seascapes? • Will the draft WMPE help to minimise light pollution from construction and operational activities on residential amenity and on sensitive locations and receptors? • Will the WMPE help reduce the likelihood of littering and fly-tipping and other waste crime (through blight	Landscape Cultural Heritage Human Health

SEA Topic Area	SEA Objectives	Guide Questions	SEA Regulation Topics
		and environmental degradation)? • Will the draft WMPE affect public benefits and/or services provided by landscape? • Will the draft WMPE affect tranquillity?	

3.4 Completing and Recording the Assessment

What is Being Assessed?

3.4.1 The SEA has been undertaken by assessing the likely significant environmental effects of implementing the draft WMPE, taking into account the wastes covered by the plan, the waste services identified and the infrastructure outlined, noting that:

- The WMPE is a high level document which is non–site specific.
- The WMPE does not introduce new policies or change the existing policy landscape of how waste is managed in England; its core aim is to bring current waste management policies under the umbrella of one national plan.
- The WMPE is to be read in conjunction with the Resources and Waste Strategy (RWS) and the National Planning Policy Waste (NPPW):
  - The RWS was not subject to an SEA but an evidence annex was published alongside the RWS. In addition, cost benefit analyses including environmental impacts will be produced for individual policies in the RWS as they are developed.[134] It is also noted that the RWS includes policies that are outside the scope of the requirements of Article 28 of the WFD.
  - The outcome of the SEA screening of any revision of the NPPW is unknown at this stage; however, the 2014 NPPW was screened separately for SEA[135] which concluded that as the NPPW was unlikely to have significant environmental effects, an SEA was not required.

3.4.2 In addition, the effects of the 'direction of travel' reasonable alternative to the draft WMPE has been considered.

Assessing the Effects of the Draft WMPE

3.4.3 In accordance with the ODPM (now MHCLG) Practical Guide to the SEA Directive[136], the assessment process has identified the likely significant effects of the draft WMPE. This has been done by applying the Assessment Framework to identify the likely changes to the baseline conditions as a result of implementing the draft WMPE and the reasonable alternative to it. These changes are described (where possible) in terms of their geographic scale, the timescale over which they would occur, whether the effects would be temporary or permanent, positive or negative, likely or unlikely, frequent or rare. Where numerical information has not been available, the assessment is based on

[134] HMG 2018 *Our Waste, Our Resources: A Strategy for England* – Evidence Annex available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/765915/rws-evidence-annex.pdf
[135] MHCLG (2013) Strategic Environmental Assessment of the updated national waste planning policy, available at: https://www.gov.uk/government/publications/strategic-environmental-assessment-of-the-revised-national-waste-planning-policy
[136] ODPM (HMCLG) (2005) *A Practical Guide to the Strategic Environmental Assessment Directive*. Available online at: https://www.gov.uk/government/publications/strategic-environmental-assessment-directive-guidance

professional judgement and with reference to relevant legislation, regulations and policy. More specifically, in undertaking the assessment, consideration has been given to:

- baseline information including existing environmental problems and their evolution;
- the likely activities and potential sources of effects associated with the construction and operation of waste and resources infrastructure;
- the regulatory framework;
- the SEA objectives and guide questions; and
- Schedule 1 of the SEA Regulations (criteria for determining the likely significance of effects on the environment).

3.4.4 **Appendix D** of this Environmental Report presents the assessment of the effects of the draft WMPE by each topic in turn with consideration given to the relevant assessment objective and guide questions. This has been structured according to the waste hierarchy, which ranks options for waste management.

3.4.5 **Table 3.5** shows the key used in the assessments of each topic.

Table 3.5 Assessment scoring key

Effect	Description	Effect
++	Significant positive	The plan is likely to have a **significant positive** effect on the SEA objectives.
+	Positive	The plan is likely to have a **minor positive** effect on the SEA objectives.
0	Neutral	The plan is likely to have a **neutral** effect on the SEA objectives.
-	Negative	The plan is likely to have a **minor negative** effect on the SEA objectives.
--	Significant negative	The plan is likely to have a **significant negative** effect on the SEA objectives.
?	Uncertain	The effects of the plan on the SEA objectives are **uncertain** at this stage.
NB: where more than one symbol is presented in a box it indicates that the SEA has found more than one score for the category. Where a box is coloured but also contains a '?', this indicates uncertainty over whether the effect could be a minor or significant effect although a professional judgement is expressed in the colour used. A conclusion of uncertainty arises where there is insufficient evidence for expert judgement to conclude an effect.		

Mitigation and Enhancement

3.4.6 Identifying effective mitigation and enhancement measures is a fundamental part of the SEA. **Box 3.1** provides information on the mitigation hierarchy that has been followed in undertaking the SEA of the draft WMPE. The mitigation hierarchy is based on the principle that it is preferable to prevent the generation of an impact rather than counteract its effects. It therefore suggests that mitigation measures higher up the hierarchy should be considered in preference to those further down the list.

Box 3.1 Mitigation Hierarchy

Mitigation measures should be consistent with the mitigation hierarchy:[137]

- Avoidance – making changes to a design (or potential location) to avoid adverse effects on an environmental feature. This is considered to be the most acceptable form of mitigation.
- Reduction – where avoidance is not possible, adverse effects can be reduced through sensitive environmental treatments/design.
- Compensation – where avoidance or reduction measures are not available, it may be appropriate to provide compensatory measures (e.g. an area of habitat that is unavoidably damaged may be compensated for by recreating similar habitat elsewhere). It should be noted that compensatory measures do not eliminate the original adverse effect, they merely seek to offset it with a comparable positive one.
- Remediation – where adverse effects are unavoidable, management measures can be introduced to limit their influence.
- Enhancement – where there are no negative impacts, but measures are adopted to achieve a positive move towards the sustainability objectives e.g. through innovative design.

Assessment of Secondary, Cumulative and Synergistic Effects

3.4.7 The SEA Directive, and its implementing regulations in the UK, require that secondary, cumulative and synergistic effects are considered as part of the SEA (see definitions presented in **Table 3.6**).

Table 3.6 Definitions of Secondary, Cumulative and Synergistic Effects

Type of Effect	Definition*
Secondary (or indirect)	Effects that do not occur as a direct result of the draft WMPE's implementation, but occur at distance from the direct impacts or as a result of a complex pathway. Examples of a secondary effect of the draft WMPE could include the materials (and embodied carbon) used in the construction of a waste management installation or facility, or health effects of changes to air quality associated with HGV emissions from the transportation of construction materials.
Cumulative	Effects that occur where several individual activities which each may have an insignificant effect, combine to have a significant effect. Examples of a cumulative effect resulting from the implementation of the draft WMPE could include potential effects on a European designated site where a habitat or species is vulnerable and the cumulative effects of disturbance and pollutant emissions arising from development and operation causes a significant impact. Cumulative effects will also include the potential effects (if any) of a proposed activity and any other proposed and consented developments.
Synergistic	Effects that interact to produce a total effect that is greater than the sum of the individual effects. For example, this can occur where the toxicity of two chemicals is greatly increased when they are combined.

*Adapted from SEA guidance, ODPM (MHCLG) (2005)

3.4.8 The cumulative effects of the draft WMPE in-combination with other plans and programmes has also been considered.

3.5 Technical Difficulties

Uncertainties

3.5.1 In completing the Environmental Report, the following uncertainties have been identified:

[137] Institute of Environmental Management and Assessment (2016) *Environmental Impact Assessment: Guide to Delivering Quality Development*. Available from: https://www.iema.net/assets/newbuild/documents/Delivering%20Quality%20Development.pdf

- The WMPE is a non-site specific national plan and the level of detail associated with baseline information collated and analysed is proportionate to the plan scale and does not include information at a local level. In consequence, there will be a range of uncertainties regarding the local level that cannot be identified.
- The WMPE is to be read in conjunction with the Resources and Waste Strategy (RWS) and the National Planning Policy Waste (NPPW). The RWS was not subject to an SEA but an evidence annex was published alongside the RWS[138]. The outcome of the SEA screening of any revision of the NPPW is unknown at this stage; however, it is noted that the 2013 SEA screening[139] concluded no likely significant effects and screened the NPPW out from requiring assessment.
- The potential design, location and timing of new waste management infrastructure coming forward once the final WMPE is adopted is unknown.
- Future changes to the social, economic and environmental baseline are difficult to predict in light of the long operational lifespan of waste and resource management infrastructure.

Assumptions

3.5.2 Reflecting the uncertainties identified, the following assumptions will be made when completing the assessment:

- It is assumed that as the Plan does not apply to wastes that are excluded from the scope of the WFD (by Article 2 of the Directive), the management of these wastes does not need to be covered by this assessment.
- It is assumed that the designation of a WMPE will increase the probability of waste management infrastructure being developed and in turn increase the probability of associated impacts.
- It is assumed that waste local plans will provide the framework for addressing local waste infrastructure needs, and will themselves be subject to the requirements of the SEA Directive and regulations.
- It is assumed that the environmental effects of waste management infrastructure proposals will be fully considered through EIA and HRA (as appropriate) and subsequently, the environmental effects of the operation of infrastructure will be managed through permitting.
- For the purposes of the review of the international plans and programmes for this SEA, it is assumed that the broad objectives of extant European Union (EU) legislation will be maintained with the UK leaving the EU at the end of January 2020 and that similar or equivalent environmental protections will remain in place.

[138] HMG (2018) *Our Waste, Our Resources: A Strategy for England – Evidence Annex* available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/765915/rws-evidence-annex.pdf
[139] MHCLG (2013) *Strategic Environmental Assessment of the updated national waste planning policy*, available at: https://www.gov.uk/government/publications/strategic-environmental-assessment-of-the-revised-national-waste-planning-policy

4. Cumulative, Secondary and Synergistic Effects

This section presents the consideration of the cumulative, secondary and synergistic effects of the Waste Management Plan for England. The section also outlines in-combination effects, proposed mitigation measures and residual uncertainties and risks.

4.1 Introduction

4.1.1 **Appendix D** of this Environmental Report presents the detailed assessment of the effects of the draft WMPE and the reasonable alternative by each of the 12 topics in turn with consideration given to the contextual information and relevant assessment objective and guide questions.

4.1.2 Drawing on the findings of these topic assessments, this section of the Environmental Report considers the cumulative (including synergistic and secondary) effects of the draft WMPE both alone (**Section 4.2**) and in-combination with other plans and programmes (**Section 4.3**). This ensures that the SEA Directive requirements concerning the secondary, cumulative and synergistic effects of the WMPE have been addressed. A summary of the mitigation measures identified during the assessment is then presented in **Section 4.4** before uncertainties and risks are discussed in **Section 4.5**.

4.2 Cumulative Effects Arising from the Draft WMPE

4.2.1 The cumulative effects (including, where relevant, secondary and synergistic effects) of the draft WMPE on the SEA objectives have been identified and described by topic in **Appendix D** of this report. **Table 4.1** provides a summary of the cumulative effects identified.

Table 4.1 Cumulative Effects Arising from the Draft WMPE

SEA Objective	Cumulative Effect	Commentary
Biodiversity and Nature Conservation *1. To protect and enhance biodiversity (habitats, species and ecosystems) working within environmental capacities and limits*	++/-	The WMPE brings together a range of aims and targets seeking to improve waste management by moving waste up the hierarchy. The reduced extraction of primary raw materials as a result of reduced demand due to waste prevention, reuse and recycling is also expected to avoid pressures on ecosystems. Indirect impacts on biodiversity associated with water and energy requirements (and associated extraction of fossil fuels) due to the extraction and processing of primary raw materials are expected to be reduced, in addition to reductions in greenhouse gas emissions. Eliminating avoidable waste through waste prevention, reuse and recycling is expected to have significant beneficial effects on biodiversity through a reduction in the release of litter, which can cause harm to species on land and in the marine environment. Tolvik (2017) notes that there may be a capacity gap in waste management infrastructure of between -3.8Mt and 8.5Mt. The location of the new infrastructure to fill this gap has the potential for effects on biodiversity due to loss or damage of habitats, and potential disturbance and emissions associated with construction and operation. The nature and scale of emissions would be

SEA Objective	Cumulative Effect	Commentary
		dependent on the type of waste facility, the location, and sensitivity of the receiving environment. The planning and permitting system would be expected to control operational emissions to avoid significant effects, for example on designated sites or features, or protected species, and the identification of sites through waste local plans would be subject to SEA and HRA. New infrastructure or the closure of old sites, such as landfills, may also present opportunities for biodiversity enhancement. Overall, the WMPE is expected to have a mixed significant positive and minor negative effect, relative to the current baseline for the issues covered by this SEA objective and guide questions, with some uncertainty relating to the requirements and location of new infrastructure.
Population, Economics and Skills *2. To support a strong, diverse and growing economy through the provision of innovative and efficient waste management practices that minimise resource use and waste volumes*	+	The WMPE brings together a range of aims and targets seeking to improve waste management by moving waste up the hierarchy. Increases in recovery, recycling and reuse all give rise to potential economic benefits and employment opportunities. The scale of benefits is not certain, and will depend on the scale of infrastructure, number of vehicle movements required, the scale of investment and associated skill sets required. Waste prevention also presents opportunities for businesses and households in terms of financial savings. However, reductions in volumes of residual waste collected for disposal and changes to the required waste management infrastructure may have a negative effect on employment in the waste sector. It is not certain to what extent this will offset any increases in employment further down the waste hierarchy, however a move towards a more circular economy is overall expected to benefit the economy. Overall, the WMPE is expected to have a positive effect, relative to the current baseline for the issues covered by this SEA objective and guide questions.
Human Health *3. To ensure the protection and enhancement of human health, safety and wellbeing.* *4. To minimise disturbance to local communities.*	+/?	Overall, the WMPE brings together a range of aims and targets seeking to improve waste management by moving wastes up the hierarchy. Collectively, the plans and policies within the WMPE will require the movement of wastes from landfill towards other infrastructure. These will require possible diversion of wastes to facilities that are further away than current infrastructure, until new facilities are constructed to address the capacity gaps. Tolvik (2017) notes that there may be a capacity gap in waste management infrastructure of between -3.8Mt and 8.5Mt. The location of these capacity gaps will evolve and change based upon population changes, behavioural changes and the lifespan of technologies in reprocessing plants. Location of this new infrastructure will be critical in determining the impacts to human health. Constructing and operating these sites near to vulnerable populations would have significant impacts on the health of residents, however locating these sites in less vulnerable areas would have significantly lower impacts. The location of new sites would be identified in the relevant waste local plan (which would themselves be consistent with the policies of the National Planning Policy Framework and National Planning Policy for Waste) and which are subject to SEA and HRA. New sites would require relevant planning permissions (which could include EIA and HRA) and environmental consents to develop, construct and operate. Through this process, environmental effects, including effects on human health, would be minimised, reduced or mitigated. It is also possible that any increase in recycling will divert materials from recovery facilities to reprocessors. Whilst the increase in recycling is a positive impact, it will have a detrimental effect on the calorific value and operational efficiencies of recovery plants, although there are proposals in the WMPE and

SEA Objective	Cumulative Effect	Commentary
		RWS which also support greater efficiency of EfW plants, including through utilisation of the heat generated. To address the change in calorific value may then require increased traffic movements and therefore emission, as recovery sites source feedstock from further afield. The elimination of avoidable plastics will reduce human exposure to microplastic hazards which can cause adverse effects to human health either by digestion or inhalation. For food waste, whilst there are diverging views[140] on future AD capacity needs and capacity estimates will need to be reviewed in advance of the introduction of a separate food waste collection, it is possible that the WMPE ambitions may well lead to a need for increased capacity. The government support stated in the plan for AD gives confidence that AD plants will continue to be in operation and contribute to waste processing in the medium term. The Health & Safety Executive (HSE) highlights that health and safety performance in the waste and recycling sector is poor, with RIDDOR reportable injuries over 4 times greater than most other industry sectors.[141] There are higher HSE risks associated with recovery sites due to the process involved and the potential for flammable gases to accumulate, as well as potential employee exposure to hazardous waste. However, through the application of regulation driving improving safety practises in the industry, the risk lessens. The closure of any landfills due to a reduction in demand will reduce any adverse effects on health arising from existing sites (associated with noise, disturbance and localised emissions). It also provide opportunities for such sites to be remediated and restored to use as greenspaces or as sites for construction. This could provide opportunities for developments which benefit the local community, for example, parks and recreational facilities. Given the uncertainty regarding whether waste will be diverted from landfill to recovery facilities or recycling facilities, it is difficult to determine whether there will be overall positive or negative effects on, human health. Where new infrastructure is required to meet the requirements of the targets, there may be localised effects on air quality and therefore human health, especially if located near to a vulnerable population; however, this will be dependent on location, design, setting and construction and operational activities. In addition, while there are benefits of recycling diverted waste from landfill and incineration sites in terms of operational emissions, it cannot be assumed at vehicle emissions will decrease. As such, the WMPE is likely to have an overall positive/uncertain effect, relative to the current baseline for the issues covered by this SEA objective and guide questions.
Land Use, Geology and Soils *5. To conserve and enhance soil and geology and contribute to the sustainable use of land.* *6. To preserve the "best & most versatile" agricultural land*	++	Overall, the WMPE is likely to divert significant tonnages of wastes from landfill and into other areas of the hierarchy. The services included in the WMPE will divert significant wastes from landfill into the recovery infrastructure. For example, food wastes may be diverted from landfill into AD and other recovery or recycling sites. Plastics may be redesigned to be compostable or recyclable and landfill use will drop to just 10% for municipal wastes.

[140] House of Commons Environment, Food and Rural Affairs Committee (2017). *Food Waste in England*. Available online at: https://publications.parliament.uk/pa/cm201617/cmselect/cmenvfru/429/42908.htm and Tolvik (2019) *Anaerobic Digestion Market in Great Britain: Does it have the capacity?* Available online at: https://www.tolvik.com/published-reports/view/anaerobic-digestion-market-great-britain/

[141] Health & Safety Executive (2019) *Municipal and commercial collections*. Available online at: http://www.hse.gov.uk/waste/municipal.htm

SEA Objective	Cumulative Effect	Commentary
		Any necessary new infrastructure will have very localised impacts and are not expected to cause any significant changes to land use, geology or soils. The location of new sites would be identified in the relevant waste local plan (which would themselves be consistent with the policies of the National Planning Policy Framework and National Planning Policy for Waste) and which are subject to SEA and HRA. New sites would require relevant planning permissions (which could include EIA and HRA) and environmental consents to develop, construct and operate. Through this process, environmental effects, would be minimised, reduced or mitigated. Whilst landfill may not be eradicated entirely and may continue in use particularly for inert wastes, it can be assumed that the WMPE will push problematic wastes into the recovery sector due to the restrictive and high costs associated with the landfill tax. The WMPE is therefore expected to have a significant positive effect, relative to the current baseline for the issues covered by this SEA objective and guide questions.
Water *7. To protect and enhance water quality and help achieve the objectives of the Water Framework Directive.* *8. To protect and enhance surface and ground water levels and flows and ensure sustainable water resource management.*	+	Overall, the WMPE is likely to divert wastes from landfill and into other areas of the hierarchy. The WMPE outlines ambitions to improve the production of materials through adoption of circular economy principles; it also outlines efforts to improve consumer behaviours by promoting opportunities to prevent wastes. Any reduction in textile production and wastage will have a positive impact on water quantity, accessibility and the objectives of the Water Framework Directive. As such, packaging may be redesigned to be compostable, recyclable or reusable. It is possible that any improvements to material design will minimise water demand; either by reducing demand for virgin material or by developing less water intensive materials. A reduction in food waste would reduce water demand. In the UK. It is estimated that 60% of food waste could be avoided[142], creating over 6BN cubic metres of water footprint. The services included in the WMPE will divert wastes from landfill into the recycling infrastructure. For example, food wastes may be diverted from landfill into AD and other recovery or recycling sites. This could have a long-term beneficial effect on the potential to produce leachate contaminant. Any necessary new infrastructure will have very localised impacts and are not expected to cause any significant changes to water systems. As such, the WMPE is likely to have an overall minor positive effect, relative to the current baseline for the issues covered by this SEA objective and guide questions.
Air Quality *9. To minimise emissions of pollutant gases and particulates and enhance air quality.*	+/?	Overall, the WMPE brings together a range of aims and targets seeking to improve waste management by moving wastes up the hierarchy. Collectively, the plans and policies within the WMPE will require the movement of wastes from landfill towards other infrastructure. These will require possible diversion of wastes to facilities that are further away than current infrastructure, until new facilities are constructed to address the capacity gaps. Tolvik (2017) notes that there may be a capacity gap in waste management infrastructure of between -3.8Mt and 8.5Mt. The location of these capacity gaps will evolve, and change based upon population changes, behavioural changes and the lifespan of technologies in reprocessing plants. Location of

[142] House of Commons Environment, Food and Rural Affairs Select Committee (2017). *Food Waste in England. Eighth Report of Session 2016-17.*

SEA Objective	Cumulative Effect	Commentary
		this new infrastructure will be critical in determining the air quality impacts. Constructing and operating these sites within AQMAs could have locally significant impacts on the air quality in the local area (e.g. PM10, reflecting the reasons for designating the AQMA), however locating these sites outside AQMAs is likely to have lower impacts. The location of new sites would be identified in the relevant waste local plan (which would themselves be consistent with the policies of the National Planning Policy Framework and National Planning Policy for Waste) and which are subject to SEA and HRA, and would require relevant planning permissions (which could include EIA and HRA) and environmental consents to develop, construct and operate. Through this process, environmental effects, including effects on air quality, would be minimised, reduced or mitigated. If the waste management infrastructure capacity gap can be met, the decrease in incineration and landfill of waste will have a positive effect of air quality by reducing emissions associated with such waste management facilities. However, there could be increased emissions to air from vehicle movements used in the collection, transfer and storage of waste materials. It is also possible that any increase in recycling will divert materials from recovery facilities to reprocessors. Whilst the increase in recycling is a positive impact, it will have a detrimental effect on the calorific value and operational efficiencies of recovery plants. This may then require increased traffic movements and therefore emission, as recovery sites source feedstock from further afield. For food waste, whilst there are diverging views on future AD capacity needs and capacity estimates will need to be reviewed in advance of the introduction of a separate food waste collection, it is possible that the WMPE ambitions may well lead to a need for increased capacity. The government support stated in the plan for AD gives confidence that AD plants will continue to be in operation and contribute to waste processing in the medium term. A by-product of AD is digestate that can be used as a nutrient-rich fertiliser, however when stored or spread on land releases ammonia, an air pollutant that has negative impacts on human health and the environment. Government has committed, through the Clean Air Strategy to introducing legislation, to require digestate in England to be spread using low-emission spreading equipment by 2025, and digestate stores to be covered by 2027. The WMPE requires the movement of wastes from landfill towards other infrastructure. This will have a positive impact on air quality by reducing emissions and odours from landfill operation. It is considered that with the measures put in place to meet the requirements of local planning authorities, the shift towards other waste management options and therefore the construction of new sites would have a positive impact on air quality when compared to landfill. However, where new infrastructure is required to meet the requirements of the targets, there may be localised effects on air quality, especially if located with an AQMA; this will be dependent on location, design, setting and construction and operational activities. As such, the WMPE is likely to have an overall positive/uncertain effect, relative to the current baseline for the issues covered by this SEA objective and guide questions
Climatic Factors *10. To minimise greenhouse gas emissions as a contribution to climate change and ensure resilience to any consequences*	**++/?**	The WMPE brings together a range of aims and targets seeking to improve waste management by moving waste up the hierarchy. Overall a substantial reduction in GHG emissions is expected from the implementation of commitments in the WMPE. Increases in waste prevention and reuse have the potential to avoid GHG emissions associated with the

SEA Objective	Cumulative Effect	Commentary
of climate change.		extraction of raw materials and avoided manufacturing of materials and products, although the extent of the effect on climate change is uncertain. Recycling and disposal also have the potential for significant reductions in greenhouse gases. For recycling, this is predominantly due to reduced energy requirements and avoided resource extraction meaning that climate change impacts are substantially reduced for the production of secondary materials compared to primary. Landfill is the greatest contributor of the waste sector to climate change, predominantly from emissions of methane from the decomposition of biodegradable waste. Measures to avoid food waste to landfill and diversion of other biodegradable waste to higher levels of the waste hierarchy are expected to significantly reduce GHG emissions in future, although emissions from existing waste in landfill will still require management and capture. Effects relating to waste recovery have a greater level of uncertainty relating to the scale and nature of recovery, and the source of electricity that is displaced by the energy generated from waste. Overall, the WMPE is expected to have a significant positive effect with some uncertainty, relative to the current baseline for the issues covered by this SEA objective and guide questions.
Flood Risk and Coastal Change *11. To minimise the risks from coastal change and flooding to people, property, communities and habitats and species, taking into account the effects of climate change.*	+	Overall the WMPE seeks to develop, incentivise and support changes in waste management in England. The proposed new services may reduce littering which could otherwise contribute to localised flooding by affecting waterway flows and surface water sewer systems etc. As noted in the sections above, the WMPE seeks to move wastes away from landfill and up the hierarchy. Landfill sites can pose a risk as a result of flooding which can lead to leachate seepage into underground waterways (if impermeable liners are not present or have failed). Whilst the movement of wastes up the hierarchy may require new reprocessing and treatment capacity, the risk posed by waste infrastructure to contribute to flooding or coastal change is minimal. The contribution of the waste sector to flood and coastal change is minimal and localised. As such, the WMPE is likely to have an overall minor positive effect, relative to the current baseline for the issues covered by this SEA objective and guide questions by further reducing the risks through improved behaviours and new services.
Waste and Resources *12. To nurture a circular economy, minimise waste arisings, promote reuse, recovery and recycling, minimise the impact of wastes on the environment and communities and contribute to the sustainable use of natural and material assets.*	+	The WMPE outlines a range of targets and ambitions that the government is aspiring to meet. The framework demonstrates a "routemap" to divert wastes up the hierarchy; reducing the need for landfill sites and capturing new value in materials through reuse, recycling and recovery. It also seeks to improve the environmental impact of waste management by reducing demand for virgin material and losing this value through disposal options at the end of life. The demand for new infrastructure could pose risks to local communities where new sorting and reprocessing capacity is needed. Whilst newly built infrastructure could cause a range of effects (see above), it is also possible that any such infrastructure could be housed in existing sites or on brownfield sites; therefore posing little to no impact on local townscapes or landscapes whilst offering significantly improved recycling services to communities. The adoption of circular economy principles can take this one step further by eliminating wastes entirely by redesigning materials to be reusable or recoverable and this is supported in the WMPE.

