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Lincolnshire Lakes Area Action Plan

Sustainability Appraisal (SA) / Strategic Environmental Assessment (SEA) of the AAP Publication Draft

October 2014

UNITED KINGDOM & IRELAND

REVISION SCHEDULE					
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CONTENTS

1. NON TECHNICAL SUMMARY

The Lincolnshire Lakes Area Action Plan (AAP) is a Development Plan Document (DPD) which forms part of the North Lincolnshire Council's (NLC) Local Development Framework (Local Plan). The AAP for Lincolnshire Lakes is designed to provide a spatial and planning framework to deliver the refined 'Lincolnshire Lakes' concepts, a major development in the area to the west of Scunthorpe (located approximately 2 km from Scunthorpe town centre) and immediately east of the River Trent.

There is a statutory requirement to carry out a Sustainability Appraisal (SA) (incorporating the requirements of Strategic Environmental Assessment) of the AAP, the main purpose of which is encourage sustainable development and identify how it is being incorporated into development plans. The SA has followed a number of steps in parallel with the development of the AAP, as follows:

- A SA Scoping Report set out the relevant background to the Lincolnshire Lakes proposals, detailed the policy context, described the existing and likely future conditions associated with ten sustainability topics (listed below), and set out a sustainability framework by which the future effects of any development proposals could be assessed. This was consulted upon during a five week period from 30th August 2012;

- A SA Options Appraisal then considered four different alternative development scenarios for the Lincolnshire Lakes AAP, and provided an assessment of their relative benefits and negative impacts to the sustainability topics, as well as considering a 'no development' alternative;

- Based upon the findings of the SA Options Report and other technical studies, a preferred option for the AAP was developed. This report presents a SA of this draft plan (incorporating SEA requirements) against the ten sustainability topics, and sets out a framework against which the significant sustainability effects of the future development of Lincolnshire Lakes can be monitored.

Residential development is at the heart of the AAP, with 6,077 homes to be delivered in six villages by 2028, at an average gross density of 34 dwellings per hectare. There is a proposed relocation of the terminal junction of the M181 to the south of the development at the approximate location of Burringham Road (B1450). A planned commercial element of the development will be sited at a secondary junction, accessed from the de-trunked element of the M181. This will take the form of a centrally located strategic mixed use area that will support a range of uses including offices, hotel provision, health facilities, sports stadium, and other D1 and D2 uses. The Proposals Map for the AAP, developed by North Lincolnshire Council, is shown in Appendix A of this document.

The following table sets out the ten sustainability topics, a brief summary of how the AAP affects them, and an assessment of the outcome using this terminology:

+ or ++	Positive or significantly positive
- or - -	Negative or significantly negative
0	Neutral
- / +	Mixed
?	Unclear

Sustainability Topic and summary of how AAP could affect this	AAP Development Outcome
Economy and Employment – The AAP will provide a net increase in employment through the provision of commercial and retail space in the Strategic Mixed Use Area. This will lead to an increase in diversity in the employment base, and the increase in residents will lead to additional spending in the local area.	++
Housing and Population - The AAP will provide approximately 6,077 new homes (and approximately 13,740 new residents), delivered at a rate of 468 dwellings per year from 2015-2028. This will contribute greatly to NLC's housing targets. The homes are expected to meet an appropriate level (Level 5 or 6 or future equivalent) of the Code for Sustainable Homes while still a requirement. Building Regulations will remain a baseline standard that must be achieved.	++
Community and Wellbeing – The AAP proposes three education and early years' facilities within the new villages, which will meet the requirements of the new population. Each of the six new villages will include a Local Centre to build a sense of community, and there will be a new District Centre that will provide additional services. Aspects such as green infrastructure, lakes and open space will enhance the wellbeing of some existing Scunthorpe residents.	+
Transport – The AAP proposes relocating the terminal junction of the M181 to the south, meaning vehicles will have a greater variety of routes to follow, thus reducing some journey times. Other transport benefits include designing roads to accommodate bus routes, requiring that developers provide financial support to extend bus services and proposing new cycle and pedestrian links.	+
Land Use, Landscape and Visual – The AAP will result in the loss of agricultural land (although not the best Grade 1 land), although benefits associated with economy and housing will be positive overall. Potential impacts on views will be minimised through the development generally being low rise, and retaining and planting areas of vegetation.	–/+
Archaeology and Historic Environment – There are a number of Listed Buildings and Scheduled Monuments within the site and its setting, although any subsequent planning applications will be required to provide more targeted investigation and mitigation (such as instructive works and 'preservation by record').	0
Biodiversity and Green Infrastructure – There are no statutory designated sites within the AAP boundary, but four designations are located nearby and various non-designated habitats exist at the site. A Habitat Strategy has been produced that sets out the strategic habitat creation and enhancement initiatives, and measures such as new green infrastructure, lakes and green and brown roofs on buildings will be introduced to compensate in the longer term for any ecological impacts during construction.	–/+
Climate Change Adaptation (Flood Risk and Water Quality) – The majority of the AAP site lies within Flood Zone 2 or 3a as a result of river/tidal flooding (although this is protected by flood defences). Climate change and the increase in impermeable area from development of the AAP is expected to exacerbate this, and a conceptual drainage strategy has been produced which introduces lakes into which run off water can flow. In addition, it will be necessary to upgrade the flood defences at the River Trent and raise land levels.	+
Climate Change Mitigation (Energy, Utilities and Waste) – Mitigating climate change in the AAP is predominantly focussed around reducing resource use, greenhouse gas emissions and minimising waste production. Developers will be required to meet good standards of sustainable design (such as Level 5 or 6 or	–

future equivalent of the Code for Sustainable Homes while still a requirement). Building Regulations will remain a baseline standard that must be achieved. Nevertheless, there will still be a significant increase in municipal solid waste generated compared to the current situation.	
Air Quality - Additional sources of air pollutants as a result of the AAP will potentially include additional road vehicle emissions and potential emissions from any renewable energy schemes.	–

Overall it can be seen that the AAP will lead to more positive effects on the sustainability topics than negative effects, and there is expected to be significant positive effects on economy and employment and housing and population.

A monitoring framework has been proposed in order to ensure the significant positive effects are realised and the negative effects don't become significant.

The AAP and this SA Report have been submitted for consultation, following which any comments received will be considered and any amendments to the documents will be made. The AAP will then be submitted to the Secretary of State where it will be assessed by an Independent Inspector. Should the Submission content be found sound and subsequently adopted by NLC a "SA Statement" will be published that summarises how environmental and sustainability considerations have been reflected in the plan together with the findings of the public consultation.

2. INTRODUCTION

URS Infrastructure and Environment UK Limited (URS) has been commissioned to undertake a Sustainability Appraisal (SA) incorporating the requirements of Strategic Environmental Assessment (SEA) for the Lincolnshire Lakes Area Action Plan (AAP). The Lincolnshire Lakes AAP is a Development Plan Document (DPD) which forms part of the North Lincolnshire Council's (NLC) Local Development Framework (Ref. 1). The AAP for Lincolnshire Lakes is designed to provide a spatial and planning framework to deliver the refined 'Lincolnshire Lakes' concepts, a major development in the area to the west of Scunthorpe (located approximately 2 km from Scunthorpe town centre) and immediately east of the River Trent. The site is shown in Figure 1, below, with a more detailed layout provided in Appendix A at the end of this document. The area is bounded by Scotter Road to the east, the River Trent to the west, the M180 to the south and to the north the B1216 and River Trent. The site includes the villages of Burringham and Gunness which are adjacent to the eastern bank of the River Trent. The villages of Keadby and Althorpe lie adjacent to the western site boundary on the bank of the River Trent. The AAP covering the Lincolnshire Lakes area is designed to deliver major new sustainable village communities to the west of Scunthorpe.

A SA Scoping Report (Ref 2.) has been produced which sets out the relevant background to the Lincolnshire Lakes Proposals, detailed the policy context, described the existing and likely future conditions associated with 10 sustainability topics, and set out a sustainability framework by which the future effects of any development proposals could be assessed. This was consulted upon during a five week period from 30th August 2012. Comments were received from the following consultees:

- English Heritage;
- Environment Agency;

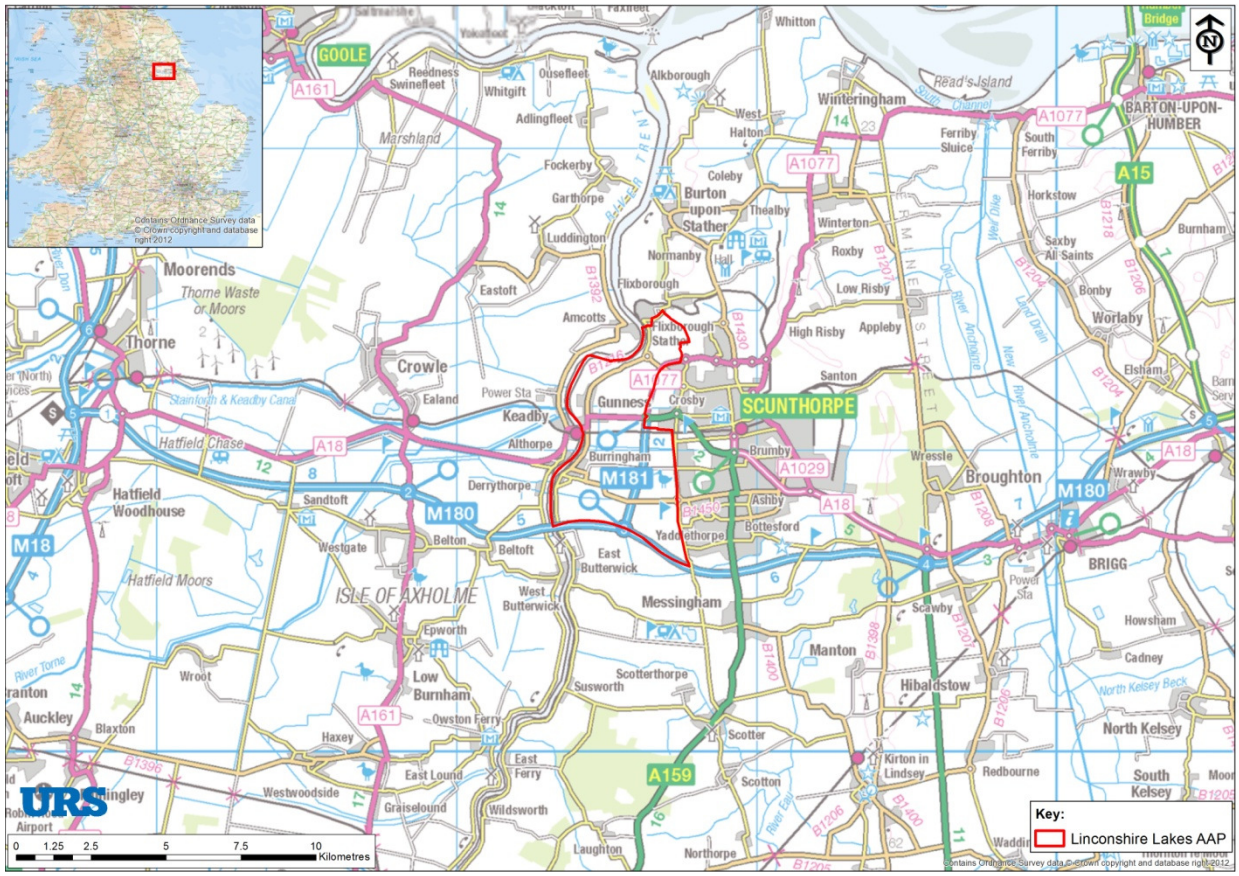
- Highways Agency;
- Hull City Council;
- Central Lincolnshire Joint Planning Unit;
- Lincolnshire Wildlife Trust;
- Natural England;
- NHS North Lincolnshire;
- Nottinghamshire County Council; and
- Severn Trent Water.

These responses are provided in Appendix B of this report, along with how they have been incorporated. The SA Scoping Report forms part of the evidence base for the Area Action Plan and is available to review on request from NLC.

Subsequently, a SA Options Appraisal was produced (Ref. 3), which considered four different alternative development scenarios for the Lincolnshire Lakes AAP, and provided an assessment of their relative benefits and negative impacts to the sustainability topics, as well as considering a 'no development' alternative.

Based upon the findings of the SA Options Report and other technical studies, a preferred option for the AAP has been developed, which is supported by a Policy Document (Ref. 4). This report presents a SA of this draft plan (incorporating SEA requirements) against the sustainability topics, and sets out a framework against which the sustainability of the future development of Lincolnshire Lakes can be monitored.

Figure 1: The Extent of the AAP Area



3. SUSTAINABILITY APPRAISAL PROCESS

Broadly speaking, the SA process exists to take account of the economic, social and environmental impacts arising from plans, policies and programmes.

It is a requirement that SA is undertaken in-line with the procedures prescribed by the Environmental Assessment of Plans and Programmes Regulations 2004 (Ref. 5), which were prepared in order to transpose into national law the EU Strategic Environmental Assessment (SEA) Directive (Ref. 6), which aims:
"… to provide for a high level of protection of the environment and to contribute to the integration of environmental considerations into the preparation and adoption of plans and programmes, with a view to promoting sustainable development, by ensuring that, in accordance with this Directive, an environmental assessment is carried out of certain plans and programmes which are likely to have significant effects on the environment" (2001/42/EC).

In line with the Regulations, a report (which we call the 'SA Report') must be published for consultation alongside the draft plan that 'identifies, describes and evaluates' the likely significant effects of implementing 'the plan, and reasonable alternatives'. The report must then be taken into account, alongside consultation responses, when finalising the plan.

The Regulations prescribe the information that must be contained within the SA Report. Essentially, there is a need for the SA Report to answer the following four questions:

1. What's the scope of the SA? – The scope must be established subsequent to a review of the sustainability context and baseline, and consultation with designated agencies;
2. What has plan-making / SA involved up to this point? – Preparation of the draft plan must have been informed by at least one earlier plan-making / SA iteration at which point 'reasonable alternatives' are appraised;
3. What are the SA findings at this stage? – i.e. in relation to the draft plan;
4. What happens next (including monitoring)?

Table 1 presents these questions, along with how they relate to the Regulatory requirements.

Table 1 Questions That Must be Answered by the SA Report in Order to Meet Regulatory Requirements

SA REPORT QUESTION		IN LINE WITH SCHEDULE II, THE REPORT MUST INCLUDE…
What's the scope of the SA?	What's the plan seeking to achieve?	• An outline of the contents, main objectives of the plan and relationship with other relevant plans and programmes
	What's the sustainability 'context'?	• The relevant environmental protection **objectives**, established at international or national level • Any existing environmental **problems** which are relevant to the plan including those relating to any areas of a particular environmental importance

SA REPORT QUESTION		IN LINE WITH SCHEDULE II, THE REPORT MUST INCLUDE…
	What's the sustainability 'baseline'?	• The relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan • The environmental characteristics of areas likely to be significantly affected • Any existing environmental **problems** which are relevant to the plan including those relating to any areas of a particular environmental importance.
	What are the key issues & objectives that should be a focus?	• Key **problems** / **issues** and **objectives** that should be a focus of (i.e. provide a 'framework' for) appraisal.
What has plan-making / SA involved up to this point?		• Outline reasons for selecting the **alternatives** dealt with (and thus an explanation of the 'reasonableness' of the approach) • The likely significant effects associated with **alternatives** • Outline reasons for selecting the preferred approach in-light of **alternatives** appraisal / a description of how environmental objectives and considerations are reflected in the draft plan.
What are the appraisal findings at this current stage?		• The likely significant effects associated with **the draft plan** • The measures envisaged to prevent, reduce and offset any significant adverse effects of implementing **the draft plan.**
What happens next?		• A description of the **monitoring** measures envisaged.

These questions are highlighted throughout this Sustainability Appraisal Report, to signpost how the Regulatory requirements are being met.

4. WHAT IS THE SCOPE OF THE SA?

A SA Scoping Report (available to view from NLC) was produced for consultation on 30th August 2012, which set out a description of what the AAP was planning to achieve, the main sustainability context, baseline conditions and key sustainability issues, to respond to the following questions (and their associated Regulatory requirements) in Table 1:

- What's the plan seeking to achieve?;
- What's the sustainability context?;
- What's the sustainability baseline?; and
- What are the key issues & objectives that should be a focus?

The Lincolnshire Lakes AAP forms part of the Council's Local Development Framework (Local Plan). The AAP will provide a detailed framework for the planning and delivery of the Lincolnshire Lakes proposals and will sit alongside the NLC Core Strategy and other Development Plan Documents. Its aim is to plan for development of the area to the west of Scunthorpe (a description of which is provided in Section 6), in a sustainable way, in accordance with relevant legislative/policy requirements and overall sustainability context.

