North London Waste Plan

Sustainability Appraisal Report

October 2018

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SUSTAINABILITY APPRAISAL OF THE DRAFT NORTH LONDON WASTE PLAN

1. INTRODUCTION

1.1 Sustainability Appraisal and Strategic Environmental Assessment

1.1.1 Section 19(5) of the Planning and Compulsory Purchase Act 2004 (PCPA) requires local planning authorities preparing a Development Plan Document to undertake a Sustainability Appraisal (SA) throughout its production in order to ensure that it is fully consistent with, and helps to implement, the principles of sustainable development. The purpose of this SA is to help ensure that Plans achieve an appropriate balance between environmental, economic and social objectives. It should help to identify the sustainability implications of different plan approaches and recommend ways to reduce any negative effects and to increase the positive outcomes. The SA thereby performs a key role in demonstrating to decision makers, and the public, that the Plan is the most appropriate given reasonable alternatives.

1.1.2 In parallel with this, the European Directive 2001/42/EC "*on the assessment of the effects of certain plans and programmes on the environment*" (the Strategic Environmental Assessment or 'SEA Directive') was transposed into United Kingdom law by the Environmental Assessment of Plans and Programmes Regulations 2004 (the 'SEA Regulations') and establishes the statutory obligation to undertake SEA with regard to any plan that:

- Is "prepared by an authority for adoption, through a legislative procedure by Parliament or Government, and is required by legislative, regulatory or administrative provisions" (Article 2(b)); and
- Concerns "town and country planning or land use… which sets the framework for future development consent of projects" (Article 5.2(a)).

1.1.3 The principal purpose of SEA is to ensure appropriate consideration is given to the likely significant environmental effects of the implementation of a plan. SA extends the scope of assessment so that environmental effects are considered in parallel with social and economic impacts so that the overall implications of the plan are subject to an integrated evaluation. Although SA and SEA are distinct processes, many of their requirements overlap and as a result the Government has issued guidance advising that an integrated approach to both assessments should be undertaken.

1.1.4 This Report outlines the findings of the SA of the draft North London Waste Plan (NLWP) and reasonable alternatives. The SA supports the Proposed Submission Plan (Regulation 19), following the consideration of responses received to the consultation on the draft NWLP (Regulation 18) which took place from 30th July to 30th September 2015. The consultation provided an opportunity for stakeholders and communities to comment on the draft plan and proposed policies.

1.1.5 This report meets the SEA requirements and acts as the 'environmental report' for the purposes of Regulation 12 of the Environmental Assessment of Plans and Programmes Regulations 2004. Throughout this report, all references to SA should be taken to also include the requirements of European Directive 2001/42/EC.

1.2 The North London Waste Plan

1.2.1 The seven North London Boroughs of Barnet, Camden, Enfield, Hackney, Haringey, Islington and Waltham Forest are working together to produce the North London Waste Plan (the 'NLWP'). The NLWP covers part of the area of the London Legacy Development Corporation (LLDC), a Mayoral Development Corporation, which is the planning authority for a small part of Hackney and Waltham Forest.

1.2.2 The NLWP has two main purposes:

- to ensure there will be adequate provision of suitable land to accommodate waste management facilities of the right type, in the right place and at the right time up to 2035 to manage waste generated in North London; and
- to provide policies against which planning applications for waste development will be assessed, alongside other relevant planning policies/guidance.

1.2.3 The NLWP will cover all principal waste streams including:

- **Local Authority Collected Waste** (LACW): Previously known as municipal waste, LACW refers to all waste collected by a Local Authority, including household and trade waste;
- **Commercial and Industrial** (C&I): Wastes produced by businesses and industry;
- **Construction, Demolition & Excavation** (CD&E): Waste generated as a result of delivering infrastructure projects, building, renovation and the maintenance of structures;
- **Hazardous**: A sub category of all waste streams where the material produced is hazardous and requires specialist handling and treatment;
- **Agricultural waste**: Waste produced by farming and forestry activity;
- **Waste Water**: Waste produced from washing, cleaning and hygienic activities to create waste water and sewage effluents; and
- **Low level radioactive waste**: Waste associated with the undertaking of x-rays and laboratory testing using low level radioactive substances.

1.2.4 It is important to recognise that the NLWP will be strategic in nature and even the allocation of sites/areas should be regarded as a strategic undertaking given that the process omits consideration of some detailed issues in the knowledge that these will be addressed later (i.e. through the development management process). This strategic nature of the plan is reflected in the scope of the SA.

1.3 The SA Process

1.3.1 The process for undertaking SA/SEA is set out in detail in the National Planning Practice Guidance[1] and the document 'A Practical Guide to the Strategic Environmental Assessment Directive[2]. This guidance subdivides the SA/SEA process into a series of stages. While each stage consists of specific tasks, the intention should be that the process is undertaken in an iterative manner.

1.3.2 The stages involved in undertaking SA (incorporating SEA) are summarised in Table 1.

Table 1: SA Process

Stage A: Establishing the context and baseline conditions; defining the scope and framework for the assessment	
A1	Identify relevant plans, programmes and sustainability objectives that will influence the plan
A2	Collect relevant social, environmental and economic baseline information
A3	Identify key sustainability issues for the SA / plan to address
A4	Develop the SA Framework, consisting of the SA Objectives and sub-objectives
A5	Produce a scoping report and consult relevant authorities, the public and other key stakeholders on the scope of the appraisal
Stage B: Developing and refining alternatives and assessing the effects of the plan	
B1	Testing the plan objectives against the SA framework
B2	Developing the plan alternatives
B3	Predicting the effects of the plan
B4	Evaluating the effects of the plan
B5	Considering ways of mitigating adverse effects and maximising beneficial effects
B6	Proposing measures to monitor the significant effects of implementing the plan
Stage C: SA Report	
C1	Preparing the SA Report
Stage D: Consultation on the SA Report	
D1	Seek representations on the SA Report from consultation bodies and the public
Stage E: Post Adoption Reporting and Monitoring	
E1	Prepare and publish post-adoption statement
E2	Monitor significant effects of implementing the Plan
E3	Respond to adverse effects

1.3.3 Stage A of the process corresponds to the scoping stage of the SA and the findings of this stage are presented in the Scoping Report which was issued for a five-week period of consultation in June 2014 and subsequently updated to take account of the representations received. During this stage the scope of the SA was defined.

1.3.4 Stage B of the SA process is linked to the overall production of the NLWP which includes the development of plan options and the selection of the preferred options.

[1] CLG Planning Practice Guidance (2014)
[2] ODPM 'A Practical Guide to the Strategic Environmental Assessment Directive' (2005)

1.3.5 As part of the Stage C an interim SA Report was produced in July 2015, which provided a summary of the SA process undertaken and documents the findings of the SA of the draft North London Waste Plan (NLWP) and reasonable alternatives. It was used as a consultation document and issued to statutory bodies and stakeholders for comment alongside the draft NLWP document.

1.3.6 This version of the SA report has been prepared following consideration of responses received on the draft NLWP (Regulation 18) which took place from 30th July to 30th September 2015. The SA is being updated to reflect policy changes made to the NLWP. The report meets the SEA requirements and acts as the 'environmental report' for the purposes of Regulation 12 of the Environmental Assessment of Plans and Programmes Regulations 2004. As such, the intention of this SA Report is to adopt an approach to appraisal which also meets the requirements of the SEA Directive and Regulations. The following table shows how this report meets the requirements of the SEA Directive.

Table 2: Compliance with the SEA Directive

Information to be included in an Environmental Report under the SEA Regulations	Relevant sections in the SA Report
An outline of the contents, main objectives of the plan and its relationship with other relevant plans and programmes.	1.2 2.1
The relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan.	2.2
The environmental characteristics of areas likely to be significantly affected.	2.2
Any existing environmental problems which are relevant to the plan, including in particular, those relating to any areas of a particular environmental importance, such as areas designated pursuant to Directives 79/409/EEC and 92/43/EEC.	2.1 2.2 1.5
The environmental protection objectives, established at international, Community or national level, which are relevant to the plan and the way those objectives and any environmental considerations have been taken into account during its preparation.	2.1 2.2
The likely significant effects on the environment, including on issues such as biodiversity, population, human health, fauna, flora, soils, water, air, climatic factors, material assets, cultural heritage, landscape, and the interrelationship between the above factors.	Section 4 Appendix Report
The measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the plan.	4.5 Section 7 Appendix Report
An outline of the reasons for selecting the alternatives dealt with and a description of how the assessment was undertaken including any difficulties.	3.4 Section 4
A description of measures envisaged concerning monitoring.	Section 5
A non-technical summary of the information provided above.	Separate Document

1.4 Feedback from Consultation

1.4.1 Regulation 12(5) of the SEA Regulations stipulates that when deciding on the scope and level of detail of the information that must be included in the Environmental Report, the responsible authority should undertake appropriate consultation.

1.4.2 Consequently, when preparing the SA Scoping Report for the NLWP and defining the framework for the assessment a draft Scoping Report was issued for a five-week period of consultation that ran from Tuesday 3rd June 2014 to Wednesday 9th July 2014. Comments were invited on the content of the draft Scoping Report and, in particular, whether it identified the key sustainability issues from the baseline information and if the proposed Sustainability Appraisal Framework was appropriate.

1.4.3 Each of the statutory consultation bodies identified by the SEA Regulations[3] was consulted on scope and level of detail contained within the Report. In addition, and in line with the NLWP Consultation Protocol and each Borough's adopted Statement of Community Involvement (SCI), wider consultation on the Scoping Report was also undertaken.

1.4.4 Comments were received on the draft Scoping Report from Natural England, the Environment Agency, North London Waste Authority, community groups and individuals. Some of the main comments received were the need to:

- Review additional relevant plans, policies and programmes to identify their implications for the NLWP;
- Incorporate additional baseline information relating to issues such as fly tipping and exempt facilities;
- Ensure that the identified sustainability issues acknowledge that location priorities for new facilities need to take account of proximity to waste sources, to disposal/re-use/recovery sites and to the location of markets for recovered or secondary materials;
- Make a number of minor amendments to one objective and to indicator information relating to health, green infrastructure, transport, landscape, flood risk, waste self-sufficiency and the economy.

1.4.5 The SA Scoping Report has been updated to address these comments. It is considered that the revised SA Scoping Report forms a fit for purpose framework for the appraisal of the NLWP and that this framework has been subject to the statutory requirements set out in Regulation 12 of the SEA Regulations.

1.4.6 Following on from the Regulation 18 SA, six two-part public consultation events were held from 2nd September to 11th September 2015 consisting of both facilitated afternoon workshops requiring registration and evening drop-in sessions. These took place in each

[3] The SEA Regulations require the Environment Agency, English Heritage, Natural England and the Countryside Agency to be consulted on the scope of sustainability appraisals. However, the Natural Environment and Rural Communities (NERC) Act merged the Countryside Agency and English Nature to form a new agency - Natural England.

North London Borough, with the exception of Islington which co-hosted a combined event in Camden close to the borough boundary. An additional meeting was scheduled in Hackney specifically concerning the suitability of the Theydon Road area identified in the previous consultation draft for the development of waste management facilities. The purpose of these events was to seek views from residents and interested parties on development management policies, sites and areas set out in the draft Plan.

1.5 Related Assessments

Habitat Regulations Assessment

1.5.1 Directive 92/43/EEC on the Conservation of Natural Habitats and Wild Flora and Fauna – the 'Habitats Directive' – provides legal protection for habitats and species of European importance. Article 6 of this Directive introduced the requirement to undertake a 'Habitat Regulation Assessment' (HRA) of the implications of proposed land use plans for the integrity of nature conservation sites of European importance. Such sites are known as Natura 2000 sites, and include Special Areas of Conservation (SACs), candidate Special Areas of Conservation (cSACs), Special Areas of Protection (SPAs), potential Special Areas of Protection (pSPAs), Ramsar sites and Offshore Marine Sites (OMSs).

1.5.2 The purpose of a HRA is to determine whether or not significant effects on European sites are likely and to suggest ways in which they could be avoided. Under the provisions of the Habitats Directive, such a plan can only be brought into effect, as a result of the HRA, it can be demonstrated that the integrity of the sites will not be adversely affected or, where adverse impacts are anticipated, there are shown to be no alternative solutions and imperative reasons of overriding public interest for the plan to go ahead.

1.5.3 The HRA of the NLWP is being prepared and will be reported separately. The main issues that are likely to be addressed by this assessment concern the implications of the spatial strategy and proposed allocations for the protection of internationally designated wildlife sites, either alone or in-combination with other plans or projects occurring within the Plan area and adjacent parts of Greater London.

2. THE CONTEXT FOR THE PLAN

2.1 Links to Other Plans, Programmes and Strategies

2.1.1 Stage A1 of the SA process involves establishing the context in which the NLWP is being prepared, namely the other policies, plans and programmes, and sustainability objectives that could influence its content and the opportunities and challenges they present. The SEA Directive specifically requires environmental objectives established at international, European Community or national levels to be taken into account in developing a Plan. However, in order to facilitate a comprehensive approach, guidance on SA recommends that this should be widened to consider how the Plan can support the full range of other plans, policies and programmes that already exist, including at the regional and local levels, taking into account their economic and social as well as environmental objectives.

2.1.2 The Scoping Report published a list of relevant plans, policies and programmes and contained a detailed assessment of these plans and the key messages and implications of them for the NLWP. This list is reproduced in Appendix 1 to this report.

2.1.3 A number of key messages emerged from this review of policies, plans and programmes. These are summarised in Table 3 below and are grouped under the topics listed in the SEA Directive.

Table 3: Key Messages from the Policies, Plans and Programmes Review

Key Messages	Policies, Plans and Programmes
Biodiversity, Flora and Fauna • Ensure biodiversity is considered in all areas of decision-making. • Maintain, protect, enhance and restore biodiversity and the natural environment. • Avoid harm to designated sites and protected species. • Ensure the importance of green infrastructure is recognised.	The Water Framework Directive (2000/60/EC), Thames river basin district river basin management plan: 2009, The Ramsar Convention, Birds Directive (2009/147/EC), Habitats Directive (97/62/EC), EU Biodiversity Strategy to 2020, Conservation of Habitats and Species Regulations (2010), Wildlife and Countryside Act (1981), Natural Environment and Rural Communities Act (2006), UK Biodiversity Action Plan, 1994 (reviewed 2007), Biodiversity 2020: a Strategy for England's Wildlife and Ecosystem Services (2011), The Natural Choice (2011), Protection of Badgers Act 1992, Hedgerow Regulations 1997, NPPF (updated July 2018), the London Plan (2016), Mayor London's Biodiversity Strategy, London Biodiversity Action Plan, Local Plan Core Strategies and Development Policies documents, local BAPs, London Environment Strategy (2018).
Population and Human Health • Ensure wider health issues are considered and safeguard the health of the community. • Protect and improve quality of life. • Maintain / improve access to open space for leisure and recreation. • Locate sites where the potential impact	The NPPF (updated July 2018), Healthy Lives, Healthy People: Our strategy for public health in England (2010), Local Plan Core Strategies and Development Policies documents, Sustainable Community Strategies, North Central London Sustainability and Transformation Plan (NCL STP)., London Environment Strategy (2018).