SEA Objective	Cumulative Effect	Commentary
		The WMPE will instil a range of behavioural improvements among residents and businesses by seeking to eliminate or capture wastes insofar as possible. The range of services proposed in the WMPE will facilitate this however the extent of these improvements cannot be specifically quantified although should be aligned with the existing targets (e.g. increasing recycling from households from current levels to 65% by 2035). As such, the WMPE is likely to have an overall minor positive effect, relative to the current baseline for the issues covered by this SEA objective and guide questions.
Traffic and Transport *13. To minimise the volume of traffic and promote more sustainable transport choices.*	?	Overall, the WMPE brings together a range of aims and targets seeking to improve waste management by moving wastes up the hierarchy. Collectively, the plans and policies within the WMPE will require the movement of wastes from landfill towards other infrastructure. These will require possible diversion of wastes to facilities that are further away than current infrastructure, until new facilities are constructed. This could therefore have both positive and negative impact on traffic and transport (depending on the scale of change in vehicle movements to different waste facilities). The development of new services such as food waste collection services and a DRS will require new vehicle movements. It is not known however if these services will lead to a reduction in other vehicle movements (e.g. household waste collection services) to balance out the new movements. It is also possible that a DRS could generate increase personal journeys as the public travel to collection point to redeem their deposits., although it is also possible that these journeys will be combined with other trips (depending on the location of collection points). It is unknown what impact the reduction in waste accumulations will have on waste movements and whether any improvements in waste management will reduce movements given the range of new commitments that are expected to be implemented. As such, the WMPE is likely to have an overall unknown effect, relative to the current baseline for the issues covered by this SEA objective and guide questions.
Cultural Heritage (including architectural and archaeological heritage) *14. To conserve and enhance the historic environment including designated and non-designated heritage assets and their settings.*	+	Overall, the WMPE brings together a range of aims and targets seeking to improve waste management by moving wastes up the hierarchy. Collectively, the plans and policies within the WMPE will require the movement of wastes from landfill towards other infrastructure. These will require possible diversion of wastes to facilities that are further away than current infrastructure, until new facilities are constructed. Construction of this new infrastructure would affect cultural heritage assets dependent on location, dependent on location, design, setting and construction and operational activities. Tolvik (2017) notes that there may be a capacity gap in waste management infrastructure of between -3.8Mt and 8.5Mt. The location of these capacity gaps will evolve and change based upon population changes, behavioural changes and the lifespan of technologies in reprocessing plants. The location of new sites would be identified in the relevant waste local plan (which would themselves be consistent with the policies of the National Planning Policy Framework and National Planning Policy for Waste) and which are subject to SEA and HRA. New site would require relevant planning permissions (which could include EIA and HRA) and environmental consents/permits to develop, construct and operate. Through this process, environmental affects including effects on air quality would be minimised, reduced or mitigated. Whilst construction activities have the potential to negatively affect cultural heritage assets, there are a number of benefits of constructing new facilities in

SEA Objective	Cumulative Effect	Commentary
		order to divert waste (e.g. reduced emissions from incinerators, reduced emissions from waste disposal traffic). As such, the WMPE is likely to have an overall minor positive effect, relative to the current baseline for the issues covered by this SEA objective and guide questions.
Landscape and Townscape *15. To protect and enhance landscape and townscape quality and visual amenity.*	+	The WMPE provides a range of ambitions that can provide improvement to the local landscape and townscape of communities. The framework demonstrates a "routemap" to divert wastes up the hierarchy; reducing the need for landfill sites. This will provide benefits to communities by reducing the need for new landfill sites and allowing for the closure and restoration of others. The demand for new infrastructure could pose risks through visual impacts as well as increased noise, light pollution and intrusion from the construction and operation of new facilities. However, it is also possible that any such infrastructure can be housed in existing sites or on brownfield sites; therefore posing little to no impact on local townscapes or landscapes. The movements of wastes through the hierarchy, and the introduction of new services can offer reductions in littering (both marine and terrestrial) and landfilling by incentivising better waste management. The adoption of circular economy principles can take this one step further by eliminating wastes entirely by redesigning materials to be reusable or recoverable and this is supported in the WMPE. The exact impact of future waste infrastructure upon landscape cannot be calculated however until the design and success of such services and behavioural changes are in place. As such, the WMPE is likely to have an overall minor positive effect, relative to the current baseline for the issues covered by this SEA objective and guide questions.

Score Key:	+ + **Significant** positive effect	+ **Minor** positive effect	0 **Neutral** effect	- **Minor** negative effect	- - **Significant** negative effect	? **Uncertain** effect

NB: where more than one symbol is presented in a box it indicates that the SEA has found more than one score for the category. Where a box is coloured but also contains a '?', this indicates uncertainty over whether the effect could be a minor or significant effect although a professional judgement is expressed in the colour used. A conclusion of uncertainty arises where there is insufficient evidence for expert judgement to conclude an effect.

Cumulative Significant Positive Effects

4.2.2 The appraisal of cumulative effects presented in **Table 4.1** highlights that the draft WMPE will have positive effects across the majority of the SEA objectives relative to the current baseline. This broadly reflects the socio-economic and environmental benefits associated with sustainable waste management and moving waste up the hierarchy.

4.2.3 Cumulative significant positive effects have been identified in respect of biodiversity (SEA Objective 1). This principally reflects the potential for increased waste prevention, reuse and recycling to reduce litter (which can cause harm to both terrestrial and marine ecology) and the extraction and processing of natural resources (which can affect habitats and species). The draft WMPE has also been assessed as having a significant positive effect on land use, geology and soils (SEA Objectives 5 and 6) due to the potential for the plan to support (inter alia) the decrease in the disposal of

wastes to landfill (with associated reductions in land excavation and the potential for contamination by leachates) and increased composting, relative to the current baseline.

4.2.4 By supporting the movement of waste up the hierarchy, the draft WMPE is expected to help avoid/minimise GHG emissions associated with the extraction of raw materials and manufacturing of products, although some uncertainty remains. The decrease in disposal of wastes to landfill, through the move up the waste hierarchy will also reduce emissions associated with the decomposition of biodegradable waste. Overall, the draft WMPE has therefore been assessed as having a cumulative significant positive effect on climatic factors (SEA Objective 10) relative to the current baseline.

4.2.5 No further cumulative significant positive effects have been identified during the assessment of the draft WMPE.

Cumulative Significant Negative Effects

4.2.6 No cumulative significant negative effects have been identified during the assessment of the draft WMPE.

4.2.7 The construction and operation of new waste management infrastructure as well as the implementation new waste collection services and DRS associated with the commitments and targets presented in the draft WMPE could have a range of negative environmental effects related to, inter alia, land take, vehicle movements, emissions to air and landscape and visual impact and in this context, a minor negative effect has been identified in respect of biodiversity (SEA Objective 1) relative to the current baseline. However, the likelihood of adverse effects occurring, their magnitude and their duration is dependent on the type, scale and location of infrastructure to be developed, the proximity of sensitive receptors and the nature of the associated waste collection services/DRS to be implemented. It should also be noted that location of new sites would be identified in the relevant waste local plan (which would themselves be consistent with the policies of the NPPF and NPPW) and which are subject to SEA and HRA, and would require relevant planning permissions (which could include EIA and HRA) and environmental consents to develop and construct. The operation of waste management facilities is also subject to environmental permitting whilst adverse impacts associated with new waste collection services and DRS (principally emissions to air and disturbance associated increased vehicle movements) may be reduced in the future by the transition towards low emission and electric vehicles.

4.3 Cumulative Effects of the Draft WMPE in-combination with Other Plans and Programmes

Significant Positive In-combination Effects

4.3.1 The draft WMPE sits within the context of a number of other plans and programmes, as identified in **Appendix D** of this report. The effects of the draft WMPE in-combination with these other plans and programmes are difficult to meaningfully or accurately assess; however, in-combination with the NPPW, RWS, waste local plans and the 25 Year Environment Plan, as well as equivalent plans being produced by the devolved administrations in Scotland, Wales and Northern Ireland, and Gibraltar, the draft WMPE will fulfil the requirements of Article 28 of the WFD, delivering a range of socio-economic and environmental benefits associated with sustainable waste management and moving waste up the hierarchy. This is expected to generate cumulative positive effects across the 15 SEA objectives compared to the current baseline with the potential for cumulative significant positive effects on biodiversity (SEA Objective 1), land use, geology and soils (SEA Objectives 5 and 6), climatic factors (SEA Objective 10) and waste and resources (SEA Objective 12) in particular.

Significant Negative In-combination Effects

4.3.2 It is not predicted that the draft WMPE will give rise to significant negative in-combination effects on the SEA objectives. As highlighted in **Section 4.2**, moving waste up the hierarchy will require new waste management facilities, the construction and operation of which could have adverse environmental effects. However, through the NPPW, waste local plans and the environmental permitting regime, it is fully anticipated that these effects will be identified, assessed and, where appropriate, mitigated (although some uncertainty remains).

4.4 Mitigating Measures

4.4.1 Based on the assessment of the draft WMPE presented in **Appendix D** of this report, a range of mitigation measures have been identified. These measures are principally project/service-level mitigation identified which could address the potential adverse environmental effects associated with the construction and operation of waste management facilities and waste collection services, as opposed to revisions to the plan itself. The mitigating measures are summarised in **Table 4.2**.

Table 4.2 Mitigation Measures

SEA Objective	Measures
Biodiversity and Nature Conservation *1. To protect and enhance biodiversity (habitats, species and ecosystems) working within environmental capacities and limits*	• Any new infrastructure proposed should be considered against the policies and requirements of the relevant waste local plan, or National Policy Statement (if applicable). • Biodiversity enhancement measures such as improving wildlife corridors should be included for new infrastructure. • New infrastructure should be appropriately sited to avoid impacts on sensitive habitats and species, and to avoid habitat fragmentation. • Restoration of landfill sites could provide nature reserves for wildlife.
Population, Economics and Skills *2. To support a strong, diverse and growing economy through the provision of innovative and efficient waste management practices that minimise resource use and waste volumes*	• Any new infrastructure proposed should be considered against the policies and requirements of the relevant waste local plan, or National Policy Statement (if applicable). • New jobs generated in the waste sector could ensure a mix of part- and full-time roles. • Opportunities could be created for those who have traditionally found it difficult to access employment. • Employment opportunities at an appropriate skill level could be created in areas of high unemployment. • Restoration of landfill sites could produce recreational site for local populations.
Human Health *3. To ensure the protection and enhancement of human health, safety and wellbeing.* *4. To minimise disturbance to local communities.*	• Any new infrastructure proposed should be considered against the policies and requirements of the relevant waste local plan, or National Policy Statement (if applicable). • Uptake of use of electric vehicles wherever possible for waste collection and transportation, subject to feasibility, applicability and cost. • Uptake of renewable energy sources to power waste management sites wherever possible. This could include on site electricity generation. • Monitoring of effects from waste management sites including the delivery and disembarking activities, consistent with permitting and consent conditions. • Avoiding AQMAs wherever possible for collection and waste management sites and ensuring monitoring is in place where not possible. • Drive improvement in HSE performance in the waste sector as a whole through a variety of initiatives e.g. requirement for more detailed HSE policies and procedures including targets and requirements to install safety systems onto equipment where appropriate. • Restoration of landfill sites to provide recreational sites and green space for local communities.

SEA Objective	Measures
Land Use, Geology and Soils *5. To conserve and enhance soil and geology and contribute to the sustainable use of land.* *6. To preserve the "best & most versatile" agricultural land*	• Any new infrastructure proposed should be considered against the policies and requirements of the relevant waste local plan, or National Policy Statement (if applicable). • Investigative excavation works could be undertaken at proposed sites to ensure soils and geological materials are identified, analysed and implications for development proposals understood and that any designated sites of geological importance identified. • Any excavated material arising from the construction of new infrastructure could be reused in other local developments, nearby communities such as local parks or to reinforce flood defences along rivers, for example. • Remediation of landfill sites could produce opportunities to improve local soil conditions subject to adequate capping of landfills, extraction of leachates and ongoing monitoring of the site.
Water *7. To protect and enhance water quality and help achieve the objectives of the Water Framework Directive.* *8. To protect and enhance surface and ground water levels and flows and ensure sustainable water resource management.*	• Any new infrastructure proposed should be considered against the policies and requirements of the relevant waste local plan, or National Policy Statement (if applicable). • The full impact of any new infrastructure should be thoroughly assessed. This should include an assessment of the proposed plant's water resource demand, and whether there are any water availability restrictions which need to be identified and resolved. • Plants should be required to have emergency preparedness plans to provide operational flexibility during periods of low water availability. • Strong awareness campaigns could be implemented to encourage participation in any collection services to minimise the water footprint of food wastes as well as within the production of new materials.
Air Quality *9. To minimise emissions of pollutant gases and particulates and enhance air quality.*	• Any new infrastructure proposed should be considered against the policies and requirements of the relevant waste local plan, or National Policy Statement (if applicable). • Uptake of use of electric vehicles wherever possible for waste collection and transportation, subject to feasibility, applicability and cost. • Uptake of renewable energy sources to power waste management sites wherever possible. This could include on-site electricity generation. • Monitoring of odour and emissions from waste management sites including the delivery and disembarking activities, as appropriate under environmental permitting requirements. • Avoiding AQMAs wherever possible for collection and waste management sites and ensuring monitoring is in place where no more preferable alternative is possible, as appropriate under environmental permitting requirements.
Climatic Factors *10. To minimise greenhouse gas emissions as a contribution to climate change and ensure resilience to any consequences of climate change.*	• Any new infrastructure proposed should be considered against the policies and requirements of the relevant waste local plan, or National Policy Statement (if applicable). • Renewable energy generation could be included at sites of new waste infrastructure. • Adaptation measures to enhance resilience to climate change could be included for new waste infrastructure. • Heat from EfW and AD facilities should be used to increase generating efficiencies and avoid the need for heat generated from other sources.
Flood Risk and Coastal Change *11. To minimise the risks from coastal change and flooding to people, property, communities and habitats and species, taking into account the effects of climate change.*	• Any new infrastructure proposed should be considered against the policies and requirements of the relevant waste local plan, or National Policy Statement (if applicable). • A site-specific flood risk assessment should be provided for all waste infrastructure development proposals in Flood Zones 2 and 3. In Flood Zone 1, an assessment should accompany all proposals involving: sites of 1 hectare or more; land which has been identified by the Environment Agency as having critical drainage problems; land identified in a strategic flood risk assessment as being at increased flood risk in future; or land that may be subject to other sources of flooding, where its development would introduce a more vulnerable use. For any flood risk assessment undertaken, take into account the impacts of climate change, clearly stating the development lifetime over which the assessment has been made, and the range of climate scenarios considered. • For specific waste infrastructure proposals, consider the risk of all forms of flooding arising from the development, in addition to the risk of flooding to the project, and demonstrate how these risks will be managed and, where relevant, mitigated, so that the development remains safe throughout its lifetime.

SEA Objective	Measures
	• Sustainable drainage systems should be used within the design of new facilities unless there is clear evidence that this would be inappropriate. • Any excavated material arising from the construction of new infrastructure should be reused in nearby communities such as local parks or to reinforce flooding defences along rivers, for example.
Waste and Resources *12. To nurture a circular economy, minimise waste arisings, promote reuse, recovery and recycling, minimise the impact of wastes on the environment and communities and contribute to the sustainable use of natural and material assets.*	• Any new infrastructure proposed should be considered against the policies and requirements of the relevant waste local plan, or National Policy Statement (if applicable). • Services should be designed to maximise recycling and recovery rates and should take into account the convenience to consumers by, for example, optimising the number and siting of return points for any DRS (and the range of materials collected). • Strong awareness campaigns could be implemented to encourage participation in any collection services. • Partnership opportunities should be explored between local authorities or contractors to explore asset-sharing opportunities. • Any excavated material arising from the construction of new infrastructure could be reused in other local developments, nearby communities such as local parks or to reinforce flood defences along rivers, for example. • Restoration of landfill sites could also produce recreational sites for local communities. • Requirement for responsible construction of waste infrastructure to undertake a full assessment of the impacts on the construction and operation of any new infrastructure.
Traffic and Transport *13. To minimise the volume of traffic and promote more sustainable transport choices.*	• Any new infrastructure proposed should be considered against the policies and requirements of the relevant waste local plan, or National Policy Statement (if applicable). • Any new waste infrastructure should include a Transport Assessment to determine the impacts of, and any remedial efforts, around traffic movements. In undertaking a Transport Assessment, consideration should be given to consult with Highways England, highway authorities, the railway network operator(s), Network Rail, the Maritime and Coastguard Agency, relevant navigation authorities and Associated British Ports, as appropriate. Discussions should include any proposed mitigation measures. The assessment should distinguish between the construction and operation stages if appropriate. • Any new infrastructure should be sustainable located to minimise vehicle movements. Where HGV traffic will be affected, consideration should be given to the number, frequency, scheduling and route selections when seeking to understand the effects on the existing road network and those communities living close to the proposed waste management site and/or route. • Alternative modes of transport should be explored in the design, and delivery, of future infrastructure or services – such as rail freight. • Uptake of use of electric vehicles wherever possible for waste collection and transportation, subject to feasibility, applicability and cost. • Backhauling opportunities should be explored within, and between, local authorities and waste management contractors to minimise vehicle movements. • Traffic movements should be monitored throughout construction and operation to ensure compliance with operating permits and planning approvals.
Cultural Heritage (including architectural and archaeological heritage) *14. To conserve and enhance the historic environment including designated and non-designated heritage assets and their settings.*	• Any new infrastructure proposed should be considered against the policies and requirements of the relevant waste local plan, or National Policy Statement (if applicable). • Requirement for responsible construction of waste infrastructure to ensure early identification of undiscovered archaeological sites and protocols for relocating the infrastructure should the site be deemed non developable • Requirement to monitor and control vibrations where it is identified that a cultural heritage asset may be at risk • Uptake of use of electric vehicles wherever possible for waste collection and transportation • Uptake of renewable energy sources to power waste management sites wherever possible. This could include on site generation. • Offsetting of emissions to limit the effect of cultural heritage assets on a global scale.

SEA Objective	Measures
Landscape and Townscape *15. To protect and enhance landscape and townscape quality and visual amenity.*	• Any new infrastructure proposed should be considered against the policies and requirements of the relevant waste local plan, or National Policy Statement (if applicable). • Any new infrastructure should seek to be compatible with the surrounding landscape and land uses, and consistent with the requirements of the NPPF, seek to protect and enhance landscape quality. Consideration should be given where appropriate to make such sites interesting and innovative in design through form, function and materials. • Any excavated material arising from the construction of new infrastructure could be reused on site or in uses as local as possible, such as local parks or to reinforce flooding defences along rivers, for example. • Strong awareness campaigns could be implemented to encourage participation in any collection services to minimise any needs for landfill. • Restoration of landfill sites could produce recreational site for local populations. • Longitudinal litter audits could be undertaken regularly to track the impact of new services upon litter and fly-tipping on both terrestrial and marine environments.

4.5 Uncertainties and Risks

4.5.1 A number of uncertainties and risks have been identified during the assessment of the draft WMPE and these are highlighted in **Appendix D** of this report. A number of the uncertainties and risks identified cut-across the SEA topics and include:

- The scale, type and location of new infrastructure is not certain at this stage.
- The full impact of behaviour changes and any movement of waste tonnages up the hierarchy is not known. It is possible that overall wastes may not decrease, but may simply move across the hierarchy.
- The range of materials within new services are not known. The rate of participation and expected increased capture rates – and impacts on natural material demand – is also unknown.
- The full environmental and economic impact of adopting a circular economy is not known, given the scope of the circular economy and the far reaching impacts on local, national and international practices including the need for, and composition of, future waste management infrastructure.
- The level and type of product which would be reused cannot be quantified at this stage, and therefore the reduction in manufacturing and waste collections also cannot be quantified.
- The level on investment and infrastructure required to close the waste management gap when diverting waste from landfill is not known at this stage.
- The extent that emissions from vehicles will change as a result of schemes e.g. the DRS scheme is not known at this stage.
- The overall change in waste collections and vehicle movements, and the resulting scale of GHG emissions and effects on climate change, are not certain.
- The type and composition of waste managed through disposal, recovery and recycling is uncertain, with associated uncertainties on the scale of GHG emissions.
- The extent to which waste prevention avoids product manufacture is uncertain.
- The extent and location of avoided extraction of primary raw materials are not known.

5. Summary of Assessment

This section presents the summary of the assessment of likely significant environmental effects of the Waste Management Plan for England and the 'direction of travel' reasonable alternative. It also sets out the proposals for monitoring measures.

5.1 Effects of the Draft WMPE

5.1.1 The likely significant environmental effects of implementing the draft WMPE have been identified, described and evaluated in accordance with the requirements of the SEA Directive and relevant implementing regulations.

5.1.2 Overall, the assessment contained in this Environmental Report has found that the draft WMPE will have positive effects across the majority of the SEA objectives that have been used to help characterise the social, economic and environmental effects of the draft WMPE, relative to the current baseline. This broadly reflects the socio-economic and environmental benefits associated with sustainable waste management and moving waste up the waste management hierarchy.

5.1.3 Significant positive effects have been identified in respect of biodiversity (SEA Objective 1). This principally reflects the potential for increased waste prevention, reuse and recycling to reduce litter (which can cause harm to both terrestrial and marine ecology) and the extraction and processing of natural resources (which can affect habitats and species). The draft WMPE has also been assessed as having a significant positive effect on land use, geology and soils (SEA Objectives 5 and 6) due to the potential for the plan to support (inter alia) the decrease in disposal of wastes to landfill, through the move of material up the waste management hierarchy (with associated reductions in land excavation and the potential for contamination by leachates) and increased composting, relative to the current baseline.

5.1.4 By supporting the movement of waste up the hierarchy, the draft WMPE is expected to help avoid/minimise GHG emissions associated with the extraction of raw materials and manufacturing of products, although some uncertainty remains. The decrease in disposal of wastes to landfill, through the move of material up the waste hierarchy will also reduce emissions associated with the decomposition of biodegradable waste. Overall, the draft WMPE has therefore been assessed as having a significant positive effect on climatic factors (SEA Objective 10) relative to the current baseline.

5.1.5 In-combination with the NPPW, RWS, waste local plans and the 25 Year Environment Plan, as well as equivalent plans being produced by the devolved administrations in Scotland, Wales and Northern Ireland, and Gibraltar, the draft WMPE will fulfil the requirements of Article 28 of the WFD. This is expected to generate a significant positive (in-combination) effect on waste and resources (SEA Objective 12).

5.1.6 No overall significant negative effects have been identified during the assessment of the draft WMPE. The construction and operation of new waste management infrastructure as well as the implementation new waste collection services and DRS associated with the commitments and targets presented in the draft WMPE could have a range of negative environmental effects related to, inter alia, land take, vehicle movements, emissions to air and landscape and visual impact and in this context, a minor negative effect has been identified in respect of biodiversity (SEA Objective 1) relative to the current baseline. However, the likelihood of adverse effects occurring, their magnitude and their duration is dependent on the type, scale and location of infrastructure to be developed, the proximity of sensitive receptors and the nature of the associated waste collection

services/DRS to be implemented. It should also be noted that location of new sites would be identified in the relevant waste local plan (which would themselves be consistent with the policies of the NPPF and NPPW) and which are subject to SEA and HRA, and would require relevant planning permissions (which could include EIA and HRA) and environmental consents to develop and construct and operate. The operation of waste management facilities is also subject to environmental permitting whilst adverse impacts associated with new waste collection services and DRS (principally emissions to air and disturbance associated increased vehicle movements) may be reduced in the future by the transition towards low emission and electric vehicles.

5.2 Effects of the Reasonable Alternatives to the Draft WMPE

5.2.1 One reasonable alternative to the draft WMPE has been identified and taken forward for assessment as part of this Environmental Report, namely a 'direction of travel' alternative. Under this alternative, consideration would be given to moving each waste stream further up the waste management hierarchy.