The sustainability context of the Lincolnshire Lakes AAP is set out in a range of other relevant policies and reports, discussed in the following paragraphs.

The SA conducted as part of the NLC LDF Core Strategy (Ref. 9) includes a comprehensive context review of a wide range of key international, national, regional and local plans, policies and programmes. Although not all policies are relevant to the scale of the Lincolnshire Lakes AAP, the sustainability framework used for the Core Strategy forms the basis for the development of the Lincolnshire Lakes AAP sustainability framework.

A more recent policy review has been conducted on behalf of NLC within the Lincolnshire Lakes Evidence Base (Ref. 10). This policy review takes account of the publication of the National Planning Policy Framework (NPPF) (Ref. 11) in March 2012 and local policies relevant to the AAP.

The NPPF replaces previous Planning Policy Statements (PPS) and Planning Policy Guidance (PPG), and sets out the Government's vision for sustainable development based on the interrelated social, environmental and economic dimensions. Relevant areas of the NPPF include:

- Supporting sustainable growth and expansion of all types of business and enterprise in rural areas;
- Promoting sustainable transport;
- Delivering a wide choice of high quality homes;
- Promoting healthy communities;
- Mitigating and adapting to climate change and flood risk;
- Conserving and enhancing the natural environment; and
- Conserving and enhancing the historic environment.

Key planning policies relevant to the Lincolnshire Lakes AAP at a European, national and local level are given in Table 2.

Table 2 Key Legislation, Planning Policy and Guidance

European
European Directive on Strategic Environmental Assessment (SEA) (2001/42/EC)
Conservation of natural habitats and of wild flora and fauna (92/43/EEC)
Conservation of wild birds directive (79/409/EEC)
Freshwater fisheries directive (78/659/EEC)
Water framework directive (2000/60/EC)
National
Environmental Assessment of Plans and Programmes Regulations 2004
The National Planning Policy Framework (2012)
Localism Act 2011
Plan for Growth (2011)
Wildlife and Countryside Act 1981
Countryside and Rights of Way Act 2000
The Conservation of Habitats and Species Regulations 2010
The Natural Environment and Rural Communities Act 2006
The Planning and Compulsory Purchase Act 2004
Local
NLC Core Strategy (Adopted June 2011)
Housing and Employment Allocations DPD – Revised Submission Draft (2014)
Strategic Housing Land Availability Assessment Review (April 2014)
North Lincolnshire & North East Lincolnshire Strategic Housing Market Assessment Review (2010)
North Lincolnshire Employment Land Review (February 2014)
North Lincolnshire Infrastructure Delivery Plan and Infrastructure Delivery Schedule (April 2010)
Assessment of Possible Locations for an Urban Extension at Scunthorpe (2009)
Lincolnshire Lakes Feasibility Study (February 2009)
Strategic Flood Risk Assessment for North and North East Lincolnshire (November 2011)
Scunthorpe Strategic Development Framework (2005)
Lincolnshire Lakes Western Scunthorpe Urban Extension Exceptions Test Strategy (May 2010)
Sequential Test of the Flood Risk of Potential Development Sites Final Report (April 2010)
Affordable Housing Viability Assessment (November 2008)
North Lincolnshire Outline Water Cycle Strategy (October 2010)
Lincolnshire Lakes Schematic Masterplan Framework (2010)
Lincolnshire Lakes Project Plan (2010)
Lincolnshire Lakes Business Case (April 2010)
Lincolnshire Lakes Transport Strategy (October 2010)
Lincolnshire Biodiversity Action Plan 2011-2020
The Consultation Draft Partial Central Lincolnshire Core Strategy (June 2012)

The sustainability baseline at a more site specific and local context level is described in the Evidence Base, and summarised in Section 7 to give context to the appraisal of the Lincolnshire Lakes AAP Submission Draft. However, the consideration of the first three questions allowed the fourth question to be answered, which set the scope of what should be focussed upon. The appraisal is set out within the following topics:

- **Economy and Employment** – The site is predominantly in agricultural use, and although North Lincolnshire has a growth of industrial and distribution uses, there is a very low supply of office development. The high level of low-skilled jobs is a risk to the local economy, particularly due to increased competition from overseas, so a priority for the AAP should be the diversification and creation of a more skilled employment base and the consideration of existing local businesses;

- **Housing and Population** – The projected increase in the population coupled with the decreases in household sizes will lead to a greater demand for new housing, as identified in the Core Strategy. Lincolnshire Lakes is a desirable location for growth due to its proximity to an existing centre and transport links;

- **Community and Wellbeing** – There are deficiencies in existing provision of community, health, education, recreation and sports facilities which would need to be provided by the AAP, and carefully planned so as to include ease of access by sustainable forms of transport;

- **Transport** – Due to the rural nature, congestion at key junctions along the A18 and increases in traffic arising from the development of the Lincolnshire Lakes area could cause significant issues. Bus services, improved cycling and pedestrian routes would need to be incorporated into any plans, in addition to the location of new shops and services being within reasonable walking distance and the de-trunking of the M181 (to allow vehicles to route differently);

- **Land Use, Landscape and Visual** – The AAP would result in the loss of a substantial amount of good quality agricultural land, which although it is not designated, it could impact the character of Burringham and Gunness. The plan should retain existing vegetation and mature trees, and use additional planting to blend development into its surroundings;

- **Archaeology and Historic Environment** – The AAP should be sympathetic to the historic character area of the existing villages and rural areas, such as not affecting the settings of any Listed Buildings or Scheduled Monuments, and taking into account potentially undiscovered archaeological remains;

- **Biodiversity and Green Infrastructure** – The protection of designated ecology sites (particularly the European protected sites such as Humber Estuary Special Protection Area and Special Area for Conservation) should be a high priority for the AAP. In addition, it is important to provide adequate green infrastructure such as wetland habitats and wet grassland and corridors to connect them;

- **Climate Change Adaptation (Flood Risk and Water Quality)** – Much of the AAP site is located in Flood Zone 3 (an area of high risk of flooding), and as such significant flood management and drainage measures would be required. Sustainable Drainage Systems (SuDS) will be adopted in

order to provide adequate water storage, and to ensure the good quality of the water entering the River Trent ;

- **Climate Change Mitigation (Energy, Utilities and Waste)** – The AAP would result in increased demand for energy and utilities, and production of additional waste. Opportunities exist for site wide strategies to be adopted, such as an Energy Strategy (to reduce energy demand and create an energy efficient supply) and Waste Strategy (to reduce waste per person and maximise recycling); and

- **Air Quality** – The growth in transport related greenhouse gas emissions and emissions from any energy and heating plant could result in impacts on air quality. The design of options should consider the changes to the road network and sensitive placement of energy and heating plant flues.

The scoping stage of the SA process also introduced a sustainability framework, which was based on that from the SA of the NLC Core Strategy, and adapted to be more relevant to the Lincolnshire Lakes AAP, taking into account differences in purpose, geographical scale and availability of information.

The framework included a set of indicators and targets for the AAP's sustainability to be monitored against. The potential indicators given are linked to the NLC Core Strategy, taking account of data availability at ward level which could be used for a future monitoring framework. The draft SA monitoring framework is provided in Section 6 of this report.

Comments were received from the following consultees:

- English Heritage;
- Environment Agency;
- Highways Agency;
- Hull City Council;
- Central Lincolnshire Joint Planning Unit;
- Lincolnshire Wildlife Trust;
- Natural England;
- NHS North Lincolnshire;
- Nottinghamshire County Council; and
- Severn Trent Water.

The consultation comments largely concerned updates to the planning policy context, baseline conditions and sustainability framework, as described and addressed in Appendix A of this SA Report.

In relation to healthcare provision, the NHS was consulted as part of the SA Scoping process. In response to this, the Healthcare Liaison Officer stated that they would encourage the Council to use the Community Infrastructure Levy (CIL) and S106 agreements to provide community and health facilities. In addition, it was suggested that recommendations from organisations such as Sustrans and the Healthy Urban Development Unit should be sought to better consider positive and negative effects of environmental design and that the AAP should provide more details to support active travel and sustainable communities.

5. WHAT HAS PLAN-MAKING / SA INVOLVED UP TO THIS POINT?

A SA Options Report was produced on 4th April 2013 which:

- Described the reasons for selecting the alternatives dealt with;
- Predicted and evaluated the likely significant effects of the draft AAP options; and
- Considered ways of mitigating adverse effects and maximising beneficial effects.

The site to which the AAP applies is shown in Figure 1. This site was identified during the preparation of the Core Strategy DPD. An assessment was undertaken to examine suitable locations around the Scunthorpe area to accommodate further growth and deliver the aspirations of the Scunthorpe Urban Renaissance Programme. The assessment showed that the AAP area was the most suitable. Therefore, no other alternative sites were considered in this SA process. On this site, four options for development (plus a 'no development' alternative) were considered in relation to the Lincolnshire Lakes AAP, known as 'Option A', 'Option B', 'Option C' and 'Option D'. These are described in the SA Options Report, and were developed subject to site constraints and opportunities and consultation with local landowners, as well as through consideration of the aims of the plan, the sustainability context and baseline and the main sustainability issues described in the SA Scoping Report. This limited the amount of reasonable alternatives (in terms of proposed development quantum, land use and infrastructure), meaning that all four options shared the following common elements:

- Housing development blocks arranged in 'villages' with a total of 6,000 homes proposed.
- De-trunking of the M181 totalling 1,446m in length;
- New roads, as well as changes and improvements to the existing road system;
- A new cycle route to the River Trent;
- A business park near the centre of the site (B1 use);
- Education and early years centres (primary schools);
- Retail and community facilities;
- New areas of open space;
- Waterscape zones, including newly created water bodies; and
- The option of retaining the Brumby Common Lane Bridge.

The area and positioning related to housing, the business park, retail and community facilities, open space and waterscape zones varied between the four options, as did the length of new and upgraded roads.

The four options were evaluated against the 10 sustainability topics presented in the SA Scoping Report, and a summary of the appraisal is presented in Table 3, whereby the following symbols apply:

+ or ++	Positive or significantly positive
- or - -	Negative or significantly negative
0	Neutral
- / +	Mixed
?	Unclear

The identification of 'likely significant effects' is required by the Regulations, and in this case, significance is described as a function of the magnitude or size of an effect in comparison to the baseline and the importance or sensitivity of an affected receptor. There are no specific thresholds of significance, and its determination is based upon professional judgement, supported by consultation with statutory bodies.

Table 3 Summary Evaluation of the AAP Options

	No Development Option	Option A	Option B	Option C	Option D
Economy and Employment;	- / +	++	++	++	++
Housing and Population;	-	++	++	++	++
Community and Wellbeing;	- / +	+	+	+	+
Transport;	- / +	+	+	+	+
Land Use, Landscape and Visual;	0	–/+	–/+	–/+	–/+
Archaeology and Historic Environment;	0	0	0	0	0
Biodiversity and Green Infrastructure;	- / +	–/+	–/+	–/+	–/+
Climate Change Adaptation (Flood Risk and Water Quality);	- / +	?	?	?	–
Climate Change Mitigation (Energy, Utilities and Waste); and	+	–	–	–	–
Air Quality.	0	–	–	–	–

The no development option would have:

- A neutral effect on land use, landscape and visual, archaeology and the historic environment, air quality, as there would be no change in these aspects;
- A negative effect on housing and population, as this site has been identified in the NLC Core Strategy as playing an important role in meeting household demand in the most sustainable locations;
- Mixed effects on economy and employment, as it would retain the existing agricultural use, but miss the opportunity contribute to the diversification and increase in the proportion and range of skilled employment in the area;

- Mixed effects on community and wellbeing, as there would be no additional pressure on existing community infrastructure and open space, but no opportunity to provide modern community services to the new residents and those living in areas to the west and east of the site;
- Mixed effects on transport, as there would be no additional pressure on the existing road traffic and public transport, but no additional sustainable transport to serve the development and western periphery of Scunthorpe and no de-trunking of the M181 (which could help reduce some journey times);
- Mixed effects to biodiversity and green infrastructure, as there would be no disturbance to designated sites and wildlife, for example during construction, or displacement. However, this option would miss the opportunity to create new areas of green infrastructure;
- Mixed effects to climate change adaption (flood risk and water quality) as there would be no new residents introduced to the existing flood zone covering much of the site, but it would miss the opportunity to improve flood mitigation measures for the site and site surrounds;
- A beneficial effect on climate change mitigation (energy, utilities and waste) as there would be no change in energy and water demand other than the likely natural increase, as well as ensuring there is no additional waste generated.

The four development options appeared to be very similar in terms of significant effects, as the table shows, although there were nuances between them, as described below. All four options would lead to significant increases in the provision of housing and commercial space, which would provide an economic boost to NLC and surrounding areas. Community facilities would be provided as part of all four options, primarily to serve the development itself but potentially benefitting the wider community. The corollary of this is that transport movements will increase, however development would provide an opportunity to alleviate some existing traffic problems so this is seen as a (non-significant) benefit of all options.

Loss of agricultural land, some of it of Grade 2/3 (Very Good/ Good), would result from development. However in each case it is assumed that the extent of loss of 'best and most versatile' agricultural land would be minimised and that the effects would not be significant. Similarly, on the assumption that high rise buildings are unlikely to be acceptable in a generally flat landscape, the overall impact on views as assessed is potentially adverse but not significantly so.

The options were assessed as neutral in terms of archaeology and historic environment. Known heritage receptors can be protected or, failing this, adverse effects mitigated by preservation through record. All four options offered green infrastructure opportunities with protection and enhancement of ecological networks based around existing designated areas and identified green corridors.

Most of the measures that could be used to adapt to climate change could not be confidently identified at that stage. A mix of possible measures was identified.

New development of any kind will normally add to the total emissions of greenhouse gases as thus the options are considered to have a (non-significant) adverse effect. Similarly development will inevitably bring with it new emissions of pollutants from, for example, traffic. However this does not mean that the levels would result in breaches of air quality standards and objectives. The concentrations of pollutants are likely to be very low given the nature of development proposed.

The following list describes the main differences between the four options:

- **Economy and Employment** – Option A and B had slightly less commercial space than Options C and D, although Option A included almost 5 hectares of industrial/distribution space. Option A

also included a supermarket located within a new District Centre. Therefore, Options A and C were considered preferable as they contained a larger area of employment space and better co-location and mix of uses than the other options;

- **Housing and Population** – All four options proposed the same number of housing (6,000 units), but varied in their density. Options B and C had a similar layout, focussing the housing on areas in the central and south eastern areas of the site. Option A would provide housing north of the Doncaster Road (A18) and Option D would provide housing to the west of M181 in the south of the site. It was not determined that the layouts particularly affected the sustainability as they would each provide the same benefits of new housing and affordable housing to meet the demand;

- **Community and Wellbeing** – All options would introduce four primary schools, with Option C locating three of them in the eastern portion of the site, which would benefit the existing residents of Scunthorpe more so than existing residents of Burringham and Gunness. Any benefit to existing residents in the surrounding area is likely to be higher in Option A as the District Centre will likely provide a supermarket, although Option D is more decentralised which would benefit new residents by reducing journey time for convenience shopping. Option C and Option D represent the greatest and the most even distribution of new community/healthcare provision, and Option A would provide the largest amount of waterscape zones and Option D would provide the greatest area of green infrastructure;

- **Transport** – The provision of new services closer to Scunthorpe in Option A would bring them within closer walking distance than the other options, although for new residents, the decentralised layouts proposed under Options B, C and D would benefit the new residents more;

- **Land use, Landscape and Visual** – The greatest loss of agricultural land would be under Option C. However, this difference would be hardly noticeable, and all options would introduce measures to reduce the landscape and visual impacts to neutral;

- **Archaeology and Historic Environment** – In Option A, three high risk archaeological features could be directly affected by development, although only two high risk archaeological features could be affected by Option B,C and D;

- **Biodiversity and Green Infrastructure** – Options B, C and D were expected to result in fewer disturbances to nesting and feeding birds at the northern part of the site compared to Option A, due to a lack of development in this area. Option A would also be closest to the Gunness Common Local Wildlife Site. Option A would provide the greatest area of waterscape, and Option D would provide the greatest area of green infrastructure;

- **Climate change adaptation (flood risk and water quality)** – Option A was preferable, as it would provide development in areas with the least risk to flooding (although still in Flood Zone 3 in places). Option B and Option C would locate small areas of housing in areas with slightly higher risks of flooding. Option D performed worst in this respect as it located the smallest areas of development in the areas of lowest flood risk; and

- **Climate change mitigation (energy, utilities and waste)** – there was nothing to choose between the four options.