Key Messages	Policies, Plans and Programmes
on the health and well being of local communities is minimised. • Avoid adverse impacts on human health arising from the transport of wastes.	
Soil • Prioritise the use of previously developed land. • Avoid ground pollution and seek to reduce land contamination.	The Mining Waste Directive (2006/21/EC), Safeguarding Our Soils – A Strategy for England, NPPF (updated July 2018), the London Plan ((2016) Local Plan Core Strategies and Development Policies documents.
Water • Maintain and improve water quality. • Limit the impacts of waste management facilities on sensitive receptors such as water. • Use water resources efficiently and seek to minimise future demands. • Reduce the impact of flooding and avoid inappropriate development in areas of flood risk. • Avoid development that could increase flood risk. • Promote the management of surface water and reduction of flood risk using SuDS • Protect groundwater.	The Water Framework Directive (2000/60/EC), Directive 2006/118/EC on the protection of groundwater against pollution and deterioration, the IPPC Directive (2008/1/EC), NPPF (updated July 2018), , National Flood and Coastal Erosion Risk Management Strategy for England – Environment Agency (2011) , Water for People and the Environment; Water Resources Strategy for England and Wales (2009), London Plan ((2016), Securing London's Water Future: The Mayor's Water Strategy (2011), Thames Region Catchment Flood Management Plan (2009), Managing Flood Risk in the Lower Lee Catchment, Today and in the Future (2013), Groundwater protection: principles and practice (GP3) (2013) Local Plan Core Strategies and Development Policies documents.
Air • Limit the impacts of waste management facilities on sensitive receptors such as air. • Reduce the distance local wastes travel to be managed by providing more waste management capacity in the plan area. • Increase use of sustainable transport methods and reduce the need to travel.	The IPPC Directive (2008/1/EC), European Air Quality Directive (2008/50/EC), Air Quality Strategy for England, Scotland, Wales and Northern Ireland (2007), Air Pollution: Action in a Changing Climate (2010), NPPF (updated July 2018), the London Plan (2016), Clearing the Air: The Mayor's Air Quality Strategy (2010), Local Plan Core Strategies and Development Policies documents, Air Quality Actions Plans, London Environment Strategy (2018)
Climate • Reduce contributions to climate change. • Recognise the need to diversify energy supply and increase the proportion of energy that is generated from renewable sources. • Recognise that waste can be a potential source of low carbon energy. • Limit the potential impact of waste management developments on climate change.	Kyoto Protocol, NPPF (updated July 2018), Meeting the Energy Challenge: A White Paper on Energy (2007), Climate Change Act 2008, UK Climate Change Programme (2006), , Delivering London's Energy Future: The Mayor's Climate Change Mitigation and Energy Strategy (2011), the London Plan (2016)) which propose a carbon intensity floor for energy generating plant, Managing risks and increasing resilience: the Mayor's climate change adaptation strategy, Local Plan Core Strategies and Development Policies documents, London Environment Strategy (2018).
Transport • Reduce emissions from the transport of waste by all modes by seeking to manage more waste close to its source. • Reduce the risk that movement of waste will contribute to road congestion and safety or adversely affect road safety. • Promote sustainable transport of wastes	European Air Quality Directive (2008), Air Quality Strategy for England, Scotland, Wales and Northern Ireland (2007), Waste Management Plan for England (2011). National Planning Policy for Waste (and associated Planning Practice Guidance) (2014), Sustainable Communities Act (2007), Meeting the Energy Challenge (2007), The Climate Change Act (2008), The Future of

Key Messages	Policies, Plans and Programmes
encouraging use of rail and waterways.	Transport White Paper (2004), The London Plan (2016) , The Mayor's Waste Management Strategy (2011), North London Joint Waste Strategy (2008), The Mayor's Air Quality Strategy (2010), Borough Transport Strategies, London Environment Stratefy (2018).
Material Assets • Prevent/reduce waste and recognise waste as a resource. • Promote employment opportunities and seek to reduce deprivation.	The NPPF (updated July 2018), Local Plan Core Strategies and Development Policies documents, Sustainable Community Strategies.
Cultural Heritage • Protect the historic environment from inappropriate development.	Planning (Listed Buildings and Conservation Areas) Act (1990), Ancient Monuments and Archaeological Areas Act (1979), The Governments Statement on the Historic Environment for England (2010), National Heritage Protection Plan, NPPF (updated July 2018), London Plan (2016), Local Plan Core Strategies and Development Policies documents.
Landscape • Protect and enhance landscape character, improve local environmental quality and protect the environment. • Maintain access to the countryside. • Recognise the value of landscapes and townscapes.	European Landscape Convention (2000), Natural Environment and Rural Communities Act (2006), NPPF (updated July 2018), The Natural Choice (2011), London Plan (2016), Local Plan Core Strategies and Development Policies documents.
Waste • Provide facilities for the treatment of waste. • Recognise the need for sustainable waste management practices and, in particular, the need to reduce waste production. • Manage waste in accordance with the Waste Hierarchy. • Continue to reduce reliance on landfill. • Increase self-sufficiency in terms of dealing with waste.	The Waste Framework Directive (2008/98/EC), Landfill Directive (99/31/EC), Packaging Waste Directive (2005/20/EC), Incineration of Wastes Directive (2000/76/EC), WEEE Directive (2002/96/EC), Waste Management Plan for England (2013), Government Review of Waste Policy in England (2011), Waste (England and Wales) Regulations 2011, Landfill (England and Wales) Regulations 2002, Hazardous Waste Regulations 2005, Waste Incineration (England and Wales) Regulations 2002, Household Waste Recycling Act 2003, , Updated national waste planning policy, Industrial Emissions Directive 2011, London Plan (2016), London's Wasted Resource: The Mayor's Municipal Waste Management Strategy (2011), Making Business Sense of Waste: The Mayor's Business Waste Strategy for London (2011), North London Joint Waste Strategy (2009), Local Plan Core Strategies and Development Policies documents, London Environment Strategy (2018).

2.2 Overview of the Sustainability Baseline and Key Issues

2.2.1 An important step when establishing the appropriate scope of an SA involves reviewing baseline information on the current environmental, social and economic conditions in the Plan area. This helps to enable the identification of those key sustainability issues that the SA should consider and which the Plan can address. Baseline data also provides the information necessary to assist in predicting and monitoring the effects of a plan.

2.2.2 This part of Chapter 2 provides a summary of the current state of the environment, existing environmental problems and the environmental characteristics of the area. The full review of baseline information is provided in the SA Scoping Report which also indicates the sources of the statistics quoted in the section below.

Biodiversity

2.2.3 The North London area includes a number of international, national, and local features of biodiversity interest. Within the NLWP area there is one Ramsar site (Lea Valley) which is also classed as a European Special Protection Area (SPA), one Special Area of Conservation (SAC) (Epping Forest), six Sites of Special Scientific Interest (SSSI), 307 Sites of Importance for Nature Conservation (SINCs) and 21 Local Nature Reserves (LNR).

2.2.4 International and European Designated sites cover large areas in the north east of the North London Plan Area. Nationally and locally designated sites are located throughout the North London area but are mainly concentrated within the west of the area. Development must be sensitive to these sites and should support their enhancement where applicable and practicable.

Population

2.2.5 The North London area is one of the most densely populated areas in the UK. Recent statistics[4] show that the population has risen from 1.6 million in 2012 to more than 2 million in 2017.. This population growth will also increase the amount of waste North London will need to manage in the future, even though the amount of waste generated per person may not increase. The average age in North London is typically below the national average and this is particularly apparent in Islington, Hackney, Haringey and Waltham Forest which all have an average age below the Greater London average. Ethnic diversity is greater across the North London area than for England as a whole.

2.2.6 Hackney, Islington, Haringey, and Waltham Forest are all within the top 20 most deprived areas in the country. The indices of deprivation are based on income; employment; health and disability; education, skills and training; barriers to housing and services; living environment; and crime. Levels of deprivation are particularly acute in relation to barriers to housing and Hackney, Haringey and Waltham Forest are all in the top five most deprived local authorities in England in relation to this domain.

Health

2.2.7 People living in the London Boroughs of Barnet and Enfield have longer average life expectancies for males and females than the national average. All of the other Boroughs have shorter average life expectancies for males than the average for London and England. However, with the exception of Islington and Waltham Forest, five of the Boroughs have higher average life expectancies for females than the average for England. In general the statistics for people describing the state of their own health in the North London Boroughs

[4] Office for National Statistics (https://www.ons.gov.uk/)

are comparable with the London and national averages. However, within the inner London Boroughs a slightly greater proportion of people describe their health as 'Very Bad' when compared to national and London averages.

2.2.8 The method of waste processing, storage, transportation and disposal has the potential to impact human health through air, noise and water pollution in the same way as other commercial and industrial activities. However the risk of such impacts can be effectively minimised or eliminated using infrastructure or procedures imposed by planning conditions, environmental permitting and health and safety legislation.

2.2.9 As with other types of material transport, transportation of waste can pose health issues associated with noise and air pollution. The siting of new facilities will need to take into account the available transport links and the proximity of the facility to the source and eventual destination of the materials whether these are still wastes or secondary products. In the North London area, consideration should be given to the utilisation of sustainable transport networks i.e. the River Lee, the Regents Canal and several railway lines that cross the Plan area.

Soil

2.2.10 The land use within the plan area is primarily urban. However, small pockets of land within Enfield and Barnet have been classed by Natural England as either grade 3 or grade 4 quality agricultural land. This is not considered a particularly valuable agricultural resource but implies that waste management in the plan area must consider agricultural waste provisions.

Water Quality and Resources

2.2.11 The River Lee and Lee Navigation are the main rivers/canals within the plan area. There are several other tributaries in the area together with the Grand Union Canal. River quality within the plan area varies considerably but there are a number of water bodies which have been classified as 'poor' by the Environment Agency under the Water Framework Directive.

2.2.12 Per capita water consumption in the Thames region exceeds the national average and the region has one of the lowest average rainfalls in the UK. Groundwater is an important resource in London, accounting for 20% of its drinking water. The Environment Agency has identified several source protection zones within the plan area where specific pollution prevention mechanisms are in place and potentially polluting activities routinely monitored. There are increasing pressures on water resources from an expanding population, increased urbanisation and changing climate.

2.2.13 All of the London Boroughs have some susceptibility to flooding, particularly surface water flooding. Parts of the plan area are also susceptible to fluvial flooding which is greatest along the River Lee and its tributaries. This flood risk will have to be taken into account by the NLWP by preventing inappropriate development in areas at high risk of flooding and directing development away from areas at highest risk.

Air Quality

2.2.14 Air quality within the North London area is poor compared to average national levels and as a reflection the entire Boroughs of Barnet, Camden, Enfield, Hackney, Haringey, Islington and Waltham Forest have been declared as Air Quality Management Areas (AQMAs). These areas are designated due to high levels of nitrogen dioxide (NO2) and particulate matter (PM10) primarily derived from road vehicles.

2.2.15 The NLWP can make a contribution to reducing air quality problems by providing more capacity to manage locally arising wastes within the Plan area thereby reducing waste transport miles and delivering a corresponding reduction in waste-related transport air emissions impacting local air quality generated by the sector. The NLWP can provide a further contribution to reducing air quality problems by encouraging the transport of waste by alternative modes such as rail and canal where this is logistically feasible and economically viable.

2.2.16 The potential health impacts associated with air pollution, arising from siting waste management facilities close to residential and employment areas and other sensitive receptors needs careful evaluation. Appropriate controls administered through the planning and waste licensing processes should be used.

Climate Change

2.2.17 The North London area is likely to be susceptible to the effects of climate change. In particular this includes the effects of increased flooding along the River Lee Valley, decreased water reserves, and increased air pollution through dry sunny weather and increased temperatures due to the 'heat island' effect in the Inner London Boroughs. Climate change projections indicate that by the middle of the century, the average summer day in London is likely to be 2.7°C warmer than the baseline average. By 2050 the average summer is also expected to be 19% drier than the baseline average but the average winter could be 15% wetter.

2.2.18 With the exception of Camden, the Boroughs have lower CO_2 emissions per capita than the national average. The higher level of per capita emissions in Camden is largely a reflection of the comparatively high levels of emissions per capita from non-domestic buildings. In each of the Borough's the per capita CO_2 emissions from road transport is significantly less than the national average. This is particularly apparent in Camden, Hackney, Haringey, Islington and Waltham Forest. Per capita CO_2 emissions from the domestic sector are below the national average in six of the Boroughs but are marginally higher in Barnet.

2.2.19 The NLWP can contribute to climate change mitigation by pursuing and promoting measures such as sustainable transportation and sustainable construction techniques in new waste facilities. While it is recognised that waste management facilities will continue to generate CO_2 emissions, new waste facilities generating energy need to meet the Mayor's Carbon Intensity Floor.

Transport

2.2.20 North London has a well-developed network of roads and railways. Road congestion has however historically been a problem in parts of the plan area. The worst-affected areas are the southern parts of the area where the Congestion Charging Zone has been introduced to encourage a reduction in the number of journeys made by private car. Nevertheless, congestion in the main road network is an issue throughout the Plan area. Car ownership levels in the inner Boroughs are low compared to the national average but average in the outer Boroughs.

2.2.21 There are three main train lines running through the North London area which terminate in Euston, St Pancras, and Kings Cross, all of which are located within the London Borough of Camden. Together with the three main lines, London Overground national rail services also serve the area. North London is also well served by the London Underground and the Crossrail project will result in the creation of a new station within the south of the plan area. In addition, there are two main canals within the study area: the Regents Canal and the River Lee Navigation.

2.2.22 Transport for London is consulting on the route of Crossrail 2, a proposed new railway which would connect the national rail network in Surrey with Hertfordshire running through North London with a preliminary route released in 2015. In light of the 2015 route, some existing waste sites may be impacted, including but not limited to; Mobile Plant S R 008 No27 in Islington, O'Donovan Marketfield Road and Totenham Court Road, Western Road H W R C, all Haringey, Winters Haulage, Oakleigh Road South and G B N Services Ltd both in Barnet. Furthermore, proposed new areas might be affected, in parts of the Lee Valley in particular. Existing and proposed sites and areas may be affected by safeguarding for use as worksites or, due to proximity to a proposed station, come under pressure for redevelopment for other land uses such as housing. Crossrail 2 is expected to be operational by 2030 and route consultations will be ongoing. The impact of Crossrail 2 on the NLWP will be addressed under the monitoring arrangements.

