11 ENVIRONMENT AND RESOURCES

Introduction

11.1 The condition of the surrounding environment has a significant impact on quality of life. Enhancing and protecting North Lincolnshire's natural environment, built heritage and natural assets is critical to the area's image, as well as bringing both social and economic benefits to its communities. The core environmental approach will emphasise the need to transform all areas in North Lincolnshire, particularly in the main population centres of Scunthorpe, the Market Towns of Barton upon Humber, Brigg, Crowle, Epworth, Winterton, Kirton in Lindsey and the large employment site at the South Humber Bank. It is also vital to recognise the need to increase, improve and enhance North Lincolnshire's biodiversity and varied land and waterscapes. The environmental components of the core approach will also address climate change, sustainable resources (including renewable energy) and flood risk.

11.2 The task of the LDF is to build on this evidence base, setting out positive policies that help to protect and enhance the quality of the natural environment, and promoting its contribution to the regeneration of North Lincolnshire. The purpose of this chapter is to provide a more locally detailed approach and operational priorities for managing the environment of North Lincolnshire in spatial terms and to set out monitoring and delivery mechanisms accordingly.

Context

National/Regional

11.3 National and regional planning policy expects development and growth in North Lincolnshire to preserve and enhance a variety of environmental assets to help ensure that the area is left in a condition that future generations can enjoy and benefit from.

11.4 The main environmental components of the core approach of the Yorkshire & Humber Plan - Regional Spatial Strategy (RSS) to 2026 include the need to transform cities and towns, raise environmental quality, increase biodiversity, enhance natural heritage, address climate change, and protect rural and coastal areas. It also sets out clear priorities for each of the region's seven sub-areas, in particular how the impacts of climate change should be addressed and how the region should adapt to it.

11.5 North Lincolnshire is part of the Humber Estuary Sub Region along with North East Lincolnshire, Kingston upon Hull and the East Riding of Yorkshire. The sub-region has considerable economic and environmental shared needs and opportunities, particularly in and around the Humber Estuary, which is it's dominant environmental feature. The Humber Estuary is unique with the largest port operations in the UK (and predicted to grow at a steady rate) coupled with major international and national environmental designations. The improvement and enhancement of both the economic and environmental assets must take place in a sensitive, balanced way to accommodate predicted economic growth and climate change.

Local

Landscape, Green Space and Waterscape

11.6 North Lincolnshire's most valuable natural asset is its high quality natural environment containing a mixture of different landscapes, waterscapes and greenspace in both urban and rural settings. This includes international and national habitats and wildlife designations, particularly the Humber Estuary, Crowle Moors and the area of special historic landscape interest in the Isle of Axholme (based on historic landscape assets of medieval open strip fields and turbaries) and the major waterscape assets of the Barton Claypits Country Park, Ironstone Gullets and Rivers Humber, Trent and Ancholme. The large areas of greenspace in Scunthorpe reflect its original Garden Town design and are of particular local importance to the urban design of the town.

11.7 North Lincolnshire's landscape character contains vast areas of flat low lying land, large areas of lowland moorland of the Trent Levels, Vale of Ancholme, Lincolnshire Drift and Humber Estuary to the west, and the higher land of the Lincolnshire Wolds and Lincoln Edge running north to south in two separate swathes of land. Despite the large areas of flat land the topography rolls enough to offer opportunities, in both rural and urban areas, of dramatic locations and views that have not always been exploited.

11.8 North Lincolnshire's network of parks, natural green spaces, historic landscape and water areas provides quality greenspace between settlements, connecting town to country with a natural and recreational resource, which are equally important to the area's distinctiveness.

11.9 These environmental features provide a clean and safe environment that provides opportunities for recreation, leisure and tourism activities, which can make a significant contribution to the health and well being of North Lincolnshire's residents and those visiting or working in the area, as well as providing an ecological resource.