With respect to consultation on the SA Options Report, it was available to view on NLC's website since April 2013, with instructions for how to provide any comments. The only response received was from Natural England (John King), who stated:

> *"The SA methodology complies with the Environmental Assessment of Plans and Programmes Regulations 2004 (the SEA Regulations).*
>
> *Natural England concur with the SA's conclusion that Options B, C and D would result in fewer disturbances to nesting and feeding birds within the northern part of the site, due to a lack of development in this area and a larger buffer between human activities within the villages and areas used by SSSI/SPA/Ramsar birds."*

Taking into account the response and the findings of the SA Options Report, the preferred AAP option was selected as presented in Section 6. This option most closely resembles Option B, although minor modifications were made in light of the further site investigation and assessment work that was ongoing during this period.

6. DESCRIPTION OF THE LINCOLNSHIRE LAKES DEVELOPMENT STRATEGY

6.1. Overview of the 'Lincolnshire Lakes' AAP

Residential development is at the heart of the AAP, with 6,077 homes to be delivered in 6 villages by 2026, at an average gross density of 34 dwellings per hectare. There is a proposed relocation of the terminal junction of the M181 to the south of the development at the approximate location of Burringham Road (B1450). A planned commercial element of the development will be sited at a secondary junction, accessed from the de-trunked element of the M181. This will take the form of a centrally located strategic mixed use area that will support a range of uses including offices, hotel provision, health facilities, sports stadium, and other D1 and D2 uses. The Proposals Map for the AAP, developed by North Lincolnshire Council, is shown as in Appendix A. This preferred option most closely resembles Option B as presented in the SA Options Report, although it is not exactly the same, as it provides a larger number and area of new lakes, and slightly different development footprints and units.

6.2. Policy Document

The AAP policy document (Ref. 12) that states the following vision for the area:

"The vision for Lincolnshire Lakes is to create an environment that will attract and retain skilled residents and investment in the sub-region and place North Lincolnshire on a new economic trajectory. The vision will create a major new sustainable waterside setting, with a strong network of linked blue and green spaces, high quality new social infrastructure, and a new commercial and leisure park, forming an urban fringe of national importance, providing a gateway entrance to the town and a focus for sustainable development."

It also states the development objectives, describes the baseline conditions and quantum and limits of development, and sets out a number of policies for the development of the area, including:

POLICY SS2: SPATIAL CONCEPT & PLACE-MAKING

The Concept Framework and Design Principles set out below should inform the detailed design of AAP proposals (D4 Strategic Design Codes and D5 Area Masterplans):

Green Infrastructure:

- *Water and specifically lakes, should be a central characteristic and structuring element of the development that provide for multi-functional spaces, habitat and biodiversity enhancement and public use and enjoyment (for example, recreation, commercial leisure, arts, tourism, eating and drinking, working and waterside living).*

- *A cohesive and integrated landscape structure that responds to the differing landscape characteristics to the west and east of the M181 should be provided that:*

  a) assists in linking the blue infrastructure with the green infrastructure and villages

  b) creates a variety of green spaces and linkages (including enhancing the connecting role of Brumby Common Lane)

c) integrates advance and structural planting to mitigate the impact of development on neighbouring uses, enhance the setting of new buildings and help to mitigate the noise and visual impact of the M181.

- *Existing woodland (Brumby Grove and Brumby Common), mature trees and hedgerows should be retained within the new development sensitively arranged around them to create a parkland character*
- *Existing ditches and drains should be integrated into the new development and landscape structure to provide for sustainable drainage, ecological enhancements and creating a distinctive character to the village developments*
- *The delivery of a robust flood mitigation and drainage solution should be a leading design and development consideration, building on the existing extensive network of drainage channels and considering future ground levels and the role of the new lakes.*
- *Ecological enhancements and new habitat creation to diversify the range of habitats (e.g. grasslands, wetlands, woodlands) and support biodiversity should be integrated into all proposals*

Place:

- *A high quality place with a distinctive 'waterside and woodland' character that balances existing townscape characteristics with contemporary and innovative design to provide a new vernacular for Lincolnshire Lakes*
- *Each village should have a well-structured layout and clear identity that responds to the site opportunities and landscape characteristics. A sense of place and clear orientation should be developed through the use of landmarks, gateways, key buildings, framing and enhancing views, and focal points and ensuring sufficient continuity and enclosure of spaces and streets.*
- *Development blocks should be designed to create continuous frontage into the public realm, protecting and enlivening it with activity and passive surveillance*
- *Building, street and space typologies should positively respond to and integrate with the water areas and distinctive design should make the most of the waterfront.*
- *The public realm, including hard and soft spaces, pedestrian routes and cycleways and lakes must be attractively designed and constructed with high quality durable materials with carefully defined thresholds between public and private space to avoid unusable left over space*
- *Spaces should be created for public art and public events that help to create a sense of place, express the identity of the area and support activity and interest.*
- *A series of strategic views and vistas should be created within and between the villages and lake areas to assist with integration, accessibility and legibility*
- *The design of the development should minimise the use of energy and maximise energy efficiency through the use of renewables and maximise solar orientation through optimal use of east-west street alignments and passive design within dwellings*

Movement:

- *Integrated walkable neighbourhoods with a mixture of housing densities, type and tenure linked to local facilities and the public transport network should be identified.*
- *Development should ensure sustainable transport routes are delivered within and beyond the site through a network of streets providing a choice of route with a presumption in favour of walking, cycling and public transport.*
- *A clear hierarchy of streets which incorporate the principles of Manual for Streets focusing on the spatial quality of streets and their place-making role should be developed (including street widths, on street parking, footpath/cycleways, tree planting, street enclosure and relative height width ratios)*
- *A permeable and high quality network of pedestrian and cycle connections should be provided across the development (north-south and east-west) to link the village areas together with the lakes, community facilities and services and existing settlements and facilities*

6.3. Housing

The area of each of the 6 villages (in terms of housing) and the approximate number of dwellings per village is as follows:

- Village 1 29.2ha = 643 dwellings
- Village 2 57.32ha = 1,217 dwellings
- Village 3 46.05ha = 987 dwellings
- Village 4 35.35ha = 769 dwellings
- Village 5 51.58ha = 1,100 dwellings
- Village 6 64.35ha = 1,361 dwellings
- TOTAL = 6,077 dwellings

The current assumption on the mix of development is for 90% of the proposed dwellings to be privately owned, with 5% required to be affordable homes for developments of greater than 15 dwellings, with a spilt of 30% to be affordable intermediate dwellings (e.g. shared ownership), and 70% to be affordable social rented dwellings.

27% of proposed dwellings are assumed to be 4 bedrooms; 53% of units are 3 bed; 20% of units are 2 bed.

6.4. Green and Blue Infrastructure

The measured areas for these components of the plan are as follows:

- Lakes – five lakes totalling 81.51ha
- Waterscape Zone – five zones totalling 103.23ha

- Green Infrastructure (including waterscape zones) – areas across whole site totalling 195.94ha

6.5. Strategic Mixed Use Area

This area will be the focus for the majority of the non-residential provision within the AAP area. Strategic planning for this allocation is required to ensure a commercially favourable, well designed and deliverable hub for the provision of services and facilities for the AAP area that complement the town centre.

The following uses will be supported within the Strategic Mixed Use Area:

- Offices (B1);
- Hotel (C1);
- Health Centre (D1);
- Sports Stadium (D2); and
- Other D1 and D2 uses.

6.6. Transport connections

There will be two new junctions along what is currently the M181. The road will be de-trunked along the whole length from the most southern of the two junctions. The remaining southerly section will be altered to enable the transition to the de-trunked section.

New roads and cycle connections will be provided to connect the various parts together efficiently, and new bus services will be provided, although it is not considered viable to open a new railway station.

6.7. Phasing

To effectively manage traffic and encourage travel by sustainable modes it is important for infrastructure to be in place in advance as phases of the development are occupied. The precise phasing of junction mitigation will need to be confirmed through further assessment; including from planning applications and as development phasing becomes clearer. It will be essential however for the M181 to be de-trunked at the southern junction in advance of significant trip generation from the Lakes to minimise the impact on the existing highway network. To this end NLC has indicated that up to approximately 500 dwellings could be constructed with access to the local highway network via Scotter Road once improvements to Berkeley Circle are completed.

7. WHAT ARE THE APPRAISAL FINDINGS AT THIS CURRENT STAGE?

NLC have now completed the Lincolnshire Lakes AAP: Submission Draft, which will be consulted upon for a period of 6 weeks. This report forms the SA Report of that document, which will be issued for consultation alongside it.

This SA Report is based on the existing baseline and likely future trends as established in the SA Scoping Report and Lincolnshire Lakes Evidence Base. The preferred development option (adapted from the four assessed in the SA Options Report) has been assessed against the 10 key sustainability topics previously identified in the SA Scoping Report.

Effects may be described under the terms and associated symbols as shown in Table 3. The measures envisaged to prevent, reduce and offset any significant adverse effects of implementing the draft plan are also described where relevant.

7.1. Economy and Employment

The development strategy will provide an increase in commercial and retail space and a loss of employment in the agricultural sector due to the loss of agricultural land. The Strategic Mixed Use Area described in Section 6.5 will provide a range of employment uses (offices, hotel, health centre, sports stadium, etc). The AAP Proposals Map identifies the Port of Scunthorpe as an existing employment use. This is a major wharf (Grove Wharf) at Neap House to the north of the AAP area. The AAP consultation process has identified that the owner of the Port of Scunthorpe is considering expansion opportunities which would be a site specific land requirement within the AAP area. Policy will support this expansion within the allocated land area, and any future expansion outside of the allocated land area will be considered on its own merits and subject to an identification of the need by the Port owner. Consideration of the ecological impact of any proposed development in relation to the River Trent and the fields to the south of the site, which are recognised to be of ecological value in the AAP evidence base, will be necessary.

This increase in employment uses is expected to be of great importance to the area, which currently has very limited land take up for office and retail development. Indeed, in 2007 North Lincolnshire had the lowest amount of retail and office space of all the unitary authorities in the Yorkshire and Humber region (Ref. 2).

International competition and the high level of low-skilled jobs relating to the high proportion of jobs in the manufacturing sector (North Lincolnshire has the 11th highest industrial floorspace nationally) is a major risk for the local economy (Ref. 2).

The AAP will enable an increased diversity in the employment base of the area, and will increase the number of skilled jobs within the area, by reducing the high proportion of low skilled jobs that are currently focused within the manufacturing sector.

In relation to retail provision, the AAP will provide a district centre adjacent to Village 5, and six new local centres in all Villages.

Retail space has been allocated as such in order to provide for the day-to-day top up convenience shopping needs of the new population but no more, so that any new retail provision does not undermine Scunthorpe Town Centre through displacement of shoppers. However the increased retail provision may benefit existing residents in the rural areas to the west and villages through increased provision of convenience shopping.

The additional spending in the surrounding area by new residents will benefit existing local business and create enterprise opportunities in the area.

Overall, the AAP would result in significant positive effects (++) to the economy and employment.

7.2. Housing and Population

The AAP will provide approximately 6,077 new homes, and based on the assumption of 2.29 persons per household as given in the Strategic Housing Market Assessment (2012) (Ref. 12), once fully occupied

there will be in the order of 13,740 new residents[1]. Of these it is expected that there will be an average of 0.45 children and young people (aged 4 to 16) per household, totalling 2,700.

The AAP is most similar in layout to the previously assessed Option B and Option C, and focusses the housing areas in the central and south eastern areas of the site.

The provision of these new homes will significantly contribute to the NLC Core Strategy requirement for new dwellings[2], and therefore this is considered positive in relation to housing provision, particularly as the population in North Lincolnshire is expected to accelerate its growth over the next 20 years due to natural change and net migration and the projected decreases in household size.

Furthermore, it is expected that there will be a requirement for all new housing to meet an appropriate level (Level 5 or 6 or future equivalent) of the Code for Sustainable Homes (while still a requirement). Building Regulations will remain a baseline standard that must be achieved. This will ensure that at an individual project level, sustainable development features such as energy and water efficiency are incorporated into any future housing design and specifications.

Overall, the AAP would result in significantly positive (++) effects on housing and population.

7.3. Community and Wellbeing

The NPPF makes it clear that in order to promote healthy communities there should be an opportunity for all sections of the community to interact. This requires positive planning for the provision of shared space, community facilities (such as shops, meeting places, sports venues, hotels, health and community centres etc) and other services to help to deliver sustainable communities.

The Strategic Mixed Use Area at Lincolnshire Lakes will accommodate many of these functions and will effectively provide the range of day to day retail and employment uses alongside community uses which will be at a scale to help the serve the people who live and work in this area. Furthermore it will also provide a role as a key visitor destination for North Lincolnshire through the provision of leisure and sporting facilities (sports stadium, hotel etc.).

The Council's People Directorate has advised that Primary Schools located adjacent to the proposed Lincolnshire Lakes development site are generally at or close to capacity. Experience has also shown that new Primary Schools have been a popular attractor to new housing developments in other areas of the town.

Therefore the AAP proposes three education and early years facilities, which are distributed between Villages 3, 5 and 6. The location is determined largely by the layout of the housing blocks, ensuring that none of the introduced residents will have a significantly longer journey time. Although most of the education provision will be to meet the requirements of the new introduced residents, this could potentially benefit the existing residents on the western extent of Scunthorpe.

[1] This is an approximate figure which assumes the average household size will remain as given. In reality is likely that the figure will be slightly lower due the trend for lower average number of occupants per dwelling and may change during the timeframe of the AAP.

[2] The NLC Core Strategy Targets 12,063 new dwellings at a rate of 754 dwellings per year to be delivered between 2010 and 2026). The Lincolnshire Lakes AAP will contribute 6000 (approx 50% of the requirement).

The Council's People Directorate has confirmed that there is also likely to be a requirement for a Secondary School within the AAP area during the plan period (1,050 with a possible expansion requirement for up to 1,260 places in total). As the timing / need for such a school is yet to be determined in detail by the People Directorate, it has not been included on the AAP Proposals Map.

A 'District Centre' is proposed adjacent to Village 5 which will provide 4,700sqm gross shopping floorspace including a supermarket of 3,300sqm gross. A supermarket of this size would be expected to have a sales area of around 2,300sqm of which 1,800sqm would be for convenience goods and 500sqm for comparison goods. This level of floorspace would meet the bulk of convenience shopping needs of local residents of the Lincolnshire Lakes.

The remaining 1,400sqm gross shopping floorspace in the District Centre would be used primarily for comparison goods, comprising several retail units. The size of units will depend on demand for retail space but it is most likely that the types of use would include clothes, household goods, hardware, small electrical goods, chemist goods, toiletries, pet products etc. in small units. The District Centre would also be expected to accommodate services and leisure uses such as hairdressers, opticians, travel agents, estate agents, betting shop, pub, cafes, and restaurants/takeaways.

Also, local centres are proposed in all villages which will include small convenience goods shops such as a small supermarket, newsagent and pharmacy. In addition, services would probably include hairdressers, takeaways etc.

The green infrastructure strategy for the AAP area will create a multi-functional network of green spaces and routes – creating new recreation spaces for future residents and visitors, as well as supporting and enhancing biodiversity. The total green infrastructure provided in terms of natural and semi-natural greenspace is approximately 194ha. This clearly exceeds the full PPG17 Assessment requirement of 140.8ha. The PPG17 Assessment standards are also adequately met for the other PPG17 Assessment classifications for green space. The provision of open spaces, lakes and the green infrastructure will also enhance the wellbeing of future residents and workers.

Overall, the AAP will result in positive effects (+) to communities and wellbeing.

7.4. Transport

A description of the transport baseline is provided in the AAP Sustainable Transport Assessment (Ref. 14), but in summary:

- The majority of traffic accessing Scunthorpe from the west does so via the M181 and Doncaster Road (A18). Currently the M181 being a trunk road, meaning that vehicles are unable to turn around before entering the M180, adding to journey times;
- Approximately 1km east of the M181 / Doncaster Road junction is the Berkeley Circle 5 arm roundabout, which suffers from a degree of congestion during the weekday peak periods;
- The B1450 and the B1216 run through the south, west and northern areas of the site. Local roads provide access to farmland;
- A railway runs east-west across the site. The nearest railway station is located in Althorpe approximately 200m west of the western site boundary, while Scunthorpe rail station is located approximately 2.5km east of the eastern site boundary.

The AAP Proposals Maps (see Figure 3) show the following transport measures:

- The former M181 will be retained as a key north to south Strategic Route providing a vehicular link for Scunthorpe to the M180. The southern section of this strategic highway will run between two new roundabout junctions. The Strategic Highway South policy covers the stretch of road that runs north of the new junction as identified on the AAP Proposals Map. It will be subject to a 50 mph speed limit, and will be improved to allow safe use by cyclists and pedestrians.