2.2.23 The transportation of waste by road can contribute to congestion and also have secondary impacts on air quality. The distribution of facilities across North London will need to be considered and the NLWP should also aim to maximise the potential for some waste to be transported by alternative modes of travel, such as rail or canal.

Economy

2.2.24 The average gross weekly earnings within each of the North London Boroughs is higher than the average for England and all of the Boroughs have a higher proportion of their working population employed in the top three Standard Occupation Classifications than the national average. However the cost of living in the North London Boroughs is high; residential property prices are considerably higher than the national average and continue to rise at rates that exceed the average for England and Wales. One result of the above average property prices is the low home ownership rate in comparison to the national average. The inner London Boroughs also has a higher average house price than the London average.

2.2.25 With the exception of Barnet, all of the North London Boroughs have higher unemployment rates than the national average. This is particularly prevalent in Hackney, Haringey, Islington and Waltham Forest.

2.2.26 Waste management alone is not likely to play a major role in raising the economic profile of an area but with considered planning, it can contribute. Presence of a recycling or reprocessing facility can provide the impetus for others to invest in new local plant manufacturing products from secondary (reprocessed or recovered) materials generating jobs and wealth creation opportunities.

2.2.27 In particular, facilities can stimulate the local economy by creating markets and providing heat from the waste to the local community and local businesses. The provision of adequate facilities can also reduce the costs of managing waste by decreasing the need for waste to travel outside of the plan area for treatment / disposal.

2.2.28 Individual waste facilities typically employ relatively few staff; however a significant growth in infrastructure which enables the shift of waste treatment away from landfill, provides a potential benefit from cumulative growth in new jobs. In addition, although better technology means that there are likely to be fewer people directly employed within waste management facilities, other opportunities do exist, such as jobs associated with decentralised energy and the use of recycled products. Nevertheless, new facilities should be distributed across the North London area so that they are in close proximity to sources of waste though there may be good reasons to site them close to or alongside facilities reprocessing materials into secondary products as this can help to reduce the distance they travel, reducing potential air quality impacts and greenhouse gas generation.

Cultural Heritage

2.2.29 The North London area has over 14,000 listed buildings, 172 conservation areas, and 30 historic parks and gardens within the North London area. English Heritage identifies that over 140 of these listed buildings, 21 conservation areas and 3 historic parks and gardens are at risk of neglect and damage.

2.2.30 This wealth of heritage assets within the North London area could provide additional constraints on the location of new waste management facilities.

Landscape

2.2.31 There are no Areas of Outstanding Natural Beauty or other statutory landscape protection designations within North London. Practically all of the non-urban land in North London is designated as Green Belt excluding registered parks. The majority of the landscape of the area is defined by the Inner London Countryside Character Area.

2.2.32 Enfield has also identified Areas of Special Character where the Council will seek to preserve and enhance the essential character of the area, including landscape features such as woodlands, streams, designed parklands and enclosed farmland.

2.2.33 These designations can place substantial constraints on the type and scale of development that might occur outside of the urban area.

Waste Management

2.2.34 In order to assess North London's current facilities, capacity and arisings, and future waste management requirements, a Waste Data Study was prepared in July 2014 and updated in July 2015 to inform the Regulation 18 Draft NLWP. A further update in 2018 accompanies this Sustainability Appraisal and the Proposed Submission Plan, the results of which can be seen below.

2.2.35 The Waste Data Study identified that London as a whole produced approximately 22 million tonnes of waste in 2012. 17% (3.7 million tonnes) of this waste was Local Authority Collected Waste (LACW), 34% (7.5 million tonnes) was Commercial and Industrial (C&I) waste, 47% (10.4 million tonnes) was Construction, Demolition and Excavation (CD&E) waste. Overall 57% of waste produced in London is recycled.

2.2.36 Table 4 below shows the amount of waste generated in North London for the main waste streams using the latest data from 2018. Waste arisings vary from year to year and these figures represent a snapshot in time. Figure 1 shows the proportion of each waste stream as a percentage of the total waste in North London[5].

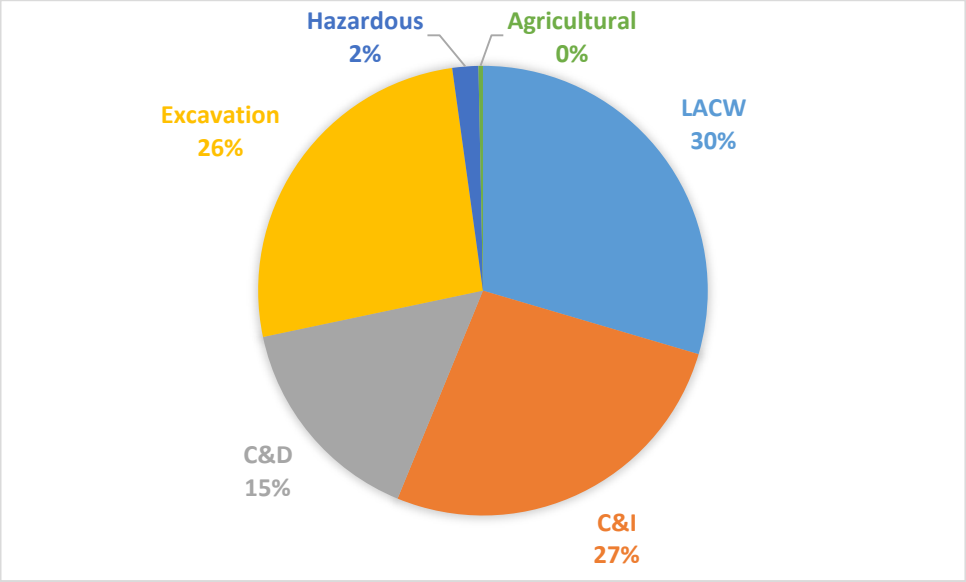
Table 4: Amount of Waste Generated in North London, 2018

Local Authority Collected Waste (LACW)	845,776
Commercial and Industrial Waste (C&I)	762,301
Construction and Demolition Waste (C&D)	443,180
Agricultural Waste	9,223
Hazardous waste	54,420
Excavation Waste	747,242
TOTAL	**2,861,062**

Source: North London Waste Data Study Update 2018

[5] The data is taken from the Waste Data Study (2016)

Figure 1 - Waste arisings in North London 2016



Source: North London Waste Data Study Update 2018

2.2.37 In North London, just over 850,000 tonnes of LACW was collected in 2016/17[6]. Of this, approximately 26% was recycled, reused or composted. Of the remaining LACW, 60% was sent to NLWA's energy-from-waste facility at Edmonton and 12% was sent to landfill outside of North London.

2.2.38 The Waste Data Study has used two methods to identify and project C&I waste. The first is to use data from the Defra C&I Waste Survey 2009 in line with the London Plan to assess the management routes of North London's C&I waste. The second is to use the new method for calculating C&I waste as introduced following the withdrawal of the Defra C&I surveys which uses published data from the EA's WDI. This new method of calculation indicates that 44% of C&I waste is recycled, reused or composted while 33% of this waste stream is sent to landfill and land recovery. A small proportion (6%) of C&I is sent for non thermal treatment with the remainder (17%) sent for thermal treatment with energy recovery. It should be noted that potential reliance on landfill will drop to 10% by 2030 in order to achieve EU statutory targets with recycling and reuse levels increasing to 65%.

2.2.39 Through the London Environment Strategy, the Mayor is seeking to make London a zero waste city with no biodegradable or recyclable waste sent to landfill by 2030 and by aiming to achieve 65% recycling from London's municipal waste, this will be achieved through a 50% recycling rate from LACW by 2025 (Policy 7.2.1) and 75% from business waste by 2030 (policy 7.2.2). The Mayor has also said that he does not want any new energy from waste capacity (policy 7.3.2.b). The Mayor has also indicated that he will use his powers to ensure there are sufficient sites to manage London's waste. The Environment Strategy embraces the ideals of the Circular Economy requiring manufacturers to design products to generate less waste and which can be easily repaired, reused and recycled, and the strategy encourages the development of business to facilitate this.

[6] Figures NLWA Annual Monitoring Report 2016-17

2.2.40 Local planning policies and development industry practice mean a lot of C&D material is managed on site and does not enter the waste stream. A total of 443,180 tonnes of C&D waste and 747,243 tonnes of excavation waste was produced in North London in 2016. The largest proportion of C&D waste arising in North London is managed via recycling (73%) and treatment (20%) facilities, with 7% sent directly to landfill. Recycling rates of C&D waste are high due to the nature and value of the material. Excavation materials are primarily disposed of directly to landfill (53%) with the remainder managed through transfer stations (28%) or sent for treatment (19%). The London Plan includes a target of 95% recycling of CD&E by 2020.

2.2.41 For hazardous a total of 53,421 tonnes was produced in 2016, of this waste 40% was managed at treatment facilities, of which the majority was exported for treatment outside of North London. The next most common method of management was recovery (20%), with a further 16% being managed at landfill. Of the total hazardous waste arisings, 653,240 tonnes (99.3%) was exported out of North London for management. It is not unusual for hazardous waste to travel outside the area to specialist facilities which tend to have a wider catchment area.

2.2.42 A total of 9,223 tonnes of Agricultural waste was produced in 2016, with only 125 tonnes being identified as being managed off site. The majority of agricultural waste arisings are managed within the limited number of farm holdings within the Plan area, with a very small amount managed offsite through commercial waste facilities. As such, the NLWP does not seek to identify sites for additional facilities to manage this waste stream; any facilities which do come forward on farm land would be considered against Policy 3 'Windfall sites'.

2.2.43 The very small amount of Low Level Non-Nuclear Radioactive Waste (LLW) arising in North London, mainly from hospitals, is currently managed outside of the area in specialist facilities. Records of LLW in the sub-region indicate that there are currently 16 sites producing LLW as waste water, with a number of the amounts generated being below the reporting threshold, which is measured in terms of radioactivity.

2.2.44 The main Thames Water sewage treatment facility in North London is Deephams Sewage Treatment Works (STW). This facility serves a Population Equivalent (PE) of 891,000 (as at 2011) and currently treats 209,000 tonnes of sewage that arrives at the works each day, although this can increase to over 1.3 million tonnes during heavy rainfall. Works are planned to upgrade Deephams STW. This proposed upgrade will increase the effluent treatment capacity of the STW so that it is able to serve a PE of 989,000 which will accommodate population growth up until at least 2032. Thames Water is also proposing an upgrade to the sewage sludge treatment stream at Deephams STW which will be sufficient to meet their needs during the plan period.

2.2.45 The current waste infrastructure in North London is dominated by transfer stations and treatment/recycling/composting facilities. However, the waste transfer facilities in North London are increasingly also sorting and recycling material. There are no disposal sites in the

plan area, only one incinerator with energy recovery and nine household waste recycling centres. Over one third of the waste facilities in North London are located in Enfield. Barnet, Haringey and Waltham Forest also have a reasonable number of sites, whereas Camden, Islington and Hackney have very few sites. The only waste management facilities in Camden and Islington are household waste recycling centres. This reflects the nature of boroughs which vary throughout North London with some boroughs better equipped to deliver suitable waste sites than others. The geography of North London influences the spread of waste sites.

2.2.46 The lack of disposal sites and the high number of transfer stations indicate that a significant proportion of North London's waste is being transferred out of the area for disposal. Although, as noted above, the waste transfer facilities in North London are increasingly also sorting and recycling material. Analysis of wastes movements also indicates a substantial quantity of waste arising in other parts of the capital passes through transfer stations in North London raising the quantity of waste that it appears to export.

Data Gaps

2.2.47 During the SA process several data gaps have been identified within the baseline assessment due to the lack of information of suitable quality. The majority of these data gaps relate to waste management information; however, there are also some data gaps within the environmental, social, and economic sections of the baseline report. Examples of specific gaps include:

- Information regarding the general health of the North London population and any at risk groups;
- Detail on the risk of sewer flooding in the North London area; and
- Detail on groundwater provision and the quality of this resource.

2.2.47 In relation to waste, there is more information available for certain waste streams than others. In particular, there is more up-to-date, reliable information available for LACW waste arisings in North London than there is for C&I, CD&E and agricultural waste.

2.2.48 Other specific data gaps include:

- Details of nuisance related to waste management activities across the seven Boroughs;
- Information regarding the amount of energy generated from thermal treatment of waste and information on what this energy is used for;
- Information on the sources of ground contamination;
- Information on the arisings of low-level radioactive waste in North London; and
- Information regarding the transportation of waste, including kilometres travelled and the modes of transport utilised in the North London area.

Future Changes without the Plan

2.2.49 The SEA Regulations not only require the relevant aspects of the current state of the environment to be reported but also state that consideration should be given to the likely evolution of these issues if the Plan is not implemented. The table below lists trends relating to the key sustainability issues in North London and identifies whether there is scope for the Plan to influence these trends.

Table 5: Summary of projected further changes

Projected Trend	Potential Influence of the Plan
Continuation of a fast growing population which is increasing above the national average	The implementation of the Plan is unlikely to affect this issue but any increase in the population is likely to result in an associated growth in waste.
Continuation of high population density	The implementation of the Plan is unlikely to affect this issue.
Five of the seven North London boroughs have shorter average life expectancies for males than the average for London and England. Both Islington and Waltham Forest also have lower average life expectancies for females than the national average.	Apply development management policies to ensure that new waste management development does not have an unacceptable impact on the health and amenity of nearby sensitive receptors.
Average gross weekly earnings are likely to remain above the national average but the high costs of living are likely to continue.	The implementation of the Plan is unlikely to have a significant effect on costs of living. Facilitate, as far as possible, new waste facilities to generate incremental employment gains.
Continuation of high levels of deprivation and unemployment in some areas, particularly in relation to barriers to housing.	Facilitate, as far as possible, new waste facilities to generate incremental employment gains recognising that these are likely to have a limited impact on overall levels of deprivation. The implementation of the Plan is unlikely to affect barriers to housing.
The North London area is likely to be susceptible to the effects of climate change. In particular this includes the effects of increased flooding, increased air pollution through dry sunny weather and increased temperatures.	Require new development to take this into account by, for example, incorporating high standards of insulation and natural ventilation and by reflecting flood risk issues and incorporating infrastructure such as SuDS to mitigate it.
Air quality is poor compared to national levels. The number of days on which recommended levels are exceeded is forecast to decrease but it is not certain that this is a long term trend.	Support improvements to air quality by seeking to bring sources of waste and management facilities as close together as feasible and promote alternative methods of transporting waste.
Continuation of need to reduce greenhouse gas	Support reductions in greenhouse gas emissions

Projected Trend	Potential Influence of the Plan
emissions.	by promoting recycling and the re-use of materials and by reducing 'waste miles' by supporting the provision of sufficient facilities within the Plan area to manage North London's waste.
There are a number of water bodies which have been classified as being 'poor' quality.	Require new development to take this into account by, for example, incorporating SuDS. This would also be covered by individual Borough's Local Plan Policies.
Per capita water consumption continues to exceed the national average.	Apply development management policies so that this issue is addressed for new applications by, for example, requiring new development to be water efficient unless this is already covered by individual borough's policies
Road congestion has historically been a problem in some areas and could continue to be an issue.	Define spatial strategy that brings sources of waste and management facilities as close together as feasible and promote alternative methods of transporting waste.
A significant proportion of North London's waste is being transported out of the area for disposal.	Support the delivery of suitable waste management sites that help achieve net self-sufficiency and reduce the amount of waste that is exported out of the Plan area.
Hazardous waste arisings have decreased significantly but CD&E waste arisings could continue to increase.	Support the delivery of suitable waste management sites that help achieve net self-sufficiency and to help move waste up the Waste Hierarchy.

