

Sustainability Appraisal and Strategic Environmental Assessment of the Greater Norwich Local Plan

Volume 1 of 3: Non-Technical Summary

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LEPUS CONSULTING
LANDSCAPE, ECOLOGY, PLANNING & URBAN SUSTAINABILITY

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Front cover: River Yare at Strumpshaw Fen by Peter Munks

Non-Technical Summary

Introduction: the Greater Norwich Local Plan

- N1. Lepus Consulting Ltd (Lepus) has been instructed by the Greater Norwich Development Partnership (GNDP), which comprises Broadland District Council, Norwich City Council and South Norfolk Council, to undertake a Sustainability Appraisal (SA) incorporating Strategic Environmental Assessment (SEA) (hereafter referred to as SA) of the Greater Norwich Local Plan (GNLP). This SA Report presents an assessment of the likely sustainability impacts of proposals in the GNLP and meets the SEA Directive's requirements for an environmental report.
- N2. This is a non-technical summary of the SA for the GNLP. This Regulation 19 SA Report presents an assessment of the likely sustainability impacts of proposals set out in the GNLP.
- N3. The aim of the GNLP is to *“support growth of a diverse low carbon economy which will compete globally through its world class knowledge-intensive jobs in the Cambridge Norwich Tech Corridor”*.

What is Sustainability Appraisal?

- N4. The Planning and Compulsory Purchase Act¹ requires an SA to be carried out on Development Plan Documents. Additionally, the Environmental Assessment of Plans and Programmes Regulations² (SEA Regulations) require an SEA to be prepared for a wide range of plans and programmes, including Local Plans.
- N5. SA is the process of informing and influencing the preparation of the Local Plan to optimise its sustainability performance. SA considers the social, economic and environmental performance of the Local Plan.
- N6. Presently, the plan making stage is at Regulation 19, known as ‘Publication’ in the Local Plan Regulations 2012³. This is shown as Stage C of **Figure N.1**.

¹ Planning and Compulsory Purchase Act 2004. Available at: <https://www.legislation.gov.uk/ukpga/2004/5/contents> [Date Accessed: 16/10/20]

² The Environmental Assessment of Plans and Programmes Regulations 2004. Available at: <http://www.legislation.gov.uk/uksi/2004/1633/contents/made> [Date Accessed: 16/10/20]

³ The Town and Country Planning (Local Planning) (England) Regulations 2012. SI 767



Figure N.1: Sustainability appraisal process

N7. **Table N.1** below shows the stages of the Local Plan and SA process. The process is expanded in this Non-Technical Summary below.

Table N.1: Stages of the GNLP and SA process

Date	Local Plan Stage	Sustainability Appraisal
2016 to 2018	Call for Sites (GNDP) This process enabled landowners who wished to promote parcels of land for a particular use or development to submit the land for consideration.	
September 2016	Stakeholder Workshops These workshops discussed relevant issues in relation to the GNLP and informed the early stages of the plan making.	
March 2017		SA Scoping Report (GNDP) This report identified the scope and level of detail to be included in the SA.
January to March 2018	Stage A Regulation 18 Consultation of Site Proposals, Growth Options and the Interim Sustainability Appraisal	Interim Sustainability Appraisal (GNDP) This report assessed the GNLP options for growth, which included six options for the spatial strategy and policy options.
October to December 2018	Stage B Regulation 18 Site Proposals Addendum and HELAA Addendum	No SA report prepared.
January 2020	Stage C Regulation 18 Draft Strategy consultation Draft strategy including vision, objectives and strategic policies, a sites document and supporting evidence documents.	Regulation 18C SA Report (Lepus) This report assessed 285 reasonable alternative sites and eleven draft strategic policies.
January 2021	Publication Draft Plan The GNLP is split into two documents: The Strategy and Site Allocations. The Strategy Document sets out the profile of Greater Norwich, the Plan vision and objectives, and the strategic policies. The Site Allocations Document sets out the site allocations of the GNLP.	Regulation 19 SA Report (Lepus) The Regulation 19 SA Report has been prepared to summarise the SA process to date and help inform the examination stage of the preparation of the GNLP. The Regulation 19 SA presents the findings of the sustainability appraisal of the GNLP, which is composed principally of twelve strategic policies and 138 site policies. This report also contains an assessment of additional 107 reasonable alternative sites.

The Plan area: Greater Norwich

N8. The city of Norwich is a major regional centre for employment, tourism and culture and is Norfolk's highest-ranking retail centre. Within Norwich District there are numerous primary and secondary educational facilities. Besides schools, there are a number of higher and further education centres, including the University of East Anglia, Norwich University College of the Arts, City College and Easton College.

N9. Greater Norwich comprises the three districts of Norwich, Broadland and South Norfolk. The districts of Broadland and South Norfolk are predominantly rural in nature, with isolated towns and villages separated by large areas of open farmland. The Broads National Park, a

nationally important landscape, is located to the east of the GNLP area. The Broads are a visually and culturally distinctive part of Norfolk which have an important effect on landscape character. The River Yare, River Bure and River Waveney form the district boundaries between Broadland and South Norfolk.

- N10. The GNLP will guide development across the three districts up to 2038, providing both strategic policies and site allocations to meet demand for housing and employment, as well as other land use matters. It is being produced by the three councils of Broadland, Norwich and South Norfolk, supported by Norfolk County Council. It takes the adopted Joint Core Strategy (JCS) for Broadland, Norwich and South Norfolk, which covers all three districts from 2008 up to 2026, as its starting point.

The scoping stage

- N11. The preparation of a Scoping Report was the first phase of the SA process. The scoping process set the criteria for assessment (including the SA Objectives) and established the baseline data and other information, including a review of relevant policies, programmes and plans (PPPs). The scoping process involved an overview of key issues, highlighting areas of potential conflict. The output of the scoping phase was the Scoping Report prepared by the GNDP in 2017⁴.

- N12. The Scoping Report covers the early stages of the SA Process and includes information about:

- Identifying other relevant policies, plans and programmes, and environmental objectives;
- Collecting baseline information;
- Identifying environmental issues and problems; and
- Developing the SA Framework.