11.10 The aim of the Core Strategy is to protect and enhance North Lincolnshire's natural heritage and world class landscapes and habitats by maintaining and creating a sensitive balance between urban and rural, built form and natural assets, and physical and cultural links between townscape and landscape. This will be incorporated in new areas and replacement of existing areas such as the western urban extension of Scunthorpe (to further enhance and transform its Garden Town image) and replacement land (mitigation and compensation) for loss of habitat and landscape to industry at the South Humber Bank. Improved accessibility through better public transport and recreational activities such as cycling and walking for residents and visitors must continue to be promoted. Key matters to be addressed are:

- To produce a Green Infrastructure Strategy for North Lincolnshire. Natural England has provided completed mapped results to North Lincolnshire Council for use in applying a Green Infrastructure Strategy. This involved working closely in partnership with Natural England, the Humber sub-region local authorities and other partners to identify, collate and map green infrastructure assets and areas within North Lincolnshire. Future work will aim to identify opportunities for intervention. This work shall be linked to similar areas identified in adjacent local authority areas (where appropriate). The council will use Natural England results and work with North East Lincolnshire, Hull and East Riding Councils to develop a relevant green infrastructure strategy for North Lincolnshire (and/or the HHP sub-region) from the work carried out by Natural England on green infrastructrure and regional biodiversity. Work is currently progressing on these plans at a regional and sub-regional level.

- Focussing the majority of new development in the Scunthorpe urban area will inevitably add pressure to these assets. The aim is to protect, enhance and transform these resources by managing them wisely. Investment will need to be directed towards improving their quality and accessibility, encouraging and actively being involved in the creation of new landscapes and waterscapes, urban greening projects and initiatives and public parks through the development process.

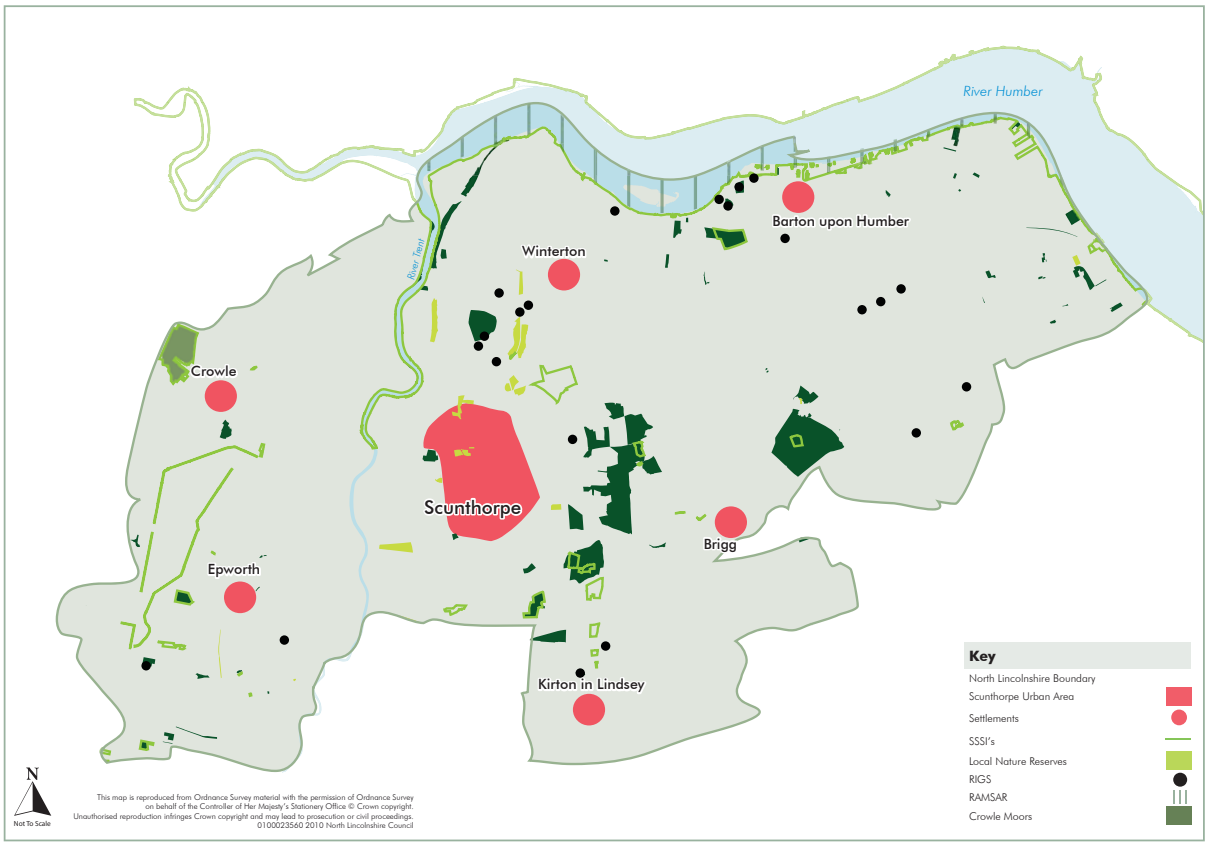
- The Lincolnshire Lakes western urban extension to Scunthorpe is seen as essential to help transform its image as a steel town while adding to its Garden Town image. This transformational project will involve an urban mixed land use extension that will have a unique lakeside environment as its central feature and proposes several large artificially created lakes connected by water channels. These new landscape/waterscape areas will be integrated into the Green Infrastructure Study that is currently being developed. Investment needs to be directed towards creating a quality urban development inclusive of a quality landscape and biodiversity that is accessible to, and can be enjoyed by the public, particularly for walking and cycling. This will also create an attractive green western entrance into the town that will attract future investment for North Lincolnshire and will become a focal point for people to live, work and visit the area.