5.2.2 Like the draft WMPE, the 'direction of travel' alternative has been assessed as having a positive effect across the majority of the SEA objectives, relative the current baseline. This reflects the expectation that the alternative would move waste up the hierarchy thereby generating associated socio-economic and environmental benefits. However, this reasonable alternative would seek to exceed the commitments in the draft WMPE, either through implementing improvements at a quicker rate, or by exceeding existing targets for landfill avoidance, recovery, reuse and recycling. The assessment has identified that this approach would be likely to increase the magnitude of positive effects on the SEA objectives relative to the draft WMPE and in this context, the 'direction of travel' alternative has additionally been assessed as having significant positive effects on population, economics and skills (SEA Objective 2), water (SEA Objectives 7 and 8), waste and resources (SEA Objective 12) and landscape and townscape (SEA Objective 15), alongside the significant positive effects identified in respect of biodiversity (SEA Objective 1), land use, geology and soils (SEA Objectives 5 and 6) and climatic factors (SEA Objective 10) as for the draft WMPE.

5.2.3 No overall significant negative effects have been identified during the assessment of the 'direction of travel' alternative. However, the assessment has identified that exceeding the targets and commitments contained in the draft WMPE would be likely to result in an increased need for new waste management facilities and waste collection services such that the potential for associated adverse environmental effects could be increased (relative to the draft WMPE).

5.3 Rejection of Alternatives

5.3.1 The Government's preferred option for the Waste Management Plan for England is that it should be a compilation of existing and planned policies as they stand at present. The Government has already announced ambitious measures in the Resources and Waste Strategy to use resources efficiently and reduce the waste created and will elaborate on these proposals and actions under a new Waste Prevention Programme. The Government has undertaken to evaluate the Resources and Waste Strategy and refresh it every 5 years. The Government considers it more appropriate to review the effectiveness of policies in the light of evidence from that evaluation.

5.3.2 The 2013 WMPE met the key objectives of the Schedule 1 of the Waste (England and Wales) Regulations 2011. That objective is explained in Article 1 of Schedule 1 of those Regulations i.e. "*to protect the environment and human health by preventing or reducing the adverse impacts of the generation and management of waste and by reducing overall impacts of resource use and improving the efficiency of such use.*" The 2013 WMPE met the objective through:

- a comprehensive system of waste management policy and legislation being in place in England to prevent harm to the environment and human health; and
- setting out a range of policy measures to encourage wastes to be treated in accordance with the waste hierarchy, thereby reducing the demand for and use of resources.

5.3.3 The policy measures the Government are now taking forward in the WMPE take ambitious steps to enhance implementation of that objective and also anticipate measures which will be introduced by the circular economy package. For these reasons, the Government considers that the measures being taken forward will continue to meet the requirements of the Waste (England and Wales) Regulations 2011.

5.4 Implementation and Monitoring

5.4.1 It is a requirement of the SEA Directive to establish how the significant effects of implementing the 2019 WMPE will be monitored. As set out in Government Guidance[143], "*it is not necessary to monitor everything or monitor an effect indefinitely. Instead, monitoring needs to be focused on significant sustainability effects*".

5.4.2 Monitoring should therefore be focused on:

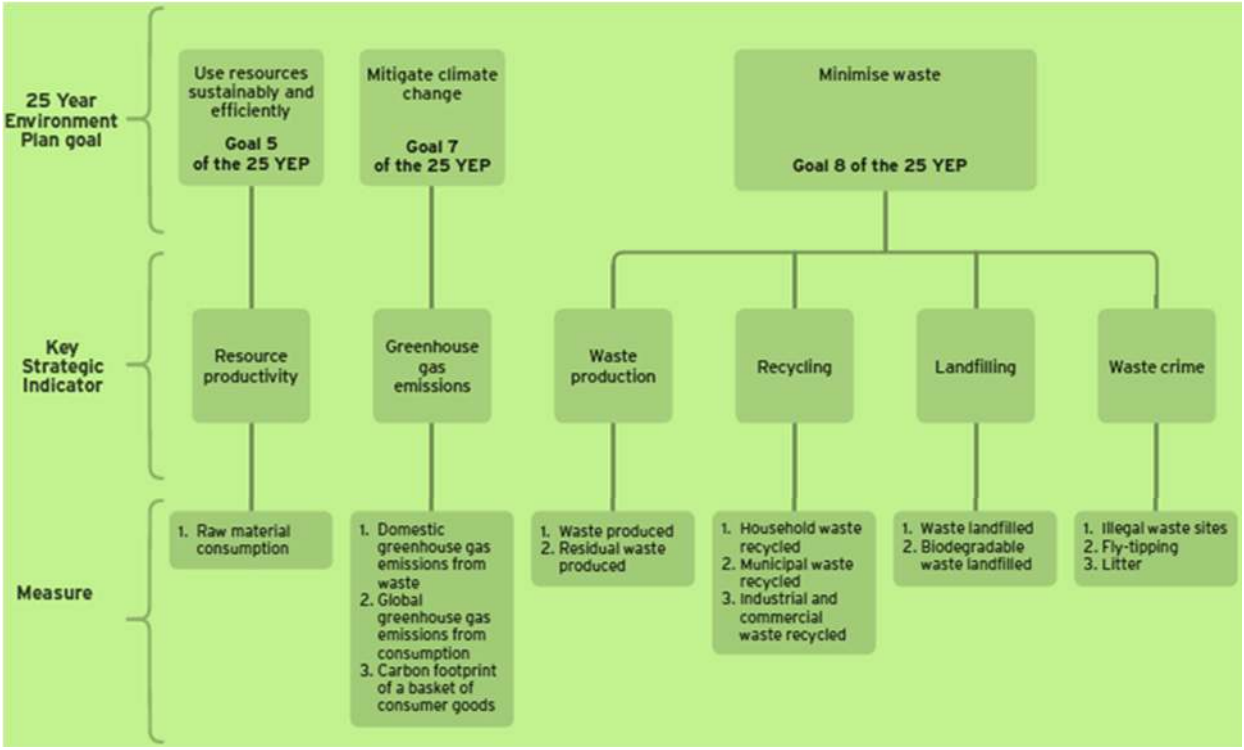
- the significant effects identified in the assessment that may give rise to irreversible damage, with a view to identifying trends and where appropriate to implement relevant mitigating measures before such damage is caused; and
- uncertain effects where monitoring would enable preventative or mitigating measures to be undertaken.

5.4.3 As set out in **Section 5.1**, the assessment contained in this Environmental Report has found that the implementation of the draft WMPE is likely to have positive effects across all of the SEA objectives and in the case of biodiversity, land use, climatic factors and waste (when in-combination effects are considered), significant positive effects have been identified; no significant negative effects have been identified. Reflecting Government Guidance, it is therefore not deemed necessary to develop indicators for each SEA objective/topic.

5.4.4 Article 10(2) of the SEA Directive specifically states that, where appropriate, existing monitoring arrangements may be used to assess the success of the appropriate plan in achieving its objectives; it does not require that targets be developed for the SEA itself. In this context, the RWS includes an Indicator Framework for monitoring progress against RWS policies and commitments that consists of a number of measures and which reflect progress against the following six policy priorities: increasing resource productivity; reducing greenhouse gas emissions; reducing waste production; increasing recycling; and reducing landfilling (see **Figure 5.1**). More information on the reporting mechanism for tracking these indicators will be provided in the upcoming *Resources and Waste Strategy Evaluation Plan*.

[143] ODPM (2005) A Practical Guide to the Strategic Environmental Assessment Directive. Available online at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/7657/practicalguidesea.pdf

Figure 5.1 Indicator Framework for Monitoring the Resources and Waste Strategy



5.4.5 Taking into account the findings of the assessment presented in this report (that the draft WMPE is unlikely to have significant negative environmental effects) and the SEA Directive guidance (that existing monitoring arrangements may be used), the finalised WMPE indicators and measures when released, are proposed to be taken forward as the monitoring framework for the purposes of the SEA. This approach will avoid unnecessary duplication and is consistent with the Government's policy goals (as contained in the 25 Year Plan).

5.4.6 It is recognised that waste management, including the construction and operation of waste management facilities, can have a range of socio-economic and environmental effects that may be significant at a local level. However, these effects are considered and monitored by waste planning authorities through the waste local plan process, in accordance with Regulation 34 of the Town and Country Planning (Local Planning) (England) Regulations 2012. In consequence, it is not considered to be necessary, or appropriate, for the 2019 WMPE monitoring framework to consider such effects.

Glossary and Abbreviations

Term	Definition
AD	Anaerobic Digestion.
AONB	Area of Outstanding Natural Beauty. An area of countryside considered to have significant landscape value.
AQMA	Air Quality Management Area. These are areas which have been identified by local authorities as unlikely to reach national air quality objectives.
BAT	Best Available Technique. BATs are required to be considered (under EC Directive 96/61) in order to avoid or reduce emissions resulting from certain installations and to reduce the impact on the environment as a whole.
BEIS	Department for Business, Energy and Industrial Strategy. The department brings together responsibilities for business, industrial strategy, science, innovation, energy, and climate change.
CEMP	Construction Environment Management Plan. A Plan which details management measures to adopt and implement during construction activities to avoid and manage construction effects on the environment and surrounding communities.
CFMP	Catchment Flood Management Plan. A plan that considers and looks to address all types of inland flooding, from rivers, groundwater, surface water and tidal flooding.
CHP	Combined Heat and Power.
CO	Carbon monoxide (a colourless, odourless and toxic gas).
CO_2	Carbon dioxide. A naturally occurring gas, also a by-product of burning fossil fuels and other industrial processes. It is the principal anthropogenic greenhouse gas that affects the Earth's radiative balance.
Cumulative effects	Effects that occur where several individual activities which each may have an insignificant effect, combine to have a significant effect.
DCO	Development Consent Order. A consent by a Minister for a Nationally Significant Infrastructure Project. This will combine a grant of planning permission with a range of other separate consents, such as listed building consent.
Defra	Department for Environment, Food and Rural Affairs. The UK government department responsible for safeguarding the natural environment, supporting the food and farming industry, and sustaining the rural economy.
EA	Environment Agency. The environmental regulator for England. The Agency's role is the enforcement of specified laws and regulations aimed at protecting the environment, in the context of sustainable development, predominantly by authorising and controlling radioactive discharges and waste disposal to air, water and land. The Environment Agency also regulates nuclear sites

Term	Definition
	under the Environmental Permitting Regulations and issues consents for non-radioactive discharges.
EIA Directive	Environmental Impact Assessment Directive, which covers the Directive 2014/52/EU which amended Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment which itself updated the original Directive (85/337/EEC).
EMP	Environmental Management Plan. This is a document that sets out the required measures to manage the environmental effects of development and to demonstrate compliance with relevant legislation.
European site	European sites include Sites of Community Importance (SCIs), Special Areas of Conservation (SACs), candidate Special Areas of Conservation (cSACs) and Special Protection Areas (SPAs), and is defined in regulation 8 of the Conservation of Habitats and Species Regulations 2010.
FTE	Full Time Equivalent. This is a unit to measure employed persons in a way that makes them comparable although they may work a different number of hours per week. It is obtained by comparing an employee's average number of hours worked to the average number of hours of a full-time worker.
GHG	Greenhouse gases. These gases absorb and emit radiation at specific wavelengths within the spectrum of thermal infrared radiation emitted by the Earth's surface, the atmosphere itself, and by clouds. This property causes the greenhouse effect.
GVA	Gross Value Added.
Ha	Hectare; a metric unit of area defined as 10,000 square metres.
HGV	Heavy Goods Vehicle. A heavy goods vehicle (HGV) is the term for any truck with a gross combination mass (GCM) of over 3.5 tonnes. It is defined in defined in Directive 2001/116/EC. There are sub-categories for vehicles between 3.5 tonnes and 12 tonnes and for all goods vehicles over 12 tonnes.
HRA	Habitats Regulations Assessment. This is an assessment of whether a draft plan or project is likely to have a significant effects on any European sites (either alone or 'in combination' with other plans or projects); and, if so, whether these effects will result in any adverse effects on that site's integrity with reference to the site's conservation objectives. This is undertaken in accordance with the Conservation of Habitats and Species Regulations 2010 (as amended) and Directive 92/433/EEC (the 'Habitats Directive').
MHCLG	Ministry for Housing, Communities and Local Government. The UK government department responsible for building regulations, community cohesion, fire services and community resilience, housing, local government, planning, race equality and urban regeneration.
MBT	Mechanical and Biological Treatment.
MRF	Materials Recovery Facility.
MSW	Municipal Solid Waste.

Term	Definition
N2K (Natura 2000) sites	Natura 2000 is a network of nature protection areas in the territory of the European Union. It is made up of Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) designated respectively under the Habitats Directive and Birds Directive. The network includes both terrestrial and marine sites (Marine Protected Areas (MPAs).
NPPF	National Planning Policy Framework. The framework first published by the then Department for Communities and Local Government in 2012 sets out the Government's planning policies for England and how these are expected to be applied. This has been revised in 2018.
NPS	National Policy Statement.
NTS	Non-Technical Summary. Summarises the findings of this SEA.
RIGS	Regionally important geological and geomorphological sites (RIGS). The sites are locally designated sites of local, national and regional importance for geodiversity (geology and geomorphology) in the United Kingdom.
NOx	Nitrogen oxides. NOx is the generic term for a group of highly reactive gases, all of which contain nitrogen and oxygen in varying amounts.
NPPW	National Planning Policy for Waste. Sets out detailed waste planning policies. All local planning authorities should have regard to its policies when discharging their responsibilities to the extent that they are appropriate to waste management.
NSIP	Nationally significant infrastructure projects. These are large scale developments that require development consent under the Planning Act 2008.
OECD	Organisation for Economic Co-operation and Development. An intergovernmental economic organisation with 35 member countries, founded in 1960 to stimulate economic progress and world trade.
ONS	Office for National Statistics (ONS). The UK's largest independent producer of official statistics and its recognised national statistical institute. The ONS is responsible for collecting and publishing statistics related to the economy, population and society at national, regional and local levels. The ONS also conducts the census in England and Wales every 10 years.
PHE	Public Health England.
RDF	Refuse Derived Fuel.
RWS	Resources and Waste Management Strategy (full title 'Our Waste, Our Resources, a Strategy for England', published by Defra 2018). The strategy sets out how the Government intends to preserve resource stocks through minimising waste, promoting resource efficiency and moving towards a circular economy.
Ramsar	Ramsar sites are wetlands of international importance, designated under the Ramsar Convention (first signed in 1971).

Term	Definition
SAC	Special Areas of Conservation are strictly protected sites designated under the Habitats Directive.
SEA	Strategic Environmental Assessment. An iterative process to identify, describe and evaluate the likely significant effects of a plan or programme (and any reasonable alternatives). It is undertaken in compliance with Directive 2001/42/EC and UK implementing regulations (SI 2004/1633, SI 2004/1656, SR 2004/280).
SEA Directive	Strategic Environmental Impact Assessment Directive. Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment.
Secondary effects	Effects that do not occur as a direct result of a plan or activity, but occur at distance from the direct impacts or as a result of a complex pathway.
SO_2	Sulphur Dioxide (a toxic and odorous gas).
SPA	Special Protected Areas are strictly protected sites classified in accordance with Article 4 of the Birds Directive.
SPZ1	Groundwater Source Protection Zone 1. SPZs are areas defined by the Environment Agency as areas that highlight the risk of groundwater contamination from any activities that might cause pollution in the area. SPZ1 is the inner protection zone; it is defined as the 50 day travel time from any point below the water table to the source. This zone has a minimum radius of 50 metres.
SSSI	Site of Special Scientific Interest. A SSSI is an area notified by nature conservation agencies as an area of land which is 'of special interest by reason of any of its flora, fauna, or geological or physiographical features'.
SuDS	Sustainable Drainage Systems. SuDS are a sequence of water management practices and facilities designed to drain surface water in a manner that will provide a more sustainable approach than what has been the conventional practice of routing run-off through a pipe to a watercourse.
Synergistic effects	Effects that interact to produce a total effect that is greater than the sum of the individual effects.
t CO_2 eq	Tonnes of carbon dioxide equivalent. This is a metric measure used to compare the emissions from various greenhouse gases on the basis of their global warming potential by converting amounts of other gases to the equivalent amount of carbon dioxide with the same global warming potential.
UKCP18	UK Climate Projections 18. UKCP18 provide projections on climate change based on methodology designed by the Met Office. The projections are designed to help plan how to adapt to a changing climate.
WHO	World Health Organisation. WHO is a specialised agency of the United Nations that is concerned with international public health.
WFD	Waste Framework Directive 2008/98/EC which provides the overarching legislative framework for the collection, transport, recovery and disposal of waste, and includes common terminology and a definition of waste. Article 28

Term	Definition
	of the Directive requires Member States to establish waste management plans.
WMPE	Waste Management Plan for England.

Appendix A
SEA QA Checklist

Quality Assurance Checklist for SEA of the Waste Management Plan for England	
Objectives and Context	
The plan's purpose and objectives are made clear.	Section 1.3 and Section 2 of the main report.
Environmental issues, including international and EC objectives, are considered in developing objectives and targets.	Key issues have been identified and are presented in Table 3.3 and then throughout Appendix D. These have informed the development of the SEA Framework presented in Table 3.4.
Scoping	
The environmental consultation bodies are consulted in appropriate ways and at appropriate times on the content and scope of the Environmental Report.	The environmental bodies were consulted on the Scoping Report in June 2019.
The SEA focuses on significant issues.	Key issues have been identified in the baseline analysis contained in Appendix D and are presented in Table 3.3.
Technical, procedural and other difficulties encountered are discussed; assumptions and uncertainties are made explicit.	Discussed in Section 3 of this report.
Alternatives	
Realistic alternatives are considered for key issues, and the reasons for choosing them are documented.	Potential alternatives are identified in Section 2.3 and have been assessed in Appendix D. The reasons for the selection of the draft WMPE (as proposed) and the rejection of alternatives are set out in Section 5.3.
The environmental effects (both adverse and beneficial) of each alternative are identified and compared.	The reasonable alternatives to the draft WMPE have been assessed in Appendix D.
Inconsistencies between the alternatives and other relevant plans, programmes or policies are identified and explained.	The reasonable alternatives to the draft WMPE have been assessed in Appendix D.
Reasons are given for selection or elimination of alternatives	Potential alternatives are identified in Section 2. The reasons for the selection of the draft WMPE (as proposed) and the rejection of reasonable alternatives are set out in Section 5.3.
Baseline Information	
Relevant aspects of the current state of the environment and their likely evolution without the plan are described.	Refer to Appendix D.
Characteristics of areas likely to be significantly affected are described, including areas wider than the physical boundary of the plan area where it is likely to be affected by the plan where practicable.	Refer to Appendix D.
Difficulties such as deficiencies in information or methods are explained.	Discussed in Section 3.5 and 4.5 of this report.
Prediction and evaluation of likely significant effects	
Effects identified include the types listed in the Directive (biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors,	These are set out in Appendix D.

Quality Assurance Checklist for SEA of the Waste Management Plan for England	
material assets, cultural heritage and landscape) as relevant; other likely environmental effects are also covered as appropriate.	
Both positive and negative effects are considered, and where practicable, the duration of effects (short, medium or long-term) is addressed.	These are set out in Appendix D.
Likely secondary, cumulative and synergistic effects are identified where practicable.	The potential for cumulative and synergistic effects is considered in Section 4.2 and Table 4.1.
Inter-relationships between effects are considered where practicable.	Inter-relationships between effects are identified in Section 4.3 and in the assessment commentary, where appropriate.
Where relevant, the prediction and evaluation of effects makes use of accepted standards, regulations, and thresholds.	These are identified in the commentary, where appropriate.
Methods used to evaluate the effects are described.	These are described in Section 3 of the report.
Mitigation measures	
Measures envisaged to prevent, reduce and offset any significant adverse effects of implementing the plan are indicated.	Mitigation measures are set out in Appendix D and then summarised in Section 4.4.
Issues to be taken into account in development consents are identified.	Relevant issues, as appropriate, are set out in Appendix D and then summarised in Section 4.
Environmental Report	
Is clear and concise in its layout and presentation.	The layout of the Environmental Report is set out in Section 1. The structure was subject to early consultation and review as part of scoping.
Uses simple, clear language and avoids or explains technical terms. Uses maps and other illustrations where appropriate.	Maps and tables have been used to present the baseline information in Appendix D where appropriate.
Explains the methodology used.	Section 3 presents the methodology used for assessment.
Explains who was consulted and what methods of consultation were used.	This is discussed in Section 1.
Identifies sources of information, including expert judgement and matters of opinion.	Information is referenced throughout the Environmental Report.
Contains a non-technical summary	A Non-Technical Summary has been provided.
Consultation	
The SEA is consulted on as an integral part of the plan-making process.	Consultation on the Scoping Report took place in June 2019. Appendix B contains a schedule of the scoping consultation responses. The Environmental Report is published alongside the draft WMPE.
The consultation bodies, other consultees and the public are consulted in ways which give them an early and effective opportunity within appropriate time frames to express their opinions on the draft plan and SA Report.	Consultation on the Scoping Report took place in June 2019. Appendix B contains a schedule of the scoping consultation responses. The Environmental Report is published alongside the draft WMPE.
Decision-making and information on the decision	
The Environmental Report and the opinions of those consulted are taken into account in finalising and adopting the plan.	This will be included in the Post Adoption Statement (to be issued following consultation on this Environmental Report).

Quality Assurance Checklist for SEA of the Waste Management Plan for England	
An explanation is given of how they have been taken into account.	This will be included in the Post Adoption Statement (to be issued following consultation on this Environmental Report).
Reasons are given for choices in the adopted plan, in the light of other reasonable options considered.	This will be included in the Post Adoption Statement (to be issued following consultation on this Environmental Report).
Monitoring Measures	
Measures proposed for monitoring are clear, practicable and linked to the indicators and objectives used in the SEA.	Monitoring measures are presented in Section 5.4.
Monitoring is used, where appropriate, during implementation of the plan or programme to make good deficiencies in baseline information in the SEA.	Monitoring measures are presented in Section 5.4.
Monitoring enables unforeseen adverse effects to be identified at an early stage (these effects may include predictions which prove to be incorrect).	Monitoring measures are presented in Section 5.4.
Proposals are made for action in response to significant adverse effects.	This will be included in the Post Adoption Statement (to be issued following consultation on this Environmental Report).

Appendix B
Consultation Bodies Scoping Responses

Table B1 Scoping Consultation Questions

Consultation Questions	
1.	a) Does the Scoping Report set out sufficient information to establish the context for the assessment, both in terms of the scope of the baseline analysis presented, and the plans and programmes reviewed (Section 2, Appendix B and C)? b) If not, which areas do you think have been missed from the baseline analysis and/or what additional plans or programmes should be included? c) Alternatively, are there any topics covered in the baseline that are considered to be unnecessary? d) Similarly, are there any plans and programmes currently included in the review of plans and programmes that is identified as being unnecessary and could be discarded?
2.	a) Do the SEA objectives and guide questions (Table 3.3) cover the breadth of issues appropriate for appraising the effects of the draft WMPE? b) If not, which objectives and/or guide questions should be amended and how? c) Are there any additional objectives or guide questions that you believe should be included? d) Alternatively, are there any objectives and guide questions which are unnecessary and could be removed?
3.	Do you have any other comments?