Evolution of the environment without the Plan

- N13. The SEA Directive requires *“information on the relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme”*.

- N14. In the absence of the GNLP, no new Plan-led development would occur within the Plan area over and above that which is currently proposed in the adopted Joint Core Strategy for Broadland, Norwich and South Norfolk⁵. In this scenario, an appeal-led system would predominate. The nature and scale of development that may come forward under an appeal-led system would be uncertain. In a ‘no Plan’ scenario, other plans and policies would continue to be a material consideration in planning decisions and legislative protection would

⁴ Greater Norwich Development Partnership (2017) Sustainability Appraisal Scoping Report for the Greater Norwich Local Plan. Available at: <https://gnlp.oc2.uk/docfiles/46/final-sa-scoping-report.pdf> [Date Accessed: 31/07/20]

⁵ Greater Norwich Development Partnership (2014) Joint Core Strategy for Broadland, Norwich and South Norfolk. Available at: <https://www.greaternorwichgrowth.org.uk/planning/joint-core-strategy/> [Date Accessed: 10/11/20]

continue to be in place. The **Table N.2** describes the likely evolution of the baseline without the GNLP.

Table N.2: Likely evolution without the Plan

Theme	Likely evolution without the Plan
Accessibility and Transport	<ul style="list-style-type: none"> • Congestion issues around Norwich could potentially be exacerbated due to a rising population. • There is likely to be an increase in the composition of the road transport fleet which are electric or hybrid vehicles. • There is the potential both for the required infrastructure to support further growth not being delivered and for more dispersed patterns of development which could occur without a plan increasing the proportion of the population with poor access to services.
Air Quality	<ul style="list-style-type: none"> • Traffic and congestion is likely to increase with population growth, in some locations of the GNLP area with implications, in particular, for air quality, residents and wildlife. • The Government is committed to ensuring that nearly all cars and vans in the UK will be zero emission vehicles by 2050, meaning all car and van sales need to be zero emission vehicles by 2040. Consequently, there is expected to be an increasing uptake of ultra-low emission vehicles during the lifetime of the GNLP. • The Air Quality Action Plan for Norwich will continue to review and assess the status of the Central Norwich AQMA.
Biodiversity and Geodiversity	<ul style="list-style-type: none"> • Sites designated for their national and international biodiversity and/or geodiversity value will continue to benefit from legislative protection. • Long term prospects for protecting and enhancing the wealth of habitats and species in the area, and for further developing the existing green infrastructure network, would be reduced without a strong policy framework being established in the GNLP. • It is uncertain if development will be placed near locally designated sites without the introduction of the Plan. Without the GNLP, it may be difficult to help ensure that development is not of a type, scale and location that could potentially have a major adverse impact on either a biodiversity or geodiversity designation (of international, national or local significance) or on the functioning ecological network of the Plan area and the various essential ecosystem services this provides.
Climate Change	<ul style="list-style-type: none"> • The risk of flooding will be likely to increase over time due to the changing climate increasing the occurrence of extreme weather events as well as the increasing urbanisation of the Plan area. • Total carbon emissions are expected to continue to decrease over time without the Plan as renewable energy becomes an increasingly competitive force in the UK energy market. • CO₂ emissions in the transport sector may be likely to rise in line with local trends. An increasing uptake of electric vehicles, a trend seen across the UK, may help to alleviate these issues.
Economic Factors	<ul style="list-style-type: none"> • It is expected the number of businesses within Broadland, Norwich City and South Norfolk will continue to increase without the Plan. • Access to schools in rural communities is unlikely to change without the Plan. • Planned growth in the tertiary sector, particularly at the University of East Anglia, should increase Norwich's role as a 'learning city'. Education is likely to remain a key element of the local economy.
Health and Quality of Life	<ul style="list-style-type: none"> • The population across the three districts is expected to continue to increase. This is likely to place greater pressure on the capacity of key services and amenities, including health and leisure facilities and housing. • The life expectancy of men and women is anticipated to rise over time, leading to an increasingly aging population. • Some residents will continue to need to travel relatively far, likely by driving, to reach important health facilities and services. • Dependent on behavioural patterns in society and the future policy approach to concentration of late night activities, the spatial patterns of higher crime in eastern parts of the city centre seem likely to continue. • There could potentially be a rise in homelessness due to an unmet housing need. • Noise pollution from Norwich International Airport and existing and new main roads is likely to remain a long term issue.

Theme	Likely evolution without the Plan
Historic Environment	<ul style="list-style-type: none"> Nationally designated heritage assets will continue to benefit from legislative protection. It is uncertain how the historic assets on the Heritage at Risk Register will be affected without the Plan and if more may be added to the list. Further heritage assets are likely to be identified in the future.
Housing	<ul style="list-style-type: none"> House prices are expected to increase. Without the GNLP, it is uncertain if future housing provision would satisfy local needs in terms of type cost and location. There could potentially be less control over location of future housing which may result in increased quantity of development being placed in areas of open countryside, reduced opportunity to enhance community benefits associated with plan-led housing proposals, and a reduced ability to refine the housing stock to meet the changing demands of existing residents such as the provision of elderly specific housing accommodation.
Landscape	<ul style="list-style-type: none"> The Broads National Park will continue to benefit from legislative protection. The districts of Broadland and South Norfolk will continue to remain predominantly rural and agricultural landscapes. Pressure is likely to increase for development on the open countryside without the Plan. The quality and distinctiveness of some rural views and landscape features may potentially be compromised in the absence of Plan-led development. It is uncertain the extent to which development would seek to conserve and enhance the character of local landscape and townscapes. In the absence of Plan-led development, there could potentially be a rise in the quantity of new development which discords with the local character by altering the style, scale or rural/urban divide.
Natural Resources	<ul style="list-style-type: none"> Rates of soil erosion and loss of soil fertility will be likely to continue to rise due to the impacts of agriculture and climate change. The population in the Plan area will be likely to rise and water demand will subsequently be likely to rise also. In the absence of plan-led development, the efficiency and sustainability of water consumption may be unlikely to improve. There could potentially be new developments that result in over-capacity issues at wastewater treatment works (either cumulatively or individually). Water abstraction, consumption and treatment in the local area will continue to be managed by the Environment Agency and water companies through the RBMP, WRMP and CAMS in line with the EU Water Framework Directive.