- The former M181 will be retained as a key north to south Strategic Route providing a vehicular link for Scunthorpe to the M180. The northern section of this strategic highway will run between the northern roundabout junction and the existing A18 / A1077 roundabout. The Strategic Highway North policy covers the stretch of road that runs north of the second new roundabout junction as identified on the AAP Proposals Map. It will have a 40 mph speed limit and will be improved to allow safe use by cyclists and pedestrians (including safe crossing points for cyclists and pedestrians through signalised junctions north of the northern junction and near Frodingham Grange roundabout).

- The new southern roundabout junction will facilitate a new Strategic Route link to Scotter Road and enable improved access between Scunthorpe and the M180 via Lincolnshire Lakes.

- The new northern roundabout junction will facilitate improved access to Scotter Road and enable improved access between Scunthorpe and the M180 via Lincolnshire Lakes.

- The route from the detrunked M181 Junction South (T3) to Scotter Road will provide a Strategic Route for vehicles, as identified on the AAP Proposals Map. It will have a 30 - 40 mph speed limit, and there will be junction improvements at the junction of Burringham Road and Scotter Road. A new junction / walking and cycling crossing point will be created to connect Villages 2 and 3

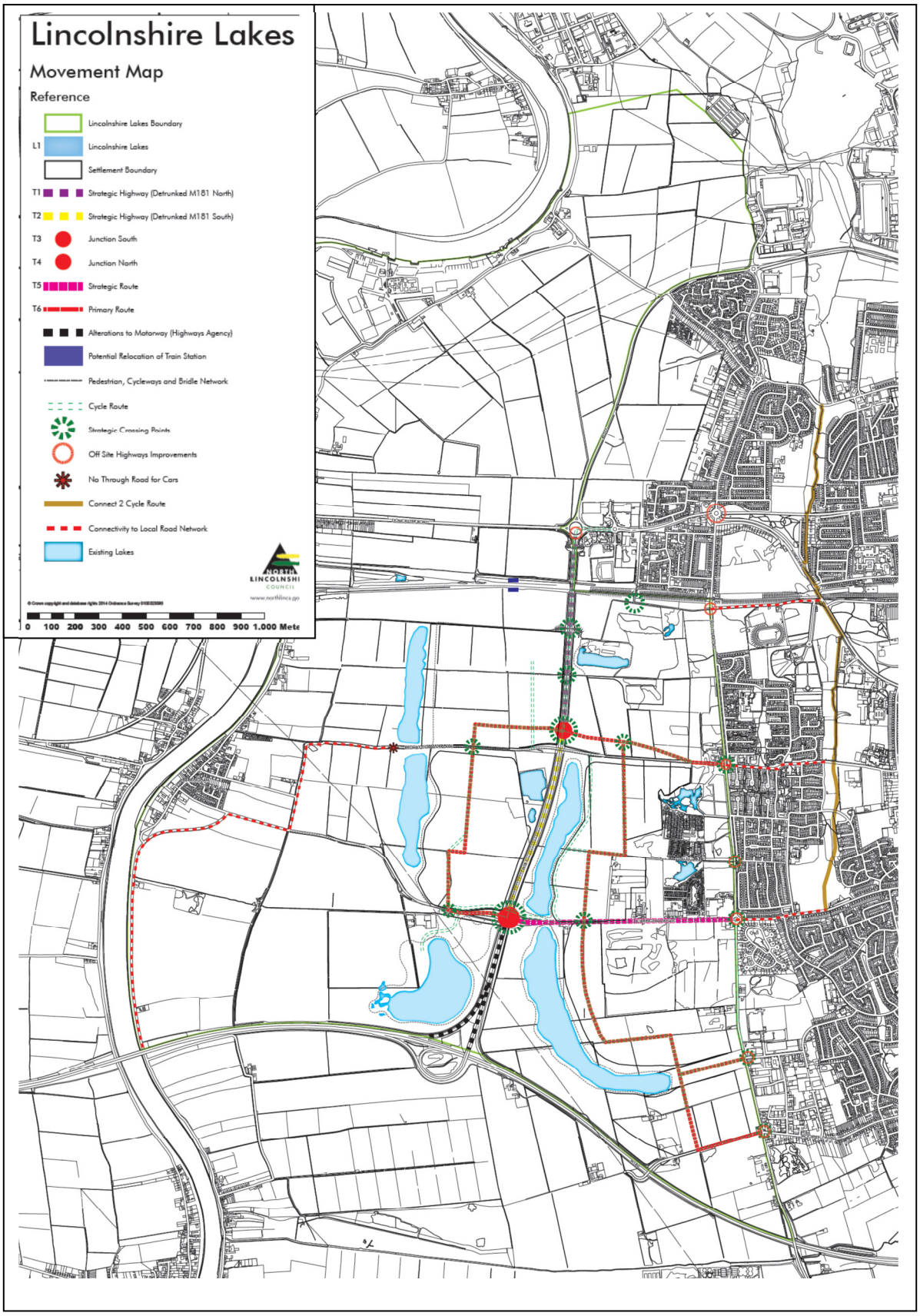
- The Primary Route will represent the principal movement corridor between the 6 villages and the strategic highway network. This route will have a 30 mph speed limit and will pass through the Local Centres / District Centre as far as possible with an active and continuous frontage with access points to development blocks. The route will include safe crossing points for cyclists and pedestrians and appropriately designed on street parking will be provided. The route will provide the primary bus circulation route to the villages.

- A secondary network of local roads (30mph speed limit) will be provided that encourage permeability through the villages and encourage walking and cycling access to the Local Centres and the lakes.

- The Strategic and Primary Routes will be utilised to provide bus routes for the AAP area. Routes capable of accommodating buses and bus stops shall be provided within 400 metres walking distance of all domestic properties. Bus stops of a high quality will be created along the key bus routes, providing shelters, up to date route information and raised kerbs. Real Time Passenger Information will also be incorporated where possible.

- A network of pedestrian, cycle and bridleways will be provided throughout and between the villages that are safe, attractive and useable, as shown on the AAP Movement Parameters Plan.

Figure 3 Illustrative Movement and Transport Routes for the AAP



A Framework Travel Plan (FTP) will be produced for the whole of the Lakes, to cover all land uses proposed, with more specific Site Specific Plans produced within the context of this for certain elements such as the Strategic Mixed Use Area and schools. The FTP will require senior level of support within NLC, and will include a comprehensive package of measures to encourage use of sustainable modes and discourage car use.

The AAP locates the Strategic Mixed Use Area adjacent to the proposed new roundabout of the M181, ensuring any commuting traffic to this area will not adversely affect new residents.

It is considered that there will be a positive impact in relation to traffic congestion by taking advantage of the opportunity to provide traffic relief to Berkeley Circle roundabout and Doncaster Road corridor, although it is acknowledged that there will be a significant number of new trips generated by the new residents to be located within the area. However, development will provide the opportunity to address these issues through the provision of new infrastructure and roads. Overall, the AAP will result in a positive (+) effect on transport.

7.5. Land Use, Landscape and Visual

The site includes the villages of Burringham and Gunness adjacent to the River Trent. Excluding these villages, the overall principal land use in the site is agricultural. There is an industrial presence in the northern part of the site including docks and distribution warehouses adjacent to the River Trent at the Port of Scunthorpe.

According to the agricultural land classification, the area adjacent to the River Trent is the most productive (Grade 1, excellent), in the middle of the site it is Grade 2 and 3 (Very Good/Good) while on the eastern extent of the site adjacent to Scunthorpe is Grade 3 and 4 (Good/Poor).

The site is primarily a flat landscape occupying the area of the former pro-glacial Lake Humber; and is generally very low lying, commonly at or below mean high-water mark.

The AAP will result in a loss of agricultural land, although the most productive agricultural land (Grade 1, Excellent) will be protected by focusing development in central and eastern parts of the site, where the agricultural land is less productive and of a lower grade.

Although there is a negative effect associated with the loss of agricultural land, it is felt that for the reasons described earlier in this report in relation to 'Economy and Employment'; 'Housing', and 'Community and Wellbeing', the change in land use to a mix of uses including housing, commercial, retail and community uses is an overall positive effect.

Potential views of the development will be from the flat land to the west, south and north are already obscured by the existing settlements of Keadby, Althorpe, Gunness and Burringham, industrial areas, wharfs and scattered houses and the elevated M180. The development will generally be low rise and therefore the only views likely to affected are from elevated areas such as the M180, and parts of the escarpment located on the eastern part of the site.

Overall, it is considered that the AAP will have a neutral impact on the landscape and visual character of the area. The retention of mature areas of existing vegetation within the site and additional planting associated with new green and blue infrastructure will create a layering effect allowing the new development to blend in its surroundings. In areas from where the site is visible, generally in elevated areas such as the M180 and M181 and parts of the escarpment, the development will be designed to stitch into the existing urban fabric whilst offering new gateway entrances into Scunthorpe. It is

considered that the rural setting of existing surrounding villages can be maintained due to the buffer between existing villages and the new villages.

Overall, the AAP will result in mixed (+/-) effect on land use, landscape and visual impacts.

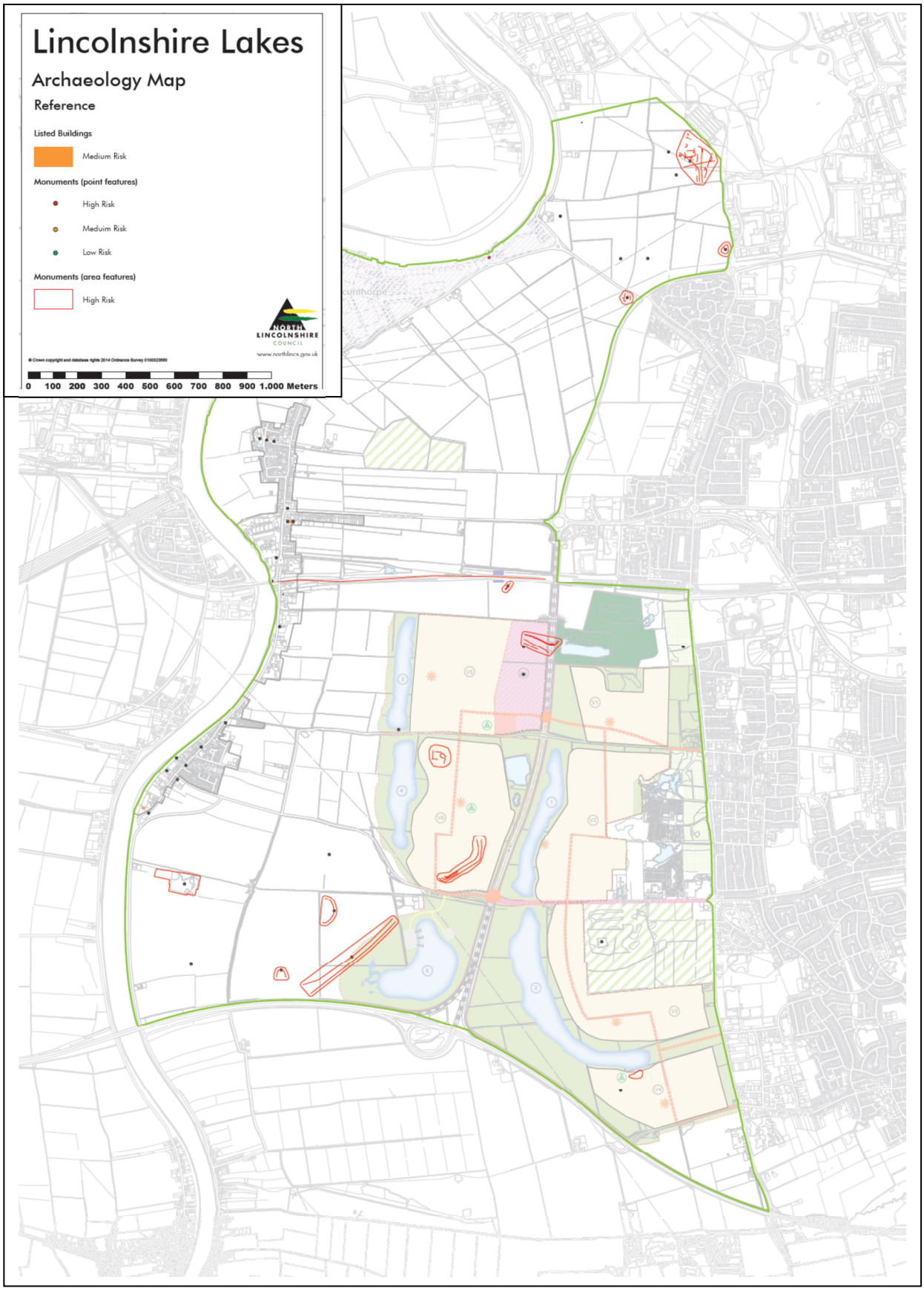
7.6. Archaeology and Historic Environment

Although the Lincolnshire Lakes site exists within an agricultural landscape and encompasses settlements which have medieval origins the majority of the site is comprised of modern fields, with an industrial pocket in the northwest in the form of wharves and distribution warehouses. The medieval settlements can be seen to follow the line of the River Trent in the west, and modern residential development to the east is screened by woodland in the northeast corner.

There are no Registered Historic Parks and Gardens, Registered Battlefields, Scheduled Monuments, World Heritage Sites or Conservation Areas within the AAP site. There are four Grade II listed buildings within the site boundary, including the Old Rectory, its associated Stable Block, and no. 94 Old Village Street located within the village of Gunness. St John the Baptist Church is located to the south of Burringham. There are two Scheduled Monuments within 1km of the site boundary, and more in the nearby Gunness and Althorpe.

Archaeological resources that could be affected by development are shown on Figure 4. A brief description of each is given below.

Figure 4: Archaeological resources



- MLS7767 – Findspot where unspecified flints were found on Brumby Common (Burringham parish) at some time before 1931. Located in the central portion of the site.
- MLS10812/ELS3236 Linear cropmark that suggests evidence of occupation. Until further investigation is undertaken the origin of the feature/s cannot be determined. The eastern section is now beneath the M181. Located in the central portion of the site.
- MLS20574 Two parallel linear ditches are visible as cropmarks for approximately 60 metres, suggest evidence of occupation. Until further investigation is undertaken the origin of the feature/s cannot be determined. Located in the central portion of the site.
- MLS20572 A fragmentary sub-rectangular enclosure is visible as a cropmark and suggests evidence of occupation. Until further investigation is undertaken the origin of the feature/s cannot be determined. Located in the northern portion of the site.

A 'high risk' monument point feature located to the west of the M181 is shown to fall within the Villages 1 and 5 boundary where it could potentially be impacted by neighbouring new development. Furthermore, a small high risk area feature is located adjacent to a proposed lake to the south of the AAP, just to the west of the M181.

MLS20574 and MLS10812 are considered high risk but have not yet been investigated and therefore the nature and extent of archaeological remains are unknown. Therefore further desk study and possibly trial trenching followed by an excavation may be required before development can take place. Although development could affect MLS 7767 it is considered low risk and would likely require field-walking and at worst trial trenching.

It will be important that any adopted policy and subsequent planning applications consider the impacts on these high risk features carefully and, if necessary, designs are prepared to avoid and/or mitigate any harm. Any future planning application for the site would need to provide a more targeted investigation, and should significant potential be identified, mitigation in the form of intrusive works may be needed to preserve any archaeological resource 'by record'. It is therefore considered that, overall, following mitigation the development of the AAP will have a neutral (0) effect on archaeological assets.

7.7. Biodiversity and Green Infrastructure

There are no statutory designated sites within the site boundary, but four designations are located adjacent to the site; the Humber Estuary Ramsar, SAC and SSSI located directly adjacent to the western boundary from Keadby Bridge north, and Silica Lodge LNR located next to the eastern site boundary.

The Humber Estuary Special Protection Area (SPA) is located approximately 8km north of the site boundary, but is directly connected to the site by the River Trent which flows downstream to the Humber Estuary along the western site boundary.

The northern section of the site along the River Trent is adjacent to the Humber Estuary Special Area of Conservation (SAC) and Ramsar/ Site of Special Scientific Interest (SSSI). Silica Lodge Local Nature Reserve (LNR) is located adjacent to the eastern boundary of the site.

There are no ancient woodland stands within the site boundary; with the closest located approximately 0.5km east at Brumby Wood. There are 12 Lincolnshire BAP habitats within the site boundary. Of those habitats, the ones considered of most ecological value, including the lowland mixed deciduous woodland,

ponds, lakes and reservoirs, lowland meadows, springs and flushes and lowland acid grassland are largely confined to the boundaries of designated LWS, SNCI or nature reserves.

There are four non statutory designated sites within the site boundary including Gunness Common Local Wildlife Site (LWS) Ashby Decoy Golf course LWS, Westcliffe Lagoon LWS; and Brumby Common West LWS. There are also two non statutory designated sites immediately adjacent to the site boundary. These six sites are designated primarily for their habitats with the exception of Silica Lodge LWS (which is designated for birds, mammals and invertebrates).