Table B2 Scoping Consultation Responses

Ref	Consultation Question	Consultation Response	Commentary / Action Taken	Location within the Environmental Report
Environment Agency				
EA1	1b	We suggest the following **plans and programmes** are also included: International/European		
		Council Directive 79/409/EEC on the conservation of wild birds	Comment noted – this directive was repealed by Directive 2009/147/EC and therefore is no longer in force. 2009/147/EC is included within the list of plans and programmes contained in Appendix C of the Environmental Report.	Appendix C
		Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora	Comment noted - This programme is already included within the review of Plans and Programmes contained in Appendix C of the Environmental Report.	Appendix C
		European Strategy for Plastics in a Circular Economy 2018	Comment noted - The review of plans and programmes contained in Appendix C has been revised to include the European Strategy for Plastics in a Circular Economy 2018.	Appendix C
		Directive of the European Parliament and of the Council on the reduction of the impact of certain plastic products on the environment – proposal 2018	Comment noted – As this directive is currently in the form of a proposal, and has not yet been adopted it has not been added to the review of Plans and Programmes contained in Appendix C.	N/A
		National The Environmental Assessment of Plans and Programmes Regulations 2004	Comment noted – however adding the Regulations to the review of Plans and Programmes is not considered necessary as the Directive is included and the Regulations are analysed within the main body of the Environmental Report.	Section 1.5 (Table 1.1) and throughout the Environmental Report.
		Waste Prevention Programme for England 2013	Agreed - The review of plans and programmes contained in Appendix C has	Appendix C

Ref	Consultation Question	Consultation Response	Commentary / Action Taken	Location within the Environmental Report
			been revised to include the Waste Prevention Programme for England 2013.	
		Statutory Instrument relating to the draft Climate Change Act 2008 (2050 Target Amendment) Order 2019	Comment noted - The review of plans and programmes contained in Appendix C has been revised to include The Climate Change Act 2008 (2050 Target Amendment) Order 2019.	Appendix C
EA2	1c, 1d	We have not identified any topics covered in the baseline or plans and programmes included which we consider unnecessary and can be omitted.	Comment noted.	N/A
EA3	2b, 2c	**Table NTS 1 and table 3.3 Draft Assessment Objectives and Guide Questions** We suggest the following amendments and additions (and as a result, corresponding additions to the Summary of Key Issues in table 2.2): **Biodiversity and nature conservation**		
		include a reference to 'natural capital' as the natural capital is an approach that Defra are promoting.	Agreed – the sixth guide question under SEA Objective 1 has been amended to include reference to 'natural capital'.	Table 3.4
		Add reference to the Habitats and Birds Directives.	Comment noted – Reference to the Habitats and Birds Directive is not considered to be required, as reference is already made to *"internationally designated nature conservation features and sites"* in the guide questions under SEA Objective 1.	N/A
		Population/economy		
		add a question 'will the WMPE facilitate a reduction in the need to export waste overseas?'	Agreed – The guide question suggested in this response has been included under SEA Objective 2.	Table 3.4
		Add a question "will the plan help reduce illegal activity in the waste management industry?' (i.e. will it contribute to reduced illegal dumping of waste, reduced waste tax avoidance and fewer victims of modern slavery in the waste sector - these could all be included within the metrics for the WMPE.).	Comment noted – The suggested guide question has not been included, as reference to 'illegal activity' is considered to	N/A

Ref	Consultation Question	Consultation Response	Commentary / Action Taken	Location within the Environmental Report
			apply to the WMPE itself, rather than the assessment of the WMPE.	
		Human health		
		add in 'safety' to human health and wellbeing.	Agreed – the wording of SEA Objective 3 has been amended to include 'safety'.	Table 3.4
		Question should refer to all 'land contamination', rather than just 'significant' land contamination.	Agreed – The wording of the second guide question under SEA Objective 5 and 6 has been amended to reflect this comment.	Table 3.4
		Add in reference to 'reduced air quality' under question on adverse impacts to human health.	Agreed – the first guide question under SEA Objective 3 and 4 has been amended to include 'change in air quality'.	Table 3.4
		Add question, 'will the plan result in an overall reduction in mortality factors associated with exposure to the pollution caused by waste management, and does the plan increase the safe management of wastes at dedicated facilities'.	Comment noted – The SEA is not a Health Impact Assessment (HIA) or epidemiological study. Such a question requires a more detailed evidence base than is available for a generic, national strategic assessment, and any such response would be unduly speculative. Therefore, the suggested guide question has not been included.	N/A
		Water		
		question should not just refer to 'prevent deterioration' but enhancing water quality too.	Comment noted – SEA Objective 7 includes reference to *'protect and enhance water quality'* and the first guide question under SEA Objective 7 and 8 states *'Will the draft WMPE protect and improve surface, ground, estuarine and coastal water quality and quantity'* As a consequence, no change to the second guide question is required.	N/A
			Comment noted - 'net gain' is already included within the sixth guide question	N/A

Ref	Consultation Question	Consultation Response	Commentary / Action Taken	Location within the Environmental Report
		Also add reference to 'net gain' (improvement) in water quality and water resources.	under SEA Objective 1 and therefore it has not been repeated, in order to minimise duplication.	
		Climatic factors		
		include reference to the net zero carbon' target which was recently announced by the government.	Comment noted – the fifth guide question under SEA Objective 10 has been amended to reflect the government's 2050 zero net carbon emissions target.	Table 3.4
		Waste and resources		
		add a question 'will the WMPE support and help enable the Resources and Waste Strategy goals to be achieved, including a consistent waste collection scheme across England, a deposit return scheme and extended producer responsibility?'	Comment noted – the scope of the guide questions included under SEA Objective 12 is considered to be sufficiently broad and therefore there is no need to supplement. Therefore, the suggested guide question has not been included.	N/A
		Traffic and transport		
		add 'air pollution and carbon emissions' under the question on reducing the direct effects from transport (as this is not covered completely under air pollution or climatic factors).	Agreed – The third guide question under SEA Objective 13 has been amended to reflect this comment.	Table 3.4
		Add under encouraging alternative sustainable means of transport, about encouraging reduced vehicle mileage, and more sustainable types of vehicles and vehicle fuels.	Comment noted – the existing guide question has not been amended as it already contains reference to sustainable transport, which is considered to be sufficient to cover the points suggested in the comment.	N/A
		Landscape		
		add a question 'will the WMPE help reduce the likelihood of littering and fly-tipping and other environmental crime (Through blight and environmental degradation)?'	Agreed – the guide question suggested within this comment has been added under SEA Objective 15.	Table 3.4

Ref	Consultation Question	Consultation Response	Commentary / Action Taken	Location within the Environmental Report
		General add reference to environmental 'net gain' (positive improvements) to assessment objectives/guide questions relating to; biodiversity and nature conservation, land use, geology and soils, water, air quality and climatic factors (Including climate change mitigation and adaptation and energy).	Comment noted – reference is made to 'net gain' in the revised sixth guide question under SEA Objective 1 *'Will the draft WMPE lead to an improvement in natural capital and a net gain in biodiversity'*. Therefore, in the interests of avoiding duplication, 'net gain' has not been repeated across topics.	N/A
EA4	2c, 2d	Please see above for our comments on additional objectives/guide questions to include. We have not identified any objectives or guide questions which we consider unnecessary and can be omitted.	Comment noted	N/A
EA5	3	**Ambition from recent waste policy and regulation changes** In general there are a few areas where policy and regulation have moved on and that this review offers a good opportunity to recognise these changes and realign the WMPE with these developments. We would like to highlight the following issues as areas where we believe the SEA can encourage the WMPE to be more ambitious, and take the opportunity to better support improved environmental performance and resource efficiency and deliver significant positive environmental outcomes: **Circular Economy –** since the last iteration, regulatory change has introduced the Circular Economy Package and the Resources and Waste Strategy, designed to improve how we manage waste away from a linear economy, towards greater circularity. This requires a change in how we plan not only to manage waste, but how we use and value our resources more generally. The SEA should assess the WMPE's ability to encourage systems and facilities that underpin these changes and act proactively to create space for innovation, in line with moving activity up the Waste Hierarchy. This includes expanding remanufacturing to ensure materials have a viable non-waste destination. The SEA needs to consider any potential impacts from changes to composition of waste resulting from material substitution and the infrastructure needed to manage this, for example, a move to biodegradable/ compostable packaging. This fits with Government's clean growth agenda providing economic benefits, and is in line with the Regulators Code (which requires us to consider the economic impacts of our decisions). A Circular Economic Model should decouple waste from growth, by both removing the embedded "waste" in paying for waste disposal services once materials are of no further value (in the linear economic model), and moving to a logistical model that maximises the value of all resources. This will also keep useful products in economic use for as long as possible, and reduce raw material costs as these become more depleted and more costly.	Comments noted – The SEA has taken the points raised within this comment into account when undertaking the assessment against the relevant topics and where appropriate, opportunities for mitigation or enhancement, in accordance with those suggested, have been considered.	Throughout the Report, within the Relevant sections

Ref	Consultation Question	Consultation Response	Commentary / Action Taken	Location within the Environmental Report
		Resource efficiency/productivity – the WMPE should encourage resource efficiency/productivity through promoting up stream actions to reduce damage, minimise contamination and conserve resource value as far as practical. Consideration should also be given to specific waste streams (i.e. those subject to scarcity and economic importance) and the role of the WMPE in facilitating Extended Producer Responsibility. **Systems based approach –** The National Infrastructure Commission's National Infrastructure Assessment makes reference to a systems based approach in respect of major infrastructure projects and the management of waste. It would be logical for the WMPE to reflect this in planning for associated infrastructure and waste collection/handling systems for all other waste infrastructure. The SEA should assess the WMPE ability to consider resources management and waste infrastructure as an integrated system, and not as elements in isolation. This will need more complex data systems and a balancing of waste management and recovery capacity. **The SEA should fully reflect the level of ambition in the Resources and Waste Strategy, including:** Extended producer responsibility system - Introduction of deposit return systems Compulsory organic (food) waste collection Standardised collections from local authorities Ambition for waste crime elimination in the 25 year plan The **Waste Prevention Programme for England** (WPPE) plays an important role at the top of the waste hierarchy, a role that is increasingly important to resource efficiency and circularity. Whilst this may sit outside of infrastructure planning, it is still a critical part of the local planning process in relation to resource efficiency and waste management and should be considered and the links made evident through the SEA of the WMPE. It is important that Waste Plans and Local Plans are linked on these issues and also reflect the needs of other plans (i.e. Clean Growth and Industrial Strategy). **Key statistics on waste management infrastructure** **SEA Scoping Report, Appendix C, Baseline and contextual information, section C1.10 on Waste and Resources, and Draft Waste Management Plan for England, December 2019 version -** correction needed on page 34 - the Waste Data Interrogator includes data for waste management permits and some sites which are regulated under Integrated Pollution Prevention and Control (IPPC), such as landfill sites. However it does not include installations that manage waste under IPPC such as large incinerators – this is provided in a separate Excel product. The interrogator tool also does not include other sites that manage		

Ref	Consultation Question	Consultation Response	Commentary / Action Taken	Location within the Environmental Report
		waste which fall under that particular regime such as Material Recycling Facilities which might handle hazardous wastes. To have an accurate overall picture of wastes managed at all facilities several Environment Agency (EA) data products are needed – the interrogator, the incinerators data and the pollution inventory database, and this should be cross referenced with the lists of permitted sites which the EA produce. As 'waste removed' data is not compulsory this is variable in accuracy depending largely on the waste sector operators completing this. There are other grey areas such as the data around materials that are exported as this data does not have 'waste received' data that can give an accurate picture of the origin.		
Historic England				
HE1	1a, 1b	6. Page B38 states that "*Historic England has produced many Conservation Area site specific assessments and guidance which provides important information on the state of the Conservation Area*". This should in fact read "*Historic England has produced advice on the production of site-specific Conservation Area assessments, which themselves provide important information on the state of Conservation Areas*".	Comment noted - The review of plans and programmes contained in Appendix C of the Environmental Report has been revised in response to this comment.	Appendix C
HE2	1a, 1b, 1d	7. We note that pages B38 and B39 refer to *MHCLG (2015) Planning Practice Guidance (PPG) for Waste* and *MHCLG (2016) Planning Practice Guidance (PPG) on the Natural Environment*, having already referred to *Ministry of Housing Communities and Local Government (MHCLG) (2014) Planning Practice Guidance*. Clearly it is important also not to overlook other elements of the PPG e.g. its section on the historic environment. To avoid confusion we suggest either adding reference to the PPG section on the historic environment or, preferably, deleting reference to only selected subsets of the PPG.	Comment noted – specific reference to the PPG for Waste and the PPG for the Natural Environment are considered to be necessary within the review of Plans and Programmes and therefore, to address this comment, reference to the Historic Environment section of the PPG has now been included in the review of Plans and Programmes in Appendix C of the Environmental Report.	Appendix C
HE3	1a	8. In terms of sources of heritage data to be referenced on page C73 and in the main text, whilst we appreciate that a cut off needs to made when preparing a Scoping Report of this type. A more recent source of data on the position in England is Heritage Counts e.g. https://historicengland.org.uk/content/heritage-counts/pub/2018/hc2018-heritageindicators/	Comment noted – the source of data suggested in this comment has been reviewed, and where relevant, has been used to update the information in the '*Cultural Heritage*' section of the Environmental Report.	Cultural Heritage Section

Ref	Consultation Question	Consultation Response	Commentary / Action Taken	Location within the Environmental Report
		Additionally, referring to the data available via the Heritage Counts website could also enable greater consideration of heritage-related trends. On page 35, within the summary of key topics relating to Cultural Heritage, the Scoping Report includes a subheading of Key Trends; but some of the data presented are focused on a single year.	Comment noted – however the Key Trends presented are considered appropriate and Relevant to the Waste Management Plan for England and for the purpose of the Environmental Report.	
HE4	1a, 1b	9. Also in terms of data sources, there is also a more recent source of heritage at risk data than 2017 (https://historicengland.org.uk/whats-new/news/heritage-at-risk- 2018). As an aside, we suggest that the point being made on setting on page 36 is in fact more relevant to link to our Good Practice Advice on setting rather than heritage at risk (footnote 83 refers).	Comment noted – the source of data suggested in this comment has been reviewed, and where relevant, has been used to update the information in the report. Comment noted – the summary of Key Issues (Table 3.3) has been updated to reflect this comment.	Table 3.3
HE5	2a, 2b	10. Draft SEA Objective 14 Draft SEA objective 14 states: "*To conserve and where appropriate enhance the historic environment including cultural heritage resources, historic buildings and archaeological features and their settings.*" This inclines toward a narrow view of the historic environment and does not acknowledge the breadth of designated heritage assets or indeed the important considerations associated with non-designated heritage assets. Also, enhancement is something which should be promoted in line with the NPPF. We suggest a revised objective as follows: "*To conserve and ~~where appropriate~~ enhance the historic environment including designated and non-designated heritage assets and their settings ~~cultural heritage resources, historic buildings and archaeological features and their settings.~~"* Currently there are four draft guide questions under this objective as follows: *Will the draft WMPE affect the significance of internationally and nationally designated heritage assets and their settings?* *Will the draft WMPE affect non-designated heritage assets, archaeological remains and their settings?* *Will the draft WMPE conserve or enhance heritage assets and the wider historic environment including landscapes, townscapes, buildings, structures and archaeological remains?* *Will the draft WMPE affect the fabric and setting of historic buildings, places or spaces that contribute to local distinctiveness, character and appearances?*	Comment noted – SEA Objective 14 has been updated to reflect this comment.	Table 3.4

Ref	Consultation Question	Consultation Response	Commentary / Action Taken	Location within the Environmental Report
		In the second question, given archaeological remains can be a key component of both designated and non-designated heritage assets, it would be simpler just to refer to non-designated heritage assets i.e. *Will the draft WMPE affect non-designated heritage assets, ~~archaeological remains~~ and their settings?*	Comment noted – the second guide question under SEA Objective 14 has been updated to reflect this comment.	Table 3.4
		In the third question, we note that the NPPF refers to the conservation and enhancement of the historic environment (paragraph 20) which presumably should be reflected in the approach taken with regard to the WMPE too. Furthermore the wording of the question is somewhat tautological, as the elements listed in the second half of the question can be heritage assets (already referenced). We suggest simpler revised wording as follows: *"Will the draft WMPE conserve and ~~or~~ enhance ~~heritage assets and~~ the ~~wider~~ historic environment including landscapes, townscapes, buildings, structures and archaeological remains?"*	Comment noted – the third guide question under SEA Objective 14 has been updated to reflect this comment.	Table 3.4
HE6	2a, 2b	11. Draft SEA objective 15 Draft SEA objective 15 states: "*To protect and enhance landscape and townscape quality and visual amenity*" and lists Landscape and Human Health as relevant SEA topics. We suggest adding cultural heritage as a third relevant SEA topic, given there is a cross-over with the historic environment, which is acknowledged in section C1.12.	Agreed – the SEA Regulation Topics under SEA Objective 15 have been updated to reflect this comment.	Table 3.4
HE7	3	12. On page 35, within the summary of key topics (in the section on key issues relevant to the draft WMPE) and more specifically its coverage of Cultural Heritage, the Scoping Report refers to the following: Effects on air quality, dust and climate change have the potential to affect heritage assets. The construction and operation of infrastructure (including waste management infrastructure) could have adverse impacts on the significance of heritage assets and archaeological remains both directly (through the loss of, or damage to, assets) or indirectly (through effects on setting), depending on scale and location of works. Wetlands are fragile and vulnerable to subtle changes arising from development that can affect paleoenvironmental deposits and archaeological assets.		
		With regard to the first bullet point, it should be noted that issues such as air quality, dust and climate change can affect heritage assets <u>and their enjoyment.</u>	Comment noted – the summary of key issues for Cultural Heritage (Table 3.3) in the Environmental report has been updated to reflect the suggested amendments in this comment.	Table 3.3
		With regard to the second bullet point, impacts on setting may be direct impacts; and again archaeological remains are a type of heritage asset. We suggest the following revised wording: "*The construction and operation of infrastructure (including waste management infrastructure) could have adverse impacts on the significance of heritage assets ~~and~~*	Comment noted – the summary of key issues for Cultural Heritage (Table 3.3) in the Environmental report has been updated	Table 3.3

Ref	Consultation Question	Consultation Response	Commentary / Action Taken	Location within the Environmental Report
		~~*archaeological remains*~~ *both directly (through the loss of, or damage to, assets and direct impacts on the setting of assets) or indirectly (through other effects offsite* ~~*on setting*~~*), depending on scale and location of works."*	to reflect the suggested amendments in this comment.	
HE8	3	13. In section C1.12, we note that the Scoping Report refers to the following existing problems for cultural heritage: *The settings of some heritage assets are at risk from new development.* *Scheduled monuments in rural areas are at risk from agricultural practices, land disturbance and unrestricted plant, scrub or tree growth.* *Challenging economic conditions are reducing the funds available to conserve and manage heritage assets.* *Wetlands are fragile and vulnerable to subtle changes arising from development that can affect paleoenvironmental deposits and archaeological assets. Other aspects of the wider historic environment that could be affected include disruption to historically important water sources, the flooding or drying of deep archaeological sites and assets such as mills and bridges which can be affected by local water levels.* *The impact of climate change on wetland heritage is currently poorly understood. Measures introduced to protect and enhance natural environmental qualities (water quality or biodiversity) may also inadvertently threaten wetland heritage if not handled sensitively.* Furthermore, it is noted that the summary of key issues on page 35 and 36 abridge the key issues identified in section C1.12 and omits reference to the challenging economic conditions leading to reducing funds available to conserve and manage heritage assets. Depending on how the Scoping Report is to be used, if the reference to economic conditions is stated as a problem in C1.12 presumably the issue should also be restated in the main text?	Comment noted.	
Natural England				
NE1	1a, 1b	In terms of the plans and programmes reviewed we would recommend the addition of the "25 Year Environment Plan Progress Report" (2019) , in particular reference to Section 8, Minimising Waste https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/803266/25yep-progress-report-2019-corrected.pdf The findings of this report should be added to Appendix C of the SEA Scoping Report.	Comment noted – the suggested Progress Report has not been added to the review of Plans and Programmes as it is a progress report rather than a Plan or Programme. However, the information within the Progress Report has been reviewed, and where appropriate, has been used to update the information in the *'Waste and Resources'* section of the report. Agreed – guide question 5 under SEA Objective 10 has been amended to include	Waste and Resources Section

Ref	Consultation Question	Consultation Response	Commentary / Action Taken	Location within the Environmental Report
		Summary of Key Issues: The Government has recently confirmed its ambition to achieve no net carbon emissions by 2050, we consider that this important commitment should be included in the main assessment of the report.	reference to the government's ambition for zero net carbon emissions by 2050.	Table 3.4
		Section 3.1.7. – We would welcome an assessment of the effects from the draft WMPE on Marine Waste, with particular regard to plastics and the impacts on Marine Biodiversity. Since the last assessment was undertaken more scientific information on the spread of plastics through the food chain has been undertaken and we would like to draw your attention to the research of the Marine Plastics Research Unit at Plymouth University.	Comment noted – the information suggested in this comment has been reviewed, and where appropriate, has been used to update the information in the '*Biodiversity and Nature Conservation*' and the '*Landscape and Townscape*' sections of the Environmental Report.	Biodiversity and Nature Conservation Section Landscape and Townscape Section
NE2	2b, 2c	As acknowledged within the assessment the Draft WMPE is a strategic document with non-site specific proposals. The assessment questions for Landscape asks "Will the draft WMPE have detrimental visual impacts?" We consider that it would be better to assess if "the draft WMPE will lead to detrimental visual impacts?", given that the choices made within the document could lead to this, but the document itself almost certainly won't.	Agreed – the first guide question under SEA Objective 15 has been amended to reflect this comment.	Table 3.4
		An additional question on the effects of the WMPE on the Government's commitment to achieve no net carbon emissions by 2050, should be included as an assessment question within the SEA.	Comment noted – the fifth guide question under SEA objective 10 has been amended to reflect this comment.	Table 3.4
		We would also welcome an additional assessment question on whether the draft WMPE will lead to a net gain for the environment. In particular a net gain for biodiversity as expressed within the National Planning Policy Framework.	Comment noted – the sixth guide question under SEA Objective 1 has been amended to reflect this comment.	Table 3.4
NE3	3	Whilst we appreciate that the WMPE is a time limited plan, we consider that the timescales for assessment, up to a maximum of 6 years, will be insufficient to understand the impacts of waste on air/water quality and greenhouse gas emissions, which can take longer to impact upon the SEA indicators such as biodiversity. A longer term assessment of 15 years would better enable an understanding of these effects.	Comment noted – however, the assessment includes (as it is required to, in terms of the SEA requirements), the identification of short-, medium- and long-term effects. These have been defined with reference to the length of the plan review (every 6 years), with short-term being defined as up to one year, medium-term being between one to six years and long-term being over six years (which then extends beyond the next plan review).	N/A

Ref	Consultation Question	Consultation Response	Commentary / Action Taken	Location within the Environmental Report
		Section 3.4.2. It is not clear from the statement on compliance with the Habitats Regulations Assessment (HRA) process, whether this relates just to project level HRA, and/or plan level HRA. We would welcome inclusion within the Environmental Report of any consideration taken as to whether HRA at the plan level assessment is needed and whether any screening has been undertaken.	Comment noted – the statement of compliance refers to the application of HRA to individual projects that will come forward in accordance with either the National Policy Statement (NPS) (if a Nationally Significant Infrastructure Project) or the relevant waste local plan.	N/A

Appendix C
Review of Plans and Programmes

The following table summarises those plans and programmes reviewed as part of the completion of this SEA scoping stage. It includes a description of each plan and programme, any proposed objectives or targets and the relevance to the draft WMPE and its assessment.

Key objectives relevant to WMPE & SEA	Key targets and indicators relevant to WMPE and SEA	Commentary (how the SEA Framework should incorporate the documents' requirements)
International/European Plans and Programmes		
Convention on the Conservation of Migratory Species of Wild Animals (1979) The Bonn Convention		
The Convention on the Conservation of Migratory Species of Wild Animals (also known as the Bonn Convention or CMS) is an intergovernmental treaty under the United Nations Environment Programme. The convention was signed in 1979 ratified in the UK in 1985. The convention aims to ensure contracting parties work together to conserve terrestrial, marine and avian migratory species and their habitats (on a global scale) by providing strict protection for endangered migratory species. Overarching objectives set for the Parties are: • Should promote, co-operate in and support research relating to migratory species; • Shall endeavour to provide immediate protection for migratory species; • Shall endeavour to conclude Agreements covering the conservation and management of migratory species included in Appendix II.	Setting targets is the responsibility of member states.	Requirement unlikely to be of direct relevance to the development of the WMPE, although there may be some indirect in combination effects. In consequence, consideration should be given in the SEA to take into account the habitats and species identified under the convention and any provision for their protection if/when appropriate. The SEA assessment framework should include objectives for biodiversity and the conservation of migratory species.
Council of Europe (1982) The Bern Convention. Council Decision 82/72/EEC of 3 December 1981 concerning the conclusion of the Convention on the conservation of European wildlife and natural habitats		
The Convention on the Conservation of European Wildlife and Natural Habitats (the Bern Convention) was adopted in Bern, Switzerland in 1979, and came into force in 1982. The principal objectives are: • To conserve wild flora and fauna and their natural habitats, especially those species and habitats whose conservation requires the co-operation of several States; • To promote such co-operation. Particular emphasis is given to endangered and vulnerable species, including endangered and vulnerable migratory species.	Targets for Contracting Parties are: Promoting national policies for the conservation of wild flora, wild fauna and natural habitats, with particular attention to endangered and vulnerable species, especially endemic ones, and endangered habitats, in accordance with the provisions of this Convention; Undertaking in its planning and development policies, and in its measures against pollution, to have regard to the conservation of wild flora and fauna; Promoting education and disseminating general information on the need to conserve species of wild flora and fauna and their habitats.	Requirement unlikely to be of direct relevance to the development of the WMPE, although there may be some indirect in combination effects. In consequence, consideration should be given in the SEA to take account of how any contribution to the conservation of wildlife and natural habitats protected under the Convention if/where appropriate. The SEA assessment framework should include objectives for conservation and protection of flora, fauna and habitats.