Key sustainability issues

N15. Plans and programmes that could potentially affect the GNLP have been reviewed and considered alongside the current characteristics of the Plan area. Key issues identified within the Plan area are presented in **Table N.3**.

Table N.3: Key sustainability issues in Greater Norwich

Theme	Key Sustainability Issues
Accessibility and Transport	<ul style="list-style-type: none"> Development should be located where transport options are, as far as possible, not limited to using the private car, so that sustainable transport options can be promoted, and where the need for additional infrastructure can be minimised. There is a need to improve the strategic transport network, most particularly improvements to the rail network, to the A47 and to provide good quality public transport access to Norwich International Airport. In rural areas, access to public transport is poor and subsidies are likely to decline, so it will be important to sustain local public transport services where possible and to support demand responsive transport. There is a possibility that new development could add pressure onto current transport services. Road safety should be improved.
Air Quality	<ul style="list-style-type: none"> All new development is likely to increase the impacts of air pollution in the Plan area. The rate of mortality attributable to particulate matter air pollution in the GNLP area is higher than England's average.

Theme	Key Sustainability Issues
Biodiversity and Geodiversity	<ul style="list-style-type: none"> • There are Air Quality Management Areas (AQMA) in Norwich City Centre and in Hoveton, adjacent to the Plan area, along with other isolated sites of reduced air quality. • There is a need to protect and enhance nationally and internationally protected nature conservation interests and geodiversity sites in and adjacent to the area, with particular emphasis on reducing visitor pressure on and improving water quality in Natura 2000 sites and the wider habitats of the Broads. • Water quality in Natura 2000 protected sites is an issue, particularly in relation to water abstraction from the River Wensum and water disposal at Long Stratton and into the River Yare. Consequently, there is a need to improve water quality to achieve Water Framework Directive (WFD) targets and to protect habitats. • There are a number of locally important biodiversity sites that should be protected and enhanced. • Local changes in air quality resulting from increased emissions, such as from increased traffic movements, could affect designated sites. • Ensuring that the impact on GI from new development is minimised and benefits from new GI are maximised. • Long term investment in improvements to the defined green infrastructure network is required.
Climate Change	<ul style="list-style-type: none"> • Ensure consistency with interventions proposed within Governments forthcoming emissions reduction plan, supporting the wider policy imperative to reduce carbon emissions over time. • Climate change is expected to increase the frequency and intensity of extreme weather events such as heat waves, drought and intense rainfall. • Fluvial/tidal flooding is a risk affecting limited parts of the area, while surface water and sewer flooding is a risk in a number of places. • Although per capita CO₂ emissions have been declining in line with national trends, they are above the national average in rural parts of the area. • There is potential to increase renewable energy production chiefly from solar, wind and biomass developments, as well as from micro-renewables.
Economic Factors	<ul style="list-style-type: none"> • The proportion of population in active employment is higher in Broadland and South Norfolk than Norwich, but all three districts have higher proportions than Great Britain. • Greater Norwich is a regionally important economic centre, with the potential for significant growth. • Employment land provision needs to support the existing main employment sectors including retail; health; and financial services and also sectors with high growth potential including advanced manufacturing and engineering; agritech; energy; ICT/digital culture; and life sciences. • Norwich city centre is a main regional focus for employment, retailing, tourism, culture, education and leisure. • Rural enterprises remain important to the local economy and home working is likely to increase in significance. • It will be important to improve access to high speed broadband and mobile phone connectivity, particularly in rural areas. • It will be important to improve access to high speed broadband and mobile phone connectivity, particularly in rural areas. • The recent increase in the birth rate will increase demand for education and other children's services in the area. • It is important to increase educational attainment and skill levels, particularly in the more deprived parts of the area and in other areas where there is low educational attainment. • The percentage of the population with NVQs is lower in the Plan area than Great Britain.
Health and Quality of Life	<ul style="list-style-type: none"> • It will be important to ensure that Greater Norwich's good levels of health are supported, with a particular focus on reducing the health gap between different areas and on providing the necessary health services and facilities for a growing and ageing population. • It is important to consider the ways in which exposure to poor air quality can be minimised or reduced. • It will be important to maintain and enhance links, including green infrastructure links, to the countryside and semi-natural open spaces to encourage physical activity and mental well-being.

Theme	Key Sustainability Issues
	<ul style="list-style-type: none"> • It will be important to ensure new development is well related to green infrastructure. • It will be important to ensure new development supports active and healthy lifestyles. • There is a need to provide for continued growth in the population of approximately 15-16% from 2012 to 2036. • It is necessary to provide services and housing to meet the needs across the area, particularly those of younger adults in Norwich, of remote rural communities and of the growing older population throughout the area. • The needs of the small but growing ethnic groups in the area will need to be taken into account. • There are high noise levels around Norwich International Airport and main roads in the area and light pollution from urbanised areas. • There is a need to minimise socio-economic disadvantage and reduce deprivation, which particularly affects a number of areas of Norwich and some rural areas. • Although levels of crime are generally low, there are higher crime levels in inner urban wards, particularly in areas with a concentration of late night drinking establishments.
Historic Environment	<ul style="list-style-type: none"> • There is a great wealth of heritage assets in the area of both national and local significance. A limited number of these assets are on the heritage at risk register. • Due to the long history of habitation in the area, there is significant potential for archaeological artefacts and finds throughout Greater Norwich. • Conserve and enhance designated and non-designated heritage assets and the contribution made by their settings. • Areas where there is likely to be further significant loss or erosion of townscape character or quality, or where development has had or is likely to have significant impact (direct and/or indirect) upon the historic environment and/or people's enjoyment of it. • Traffic congestion, air quality, noise pollution and other problems affecting the historic environment. • Archaeological remains, both seen, and unseen, could potentially be affected by new development areas.
Housing	<ul style="list-style-type: none"> • New housing and economic growth needs to be planned together to focus housing growth in locations where it can provide the greatest benefits and sustainable access to services and jobs. It is essential to ensure the locations chosen for growth will result in the delivery of the amount and range of housing required to meet needs. • The delivery of affordable housing is a priority across the whole Greater Norwich Area, with a particularly high need in Norwich. • There is a need to ensure sufficient pitches are provided to meet the needs of the Gypsies & Travellers along with those of Travelling Showpeople.
Landscape	<ul style="list-style-type: none"> • Development should maintain important aspects of Greater Norwich's varied landscapes, including historic parks and gardens and ancient woodlands. • Defined strategic gaps, including those between Wymondham and Hethersett and Hethersett and Cringleford, are important to maintain the settlement pattern in rural areas. • Regard must be had to the distinctive landscape of the Broads. • Broadland and South Norfolk are predominantly rural districts, new developments at smaller villages could potentially increase the risk of encroachment on the open countryside or risk altering distinctive townscapes.
Natural Resources	<ul style="list-style-type: none"> • It is important to ensure waste management accords with the waste hierarchy and reduces the overall quantity of waste. • Waste facilities will need to be provided to cater for a growing population, prevent fly tipping and increase recycling rates. • Appropriate storage and segregation facilities for waste will need to be provided on new development. • Mineral resources including sand and gravel and minerals and waste infrastructure should be safeguarded. • The use of secondary and recycled aggregates in all developments to reduce the need for primary aggregate extraction and increase inert construction and demolition waste recycling should be promoted. • Encourage the effective use and re-use of accessible, available and environmentally acceptable brownfield land. • There are high quality soils (Grades 1, 2 and 3a ALC) in many parts of the area and limited areas of contaminated land mainly on brownfield sites.