Natural England has identified wildlife corridors to the east and west of the AAP area and common pipistrelle bats and unidentified bat species have previously been recorded within and directly adjacent to the site boundary.

There is currently an extensive network of wet drainage ditches and pond habitats within the site. The western part of the site is located within the Humberhead Levels Nature Improvement Area (NIA). The Humberhead Levels NIA is one of twelve Nature Improvement Areas in England and includes much of the Lincolnshire Lakes AAP Study Area. The NIA is within the area covered by the Humberhead Levels Partnership, a cooperative effort between councils, RSPB, wildlife trusts, Drainage Boards and Government Agencies 'aiming to create an internationally renowned, unique network of wetlands in a predominantly agricultural landscape, whilst supporting thriving communities and wildlife'.

A Habitat Strategy has been produced for the AAP (Ref. 15), that sets out the strategic habitat creation and enhancement initiatives (including management proposals) which are appropriate in the context of conservation priorities for the area.

There will be no residential or commercial development located adjacent to the River Trent other than in relation to the existing operations at the Port of Scunthorpe. This is intended to prevent direct impacts upon the ecologically designated river.

There is no significant direct effect from land take, fragmentation or other loss impacts resulting from the AAP, and there is potential for open space provision to improve connectivity between designated sites and accommodate increased population and visitor pressure.

It is considered that the AAP would result in few disturbances to nesting and feeding birds at the northern part of the site, due to a lack of development in this area that would provide a greater buffer between human activity and wildlife areas.

Gunness Common LWS will be unaffected as the nearest development is located approximately 700m away, although development will be located adjacent to Brumby West Common SNCI and Westcliffe Lagoon LWS.

Development will be located to the west and north and south of Ashby Decoy Golf Course LWS. There may be indirect effects arising from increased population pressure on this area, and aspects such as greater disturbance of wildlife through recreational activity such as dog walking and cycling. The layered effect of parks and open space surrounding the residential areas will act as buffer zones reducing the impact upon birds and other wildlife.

As part of the Sustainable Drainage Systems (SuDS) a number of areas of blue infrastructure, which could include wetland habitats, including reed-beds and wet grassland, will provide a positive impact upon biodiversity and green infrastructure. A number of open areas are proposed which, subject to further design, could provide further biodiversity inputs.

It is expected that a number of the new buildings would be designed with green or brown (or living) roofs. This would not only provide a significantly large area for insects, birds and animals to forage, but would also lead to reduction in rainwater run-off rates, leading to less flood risk.

The loss of farmland, and any removal of hedgerows and other valuable habitats would be assessed in detail as part of any planning application, and site specific mitigation measures would be used to avoid any significant adverse impacts to biodiversity.

Approximately 194ha of green infrastructure is proposed (natural and semi-natural greenspace), with protection and enhancement of ecological networks based around existing designated areas and identified green corridors.

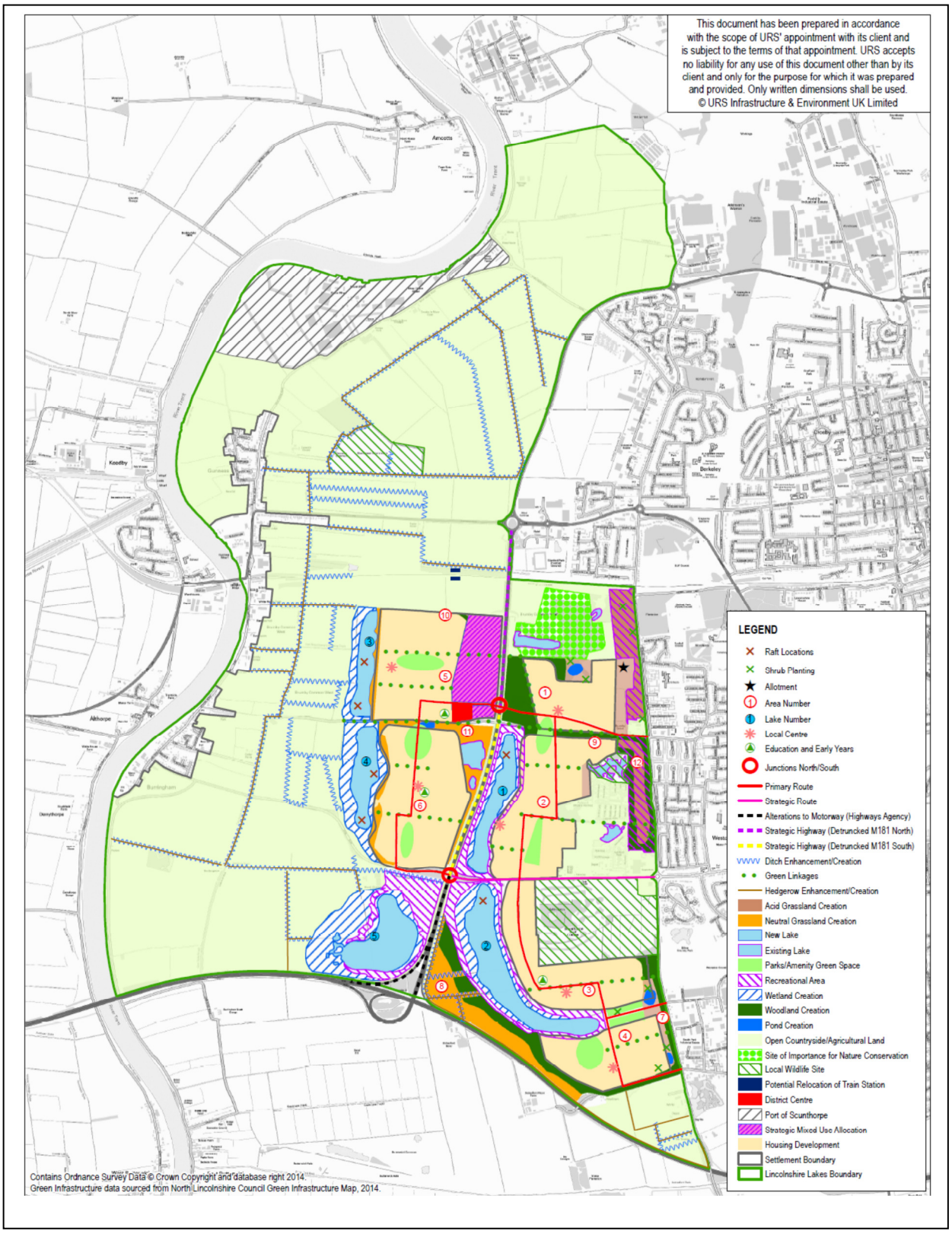
Woodland habitat will be created in Areas 1, 7, and 8, with smaller strips of tree planting in 9 and 10 (as shown in Figure 5).

Creation of this habitat in these areas would buffer and connect fragmented woodland habitat at Westcliff Lagoon LWS, Yaddlethorpe Fish Ponds Local Wildlife Site LWS, Brumby Common West and Viaduct LWS and Ashby Decoy Golf Course LWS (which has recently entered a ten year Higher Level Stewardship Scheme, in part for management of its woodland). These targets are in line with North Lincolnshire's Habitat Action Plan (HAP) for lowland mixed deciduous woodland. This landscape scale conservation approach would also contribute to a section of identified green infrastructure corridor to the east of the site; the Jurassic Escarpment and green infrastructure provision as highlighted in: 'Planning for a Healthy Environment - Good Practice Guidance for Green Infrastructure and Biodiversity Published by the Town and Country Planning Association and The Wildlife Trusts, 2012'. Creation of this habitat will provide benefits to a variety of wildlife including breeding habitat for woodland birds and invertebrates and foraging and commuting resource for bats, hedgehog and badgers. To prevent shading and/or encroachment, woodland will not be planted within 20m of any existing ditches or waterbodies.

In addition to the wildlife benefit, creation of woodland in Area 7 will also provide additional screening for the new villages from the industrial development to the east of Scotter Road.

Figure 5 shows the ecology and biodiversity measures proposed within the AAP.

Figure 5 Ecology and Biodiversity Measures Proposed within the AAP



Overall, the effect of development would be mixed, (-/+), being adverse in the shorter term, as the wildlife associated with the designated sites would suffer increased disturbance through construction activities.

In the longer term, with the management of visitors to the designated nature conservation sites, the ecological enhancements described above would start to have an overall positive effect on biodiversity.

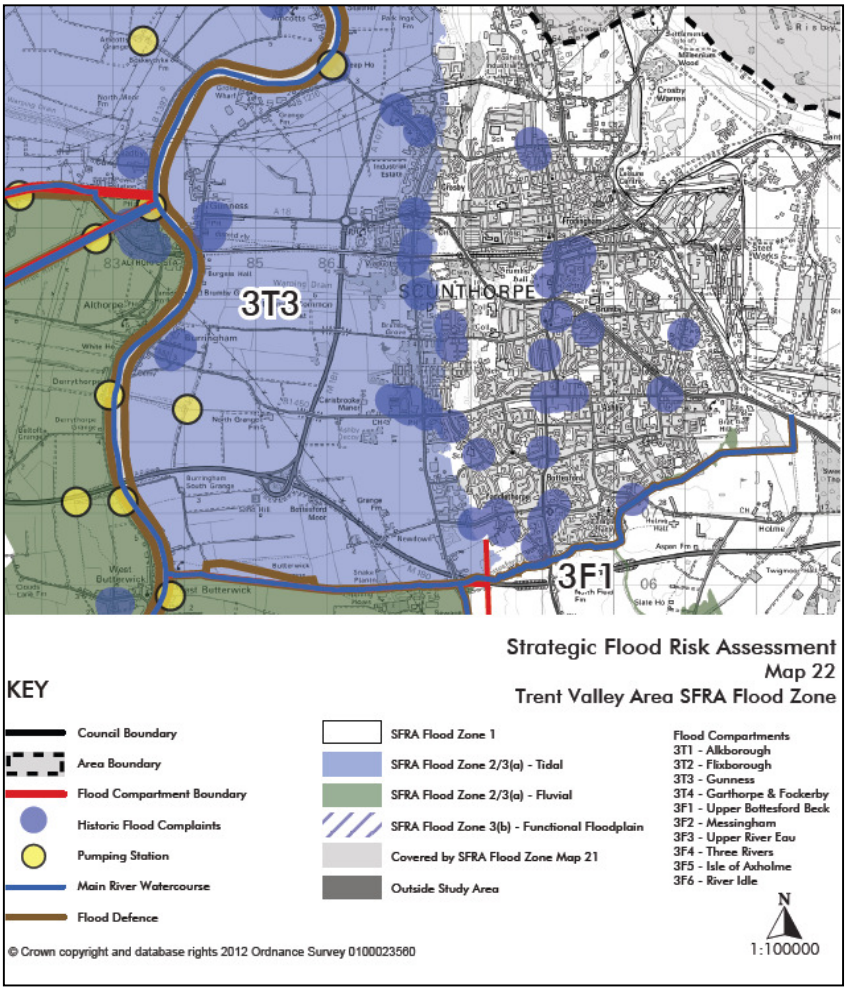
7.8. Climate Change Adaptation (Flood Risk and Water Quality)

The site lies immediately to the east of the River Trent, a major river in England which rises in the Staffordshire Moorlands and is joined by its major tributaries in the upper catchment before flowing northwest towards the Humber. The study area lies on the right bank 6 miles upstream of its confluence with the River Ouse and outfall into the Humber Estuary. The stretch of River Trent that bounds the site, particularly the northern section, north of Keadby Bridge, is tidally influenced.

Currently the majority of the site is shown within Flood Zone 2 and 3a[3] as a result of fluvial/tidal flooding, as shown in Figure 6. This map does not take into account flood defences or climate change, and the defences are designed to provide protection up to the 1% AEP (1 in 100 year) event from fluvial sources. However, it has been noted in the Flood Management and Drainage Strategy (Ref. 16) that there are potentially two low points in the defences, which could reduce this standard of protection, and lead to overtopping and mass inundation of floodwater.

[3] Flood Zone 2 between 1 in 100 and 1 in 1000 annual probability of river flooding (1% – 0.1%) or between a 1 in 200 and 1 in 1000 annual probability of sea flooding (0.5% – 0.1%) in any year. Flood Zone 3 comprises land assessed as having a 1 in 100 or greater annual probability of river flooding (>1%) or a 1 in 200 or greater annual probability of sea flooding (>0.5%) in any year.

Figure 6: Environment Agency (EA) Flood Map



Source, SFRA , November 2011 (Ref. 17)

Climate change is expected to result in warmer, wetter winters and drier, hotter summers over the coming decades, with increased frequency of extreme weather events. As a result, there is a need to adapt to the predicted effects.

With respect to flood risk, there will be an increase in impermeable area due the change in land use from green-field. The increase in impermeable area would result in higher rates of rainwater run-off, which leads to a greater chance of surface water flooding at the site and downstream.

To mitigate the potential for surface water flooding the AAP will make use of Sustainable Drainage Systems (SuDS). The SuDS hierarchy, as defined by the Environment Agency (EA) is shown in Figure 7.

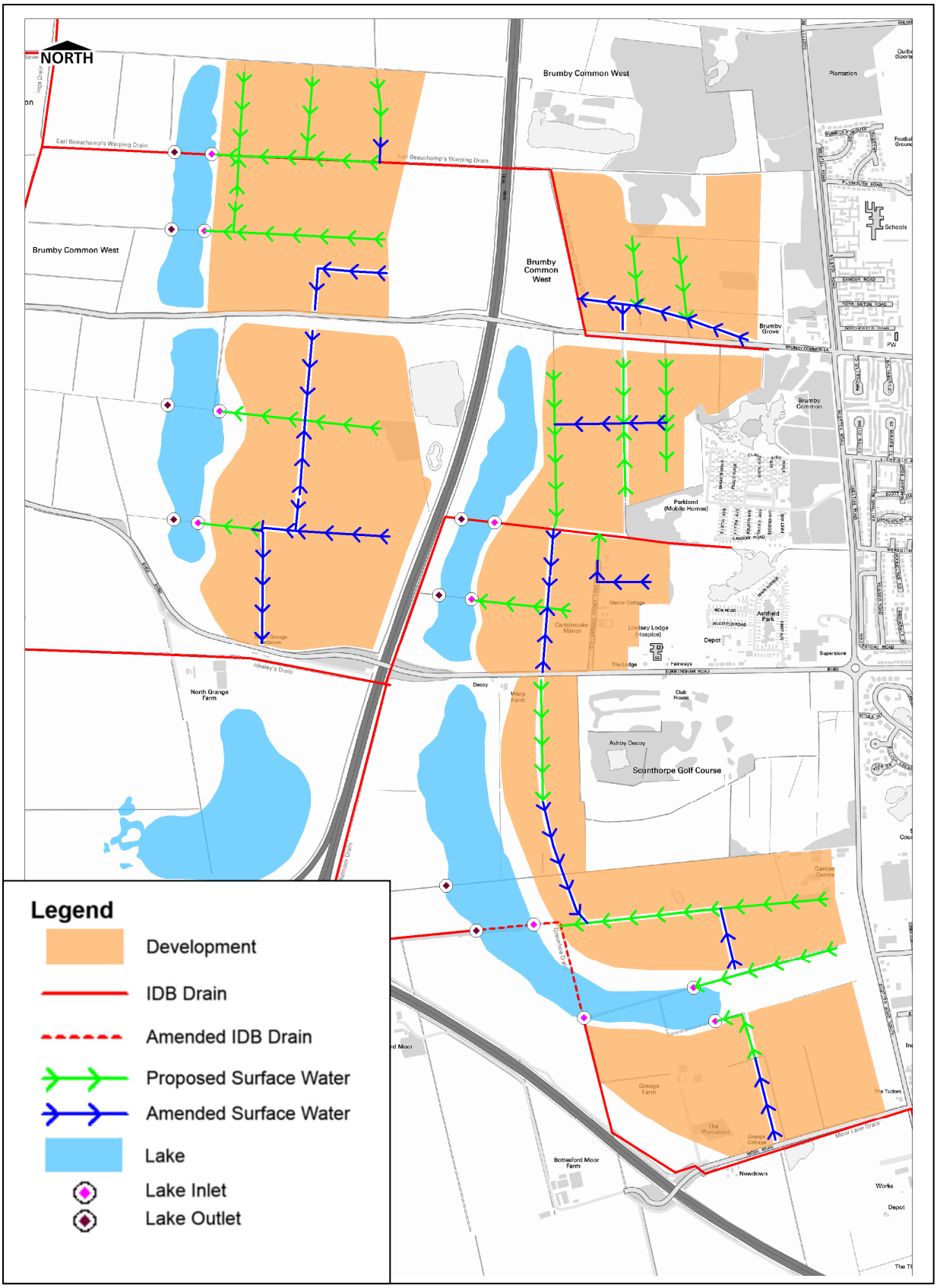
Figure 7: SuDS Hierarchy

	SUDS technique	Flood Reduction	Pollution Reduction	Landscape & Wildlife Benefit
Most Sustainable	**Living roofs**	✓	✓	✓
↑	**Basins and ponds** - Constructed wetlands - Balancing ponds - Detention basins - Retention ponds	✓	✓	✓
	Filter strips and swales	✓	✓	✓
	Infiltration devices - soakaways - infiltration trenches and basins	✓	✓	✓
↓	**Permeable surfaces and filter drains** - gravelled areas - solid paving blocks - porous paviors	✓	✓	
Least Sustainable	**Tanked systems** - over-sized pipes/tanks - storms cells	✓		

The SuDS employed will be designed to have a sufficient storage volume to offset the increase in impermeable area and will ensure the run off rate remains at a level of the current greenfield site. A lagoon in the AAP area has been identified to receive flood flows from a combined sewer overflow during high intensity rainfall events.