- It will be important to safeguard and enhance North Lincolnshire's varied landscapes including important prehistoric, historic medieval landscapes and archaeological remains (where appropriate) where development is proposed.

- North Lincolnshire has particularly low levels of tree cover and tree planting will need to be substantially increased, without compromising individual landscape character types, within the area. Increasing tree cover within accessible natural green space close to the main urban areas including settlements and the large South Humber Bank employment site will promote a range of environmental, social and health benefits.

Biodiversity

11.11 North Lincolnshire has a duty to implement a biodiversity strategy under the Natural Environment and Rural Communities Act 2006. North Lincolnshire's landscapes are rich in biological and geological diversity. This is reflected in the range of international, national and local designations, which includes five international designations (one Ramsar, two Special Areas of Conservation and two Special Protection Areas) on the Humber Estuary, Thorne Moor and Thorne and Hatfield Moor, 29 Sites of Special Scientific Interest (SSSI's), 10 Local Nature Reserves (LNR's), some 200 Local Wildlife Sites (Sites of Importance to Nature Conservation – SINC's) and 22 Local Geological Sites (Regionally Important Geological Sites).



11.12 North Lincolnshire supports important areas of species, rich coversand heath, lowland raised bog (peat rich areas), intertidal habitat areas including salt marsh and mud flats, reed beds and some ancient woodland. Significant numbers of national rare/declining species have been recorded including Bats, Brown Hare, Water Vole Otter, Badger, Bittern, several farmland (for example, Skylark) and woodland (for example, Spotted Flycatcher) bird species, and plants including Pillwort, Shepherd's Needle, Cornflower and Dense Silky Bent.

11.13 A key issue will be to secure wildlife species in the designated protected areas where there is a proven economic need for development (for example at the South Humber Bank Employment Site). Within these sites appropriate replacement habitat areas will be agreed with the developer and relevant environmental agencies/bodies. The council is currently working on a South Humber Bank Delivery Framework for harmonising industry and ecology at the strategic South Humber Bank Employment Site. This is being achieved by working in partnership with nature conservation bodies, landowners, industry and North East Lincolnshire Council. Where replacement habitat cannot be achieved the existing habitat will be protected from development. Biodiversity is threatened by inappropriate land management, habitat fragmentation, development pressure and climate change. North Lincolnshire needs to play its role in enhancing its existing assets and rebuilding (where possible) what has been previously lost.

11.14 Work to protect biodiversity will also have a broader focus than just rare habitats and species. Recognition will be given to the educational, health and quality of life benefits that come from regular contact with nature, and plan for accessible green spaces that allow these benefits to be realised. An excellent recent example of this is a reclaimed area (from a former chemical works) called Waters' Edge Visitor Centre and Country Park at Barton upon Humber.

Sustainable Resource Use and Climate Change

11.15 The quality of North Lincolnshire's local environment needs to be framed within a wider global picture. Globally, natural resources are being consumed and the environment is being altered at an unprecedented rate and scale.

11.16 Human activities around the globe are increasing the amount of carbon dioxide and other 'greenhouse gases' that are entering the atmosphere, which is leading to global warming and climate change. North Lincolnshire must take steps to reduce the cause of carbon dioxide and make plans to respond to its effects (sea level rise and flood risk). The Government has set a national target to reduce greenhouse gas emissions by 12.5% below 1990 levels over the period 2008-2012 with an aim of achieving 20% cuts by 2010. The Government in the Climate Change Act 2008 has set a UK target of reducing carbon emissions by at least 80% by 2050 and by at least 40% by 2020 (based against a 1990 baseline). The Act also 2008 contains enabling powers to introduce new carbon trading schemes. Achieving these targets will require a wide range of actions, many of which fall outside the scope of the LDF.