3 THE SA FRAMEWORK AND METHODOLOGY

3.1 The SA Framework

3.1.1 SA is an objectives-based appraisal in which the potential impacts of a Plan are assessed in relation to a series of objectives that promote sustainable development. The establishment of these objectives is therefore central to the SA process as it provides the methodological yardstick against which the sustainability effects of the Plan can be described and evaluated.

3.1.2 The SA Objectives are established as part of Stage A of the SA process and reflect the key sustainability issues identified through the analysis of the evidence base set out in the SA Scoping Report. Drawing upon the sustainability issues identified through analysis of baseline data and the review of other relevant plans and strategies, the NLWP SA Scoping Report identifies fourteen SA objectives. Criteria for measuring progress against each Sustainability Objective were also developed to assist with the appraisal of the NLWP.

3.1.3 Table 6 identifies the SA Objectives for the NLWP. Each of the Objectives is supported by a series of subsidiary assessment criteria to add further clarity and to assist the assessment process.

Table 6: SA Objectives and Assessment Criteria

SA Objectives		Assessment Criteria
1	To protect people's health, communities and local environmental quality from the adverse effects of waste management.	• Will the plan/proposal have an adverse impact on levels of nuisance including dust, particulate emissions, noise (including traffic noise), vibration, visual amenity and light pollution? • Will it redress environmental inequalities within the plan area?
2	To maintain green infrastructure and open space.	• Will the plan/proposal support the creation of healthier lifestyles through, for example, the provision of new or improved open space? • Will it have an adverse impact on the green infrastructure network? • Will it lead to a loss of open space / reduction in public access?
3	To promote sustainable modes of transport, reduce the need to travel and improve choice and use of more sustainable transport modes.	• Will the plan/proposal reduce overall transport distances for waste? • Will it reduce waste-related car and lorry traffic and increase sustainable transport use? • Will it reduce/increase road congestion?
4	To conserve and enhance the historic environment, heritage assets and their settings.	• Will the plan/proposal have an adverse impact upon heritage assets and/or their setting?
5	To maintain and enhance the quality and character of North London's townscapes and landscapes.	• Will the plan/proposal have an adverse impact on local landscape character or on townscapes? • Will it have an adverse affect on the openness of the Green Belt? • Will it affect areas of public open space? • Will it lead to landscape/townscape improvements? • Will it result in development that is sympathetic to its surroundings?
6	To maintain, protect and enhance biodiversity, protected species, habitats, geodiversity and features of geological interest.	• Will the plan/proposal have an adverse impact upon protected sites or species? • Will it restore or create new habitat? • Will it lead to the loss of, or impact on the integrity of, BAP habitats or species?
7	To reduce and manage flood risk	• Will the plan/proposal help to avoid inappropriate development in areas at risk of flooding? • Will it exacerbate vulnerability to flooding? • Will the plan reduce flood risk through the use of SUDS? • Will the plan involve the reconfiguration of existing sites or development of a flood alleviation scheme?
8	To adapt to, and reduce the impacts of, climate change.	• Will the plan/proposal help to reduce vulnerability to the impacts of climate change?

SA Objectives		Assessment Criteria
9	To reduce contributions to climate change, promote energy efficiency and increase the use of energy from sustainable sources.	• Will the plan/proposal increase emissions of greenhouse gases from waste activities? • Will it reduce emissions of greenhouse gases? • Will it encourage the use and/or production of renewable energy? • Will it reduce waste-related car and lorry traffic and increase sustainable transport use?
10	To protect and improve air quality, water quality and soils.	• Will the plan/proposal have an adverse impact on air quality? • Will it reduce/increase road congestion? • Will the plan/proposal have an adverse impact on surface or ground water quality? • Will it improve existing water quality? • Will the plan/proposal support the remediation of contaminated land? • Will it have an adverse impact on soil quality?
11	To manage waste sustainably, maximise North London's self-sufficiency in the management of waste, minimise the production of waste and increase re-use, recycling and recovery rates.	• Will the plan/proposal minimise the production of waste? • Will it promote sustainable waste management and encourage movement of waste up the Waste Hierarchy?
12	To ensure the efficient use of land and natural resources and the sustainable management of existing resources.	• Will the plan/proposal make use of previous developed land or buildings? • Will it increase demand for water? • Will it incorporate/encourage measures to ensure water is used efficiently?
13	To encourage sustainable economic growth, exploit the growth potential of business sectors and improve the competitiveness and productivity of the local waste industry.	• Will the plan/proposal encourage sustainable economic growth through provision of adequate waste management facilities? • Will the plan/proposal diversify the economy in terms of the waste management sector? • Will it enable new and innovative waste management technologies to be developed and utilised? • Will it enable maximum value recovery from waste where possible? • Will it promote waste minimisation?
14	To reduce economic disparities, unemployment and deprivation.	• Will the plan/proposal support the creation of a broad range of jobs and employment opportunities?

3.2 Compatibility of SA and NLWP Objectives

3.2.1 The SA Objectives are distinct from the Strategic Objectives of the Plan which are focused on specific outcomes relating to the provision of waste management capacity whereas the SA Objectives cover the wider perspective required by SA with respect to the social, economic and environmental impacts of the Plan. The objectives for the draft NLWP are as follows:

Table 7: Strategic Objectives

Objective Number	Objective
1	To support the movement of north London's waste as far up the Waste Hierarchy as practicable, to ensure environmental and economic benefits are maximised by utilising waste as a resource.
2	To ensure there is sufficient suitable land available to meet North London's waste management needs and reduce the movements of waste through safeguarding existing sites and identifying locations for new waste facilities
3	To plan for net self-sufficiency[7] in LACW, C&I, C&D waste streams, including hazardous waste, by providing opportunities to manage as much as practicable of North London's waste within the Plan area taking into account the amounts of waste apportioned to the Boroughs in the London Plan, and the requirements of the North London Waste Authority.
4	To ensure that all waste developments accord to high standards of design and build quality, and that the construction and operation of waste management facilities do not cause unacceptable harm to the amenity of local residents or the environment.
5	To ensure the delivery of sustainable waste development within the plan area through the integration of social, environmental and economic considerations
6	To provide opportunities for North London to contribute to the development of low carbon economy and decentralised energy
7	To support the use of sustainable forms of transport and minimise the impacts of waste movements including on climate change
8	To protect, and where possible enhance, North London's natural environment, biodiversity, cultural and historic environment

3.2.2 A key initial stage of the assessment is to evaluate the extent to which the two sets of Objectives are aligned and to consider whether the objectives of the NLWP are consistent with the principles of sustainable development. This enables conflicts and tensions between the objectives to be identified and necessary additions or amendments to be made. The compatibility of the two sets of objectives is assessed in Table 8.

[7] Net self-sufficiency means providing enough waste management capacity to manage the equivalent of the waste generated in North London, while recognising that some imports and exports will continue.

Table 8: Compatibility of the SA and NLWP Objectives

NLWP Objectives	SA Objectives													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1			?						✓	?	✓	✓	✓	
2	?	?	✓	?	?	?	?	?	✓	✓		✓	✓	✓
3	?	?	✓	?	?	?	?	?	✓	✓		✓	✓	✓
4	✓			✓	✓	✓				✓				
5	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
6	?				?			✓	✓	?	✓	✓	✓	
7	✓		✓						✓	✓		✓		
8		✓		✓	✓	✓					?			

KEY

✓	Compatible	X	Incompatible	?	Unknown / unclear		No link

3.2.3 Table 8 highlights that the majority of the interactions identified between the objectives are positive and, as a result, most of the two sets of objectives are largely considered to be compatible with each other. There were no instances where it was considered that the objectives were potentially incompatible. Nevertheless, there are a number of instances where the relationship between the two sets of objectives is considered to be uncertain. For example, the NLWP objective of ensuring that there are sufficient suitable land available to meet North London's waste management needs would have an uncertain impact on a number of social and environmental SA objectives as it is not certain whether any of these sites may have an impact on, for example, the character of townscapes or green infrastructure. Nevertheless, it is acknowledged that the Plan and the Development Management process should ensure that any such adverse impact is avoided or mitigated. It is also recognised that not identifying sufficient land for waste management facilities also has the potential to have adverse social, environmental and economic implications.

3.3 Approach to the Assessment

3.3.1 The Spatial Strategy and all policies and area allocations in the NLWP have been assessed against the SA Framework. Regulation 12(2) of the SEA Regulations also requires the likely significant effects of implementing reasonable alternatives to be identified, described and evaluated. In accordance with this requirement, reasonable alternatives have also been considered against the SA Framework.

3.3.2 The appraisal process has considered the degree and type of impact on each of these objectives. This has been a qualitative assessment of whether or not the predicted effects on the objective are likely to be significant. A qualitative five point scale set out in Table 9 has been used as the basis for this assessment which ranks the effect from major positive to neutral through to major negative and degrees between. Where the effect is unclear or cannot be assessed a '?' has been used.

Table 9: Criteria for Assessing the Significance of Impacts

Score	Appraisal Category
+ +	Major Positive
+	Positive
0	Neutral
–	Negative
– –	Major Negative
?	Uncertain

3.3.3 The appraisal has also considered the likely timing of any impacts, split by short term (0-5 years), medium term (5-10 years), and long-term (10+ years – or likely to last over the whole of the Plan period). In addition, it has predicted the probability of the impact occurring (high, medium or low); the scale of impact; the permanence of the impact (temporary or permanent); any key secondary, cumulative and/or synergistic impacts; and options for mitigation.

3.3.4 The assessments have adhered to normal procedure for SA/SEA in evaluating the impact of the policy or site without mitigation. Taking mitigation into account at this stage would involve a presumption that appropriate measures will be used when this cannot be guaranteed at present.

3.3.5 Each assessment concludes with a summary section reviewing the overall findings and proposing mitigation measures.

3.4 Data Limitations / Technical Difficulties

3.4.1 The SEA Directive requires the identification of any difficulties encountered; these may include technical deficiencies or lack of knowledge.

3.4.2 Certain strategic policies in the draft NLWP have no spatial expression. As a result, during the appraisal of the draft NLWP, there were a number of instances where it was difficult to reach a judgement on the likely effect of a particular policy due to there being a lack of information on how and where actions would be carried out.

3.4.3 When assessing area allocations it was difficult to predict impacts on certain objectives as this will depend on the type of waste management facility that is delivered as, for example, the degree of impact on dust and traffic levels would depend on the type of facility. Similarly, the degree to which a facility will move management of material up the Waste Hierarchy would also vary depending on the type of facility. A number of the proposed area allocations are quite large. As a result, a common difficulty encountered was that it is difficult to predict the impact of directing waste management facilities to these locations without knowing

whereabouts in the area the development would take place. This was a particular issue when appraising areas which, for example, only adjoined residential properties on one boundary which made it difficult to predict whether waste management development would take place in close proximity to a sensitive receptor.

3.4.4 A number of data limitations were also encountered during the process. For instance, limited information is available on sewer and groundwater flooding. Consequently, when assessing areas against the objective that relates to reducing flood risk there was a need to focus on flooding from fluvial, tidal and surface water sources.

4. APPRAISAL OF THE DRAFT NLWP

4.1 Introduction

4.1.1 This section provides a summary of the results of the SA of the draft NLWP. The first part of this chapter provides an overview and assessment of the principal options that were evaluated as part of the preparation of the NLWP.

4.1.2 The second part of the chapter documents the results of the SA of the draft NLWP. It includes a summary of the appraisal of the Spatial Strategy, policies and area allocations contained within the plan against the fourteen sustainability objectives identified in the SA Scoping Report and their associated evaluation criteria. The full details of the assessments are provided in the accompanying Sustainability Appraisal Report Appendices.

4.2 Assessing Alternatives

4.2.2 Regulation 12(2) of the SEA Regulations requires the likely significant effects of implementing reasonable alternatives to be identified, described and evaluated. In accordance with this requirement, this section provides an overview of how reasonable alternatives have been considered during the SA Process.

Strategic Approach

4.2.3 A series of options were considered when determining the strategic approach that the NLWP would take to waste management in North London. These relate to how much waste will be generated over the plan period (growth assumptions), how much waste can be managed within North London (capacity strategy), and how this waste should be managed (management strategy). An Options Appraisal Report (2018) has been prepared which considered different scenarios around how much waste will be generated over the plan period (economic and population growth assumptions), how much waste can be managed within North London (capacity strategy, and how this waste should be managed (management strategy). The Options are set out in more detail in an Options Appraisal Report[8] and are assessed in relation to SA below.

Growth assumptions: How much waste will be generated in North London up to 2035?

4.2.4 The Waste Data Study[9] considered a number of population and economic growth scenarios to identify the likely future waste management requirements over the NLWP plan period to 2032. The modelling exercise looked at a range of different growth rates representing objectives set within Mayoral strategies, including the London Plan (March 2016), as well as those set nationally. The three growth scenarios represent different population and economic factors that will affect the quantity of waste generated from households, businesses and services. The following growth assumption options were considered:

- Option A: No Growth

[8] North London Waste Plan: Options Appraisal for the Draft Plan (2015)
[9] North London Waste Plan: Waste Data Study – Part 1: Waste Arisings in North London (2016)

- Option B: Growth
- Option C: Minimised Growth

4.2.5 All the evidence and projections anticipate substantial population and economic growth in London over the next few decades. As a result, planning for no growth (Option A) or minimised growth (Option C) were not considered to be appropriate strategies as they do not represent the most credible estimate of growth in North London over the plan period and would result in a risk of there being an under-provision of capacity for waste needs in North London over the next fifteen years. By contrast, Option B is closely aligned with the Greater London Authority's modelling which has been independently tested through the Local Plan Examination process. The SEA Regulations only require an assessment to be made of the environmental effects of implementing 'reasonable' alternatives. Consequently, given that Options A and C are not considered to be realistic, it is considered that they do not constitute reasonable alternatives for the purpose of the SEA Regulations.