The revised network of land drains will be predominantly gravity fed into the lakes to the west, with discharges from these to the Internal Drainage Board (IDB) network then controlled. An outline of the conceptual drainage network is shown in Figure 8.

Figure 8 Conceptual Drainage Strategy



In addition, it is anticipated that many of the new buildings will have green or brown roofs, which will act to intercept rainfall and offset the loss of greenfield land in relation to run-off rates.

There are currently no plans for 'highly vulnerable' development or 'essential infrastructure' as defined by the Technical Guidance to the NPPF (Ref. 18). The most vulnerable development will be residential and schools which is considered 'more vulnerable' under the guidance.

The preferred option for the flood mitigation measure is flood defence improvements for 3.8 km (along the southern section of the defences) with reduced land raising across the whole AAP site.

Longer term, to provide benefit to the wider area to the right bank of the River Trent, consideration may be given to piling the whole 9 km length of the defences. However at this stage this is not required to facilitate the development of the AAP site.

As part of this solution, low spots described above would be raised during the flood defence improvements. The piling of the defences to the south of Keadby Bridge would reduce the risk of breach or overtopping in this location, and consideration may be given to undertaking localised works at the low spots in the defences to the north of Keadby Bridge, effectively increasing the protection offered to existing communities.

As a consequence of the right bank defence improvements noted above, the extent of flooding from the residual risk of overtopping or breach of the defences will be less, effectively reducing the level of risk to both existing communities (i.e. Burringham and Gunness) land and the proposed development.

Should there be a residual breach or overtopping of the right bank defences, the likelihood of flooding affecting the development itself is considered to be low due to the prevailing land raising, freeboard allowance and associated levels of the development plots. However, should the local area be subjected to an extreme event (significantly in excess of the design standard), then there is a further residual risk that development plots, areas and settlements could become marooned. As such, it is recommended that a Flood Evacuation Plan is developed for the whole Lincolnshire Lakes development.

Overall, with all these measures in place, there will be a positive (+) effect to the flood risk and water quality.

7.9. Climate Change Mitigation (Energy, Utilities and Waste)

Although there is no energy generating infrastructure within the site boundary, Glanford power station is located within Flixborough industrial estate immediately north of the site boundary (generation capacity of 13.5 Mega Watts [MW]). The wider North Lincolnshire area also supports a number of energy generating facilities including Bagmoor Wind Farm located approximately 8 km north of the site (16 MW); and Europe's largest Combined Heat and Power (CHP) plant located at Kilingholme approximately 25 km east of the site [730 MW]); North Lincolnshire is already significantly involved in the power generation industry.

Anglian Water currently provides water supply to Scunthorpe and the area to the south of the town. Existing major water mains within the study area generally follow the alignment of the existing highway network and provide water for the existing residential areas within the study area including Gunness and Burringham.

NLC is the waste collection and disposal authority. In 2006, licensed and permitted waste treatment and disposal facilities in North Lincolnshire received around 1.95 million tonnes of controlled waste, of which

only 5.3% (103,000 tonnes) was Municipal Solid Waste (MSW). Currently, 49% of MSW is recycled or composted, and the remainder goes to landfill.

Core Strategy Policies CS2: Delivering More Sustainable Development, CS18: Sustainable Resource Use & Climate Change and CS20: Sustainable Waste Management set out the framework for delivering sustainable design and construction and therefore form the basic standards required for the AAP. Mitigating climate change in the AAP area is focussed on reducing resource use, and AAP Policy SD1 introduces targets to achieve Code for Sustainable Homes Levels 5 and 6 (or future equivalent) for residential development in the AAP area where possible (until superseded by changes to Government policy), or a minimum of BREEAM Very Good and/or an Energy Performance Certificate rating of 40 for non-residential development.

There will be a higher energy and water demand compared to the current situation, due to the predominant land use (residential) having a higher water demand than the current land use (agriculture)

There will also be a significant increase in Municipal Solid Waste (MSW) generated compared to the current situation, mostly from the proposed new households.

Using the latest waste returns data from North Lincolnshire for 2011/2012 (Ref. 19), it has been established that North Lincolnshire collects 504kg household waste per person per year. Based on an average household size of 2.29, the Lincolnshire Lakes development is therefore estimated to produce 6,925 tonnes of household waste per year. 47.9% of North Lincolnshire household waste is reused, recycled or composted in 2011 - 2012. This equates to a total of 3,317 tonnes of material from Lincolnshire Lakes, and the majority of this is assumed to go to existing processing facilities.

Taking the above into consideration, Lincolnshire Lakes would produce an estimated 3,608 tonnes of residual waste, which is assumed will be disposed to either a landfill or Energy from Waste (EfW) facilities. If UK waste minimisation strategies are successful, then total amount of will decline over time, while recycling rates should increase with time.

Overall, this is expected to lead to a negative (-) effect to climate change mitigation.

7.10. Air Quality

The site is located in an area where air quality is likely to be influenced by a number of emissions sources, including road transport, industrial processes and rail transport. A number of roads pass close to the site including the M180 which forms the southern boundary of the site and M181, which passes through the site. There are numerous industrial processes within the vicinity of the site including fuel and power products and processes, intensive farming, metal production and processing and animal/vegetable and food processes. A number of processes requiring environmental permits regulated by the Environment Agency and Local Authority are in close proximity. The emissions from these processes will characterise the existing pollutant concentrations across the site and surrounding area.

The Air Quality Management Area (AQMA) of relevance to the Lincolnshire Lakes AAP is the Scunthorpe AQMA, which has been designated for an area incorporating part of the town of Scunthorpe and an area to the east of Scunthorpe including the site of the steelworks which is located approximately 2km to the east of the proposed development site. It is designated for the exceedance of the 24 hour objective for particulate matter (PM_{10}). The PM_{10} issue in Scunthorpe is complex with multiple stack and fugitive industrial sources including the large steelworks, in addition to the other usual sources (traffic etc) (Ref. 20).

As described in the SA Scoping Report, key sustainability issues relating to air quality are dependent on growth in transport related greenhouse gas emissions and overall poor air quality in parts of Scunthorpe. The potential additional sources of air pollutants as a result of the AAP will include additional road vehicle emissions and potential emissions from biomass plant, community heating and CHP schemes (particularly increases in NO_2 and PM_{10}) if included. Emissions generated from higher flue heights will have a lower magnitude of impact in the immediate vicinity, but higher impacts further away.

Considering the existing AQMA in the eastern area of Scunthorpe, potential westerly winds from the industrial areas, potential generation of new traffic (especially along the M181/A18), and emissions sources, effects on air quality arising from the Lincolnshire Lakes Development should be considered. It is expected that this will be assessed in detail as part of any future planning application.

The AAP will have a negative (-) effect on air quality due to the increase in vehicle trips resulting from the introduction of residential and commercial areas.

7.11. Conclusions

Based on the discussion of the ten sustainability topics above the overall evaluation of the AAP is presented in Table 4.

Table 4: Evaluation of the Options

Sustainability Topic	AAP Development Outcome
Economy and Employment	++
Housing and Population	++
Community and Wellbeing	+
Transport	+
Land Use, Landscape and Visual	–/+
Archaeology and Historic Environment	0
Biodiversity and Green Infrastructure	–/+
Climate Change Adaptation (Flood Risk and Water Quality)	+
Climate Change Mitigation (Energy, Utilities and Waste)	–
Air Quality	–

The purpose of SA / SEA is to determine the likelihood of significant effects of a plan or programme in environmental and sustainability terms. Table 4 represents the evaluation conclusions of the SA / SEA for the Lincolnshire Lakes AAP.

The AAP is likely to lead to significant increases in the provision of housing and commercial space. This would be expected to provide an economic boost to NLC and surrounding areas. Community facilities would be provided as part of the Lincolnshire Lakes AAP, primarily to serve the development itself but potentially benefitting the wider community. Development will result in increased traffic movements, however development would provide an opportunity to alleviate some existing traffic problems and would make sustainable transport modes central to the emerging designs, and so this is seen as a (non-significant) benefit.

Loss of agricultural land, some of it of high value, would result from development, however the loss of 'best and most versatile' agricultural land would be avoided and the effects would not be significant. Similarly, on the assumption that high rise buildings are unlikely to be acceptable in a generally flat landscape, the overall impact on views as assessed as potentially adverse, but not significantly so.

The AAP is assessed as neutral in terms of archaeology and historic environment. Known heritage receptors can be protected or, failing this, adverse effects mitigated by preservation through record. A large amount of green infrastructure would be provided with protection and enhancement of ecological networks based around existing designated areas and identified green corridors, although the extra population may cause additional pressure on the existing nature conservation / wildlife sites, leading to mixed impacts overall.

A range of measures would be incorporated into the AAP to alleviate the risk of flooding and to adapt to climate change. These include improving the river's flood defences and raising the level of the land, and well as using the lakes themselves to store floodwater.

New development of any kind will normally add to the total emissions of particulates and nitrogen oxides (from transport, heating plant, etc) as thus it is considered to have a (non-significant) adverse effect on air quality.

The same is true for increased energy and water use and waste production, although policies (Core Strategy and AAP) will be in place to ensure that any impacts from this are minimised (i.e. through imposing minimum CfSH and BREEAM ratings).

8. NEXT STEPS OF THE SUSTAINABILITY APPRAISAL PROCESS

Two stages of the SA process are still to be undertaken as outlined in Table 5.

Table 5: Next Steps in the SA Process

Stage D – Consultation on the SA Report and draft Plan	Public participation on the SA Report and draft Plan Assessing significant changes. Making decisions and providing information.
Stage E – Monitoring the significant effects of implementing the Plan	Finalising aims and methods for monitoring Responding to adverse effects.

8.1. Consultation on the draft SA Report and draft AAP

This draft SA Report provides an opportunity for Statutory and other consultees to view the assessment and comment should they wish. Comments on this SA Report should be directed to NLC, contact details provided below:

Spatial Planning
Planning & Regeneration
Places Directorate
Civic Centre
Ashby Road
Scunthorpe
North Lincolnshire
DN16 1AB
Email: spatial.planning@northlincs.gov.uk

Following the submission of the AAP to the Secretary of State it will be assessed by an Independent Inspector. Should the Submission content be found sound and subsequently adopted by NLC a “SA Statement” will be published that summarises how environmental and sustainability considerations have been reflected in the plan together with the findings of the public consultation. The SA Statement will also set out the reasons for choosing the plan as adopted in light of the other reasonable alternatives dealt with.

8.2. Monitoring

Government guidance (Ref. 20) emphasises that monitoring allows the actual significant environmental effects of implementing a plan or programme to be tested against those predicted. This appraisal has highlighted the potential for the AAP to give rise to a range of effects both positive and negative, and highlights the inherent uncertainties with undertaking an assessment at this stage. Recommendations have been made to ensure that negative effects are avoided or mitigated as far as possible. Under the SEA Directive, the significant environmental effects of implementing a plan should be monitored. The SA Framework set out in the Lincolnshire Lakes AAP SA Scoping Report largely followed the structure of that for the Core Strategy DPD Submission Draft (Ref. 22) which, in accordance with Regulation 34 of

the Town and Country Planning Regulations (Ref. 23), the Council is required to prepare a Monitoring Report to assess the implementation of the Local Development Framework, and the extent to which policies are being achieved and to identify any changes if a policy is not working or if the targets are not being met. It is thus important that the Council seeks to integrate the monitoring of the Lincolnshire Lakes AAP with that of the Core Strategy DPD in these wider monitoring arrangements.

Table 6 sets out the proposed framework for monitoring the potentially significant effects identified in the SA, together with the relevant indicators. Where indicated, the source for the monitoring data is the Monitoring Report prepared by NLC.

Table 6 Proposed SA Monitoring Framework

Objective	Potential Indicator(s)	Target(s)	How Monitored
	SOCIAL		
S1. To promote healthier communities	Life expectancy % of people who describe their health as good % of people who describe their health as poor % of adults participating in 30 mins of moderate intensity sport and active recreation at least 3 times a week.	Increase Increase Increase Increase Decrease	Data Observatory (2010-12 – Male 78.3, Female 82.8) Census Census Data Observatory
S2. To tackle poverty, social exclusion and inequality	Proportion of children under 16 who live in low income households Number of children aged 0-4 in out of work benefit households.	Decrease Decrease	Data Observatory NLDO (Children in Poverty) - Children in Families with Income <60% Median Income (Under 16) Data Observatory – 2012 – 2,440
S3. To provide opportunities to enhance skills, qualifications and the overall employability of the population	% of jobseekers % of pupils achieving at least 5 GCSE A*-C % of working age pop with no qualifications % of working age population qualified to NVQ level 3+	Decrease Increase Decrease Increase	Data Observatory – Aug 14 = 2.84% Data Observatory – 2012/13 = 89.4% Data Observatory – 2013 = 8.5% Data Observatory – 2013 – NVQ4+ and NVQ3 only = 23.5% and 18.5%
S4. To reduce crime, the fear of crime and to promote safer neighbourhoods	Crimes recorded by police per 1000 population	Decrease	Data Observatory - All Offences rate per 1,000 - Aug 2014 = 4.5
S5. To ensure accessibility to education, employment, recreation, countryside, health, community services and cultural facilities	Travel time (inc walking) to schools, GPs, post office, shop, employment areas etc. Accessibility to public transport (% population with specified time to amenities 2011)	Decrease Increase	Data Observatory
S6. To provide a sufficient	Number and location of completions of housing	Provision of 6000	Housing completions by

Objective	Potential Indicator(s)	Target(s)	How Monitored
and appropriate mix of housing that is affordable, decent and designed to a high standard	within AAP Number and location of affordable housing within AAP % of houses built to Code for Sustainable Homes level 5	homes At least 5% of total to be affordable housing 100% of housing	AAP village Strategic Housing Team records Environment Team (Tim Allen)
	ENVIRONMENTAL		
EN1. To minimise the risk of flooding including adaption for climate change impacts		All development to make use of sustainable drainage techniques	
EN2. To protect and enhance biodiversity within and outside designated sites	Area of new habitat created, restored or enhanced to meet the following priority habitat definitions: • Ponds, • Mesotrophic lakes, • hedgerows, • lowland mixed deciduous woodland, • wet woodland, • lowland dry acid grassland, • lowland meadows, • coastal and floodplain grazing marsh, • reedbeds, • open mosaic habitats on previously developed land. Compared to the area of habitat lost (particularly in the Humberhead Levels NIA). Number of buildings with bird nesting or bat roosting features included.	Meet local and regional biodiversity targets Protection of Humber Estuary SSSI/SPA/Ramsar Net increase in biodiversity Create, extend and enhance wildlife corridors	Environment Team – Local Wildlife Surveys Environment Team - Assessment of the implementation of biodiversity management plans for individual applications
EN3. To maintain and enhance the quality of countryside and wider landscape	Change in countryside character area Area of woodland Area of lakeside	Improvement to countryside character area	Environment Team surveys/ application monitoring
EN4. To reduce congestion on existing transport infrastructure	Improvements to road infrastructure	Reduce road congestion	Strategic Transport Team – road improvement projects
EN5. Promote sustainable modes of transport and improve public transport provision	% of passenger journeys on buses per year Number of new public footpaths and cycleways	Increase % of public transport users Increase length of footpaths and cycle paths	Transport Team – surveys/ monitoring
EN6. To protect and enhance heritage assets including archaeological sites and monuments, historic landscapes, and local townscapes and their settings.	Number and condition of listed buildings and scheduled ancient monuments whose significance has been affected, either positively or negatively.	No harm to those elements which contribute to the significance of designated heritage assets, including their settings,	Heritage at Risk register, change in number of listed buildings
EN7. To improve local air	Levels of main pollutants	In line with national	Environmental protection monitoring