11.17 Yorkshire Forward carried out a scoping study in 2008 to introduce an understanding of transporting CO2 from the Yorkshire and Humber Region emitters into offshore storage sites (gas wells in the North Sea coming to the end of their life in the next decade). The study area in the document importantly covers North Lincolnshire and recognises that the area has high individual industrial emitters of CO2, including oil refineries, steelworks, power stations and port operators. These high levels of CO2 emissions and proximity to ready made off shore storage sites means that the development of a low cost CO2 transport network (pipes) would position the region and North Lincolnshire as the first and potentially lowest cost user of depleting North Sea gas fields for carbon storage. This possible solution for storing carbon is supported by the government's overview stated in the Stern Review of Climate Change, which confirms that carbon capture and storage is essential to enable the provision of a lower carbon future, thereby having a positive effect on climate change. The recommendations of this scoping report include high level government and regional development agency involvement to materially address the cumulative emissions of CO2 from the UK in line with the time scales of the "Central" scenario with operation in 2016 .

11.18 The council has signed the Nottingham Declaration on Climate Change that requires it to develop a Climate Change Action Plan. North Lincolnshire is currently carrying out a study review to establish its ecological/carbon footprint. This is a review of North Lincolnshire's Climate Change Action Plan and Greening the Workplace document. This will indicate how many hectares of land are required to meet each North Lincolnshire resident's requirements for food, energy and transport. Whatever the result of this study North Lincolnshire residents and developments should aim to be more resource efficient in the future. The Climate Change Action Plan has a five year programme (2007-2012), that highlights some actions which can be implemented and will lead to a reduction in greenhouse gas emissions. The consequences of the Government's recent announcement to raise the reduction in carbon emissions target by 2050 will inevitably lead to another review of the Climate Change Action Plan.

11.19 Homes contribute one-third of the UKs total carbon dioxide emissions and when other buildings are factored in, the figure is closer to one half (Town and Country Planning Association 2006). To meet the challenges of rising demand for housing and reduce greenhouse gas emissions, there is a need to move towards an urban environment that demands less energy and that has a sustainable energy resources.

11.20 To meet this challenge development will need to be planned which will help slow down the rate of (and be resilient to the effects of), climate change. In order to do this, the aim is to:

- Reduce consumption of natural and non renewable resources where possible

- Plan to reduce carbon emmissions in the context of required efficient non renewable energy by the use of the best available clean technologies
- Reduce pollution to levels that do not damage natural systems
- Reduce the need to travel
- Help improve air, land and water quality
- Reduce contributions, and adapt, to climate change
- Reduce the use of non renewable energy and promote renewable energy
- Plan in the context of increased flood risk
- Plan in the context of reducing carbon emissions.

11.21 The key issue for the LDF is how it reconciles the need to reduce reliance on fossil fuels such as coal, oil and gas by generating energy from renewable resources with the need to protect and enhance our landscapes and minimise their impact on communities. North Lincolnshire has a history of providing power including combined heat and power and providing fuel sources for the area and elsewhere. Where non-renewable resources such as oil, gas and coal continue to be used it will be essential to use the best available clean technologies and abatement measures, including developing carbon capture methods, to help reduce carbon emissions. There are a number of ways that energy can be generated from renewable resources; these include biomass, burning waste to create energy, using landfill gas, using solar panels on buildings, wave and tidal power and wind power. The overall aim of reducing North Lincolnshire's carbon footprint can be achieved in part by the promotion of renewable energy generation and low carbon energy, including it wherever possible, and by maximising improvements to energy efficiency to meet the appropriate energy efficient standards for the region.