Capacity options: how much of North London's waste can be managed within North London?

4.2.5 The NLWP is required to plan for seven waste streams, in accordance with EU and national policy: local authority collected waste (LACW); commercial and Industrial (C&I) waste; construction, demolition and excavation (CD&E) waste, low level radioactive waste, agricultural waste and excavation waste. In so doing, it must meet apportionment targets for LACW and C&I waste by 2026 as set out in the London Plan. In North London, just over 850,000 tonnes of LACW was collected in 2016/17[10]. Of this, approximately 26% was recycled, reused or composted. Of the remaining LACW, 60% was sent to NLWA's energy-from-waste facility at Edmonton and 12% was sent to landfill outside of North London. Recycling rates of 32% are lower than the national average of 44% but higher than the national average of 30%. As noted in the Waste Data Study, low level radioactive waste and agricultural waste do not require additional facilities during the plan period and Thames Water anticipates that the upgrade to its existing Deephams facility will be sufficient to manage wastewater effluent during the plan period. It is also anticipated that further upgrades can be contained within the Deephams site. This leaves LACW, C&I and CD&E waste streams to plan for in the NLWP. Hazardous waste is a sub category of all waste streams, and is also considered in the NLWP. The following capacity strategy options were considered when preparing the draft NLWP:

1. Meeting the London Plan apportionment (managing approximately 85% of LACW and C&I waste generated in North London)
2. Net self-sufficiency[11] for LACW and C&I waste streams (managing the equivalent of 100% of LACW and C&I waste generated in North London)
3. Net self-sufficiency for LACW, C&I and CD&E waste streams (managing the equivalent of 100% of LACW, C&I and C&D waste generated in North London)
4. Complete self-sufficiency (managing every tonne of locally created waste within North London).

[10] Figures NLWA Annual Monitoring Report 2016-17

[11] Net self-sufficiency means providing enough waste management capacity to manage the equivalent of the waste generated in North London, whilst recognising that some imports and exports will continue.

4.2.6 The draft NLWP has been based on Option 3 as this is considered to be the most appropriate capacity strategy. Options 1 and 2 are not considered to be appropriate strategies and the NLWP would not be in compliance with EU and national policy on planning for all main waste streams. Options 1 and 2 would also result in the NLWP not planning to meet as much of its waste as possible and would therefore increase reliance on facilities outside of the Plan area which could draw objections from neighbouring authorities who have highlighted a need for London boroughs to reduce exports. By contrast, Option 3 would demonstrate to neighbouring authorities outside London that North London intends to manage as much of its own waste as possible and reduce exports. There are also concerns that Option 4 is undeliverable given that the achievement of complete self-sufficiency is unlikely to be achieved due to physical constraints, the requirement to meet specialised waste management needs and the workings of the waste industry which mean that the patterns of management and movement of C&I and CD&E wastes are subject to commercial decisions and contracts over which local waste planning authorities have no direct control. Each of the options have however been appraised. A summary of the conclusions of the appraisal of the options is provided in Table 10. Full details of the assessment are provided in Appendix 1.

Table 10: Summary of the Appraisal of the Capacity Strategy Options

Option	SA Objective													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Option 1	–	?	+	?	?	?	?	?	+	?	+	+	+	+
Option 2	–	?	+	?	?	?	?	?	+	?	+	+	+	+
Option 3	–	?	++	?	?	?	?	?	++	+	++	+	+	+
Option 4	–	?	++	?	?	?	?	?	++	+	++	+	+	+

4.2.7 As Table 10 demonstrates, although each of the capacity strategy options has the potential to have a positive impact on a number of sustainability objectives, there are a number of instances where Options 3 and 4 could have a more significant positive impact on the objectives. In particular, by providing enough waste management capacity to manage at least the equivalent of the waste generated in North London, Options 3 and 4 have the potential to have a more significant positive impact on the objectives that relate to maximising self-sufficiency in the management of waste, reducing contributions to climate change and reducing the need to travel. Options 3 and 4 could also have a positive impact on the objective of protecting and improving air, water and soil quality. All four of the options would however have a positive impact on the objectives that relate to ensuring the efficient use of natural resources, encouraging sustainable economic growth and reducing unemployment.

4.2.8 However, without the implementation of appropriate mitigation measures, each option has the potential to have some negative impact on the objective that relates to amenity as, due the nature of the urban area in North London, each option is likely to result in waste management facilities being directed to locations that are in proximity to sensitive receptors. Each option would have an uncertain impact on the remaining objectives.

Management options: how waste will be managed in North London

4.2.9 The North London Boroughs have statutory duties to meet targets and the NLWP will need to be ambitious in order to achieve European Union, national, regional and local targets. In developing the draft NLWP the following three potential recycling / recovery options were considered:

I. Baseline (current levels of recycling/recovery)
II. Maximised recycling
III. Maximised recovery / median recycling

4.2.10 The draft NLWP has been based on Option II as it is considered that this approach aligns with European, national, regional and local targets. It also means that more waste will be managed further up the Waste Hierarchy and is more consistent with the aims of the NLWP. By contrast, it was considered that Option I would not provide the necessary impetus for change needed to reduce landfill, increase recycling and manage waste higher up the hierarchy. Option III was discounted as it would not meet the Mayor's timescales for recycling. Both Options I and III were also considered to not be in line with EU, national, regional and local targets on recycling within the 2020 timeframe. Each of the management strategy options have however been appraised. A summary of the conclusions of the appraisal of the options is provided in Table 11. Full details of the assessment are provided in Appendix 1.

Table 11: Summary of the Appraisal of the Management Strategy Options

Option	SA Objective													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Option I	–	?	–	?	?	?	?	?	–	–	?	?	?	0
Option II	–	?	+	?	?	?	?	?	++	+	++	++	++	+
Option III	–	?	+	?	?	?	?	?	++	+	+	+	+	+

4.2.11 As Table 11 demonstrates, although each of the management strategy options would have an uncertain impact on the majority of the sustainability objectives, there are clear differences in the performance of the options in some aspects of the SA process. In particular, Options II and III have the potential to have a positive impact on the greatest number of objectives. Specifically, Option II could have a major positive effect on the objectives that relate to managing waste sustainably, improving the productivity of the waste industry, ensuring the efficient use of resources and reducing contributions to climate change. Option III could also have a positive impact on each of these objectives and both options could also have some positive impact on the objectives that relate to minimising the need to travel and reducing economic disparities. By contrast Option I would have a negative, uncertain or neutral impact on each of these objectives.

4.2.12 However, without the implementation of appropriate mitigation measures, each option has the potential to have a negative impact on the objective that relates to amenity as, due the nature of the urban area in North London, each option is likely to result in waste management facilities being directed to locations that are in proximity to sensitive receptors. Each option would have an uncertain impact on the remaining objectives.

Sites and Areas

4.2.13 An extensive site search and selection process was undertaken as part of the preparation of the plan. This included a survey of existing waste sites, call for sites exercises and a desk based land availability search using GIS.

4.2.14 Following the compilation of this process, a long list of sites was produced. This list of sites was subsequently refined by assessing each of the sites against a series of criteria which were split into two levels: absolute criteria and screening criteria.

4.2.15 The aim of using the criteria was to apply a level of judgement to the process to ensure that those sites/areas which are wholly unsuitable are excluded from further consideration and to identify those which may be suitable. Accordingly, those sites which were affected by absolute criteria, such as those that were within sites of international or national importance for nature conservation or which contain Scheduled Ancient Monuments and grade I or grade II* Listed Buildings, were excluded from the process. The screening criteria were then applied to all land left after this process. The aim of using the screening criteria was to apply a level of judgement to ensure that those sites/areas which are wholly unsuitable are excluded from further consideration and to identify those which may be suitable.

4.2.16 Given that these sites are considered to be unacceptable for waste management development, they are not considered to constitute reasonable alternatives within the context of the SEA Regulations. As such, these discounted sites have not been assessed in this report.

4.2.17 The revised list was subsequently refined by eliminating sites which were not considered to be realistic or deliverable because they had an application for another use coming forward, or where the landowner had indicated that the site was not available for waste management development unless the site already has permission for a waste use. These discounted sites are also not considered to be reasonable alternatives for the purpose of SEA Regulations and are not assessed in this report.

4.2.18 The remaining areas have all been proposed for allocation and have therefore been assessed as part of the appraisal of the draft NLWP. A summary of the appraisal of these sites and areas is provided in Section 4.3 below and the full appraisals are contained within Appendices 4.

4.2.19 In preparing this (Proposed Submission) version of the NLWP, and deciding which sites and areas to take forward, the North London Boroughs took into account national and regional policy, the aims of the NLWP and consultation responses on the Draft Plan, including issues raised around deliverability and other constraints. Further work was undertaken to gather and assess additional information on the proposed sites and areas received during the consultation or as a result of new data being published. The North London Boroughs developed a range of reasonable options for taking forward sites and areas in the Proposed Submission version of the plan. The preferred option was to take forward land designated as industrial land and high-performing (Band B) sites/areas, while achieving a better

geographical spread by reducing the number of sites identified in Enfield. This focus on industrial land and the highest performing areas helps to locate waste facilities away from residential properties, as far as this is possible in an urban area like North London. Further details are set out in Options Appraisal for Sites and Areas to be taken forward in the Proposed Submission NLWP (2018).

4.3 *Assessing the Draft NLWP*

Spatial Framework

4.3.1 The Spatial Framework sets out the physical distribution of key characteristics, including infrastructure, geographical features and planning designations, which will influence the Plan and identifies opportunities and constraints within that framework. A summary of the conclusions of the appraisal of the Spatial Framework contained within the draft NLWP is provided in Table 12. Full details of the assessment are provided in Appendix 2.

Table 12: Summary of the Appraisal of the Spatial Framework

Policy	SA Objective													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Spatial Strategy	+	+	+	+	+	+	+	+	+	+	++	+	+	+

4.3.2 As Table 12 demonstrates, the Spatial Framework has the potential to have a positive impact on a wide range of objectives. In particular, by supporting the provision of a network of waste sites across North London it could have a major positive impact on the objective of managing waste sustainably and some positive effect on the objectives that relate to encouraging sustainable economic growth and reducing economic disparities.

4.3.3 The Spatial Framework seeks to protect amenity by directing waste management development to the most suitable sites/areas taking into account environmental and physical constraints. As a result, the Strategy also has the potential to have a positive impact on the objectives that relate to health and amenity; green infrastructure; heritage; landscapes and townscapes; biodiversity; flood risk; adapting to climate change; and protecting air, water and soil quality.

4.3.4 One of the key principles of the Spatial Framework is to direct waste management facilities to locations where there are potential opportunities to better utilise sustainable modes of transport such as rail and waterways. It also seeks to secure a wider distribution of waste facilities, reduce waste exports and increase the amount of waste managed in proximity to its source, which could help minimise the distance that waste needs to be transported in order to be managed. The strategy could therefore have a positive impact on the objective that relates to sustainable transport and reducing the need to travel. This element of the Spatial Strategy, together with the promotion of opportunities for decentralised heat and energy networks, should also ensure that the Strategy has a positive effect on the objective of reducing climate change contributions.

Policies

4.3.5 The draft NLWP contains a series of policies against which planning applications for waste development will be determined. These policies provide the mechanism through which the aims and objectives, waste management strategy and spatial strategy will be delivered. A summary of the conclusions of the appraisal of the policies contained within the draft NLWP is provided in Tables 13 and 14. Full details of the assessment are provided in Appendix 3.

Table 13: Summary of the Appraisal of the Policies

Policy	SA Objective													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Existing Waste Management Sites	?	0	+	0	0	0	0	0	+	0	+	+	+	0
2. Locations for new waste management facilities	+	+	+	+	+	+	+	+	+	+	++	++	+	+
3. Windfall Sites	+	+	+	+	+	+	+	+	+	+	++	+	+	+
4. Re-use & Recycling Centres	0	0	+	0	0	0	0	0	+	0	++	++	+	0
5. Assessment Criteria for waste management facilities and related development	+	+	+	+	+	+	+	+	+	+	0	?	0	+
6. Energy recovery & decentralised energy	0	0	0	0	0	0	0	0	++	-	+	++	+	0
7. Waste Water Treatment Works and Sewage Plant	?	?	0	+	?	+	0	0	+	0	+	+	+	0
8. Control of inert waste	?	0	-	+	+	+	0	0	+	?	+	+	+	0

4.3.6 As Table 13 demonstrates, the policies within the draft NLWP would largely have a positive impact on the sustainability objectives. In particular, many of the policies would have a major positive effect on the objective of managing waste sustainability, maximising self-sufficiency in the management of waste, minimising the production of waste and increasing re-use, recycling and recovery rates. Policies , 2, 4 and 6 could also have a major positive impact on the objective that relates to ensuring the efficient use of land and resources.

4.3.7 Policies 2, 3, 5, 7 and 8 include measures to ensure that new waste management facilities do not have an unacceptable impact on a wide range of social and environmental considerations. As a result, these policies could support a particularly wide range of objectives, including those which relate to protecting health and amenity; maintaining green infrastructure; conserving the historic environment; protecting biodiversity; maintaining townscapes and landscapes and reducing flood risk. By supporting the creation of new employment opportunities, policies 2 and 3 could also have a positive impact on the objective of reducing unemployment and deprivation.

4.3.8 There are a number of instances where the impact of a policy on particular objectives is uncertain. For instance, the impact of Policy 1 on the objective that relates to health and amenity is uncertain as it may result in the safeguarding of existing sites which already have some adverse impact on amenity..

4.3.9 Depending on the nature of the facility proposed, energy recovery can lead to emissions which impact on air quality. As a result, Policy 6 has the potential to have a negative impact

on the objective that relates to protecting air quality. Nevertheless, it is acknowledged that other policies in the Plan and stringent emission standards should mean that the incorporation of measures to minimise greenhouse gas emissions and maximise the use of lower-carbon energy sources / generation does not have unacceptable impact on air quality.