Theme	Key Sustainability Issues
	<ul style="list-style-type: none"> • The need to make the most efficient use of land, maximising the re-use of brownfield sites in order to minimise the loss of undeveloped land and protect soils. • Since the area suffers from water stress, effectively managing the supply and demand balance is critical, taking into account the peaks in demands from homes, jobs and agriculture and the impact of abstraction on habitats and biodiversity. Ensuring water efficiency will have a key role locally. • There is a need to consider the measures within the Anglian River Basin Management Plan and the issues in the Broadland Rivers Catchment Plan.

N16. There are a number of plans, policies and programmes that set out the environmental protection objectives which proposals within the GNLP should adhere to. These are discussed within the Scoping Report and are updated in **Appendix B**. Examples of these include the NPPF and the Habitats Directive.

Methodology

N17. In light of the key issues considered above, an SA Framework was established which includes SA Objectives, decision-making criteria and indicators. The SA Framework provides a way in which sustainability effects can be described, analysed and compared. SA Objectives and indicators can be revised as further baseline information is collected and sustainability issues and challenges are identified and are used in monitoring the implementation of the GNLP. The SA Objectives are as follows:

- SA Objective 1: Air quality and noise;
- SA Objective 2: Climate change mitigation and adaptation;
- SA Objective 3: Biodiversity, geodiversity and green infrastructure;
- SA Objective 4: Landscape;
- SA Objective 5: Housing;
- SA Objective 6: Population and communities;
- SA Objective 7: Deprivation;
- SA Objective 8: Health;
- SA Objective 9: Crime;
- SA Objective 10: Education;
- SA Objective 11: Economy;
- SA Objective 12: Transport and access to services;
- SA Objective 13: Historic Environment;
- SA Objective 14: Natural resources, waste and contaminated land; and
- SA Objective 15: Water.

N18. Each section of the GNLP has been subject to SA. Using the SA Framework and expert judgement, the likely sustainability impacts of the GNLP have been assessed. The SA has considered positive, negative, secondary, cumulative and synergistic effects.

Reasonable alternatives

N19. The SEA Directive states, in Article 5(1) as part of the requirements for preparing an environmental report, that the Local Plan making process must identify, describe and evaluate reasonable alternatives that have been considered as part of the plan making process.

- N20. There is no precise guide as to what constitutes a reasonable alternative. The GNLP has identified reasonable alternatives for the Plan at different stages of the plan making process. It has also identified different types of alternative.

The identification of Reasonable Alternatives in the plan making process: Housing Requirements

- N21. The Growth Options Document and associated Interim SA Report considered four options in relation to housing requirements as part of the Regulation 18A consultation:

1. GNLP Housing Requirement is equal to Objectively Assessed Need (OAN). Delivery Buffer is Approx. 20%. Forecast Windfall Housing does not form part of the Delivery Buffer.
2. GNLP Housing Requirement is equal to OAN. Delivery Buffer is Approx. 20%. Forecast Windfall Housing forms part of the 20% Delivery Buffer.
3. GNLP Housing Requirement is Equal to OAN plus Housing Response to City Deal. Delivery Buffer is Approx. 20%. Forecast Windfall Housing does not form part of the Delivery Buffer.
4. GNLP Housing Requirement is Equal to OAN plus net Housing Response to City Deal. Delivery Buffer is Approx. 20% OAN. Forecast Windfall Housing forms part of the 20% Delivery Buffer.

- N22. Option 2 was identified as the preferred approach.

- N23. The Regulation 18C Draft Strategy identified a housing requirement of 44,343 for the Plan period, which was set out within Policy 1: The Sustainable Growth Strategy. The Regulation 18C SA identified potential major negative impacts in relation to air quality, climate change, and natural resources as a direct impact of the scale of growth proposed under this policy.

- N24. The Publication Draft Plan (2021) includes a further 5,000 dwellings in addition to the Regulation 18C Draft Strategy to take account of the 2018 household projections, making the total housing potential for the Plan of 49,492 dwellings.

The identification of Reasonable Alternatives in the plan making process: Spatial Strategy

- N25. The Growth Options Document set out the six reasonable alternative spatial strategy options:

- Urban Concentration (close to Norwich).
- Transport Corridors.
- Cambridge Norwich Tech Corridor.
- Dispersal.
- Dispersal Plus New Settlement.
- Dispersal and Urban Growth.