Key objectives relevant to WMPE & SEA	Key targets and indicators relevant to WMPE and SEA	Commentary (how the SEA Framework should incorporate the documents' requirements)
• In order to achieve this the Convention imposes legal obligations on contracting parties, protecting over 500 wild plant species and more than 1000 wild animal species.		
Council of Europe (1992) European Convention on the Protection of Archaeological Heritage (Valetta Convention)		
This Convention aims to protect the European archaeological heritage as a source of European collective memory and as an instrument for historical and scientific study.	No targets or indicators	Requirement unlikely to be of direct relevance to the development of the WMPE, although there may be some indirect in combination effects. In consequence, consideration should be given in the SEA to take account of whether there are any ways in which it can support the protection of archaeological heritage and ensure that proposals are compatible with the conservation and enhancement of heritage. The SEA assessment framework should include consideration of archaeological assets.
Council of Europe (2000) European Landscape Convention (Florence Convention) (became binding March 2007)		
The Convention outlined: • The need to recognise landscape in law, • The need to develop landscape policies dedicated to the protection, management and creation of landscapes, and • The need to establish procedures for the participation of the general public and other stakeholders in the creation and implementation of landscape policies. • It also encourages the integration of landscape into all relevant areas of policy, including cultural, economic and social policies.	Specific measures include: • Raising awareness of the value of landscapes among all sectors of society, and of society's role in shaping them; • Promoting landscape training and education among landscape specialists, other related professions, and in school and university courses; • The identification and assessment of landscapes, and analysis of landscape change, with the active participation of stakeholders; • Setting objectives for landscape quality, with the involvement of the public; and • The implementation of landscape policies, through the establishment of plans and practical programmes	Requirement unlikely to be of direct relevance to the development of the WMPE, although there may be some indirect in combination effects. In consequence, consideration should be given in the SEA to take account of whether there are any ways in which it can ensure proposals are compatible with landscape protection and include appropriate measures for its appropriate management and enhancement. The SEA assessment framework should include consideration of landscape protection and management.
Convention on Biological Diversity (2010) Strategic Plan for Biodiversity 2011-2020		
In October 2010, at the Convention on Biological Diversity Conference of Parties agreed the Strategic Plan for Biodiversity 2011-2020 at Nagoya, Japan. With its five strategic goals and 20 new global 'Aichi' targets, the Plan sets a new global vision and direction for biodiversity.	The new global vision is: "By 2050, biodiversity is valued, conserved, restored and wisely used, maintaining ecosystem services, sustaining a healthy planet and delivering benefits essential for all people." The parties also agreed a shorter-term ambition to "Take effective and urgent action to halt the loss of biodiversity, [so] that by 2020 ecosystems are resilient and continue to provide essential services, thereby securing the planet's variety of life, and contributing to human well-being, and poverty eradication".	Requirement unlikely to be of direct relevance to the development of the WMPE, although there may be some indirect in combination effects. In consequence, consideration should be given in the SEA to take account of whether there are any ways in which it can contribute to the achievement of the strategic goals and 'Aichi' targets of the Strategic Plan. The SEA assessment framework should include objectives relating to conservation of biodiversity.
European Commission (1991) Directive on Urban Waste-Water Treatment (1991/271/EEC)		
Its objective is to protect the environment from the adverse effects of urban waste water discharges and discharges from certain industrial sectors and concerns the collection, treatment and discharge of:	The Directive includes requirement with specific: Collection and treatment of waste water standards for relevant population thresholds Secondary treatment standards A requirement for pre-authorisation of all discharges of urban wastewater	Whilst noting that waste water is outside the scope of the WMPE (reflecting the scope of the revised WFD), there is potential for the SEA to consider the use of treatment technologies which can

Key objectives relevant to WMPE & SEA	Key targets and indicators relevant to WMPE and SEA	Commentary (how the SEA Framework should incorporate the documents' requirements)
Domestic waste water Mixture of waste water Waste water from certain industrial sectors	Monitoring of the performance of treatment plants and receiving waters and controls of sewage sludge disposal and re-use, and treated waste water re-use	have wider waste management applications e.g. anaerobic digestion. The SEA assessment framework should include water quality.
European Commission (1992) Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora (92/43/EEC) & Subsequent Amendments		
This Directive seeks to conserve natural habitats. Conservation of natural habitats requires member states to identify special areas of conservation and to maintain, where necessary landscape features of importance to wildlife and flora. The amendments in 2007: • Simplify the species protection regime to better reflect the Habitats Directive; • Provide a clear legal basis for surveillance and monitoring of European protected species (EPS); • Toughen the regime on trading EPS that are not native to the UK; and • Ensure that the requirement to carry out appropriate assessments on water abstraction consents and land use plans is explicit.	The directive contains no targets or indicators	Requirement unlikely to be of direct relevance to the development of the WMPE, although there may be some indirect in combination effects. In consequence, consideration should be given in the SEA to take account of whether there are any ways in which it can ensure proposals have no adverse effects on European sites and contribute to the conservation of natural habitats, wildlife and flora. The SEA assessment framework should include objectives for the conservation of natural habitats, wildlife and flora.
European Commission (1994) Packaging and Packaging Waste Directive (1994/62/EC) (and subsequent amendments)		
This Directive aims to harmonize national measures concerning the management of packaging and packaging waste in order, on the one hand, to prevent any impact thereof on the environment of all Member States as well as of third countries or to reduce such impact, thus providing a high level of environmental protection, and, on the other hand, to ensure the functioning of the internal market and to avoid obstacles to trade and distortion and restriction of competition within the Community. To this end this Directive lays down measures aimed, as a first priority, at preventing the production of packaging waste and, as additional fundamental principles, at reusing packaging, at recycling and other forms of recovering packaging waste and, hence, at reducing the final disposal of such waste	• No later than five years from the date by which this Directive must be implemented in national law (1996), between 50 % as a minimum and 65 % as a maximum by weight of the packaging waste will be recovered. • Within this general target, and with the same time limit, between 25 % as a minimum and 45 % as a maximum by weight of the totality of packaging materials contained in packaging waste will be recycled with a minimum of 15 % by weight for each packaging material. • Annual consumption level does not exceed 90 lightweight plastic carrier bags per person by 31 December 2019 and 40 lightweight plastic carrier bags per person by 31 December 2025, or equivalent targets set in weight. Very lightweight plastic carrier bags may be excluded from national consumption objectives. • The adoption of instruments ensuring that, by 31 December 2018, lightweight plastic carrier bags are not provided free of charge at the point of sale of goods or products, unless equally effective instruments are implemented. Very lightweight plastic carrier bags may be excluded from those measures. • No later than 31 December 2025 a minimum of 65 % by weight of all packaging waste will be recycled.	The WMPE must incorporate the commitments to address packaging waste of the Directive into its plans and associated policies. The SEA assessment framework should include objectives and/or guide questions that relate to the sustainable management of packaging and waste packaging/circular economy.

Key objectives relevant to WMPE & SEA	Key targets and indicators relevant to WMPE and SEA	Commentary (how the SEA Framework should incorporate the documents' requirements)
	• No later than 31 December 2025 the following minimum targets by weight for recycling will be met regarding the following specific materials contained in packaging waste: (i) 50 % of plastic; (ii) 25 % of wood; (iii) 70 % of ferrous metals; (iv) 50 % of aluminium; (v) 70 % of glass; (vi) 75 % of paper and cardboard; (h) no later than 31 December 2030 a minimum of 70 % by weight of all packaging waste will be recycled. • No later than 31 December 2030 the following minimum targets by weight for recycling will be met regarding the following specific materials contained in packaging waste: (i) 55 % of plastic; (ii) 30 % of wood; (iii) 80 % of ferrous metals; (iv) 60 % of aluminium; (v) 75 % of glass; (vi) 85 % of paper and cardboard.	
European Commission (1994) Urban Waste Water Directive (98/15/EC)		
The Urban Waste Water Directive (98/15/EC) amended the Urban Waste Water Treatment Directive 91/271/EEC to clarify the requirements of the Directive in relation to discharges from urban waste water treatment plants to sensitive areas which are subject to eutrophication.	No key targets or indicators	Whilst noting that waste water is outside the scope of the WMPE (reflecting the scope of the revised WFD), there is potential for the SEA to consider the use of treatment technologies which can have wider waste management applications e.g. anaerobic digestion. The SEA assessment framework should include water quality.
European Commission (1999) Directive on the Landfill of Waste (1999/31/EC)		
The Directive aims at reducing the amount of waste landfilled; promoting recycling and recovery; establishing high standards of landfill practice across the EU, and preventing the shipping of waste from one Country to another. The objective of the Directive is to prevent or reduce as far as possible negative effects on the environment (in particular on surface water, groundwater, soil, air and human health) from the landfilling of waste, by introducing stringent technical requirements for waste and landfills.	Introduces targets for the reduction of Biodegradable Municipal Waste sent to landfill. These are: • 75% of 1995 levels by 2010; • 50% of 1995 levels by 2013; and • 35% of 1995 levels by 2020. Requires landfill gas recovery where viable	The WMPE should take into account the objectives and targets of the Directive. The SEA assessment framework should contain objectives and guide questions that relate to targets for minimising, recovering and recycling waste.
European Commission (2000) Water Framework Directive (2000/60/EC) (and subsequent amendments)		
Establishes a framework for the protection of inland surface waters, transitional waters, coastal waters and groundwater which: • Prevents further deterioration and protects and enhances the status of aquatic ecosystems and, with regard to their water needs, terrestrial ecosystems	• Achievement of good ecological status and good surface water chemical status by 2015; • Achievement of good ecological potential and good surface water chemical status for heavily modified water bodies and artificial water bodies; • Prevention of deterioration from one status class to another;	Requirement unlikely to be of direct relevance to the development of the WMPE, although there may be some indirect in combination effects. In consequence, the SEA should take into account the implication of the Directive in terms of sustainable water use and protection of water resources if/where appropriate.

Key objectives relevant to WMPE & SEA	Key targets and indicators relevant to WMPE and SEA	Commentary (how the SEA Framework should incorporate the documents' requirements)
and wetlands directly depending on the aquatic ecosystems; • Promotes sustainable water use based on a long-term protection of available water resources; • Aims at enhanced protection and improvement of the aquatic environment, inter alia, through specific measures for the progressive reduction of discharges, emissions and losses of priority substances and the cessation or phasing-out of discharges, emissions and losses of the priority hazardous substances; • Ensures the progressive reduction of pollution of groundwater and prevents its further pollution, and • Contributes to mitigating the effects of floods and droughts.	• Achievement of water-related objectives and standards for protected areas; • Achievement of good groundwater quantitative and chemical status by 2015; • Prevention of deterioration from one status class to another; • Reversal of any significant and sustained upward trends in pollutant concentrations and prevent or limit input of pollutants to groundwater; • Achievement of water related objectives and standards for protected areas. • Production of River Basin Management Plans. • If achieved of 2015 targets is not possible, it allows Member States to establish interim targets for 2015 and 2021 with full compliance by 2027. Under all conditions, it requires that there should be no deterioration in status.	The SEA assessment framework should include water quality, water resources, sustainable water use and biodiversity.
European Commission (2001) Directive on the Assessment of the Effects of Certain Plans and Programmes on the Environment (SEA Directive) (2001/42/EC)		
The objective of SEA, as defined in the SEA Directive 2001/42/EC is: 'To provide for a high level of protection of the environment and to contribute to the integration of environmental considerations into the preparation and adoption of plans and programmes with a view to contributing to sustainable development.' SEA is a systematic decision support process, aiming to ensure that the likely significant environmental effects of plans and programmes are identified, described and evaluated. The SEA Directive and requires the completion of a SEA according to the process defined in the Directive. The SEA should seek to identify, describe and evaluate the likely significant effects on the environment of implementing the plan or programme and propose measures to avoid, manage or mitigate any significant adverse effects and to enhance any beneficial effects. Formal consultation at scoping and reporting is required.	No key targets or indicators	The Directive sets the basis for SEA as a whole and therefore indirectly covers all objectives.
European Commission (2001) Strategy for Sustainable Development (COM/2001/0264) (Renewed in 2006)		
The Strategy sets out how the EU can meet the needs of present generations without compromising the ability of future generations to meet their needs. The Strategy proposes headline objectives and lists seven key challenges:	The overall objectives in the Strategy are to: • Safeguard the earth's capacity to support life in all its diversity, respect the limits of the planet's natural resources and ensure a high level of protection and improvement of the quality of the environment. Prevent and reduce environmental pollution and	The WMPE should consider ways in which it can help to contribute to achieving the objectives of the strategy, particularly in terms of the following key challenges the strategy identifies: Sustainable consumption and production;

Key objectives relevant to WMPE & SEA	Key targets and indicators relevant to WMPE and SEA	Commentary (how the SEA Framework should incorporate the documents' requirements)
• Climate change and clean energy; • Sustainable transport; • Sustainable consumption and production; • Conservation and management of natural resources; • Public health; • Social inclusion, demography and migration; and • Global poverty.	promote sustainable consumption and production to break the link between economic growth and environmental degradation; • Promote a democratic, socially inclusive, cohesive, healthy, safe and just society with respect for fundamental rights and cultural diversity that creates equal opportunities and combats discrimination in all its forms; • Promote a prosperous, innovative, knowledge-rich, competitive and eco-efficient economy which provides high living standards and full and high-quality employment throughout the European Union; and • Encourage the establishment and defend the stability of democratic institutions across the world, based on peace, security and freedom. Actively promote sustainable development worldwide and ensure that the European Union's internal and external policies are consistent with global sustainable development and its international commitments.	Conservation and management of natural resources The SEA assessment framework should reflect the key challenges in the strategy.
European Commission (2002) Environmental Noise Directive (Directive 2002/49/EC)		
The underlying principles of the Directive are similar to those underpinning other overarching environment policies (such as air or waste), i.e.: • Monitoring the environmental problem; by requiring competent authorities in Member States to draw up "strategic noise maps" for major roads, railways, airports and agglomerations, using harmonised noise indicators Lden (day-evening-night equivalent level) and Lnight (night equivalent level). These maps will be used to assess the number of people annoyed and sleep-disturbed respectively throughout Europe informing and consulting the public about noise exposure, its effects, and the measures considered to address noise, in line with the principles of the Aarhus Convention; • Addressing local noise issues by requiring competent authorities to draw up action plans to reduce noise where necessary and maintain environmental noise quality where it is good. The directive does not set any limit value, nor does it prescribe the measures to be used in the action plans, which remain at	No targets or indicators, leaving issues at the discretion of the competent authorities.	Requirement unlikely to be of direct relevance to the development of the WMPE, although there may be some indirect in combination effects. In consequence, the SEA should have regard to the requirements of the Environmental Noise Directive. The SEA assessment framework should include consideration of the effects of noise.

Key objectives relevant to WMPE & SEA	Key targets and indicators relevant to WMPE and SEA	Commentary (how the SEA Framework should incorporate the documents' requirements)
the discretion of the competent authorities; • Developing a long-term EU strategy, which includes objectives to reduce the number of people affected by noise in the longer term, and provides a framework for developing existing Community policy on noise reduction from source. With this respect, the Commission has made a declaration concerning the provisions laid down in Article 1.2 with regard to the preparation of legislation relating to sources of noise.		
European Commission (2006) Bathing Waters Directive 2006/7/EC		
Sets standards for the quality of bathing waters in terms of: • The physical, chemical and microbiological parameters; • The mandatory limit values and indicative values for such parameters; and • The minimum sampling frequency and method of analysis or inspection of such water.	The standards set out in the directive are legally binding.	The SEA should have regard to the legally binding standards of the directive as the geographic extent of 'England' for the WMPE is defined in the Waste Regulations 2011 as including "the sea adjacent to England out as far as the seaward boundary of the territorial sea". The SEA assessment framework should include water quality.
European Commission (2006) Batteries Directive (2006/66/EC) (and subsequent amendments)		
Seeks to improve environmental performance of batteries and accumulators and the activities of all economic operators involved in their life cycle. The directive introduces an immediate ban on the final disposal of automotive and industrial batteries into landfill and incineration.	Collection target of 25% for waste portable household batteries to be met by 2012 (45% by 2016). All identifiable separately collected batteries must be recycled. Recycling efficiency targets are introduced and must have been met by 2011 – 65% by average weight of lead-acid batteries and accumulators (75% nickel-cadmium, 50% other).	The WMPE should reflect the targets of the Directive. The SEA assessment framework should include objectives and guide questions that relate to the sustainable management of waste.
European Commission (2006) European Employment Strategy		
Seeks to engender full employment, quality of work and increased productivity as well as the promotion of inclusion by addressing disparities in access to labour markets.	The directive does not include any relevant targets or indicators	Requirement unlikely to be of direct relevance to the development of the WMPE, although there may be some indirect in combination effects. In consequence, consideration should be given to the SEA assessment framework including guide questions relating to socio-economics, noting that it is not a sustainability assessment.
European Commission (2006) Groundwater Directive (2006/118/EC) (as amended by Directive 2014/80/EU.)		
Established a regime which sets groundwater quality standards and introduces measures to prevent or limit inputs of pollutants into groundwater. The Directive established quality criteria that takes account local characteristics and allows for further improvements to be made based on monitoring data and new scientific knowledge. It is intended to complement the requirements of the WFD.		Requirement unlikely to be of direct relevance to the development of the WMPE, although there may be some indirect in combination effects. In consequence, the SEA should take into account how it can contribute to the maintenance and protection of ground water quality levels, as set out in the directive. The SEA assessment framework should include objectives for groundwater quality.
European Commission (2006) Thematic Strategy for Soil Protection		

Key objectives relevant to WMPE & SEA	Key targets and indicators relevant to WMPE and SEA	Commentary (how the SEA Framework should incorporate the documents' requirements)
The Thematic Strategy for Soil Protection consists of a Communication from the Commission to the other European Institutions, a proposal for a framework Directive (a European law), and an Impact Assessment. It sets out an EU strategy for soil protection with an overall objective of the protection and sustainable use of soil, based on the following guiding principles: (1) Preventing further soil degradation and preserving its functions: when soil is used and its functions are exploited, action has to be taken on soil use and management patterns; and when soil acts as a sink/receptor of the effects of human activities or environmental phenomena, action has to be taken at source. (2) Restoring degraded soils to a level of functionality consistent at least with current and intended use, thus also considering the cost implications of the restoration of soil.	The strategy proposes introducing a framework Directive setting out common principles for protecting soils across the EU, with Member States deciding how best to protect soil and how use it in a sustainable way on their own territory.	Requirement unlikely to be of direct relevance to the development of the WMPE, although there may be some indirect in combination effects. In consequence, the SEA should consider how it can contribute to the protection and restoration of soil. The SEA assessment framework should include criteria relating to soil protection.
European Commission (2007) Floods Directive 2007/60/EC		
The Floods Directive requires Member States to assess if all water courses and coast lines are at risk from flooding, to map the flood extent and assets and humans at risk in these areas and to take adequate and coordinated measures to reduce this flood risk. Member States are required to carry out a preliminary assessment by 2011 to identify the river basins and associated coastal areas at risk of flooding.	The approach is based on a 6 year cycle of planning which includes the publication of Preliminary Flood Risk Assessments, hazard and risk maps and flood risk management plans.	Requirement unlikely to be of direct relevance to the development of the WMPE, although there may be some indirect in combination effects. In consequence, the SEA should consider ways in which it can ensure proposals have regard to flood risk if/where appropriate. The SEA assessment framework should include flood risk.
European Commission (2008) Air Quality Directive (2008/50/EC) and previous directives (96/62/EC; 99/30/EC; 2000/69/EC & 2002/3/EC)		
The Directive provides that most of existing legislation be merged into a single directive (except for the fourth daughter directive) with no change to existing air quality objectives. Relevant objectives include: • Maintain ambient air quality where it is good and improve it in other cases; and • Maintain ambient-air quality where it is good and improve it in other cases with respect to sulphur dioxide, nitrogen dioxide and oxides of nitrogen, particulate matter and lead.	Includes thresholds for pollutants.	Requirement unlikely to be of direct relevance to the development of the WMPE, although there may be some indirect in combination effects. In consequence, the SEA should consider how it can contribute to maintaining or improving ambient air quality. The SEA assessment framework should include objectives and guide questions for air quality.
European Commission (2008) Marine Strategy Framework Directive 2008/56/EC		
The Directive sets out a framework for an ecosystem-based approach to	Each Member State is required to develop a marine strategy for their waters, in coordination	Requirement unlikely to be of direct relevance to the development of the

Key objectives relevant to WMPE & SEA	Key targets and indicators relevant to WMPE and SEA	Commentary (how the SEA Framework should incorporate the documents' requirements)
the management of human activities which supports the sustainable use of marine goods and services. The overarching goal of the Directive is to achieve 'Good Environmental Status' (GES) by 2020 across Europe's marine environment. The Directive establishes four European Marine Regions, based on geographical and environmental criteria. The North East Atlantic Marine Region is divided into four subregions, with UK waters lying in two of these (the Greater North Sea and the Celtic Seas).	with other countries within the same marine region or subregion. Marine strategies must be implemented to protect and conserve the marine environment, prevent its deterioration, and, where practicable, restore marine ecosystems in areas where they have been adversely affected. The marine strategies must contain: • An initial assessment of the current environmental status of that Member State's marine waters; • A determination of what Good Environmental Status means for those waters; • Targets and indicators designed to show whether a Member State is achieving GES; • A monitoring programme to measure progress towards GES; • A programme of measures designed to achieve or maintain GES. • The Directive also requires Marine Protected Areas (MPAs) to be established to support the achievement of GES.	WMPE, although there may be some indirect in combination effects. In consequence, the SEA should consider how it can contribute to the achievement of 'good environmental status' of the marine environment as/when appropriate, given that the geographic extent of 'England' (for the WMPE) is defined in the Waste Regulations 2011 as including "the sea adjacent to England out as far as the seaward boundary of the territorial sea". The SEA assessment framework should incorporate criteria relating to the quality of the marine environment.
European Commission (2008) Waste Framework Directive (2008/98/EC)		
Provides overarching legislative framework for the collection, transport, recovery and disposal of waste, and includes common terminology and a definition of waste. Sets the 'Relevant Objectives' of protecting human health and the environment against harmful effects caused by the collection, transport, treatment, storage and tipping of waste. Establishes the waste hierarchy as a principle for waste management. This Directive repealed Directive 2006/12/EC on waste (the codified version of Directive 75/442/EEC as amended), the Hazardous Waste Directive 91/689/EEC, and the Waste Oils Directive 75/439/EEC.	The following targets have been specified: household recycling rate of 50% by 2020, construction and demolition recovery 70% by 2020. Article 28 of the Directive dictates that Member States 'must establish waste management plans that sets out an analysis of the current waste management situation... as well as the measures to be taken to improve environmentally sound preparing for re-use, recycling, recovery and disposal of waste and an evaluation of how the plan will support the implementation of the objectives and provisions of this Directive.'	The WMPE is being prepared to meet the requirements of Article 28 of the Waste Framework Directive and should take into account the objectives and reflect the targets of the Directive. The SEA assessment framework should include objectives and guide questions that relate to the sustainable management of waste.
European Commission (2009) Animal By-Products Regulations EC 1069/2009		
Controls the disposal of animal by-products containing meat.	Prescribes specific treatment requirements including composting, anaerobic digestion, rendering and incineration.	The WMPE should reflect the requirements of the directive. The SEA assessment framework should include objectives and guide questions that relate to the sustainable management of waste.
European Commission (2009) Directive on the Conservation of Wild Birds (2009/147/EC) (Repealed Directive 79/409/EEC)		
Identifies 181 endangered species and sub-species for which the Member States are required to designate Special Protection Areas. Makes it a legal requirement that EU countries make provision for the protection of birds. This includes the selection and designation of Special Protection Areas.	Target Actions include: Creation of protected areas; Upkeep and management; and Re-establishment of destroyed biotopes.	Requirement unlikely to be of direct relevance to the development of the WMPE, although there may be some indirect in combination effects. In consequence, the SEA should consider how it can help to contribute to the conservation of wild birds and ensure that there are no adverse effects on habitats or species as a result of waste management measures.

Key objectives relevant to WMPE & SEA	Key targets and indicators relevant to WMPE and SEA	Commentary (how the SEA Framework should incorporate the documents' requirements)
		The SEA assessment framework should include objectives related to wildlife conservation.
European Commission (2009) Renewable Energy Directive (2009/28/EC)		
This Directive establishes a common framework for the use of energy from renewable sources in order to limit greenhouse gas emissions and to promote cleaner transport. It encourages energy efficiency, energy consumption from renewable sources and the improvement of energy supply.	Each Member State to achieve a 10% minimum target for the share of energy from renewable sources by 2020	Requirement unlikely to be of direct relevance to the development of the WMPE, although there may be some indirect in combination effects. In consequence, the SEA should consider how it can contribute to maximising the use of renewable energy sources where possible and reducing greenhouse gas emissions from energy and transport. The SEA assessment framework should include consideration of energy and greenhouse gas emissions.
European Commission (2010) Industrial Emissions Directive (2010/75/EU)		
The IED combines seven existing directives into one (The Waste Incineration Directive (WID), the Large Combustion Plant Directive (LCPD), the Integrated Pollution Prevention and Control Directive (IPPCD), the Solvent Emissions Directive (SED) and three directives on Titanium dioxide concerning its monitoring, reduction and disposal). It is the main EU instrument regulating pollutant emissions from industrial installations.	The directive employs an integrated approach with permits requiring assessment of the entire environmental performance. Changes to the WID include a lowering of NOx Emission Limit Values for cement kilns co-incinerating waste.	Requirement unlikely to be of direct relevance to the development of the WMPE, although there may be some indirect in combination effects. In consequence, the SEA should reflect the requirements of the Directive. The SEA assessment framework should include objectives related to the sustainable management of waste and greenhouse gas emissions.
European Commission (2011) A Resource- Efficient Europe- Flagship Initiative Under the Europe 2020 Strategy, Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions (COM 2011/21)		
This flagship initiative aims to create a framework for policies to support the shift towards a resource-efficient and low-carbon economy which will help to: • Boost economic performance while reducing resource use; • Identify and create new opportunities for economic growth and greater innovation and boost the EU's competitiveness; • Ensure security of supply of essential resources; and • Fight against climate change and limit the environmental impacts of resource use.	Each Member State has a target calculated according to the share of energy from renewable sources in its gross final consumption for 2020. The UK is required to source 15 per cent of energy needs from renewable sources, including biomass, hydro, wind and solar power by 2020. From 1 January 2017, biofuels and bioliquids share in emissions savings should be increased to 50 per cent.	The WMPE should take into account the objectives of the policies for resource efficiency. The SEA assessment framework should include objectives and guide questions that relate to resource use.
European Commission (2011) EU Biodiversity Strategy to 2020 – towards implementation		
The European Commission has adopted an ambitious new strategy to halt the loss of biodiversity and ecosystem services in the EU by 2020. The strategy provides a framework for action over the next decade and covers the following key areas: • Conserving and restoring nature; • Maintaining and enhancing ecosystems and their services;	There are six main targets, and 20 actions to help Europe reach its goal. The six targets cover: • Full implementation of EU nature legislation to protect biodiversity. • Better protection for ecosystems, and more use of green infrastructure. • More sustainable agriculture and forestry. • Better management of fish stocks.	Requirement unlikely to be of direct relevance to the development of the WMPE, although there may be some indirect in combination effects. In consequence, the SEA should consider how it can contribute to the protection of biodiversity and ecosystem services. The SEA assessment framework should include objectives that relate to biodiversity and ecosystem services.