Table 14: Conclusions from the Appraisal of the Policies

1. Existing Waste Management Sites By helping to ensure that there are sufficient waste management facilities to manage North London's waste, the policy has the potential to have a positive impact on the objective of managing waste sustainability, maximising self-sufficiency in the management of waste, minimising the production of waste and increasing re-use, recycling and recovery rates. It is however recognised that the policy may safeguard sites which accommodate facilities that do not manage waste at the optimal level in the Waste Hierarchy. The policy also has the potential to have a positive effect on the objectives that relate to sustainable transport and mitigating climate change by reducing the need for waste to be transported outside of the Plan area. However, there is a low level of certainty of this impact as the source of waste arisings is unknown and may originate from outside the plan area. The policy could also have a positive effect on the objective of ensuring the efficient use of land and the sustainable use of existing resources by reducing the likelihood of new sites needing to be identified to manage North London's waste. It is unlikely to have a negative impact on any of the objectives but the impact on the objective that relates to health and amenity is uncertain as the policy may result in the safeguarding of existing sites which already have some adverse impact on amenity. It is however recognised that in such instances it may be the nature of the facility rather than the site itself which is causing amenity problems. In addition, the release of these sites may cause capacity management problems for the plan area. As such, no mitigation measures are suggested to address this.
2.. Locations for new waste management facilities The policy has the potential to have a positive impact on a wide range of objectives. In particular, by requiring waste management development in these areas to result in the highest practicable level of recycling and recovery of materials, the policy has the potential to have a major positive effect on the objectives that relate to managing waste sustainably and ensuring the efficient and sustainable use of resources. By specifying that applications for waste management development in these areas will be required to be in line with the aims and policies of the NLWP, the London Plan and relevant Local Plan Policies, the policy should also support the objectives that relate to protecting health and amenity; maintaining green infrastructure; conserving the historic environment; maintaining landscapes and townscapes; protecting biodiversity; reducing flood risk; adapting to climate change; and protecting air, water and soil quality. The development and operation of waste management facilities in the identified areas would create employment opportunities which could therefore also have a positive effect on the objective of reducing unemployment and economic disparities. In addition, by reducing the need for waste to be transported outside of the plan area and by providing scope for the co-location of waste management facilities in close proximity to one another, the policy has the potential to reduce waste miles and have a positive impact on the objective that relates to reducing the need to travel. It is envisaged that the policy would not have an uncertain or negative impact on any of the objectives.
3. Windfall Sites This policy provides a series of criteria for assessing applications for waste management

development on sites/areas that have not been identified for this use by the NLWP. It therefore provides a mechanism to help ensure that there are sufficient sites to manage waste within North London and states that these proposals will need to fit within the spatial strategy and contribute to the delivery of the NLWP aims and objectives. Moving waste up the Waste Hierarchy is a key aspect of the NLWP spatial strategy, aims and objectives. As a result, the policy has the potential to have a major positive impact on the objective that relates to managing waste sustainably. The requirement for waste management facilities on unallocated sites to fit within the spatial strategy and be in a location consistent with the site assessment criteria should also ensure that the policy supports the objectives that relate to protecting health and amenity; maintaining green infrastructure; sustainable transport; conserving built heritage; maintaining landscape and townscape character; protecting biodiversity; reducing flood risk; and adapting to climate change.

The policy also has the potential to have a positive effect on the economic objectives that relate to encouraging sustainable economic growth and reducing unemployment. It also provides flexibility in supporting development at locations which may become more suitable for waste use in the future provided other criteria preventing adverse impacts can be satisfied. The policy would not have a negative or uncertain impact on any of the objectives.

4. Re-use & Recycling Centres

This policy promotes the provision of re-use and recycling centres across the Plan area. By seeking to improve the coverage of these facilities the policy has the potential to improve recycling and recovery rates. It could therefore have a major positive effect on the objectives that relate to sustainable waste management and the efficient use of existing resources. Other objectives that the policy has the potential to have a positive impact on are those which relate to reducing unemployment; encouraging sustainable economic growth; mitigating climate change; and reducing the need to travel.

5. Assessment Criteria for waste management facilities and related development

The policy contains a range of criteria for assessing proposals for waste management facilities and related development. The policy will help minimise the impact of waste management development in North London and will help ensure that it does not result in unacceptable social or environmental impacts. As a result, the policy could support a wide range of objectives, including those which relate to protecting health and amenity; maintaining green infrastructure; sustainable transport; conserving the historic environment; protecting biodiversity; maintaining townscapes and landscapes; reducing flood risk; reducing contributions to climate change; ; and protecting air, water and soil quality and reduction of unemployment and deprivation. The policy does not specifically promote development on previously developed land in preference to greenfield sites. As a result, the extent to which it would impact on the objective that relates to the efficient use of land is uncertain. Consideration should therefore be given to the inclusion of a criteria which gives preference to the use of previously developed land when assessing applications for waste management facilities.

6. Energy Recovery & Decentralised Energy

The policy promotes measures to minimise greenhouse gas emissions and to minimise the use of non-renewable energy and requires waste developments to maximise the use of lower-carbon energy sources/generation. As a result, the policy has the potential to have a significant positive impact on the objective or reducing climate change contributions, promoting energy efficiency and increasing the use of energy from sustainable sources. In addition, by supporting efforts to reduce the consumption of resources for energy generation, the policy could also have a major positive effect on the objective that relates to the efficient and sustainable use of natural resources.

The policy could also have a positive impact on the objectives that relate to encouraging sustainable economic growth, value recovery, and managing waste sustainably, although the level

of certainty that the policy would have a positive impact on the latter objective is not high as the policy promotes the management of waste by recovery which is not as high up the Waste Hierarchy as reusing or recycling.

Depending on the nature of the facility proposed, energy recovery can lead to emissions which impact on air quality. As a result, the policy does have the potential to have a negative impact on the objective that relates to protecting air quality. Nevertheless, it is acknowledged that other policies in the Plan and stringent emission standards should mean that the incorporation of measures to minimise greenhouse gas emissions and maximise the use of lower-carbon energy sources / generation does not have unacceptable impact on air quality.

7. Waste Water Treatment Works and Sewage Plant

This policy outlines the requirements for the provision of new facilities for the management, treatment and disposal of wastewater and sewage sludge. It emphasises that existing waste facilities, such as Deephams, are favoured and the relevant plans and standards should be adhered to.

By encouraging the use of existing facilities, the policy has the potential to have a positive impact on the objective of managing waste sustainably and maximising self-sufficiency in the management of waste. Moreover, it is expected that with the planned Thames Tideway Tunnel, pressure for further expansion of local Waste Water Treatment Works will be relieved. The policy also has the potential to have a positive effect on the objectives that relate to sustainable transport and mitigating climate change by reducing the need for waste to be transported outside of the Plan area. However, there is a low level of certainty of this impact as the source of waste arisings is unknown and may originate from outside the plan area. The policy could also have a positive effect on the objective of ensuring the efficient use of land and the sustainable use of existing resources by reducing the likelihood of new sites needing to be identified to manage North London's waste.

It is unlikely to have a negative impact on any of the objectives, but the impact on the objective relating to health and amenity is uncertain as the policy may result in the safeguarding of existing sites which already have some adverse impact on amenity. It is however recognised that in such instances it may be the nature of the facility rather than the site itself which is causing amenity problems. In addition, the release of these sites may cause capacity management problems for the plan area. As such, no mitigation measures are suggested to address this.

8. Control of inert waste

This policy outlines the criteria for proposals using inert waste. Where such criteria are met, all proposals should be compatible with the surrounding environment and include high quality restoration and aftercare of the site. In this there will be wider opportunities for enhancing the overall quality of the environment, including biodiversity enhancement, geological conservation and increased public accessibility.

There are benefits of using inert waste for restoration projects rather than disposing of at inert landfill sites. Moreover, increased use of recycled and secondary aggregates can reduce the need and demand for primary aggregates extraction. It is noted, however, that there may be disturbances to the local community and environment through the movement of HGVs. In such cases, proposals should incorporate wider benefits for the wider area, for example, through environmental improvement or the creation of new public rights of way.

Strategy Policy

4.3.10 The policy outlines a long term strategy for managing 100% of waste arisings within the plan area by identifying land with capacity for waste facilities, facilitating the movement of waste up the waste hierarchy and co-operation with waste receiving authorities until 2035. A summary of the conclusions of the appraisal of the Strategy Policy contained within the draft NLWP is provided in Table 15. Full details of the assessment are provided in Appendix 4.

Table 15: Summary of the Appraisal of the Strategy Policy

Policy	SA Objective													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Strategy Policy	+	-	?	?	?	?	?	0	0	-	++	-	+	+

4.3.11 As Table 15 demonstrates, the Spatial Strategy has the potential to have a positive impact on a some of objectives. In particular, it could have a major positive impact on the objective of managing waste sustainably by an increase in re-use, recycling and recovering waste across new and existing sites. It also directly promotes the movement of waste up the Waste Hierarchy.

4.3.12 One of the key principles of the Spatial Strategy is to direct waste management facilities to locations in close proximity to its source, which could help minimise the distance that waste needs to be transported in order to be managed. This could therefore have a positive impact on the objective that relates to reducing the need to travel. The Strategy Policy also seeks to develop new and existing sites could provide opportunities to encourage local economic growth and enable innovation.

4.3.13 The Strategy Policy seeks to direct waste management development to the existing and new sites taking into account environmental and physical constraints. As a result, the Strategy may have the potential to have a positive impact on the objectives that relate to health and amenity; green infrastructure; heritage; landscapes and townscapes; biodiversity; flood risk; adapting to climate change; and protecting air, water and soil quality. However the impact will need to be assessed on a site by site basis against each of these objectives and without this information the overall impact is unknown.

Area Allocations

4.3.15 Policy 2 of the draft NLWP identifies a series of areas that are suitable for waste management development. Each of these areas has been appraised individually. A summary of the conclusions of the appraisal of these areas is provided in Tables 16 and 17. Full details of the assessment are provided in Appendix 5.

Table 16: Summary of the Appraisal of the Area Allocations

Area Ref.	Area Name	SA Objective													
		1	2	3	4	5	6	7	8	9	10	11	12	13	14
A02-BA	Oakleigh Road	–	–	?	0	?	?	+	–	?	?	+	+	+	?
A03-BA	Brunswick Industrial Park	–	0	?	0	0	?	?	?	?	–	+	+	+	?
A04-BA	Mill Hill Industrial Estate	–	0	?	0	0	?	?	?	?	?	+	+	+	?
A05-BA	Connaught Business	–	0	?	0	0	–	- -	- -	?	–	+	+	+	?
A12-EN	Eley's Estate	?	0	?	0	0	–	- -	- -	+	–	+	+	+	?
A15-HC	Millfields LSIS	–	0	?	–	0	?	+	0	?	–	+	+	+	?
A19-HR	Brentwood Road	?	0	?	0	0	?	–	–	+	–	+	+	+	?
A21-HR	North East Tottenham	?	0	?	0	0	–	–	–	+	–	+	+	+	?
A22-HR	Friern Barnet/Pinkham	–	–	?	0	–	–	?	–	?	+	+	?	+	+
A24-WF	Argall Avenue	–	0	?	0	0	–	- -	- -	+	–	+	+	+	?
LLDC1-HC	Bartrip Street LSIS	–	0	?	–	0	?	–	–	+	–	+	+	+	?
LLDC2-HC	Palace Close SIL	–	0	?	–	0	?	–	–	+	?	+	+	+	?
LLDC3-WF	Temple Mill Lane	–	0	?	0	0	?	- -	- -	?	?	+	+	+	?

4.3.15 As Table 16 demonstrates, each of the proposed area allocations could have a positive impact on a number of objectives. In particular, each of the allocations would support the objective of managing waste sustainably, maximising self-sufficiency in the management of waste, minimising the production of waste and increasing re-use, recycling and recovery rates. The degree of impact on this objective would however depend on the nature of the waste management facility. The overwhelming majority of the proposed allocations would also have a positive effect on the objectives that relates to encouraging sustainable economic growth and ensuring the efficient use of land and resources. A significant proportion of the allocations are also considered to have the potential to have a positive impact on the objective of reducing contributions to climate change.

4.3.16 Very few of the proposed allocations have the potential to have a significant impact on the objective of conserving the historic environment. In addition, as many of the proposed allocations are existing industrial estates, directing waste management development to these locations is unlikely to have a significant impact on the quality and character of landscapes and townscapes.

4.3.17 The majority of the proposed allocations do however have the potential to have some negative impact on the objective that relates to health and amenity due to their proximity to sensitive receptors. Several of the allocations are also at risk of flooding. In particular, areas A05-BA, A12-EN and A24-WF are wholly or partially at a high risk of flooding. As such, directing waste management development to these locations has the potential to have a particularly significant negative impact on the objectives of reducing flood risk and adapting to climate change. A significant number of the allocations are also considered to have the potential to have some negative effect on the objective of protecting and improving air, water and soil quality.

Table 17 Conclusions from the Appraisal of Area Allocations

A02-BA: Oakleigh Road
The proposed allocation has the potential to have a positive impact on a number of sustainability objectives. In particular, the development of a waste management facility in this location would help

move waste up the Waste Hierarchy and help ensure that there are sufficient facilities to meet the Waste Plan's capacity needs. It would also encourage local economic growth and support the use of previously developed land. The allocation therefore has the potential to have a positive effect on the objectives that relate to managing waste sustainably, encouraging sustainable economic growth and ensuring the efficient use of land and resources. It would also result in development being directed to areas at a low risk of flooding and could therefore have a positive impact on the objective of reducing flood risk.

The proximity to sensitive receptors does however mean that there is the potential for a facility in this area to have a negative impact on the objective that relates to amenity. Enforcing appropriate controls through planning conditions and environmental permitting are therefore likely to be key mitigation measures. Depending on which part of the area is developed, directing waste management development to this location could result in the loss of green infrastructure features and have a negative effect on the objectives that relate to green infrastructure and adapting to climate change. Incorporating appropriate boundary treatments / landscaping are likely to be important mitigation measures. The proposed allocation would have an uncertain impact on the objectives that relate to sustainable transport, townscape character, flood risk, climate change, reducing unemployment and protecting air, water and soil quality.

A03-BA: Brunswick Industrial Park

The proposed allocation has the potential to have a positive impact on a number of sustainability objectives. In particular, the development of a waste management facility in this location would help move waste up the Waste Hierarchy and help ensure that there are sufficient facilities to meet the Waste Plan's capacity needs. It would also encourage local economic growth and support the use of previously developed land. The allocation therefore has the potential to have a positive effect on the objectives that relate to managing waste sustainably, encouraging sustainable economic growth and ensuring the efficient use of land and resources.

The proximity to sensitive receptors does however mean that there is the potential for a facility in this area to have a negative impact on the objective that relates to amenity. There could also be a negative impact on the objective of protecting air, water and soil quality. The extent of impact on this objective would be dependent on the nature of the proposed waste management facility but the use of measures such as negative air pressure and rapid-closure doors on any enclosed facility could help mitigate impacts. The proposed allocation would have an uncertain impact on the objectives that relate to sustainable transport, biodiversity, flood risk, climate change and unemployment.