- N26. No single spatial option emerged as a best performing approach. Further to the work undertaken during Regulation 18C, the GNLP considered a seventh spatial strategy, which is an amalgamation of the six previously considered options. This new option was considered

in the Regulation 18C Draft Strategy and can be considered to be the preferred spatial option for the Plan:

1. Maximises brownfield development and regeneration opportunities, which are mainly in Norwich. The brownfield/greenfield split for new homes in the Plan is 27%/73%;
2. Broadly follows the settlement hierarchy set out in Policy 1 (the Norwich urban area; main towns; key service centres and village clusters) in terms of scales of growth as this reflects access to services and jobs;
3. Focuses most of the growth in locations with the best access to jobs, services and existing and planned infrastructure in and around the Norwich urban area and the Cambridge-Norwich Tech corridor;
4. Focuses reasonable levels of growth in the main towns, key service centres and village clusters to support a vibrant rural economy. The approach to village clusters is innovative. It reflects the way people access services in rural areas and enhances social sustainability by promoting appropriate growth in smaller villages. It will support local services, whilst at the same time protecting the character of the villages;
5. Allocates strategic scale housing sites (1,000 dwellings +) in accessible locations;
6. Allocates a significant number of medium scale and smaller scale sites in the urban area, towns and villages, providing a balanced range of site types to allow for choice, assist delivery and allow smaller scale developers and builders into the market. Overall, 12% of the homes allocated through the Plan are on sites of no larger than 1 hectare, meeting national requirements;
7. Sets a minimum allocation size of 12-15 dwellings to ensure that a readily deliverable amount of affordable housing is provided on all allocated sites.

N27. The Regulation 18C SA report assessed this spatial strategy as part of Policy 1 – The Sustainable Growth Strategy. This policy also sets out the provision of homes and employment floorspace. The policy was identified as having the potential to result in major negative impacts in relation to air quality, climate change and natural resources and a minor negative impact in relation to biodiversity. The spatial strategy would be expected to result in neutral or positive impacts in relation to all other SA Objectives.

N28. The proposed spatial strategy set out in the Publication Draft GNLP is the same as that set out at Regulation 18C.

The identification of Reasonable Alternatives in the plan making process: Employment Requirements

N29. The Growth Options Document and associated Interim SA Report assessed two options in relation to employment requirements as part of the Regulation 18A consultation:

- JT1: GNLP jobs target to be equal forecast jobs growth, plus aspirational growth between 2015 and 2036.
- JT2: GNLP jobs target to be equal forecast jobs growth between 2015 and 2036.

- N30. Option JT1 was identified as the preferred option.
- N31. The Regulation 18C Draft Strategy identified the proposed growth of 33,000 additional jobs over 360ha of employment land, which was set out within Policy 1: The Sustainable Growth Strategy. The SA identified potential major negative impacts in relation to air quality, climate change, and natural resources as a direct impact of the scale of growth proposed under this policy.
- N32. The proposed quantum of employment development did not change between the Regulation 18C Draft Strategy and the Publication Draft of the GNLP.

The identification of Reasonable Alternatives in the plan making process: Strategic Policies

- N33. GNLP policies were first considered in the Growth Options Document at the Regulation 18A consultation. The document set out 51 policy alternatives that cover broad policy areas. The Interim SA Report assessed these policy alternatives and identified preferred approaches.
- N34. The preferred approaches were then considered and re-drafted into the eleven draft strategic policies set out in the Regulation 18C Draft Strategy. The Regulation 18C Draft Strategy states that all policies in the GNLP are strategic and provide context for existing Local Plan policies, future revision to Local Plan documents and policies and proposals in Neighbourhood Plans.
- N35. The final strategic policies were then amended and an additional policy added to reflect updates in evidence base documents and respond to consultation comments and SA recommendations. The final GNLP strategic policies are presented in **Table N.4** and are assessed in **Appendix C**.

Table N.4: Strategic policies in the GNLP

Policy ref.	Policy Name
1	The Sustainable Growth Strategy
2	Sustainable Communities
3	Environmental protection and Enhancement
4	Strategic Infrastructure
5	Homes
6	The Economy
7.1	The Norwich Urban Area including the fringe parishes
7.2	The Main Towns
7.3	The Key Service Centres
7.4	Village Clusters
7.5	Small Scale Windfall Housing Development
7.6	Preparing for New Settlements

The identification of Reasonable Alternatives in the plan making process: Allocated Sites

- N36. Numerous reasonable alternative sites have been identified, described and evaluated by the Councils throughout the Plan-making process. As the preparation of a Local Plan is an iterative process, the Councils have undertaken several consultations on the sites received through the Call for Sites process: the principal means of identifying reasonable alternatives. As a result of this, further site assessment work has been undertaken at intervals throughout the process to consider new reasonable alternative sites as and when they emerged.
- N37. The Regulation 18A consultation presented more than 600 potential sites, with consultation on a further 200 sites at Regulation 18B, and a further 38 sites at Regulation 18C. At each round of site identification, the Councils reviewed each site to determine if the site was considered to be a reasonable alternative. These sites were considered by the Councils and set out the site assessment booklets⁶ as part of the Regulation 18C consultation, which identified 285 reasonable alternative sites. These 285 sites were appraised in the Regulation 18C SA Report.
- N38. Following the Regulation 18C consultation, an additional 107 sites were considered reasonable. The appraisal of these sites are presented in **Appendix D** of the Regulation 19 SA.
- N39. Following the consideration of all sites that have come through the plan making process, the Councils have selected 138 sites for allocation within the GNLP. **Appendix G** provides an explanation for the selection of the 138 allocated sites. This justification was provided by the GNDP.