11.22 Energy from renewable sources makes an important contribution to reducing greenhouse gas emissions which are the main cause of global warming and climate change. North Lincolnshire will meet its RSS renewable energy targets through the Development Control process. Although wind energy is only one of the different renewable energy resources, a 16mw wind farm at Bagmoor Gullet has been developed whilst a 66MW cross border (with Doncaster Metropolitan Borough Council) wind farm at Tween Bridge has been given planning permission as has an 85MW windfarm at Keadby. This indicates that the RSS 2010 – 54MW and 2021 – 112MW target for installed grid-connected renewable energy for North Lincolnshire will meet the minimum requirements of RSS policy ENV5 and table 10.2. It should be noted that no maximum targets are set by RSS and compliance with minimum targets does not prevent further renewable energy development being allowed. There is currently major interest in locating biomass plants in North Lincolnshire and off-shore wind farms and wave power in the Humber Estuary/North Sea, which is currently being researched. In addition, existing energy generation sites such as Keadby Power Station are supported. It is expected that existing power stations in North Lincolnshire will continue to play an important role in energy production and will continue to be a major contributor to North Lincolnshire's power generation supply to the national grid.

11.23 Where specified requirements are not practically achievable on any major development, a section 106 legal agreement will be sought to secure savings through the implementation of other local renewable energy or energy efficient schemes. Further guidance will be provided in a Supplementary Planning Document.

Flood Risk

11.24 As an area that is framed by the sea and three large river systems and large areas of low flat lying land, North Lincolnshire needs to respond to the issue of flood risk. A Strategic Flood Risk Assessment (SFRA) covering North Lincolnshire and North East Lincolnshire was approved in November 2006.. This SFRA has been subjected to Review and was completed in April 2010. This Review sets out what is expected in flood risk terms over the next 100+ years up to 2115 by considering the latest Lidar data and climate change predictions, including the consequences of predicted tidal, fluvial and pluvial outcomes. The Review has considered the latest PPS25 (and its new companion guide) and the latest flood modelling (coastal breach analysis) made available by the EA at the beginning of 2010. The Review also includes the relevant SFRA Level 2 assessment from a separate and more detailed PPS25 Exceptions Test Strategy on land to the west of Scunthorpe that includes the Lincolnshire Lakes project area.

11.25 The risk of coastal and river flooding will increase as a result of the predicted effects of climate change, including rising sea level and increased rainfall. To achieve a programme of sustainable development North Lincolnshire will need to adapt to this situation, in agreement with the Environment Agency, by taking steps to defend existing properties and direct new sustainable growth to areas with little or no risk of flooding. However, North Lincolnshire has a significant amount of land within zone 3, where in part, for wider sustainable reasons, development will have to be located.

11.26 The majority of development allocations will be located in Scunthorpe and the South Humber Bank. Significant environmental, design and construction challenges exist with the need to deliver social and economic growth in areas of flood risk. The majority of housing land will be directed towards a western extension of the Scunthorpe urban area and will include the Lincolnshire Lakes project area which will be delivered as an Area Action Plan DPD. The majority of employment land will be delivered at the South Humber Bank by extending the existing port areas. It will be crucial to respond in these areas to the risk of flooding now and in the future. The council's SFRA Review indicates that in the next 100+ years the absence of appropriate defences, sea level rise, greater storms and increased rainfall will result in more frequent flood events. The Government's Foresight Study predicts wetter winters and dryer summers, but a greater intensity of rainfall events in the summer season. Without appropriate mitigation measures applied to development in terms of construction and design, floods in the areas more susceptible to flood risk could be caused by the actions of the sea, rivers and rainfall reducing the capacity of surface water systems.

11.27 The Environment Agency South Humber Water Cycle Strategy (North Lincolnshire and North East Lincolnshire Council's areas) reached Scoping stage in July 2008 but did not progress because of the uncertainty of future Surface Water Management Plans and possible overlap and repetition of study work on different water plans. However, since that time it has recently emerged in progressing various individual studies that it will be beneficial for North Lincolnshire Council to progress a Water Cycle Strategy particularly concentrating on the strategic locations for future growth. Whilst the responsible water companies in the area have indicated that there are no real capacity problems during the consultation process of the Core Strategy, a Water Cycle Strategy will provide a formal plan and programme of water services infrastructure implementation through a thorough assessment of the environment and infrastructure capacity for water supply, sewage disposal, flood risk management and surface water drainage. It will also consider the impact of efficiency measures and provide an overall estimate of cost for the identified solutions and of the identified infrastructure improvements required at an early stage.