A04-BA: Mill Hill Industrial Estate

The proposed allocation has the potential to have a positive impact on a number of sustainability objectives. In particular, the development of a waste management facility in this location would help move waste up the Waste Hierarchy and help ensure that there are sufficient facilities to meet the Waste Plan's capacity needs. It would also encourage local economic growth and support the use of previously developed land. The allocation therefore has the potential to have a positive effect on the objectives that relate to managing waste sustainably, encouraging sustainable economic growth and ensuring the efficient use of land and resources.

The proximity to sensitive receptors does however mean that there is the potential for a facility in this area to have a negative impact on the objective that relates to amenity. The proposed allocation would have an uncertain impact on several objectives, including those which relate to sustainable transport, biodiversity, flood risk, climate change, unemployment and protecting air, water and soil quality.

A05-BA: Connaught Business Centre

The proposed allocation has the potential to have a positive impact on a number of sustainability

objectives. In particular, the development of a waste management facility in this location would help move waste up the Waste Hierarchy and help ensure that there are sufficient facilities to meet the Waste Plan's capacity needs. It would also encourage local economic growth and support the use of previously developed land. The allocation therefore has the potential to have a positive effect on the objectives that relate to managing waste sustainably, encouraging sustainable economic growth and ensuring the efficient use of land and resources.

The proximity to sensitive receptors does however mean that there is the potential for a facility in this area to have a negative impact on the objective that relates to amenity. Enforcing appropriate controls through planning conditions and environmental permitting are therefore likely to be key mitigation measures. Due to the proximity of the area to a designated SINC, the proposed allocation could have a negative effect on the objective of protecting biodiversity. Undertaking appropriate ecological surveys and implementing appropriate measures to improve the biodiversity value of the site are likely to be important mitigation measures. There could also be a negative impact on the objective of protecting air, water and soil quality. The extent of impact on this objective would be dependent on the nature of the proposed waste management facility but the use of measures such as negative air pressure and rapid-closure doors on any enclosed facility could help mitigate impacts. In addition, as parts of the area are at a medium/high risk of flooding, the proposed allocation would also have a significant negative impact on the objectives that relate to reducing flood risk and adapting to climate change. The completion of a suitable Flood Risk Assessment, application of the Sequential Test and the incorporation of SuDS or other techniques to manage surface water runoff will be key mitigation measures.

The proposed allocation could also have an uncertain impact on the objectives relating to sustainable transport and reducing contributions to climate change.

A12-EN: Eley's Estate

The proposed allocation has the potential to have a positive impact on a number of sustainability objectives. In particular, the development of a waste management facility in this location would help move waste up the Waste Hierarchy and help ensure that there are sufficient facilities to meet the Waste Plan's capacity needs. It would also encourage local economic growth and support the use of previously developed land. The allocation therefore has the potential to have a positive effect on the objectives that relate to managing waste sustainably, encouraging sustainable economic growth and ensuring the efficient use of land and resources. It also has the potential to have some positive impact on the objective of reducing contributions to climate change.

Due to the proximity of the area to a designated SINC, the proposed allocation could have a negative effect on the objective of protecting biodiversity. Undertaking appropriate ecological surveys and implementing appropriate measures to improve the biodiversity value of the site are likely to be important mitigation measures. There could also be a negative impact on the objective of protecting air, water and soil quality. The extent of impact on this objective would be dependent on the nature of the proposed waste management facility but the use of measures such as negative air pressure and rapid-closure doors on any enclosed facility on the site could help mitigate impacts. In addition, as parts of the area are at a medium/high risk of flooding, the proposed allocation would also have a significant negative impact on the objectives that relate to reducing flood risk and adapting to climate change. The completion of a suitable Flood Risk Assessment, application of the Sequential Test and the incorporation of SuDS or other techniques to manage surface water runoff will be key mitigation measures.

The proposed allocation could also have an uncertain impact on the objective relating to sustainable transport. Although parts of the area are in close proximity to sensitive receptors, the impact of the allocation on the objective that relates to health and amenity is considered to be uncertain as given

the size of the area, waste management development could potentially take place in a part of the area that is a significant distance from these residential properties which could avoid impact on amenity.

HAC07: Millfields LSIS

The proposed allocation has the potential to have a positive impact on a number of sustainability objectives. In particular, the development of a waste management facility in this location would help move waste up the Waste Hierarchy and help ensure that there are sufficient facilities to meet the Waste Plan's capacity needs. It would also encourage local economic growth and support the use of previously developed land. The allocation therefore has the potential to have a positive effect on the objectives that relate to managing waste sustainably, encouraging sustainable economic growth and ensuring the efficient use of land and resources. In addition, the proposed allocation also has the potential to have a positive impact on the objective of reducing flood risk as it would result in development being directed to an area that is at a low risk of flooding.

The proximity of the area to sensitive receptors does however mean that there is the potential for a facility in this area to have a negative impact on the objective that relates to amenity. Enforcing appropriate controls through planning conditions and environmental permitting are therefore likely to be key mitigation measures. There could also be a negative impact on the objective of protecting air, water and soil quality. The extent of impact on this objective would be dependent on the nature of the proposed waste management facility but the use of measures such as negative air pressure and rapid-closure doors on any enclosed facility on the site could help mitigate impacts. Due to the proximity of the area to designated heritage assets, waste management development in this location also has the potential to have a negative effect on the objective of conserving the historic environment. A key mitigation measure will be to ensure that appropriate heritage impact assessments are undertaken and that the design of any built facility is sympathetic to the setting of these heritage assets.

The proposed allocation could also have an uncertain impact on the objectives relating to sustainable transport, biodiversity, reducing contributions to climate change and reducing unemployment.

A19-HR: Brantwood Road

The proposed allocation has the potential to have a positive impact on a number of sustainability objectives. In particular, the development of a waste management facility in this location would help move waste up the Waste Hierarchy and help ensure that there are sufficient facilities to meet the Waste Plan's capacity needs. It would also encourage local economic growth and support the use of previously developed land. The allocation therefore has the potential to have a positive effect on the objectives that relate to managing waste sustainably, encouraging sustainable economic growth and ensuring the efficient use of land and resources. It also has the potential to have some positive impact on the objective of reducing contributions to climate change.

The proposed allocation could have a negative impact on the objective of protecting air, water and soil quality. The extent of impact on this objective would be dependent on the nature of the proposed waste management facility, but the use of measures such as negative air pressure and rapid-closure doors on any enclosed facility on the site could help mitigate impacts. In addition, as parts of the area are at a medium risk of flooding, the proposed allocation would also have a negative impact on the objectives that relate to reducing flood risk and adapting to climate change. The completion of a suitable Flood Risk Assessment, application of the Sequential Test and the incorporation of SuDS or other techniques to manage surface water runoff will be key mitigation measures.

The proposed allocation could also have an uncertain impact on the objectives relating to sustainable

transport, biodiversity and unemployment. In addition, although parts of the area are in close proximity to sensitive receptors, the impact of the allocation on the objective that relates to health and amenity is considered to be uncertain as given the size of the area, waste management development could potentially take place in a part of the area that is a significant distance from these residential properties which could avoid impact on amenity.

A21-HR: North East Tottenham

The proposed allocation has the potential to have a positive impact on a number of sustainability objectives. In particular, the development of a waste management facility in this location would help move waste up the Waste Hierarchy and help ensure that there are sufficient facilities to meet the Waste Plan's capacity needs. It would also encourage local economic growth and support the use of previously developed land. The allocation therefore has the potential to have a positive effect on the objectives that relate to managing waste sustainably, encouraging sustainable economic growth and ensuring the efficient use of land and resources. It also has the potential to have some positive impact on the objective of reducing contributions to climate change.

Due to the proximity of the area to a designated SINC, the proposed allocation could have a negative effect on the objective of protecting biodiversity. Undertaking appropriate ecological surveys and implementing appropriate measures to improve the biodiversity value of the site are likely to be important mitigation measures. There could also be a negative impact on the objective of protecting air, water and soil quality. The extent of impact on this objective would be dependent on the nature of the proposed waste management facility, but the use of measures such as negative air pressure and rapid-closure doors on any enclosed facility on the site could help mitigate impacts. In addition, as parts of the area are at a medium risk of flooding, the proposed allocation would also have a negative impact on the objectives that relate to reducing flood risk and adapting to climate change. The completion of a suitable Flood Risk Assessment, application of the Sequential Test and the incorporation of SuDS or other techniques to manage surface water runoff will be key mitigation measures.

The proposed allocation could also have an uncertain impact on the objective relating to sustainable transport. Although parts of the area are in close proximity to sensitive receptors, the impact of the allocation on the objective that relates to health and amenity is considered to be uncertain as given the size of the area, waste management development could potentially take place in a part of the area that is a significant distance from these residential properties which could avoid impact on amenity.

A22-HR: Friern Barnet/Pinkham Way

The proposed allocation has the potential to have a positive impact on a number of sustainability objectives. In particular, the development of a waste management facility in this location would help move waste up the Waste Hierarchy and help ensure that there are sufficient facilities to meet the Waste Plan's capacity needs. The site is designated as a Local Employment Area and as such, the development of a waste management facility in this location would encourage local economic growth and could also support the creation of additional employment opportunities. The allocation therefore has the potential to have a positive effect on the objectives that relate to managing waste sustainably, encouraging sustainable economic growth and reducing unemployment. In addition, as the redevelopment of the site may present opportunities to remediate land contamination, the proposed allocation also has the potential to have a positive impact on the objective that relates to protecting air, water and soil quality.

The proximity to sensitive receptors does however mean that there is the potential for a facility in this area to have a negative impact on the objective that relates to amenity. Enforcing appropriate

controls through planning conditions and environmental permitting are therefore likely to be key mitigation measures. The area, although it previously accommodated a sewage treatment works, has been significantly revegetated, contains a number of mature trees and is designated as a SINC. As a result, its redevelopment has the potential to have some negative impact on the objectives that relate to biodiversity, green infrastructure, townscape character and adapting to climate change. Incorporating appropriate boundary treatments / landscaping, protecting existing green infrastructure features, undertaking appropriate ecological surveys and creating replacement habitat are likely to be important mitigation measures.

The proposed allocation would have an uncertain impact on the objectives that relate to sustainable transport, flood risk, reducing contributions to climate change and ensuring the efficient use of land and natural resources.

A24-WF: Argall Avenue

The proposed allocation has the potential to have a positive impact on a number of sustainability objectives. In particular, the development of a waste management facility in this location would help move waste up the Waste Hierarchy and help ensure that there are sufficient facilities to meet the Waste Plan's capacity needs. It would also encourage local economic growth and support the use of previously developed land. The allocation therefore has the potential to have a positive effect on the objectives that relate to managing waste sustainably, encouraging sustainable economic growth and ensuring the efficient use of land and resources. It also has the potential to have some positive impact on the objective of reducing contributions to climate change.

The proximity to sensitive receptors does however mean that there is the potential for a facility in this area to have a negative impact on the objective that relates to amenity. Enforcing appropriate controls through planning conditions and environmental permitting are therefore likely to be key mitigation measures. Due to the proximity of the area to a designated SINC, the proposed allocation could have a negative effect on the objective of protecting biodiversity. Undertaking appropriate ecological surveys and implementing appropriate measures to improve the biodiversity value of the site are likely to be important mitigation measures. There could also be a negative impact on the objective of protecting air, water and soil quality. The extent of impact on this objective would be dependent on the nature of the proposed waste management facility but the use of measures such as negative air pressure and rapid-closure doors on any enclosed facility on the site could help mitigate impacts. In addition, as parts of the area are at a medium/high risk of flooding, the proposed allocation would also have a significant negative impact on the objectives that relate to reducing flood risk and adapting to climate change. The completion of a suitable Flood Risk Assessment, application of the Sequential Test and the incorporation of SuDS or other techniques to manage surface water runoff will be key mitigation measures.

The proposed allocation could also have an uncertain impact on the objective relating to sustainable transport.

LLDC1-HC: Bartrip Street LSIS

The proposed allocation has the potential to have a positive impact on a number of sustainability objectives. In particular, the development of a waste management facility in this location would help move waste up the Waste Hierarchy and help ensure that there are sufficient facilities to meet the Waste Plan's capacity needs. It would also encourage local economic growth and support the use of previously developed land. The allocation therefore has the potential to have a positive effect on the objectives that relate to managing waste sustainably, encouraging sustainable economic growth and ensuring the efficient use of land and resources. It also has the potential to have some positive impact on the objective of reducing contributions to climate change.

The proximity of the area to sensitive receptors does however mean that there is the potential for a facility in this area to have a negative impact on the objective that relates to amenity. Enforcing appropriate controls through planning conditions and environmental permitting are therefore likely to be key mitigation measures. Due to the proximity of the area to designated heritage assets, waste management development in this location has the potential to have a negative effect on the objective of conserving the historic environment. A key mitigation measure will be to ensure that appropriate heritage impact assessments are undertaken and that the design of any built facility is sympathetic to the setting of these heritage assets. Other objectives that the proposed allocation has the potential to have a negative impact on include those which relate to flood risk, adapting to climate change and protecting air, water and soil quality. The completion of a suitable Flood Risk Assessment, application of the Sequential Test, the incorporation of SuDS or other techniques to manage surface water runoff and the use of measures such as negative air pressure and rapid-closure doors will be key mitigation measures.

The proposed allocation would have an uncertain impact on the objectives that relate to sustainable transport, biodiversity and unemployment.

LLDC2-HC: Palace Close SIL

The proposed allocation has the potential to have a positive impact on a number of sustainability objectives. In particular, the development of a waste management facility in this location would help move waste up the Waste Hierarchy and help ensure that there are sufficient facilities to meet the Waste Plan's capacity needs. It would also encourage local economic growth and support the use of previously developed land. The allocation therefore has the potential to have a positive effect on the objectives that relate to managing waste sustainably, encouraging sustainable economic growth and ensuring the efficient use of land and resources. It also has the potential to have some positive impact on the objective of reducing contributions to climate change.

The proximity of the area to sensitive receptors does however mean that there is the potential for a facility in this area to have a negative impact on the objective that relates to amenity. Enforcing appropriate controls through planning conditions and environmental permitting are therefore likely to be key mitigation measures. Due to the proximity of the area to designated heritage assets, waste management development in this location has the potential to have a negative effect on the objective of conserving the historic environment. A key mitigation measure will be to ensure that appropriate heritage impact assessments are undertaken and that the design of any built facility is sympathetic to the setting of these heritage assets. Other objectives that the proposed allocation has the potential to have a negative impact on include those which relate to flood risk and adapting to climate change. The completion of a suitable Flood Risk Assessment, application of the Sequential Test and the incorporation of SuDS or other techniques to manage surface water runoff will be key mitigation measures.