Purpose and content of the Regulation 19 Sustainability Appraisal Report

- N40. The Regulation 19 SA Report has been prepared to summarise the SA process to date and help inform the examination stage of the preparation of the GNLP. The Regulation 19 SA presents the findings of the sustainability appraisal of the GNLP, which is composed principally of twelve strategic policies and 138 site policies. This report also contains an assessment of additional 107 reasonable alternative sites.
- N41. The purpose of the SA of the GNLP is to:
- Identify, describe and evaluate the likely sustainability effects of the GNLP proposals and their reasonable alternatives;
 - Inform the GNDP's decision making and preparation of the GNLP; and
 - Provide an opportunity for statutory consultees, interested parties and the public to offer views on any aspect of the SA.
- N42. This SA Report contains:
- An outline of the contents and main objectives of the GNLP and its relationship with other relevant plans, programmes and strategies;

⁶ Greater Norwich development partnership (2020) Site Assessment Booklets. Available at: <https://gnlp.oc2.uk/document/45> [Date Accessed: 17/11/20]

- Relevant aspects of the current state of the environment and key sustainability issues for the Plan area;
- The SA Framework of objectives and indicators against which the GNLP has been assessed;
- The appraisal of reasonable alternatives identified during the plan making process to date, including an explanation about how they were identified, and either rejected or selected;
- The likely effects of the GNLP on sustainability;
- Recommendations for measures to reduce and as fully as possible offset any significant adverse effects which may arise as a result of the Local Plan; and
- A description of relevant monitoring requirements.

- N43. **Appendix A** of this report sets out the SA Framework, which has been used as a basis for the assessment process.
- N44. **Appendix B** presents an update to the Policy, Plans and Programmes review.
- N45. **Appendix C** presents an assessment of the twelve GNLP strategic policies.
- N46. **Appendix D** presents the assessment of the additional 107 reasonable alternative sites.
- N47. **Appendix E** presents the post-mitigation assessment of all 392 reasonable alternative sites.
- N48. **Appendix F** presents the assessment of the 138 site policies.
- N49. **Appendix G** sets out the reasons for selecting the allocated sites and rejecting other reasonable alternative sites.

Likely significant effects on the environment

- N50. Proposals in the GNLP have been assessed for their sustainability impacts. The assessment of the GNLP, including reasonable alternatives, was undertaken using a combination of empirical evidence, and to a lesser extent, professional judgement. The findings are presented in matrix format and are accompanied by a commentary on identified effects. The matrix is not a conclusive tool. Its main function is to show visually the sustainability performance of the GNLP. The assessment commentary should be relied on to interpret the matrix findings.

Air Quality

- N51. The GNLP proposes the development of 49,492 dwellings, which would be expected to increase the local population by approximately 110,367 people. This increase in population would be expected to result in an increase in traffic-related emissions and consequently, further decrease air quality within the Plan area. This would be expected to have negative implications in terms of human and ecosystem health.
- N52. Of the 138 allocated sites, 64 are located within 200m of a main road and 21 are located within the 'Central Norwich' AQMA. New residents in these locations could potentially be exposed to reduced air quality associated with nearby main roads and AQMAs.

- N53. Although there are several policies within the GNLP which aim to reduce air pollution in the Plan area, these would not be expected to fully mitigate the anticipated adverse impacts associated with air pollution and the increase in transport associated emissions.

Biodiversity

- N54. There are four European designated biodiversity sites within the GNLP area: Broadland SPA and Ramsar; The Broads SAC; River Wensum SAC; and Norfolk Valley Fens SAC. None of the allocated sites coincide with, or are located adjacent to, a European site. The HRA will provide further detail on the impact of the development within the GNLP on European designated sites. At the time of writing, the draft HRA has not been able to provide conclusive findings but emerging findings suggest that subject to satisfactory resolution of the outstanding matters listed in the report (version dated 18th December 2020), there would be no adverse effect upon the integrity of any European site.
- N55. Policies within the GNLP would be expected to mitigate any potential adverse effects of proposed development on nationally and locally designated biodiversity assets and non-designated biodiversity assets within Greater Norwich, including ancient woodland and priority habitats.
- N56. The GNLP aims to ensure development proposals deliver 10% biodiversity net gain on site and contribute to the increased provision of the multi-functional green infrastructure network. However, the GNLP would be expected to result in the loss of approximately 1,019ha of previously undeveloped land, including aspects of the ecological network which provides links to designated biodiversity sites. A residual adverse effect in relation to the fragmentation of the ecological network would be expected.

Climate Change

- N57. The development proposed within the GNLP would be likely to result in the loss of approximately 1,019ha of previously undeveloped land. Multiple policies aim to ensure that development proposals protect and enhance the multi-functional green infrastructure network. Green infrastructure is vital in helping to reduce the adverse impacts of climate change, with vegetation acting as a natural carbon sink.
- N58. The GNLP proposes the development of at least 49,492 dwellings. It is estimated that this would increase the local population by 110,367 residents, and subsequently, result in an increase in local carbon emissions by approximately 27.1%. The policies in the GNLP aim to promote low carbon energy generation, sustainable building design and the reduction of transport-related emissions. However, these policies would not be expected to fully mitigate the anticipated adverse impacts on the climate. It would be expected that over time, advances in technologies and alternative solutions to energy generation would help to reduce this adverse impact, to some extent.

Cultural Heritage

- N59. The Plan area, in particular Norwich city, has a rich cultural heritage, with multiple landmarks of national significance. There is a broad range of Listed Buildings, Scheduled Monuments, Registered Parks and Gardens and Conservation Areas throughout Greater Norwich.

Several sites are coincident with heritage assets, including the 'Carrow Priory (ruined portions)' Scheduled Monument and 'Earlham Park' Registered Park and Garden. Through the policies within the GNLP, it would be anticipated that the proposed development would not result in adverse impacts on nearby heritage assets.

Human Health

- N60. The only NHS hospital with an A&E department in the Plan area is Norfolk and Norwich University Hospital. Only 35 of the 138 site allocations are located within a sustainable distance to this hospital. There are numerous GP surgeries across the Plan area, however, due to the rural nature of Broadland and South Norfolk, many site allocations are not within a sustainable distance to a GP surgery. Policies within the GNLP would be expected to improve public transport, and therefore, access to healthcare facilities such as GP surgeries would be expected to be improved. However, access to Norfolk and Norwich University Hospital would be expected to continue to be limited. Therefore, a residual adverse effect in relation to access to emergency healthcare has been identified.
- N61. The GNLP aims to ensure that there is increased provision of green infrastructure and open space throughout the Plan area. This would be expected to ensure all residents have good access to outdoor space for physical exercise, which also has benefits for mental health and wellbeing.
- N62. A number of site allocations are located adjacent to main roads and the introduction of 110,367 new residents under the GNLP would be expected to increase vehicle emissions in the Plan area, with adverse implications for human health, in particular, increasing the risk of respiratory diseases. Although GNLP policies seek to promote the use of active travel to reduce the volume of vehicles on local roads, this would not be expected to fully mitigate the adverse impacts associated with air pollution.