11.28 The final publication of the Outline Water Cycle Strategy is expected during late October 2010. Surface Water Management Plans will be required under the Floods and Water Management Act 2010 but the process is not likely to progress until the council has given the issue more considered thought. The council has responded to the Act during its draft stages and one of the main concerns highlighted from the council's Floods Forum was the funding and resource issue of developing Surface Water Management Plans. However, it is clear that Strategic Flood Risk Assessments, Water Cycle Strategies, the Exception Test Strategy for the western Scunthorpe urban extension and other individual water studies recently carried out by the council will assist Surface Water Management Plans and help plan future development in terms of flood risk and the capacity of water infrastructure over a much longer time frame (20 to 30 years).

11.29 The Catchment Flood Management Plan (CFMP's) for Grimsby and Ancholme, and the Draft CFMP for the Trent are higher-level strategic flood management plans that cover parts of North Lincolnshire. These include a broad set of policies for the river catchment areas. Both CFMP's will sit alongside the Humber Shoreline Management Plan (HESMP – Flamborough Head, North Yorkshire to the Wash, South Lincolnshire/Norfolk) which in effect for the North Lincolnshie area is the Humber Flood Defence Strategy – Planning for the Rising Tides (March 2008). These latter plans also include broad strategies that need to be defined in separate more detailed project studies such the Isle of Axholme and Gunness/Flixborough studies, which are currently ongoing. The Humber River Basin Management Plan is currently in draft form and tends to address water quality issues that will feed through to CFMPs. All these flood and water plans will contribute towards the European Water Framework Directive 2009.

11.30 The North and North East Lincolnshire SFRA Review, and any subsequent reviews should be used as a basis for all Flood Risk Assessments in addition to revised PPS25 (March 2010). It is essential that the SFRA is reviewed on a regular basis to take into account any new relevant flood data, including future PPS25 reviews. The current SFRA Review is the most up to date it can be at the time of publishing this Core Strategy. North Lincolnshire Council and North East Lincolnshire Council have agreed with the EA the SFRA Review is to be used as a "living document" that is set out in a way that parts can be amended as and when necessary. All development will be measured against a risk based approach to flooding involving Sequential and Exception testing. The Sequential Test looks to steer new development away from areas at risk of flooding wherever possible. To pass the Sequential Test, anyone proposing development in areas at risk of flooding will need to show that reasonably available, acceptable sites are unsustainable in other ways in lower flood risk zones. If the Sequential Test is passed, the Exception Test may be necessary, depending on the vulnerability of the development and the level of flood risk (see Table D3 of PPS25). The Exception test seeks to ensure that development:

- Provides benefits to the community that outweigh the risks of flooding
- Is located on previously developed land where possible; and
- Is safe and does not increase the risk to others.

11.31 Once these tests have been passed, all development proposals in areas considered at risk of flooding will require a detailed Flood Risk Assessment that will demonstrate how it will make a positive contribution to reducing or managing flood risk. Whilst the approach to locating development should be to avoid developing in the high flood risk area (and not at all in the functional flood plain) it will be important to avoid "sterilising" the higher flood risk zoned areas by prohibiting necessary sustainable development in it. A better approach will be to integrate water management into areas that are needed for development in the high flood risk areas with people safety being at the top of the agenda as will be the case with the Lincolnshire Lakes Project Area. This will involve a number of measures including:

- Locating vulnerable types of development to avoid flood risk
- Raising floor and land levels and providing safe flow paths within and outside development and safe routes for people

- Improving capacity and effectiveness of drainage infrastructure
- Providing, enhancing and maintaining flood defences and flood warning systems
- Designing and constructing buildings to be resilient and resistant to the effects of flooding, safe for human occupation and do not increase flood risk to others.

Approach

11.32 Everyone in North Lincolnshire is dependent on the natural environment. It is the foundation for economic and social well being. The North Lincolnshire vision will not be achieved without its effective stewardship.

11.33 To achieve a balance between the natural environment with people's social and economic wellbeing, the LDF will:

- Protect and enhance the landscape, greenspace and waterscape that are essential to North Lincolnshire's historic setting and character particularly by recording existing green assets by means of a green infrastructure study, including setting out future green infrastructure requirements
- Ensure future development enhances the quality and accessibility of green spaces by encouraging the creation of new landscapes and waterscapes, town greening initiatives and public parks within a green infrastructure study.
- Recognise the importance of providing a 'multi functional' green infrastructure that delivers a broad range of quality of life benefits (education, access, amenity, recreation, green tourism, biodiversity) in line with existing council strategies to be delivered through a green infrastructure study.
- Protect, enhance and restore biological diversity in line with targets expressed within national, regional and local Biodiversity Action Plans
- Ensure future development 'designs in' wildlife from an early stage
- Respond to the threat of flooding through the planning of development proposals in the light of Strategic Flood Risk Assessment and emerging Water Cycle Strategy and Surface Water Management Plans
- Recognise that effective protection and management of the Humber Estuary and its main tributaries and existing settlements requires a sub regional/cross boundary partnership approach to planning and delivery assisted by the Trent CFMP, Grimsby and Ancholme CFMP, Humber Flood Defence Strategy (Environment Agency), Strategic Flood Risk Assessment, Humber Nature Conservation Strategies (Natural England) and the South Humber Bank Delivery Group – including the environmental sub-group