Objective	Potential Indicator(s)	Target(s)	How Monitored
quality	Number of installations requiring environmental permit	AQMA standards	data
EN8. To reduce greenhouse gas emissions particularly from transport	Greenhouse emissions from new plant sources	Reduce	2012 Data Observatory Total CO2 Emissions Per Capita - 46 Total CO2 Emissions from Industry and Commercial Per Capita – 40.5 Total CO2 Emissions from Domestic Per Capita – 2.3 Total CO2 Emissions from Road Transport Per Capita – 2.9
EN9. To increase energy efficiency and increase the use of renewable energy particularly from wind energy	Energy consumption per capita % of new power generation being renewable (by type of scheme)	Reduced energy use per capita % new homes and buildings meeting with CfSH level 5 / BREEAM 'Excellent'	Electricity per Customer - 14.4 KWh Gas per Customer - 24.9KWH Environment Team (Tim Allen), Building Control
EN10. To reduce generation of waste, the proportion sent to landfill and to increase re-cycling	% of waste going to landfill Proportion of household waste recycled or composted Number of new waste recycling facilities	None Identified	2013 -Total Municipal Waste - 90326.6 tonnes - Total Municipal Waste Recycled - 39690.3 tonnes - Recycling Rate 43.9% Waste Team data
EN11. To protect local water resources, and best agricultural soil quality	Water use per capita	% new homes built to level 4/5 of the CfSH or BREEAM Very good (as a minimum) for the water efficiency,	Environment Team (Tim Allen), Building Control
EN12. To minimise noise and light pollution	Noise levels for sensitive receptors (e.g. schools) Number of complaints due to noise and light pollution	None Identified	Environmental Protection Team monitoring data
	ECONOMIC		
EC1. To maintain and strengthen the local economy to promote future economic prosperity for North Lincolnshire in rural and urban areas	% unemployment rate	None Identified	Data Observatory – 12 months to March 14 - Model based estimate 14 7.3%
EC2. To create vibrant towns and village centres in both rural and urban	% vacant/occupied commercial floor space	High levels of occupied floor space in Scunthorpe Town Centre and village	Retail survey, Council Tax

Objective	Potential Indicator(s)	Target(s)	How Monitored
areas		centres	
EC3. To increase diversity of employment	% of employment by employment type	None identified	Data Observatory
EC4. To support and improve the economic activity for rural areas through the retention of local Facilities	Number of local new businesses Number of local small businesses % vacant retail floorspace (in Market Towns)	None Identified	Data Observatory (2013 Enterprise births – 500) Data Observatory (business with less than 50 employees) 2013 Retail survey, Council Tax
EC5. To promote and enhance opportunities for tourism, particularly in rural areas.	Input from tourism into local economy	None identified	Data Observatory – Tourism day visits expenditure (£m) 2012 – 62.52

9. REFERENCES

Ref.1 North Lincolnshire Council's (NLC) (2011) Core Strategy Development Plan Document, Adopted June 2011 [Available online at: http://www.northlincs.gov.uk/environment/planning/spatial-planning/local-development-framework/corestrategy/corestrategydpdadopted/]

Ref. 2 URS (2012) Lincolnshire Lakes SA Scoping Report

Ref. 3 URS (2013) Lincolnshire Lakes SA Options Appraisal

Ref. 4 NLC (2014) Lincolnshire Lakes AAP Policy Document – Submission Draft

Ref. 5 HMSO (2004) The Planning and Compulsory Purchase Act 2004, London.

Ref. 6 European Parliament and the Council of the European Union (2001) 2001/42/EC On the assessment of the effects of certain plans and programmes on the environment.

Ref. 7 HMSO (2004) The Environmental Assessment of Plans and Programmes Regulations 2004.

Ref. 8 ODPM (2005) Sustainability Appraisal of Regional Spatial Strategies and Local Development Documents.

Ref. 9 Atkins (2006) North Lincolnshire Core Strategy DPD Sustainability Appraisal [Available Online at: http://www.northlincs.gov.uk/environment/planning/spatial-planning/local-development-framework/corestrategy/preferredoptions/].

Ref. 10 GVA (2012) Lincolnshire Lakes Area Action Plan Evidence Base, North Lincolnshire Council, GVA, URS and Studio Egret West (SEW), March 2012.

Ref. 11 DCLG (2012) National Planning Policy Framework.

Ref. 12 GVA (2014) Lincolnshire Lakes AAP Publication Draft

Ref. 12 NLC and GVA (2012) North Lincolnshire Strategic Housing Market Assessment, October 2012.

Ref. 13 NLC (2006) North Lincolnshire Local Plan Supplementary Planning Guidance (SPG) 10: Provision of Open Space in New Housing Developments.

Ref. 14 URS (2014) Lincolnshire Lakes AAP Sustainable Transport Assessment

Ref. 15 URS (2014) Lincolnshire Lakes AAP Habitat Strategy

Ref. 16 URS (2014) Lincolnshire Lakes Flood Management and Drainage Strategy

Ref. 17 NLC (2011) Strategic Flood Risk Assessment

Ref. 18 DCLG (2012) Technical Guidance to the National Planning Policy Framework (March 2012)

Ref. 19 DEFRA (2012) Local Authority Collected Waste Statistics (2011-2012) [Available Online at: http://www.defra.gov.uk/statistics/files/2011-12-ANNUAL-publication-LA-level_WITHOUTLINKS.xls]

Ref. 20 NLC (2011) 2011 Air Quality Progress Report for North Lincolnshire Council (Draft), North Lincolnshire Council, July 2011.

Ref. 21 Office of the Deputy Prime Minister (2005). A Practical Guide to the Strategic Environmental Assessment Directive

Ref. 22 Atkins (May 2010) North Lincolnshire Core Strategy DPD Submission Draft SA/SEA

Ref. 23 ODPM (2012) Town and Country Planning Regulations (Local Planning) (England) Regulations 2012

APPENDIX A LINCOLNSHIRE LAKES AAP PROPOSALS MAP

Lincolnshire Lakes

Proposals Map

Reference

- Lincolnshire Lakes Boundary
- G1/G2/G3/G4/G5 — Green Infrastructure
- H1/H2 — Housing Development
- L1 — Lincolnshire Lakes
- SC1 — Education and Early Years
- SC2 — District Centre
- SC2 — Strategic Mixed Use Area
- SC3 — Local Centre
- SC4 — Port of Scunthorpe
- SS4 — Settlement Boundary
- T1 — Strategic Highway (Detrunked M181 North)
- T2 — Strategic Highway (Detrunked M181 South)
- T3/T4 — Junctions North/South
- T5 — Strategic Route
- T6 — Primary Route
- V1/V2/V3/V4/V5/V6 — Strategic Site Boundary
- Alterations to Motorway (Highways Agency)
- Potential Relocation of Train Station
- Open Countryside/Agricultural Land
- Existing Lakes
- Local Wildlife Site
- Indicative Road Layout Only

North Lincolnshire Local Plan 2003 Designation

- LC4 — Site of Local Nature Conservation Importance
- LC11 — Area of Amenity Importance

Proposed housing numbers by settlement

V1	643	Dwellings
V2	1217	Dwellings
V3	987	Dwellings
V4	769	Dwellings
V5	1100	Dwellings
V6	1361	Dwellings

NORTH LINCOLNSHIRE COUNCIL

www.northlincs.gov.uk

0 100 200 300 400 500 600 700 800 900 1,000 Meters

Port of Scunthorpe

010

DONCASTER ROAD

GUNNESS

BURRINGHAM

BRUMBY COMMON LANE

A1077

KINGSWAY

SCOTTER ROAD

M181

BURRINGHAM ROAD

MOORWELL ROAD

M180

V1 V2 V3 V4 V5 V6 E1

1 2 3 4 5

APPENDIX B - LINCOLNSHIRE LAKES AAP SUSTAINABILITY APPRAISAL CONSULTATION RESPONSES

Consultees were sent a copy of the SA Scoping Report on 30th August 2012 and given a five week statutory period to provide a consultation response, and in particular respond to the following three questions on the sections of that document:

- Section 4 - Are there any relevant policies, plans and programmes that will affect or influence the Lincolnshire Lakes AAP SA, which have not been included within the Scoping Report?
- Section 5 – Do you agree that the sustainability baseline data collected is appropriate or know of any additional relevant sustainability baseline data which should be added?
- Section 6 - Do you agree that the Sustainability Appraisal Framework is relevant and addresses key sustainability issues? What are the key sustainability indicators and targets?

The following table presents the responses received (not always in following these three questions), along with how these comments have been addressed or responded to.

Organisation	Comments Received	URS response
English Heritage	**Page 31 / Table 7 / Sustainability Objective EN6** As there are no Conservation Areas in the vicinity of the Lincolnshire Lakes area, the Potential Indicator could be simplified along the following lines:- *"Number of Listed Buildings and Scheduled Monument whose significance has been affected, either positively or negatively, by the Lincolnshire Lakes development".* In terms of a Target for this Objective, you might consider using something along the following lines:- *"No harm to those elements which contribute to the significance of designated heritage assets, including their settings, as a result of the Lincolnshire Lakes development".* English Heritage strongly advises that the Council's Conservation Section and archaeological staff are closely involved throughout the preparation of the SA of the plan. They are best placed to advise on; local historic environment issues and priorities, including access to data held in the HER (formerly SMR); how the policy or proposal can be tailored to minimise potential adverse impacts on the historic environment; the nature and design of any required mitigation measures; and opportunities for securing wider benefits for the future conservation and management of historic assets.	Updated Table 7 (now Table 6 in the SA Report) – Objective EN6 Noted. The council's conservation section and archaeological staff have been involved with the process of developing the AAP and will continue to be so.
Environment Agency	**Ecology** *Section 4 - Are there any relevant policies, plans and programmes that will affect or influence the Lincolnshire Lakes AAP SA, which have not been included within the Scoping Report?* Additional documents which we consider are relevant to the LL AAP and should be included within the Scoping Report for guidance and/or taken into consideration include: Natural Environment White Paper; Biodiversity 2020: A strategy for England's wildlife and	Although these documents are clearly important and have been taken into account during the ecological assessment, the list of documents in Table 2 of the SA Report relates to key legislation and policy, and therefore these

Organisation	Comments Received	URS response
	ecosystem services; Making Space for Nature – A review of England's Wildlife Sites and Ecological Network; Biodiversity Planning Toolkit (pilot)	have been left out to keep it concise.
	Section 5 – Do you agree that the sustainability baseline data collected is appropriate or know of any additional relevant sustainability baseline data which should be added? We agree with the need to undertake further detailed studies to confirm the abundance of bird species in order to inform detailed and appropriate mitigation. We welcome the baseline information provided on the presence of bats, badgers and water voles in the area to be developed. However, we would certainly encourage further surveys to assess for the presence of other protected species, in addition to an assessment of baseline data on UK BAP species including Lepidoptera, Hymenoptera, fish, amphibians and other mammals (otters, dormice etc.).	Further overwintering bird surveys have been undertaken since this time, and presented in the Ecology Baseline Review Document.
	A number of designated sites have been referenced and we would recommend that the total area of each of these sites is included in the baseline data. The % area of each one in favourable/recovering condition should also be noted; together this information would allow for more thorough monitoring of the impact of the LL AAP on these sites. We would also recommend that the total area of each of the various Local Nature Reserves, Local Wildlife Sites, Sites of Importance for Nature Conservation and BAP priority sites are also recorded for similar reasons.	A table showing this has been added at the end of this table.
	Section 6 - Do you agree that the Sustainability Appraisal Framework is relevant and addresses key sustainability issues? What are the key sustainability indicators and targets? **EN2** The Objective should be to protect, enhance, maintain and create biodiversity within and outside designated sites. An urban environment rich in wildlife that local communities can benefit from and enjoy is fundamental to our well-being, health and economy.	The objective focusses on protection and enhancement, as it is considered this comprises maintenance and creation.
	Indicators should also include the changes in UK BAP species composition, number of tree planting initiatives and %/length of hedgerow lost or gained through development.	

Organisation	Comments Received	URS response
	The Target should also be attuned to the need to create, extend and enhance wildlife corridors, which protect against habitat fragmentation. The use of watercourses and ditches as wildlife corridors and biodiversity sites should be encouraged to extend connectivity and biological complexity. **Flood Risk** Section 4 - The document should reference the latest Strategic Flood Risk Assessment (November 2011) which has recently been adopted by North Lincolnshire. We note parts of that document are already embedded into the document. We would further wish to see the 'Environment Agency Humber Strategy' and 'River Trent Catchment Flood Management Plan' included in the list of relevant documentation, as the long-term sustainability of any development within the Lincolnshire Lakes area is directly linked to the strategy for providing flood risk management solutions in this operational area. Section 5 - We would request a number of changes in the text relating to flood risk issues in this section. Page 23 the first addition should go at the end of the third sentence of the first paragraph on page 23 of the document, where it should say after "...Technical guidance", ' as long as a site specific flood risk assessment can demonstrate how flood risk to, and from the site can be adequately managed'. The final sentence in this paragraph is factually incorrect and needs to be amended. Exception testing has not been carried out for the site, and has certainly not been passed. The Exception Test Strategy referred to in Ref 24 sets out the criteria that will need to be applied to any area of proposed development, with the design of all elements ensuring that the development	The indicators currently suggested are considered the most appropriate. To 'create, extend and enhance wildlife corridors' was added to the example target. Table 2 has been updated to reflect this document, and confirmation given that the associated studies relate to this version, rather than the older version previously referenced. These documents are considered within the technical document produced as part of the Evidence Base, and as such has not been added to this list for the purposes of keeping it concise. This was noted, and the report

Organisation	Comments Received	URS response
	will deliver "exemplar flood risk defence and drainage infrastructure" and "will achieve the highest standard of safety" to both the proposed development and the existing surrounding villages. This includes providing protection for the development for at least the 1 in 1000 year plus climate change breach event. This principle is accepted and repeated in the adopted Core Strategy for the district. It is our understanding that these principles should form a key issue of the Sustainability Appraisal, and hence the requirement should be included in the Scoping Report. The second paragraph on this page relates to the drainage systems which currently exist in the Lincolnshire Lakes area, but does not identify these drains as a potential source of flooding. As the efficient performance of these drainage systems relies on the operation of a complex pumping system, it is important to ensure that the sustainability of the proposals are not compromised by flood risk from these potential sources of flood risk. We believe that this should be included in the overall Sustainability Appraisal, and, therefore, the Scoping Report. In the third paragraph on page 23, the text refers to "the FZ2 or FZ3 flood event", however as this is not an accepted manner of classifying a flood event, we believe that this would be improved by replacing this term with a clearer definition of the scale of flood event to which the context refers. In relation to section 6, we would request that an additional Potential Indicator is added to environmental objective EN1. In line with the appropriate supporting documentation, we would wish to see an indicator which states something along the lines of ' Standard of protection from flood risk management infrastructure'. It may well be that this would be a more appropriate indicator than the proposed "Number of new flood defences/extent of land raising ". It would also be very worthwhile to add 'Number of existing properties provided with an increased level of safety', as this would reflect the desire that the new proposals make the ability for residents in the existing properties in nearby villages to become more "safe", as defined in the NPPF and	updated. There has been more work to investigate the drainage strategy since this comment was made. This has been updated. This has been updated.

Organisation	Comments Received	URS response
	associated technical guidance. **Water Resources** Section 4: We suggest adding the Lower Trent and Erewash Catchment Abstraction Management Strategy to the list of relevant plans and strategies. This may be relevant if any abstractions are proposed eg from the Trent to fill the lakes for example. We agree with the statement in 5.11 on p27 that the AAP should encourage lower water consumption and make more efficient use of water. Water is a precious and vulnerable resource and from a water efficiency point of view the Environment Agency would recommend that a requirement is set that any new homes should achieve the 'water efficiency component' of level 3/4 of the Code for Sustainable Homes (as a minimum). This relates to a level of 105 litres per person per day. For non-residential buildings it is recommended that the developers are required to demonstrate that they have considered water efficiency and conservation in the design and maintenance of the buildings. Where standards currently exist for a particular building type, it is recommended the developers are required to achieve BREEAM Very Good or Excellent standards and that maximum points are scored on water. Water neutrality should also be considered too so that overall there is no additional demand in the Scunthorpe area. Table 7: Draft Sustainability Framework- There is no specific water efficiency targets. It is recommended that the % of homes built to level 3/4 of the Code for Sustainable Homes (as a minimum) for the water efficiency component is added here as an indicator for objective EN11- to protect water resources.	These documents are considered within the technical document produced as part of the Evidence Base, and as such has not been added to this list for the purposes of keeping it concise. Noted Noted. Noted. Noted, and Table 6 updated to include this, with an indicator added to EN11 as 'water use per capita'.