The proposed allocation would have an uncertain impact on the objectives that relate to sustainable transport, biodiversity, unemployment and protecting air, water and soil quality.

LLDC3-HC: Bus Depot, Temple Mill Lane

The proposed allocation has the potential to have a positive impact on a number of sustainability objectives. In particular, the development of a waste management facility in this location would help move waste up the Waste Hierarchy and help ensure that there are sufficient facilities to meet the Waste Plan's capacity needs. It would also encourage local economic growth and support the use of previously developed land. The allocation therefore has the potential to have a positive effect on the objectives that relate to managing waste sustainably, encouraging sustainable economic growth and

ensuring the efficient use of land and resources.

The proximity to sensitive receptors does however mean that there is the potential for a facility in this area to have a negative impact on the objective that relates to amenity. Enforcing appropriate controls through planning conditions and environmental permitting are therefore likely to be key mitigation measures. There could also be a negative impact on the objective of protecting air, water and soil quality. The extent of impact on this objective would be dependent on the nature of the proposed waste management facility but the use of measures such as negative air pressure and rapid-closure doors on any enclosed facility on the site could help mitigate impacts. In addition, as parts of the area are at a medium/high risk of flooding, the proposed allocation would also have a significant negative impact on the objectives that relate to reducing flood risk and adapting to climate change. The completion of a suitable Flood Risk Assessment, application of the Sequential Test and the incorporation of SuDS or other techniques to manage surface water runoff will be key mitigation measures.

The proposed allocation could also have an uncertain impact on the objectives relating to sustainable transport, biodiversity, reducing contributions to climate change and protecting air, water and soil quality.

4.4 Secondary, Cumulative and Synergistic Effects

4.4.1 Under the provisions of the SEA Directive, when appraising the sustainability of a Plan it is necessary to consider whether or not there are any secondary, cumulative and/or synergistic effects. A number of these effects have been identified during the appraisal of the NLWP and are identified in the Appendices document which accompanies this report. Many of these effects are secondary. For example:

- Certain sites and areas were identified as having the potential to receive waste by sustainable modes of transport which could reduce road transport and have positive secondary impacts on congestion, air quality and greenhouse gas emissions from the transport sector;
- Many of the policies and sites/areas in the draft NLWP would encourage higher rates of reuse, recycling and recovery which would have a positive secondary impact of reducing the need to identify sites for landfill (either within or outside of the Plan area); and
- Certain proposed allocations have the potential to have an impact on townscape character which would have secondary impacts on perceptions of the area.

4.4.2 There were also several instances where potential cumulative impacts were identified. In particular, it was recognised that directing waste management uses to existing industrial estates could result in some cumulative impacts with surrounding employment uses, particularly in relation to traffic, dust, noise, etc.

4.5 Mitigation Proposals

4.5.1 Whilst carrying out the SA of the draft NLWP a number of mitigation proposals and suggested changes to the Plan have been identified which address issues that have come to light. These are documented in the accompanying Appendices Report and a summary of the key mitigation measures are summarised in Table 18 below.

4.5.2 These suggested mitigation measures should be considered when preparing the Regulation 22 NLWP submission and should be considered alongside all comments received during the Regulation 19 consultation which this SA supports. None of the proposed changes seek to significantly alter the purpose of Plan and many relate to measures that can be taken during the implementation of the plan to mitigate or avoid unacceptable impacts.

Table 18: Mitigation Proposals

Policy	Mitigation/Change Proposed	Affects
Policy 5: Assessment Criteria for Waste Management Facilities and Related Development	Consider amending the policy to make reference to avoiding adverse impacts on the integrity of SSSI and SINCs.	Policy
Policy 5: Assessment Criteria for Waste Management Facilities and Related Development	Consider amending the policy to prioritise the use of previously developed land in preference to greenfield sites	Policy
Policy 65: Assessment Criteria for Waste Management Facilities and Related Development	Consider amending the policy wording to require the fullest *practicable* contribution to climate change mitigation.	Policy
Areas	Allocate site for enclosed waste uses only and enforce appropriate controls through planning conditions and environmental permitting.	Several Areas
Areas	Ensure the appropriate application of the Sequential Test.	Several Areas
Areas	Ensure appropriate heritage impact assessments are undertaken and that the design of any built facility is sympathetic to the setting of these heritage assets.	Several Areas

5. MONITORING

5.1 The Localism Act has removed section 35(1) of the Planning and Compulsory Purchase Act 2004 which required local planning authorities to produce an Annual Monitoring Report for submission to the Secretary of State. There is still however a requirement for planning authorities to prepare reports containing information as to the extent to which the policies set out in their Local Plans are being achieved. The National Planning Policy for Waste also identifies the need to monitor and report on the take-up of allocated sites and areas; changes in the available waste management capacity as a result of closures and new permissions; and the quantities of controlled wastes i.e. LACW, C&I, CDEW being created locally and how they are being managed.

5.2 The sustainability effects of implementing the NLWP should also be monitored on an annual basis and reported through each Borough's monitoring reports. At this stage in the SA process there is only a need to present 'a description of the measures envisaged concerning monitoring'. An initial range of criteria for monitoring the sustainability effects of implementing the NLWP was proposed in the SA Scoping Report. These potential monitoring criteria are presented in Table 19 below.

Table 19: Monitoring Indicators

SA Objective	Decision-Making Criteria	Indicators
1. To protect people's health, communities and local environmental quality from the adverse effects of waste management.	Will the plan/proposal have an adverse impact on levels of nuisance including dust, particulate emissions, noise (including traffic noise), vibration, visual amenity and light pollution? Will it redress environmental inequalities within the plan area?	Number of substantiated complaints to North London Borough's relating to waste development nuisances (noise, dust, light, vermin and odour). Number of fly tipping incidents in the Plan area.
2. To maintain green infrastructure and open space	Will the plan/proposal support the creation of healthier lifestyles through, for example, the provision of new or improved open space? Will it have an adverse impact on the green infrastructure network? Will it lead to a loss of open space / reduction in public access?	Net area of open space and green space permanently lost/created in North London as a result of new waste management facilities.

SA Objective	Decision-Making Criteria	Indicators
3. To promote sustainable modes of transport, reduce the need to travel and improve choice and use of more sustainable transport modes.	Will the plan/proposal reduce overall transport distances for waste? Will it reduce waste-related car and lorry traffic and increase sustainable transport use? Will it reduce/increase road congestion?	Number of permitted sites that use alternative means of transport other than road. Amount of waste transported by rail/water. Waste exported, imported and dealt with within Plan area. Percentage of waste transported by road, rail and water Tonne miles of waste that are transported by road, rail and water
4. To conserve and enhance the historic environment, heritage assets and their settings.	Will the plan/proposal have an adverse impact upon heritage assets and/or their setting?	Number of designated heritage assets (including conservation areas, listed buildings, SAMs and registered parks and gardens) adversely affected by waste development.
5. To maintain and enhance the quality and character of North London's townscapes and landscapes.	Will the plan/proposal have an adverse impact on local landscape character or on townscapes? Will it have an adverse affect on the openness of the Green Belt? Will it affect areas of public open space? Will it lead to landscape/townscape improvements? Will it result in development that is sympathetic to its surroundings?	Number of permitted sites judged to have an adverse impact on local landscape character/conservation areas. Number of permitted sites resulting in the redevelopment of a vacant or derelict site. Area of Green Belt lost to waste development. Area of open space lost to waste development.
6. To maintain, protect and enhance biodiversity, protected species, habitats, geodiversity and features of geological interest.	Will the plan/proposal have an adverse impact upon protected sites or species? Will it restore or create new habitat? Will it lead to the loss of, or impact on the integrity of, BAP habitats or species?	Number, total area and condition of internationally and nationally designated sites (SSSIs, SPAs, SACs, Ramsar) and those of local importance (SINCs, LNRs). Area of new habitat created through waste planning applications/restoration

SA Objective	Decision-Making Criteria	Indicators
		schemes. Change in priority habitats and population of local Biodiversity Action Plan (BAP) species. Area of UKBAP and LBAP habitats created as part of waste development.
7. To reduce and manage flood risk	Will the plan/proposal help to avoid inappropriate development in areas at risk of flooding? Will it exacerbate vulnerability to flooding? Will the plan reduce flood risk through the use of SUDS? Will the plan involve the reconfiguration of existing sites or development of a flood alleviation scheme?	Number of waste facilities development within EA Flood Zones 2 and 3 and within Critical Drainage Areas/Local Flood Risk Zones. Number of sites permitted against Environment Agency flood advice. Number of schemes incorporating Sustainable Drainage Schemes (SuDS).
8. To adapt to, and reduce the impacts of, climate change.	Will the plan/proposal help to reduce vulnerability to the impacts of climate change?	Number of permitted sites that include climate adaptation measures (e.g. to cope with heat, flood, storms)
9. To reduce contributions to climate change, promote energy efficiency and increase the use of energy from sustainable sources.	Will the plan/proposal increase emissions of greenhouse gases from waste activities? Will it reduce emissions of greenhouse gases? Will it encourage the use and/or production of renewable energy? Will it reduce waste-related car and lorry traffic and increase sustainable transport use?	Number of facilities generating energy from waste. Average distance travelled by LACW for treatment/disposal. Number of permitted sites that include renewable energy generation technologies. The number and capacity of Combined Heat and Power (CHP) facilities.
10. To protect and improve air quality, water quality and soils.	Will the plan/proposal have an adverse impact on air quality? Will it reduce/increase road congestion? Will the plan/proposal have an adverse impact on surface or ground water quality?	Location and area of Air Quality Management Areas. Number of days when air pollution is moderate or higher. Number of days when the air quality threshold value of PM_{10} is exceeded.

SA Objective	Decision-Making Criteria	Indicators
	Will it improve existing water quality? Will the plan/proposal support the remediation of contaminated land? Will it have an adverse impact on soil quality?	Quality of local watercourses. Number of sites permitted within groundwater protection zones. Number and area of contaminated sites remediated as a consequence of waste-related development Number of sites permitted in areas of worsening air quality
11. To manage waste sustainably, maximise North London's self-sufficiency in the management of waste, minimise the production of waste and increase re-use, recycling and recovery rates.	Will the plan/proposal minimise the production of waste? Will it promote sustainable waste management and encourage movement of waste up the Waste Hierarchy?	Annual waste arisings by type. Estimated permitted treatment and disposal capacity in North London. The quantity of new capacity added at each level of the Waste Hierarchy Average distance travelled by LACW for treatment/disposal. Waste dealt with within the Plan area Volume and % of waste disposed to landfill by waste stream.
12. To ensure the efficient use of land and natural resources and the sustainable management of existing resources.	Will the plan/proposal make use of previous developed land or buildings? Will it increase demand for water? Will it incorporate/encourage measures to ensure water is used efficiently?	Proportion of new waste development on previously developed land. Proportion of existing and new waste developments with water efficiency measures.
13. To encourage sustainable economic growth, exploit the growth potential of business sectors and improve the competitiveness and productivity of the local waste industry	Will the plan/proposal encourage sustainable economic growth through provision of adequate waste management facilities? Will the plan/proposal diversify the economy in terms of the waste management sector?	Economic output of Gross Value Added (GVA) per capita per annum Number of new jobs created by new waste sites. Annual waste arisings by type.

SA Objective	Decision-Making Criteria	Indicators
	Will it enable new and innovative waste management technologies to be developed and utilised? Will it enable maximum value recovery from waste where possible? Will it promote waste minimisation?	Capacity of new waste management facilities by type. Number of businesses and new facilities introducing new waste management technologies at the top of the Waste Hierarchy e.g. Anaerobic Digestion with energy/heat generation.
14.To reduce economic disparities, unemployment and deprivation	Will the plan/proposal support the creation of a broad range of jobs and employment opportunities?	Number of new jobs created by new waste sites or by growth of existing ones.

5.3 In addition to monitoring the implementation of the NLWP, it is also proposed that the Waste Data Study (the comparison of available capacity with current and future waste management needs) that informs the Plan should be updated at two year intervals as a further systematic check on progress.

5.4 Responsibility for monitoring will lie with the individual Boroughs and this will provide a basis for the:

- Identification of unforeseen adverse effects and any necessary remedial action;
- Assessment of whether the Strategy is achieving the SA objectives; and
- Assessment of the performance of mitigation measures.

6. NEXT STEPS

6.1 This section of the report explains the next steps that will be taken as part of the preparation and SA of the NLWP.

6.2 Following consideration and analysis of the consultation responses received on the Regulation 19 draft plan, a 'Submission' version of the Plan will be produced and 'published' in-line with Regulation 22 of the Town and Country Planning (Local Planning) Regulations 2012. This will be 'Submitted' for Examination . Once the plan is submitted an independent Planning Inspector will be appointed by the Government to examine whether the NLWP meets the required legal and soundness tests, including duty to co-operate and procedural requirements. Assuming that the Inspector does not request that further work be undertaken in order to achieve soundness, it is expected that the Plan will be formally adopted in Summer 2020. At the time of adoption an SA 'Statement' must be published. This Statement will set out:

- How environmental considerations have been integrated into the plan;
- How the environmental report has been taken into account;
- How opinions expressed in response to consultations have been taken into account;
- The reasons for choosing the plan as adopted, in the light of the other reasonable alternatives considered; and
- The measures that are to be taken to monitor the significant environmental effects of the implementation of the plan.

6.3 Comments can be submitted using the following methods:

By email: feedback@nlwp.net (preferred method)

By post: Archie Onslow
North London Waste Plan
Regeneration and Planning
Camden Town Hall
Judd Street
WC1H 9JE

7. DIFFERENCE THAT THE PROCESS HAS MADE

7.1.1 SA provides an iterative process for checking that an emerging Plan is sustainable as envisaged by government guidance and legislation, and in the context of the key local sustainability issues identified at the outset of the process.

7.1.2 This SA has provided an appraisal of a number of alternative options in relation to the strategic approach of the NLWP and has also provided an assessment of the proposed policies and allocations in the draft version of the Plan. Although the SA process concludes that the draft Regulation 19 NLWP has the potential to deliver a wide range of social, environmental and economic benefits, it also identified several instances where there is a potential negative impact on sustainability objectives, a number of uncertain impacts and a range of opportunities for further enhancements to improve the NLWP's sustainability.

7.1.3 These specific recommendations will be considered when preparing the Regulation 22 'Submission' NLWP alongside all comments received during the Regulation 19 consultation which this SA supports.

7.1.4 Although these recommendations may result in some amendments to the Plan, they do not seek to significantly alter the purpose of Plan and many relate to measures that can be taken during the implementation of the plan to mitigate or avoid unacceptable impacts.