Key objectives relevant to WMPE & SEA	Key targets and indicators relevant to WMPE and SEA	Commentary (how the SEA Framework should incorporate the documents' requirements)
• Ensuring the sustainability of agriculture, forestry and fisheries; • Combating invasive alien species; and • Addressing the global biodiversity crisis.	• Tighter controls on invasive alien species. • A bigger EU contribution to averting global biodiversity loss.	
European Commission (2012) Waste Electrical and Electronic Equipment (WEEE) Directive (2012/19/EU) (repealed directive 2002/96/EC)		

The directive aims to reduce the quantity of electrical and electronic equipment (EEE) that is sent to landfill. The Directive contains requirements for the following areas related to EEE:
Product design – to ensure that products can be dismantled at their end of life to enable more effective recycling and recovery of materials and reduce waste.
Separate collection – separate collection of EEE from general municipal waste to encourage proper recycling.
Disposal and transport of and proper treatment of WEEE - in a way which allows for conditions for preparing for re-use, re-cycling and confinement of hazardous materials/substances and prevents disposal of WEEE that has not undergone proper treatment.
Producer responsibility for the environmental impacts of their products, particularly when they become waste
	The directive sets the following minimum targets applicable by category from 15 August 2018 with reference to the categories listed in Annex III of the directive:
	• for WEEE falling within category 1 or 4 of Annex III,
	  • 85 % shall be recovered, and
	  • 80 % shall be prepared for re-use and recycled;
	  • for WEEE falling within category 2 of Annex III,
	  • 80 % shall be recovered, and
	  • 70 % shall be prepared for re-use and recycled;
	• for WEEE falling within category 5 or 6 of Annex III,
	  • 75 % shall be recovered, and
	  • 55 % shall be prepared for re-use and recycled;
	  • for WEEE falling within category 3 of Annex III, 80 % shall be recycled.
	  • The Directive defines the composition of each category.
		The WMPE should comply with the targets and requirements of the Directive.
		The SEA assessment framework should include objectives/guide questions for differing waste streams.

European Commission (2013) Seventh Environmental Action Programme to 2020 'Living well, within the limits of our planet' (Decision No. 1386/2013/EU)		
The Directive establishes a set of binding measures to help the EU reach its 20% energy efficiency target by 2020. Under the Directive, all EU countries are required to use energy more efficiently at all stages of the energy chain from its production to final consumption.	Specific measures relate to: • Energy distributors achieving 1.5% energy savings per year through energy efficiency measures; • Improving the efficiency of heating systems, installing double glazed windows or insulating roofs; • Purchasing energy efficient buildings, products and services, and performing energy efficient renovations; • Access to data on consumption; • Large companies to audit energy consumption (implemented in the UK through the Energy Savings Opportunity Scheme Regulations 2014); • National incentives for SMEs to undergo energy audits; and • Monitoring efficiency levels in new energy generation capacities.	Requirement unlikely to be of direct relevance to the development of the WMPE, although there may be some indirect in combination effects. In consequence, the SEA should consider how it can contribute to the legally binding energy efficiency targets. The SEA assessment framework should include energy consumption.
European Commission (2013) Strategy on Adaptation to Climate Change		
The EU strategy aims to make Europe more climate-resilient by adapting to the changing climate. It aims to provide a coherent approach to	No target or indicators.	Requirement unlikely to be of direct relevance to the development of the WMPE, although there may be some indirect in combination effects.

Key objectives relevant to WMPE & SEA	Key targets and indicators relevant to WMPE and SEA	Commentary (how the SEA Framework should incorporate the documents' requirements)
enhance preparedness and capacity to respond to the impacts of climate change. The three key objectives of the strategy are: Promoting action by Member States – encouraging Member States to adopt adaptation strategies and provide funding to boost capacity; 'Climate-proofing' action at EU level – promoting adaptation in vulnerable sectors such as agriculture and fisheries; and Better informed decision-making – addressing gaps in knowledge and improving the European information sharing platform, Climate-ADAPT.		In consequence, the SEA should take into account the objectives of the Strategy. The SEA assessment framework should include objectives and guide questions that relate to climate change adaption.
European Commission (2013) Towards Social Investment for Growth and Cohesion – including implementing the European Social Fund 2014-2020		
The Communication aims to direct Member States' policies towards social investment throughout life, with a view to ensuring the adequacy and sustainability of budgets for social policies. It also provides guidance to help reach the Europe 2020 targets by establishing a link between social policies, the reforms to reach the Europe 2020 targets and the relevant EU funds.	No targets or indicators.	The SEA assessment framework should include criteria relating to socio-economics. Requirement unlikely to be of direct relevance to the development of the WMPE.
European Commission (2014) A Policy Framework for Climate and Energy in the Period from 2020 to 2030		
The 2030 Climate and Energy Framework was adopted in 2014 and builds on the 2020 targets. The greenhouse gas emissions and renewable energy targets are binding, while the energy efficiency target will be reviewed in 2020.	It sets three key targets for 2030: • At least 40% cuts in greenhouse gas emissions (from 1990 levels); • At least 27% share for renewable energy; and • At least 27% improvement in energy efficiency.	Requirement unlikely to be of direct relevance to the development of the WMPE, although there may be some indirect in combination effects. In consequence, the SEA should support the delivery of the long-term greenhouse gas emission reduction targets. The SEA framework should include objectives relating to greenhouse gas emissions and energy.
European Commission (2014) Third Health Programme (2014 – 2020) Regulation (EU) No 282/2014		
The Third EU Health Programme 2014-2020 is in place to implement the Health Strategy. The Health Programme serves four specific objectives: • Promote health, prevent disease and foster healthy lifestyles through 'health in all policies', • Protect EU citizens from serious cross-border health threats • Contribute to innovative, efficient and sustainable health systems • Facilitate access to high quality, safe healthcare for EU citizens.	No key targets or indicators	Requirement unlikely to be of direct relevance to the development of the WMPE, although there may be some indirect in combination effects. In consequence, the SEA should consider how it can contribute to the achievement of the objectives of the Programme. The SEA assessment framework should include objectives for human health.
European Commission (2018) A European Strategy for Plastics in a Circular Economy. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions COM/2018/028		

Key objectives relevant to WMPE & SEA	Key targets and indicators relevant to WMPE and SEA	Commentary (how the SEA Framework should incorporate the documents' requirements)

This document sets out a vision for a new plastics economy for Europe, whereby the design and production of plastics extends the lifecycle of plastics by enabling reuse and repair as well as increasing recycling and developing and promoting the use of sustainable materials. The plan states that this will deliver greater value and prosperity to Europe and boost innovation, in addition, the strategy states that this will curb plastic pollution and its adverse impacts on human life and the environment. The strategy sets out how it aims to achieve its vision thereby assisting Europe in meeting its commitments under the Paris Agreement and achieving the 2030 Sustainable Development Goals.	No key targets or indicators, however, the strategy sets out a series of measures/ actions with timescales in order to achieve the strategy's vision under the following headings:
	• Improving the economics and quality of plastics recycling
	  • Improving product design
	  • Boosting recycled content
	  • Improving separate collection of plastic waste
	  • Curbing Plastic Waste and Littering
	  • Reducing single-use plastics
	  • tackle sea-based sources of marine litter
	  • Monitoring and curbing marine litter more effectively
	  • compostable and biodegradable plastics
	  • Curbing microplastics pollution
	• Driving Investment and innovation towards circular solutions
	• Promoting investment and innovation in the value chain
	• Harnessing Global Action
	  • Focusing on key regions
	  • Support of multilateral initiatives on plastic
	  • Actions relating to bilateral cooperation with non-EU countries
	  • Actions relating to international trade
	  • In addition, actions and measures are suggested for national authorities and industry, under the same headings as above.
		The WMPE must consider how it can contribute to achieving the vision set out within the strategy and encourage the implementation of the actions/measures suggested in the strategy.
		The SEA assessment framework should include objectives and guide questions that relate to the sustainable management of resources and waste/circular economy.

European Commission (2018) Directive Amending Directives 2000/53/EC on end-of-life vehicles, 2006/66/EC on Batteries and Accumulators, and 2012/19/EU on Waste Electrical and Electronic Equipment (Directive 2018/849)		
The Directive amends Directives: 2000/53/EC on end-of-life vehicles; 2006/66/EC on batteries and accumulators; and 2012/19/EU on waste electrical and electronic equipment (WEEE). The directive requires member states to submit reports annually to the Commission reporting on: • Reuse and recovery targets on end-of-life vehicles; • Levels of recycling achieved for batteries and accumulators; and • The quantities and categories of WEEE placed on member states' markets. • The Directive also requires member states to ensure the waste hierarchy is enforced when managing and storing certain types of waste and gives member states the powers to use instruments and provide	No key targets or indicators	The WMPE should reflect the requirements of the Directive, noting the focus on the waste management hierarchy. The SEA assessment framework should include objectives and guide questions that relate to the sustainable management of waste.

Key objectives relevant to WMPE & SEA	Key targets and indicators relevant to WMPE and SEA	Commentary (how the SEA Framework should incorporate the documents' requirements)
incentives to enforce the waste hierarchy.		
United Nations Climate Change Conference (UNCCC) (2011) The Cancun Agreements		
Shared vision to keep global temperature rise to below two degrees Celsius, with objectives to be reviewed as to whether it needs to be strengthened in future on the basis of the best scientific knowledge available.	No targets or indicators	Requirement unlikely to be of direct relevance to the development of the WMPE, although there may be some indirect in combination effects. In consequence, the SEA should consider how it can contribute to the objectives of the Agreements. The SEA assessment framework should include objectives relating to greenhouse gas emissions.
UNESCO (1971) The Ramsar Convention on Wetlands		
The Convention on Wetlands of International Importance was signed in Ramsar, Iran in 1971. It is an intergovernmental treaty which provides the framework for national action and international co-operation for the conservation and wise use of wetlands and their resources, as a means to achieving sustainable development throughout the world. The original emphasis was on the conservation and wise use of wetlands primarily to provide habitat for waterbirds, however over the years the Convention has broadened its scope to incorporate all aspects of wetland conservation and wise use, recognising wetlands as ecosystems that are extremely important for biodiversity conservation and for the well-being of human communities. 'The Convention's mission is the conservation and wise use of all wetlands through local, regional and national actions and international cooperation, as a contribution towards achieving sustainable development throughout the world' (Ramsar COP8, 2002).	No targets or indicators; however, implemented through strategic plans which contain specific commitments. The current plan is for the period 2016 – 2024. The plan contains four goals for the plan period: three strategic and one operational, which each have a set of targets (19 in total). The goals set out in the plan are: • Strategic Goal 1: Addressing the Drivers of Wetland Loss and Degradation • Strategic Goal 2: Effectively Conserving and Managing the Ramsar Site Network • Strategic Goal 3: Wisely Using All Wetlands • Operational Goal 4: Enhancing Implementation • The vision for the fourth iteration of the plan is that: *"Wetlands are conserved, wisely used, restored and their benefits are recognized and valued by all"*	Requirement unlikely to be of direct relevance to the development of the WMPE, although there may be some indirect in combination effects. In consequence, the SEA should consider how it can contribute to the protection of wetlands as/where appropriate. The SEA assessment framework should include objectives related to the protection of wetland sites listed under the Ramsar convention.
UNESCO Convention Concerning the Protection of World Cultural and Natural Heritage (1972)		
The World Heritage Convention sets out the duties of States Parties in identifying potential sites and their role in protecting and preserving them. By signing the Convention, each country pledges to conserve not only the World Heritage sites situated on its territory, but also to protect its national heritage. The States Parties are encouraged to integrate the protection of the cultural and natural heritage into regional planning programmes, set up staff and services at their sites, undertake scientific and technical conservation research and adopt measures which give this heritage a function in the day-to-day life of the community.	No targets or indicators	Requirement unlikely to be of direct relevance to the development of the WMPE, although there may be some indirect in combination effects. In consequence, the SEA should consider how it can contribute to the protection of heritage assets. The SEA assessment framework should include objectives that that relate to the protection of heritage assets.

Key objectives relevant to WMPE & SEA	Key targets and indicators relevant to WMPE and SEA	Commentary (how the SEA Framework should incorporate the documents' requirements)
UNFCCC (1997) The Kyoto Protocol to the UNFCCC		
The Kyoto Protocol to the UNFCCC established the first policy that actively aims to reduce greenhouse gas emissions by industrialised countries.	The Kyoto Protocol aimed to reduce greenhouse gas emissions of the UK by 12.5%, compared to 1990 levels, by 2008 – 2012.	Requirement unlikely to be of direct relevance to the development of the WMPE, although there may be some indirect in combination effects. In consequence, the SEA should consider how it can contribute to the reduction of greenhouse gases. The SEA assessment framework should include objectives relating to greenhouse gas emissions.
UNFCCC (2016) The Paris Agreement		
The Paris Agreement's central aim is to strengthen the global response to the threat of climate change by keeping a global temperature rise this century well below 2 degrees Celsius above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius. Additionally, the agreement aims to strengthen the ability of countries to deal with the impacts of climate change.	The Paris Agreement's key target is to prevent global temperature rise in this century below 2°C above pre-industrial levels. To reach these ambitious goals, appropriate financial flows, a new technology framework and an enhanced capacity building framework will be put in place, thus supporting action by developing countries and the most vulnerable countries, in line with their own national objectives.	Requirement unlikely to be of direct relevance to the development of the WMPE, although there may be some indirect in combination effects. In consequence, the SEA should consider how it can contribute to the achievement of the targets of the Agreement. The SEA assessment framework should include objectives relating to greenhouse gas emissions.
World Commission on Environment and Development (1987) Our Common Future (The Brundtland Report)		
The Brundtland Report is concerned with the world's economy and its environment. The objective is to provide an expanding and sustainable economy while protecting a sustainable environment**.**	The report issued a multitude of recommendations with the aim of attaining sustainable development and addressing the problems posed by a global economy that is intertwined with the environment.	The WMPE should consider how it can contribute to the achievement of sustainable development and sustainable economy. The SEA assessment framework should include objectives relating to sustainability, socio-economics, resource use and other environmental issues.
The World Health Organisation (WHO) (2012) Health 2020		
Health 2020 (2012) is the WHO's health policy framework for Europe. It aims to support action across government and society to: significantly improve the health and well-being of populations, reduce health inequalities, strengthen public health and ensure people-centred health systems that are universal, equitable, sustainable and of high quality.	The framework has six headline targets that are supported by appropriate indicators and reported as regional averages. The headline targets are: 1. Reduce premature mortality in the European Region by 2020. 2. Increase life expectancy in the European Region. 3. Reduce inequalities in health in the European Region. 4. Enhance the well-being of the European Region population. 5. Ensure universal coverage and the right to the highest attainable level of health. 6. Set national goals and targets related to health in Member States.	Requirement unlikely to be of direct relevance to the development of the WMPE, although there may be some indirect in combination effects. In consequence, the SEA should consider how it can contribute to achieving the objectives and targets of the policy framework. The SEA assessment framework should include objectives for public health.
The World Summit on Sustainable Development (WSSD), Johannesburg, September 2002 - Commitments arising from Johannesburg Summit (2002)		
The Commitments had the following focus: Sustainable consumption and production patterns. Accelerate the shift towards sustainable consumption and production - 10-year framework of programmes of action; Reverse trend in loss of natural resources.	No targets or indicators, however actions include: Greater resource efficiency; Support business innovation and take-up of best practice in technology and management; Waste reduction and producer responsibility; and Sustainable consumer consumption and procurement.	The WMPE should consider how it can contribute to the commitments of the Summit, particularly in terms of: resource efficiency; waste reduction and producer responsibility; and sustainable consumer consumption. The SEA assessment framework should include objectives relating to resource use, energy and biodiversity.

Key objectives relevant to WMPE & SEA	Key targets and indicators relevant to WMPE and SEA	Commentary (how the SEA Framework should incorporate the documents' requirements)
Renewable Energy and Energy efficiency. Urgently and substantially increase [global] share of renewable energy. Significantly reduce rate of biodiversity loss by 2010.	Create a level playing field for renewable energy and energy efficiency. New technology development; Push on energy efficiency; Low-carbon programmes; and Reduced impacts on biodiversity.	
National Plans and Programmes		
Committee on Climate Change (2017) UK Climate Change Risk Assessment		
This report reaffirms the UK Governments need to continue to consider climate change a threat to the UK and forms a basis for the regions of the UK to create a climate change risk assessment. The report identifies the following likely effects of climate change on the UK: increased flooding, rise in milder winters and hotter summers which could have wider health impacts, water supply issues, loss of biodiversity and ecosystems especially in coastal regions and a loss in business productivity.	No targets or indicators	Requirement unlikely to be of direct relevance to the development of the WMPE, although there may be some indirect in combination effects. In consequence, the SEA should consider the impacts of climate change and look at potential ways to mitigate the associated risks. The SEA assessment framework should include objectives and guide questions that relate to climate change adaption.
Department of Business, Energy and Industrial Strategy (BEIS) (2017) Clean Growth Strategy		
In the context of the UK's legal requirements under the Climate Change Act, the government's approach to reducing emissions has two guiding objectives: 1. To meet our domestic commitments at the lowest possible net cost to UK taxpayers, consumers and businesses. 2. To maximise the social and economic benefits for the UK from this transition.	Does not include fixed targets, however it discusses options, policies and proposals for a number of sectors including: • Improving business and industry efficiency; • Improving our homes; • Shifting to low carbon transport; • Delivering clean, smart, flexible power; • Enhancing the benefits of natural resources; and • Leading in the public sector.	The WMPE should consider how it can contribute to low emissions/clean growth. The SEA assessment framework should include objectives related to greenhouse gas emissions.
Department for Culture, Media & Sport (DCMS) (2013) Scheduled Monuments & Nationally Important but Non-Scheduled Monuments		
This policy statement sets out Government policy on the identification, protection, conservation and investigation of nationally important ancient monuments, under the provisions of the Ancient Monuments and Archaeological Areas Act 1979. It includes principles relating to the selection of scheduled monuments and the determination of applications for scheduled monument consent.	No targets or indicators	Requirement unlikely to be of direct relevance to the development of the WMPE, although there may be some indirect in combination effects. In consequence, the SEA should consider if/how it can contribute to the conservation of nationally important ancient monuments. The SEA assessment framework should include objectives that relate to the protection of scheduled monuments
DCMS (2017) Heritage Statement		
Showcases the importance heritage assets play in the day to day life of UK residents and the need to protect these heritage assets. Also showcases how heritage assets can be open to the public and used without compromising the assets.	No targets or indicators.	Requirement unlikely to be of direct relevance to the development of the WMPE, although there may be some indirect in combination effects. In consequence, the SEA should consider if/how it can contribute to the protection of heritage assets. The SEA assessment framework should include objectives that that relate to the protection of heritage assets.

Key objectives relevant to WMPE & SEA	Key targets and indicators relevant to WMPE and SEA	Commentary (how the SEA Framework should incorporate the documents' requirements)
Department of Energy and Climate Change (DECC) (2009) The UK Low Carbon Transition Plan: National Strategy for Climate and Energy		
This Paper plots out how the UK will meet the cut in emissions set out in the budget of 34% on 1990 levels by 2020. The Plan includes: • New money for a 'smart grid', and to help regions and local authorities prepare for and speed up planning decisions on renewable and low carbon energy whilst protecting legitimate environmental and local concerns; • Funding to significantly advance the offshore wind industry in the UK; • Funding to cement the UK's position as a global leader in wave and tidal energy; • Funding to explore areas of potential "hot rocks" to be used for geothermal energy; • Challenging 15 villages, towns or cities to be testbeds for piloting future green initiatives; • Support for anaerobic digestion; • Encouraging private funding for woodland creation; and • Reducing the amount of waste sent to landfill, and better capture of landfill emissions etc.	Sets out a vision that by 2020: • More than 1.2 million people will be in green jobs; • 7 million homes will have benefited from whole house makeovers, and more than 1.5 million households will be supported to produce their own clean energy; • Around 40 percent of electricity will be from low-carbon sources, from renewables, nuclear and clean coal; • We will be importing half the amount of gas that we otherwise would; and • The average new car will emit 40% less carbon than now.	The WMPE should consider how it can contribute to the objectives and targets of the plan, particularly in terms of: Anaerobic digestion; Reducing the amount of waste sent to landfill, and better capture of landfill emissions etc. The SEA assessment framework should include objectives relating to greenhouse gas emissions and energy.
DECC (2012) UK Bioenergy Strategy		
The UK bioenergy strategy, published jointly by DECC, Defra, DfT sets a framework of principles to guide UK bioenergy policy in a way that secures its benefits, while managing these risks. The strategy's overarching principle is that bioenergy must be produced sustainably and that there is a role for UK Government to steer sustainable development of bioenergy in the UK and as far as possible internationally.	No targets or indicators.	The WMPE should have regard to the principles of the strategy and consider if/how it can contribute to maximising the use of sustainable bioenergy. The SEA assessment framework should include objectives relating to sustainable bioenergy.
Department for Food and Rural Affairs (Defra) (2007) The Air Quality Strategy for England, Scotland, Wales and Northern Ireland		
The Strategy: Sets out a way forward for work and planning on air quality issues; Sets out the air quality standards and objectives to be achieved; Introduces a new policy framework for tackling fine particles; and Identifies potential new national policy measures which modelling indicates could give further health benefits and move closer towards meeting the Strategy's objectives.	The Air Quality Strategy sets out objectives for a range of pollutants that have not been reproduced here due to space constraints.	Requirement unlikely to be of direct relevance to the development of the WMPE, although there may be some indirect in combination effects. In consequence, the SEA should consider how it can contribute to maintaining/improving air quality standards. The SEA assessment framework should include criteria for air quality.
Defra (2009) Safeguarding our Soils: A Strategy for England		
The Strategy is underpinned by the following vision:	No key targets or indicators	Requirement unlikely to be of direct relevance to the development of the

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By 2030, all England's soils will be managed sustainably and degradation threats tackled successfully. This will improve the quality of England's soils and safeguard their ability to provide essential services for future generations. Achieving this vision will mean that: • Agricultural soils will be better managed and threats to them will be addressed; • Soils will play a greater role in the fight against climate change and in helping us to manage its impacts; • Soils in urban areas will be valued during development, and construction practices will ensure vital soil functions can be maintained; and • Pollution of our soils is prevented, and our historic legacy of contaminated land is being dealt with.		WMPE, although there may be some indirect in combination effects. In consequence, the SEA should consider how it can contribute to the protection and restoration of soil. The SEA assessment framework should include criteria relating to soil protection.
Defra (2010) A Strategy for Hazardous Waste Management in England		
The Strategy for Hazardous Waste Management 2010 underpins the practical application of the revised EC Waste Framework Directive (2008/98/EC) (WFD) in relation to hazardous waste. It aims to clarify how the requirements of the revised WFD should be implemented and sets out the following principles for hazardous waste management: • waste hierarchy; • infrastructure provision; • reduce our reliance on landfill; • no mixing or dilution; • treatment of hazardous organic wastes; and • end reliance on the use of Landfill Directive waste acceptance criteria derogations.	No key targets or indicators	The WMPE should have regard to the principles set out in the strategy. The SEA assessment framework should include objectives and guide questions regarding hazardous waste.
Defra (2011) Anaerobic Digestion Strategy and Action Plan 2011		
This document is the first step towards a road map for achieving the Government's commitment to increasing energy from waste through anaerobic digestion. This reflects the high level priority given to anaerobic digestion in the Waste Review.	Although there is no specific target set for energy yields from AD, it is estimated in this strategy that AD might produce between 3 and 5 Terawatt Hours by 2020. (To give this some context, total renewable energy output in the third quarter of 2011 was 7.85TWh, 9.6% of total energy generation, according to DECC's quarterly reports).	The WMPE should have regard to the strategy and action plan concerning energy production from waste through anaerobic digestion. The SEA assessment framework should include objectives related to energy production from waste.
Defra (2011) Biodiversity 2020: A Strategy for England's Wildlife and Ecosystem Services		
The Strategy is designed to help to deliver the objectives set out in the Natural Environment White Paper.	The Strategy includes the following priorities: Creating 200,000 hectares of new wildlife habitats by 2020; Securing 50% of SSSIs in favourable condition, while maintaining at least 95% in favourable or recovering condition; and	Requirement unlikely to be of direct relevance to the development of the WMPE, although there may be some indirect in combination effects. In consequence, the SEA should consider if/how it can contribute to the delivery of

Key objectives relevant to WMPE & SEA	Key targets and indicators relevant to WMPE and SEA	Commentary (how the SEA Framework should incorporate the documents' requirements)
	Encouraging more people to get involved in conservation by supporting wildlife gardening and outdoor learning programmes. Introducing a new designation for local green spaces to enable communities to protect places that are important to them.	the objectives and priorities of the strategy. The SEA assessment framework should include objectives related to the conservation of habitats, wildlife and greenspaces.
Defra (2011) Guidance on Applying the Waste Hierarchy to Hazardous Waste 2011		
The document provides guidance to those dealing with hazardous waste as to how to apply the waste hierarchy. It is intended to be used and understood by any anyone who produces, holds, carries, keeps, treats, imports, has control of or is responsible for the transfer of hazardous waste.	No specific targets or indicators	The WMPE should have regard to the guidance given in the document. The SEA assessment framework should include objectives and guide questions on the sustainable management of hazardous waste.
Defra (2011) Natural Environment White Paper: The Natural Choice: Securing the Value of Nature		
The Natural Environment White paper sets out the Government's plans to ensure the natural environment is protected and fully integrated into society and economic growth**.**	The White Paper sets out four key aims: (i) protecting and improving our natural environment; (ii) growing a green economy; (iii) reconnecting people and nature; and (iv) international and EU leadership, specifically to achieve environmentally and socially sustainable economic growth, together with food, water, climate and energy security and to put the EU on a path towards environmentally sustainable, low-carbon and resource-efficient growth, which is resilient to climate change, provides jobs and supports the wellbeing of citizens.	Requirement unlikely to be of direct relevance to the development of the WMPE, although there may be some indirect in combination effects. In consequence, the SEA should consider if/how it can contribute to the achievement of the key aims of the White Paper. The SEA assessment framework should include objectives relating to the protection of the natural environment and sustainable economic growth.
Defra (2011) Mainstreaming sustainable development: the government's vision and what this means in practice		
The 2011 strategy puts forward a series of 'Growth Reviews' with which to measure progress. The concept of mainstreaming is to embed sustainability in other policy areas of Government.	The new measures in the strategy include: The Environment Secretary to sit on key domestic policy Cabinet committees Reducing the Government's waste generation by 25% the end of the current Parliament A more responsible procurement policy Defra to review departmental business plans Develop measurable indicators for improvements in sustainability, including monitoring by the Environmental Audit Committee and better reporting of results.	The WMPE should consider how it can contribute to the achievement of sustainable development. The SEA assessment framework should include objectives relating to sustainable development.
Defra (2012) UK Post 2010 Biodiversity Framework		
The Framework is to set a broad enabling structure for action across the UK between now and 2020: • To set out a shared vision and priorities for UK- scale activities, in a framework jointly owned by the four countries, and to which their own strategies will contribute; • To identify priority work at a UK level which will be needed to help deliver the Aichi targets and the EU Biodiversity Strategy; • To facilitate the aggregation and collation of information on activity and outcomes across all countries of the UK, where the four countries agree this will	To improve the status of biodiversity by safeguarding ecosystems species and genetic diversity; Enhance the benefits to all from biodiversity and ecosystem services; and Enhance implementation through participatory planning, knowledge management and capacity building.	Requirement unlikely to be of direct relevance to the development of the WMPE, although there may be some indirect in combination effects. In consequence, the SEA should consider how it can contribute to the protection of biodiversity and ecosystem services. The SEA assessment framework should include objectives that relate to biodiversity and ecosystem services.