Landscape

- N63. The Broads National Park is partially located within the Plan area to the east. The National Park is designated for its unique landscape, wildlife and associated cultural features. A total of 47 site allocations are located within 1km of the Broads National Park. GNLP policies would be expected to ensure that the allocated development does not result in adverse effects on the Broads National Park, by respecting, protecting and enhancing the character and setting of the Broads. GNLP policies seek to protect the existing landscape character, as well as protect and enhance important views within the Plan area.
- N64. A number of the allocated sites are located at the edge of settlements on previously undeveloped land. GNLP Policy 2 aims to maintain strategic gaps and landscape settings which would be likely to mitigate urbanisation of the countryside and risk of coalescence to some extent. However, due to the rural context in which much of the new development is situated, a residual adverse effect has been identified.
- N65. The proposed development of 49,492 dwellings across Greater Norwich, with a number of developments located within rural Broadland and South Norfolk, would be likely to result in a loss of tranquillity of the rural landscape as a consequence of increases in noise and light pollution.

Population and Material Assets

- N66. The GNLP proposes the development of 49,492 homes and creation of 33,000 new jobs across Greater Norwich. This would be expected to satisfy the identified requirement for dwellings and employment floorspace across the Plan area.
- N67. The proposed development within the GNLP would be likely to result in an increase in household waste generation in the Plan area by approximately 31.5%. Policies seek to encourage recycling, however, there is little scope for the Plan to reduce the volume of waste produced.
- N68. The development of 49,492 homes would be likely to increase the local population by approximately 110,367. This would, in turn, be expected to increase capacity pressures on local services. Some site allocations within the GNLP are proposed for the development of new local services and facilities, which would be expected to help mitigate this increased demand. Nevertheless, due to the rural nature of Broadland and South Norfolk, development directed towards some settlements in these districts would have limited access to some services and facilities, in particular rail stations.
- N69. The GNLP also includes site allocations which include the provision for community facilities. This would be expected to have benefits in relation to community cohesion, by facilitating interactive and vibrant communities.

Soil

- N70. The proposed development within the GNLP would result in the loss of approximately 1,019ha of previously undeveloped land. Development in these locations would result in the loss of approximately 912ha of BMV soils. This would be expected to result in the permanent and irreversible loss of soil resources. Soil provides essential services, including nutrient cycling, abating flood risk, filtering water and carbon storage. Direct loss of soil through construction would be expected to reduce these essential ecosystem services. Although the GNLP focuses some development towards urban and brownfield sites, a residual adverse effect on local soil resources would be expected.

Water

- N71. The majority of the site allocations are located within Flood Zone 1. However, 20 allocated sites are partially located within Flood Zones 2, 3a or 3b. In addition, a number of allocated sites are located in areas determined to be at low, medium or high risk of surface water flooding. A large proportion of the proposed development would also be located on previously undeveloped land. This development would be expected to result in the loss of vegetation, which is known to help reduce surface water runoff, reduce the speed of flow and help reduce the risk of flooding. Policies set out in the GNLP seek to ensure development does not exacerbate flood risk and any flood risk on site is mitigated prior to development. The incorporation of SUDS and increased provision of green infrastructure would also be expected to help prevent the exacerbation of localised flooding.
- N72. A large proportion of Greater Norwich coincides with a groundwater Source Protection Zone (SPZ) and there is a vast network of waterways across the Plan area. As a result, a number of allocated sites coincide with an SPZ or are located adjacent to a watercourse. In addition,

approximately half of the sites allocated within the GNLP are located on previously undeveloped land. The proposed development within the GNLP could also reduce the ability of the aquatic ecosystem to effectively filter water, provide the basis for vegetation to flourish, have benefits in regard to mental and physical wellbeing, and support biodiversity. As a result, a residual adverse effect would be expected in relation to water quality and ecosystem services.

N73. The GNLP seeks to ensure residential development meet the Building Regulations Part G⁷ optional standard of 110 litres per person per day . Nevertheless, the introduction of approximately 110,367 new residents across the Plan area would be expected to increase pressure on water resources.

Residual positive effects

N74. The SA has identified a range of positive and adverse potential impacts of the GNLP on the objectives of the SA Framework, and consequently the topics in the SEA Directive.

N75. Some of the likely positive effects of the Local Plan are listed in **Table N.5** below.

Table N.5: Likely positive sustainability impacts of the GNLP

Residual positive effects	
	Housing provision
1	The proposed development of 49,492 dwellings across the Plan area would be expected to make a significant and positive contribution towards meeting the identified local housing need. Policies within the GNLP would be expected to ensure that residential developments meet the needs of the local community, including affordable housing.
	Employment opportunities
2	The proposed development of 33,000 new employment opportunities through development allocations within the GNLP, would be expected to make a significant and positive contribution to the employment needs of residents and to the local economy.
	Multi-Functional Green Infrastructure Network
3	The GNLP aims to ensure that development proposals incorporate multi-functional green infrastructure where possible and result in 10% biodiversity net gain. Although the proposed development would be expected to result in the loss of greenfield land to some extent, GNLP policies help to ensure that there are improvements to and the increased provision of the multi-functional green infrastructure networks across the Plan area.
	Physical and Mental Health
4	The increased provision of open space and multi-functional green infrastructure within Greater Norwich would be expected to help facilitate healthy and active lifestyles, increasing access to space for physical exercise as well as areas with mental wellbeing benefits.
	Community Cohesion
5	The site allocations and policies within the GNLP would be likely to increase the provision of community facilities within the Plan area. This would be expected to help facilitate vibrant and interactive communities, and lead to a greater sense of place within settlements.