Organisation	Comments Received	URS response
Sport England	No Comments	None required
Highways Agency	No Comments	None required
Nottinghamshire County Council	No comments	None required
Lincolnshire County Council	No Comments	None required
Central Lincolnshire Joint Planning Unit	*Section 4 - Are there any relevant policies, plans and programmes that will affect or influence the Lincolnshire Lakes AAP SA, which have not been included within the Scoping Report?* Other 'Local' documents – It is considered the AAP will influence/affect, or be influenced/affected by, other plans and programmes for proposals in the general area, therefore, it is suggested that consideration be given to additionally mentioning the following plans or programmes: (1) The Consultation Draft Partial Central Lincolnshire Core Strategy June 2012 (CLJSPC) – this emerging Draft Core Strategy DPD sets out the overall growth proposals for Central Lincolnshire. In its Chapter 5 – Growing Central Lincolnshire, the key Policy CL4 – Level & Distribution of Growth sets out the overall growth levels for particular areas. This Policy sets out the overall growth strategy for provision of 42,800 dwellings and 210 ha of employment land over the plan period (2011-2031). This includes 10,000 dwellings & 25 ha. employment	Noted and updated Table 2 to include (1) and (2).

Organisation	Comments Received	URS response
	land for the Gainsborough Urban Area, and 18,800 dwellings & 140 ha. employment land for the Lincoln Principal Urban Area. The level of growth proposed to strengthen the roles of the three main urban areas will require the delivery of a number of sustainable urban extensions (SUEs) – 8 are proposed. It is considered that the overall level of growth (including dwellings, & jobs) proposed for the Scunthorpe AAP area and also for nearby settlements across the border in Gainsborough (linked by A159 road) and Lincoln area (down the A15 road) will impact on and influence each other. Therefore consider additionally referring to this emerging plan in the plans and programmes area of the SA Scoping Report. Link to emerging draft CL Core Strategy on JPU website:- http://microsites.lincolnshire.gov.uk/centrallincolnshire/consultations/past-consultations/partial-draft-core-strategy-consultation-july-2012/102650.article (2) Lincolnshire County Council (LCC) Local Transport Plan(s) (latest) – The overall level of growth proposed for settlements in the Scunthorpe, Gainsborough and Lincoln areas will influence transport and traffic generation in the whole area – commonly using rail and roads locally crossing boundaries (eg A159 and A15). This LTP considers transport implications on the LCC (highway authority) side for Central Lincolnshire – suggest liaising with Ian Kitchen, LCC Transport Policy Manager. Therefore consider additionally referring to the Lincolnshire LTP in the plans and programmes area of the SA Scoping Report. Link to LCC LTP website page http://www.lincolnshire.gov.uk/residents/transport-travel-and-roads/transport-planning-and-development-control/local-transport-plan/ *Section 5 - Do you agree that the sustainability baseline data collected is appropriate or know of any additional relevant sustainability baseline data which should be added?*	This section was based upon the relevant evidence base document, which has had consideration of the 3rd Lincolnshire BAP. Section 5.8.2 (Biodiversity and Green Infrastructure - Key Sustainability issues) makes reference to the 2011-2020 BAP targets but does not specify information. The baseline data presented is based on a mixture of desk study and field surveys. As detailed in the Lincolnshire Lakes Evidence base document, Lincolnshire

Organisation	Comments Received	URS response
	The range and type of baseline data collected is considered appropriate. Minor queries below. Section 5.8 – Biodiversity and Green Infrastructure Has this section taken note of the latest baseline data available in the latest (3rd edition) Lincolnshire Biodiversity Action Plan 2011-2020? – launched on 21/10/11. It is unclear from this section (5.8.1). See Lincs Biodiversity Partnership website: http://www.lincsbiodiversity.org.uk/bap_intro.php Additional Data/Information? – Central Lincolnshire (CL) Green Infrastructure Study –Dec 2011 (1) Whilst this CL GI Study does not cover this Lincolnshire Lakes area – the Study does propose Strategic Green Corridors and Strategic Green Access Links that would link across from Central Lincolnshire (West Lindsey area) to the Scunthorpe Area. In Vol 1 (Strategy) of the CL GI Study a key diagram is Fig 1.4a (GI Network Concept Plan), which shows both the proposed GI Network and GI Zones for CL, which is described in Section 3.3, and includes potential cross border GI links, which could link with Scunthorpe Area Lincolnshire Lakes GI initiatives in the forthcoming AAP. (2) Please also see Policy CL 24 – Green Infrastructure and Biodiversity in the Draft Central Lincolnshire Core Strategy 2012 (in Chapter 7) – this includes the same GI Network map, which indicates potential cross border links with green infrastructure corridors in the Scunthorpe area (see Policy CL24 in Core Strategy via Link under 2.4(1) above). (3) Therefore consider additionally referring to the CL GI Study and Draft CL CS Policy CL24 in this section. The Central Lincolnshire GI Study can be viewed on the CL JPU website: http://www.central-lincs.org.uk/gistudy *Section 6 - Do you agree that the Sustainability Appraisal Framework is relevant and*	Biodiversity Partnership (who authored the Lincolnshire BAP) were consulted as part of the desk based study. The Lincolnshire BAP has been added to Table 2 for clarity. Inserted reference to CL GI Study in section 5.8.1 As above.

Organisation	Comments Received	URS response
	addresses key sustainability issues? What are the key sustainability indicators and targets? It is agreed that the Sustainability Appraisal Framework is relevant as it has been developed from the Key Sustainability Issues for the area identified in the SA Scoping Report (para 6.2). It is also considered relevant as it has been based on the overarching NL SA Framework (objectives, indicators, targets) developed for the adopted Core Strategy (i.e. the CS SA Report, May 2010 (Atkins) – Table 3.4: SA Framework), and has been adapted to be more relevant to the geographical scale and availability of information, identifying 23 local SA objectives. In addition, in selecting targets for the AAP SA Framework, as this strategic urban extension is also intended to support and contribute to wider regeneration across Scunthorpe and N. Lincs as a whole, it is suggested that area wide targets may also be relevant.	None required None required None required
Bassetlaw District Council	No Comments	
Doncaster Metropolitan Borough Council	No Comments	
East Riding of Yorkshire Council	No Comments	
Kingston Upon Hull	Typos noted	URS has corrected typos, updated Figure 5 with a more legible figure.

Organisation	Comments Received	URS response
City Council	Layout - Some of the figures are not clear. For example, the text, in particular the Key in figure 5, is too small. When magnified the text remains illegible. Although this may be better on a higher resolution version of the document, we have been unable to find such a version on the North Lincolnshire Council website. The font on the tables at the end of the document is too small to read easily. Excepting the above typos and layout concerns, the document is a well presented, logically ordered and readable document. Specific Comments Figure 4 – As most of the area covered by the AAP is agricultural land, why is most of it shown as white land rather than the green colour which the key indicates represents agricultural land? Paragraph 5.3.1 – An extra 23,600 population at a household size of 2.13 would see a requirement of 11,080, not 12,063. Paragraph 5.8.1, second sub paragraph – The SPA, Ramsar and SAC designations each cover the whole of the Humber. The way the paragraph is written suggests they are separate. First paragraph after Table 6 – There is a link between agriculture and agricultural practices and avian population. We welcome the identification that further studies in this regard will be required to ensure any development adequately mitigates the impact on the feeding, breeding or roosting sites of the important bird populations of the Humber. When housing is built, there are often calls for open field drains to be filled in, in the interests of safety. When the locations of properties in Hull which flooded in 2007 were looked at, there was a correlation between filled in field drains and flooded properties. This suggests that such an approach may lead to an increased risk of flooding. In addition, their retention contributes to sustainable urban drainage. Table 7: Draft Sustainability Framework – Any targets identified should not only be achievable, they should be capable of being achieved as a direct result of the AAP.	Figure 6 resized. review and Update typos and layout as necessary Figure 5 (new Figure 4); moved to later section. New figure 4 inserted. Noted. None required.
North East Lincolnshire	No Comments	

URS

Organisation	Comments Received	URS response
Council		
West Lindsey District Council	No Comments	
Royal Society of the Protection of Birds	No Comments	

Organisation	Comments Received	URS response
Lincolnshire Wildlife Trust	Consultation questions Section 4 - Are there any relevant policies, plans and programmes that will affect or influence the Lincolnshire Lakes AAP SA, which have not been included within the Scoping Report? We would recommend that the comprehensive list of plans and programmes in the Sustainability Appraisal for the North Lincolnshire Core Strategy is reviewed. There are a number of relevant plans and programmes not listed in this draft document which could influence the Lincolnshire Lakes Area Action Plan. For example: International Plans and Programmes European Directives: Conservation of natural habitats and of wild flora and fauna (92/43/EEC) Conservation of wild birds directive (79/409/EEC) Freshwater fisheries directive (78/659/EEC) Water framework directive (2000/60/EC) EU Biodiversity Action Plan, February 1998 The Ramsar Convention: Convention on Wetlands of International Importance especially as Waterfowl Habitat (Iran, 1971) National Plans and Programmes Wildlife and Countryside Act 1981 Countryside and Rights of Way Act 2000 The Conservation of Habitats and Species Regulations 2010 The Natural Environment and Rural Communities Act 2006 The Natural Environment White Paper - The Natural Choice: Securing the Value of Nature National Biodiversity Action Plan (UK Biodiversity Action Plan Steering Group 1994) Accessible Natural Greenspace Standards, Natural England	Review of Policy - update if necessary Updated target for EN2 to include net increase in biodiversity.

Organisation	Comments Received	URS response
	Local Plans and Programmes Lincolnshire Biodiversity Action Plan (BAP) Section 5 – Do you agree that the sustainability baseline data collected is appropriate or know of any additional relevant sustainability baseline data which should be added? LWT agrees that further bird surveys will be required to inform whether there will be a Likely Significant Effect on the Humber Estuary SPA and if Appropriate Assessment will be required. Section 6 - Do you agree that the Sustainability Appraisal Framework is relevant and addresses key sustainability issues? What are the key sustainability indicators and targets? Yes, we agree that the key issues have been identified. For LWT, the key indicator is the area of new habitat created versus that lost. There should be a target to result in a net biodiversity increase in line with the NPPF (e.g. paragraphs 7, 9, 109, 117, 157) which should contribute to local and national Biodiversity Action Plan (BAP) targets. Broad areas for the provision of habitat at a landscape scale should be included within the Area Action Plan document. This should take into consideration the protection and enhancement of existing components of the ecological network including sites of biodiversity importance, as well as looking at opportunities to create wildlife corridors and stepping stones to link priority habitats.	
NHS North Lincolnshire	Page 2 states ' The following principles are set within the NLC Core Strategy in relation to the Lincolnshire Lakes Project: … … Community Facilities (including schools, health facilities, libraries, community centres etc'). This is not a principle and needs rewording to include a verb to outline the necessary action. Our proposal would be that it is the provision of community facilities using CIL and Section 106 powers. The same should go for the following point on Leisure facilities.	The Core Strategy sets out the following wording "5.29 Lincolnshire Lakes will be a truly sustainable development and will encompass the following principles:"- no further action required

Organisation	Comments Received	URS response
	Section 5.4.2 (page 12) titled 'Health' identifies the stretched capacity within primary care and the need to address this, but presents no strategic solution. CIL and Section 106 powers could be used here, as noted above. Section 5.4.2 (page 12) titled 'Health' only covers health services and makes no mention of the potential for the design of the development to impact on health. Consideration of the positive and negative effects of place, environment and urban design needs to be included, with recommendations from leading organisations on this areas such as Sustrans and Health Urban Development Unit being followed.	Page 2 Section 5.4.2 covers baseline, However the key sustainability issues section for 'community and well-being' has been updated to include reference to the potential for environmental and urban design impacts on health, The plans will be assessed at the later stages of the SA.
	We recognise the reports focus on supporting active travel and sustainable communities, but would like to see a greater level of detail regarding these areas of the plans. Again there are many organisations such as those mentioned above who have produced guidance and can offer support on these topics. Climate change is a significant public health issue. The report's section on Energy discusses areas of energy supply in some detail, but lacks similar detail on the use of design to minimise the energy demands of the development. The development should use sustainable green technologies to support the development of a carbon neutral estate. The report should also cover the use of urban design techniques that will mitigate the effects of climate change to produce an estate that is fit for purpose long in to the future and is able to cope with the likely increased flooding risk, increased ambient temperatures and greater level of extreme weather conditions	Noted. Climate change is discussed in section 5.9 and 5.10. The plans will be assessed at the later stages of the SA.
Humber INCA	No comments	
Network Rail	No comments	

Organisation	Comments Received	URS response
Shire Group of Internal Drainage Boards	No comments	
Severn Trent Water Ltd	No comments	
Anglian Water Services Ltd	No comments	
HCA - ATLAS	No comments	
Natural England	The Humberhead Levels Nature Improvement Area (NIA): A large part of the AAP area is within the Humberhead Levels NIA. A strategy and pilot funding for the NIA have been agreed with Defra and Natural England. We recommend that the Humberhead Levels NIA is identified within the Sustainability Appraisal. We would also strongly encourage the Council to include the NIA on the proposals map in the emerging AAP and for it to be supported by an appropriate policy. We believe the inclusion of the NIA will help to increase awareness of its existence and purpose, including among developers, communities and decision makers. This will help to ensure future development makes a positive contribution to achieving the aims of the NIA	Updated Biodiversity and Green Infrastructure topic (current baseline) to include reference to Humberhead Levels NIA Further ecological survey work will

Organisation	Comments Received	URS response
	wherever possible. The Humberhead Levels NIA lead body is Yorkshire Wildlife Trust, which alongside Lincolnshire Wildlife Trust, should be particularly well placed to input to the preparation of the SA and emerging AAP. We therefore suggest the Wildlife Trusts are consulted at the earliest opportunity. The baseline data appears adequate to inform the emerging AAP. However more detailed information, including up to date habitat and species surveys, is likely to be required to inform future development proposals. The Sustainability Appraisal Framework appears relevant and to meet the Requirements for Sustainability Appraisal and Strategic Environmental Assessment. However, as referred to above, Natural England would wish to see a reference to the NIA, not least with respect to key targets. As identified in the Scoping Report, there are a number of designated sites adjacent to and nearby the Lincolnshire Lakes plan area. The north-western boundary is adjacent to the River Trent, which is designated a Site of Special Scientific Interest (SSSI), Special Area of Conservation (SAC) and Ramsar Site, and is directly connected to the Humber Estuary Special Protection Area (SPA) We are pleased therefore to note that the Council intends to undertake a Habitats Regulations Assessment to determine the likely effects of the AAP on the integrity of the European Site, as required under the Conservation of Habitats and Species Regulations 2010. Please note, an amendment to the Regulations in 2012, requires local authorities to “take such steps in the exercise of their functions as they consider appropriate to contribute to” the “preservation, maintenance and re-establishment of a sufficient diversity and area of habitat for	be undertaken to support any future planning application(s). Change in habitat areas, including within the Humberhead Levels NIA included as an indicator. None Required

Organisation	Comments Received	URS response
	wild birds in the United Kingdom" (regulation 9A(2) and (3)). This applies to "any function exercisable in relation to town and country planning." For the purposes of the Habitats Regulations "local planning authority" means "any authority having any function as a local planning authority or mineral planning authority under the TCPA 1990." We look forward to receiving further information on the HRA in due course.	It is understood that the HRA has been sent and reviewed.

URS

Response to EA Consultation Comment - Table Showing Area of Designated Sites

Site Name	SAC	SPA	Ramsar	SSSI	LNR	LWS	LGS	Area (ha)	Favourable Condition?	Positively Managed?	Management Plan	Management Scheme	Bap/ GAP	Written Advice	Non Intervention
Humber Estuary	X							36,657		N/A		y			
Humber Estuary		X						37,630		N/A		Y			
Humber Estuary			X					37,988		N/A		Y			
Humber Estuary				X				37,001	http://www.ssi.naturalengland.org.uk/Special/sssi/reportAction.cfm?report=sdrt18&category=S&reference=2000480	N/A		Y			
Ashby Decoy Golf Course						X		64.7		Y	Y	Y			
Atkinson's Warren					X			32.7		N/A	Y	Y			
Atkinson's Warren						X		34.1		Y	Y	Y			
Atkinson's Warren							X	32.8		Y	Y	Y			
Brumby Common West						X		20.3		N					
Brumby Wood					X			35.1		N/A	Y				
Brumby Wood						X		20.6		Y	Y				
Butterwick Hale & Common						X		47.0		Y		Y			
Gunness Common						X		20.7		Y					
Land adj. Johnson's Transpt								5.2		N					
Silica Park					X			8.9		N/A	Y				
Silica Park						X		9.5		Y	Y				
Westcliff Lagoon						X		4.8		N					
Yaddlethorpe Fish Ponds						X		5.1		Y				Y	