Key objectives relevant to WMPE & SEA	Key targets and indicators relevant to WMPE and SEA	Commentary (how the SEA Framework should incorporate the documents' requirements)
bring benefits compared to individual country work; and • To streamline governance arrangements for UK- scale activity.		
Defra (2012) UK Plan for Shipments of Waste		
This sets out Government policy on shipments of waste to and from the United Kingdom.	No key targets or indicators	The WMPE should reflect the policies and requirements of the Plan. The SEA assessment framework should include objectives or guide questions relating to the movement and transfer of waste.
Defra (2013) National Policy Statement for Hazardous Waste		
The NPS for hazardous waste sets out the need strategic need and justification of Government policy for the provision of new nationally significant infrastructure for the management of hazardous waste. The NPS sets out that this infrastructure is required in order to deal with hazardous waste in a sustainable way to mitigate the potential risk to human health and the environment. The NPS is used to guide decisions made by the Planning Inspectorate on such infrastructure and also provides guidance for developers.	No key targets or indicators	The WMPE should have regard where relevant to the policies and guidance of the NPS where relevant to future hazardous waste infrastructure. The SEA assessment framework should include objectives and guide questions relating to all forms of waste.
Defra (2013) The National Adaptation Programme – Making the Country Resilient to a Changing Climate		
This Programme contains a mix of policies and actions to help adapt successfully to future weather conditions, by dealing with the risks and making the most of the opportunities. It sets out a number of objectives, including: • To provide a clear local planning framework to enable all participants in the planning system to deliver sustainable new development, including infrastructure that minimises vulnerability and provides resilience to the impacts of climate change; • To increase the resilience of homes and buildings by helping people and communities to understand what a changing climate could mean for them and to take action to become resilient to climate risks; • To ensure infrastructure is located, planned, designed and maintained to be resilient to climate change, including increasingly extreme weather events.	The Programme identifies a number of actions although no formal targets are identified.	Requirement unlikely to be of direct relevance to the development of the WMPE, although there may be some indirect in combination effects. In consequence, the SEA should take into account the objectives of the programme and consider how it can contribute to national climate change resilience. The SEA assessment framework should include objectives and guide questions that relate to climate change resilience.
Defra (2013) Waste Management Plan for England		

Key objectives relevant to WMPE & SEA	Key targets and indicators relevant to WMPE and SEA	Commentary (how the SEA Framework should incorporate the documents' requirements)
Sets out the Government's ambition to work towards a more sustainable and efficient approach to resource use and management. The document includes measures to: • Encourage reduction and management of packaging waste; • Promote high quality recycling; and • Promote high quality recycling; and • Encourage separate collection of bio-waste. • Promote the re-use of products and preparing for re-use activities	The Plan seeks to ensure that by 2020 at least 50% of weight waste from households is prepared for re-use or recycled and at least 70% by weight of construction and demolition waste is subject to material recovery.	The 2019 WMPE will update the 2013 WMPE, taking into account more recent changes (including the non-mandatory changes arising from Directive 2018/851). The SEA assessment framework should include objectives and guide questions that relate to efficient resource use and sustainable waste management.
Defra (2013) A Simple Guide to Biodiversity 2020 and Progress Update		
An update to the above 'Biodiversity 2020: a Strategy for England's Wildlife and Ecosystem Services (Defra, 2011).	This update reaffirms the need to achieve the above priorities and states that progress is being made through people working to prevent the loss of biodiversity at all levels of government.	Requirement unlikely to be of direct relevance to the development of the WMPE, although there may be some indirect in combination effects. In consequence, the SEA should consider if/how it can contribute to the delivery of the objectives and priorities of the strategy. The SEA assessment framework should include objectives related to the conservation of biodiversity.
Defra (2017) Air Quality Plan for Nitrogen Dioxide (NO2) in UK		
This plan sets out how the Government will improve air quality in the UK by reducing nitrogen dioxide emissions in towns and cities. The air quality plans set out targeted local, regional and national measures across 37 zone plans (areas which have identified air quality issues with nitrogen dioxide), a UK overview document and a national list of measures. Measures relate to freight, rail, sustainable travel, low emission vehicles and cleaner transport fuels, among others.	No targets or indicators	Requirement unlikely to be of direct relevance to the development of the WMPE, although there may be some indirect in combination effects. In consequence, the SEA should consider how it can contribute to the reduction of Nitrogen Dioxide emissions and improve air quality. The SEA assessment framework should include criteria for air quality and greenhouse gas emissions.
Defra (2018) Our Waste, Our Resources, a Strategy for England		
The strategy sets out how the Government intends to preserve resource stocks through minimising waste, promoting resource efficiency and moving towards a circular economy. The strategy also sets out how the government intends to minimise harm to the environment through sustainable and effective waste management, waste reduction and tackling waste crime.	Chapter 3 of the strategy considers resource recovery and waste management and sets out how the government intends to: improve recycling rates by ensuring a consistent set of dry recyclable materials is collected from all households and businesses reduce greenhouse gas emissions from landfill by ensuring that every householder and appropriate businesses have a weekly separate food waste collection, subject to consultation improve urban recycling rates, working with business and local authorities improve working arrangements and performance between local authorities drive greater efficiency of Energy from Waste (EfW) plants	The WMPE should consider how it can contribute to the achievement of the targets and objectives of the strategy. The SEA assessment framework should include objectives and guide questions that relate to efficient resource use and sustainable waste management.

Key objectives relevant to WMPE & SEA	Key targets and indicators relevant to WMPE and SEA	Commentary (how the SEA Framework should incorporate the documents' requirements)
	address information barriers to the use of secondary materials encourage waste producers and managers to implement the waste hierarchy in respect to hazardous waste Chapter 4 of the strategy considers waste crime and sets out how the government intends to: improve the transport, management and description of waste by reforming existing regulations strengthen intelligence sharing and engagement to tackle illegal activity prevent illegal activity being hidden through waste exemptions by reforming the existing regime mandate the digital recording of waste movements, subject to consultation create a Joint Unit for Waste Crime toughen penalties for waste criminals increase awareness of waste regulations and publicise positive work of enforcement bodies as they tackle waste crime	
Department for Transport (DfT) (2012) National Policy Statement for Ports		
Provides the framework for decisions on proposals for new port development and associated development such as road and rail links which fall within the definition of NSIPs. In the context of ports, and NSIP is defined as a development with an estimated incremental annual capacity that exceeds: • 0.5 million twenty-foot equivalent unit (teu) for a container terminal; • 250,000 movements for roll-on roll-off; • 5 million tonnes for other (bulk and general) traffic; or • A weighted sum equivalent to these figures taken together.	Of particular relevance to the Waste Management Plan is the requirement for hazardous substances consent for any establishment holding stocks of certain hazardous substances. This consenting alongside the development consent is implemented by the Health and Safety Executive (HSE).	Requirement unlikely to be of direct relevance to the development of the WMPE, although there may be some indirect in combination effects. In consequence, the SEA should reflect the requirements of the policy statement. The SEA assessment framework should include objectives and guide questions that relate to the sustainable management of waste.
Environment Agency (2011) National Flood and Coastal Erosion Risk Management Strategy for England		
The objective of this strategy is to reduce the risk of flooding and coastal erosion and manage its consequences.	No targets or indicators	Requirement unlikely to be of direct relevance to the development of the WMPE, although there may be some indirect in combination effects. In consequence, the SEA should consider if/how it can contribute to the reduction in risk of flooding and coastal erosion. The SEA assessment framework should include flood and coastal erosion risk.
Environment Agency (2013) Managing Water Abstraction (updated 2016)		
Sets out the Environment Agency's policies for managing surface and ground water abstraction licences and proposals to help recover resources where abstraction is unsuitable.	The aim of this document is to contribute to the sustainable management of water resources.	Requirement unlikely to be of direct relevance to the development of the WMPE, although there may be some indirect in combination effects. In consequence, the SEA should consider how it can contribute to the sustainable management of water resources. The SEA assessment framework should include water quality, water resources and sustainable water use.
HM Government (1979) Ancient Monuments and Archaeological Areas Act		

Key objectives relevant to WMPE & SEA	Key targets and indicators relevant to WMPE and SEA	Commentary (how the SEA Framework should incorporate the documents' requirements)
The Act defines sites that warrant protection as ancient monuments. They can be a Scheduled Ancient Monuments or "*any other monument which in the opinion of the Secretary of State is of public interest by reason of the historic, architectural, traditional, artistic or archaeological interest attaching to it*".	No targets identified.	Requirement unlikely to be of direct relevance to the development of the WMPE, although there may be some indirect in combination effects. In consequence, the SEA should consider if there are ways in which it can contribute to the protection of ancient monuments. The SEA assessment framework should include consideration of ancient monuments.
HM Government (1981) Wildlife and Countryside Act		
The main UK legislation relating to the protection of named animal and plant species includes legislation relating to the UK network of nationally protected wildlife areas: Site of Special Scientific Interest (SSSIs).	The main UK legislation relating to the protection of named animal and plant species includes legislation relating to the UK network of nationally protected wildlife areas: Site of Special Scientific Interest (SSSIs).	Requirement unlikely to be of direct relevance to the development of the WMPE, although there may be some indirect in combination effects. In consequence, the SEA should consider if there are ways in which it can contribute to the conservation of natural habitats, wildlife and plants The SEA assessment framework should include the conservation of natural habitats, wildlife and plants.
HM Government (1990) The Environmental Protection Act (as amended)		
This Act defines the fundamental structure and authority for waste management and the control of emissions into the environment. This sets out a regime for managing controlled waste and its disposal. The Act confers a duty of care on those who deal with waste, and set out (through secondary legislation) what is defined as household, commercial and industrial waste and the roles of waste collection and waste disposal areas in two tier local authority areas.	It was amended by the Household Waste Recycling Act 2003 to require all local authorities to collect at least two types of recyclable waste separate from the rest of the household waste (unless the cost of doing so is unreasonably high or where comparable alternative arrangements are available).	The WMPE should ensure that it reflects the requirements of the act. The SEA assessment framework should include objectives and guide questions that relate to greenhouse gas emissions and the sustainable management of waste.
HM Government (1990) Planning (Listed Building and Conservation Areas) Act		
The Planning (Listed Buildings and Conservation Areas) Act 1990 provides specific protection for buildings and areas of special architectural or historic interest.	No key targets or indicators.	Requirement unlikely to be of direct relevance to the development of the WMPE, although there may be some indirect in combination effects. In consequence, the SEA should consider if/how it can contribute to the protection of listed buildings. The SEA assessment framework should include objectives that that relate to the protection of architectural heritage.
HM Government (1990) Town and Country Planning Act 1990		
Controls and consents development which is defined as building, engineering, mining or other operations in. on, over or under land, or the making of any material change in the use of any building or land. Under the act a development plan is produced by the local planning authority which has two parts; a structure plan, drawn up by the county council; and a local plan, drawn up by the district council. This plan provides a detailed basis for	No key targets or indicators. Regulations under the Act establish the processes for the development and adoption of local plans which will include sites allocated for future local waste infrastructure.	Requirement unlikely to be of direct relevance to the development of the WMPE, although there may be some indirect in combination effects. In consequence, the SEA should reflect this legislation where relevant. The SEA assessment framework should include objectives and guide questions relating to biodiversity, land use, and landscape.

Key objectives relevant to WMPE & SEA	Key targets and indicators relevant to WMPE and SEA	Commentary (how the SEA Framework should incorporate the documents' requirements)
development control and brings planning issues before the public. In metropolitan areas with no county council, a unitary plan is drawn up which resembles the structure and local plans.		
HM Government (1991) Water Resources Act 1991		
The Water Resources Act governs the quality and quantity of water by outlining the functions of the Environment Agency. The Act sets out offences relating to water, discharge consents, and possible defences to the offences.	No key targets or indicators.	Requirement unlikely to be of direct relevance to the development of the WMPE, although there may be some indirect in combination effects. In consequence, the SEA should reflect the requirements of the act. The SEA assessment framework should include water quality, water resources, and sustainable water use.
HM Government (1996) Finance Act 1996 and Landfill Tax Regulations 1996		
The Landfill Tax regulations introduced a charge on the tonnage accepted by all licensed landfill sites. This tax has been subject to a planned escalator over the years and has become a primary economic instrument for the prevention of landfill waste. The tax for 2019 - 2020 is £91.35 per tonne, in 2020 this will rise to £94.15/tonne.	The primary target of this legislation is to discourage the use of landfill for waste disposal.	The WMPE should be consistent (through the application of the waste management hierarchy principles) to the objectives of the legislation (to reduce waste to landfill). The SEA assessment framework should contain objectives and guide questions that relate to the sustainable management of waste.
HM Government (2000) Countryside and Rights of Way Act 2000		
The Act: • gives people greater freedom to explore open country on foot; • creates a duty for Highway Authorities and National Park Authorities to establish Local Access Forums; • provides a cut-off date of 1 January 2026 for the recording of certain rights of way on definitive maps and the extinguishment of those not so recorded by that date; • offers greater protection to wildlife and natural features, better protection for Sites of Special Scientific Interest (SSSIs) and more effective enforcement of wildlife legislation; and • Protects Areas of Outstanding Natural Beauty with legislation similar to that for National Parks.	No key targets or indicators.	Requirement unlikely to be of direct relevance to the development of the WMPE, although there may be some indirect in combination effects. In consequence, the SEA should consider if/how it can contribute to the protection of wildlife, habitats natural features, SSSIs and AONBs and improve public access to the countryside. The SEA assessment framework should include the conservation of countryside, wildlife, natural features and landscape designations.
HM Government (2003) Sustainable Energy Act		
The Act aims to promote sustainable energy development and use and report on progress regarding cutting the UK's carbon emissions and reducing the number of people living in fuel poverty.	Specific targets are set by the Secretary of State as energy efficiency aims.	Requirement unlikely to be of direct relevance to the development of the WMPE, although there may be some indirect in combination effects. In consequence, the SEA should consider if/how it can contribute to maximising the development and use of sustainable energy and reduction of greenhouse gas emissions.

Key objectives relevant to WMPE & SEA	Key targets and indicators relevant to WMPE and SEA	Commentary (how the SEA Framework should incorporate the documents' requirements)
		The SEA assessment framework should include consideration of energy and greenhouse gas emissions.
HM Government (2003) Waste and Emissions Trading Act 2003		
Part one of this Act allowed for the implementation of the Landfill Allowance Trading Scheme (LATS). The Waste and Emissions Trading Act 2003 (Amendment etc.) Regulations 2013 revoked the LATS. Part two of the Act places on a statutory footing the method by which participants in the Emission Trading Scheme (ETS) can be given penalties for non-compliance in the scheme.	Revised the UK landfill diversion target for biodegradable municipal waste which were then included in The Landfill (Maximum Landfill Amount) Regulations 2011 e.g. 12,491,000 tonnes for year ending 2020.	The WMPE should be consistent (through the application of the waste management hierarchy principles) to the objectives of the legislation (to reduce waste to landfill). The SEA assessment framework should contain objectives and guide questions that relate to the sustainable management of waste.
HM Government (2004) The Planning and Compulsory Purchase Act 2004		
Introduced reforms to the planning system with amendments and replacements of sections of the Town and Country Planning Act 1990. The Local Development Framework formed the majority of reforms replacing unitary, local plans. Within these regions, local planning authorities will comprise the policies in local development documents, aiming to make the process quicker.	No key indicators or targets. The development and adoption of local plans which will include sites allocated for future local waste infrastructure.	Requirement unlikely to be of direct relevance to the development of the WMPE, although there may be some indirect in combination effects. In consequence, the SEA should reflect the requirements of the act and consider its implications.
HM Government (2005) The Hazardous Waste (England and Wales) Regulations 2005 (Amended 2009 and 2016)		
These regulations make provision for the controlled management of hazardous waste from the point of production to the final point of disposal or recovery. The regulations were implemented to transpose, as from 2005, the Waste Framework Directive.	No key targets or indicators.	The WMPE should reflect the requirements of the act. The SEA assessment framework should include objectives and guide questions that relate to the sustainable management of waste.
HM Government (2005) Securing the Future – the UK Sustainable Development Strategy		
The Strategy has 5 guiding principles: Living within environmental limits Ensuring a strong, healthy and just society • Achieving a sustainable economy • Promoting good governance • Using sound science responsibly • Alongside 4 strategic priorities: • Sustainable consumption and production; • Climate change and energy; • Natural resource protection and environmental enhancement; and • Sustainable communities.	The Strategy contains a new set of indicators to monitor progress towards sustainable development in the UK. In terms of waste there are two key indicators listed: • Waste: arisings by (a) sector (b) method of disposal • Household waste: (a) arisings (b) recycled or composted • There are a variety of additional indicators including indicators related to emissions and resource use.	The WMPE should consider and reflect the five guiding principles of the strategy and should consider if/how it can contribute to the achievement of the strategic priorities. The SEA assessment framework should include objectives relating to sustainable development.
HM Government (2005) The List of Wastes (England) Regulations 2005		
These regulations were driven by the Waste Framework Directive and set out a national list of the categories of hazardous waste subject to the regulation.	No key targets or indicators	The WMPE should be consistent with the information set out in the regulations.
HM Government (2006) The Natural Environment and Rural Communities (NERC) Act 2006		

Key objectives relevant to WMPE & SEA	Key targets and indicators relevant to WMPE and SEA	Commentary (how the SEA Framework should incorporate the documents' requirements)
Amongst a range of matters, the Act: Makes provision about bodies concerned with the natural environment and rural communities; Makes provision in connection with wildlife, Sites of Special Scientific Interest (SSSIs), National Parks and the Broads; and Amends the law relating to rights of way;	No key targets or indicators.	Requirement unlikely to be of direct relevance to the development of the WMPE, although there may be some indirect in combination effects. In consequence, the SEA should consider the implications of the Act and reflect its policies if/where relevant.
HM Government (2007) The Producer Responsibility Obligations (Packaging Waste) Regulations 2007 (and subsequent amendments)		
The regulations set a statutory producer responsibility system for those companies with that meet certain thresholds for annual turnover and annual tonnage of packaging handled. The system involves the provision by the producer of Packaging Waste Recovery Notes (PRNs), as evidence that the appropriate level of recycling and reprocessing is taking place.	The packaging regulations set annual business targets for recovery and recycling of packaging waste.	The WMPE should be consistent with the regulations and contribute to the achievement of the annual targets. The SEA assessment framework should include objectives and guide questions that relate to sustainable management of waste.
HM Government (2007) The Transfrontier Shipment of Waste Regulations 2007		
Sets out the rules for exporting waste and creates offences and penalties for non-compliance and designates the competent authorities responsible for enforcement in the UK.		The WMPE should be consistent with the requirements set out within the regulations. The SEA assessment framework should include objectives or guide questions concerning the movement and transfer of waste.
HM Government (2008) The Climate Change Act 2008		
The Act aims: To improve carbon management and help the transition towards a low carbon economy in the UK; and To demonstrate strong UK leadership internationally, signalling that the UK is committed to taking its share of responsibility for reducing global emissions in the context of developing negotiations on a post-2012 global agreement at Copenhagen.	The Act sets: Legally binding targets - greenhouse gas emission reductions through action in the UK and abroad of at least 80% by 2050, and reductions in CO2 emissions of at least 26% by 2020, against a 1990 baseline. The 2020 target will be reviewed soon after Royal Assent to reflect the move to all greenhouse gases and the increase in the 2050 target to 80%. Further, the Act provides for the establishment of a carbon budgeting system. Five year carbon budgets have been set out to 2032. They restrict the amount of greenhouse gas the UK can legally emit in a five year period. The UK is currently in the third carbon budget period (2018 to 2022).	Requirement unlikely to be of direct relevance to the development of the WMPE, although there may be some indirect in combination effects. In consequence, the SEA should consider how it can contribute to the achievement of the aims of the act and how it can contribute to the legally binding targets that the act sets. The SEA assessment framework should include objectives and guide questions relating to greenhouse gas emissions.
HM Government (2008) The Planning Act		
Introduces a new system for nationally significant infrastructure planning, alongside further reforms to the Town and Country Planning system. In this, development consent is decided at a national level by the Secretary of State, based on policy criteria set out in a designated National Policy Statement (NPS). This approach is intended to simplify and speed up the process of providing development consent for such projects, and is used for	No targets or indicators. Nationally Significant Infrastructure projects identified under the Planning Act include hazardous waste. Development consent applications for hazardous NSIPs are subject to the requirements and guidance provided by the NPS.	The WMPE should have regard where relevant to the policies and guidance of the NPS (designated under the Planning Act) where relevant to future hazardous waste infrastructure. The SEA assessment framework should include objectives and guide questions relating to all forms of waste.