⁷ MHCLG (2016) Sanitation, hot water safety and water efficiency: Approved Document G. Available at: <https://www.gov.uk/government/publications/sanitation-hot-water-safety-and-water-efficiency-approved-document-g> [Date Accessed: 18/11/20]

Mitigation

- N76. The GNLP sets out twelve strategic policies which seek to positively respond to future development within the Plan area. These policies are expected to have positive impacts in relation to the development proposals within the GNLP. Numerous policies would be likely to fully, or help to, mitigate the identified adverse impacts of proposed development.
- N77. Whilst mitigation has been proposed for some effects, where this is not possible, or is not likely to, mitigate the nature of effect such that it is nullified, the following residual significant and/or cumulative adverse effects remain and are drawn to the attention of the plan makers in **Table N.7**.

Residual adverse effects

- N78. The GNLP have proposed many policies in the GNLP which would be expected to help mitigate some of the adverse impacts of development on sustainability. However, there remain a number of residual impacts expected as a result of the Local Plan. These are presented in **Table N.6** below.

Table N.6: Likely residual adverse sustainability impacts of the GNLP

Residual adverse effects	
1	<p>Reduction in air quality</p> <p>Due to the volume of development proposed, an increase in traffic flows and subsequent reduction of air quality would be expected to have residual adverse effects on human health. In addition, many new residents could potentially be located within 200m of a main road. Cumulatively, this would be expected to result in a reduction of local air quality.</p>
2	<p>Increased pollutant emissions, including greenhouse gases</p> <p>An increase in pollutants including greenhouse gases would be expected following the development proposed within the GNLP. The introduction of 110,367 residents would be expected to increase traffic volumes and energy demand, which would be expected to result in an increase of pollutant emissions.</p>
3	<p>Increased greenhouse gas emissions</p> <p>The proposed development of 49,492 dwellings within the GNLP would be expected to increase carbon emissions in the Plan area by 565,079 tonnes (based on 2018 estimates). This increase would be expected to exacerbate the impacts of climate change within Greater Norwich.</p>
4	<p>Fragmentation of the ecological network</p> <p>The GNLP would be expected to result in the loss of approximately 1,019ha of previously undeveloped land. This loss of land would be expected to include habitats and ecological links between designated biodiversity assets ultimately affecting the integrity of the wider ecological network.</p>
5	<p>Reduced access to healthcare facilities</p> <p>A total of 103 site allocations are located over 5km from an NHS hospital. Residents in some of the rural settlements of Broadland and South Norfolk would be expected to have limited access to emergency healthcare, which could potentially have detrimental impacts on human health.</p>
6	<p>Increased risk of urbanisation of the open countryside and coalescence</p> <p>A total of 85 allocated sites are located on previously undeveloped land in the open countryside of Greater Norwich. The proposed development within the GNLP in these locations would be expected to increase the risk of urbanisation of the countryside and coalescence.</p>

Residual adverse effects

7	<p>Loss of tranquillity</p> <p>The proposed development of 49,492 dwellings across Greater Norwich, with a number of developments located within rural Broadland and South Norfolk, would be likely to result in a loss of tranquillity of the rural landscape as a consequence of increases in noise and light pollution.</p>
8	<p>Reduced access to facilities and services</p> <p>The majority of new residents would be located in areas with good access to services and facilities, including convenience stores and bus services. Nevertheless, large areas of Broadland and South Norfolk have limited access to rail services.</p>
9	<p>Increased household waste generation</p> <p>The proposed development within the GNLP would be expected to increase household waste generation within the Plan area by approximately 31.5%. Although GNLP Policy 2 seeks to support sustainable waste management, there is little scope to reduce the quantity of waste generated per household.</p>
10	<p>Loss of soil resources, including BMV land</p> <p>Approximately 1,019ha of development allocated within the GNLP is located on previously undeveloped land. This would be expected to result in the permanent and irreversible loss of ecologically, and potentially agriculturally, important soil resources.</p>
11	<p>Impact on soil ecosystem services</p> <p>Soil provides a range of essential services to the local area, including nutrient cycling, abating flood risk, filtering water, filtering air, carbon storage and providing the basis for vegetation to flourish. The scale of development proposed within the GNLP would be expected to increase pressure on essential ecosystem services.</p>
12	<p>Reduction of water quality and ecosystem services</p> <p>A total of 85 allocated sites are located on previously undeveloped land. The proposed development at these sites could potentially result in the contamination of nearby surface waterbodies or groundwater. The proposed development within the GNLP could also reduce the ability of the aquatic ecosystem to effectively filter water, provide the basis for vegetation to flourish, have benefits in regard to mental and physical wellbeing, and support biodiversity.</p>
13	<p>Increased demand for water</p> <p>The introduction of 110,367 new residents would be expected to result in increased pressure on the local water resource.</p>

Monitoring

N79. The SA also discusses the importance of a monitoring programme to help ensure that adverse impacts of the GNLP are identified, investigated and potentially avoided, mitigated or compensated. When opportunities for improving the sustainability performance of the GNLP and the districts arise over time, monitoring helps to ensure that these opportunities are recognised and taken advantage of.

N80. Monitoring has been prepared in relation to:

- Concentration of NO₂ and PM₁₀;
- Traffic flows on main roads;
- Rates of public transport uptake;
- Percentage of SSSIs in favourable condition;

- Number of Planning Approvals granted contrary to the advice of Natural England or Norfolk Wildlife Trust or the Broads Authority ;
- Percentage loss of the ecological network;
- CO₂ emissions per capita;
- Renewable energy generation;
- Number of Conservation Area appraisals;
- Number of heritage assets identified as 'heritage at risk';
- Percentage of physically active adults;
- Number of GP Surgeries;
- Number of Planning Approvals granted contrary to the advice of the Broads Authority on the basis of adverse impact on the Broads Landscape;
- Quantity of development in the open countryside;
- Change in tranquillity in the open countryside;
- Number of affordable housing completions;
- Percentage of economically active residents;
- Lower layer Super Output Areas (LSOAs) in Greater Norwich within the 10% most deprived in Great Britain;
- Quantity of household waste generation;
- Number of dwellings built on previously developed land;
- Number of dwellings built on BMV land (Grades 1, 2 or 3a ALC);
- Number of planning permissions granted contrary to EA advice;
- Quality of watercourses; and
- Water efficiency in new homes.



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