Key objectives relevant to WMPE & SEA	Key targets and indicators relevant to WMPE and SEA	Commentary (how the SEA Framework should incorporate the documents' requirements)
infrastructure in waste, water, transport and energy sector. The NPSs provide relevant Government policy and a statement of need for the development of the relevant nationally significant infrastructure.		
HM Government (2009) The UK Renewable Energy Strategy		
The Strategy sets out to: • Put in place the mechanisms to provide financial support for renewable electricity and heat worth around £30 billion between now and 2020; • Drive delivery and clear away barriers; • Increase investment in emerging technologies and pursue new sources of supply; and • Create new opportunities for individuals, communities and business to harness renewable energy.	A vision is set out in the document whereby by 2020: • More than 30% of our electricity is generated from renewables; • 12% of our heat is generated from renewables; and • 10% of transport energy is generated from renewables.	Requirement unlikely to be of direct relevance to the development of the WMPE, although there may be some indirect in combination effects. In consequence, the SEA should consider how it can contribute to the vision set out within the strategy. The SEA assessment framework should include objectives relating to renewable energy.
HM Government (2009) Marine and Coastal Access Act 2009		
This act seeks to ensure that England's coasts are accessible and are able to be enjoyed for recreational purposes.	No targets or indicators.	The WMPE should consider if/how it can contribute to the achievement of the objectives of the Act, noting that the geographic scope of the plan, as defined in the Waste Regulations 2011 includes "the sea adjacent to England out as far as the seaward boundary of the territorial sea". . The SEA assessment framework should incorporate criteria relating to the quality of the marine environment.
HM Government (2009) The Waste Batteries and Accumulators Regulations 2009		
These regulations partially implement the EU Batteries Directive. The regulations set out the legal requirements for the collection, treatment, recycling and disposal of batteries. The regulations affect producers, distributors, collectors, recyclers and exporters of waste batteries.	No targets or indicators.	The WMPE should reflect the legal requirements of the regulations. The SEA assessment framework should include objectives regarding waste batteries.
HM Government (2010) The Air Quality Standards Regulations 2010 (Amended 2016)		
Divides England into Zones and Agglomerations for the purposes of measuring air quality. Specifies the type of pollutants that must be measured and how this is to be achieved. Links back to the requirements of the two main EU directives on air pollution: 2008/50/EC and 2004/107/EC	No key targets or indicators	Requirement unlikely to be of direct relevance to the development of the WMPE, although there may be some indirect in combination effects. In consequence, the SEA should consider the implications of the regulations. The SEA assessment should include objectives and guide questions regarding air quality.
HM Government (2010) The Government's Statement on the Historic Environment for England		
The Vision of the Statement is "*that the value of the historic environment is recognised by all who have the power to shape it; that Government gives it proper recognition and that it is managed intelligently and in a way that fully realises its contribution to*	No key targets	Requirement unlikely to be of direct relevance to the development of the WMPE, although there may be some indirect in combination effects. In consequence, the SEA should consider if/how it can contribute to the vision and aims of the Statement.

Key objectives relevant to WMPE & SEA	Key targets and indicators relevant to WMPE and SEA	Commentary (how the SEA Framework should incorporate the documents' requirements)
the economic, social and cultural life of the nation." This vision is supported by six aims: 1 Strategic Leadership: Ensure that relevant policy, guidance, and standards across Government emphasize our responsibility to manage England's historic environment for present and future generations. 2 Protective Framework: Ensure that all heritage assets are afforded an appropriate and effective level of protection, while allowing, where appropriate, for well managed and intelligent change. 3 Local Capacity: Encourage structures, skills and systems at a local level which: promote early consideration of the historic environment; ensure that local decision makers have access to the expertise they need; and provide sufficiently skilled people to execute proposed changes to heritage assets sensitively and sympathetically. 4 Public Involvement: Promote opportunities to place people and communities at the centre of the designation and management of their local historic environment and to make use of heritage as a focus for learning and community identity at all levels. 5 Direct Ownership: Ensure all heritage assets in public ownership meet appropriate standards of care and use while allowing, where appropriate, for well managed and intelligent change. 6 Sustainable Future: Seek to promote the role of the historic environment within the Government's response to climate change and as part of its sustainable development agenda.		The SEA assessment framework should include objectives and guide questions regarding the historic environment.
HM Government (2010) Flood and Water Management Act 2010		
The Flood and Water Management Act 2010 makes provisions about water, including provision about the management of risks in connection with flooding and coastal erosion.	Those key targets related to water resources, include: • To widen the list of uses of water that water companies can control during periods of water shortage, and enable Government to add to and remove uses from the list. • To encourage the uptake of sustainable drainage systems by removing the automatic right to connect to sewers and providing for unitary and county councils to adopt SUDS for new developments and redevelopments. • To reduce 'bad debt' in the water industry by amending the Water Industry Act 1991	Requirement unlikely to be of direct relevance to the development of the WMPE, although there may be some indirect in combination effects. In consequence, the SEA should consider if/how it can contribute to the targets set out in the act. The SEA assessment framework should include objectives relating to flood risk, coastal erosion and sustainable water management.

Key objectives relevant to WMPE & SEA	Key targets and indicators relevant to WMPE and SEA	Commentary (how the SEA Framework should incorporate the documents' requirements)
	to provide a named customer and clarify who is responsible for paying the water bill. • To make it easier for water and sewerage companies to develop and implement social tariffs where companies consider there is a good cause to do so, and in light of guidance that will be issued by the Secretary of State following a full public consultation.	
HM Government (2010) White Paper: Healthy Lives, Healthy People: Strategy for Public Health in England		
Aims to create a 'wellness' service (Public Health for England) and to strengthen both national and local leadership.	No key targets or indicators	Requirement unlikely to be of direct relevance to the development of the WMPE, although there may be some indirect in combination effects. In consequence, the SEA should consider if/how it can contribute to public health. The SEA assessment framework should include objectives related to public health.
HM Government (2011) Water for Life: White Paper		
Water for Life describes a vision for future water management in which the water sector is resilient, in which water companies are more efficient and customer focused, and in which water is valued as the precious and finite resource it is. *Water for Life* includes several proposals for deregulating and simplifying legislation, to reduce burdens on business and stimulate growth. Ofwat's proposals for reducing its regulatory burdens complement these.	No key targets or indicators.	Requirement unlikely to be of direct relevance to the development of the WMPE, although there may be some indirect in combination effects. In consequence, the SEA should consider if/how it can contribute to the achievement of the vision set out within the White Paper. The SEA assessment framework should include water quality, water resources, sustainable water use
HM Government (2011) UK Marine Policy Statement		
The Marine Policy Statement (MPS) is the framework for preparing Marine Plans and taking decisions affecting the marine environment. It identifies the following objectives: • Promote sustainable economic development; • Enable the UK's move towards a low-carbon economy, in order to mitigate the causes of climate change; • Ensure a sustainable marine environment which promotes healthy, functioning marine ecosystems and protects marine habitats, species and our heritage assets; and • Contribute to the societal benefits of the marine area, including the sustainable use of marine resources to address local social and economic issues.	No specific targets identified.	The WMPE should consider if/how it can contribute to the achievement of the objectives of the objectives of the Marine Policy statement, noting that the geographic scope of the plan, as defined in the Waste Regulations 2011 includes "the sea adjacent to England out as far as the seaward boundary of the territorial sea". The SEA assessment framework should include objectives and guide questions relating to marine ecosystems, habitats, species and heritage, sustainable marine resource use, climate change and carbon emissions.
HM Government (2011) Carbon Plan: Delivering our Low Carbon Future		

Key objectives relevant to WMPE & SEA	Key targets and indicators relevant to WMPE and SEA	Commentary (how the SEA Framework should incorporate the documents' requirements)
This sets out how the UK will achieve decarbonisation within the framework of energy policy: To make the transition to a low carbon economy while maintaining energy security, and minimising costs to consumers, particularly those in poorer households.	No key targets.	Requirement unlikely to be of direct relevance to the development of the WMPE, although there may be some indirect in combination effects. In consequence, the SEA should consider if/how it can contribute to decarbonisation. The SEA assessment framework should include objectives and guide questions regarding greenhouse gas emissions and ensuring resilience to any consequences of climate change
HM Government (2011) The Waste (England and Wales) Regulations 2011 (and subsequent amendments)		
The Waste (England and Wales) Regulations (2011) (as amended) implement the EU Waste Framework Directive in England and Wales and set out the main statutory provisions of relevance. This includes the requirement to ensure that a plan containing policies in relation to waste management for England has been adopted. The regulations require businesses to confirm that they have applied the waste management hierarchy and requires that they declare this on their waste transfer or consignment note. The regulations made amendments to hazardous waste controls and also set up a two-tier system for waste broker and carrier registration.	No key targets or indicators	The WMPE is being prepared to meet the requirements of Regulations 7 and 10 of the Waste (England and Wales) Regulations 2011. The SEA assessment framework should include objectives and guide questions relating to sustainable waste management.
HM Government (2013) The Community Infrastructure Levy (CIL) (Amendment) Regulations 2013		
The Community Infrastructure Level (CIL) is a charge which may be applied to new developments by local authorities. The money can be used to support development by funding infrastructure that the council, local community and neighbourhoods want.	No key targets.	Requirement unlikely to be of direct relevance to the development of the WMPE.
HM Government (2013) Prevention is better than cure The role of waste prevention in moving to a more resource efficient economy		
This document sets out the Waste Prevention Programme for England, which is a requirement of the revised Waste Framework Directive (rWFD) The Programme sets out the Government's view on how to reduce the amount of waste produced and presents the roles and actions to be taken in the transition towards a more resource efficient economy. It also sets out the Government's actions supporting this transition. The aim of the Programme is '*To improve the environment and protect human health by supporting a resource efficient economy, reducing the quantity and impact of waste*	No quantitative targets within the Programme itself, however initiatives within the Programme do have their own individual targets. The programme also describes a variety of measures for government, businesses, the public sector, civil society and consumers that aim to quantitatively reduce waste, and in addition the programme looks at measures to prevent waste. The programme considers the following indicators for waste prevention: *For household wastes* waste arisings (Mt) per unit household economic activity.	The WMPE should consider ways in which it can contribute towards the achievement of the objectives of the Programme. The SEA assessment framework should include objectives and guide questions that relate to the sustainable management of resources and waste.

Key objectives relevant to WMPE & SEA	Key targets and indicators relevant to WMPE and SEA	Commentary (how the SEA Framework should incorporate the documents' requirements)
produced whilst promoting sustainable economic growth.' The objectives of the programme are to: *'encourage businesses to contribute to a more sustainable economy by building waste reduction into design, offering alternative business models and delivering new and improved products and services* *encourage a culture of valuing resources by making it easier for people and businesses to find out how to reduce their waste, to use products for longer, repair broken items, and enable reuse of items by others* *help businesses recognise and act upon potential savings through better resource efficiency and preventing waste, to realise opportunities for growth* *support action by central and local government, businesses and civil society to capitalise on these opportunities'*	*For commercial and industrial, and construction and demolition waste* waste arisings (Mt) per unit gross value added (GVA) in constant price (volume) terms.	
HM Government (2013) The Waste Electrical and Electronic Equipment (WEEE) Regulations 2013		
These regulations implement the EU Waste Electrical and Electronic Equipment (WEEE) Directive in the UK. The key objective of the WEEE Regulations is to prevent as much as possible the landfilling of WEEE by putting in place responsibilities on producers and distributors of Electrical and Electronic Equipment (EEE). The regulations also place responsibility on distributors to provide a take back system whereby consumers can return EEE products at the end of their functional life or when they purchase another equivalent product. The regulations also place responsibility on consumers to dispose of WEEE properly.	The Regulations contain targets for collection of WEEE.	The WMPE should consider how it can contribute to the achievement of the objectives of the Regulations. The SEA assessment framework should include objectives for the sustainable management of waste.
HM Government (2014) Water Act 2014		
The provisions in the Act enable the delivery of Government's aims for a sustainable sector as set out in the Water White Paper in a way that this is workable and clear. This Act aims to makes steps towards reducing regulatory burdens, promoting innovation and investment, giving choice and better service to customers and enabling more efficient use of scarce water resources.	No formal targets or indicators.	Requirement unlikely to be of direct relevance to the development of the WMPE, although there may be some indirect in combination effects. In consequence, the SEA should consider if/how it can contribute to the efficient use of scare water resources. The SEA assessment framework should include objectives that relate to water resources and sustainable water use.
HM Government (2015) Water Framework Directive (Standards and Classification) Directions (England and Wales) 2015		

Key objectives relevant to WMPE & SEA	Key targets and indicators relevant to WMPE and SEA	Commentary (how the SEA Framework should incorporate the documents' requirements)
The regulations implement provisions of the Water Framework Directive (Directive 2000/60/EC), the Environmental Quality Standards Directive (Directive 2008/105/EC) and the priority substances amendment of these directives (Directive 2013/39/EU). This includes directions for the classification of surface water and groundwater bodies, monitoring requirements, standards for ecological and chemical status of surface waters, and environmental quality standards for priority substances.	No targets or indicators	Requirement unlikely to be of direct relevance to the development of the WMPE, although there may be some indirect in combination effects. In consequence, the SEA should take into account the implications of the regulations in terms of sustainable water use and protection of water resources if/where appropriate. The SEA assessment framework should include water quality, water resources, sustainable water use and biodiversity.
HM Government (2016) Environmental Permitting (England and Wales) Regulations 2016		
The Regulations provide a consolidated system of environmental permitting in England and Wales, and transpose the provisions of 15 EU Directives. It provides a system for environmental permits and exemptions for industrial activities, mobile plant, waste operations, mining waste operations, water discharge activities, groundwater activities, flood risk activities and radioactive substances activities. It also sets out the powers, functions and duties of the regulators. Certain flood risk activities are now regulated under the Environmental Permitting Regulations, with environmental permits required for some activities. There are slight variations between England and Wales.	No targets or indicators	Requirement unlikely to be of direct relevance to the development of the WMPE, although there may be some indirect in combination effects. In consequence, the SEA should ensure if reflects the Environmental Permitting Regulations (through for example the assumptions used to inform the assessment).
HM Government (2016) National Infrastructure Delivery Plan (NIDP) 2016 to 2021		
The NIDP sets out key infrastructure projects and programmes, and policy milestones, for each of the infrastructure sectors. It includes details of the government's work to improve the prioritisation, performance and delivery of infrastructure.	Chapter 9 covers water and waste and states that the government's aim is to have the right infrastructure in place to deal with waste as efficiently as possible with the ambition of moving towards a more circular economy where resources are more valued and kept in circulation rather than turning into waste. The plan also states that the government is on track to meet its 2020 landfill diversion targets so there is no additional waste infrastructure planned than that which is already in the pipeline.	The WMPE should consider if/how it can contribute to the delivery of infrastructure set out under the plan and the implications the plan might have. The SEA assessment framework should include objectives relating to infrastructure projects.
HM Government (2017) The Conservation of Habitats and Species Regulations 2017		
This is the UK transposition of EC Directive 92/43/EC on the conservation of natural habitats and of wild fauna and flora.	The Regulations provide for the designation and protection of 'European sites', the protection of 'European protected species', and the adaptation of planning and other controls for the protection of European Sites.	Requirement unlikely to be of direct relevance to the development of the WMPE, although there may be some indirect in combination effects. In consequence, the SEA should consider if/how it can contribute to the conservation of habitats and species and ensure any associated proposals for waste management infrastructure comply with the Habitats Regulations.

Key objectives relevant to WMPE & SEA	Key targets and indicators relevant to WMPE and SEA	Commentary (how the SEA Framework should incorporate the documents' requirements)
		The SEA assessment framework should include objectives for the conservation of habitats and species.
HM Government (2018) A Green Future: Our 25 Year Plan to Improve the Environment		
This report outlines the following aims that the UK Government hopes to achieve in the next 25 years: 1. Clean air. 2. Clean and plentiful water. 3. Thriving plants and wildlife. 4. A reduced risk of harm from environmental hazards such as flooding and drought. 5. Using resources from nature more sustainably and efficiently. 6. Enhanced beauty, heritage and engagement with the natural environment. 7. Mitigating and adapting to climate change. 8. Minimising waste. 9. Managing exposure to chemicals. 10. Enhancing biosecurity.	Ensure the UKs environmental state improves over the next 25 years.	The WMPE should consider how it can contribute to the achievement of the governments aims. Particularly in terms of aims 5, 7 and 8. The SEA assessment framework should include objectives and guide questions for: • Biodiversity and Nature Conservation; • Population, Economics and Skills; • Human Health; • Land Use, Geology and Soils; • Water; • Air Quality; • Climatic Factors (including climate change mitigation and adaptation and energy); • Flood Risk and Coastal Change; • Waste and Resources; • Traffic and Transport; • Cultural Heritage (including architectural and archaeological heritage); • Landscape and Townscape.
HM Government (2018) The Waste Enforcement (England and Wales) Regulations 2018		
The Regulations amend the Environmental Protection Act 1990 and the Environment Act 1995 with the aim of reducing waste crime in England and Wales by giving environmental regulators (The Environment Agency in England) powers to: • serve notice to occupiers of properties, requiring them to remove waste from the property that was being illegally stored, kept or disposed of; and • restrict access to and prevent further importation of waste onto a site where there is a risk of serious pollution or risk to human health from the waste operations on site or where it is necessary to prevent the risk from continuing.	No key targets or indicators	The WMPE should consider the implications of the Regulations and how it can contribute to the aims of reducing waste crime. The SEA assessment framework should include objectives relating to the sustainable management of waste.
HM Government (2019) The Climate Change Act 2008 (2050 Target Amendment) Order 2019		
This order amended the target set out in the Climate Change Act 2008 for the net UK carbon account for the year 2050 to be 100% lower than the 1990 baseline, rather than 80% lower than the 1990 baseline, as originally set out in the Climate Change Act 2008.	The net UK carbon account for the year 2050 must be 100% lower than the 1990 baseline.	The WMPE should consider if/how it can contribute to the reduction in carbon/greenhouse gas emissions and the achievement of the carbon emissions reduction target. The SEA assessment framework should include objectives related to greenhouse gas emissions.

Key objectives relevant to WMPE & SEA	Key targets and indicators relevant to WMPE and SEA	Commentary (how the SEA Framework should incorporate the documents' requirements)
Defra (2019) Clean Air Strategy 2019		
The strategy sets out how air pollution will be tackled in the UK in order to protect nature, boost the economy and ensure the air is healthier to breathe. The strategy indicated how devolved administrations intend to make their share of emissions reductions.	Chapter 2 sets out a number of actions to protect the nation's health, including meeting the WHO annual mean guideline limit for PM2.5 to the limit of 10µg/m^3. Chapter 3 sets out actions for protecting the environment including monitoring the impacts of air pollution on natural habitats with annual reporting and to reduce damaging deposition of reactive forms of nitrogen. Chapter 4 sets out actions for securing clean growth and innovation, including the phasing out of coal and oil heating and more focus on bioenergy. Chapter 5 sets out actions for reducing the impact from transport including publishing Road to Zero which sets out plans to reduce emissions from non-road mobile machinery. Chapter 7.6 sets out the actions to reduce ammonia emissions from anaerobic digestion including the requirement to spread digestate using low emission spreading equipment and the requirement to store digestate in covered stored by 2027.	The WMPE should consider how it can contribute to the achievement of the actions set out in the strategy. The SEA assessment framework should include specifically the actions associated with ammonia emissions from anaerobic digestion. The SEA assessment framework should include criteria for air quality and greenhouse gas emissions.
Defra (2019) National Air Pollution Control Programme		
The National Air Pollution Control Programme (NAPCP) sets out how the UK can meet the legally binding 2020 and 2030 emission reduction commitments (ERCs). These commitments apply for 5 pollutants: • nitrogen oxides • ammonia • non-methane volatile organic compounds • particulate matter • sulphur dioxide The NAPCP is required under The National Emissions Ceilings Regulations 2018.	The programme sets out national emissions reduction commitments compared with 2005 baseline for 2020 to 2029 and from 2030. These are: • nitrogen oxides – 73% from 2030 • ammonia – 16% from 2030 • non-methane volatile organic compounds – 39% from 2030 • particulate matter – 46% from 2030 sulphur dioxide – 88% from 2030	The WMPE should consider how it can contribute to the achievement of the emissions reduction commitments to improve air quality. The SEA assessment framework should include criteria for air quality.
Historic England (2015) Historic Environment Good Practice Advice in Planning Notes 1 to 3		
The purpose of these Good Practice Advice notes is to provide information on good practice to assist local authorities, planning and other consultants, owners, applicants and other interested parties in implementing historic environment policy in the National Planning Policy Framework (NPPF) and the related guidance given in the National Planning Practice Guide (PPG).	No specific targets identified.	Requirement unlikely to be of direct relevance to the development of the WMPE, although there may be some indirect in combination effects. In consequence, the SEA should have consideration for the good practice advice if/when relevant. The SEA assessment framework should include consideration of the historic environment.
Historic England (Various) Advice Notes		
Historic England has produced many advice notes on matters relating to historical assets, their protection and use.	No specific targets identified.	Requirement unlikely to be of direct relevance to the development of the WMPE, although there may be some indirect considerations. In consequence, the SEA should consider if/how it can contribute to the protection of historical assets

Key objectives relevant to WMPE & SEA	Key targets and indicators relevant to WMPE and SEA	Commentary (how the SEA Framework should incorporate the documents' requirements)
		The SEA assessment framework should include consideration of historic assets.
Historic England (Various) Conservation Areas Site Specific Assessment and Guidance		
Historic England has produced advice on the production of site-specific Conservation Area assessments, which themselves provide important information on the state of Conservation Areas.	No specific targets identified.	Requirement unlikely to be of direct relevance to the development of the WMPE, although there may be some indirect considerations. In consequence, the SEA should consider if/how it can contribute to the protection of Conservation Areas. The SEA assessment framework should include consideration of Conservation areas.
Ministry of Housing Communities and Local Government (MHCLG) (2014) Planning Practice Guidance		
Planning Practice Guidance is designed to support the NPPF. It reflects the objectives of the NPPF which are not repeated here.	No targets or indicators	Requirement unlikely to be of direct relevance to the development of the WMPE, although there may be some indirect considerations (through links with the NPPW).
MHCLG (2014) National Planning Policy for Waste		
This document sets out detailed waste planning policies for local authorities. States that planning authorities need to: • Use a proportionate evidence base in preparing Local Plans. • Identify sufficient opportunities to meet the identified needs of their area for the management of waste streams. • Identifying suitable sites and areas	The overall objective of the document is to work towards a more sustainable and efficient approach to resource use and management. Planning plays a pivotal role e.g. by ensuring the design and layout of new development and other infrastructure complements sustainable waste management.	The WMPE must reflect the policies set out in the Planning Policy document. The SEA assessment framework should include objectives and guide questions that relate to the sustainable management of resources and waste.
MHCLG (2014) Planning Practice (PPG) on Conserving and enhancing the historic environment (revised 2018)		
Provides advice on enhancing and conserving the historic environment.	No key targets or indicators	Requirement unlikely to be of direct relevance to the development of the WMPE, although there may be some indirect considerations. In consequence, the SEA should consider and reflect the PPG on Conserving and enhancing the historic environment. The SEA assessment framework should include objectives and guide questions that relate to the conservation and enhancement of the historic environment.
MHCLG (2015) Planning Practice Guidance (PPG) for Waste		
Provides further information in support of the implementation of waste planning policy.	No key targets or indicators	The WMPE should consider and reflect the PPG for waste. The SEA assessment framework should include objectives and guide questions that relate to the sustainable management of waste.
MHCLG (2016) Planning Practice Guidance (PPG) on the Natural Environment		
Explains key issues in implementing policy to protect biodiversity, including local requirements.	No key targets or indicators	Requirement unlikely to be of direct relevance to the development of the WMPE, although there may be some indirect considerations. In consequence, the SEA should consider and reflect the PPG on the Natural Environment.

Key objectives relevant to WMPE & SEA	Key targets and indicators relevant to WMPE and SEA	Commentary (how the SEA Framework should incorporate the documents' requirements)
		The SEA assessment framework should include objectives that relate to biodiversity and ecosystem services.
MHCLG (2019) National Planning Policy Framework (NPPF)		
The NPPF was originally published in 2012 and was updated in 2018 and then again in 2019 with minor amendments to the 2018 version. The NPPF sets out the Government's overarching policy framework for planning and at the heart of the framework is a presumption in favour of sustainable development. The NPPF constitutes guidance for local planning authorities and decision-takers both in drawing up plans and as a material consideration in determining applications. The policies of the NPPF are focused into the following headings: • Achieving sustainable development • Plan-making • Decision-taking • Delivering a sufficient supply of homes • Building a strong competitive economy • Ensuring the vitality of town centres • Promoting Healthy and safe communities • Promoting sustainable transport • Supporting high quality communications • Making effective use of land • Achieving well designed places • Meeting the challenge of climate change, flooding and coastal change • Conserving and enhancing the natural environment • Facilitating the sustainable use of minerals.	Section 2 of the NPPF states that achieving sustainable development means that the planning system has three overarching objectives, which are interdependent and need to be pursued in mutually supportive ways (so that opportunities can be taken to secure net gains across each of the different objectives): an economic objective – to help build a strong, responsive and competitive economy, by ensuring that sufficient land of the right types is available in the right places and at the right time to support growth, innovation and improved productivity; and by identifying and coordinating the provision of infrastructure; a social objective – to support strong, vibrant and healthy communities, by ensuring that a sufficient number and range of homes can be provided to meet the needs of present and future generations; and by fostering a well-designed and safe built environment, with accessible services and open spaces that reflect current and future needs and support communities' health, social and cultural well-being; and an environmental objective – to contribute to protecting and enhancing our natural, built and historic environment; including making effective use of land, helping to improve biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy	Requirement unlikely to be of direct relevance to the development of the WMPE, although there may be some indirect considerations (through links with the NPPW).
Natural England (2014) National Character Area (NCA) Profiles		
England is divided into 159 NCAs, each is defined by a unique combination of landscape, biodiversity, geodiversity, history and cultural and economic activities. The boundaries of NCAs follow natural lines in the landscape. The NCA profiles are documents based on ecosystem data and analysis, which provide identification of key environmental opportunities, recent landscape changes and trends, detail of the supporting data and analysis, and context for local decision making and action.	No key targets or indicators	Requirement unlikely to be of direct relevance to the development of the WMPE, although there may be some indirect considerations. In consequence, the SEA should consider the issues and opportunities presented within the NCA profiles (including in the baseline for example).

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