11.34 The Council also recognise that to create and support 'sustainable communities' there is an urgent need to plan for climate change, and limit North Lincolnshire's 'eco footprint' by embracing design and technology that reduces our use of non-renewable resources and ensure that development goes through a process of climate proofing.

11.35 To address these climate change issues the LDF will:

- Promote development that maximises energy efficiency and minimises CO2 emissions and improves the quality of air, land and water
- Promote sustainable building construction methods through the Development and Building Control processes that will help minimise CO2 emissions

- Promote development that utilises low or zero carbon sustainable energy sources and support new technology for carbon capture
- Promote development that reduces the need to travel and dependency upon the car
- Promote a green infrastructure study for North Lincolnshire
- Respond to the threat of flooding through the consideration of planning proposals in light of a Strategic Flood Risk Assessment and emerging Water Cycle Strategy and Surface Water Management Strategy
- Reduce consumption of natural and non-renewable resources, but where there is no option but to use non-renewable resources the best available clean technologies will be promoted
- Respond to minimising waste by reducing it and recycling it to create a sustainable energy source.

CS16: NORTH LINCOLNSHIRE'S LANDSCAPE, GREENSPACE AND WATERSCAPE

The council will protect, enhance and support a diverse and multi-functional network of landscape, greenspace and waterscape through:

1. **Identifying in supporting documents within or evidencing the Local Development Framework, a network of strategically and locally important landscape, greenspace and waterscape areas. Development on or adjacent to these areas will not be permitted where it would result in unacceptable conflict with the function(s) or characteristic of that area.**
2. **Requiring development proposals to improve the quality and quantity of accessible landscape, greenspace and waterscape, where appropriate.**
3. **Requiring development proposals to address local deficiencies in accessible landscape, waterscape and greenspace where appropriate.**
4. **Requiring the protection of trees, hedgerows and historic landscape to be specified where appropriate.**

The creation and maintenance of the network of landscape, green space and waterscapes will be secured by a range of measures, including protecting open space, creating new open spaces as part of new development, and by using developer contributions to create, improve and maintain green infrastructure assets where appropriate

11.36 The aim of this policy is to ensure that the key strategic spaces are protected and enhanced, contributing to the formation of sustainable linked communities. Strategic landscape, greenspace, estuary and water environments and archaeology are of importance to North Lincolnshire as a whole in terms of its character, biodiversity value, recreation/sports value and its potential for improving and enhancing green tourism value.

11.37 Smaller scale greenspace features which include individual trees and hedgerows are also important to quality of life and the environment. The council will be proactive in protecting such features through Tree Preservation Orders or other applications of its powers. Development proposals should also bring forward landscaping schemes that protect existing landscape features and deliver environmental improvements appropriate to the location of the scheme and the function and scale of development.

11.38 The policy will be implemented through:

- Identifying greenspace sites in supporting documents within or evidencing the LDF, and through the consideration of planning applications
- Production of a Green Infrastructure Study.

CS17: BIODIVERSITY

The council will promote effective stewardship of North Lincolnshire's wildlife through:

1. **Safeguarding national and international protected sites for nature conservation from inappropriate development.**
2. **Appropriate consideration being given to European and nationally important habitats and species.**
3. **Maintaining and promoting a North Lincolnshire network of local wildlife sites and corridors, links and stepping stones between areas of natural green space.**
4. **Ensuring development retains, protects and enhances features of biological and geological interest and provides for the appropriate management of these features.**
5. **Ensuring development seeks to produce a net gain in biodiversity by designing in wildlife, and ensuring any unavoidable impacts are appropriately mitigated for.**
6. **Supporting wildlife enhancements that contribute to the habitat restoration targets set out in the North Lincolnshire's Nature Map and in national, regional and local biodiversity action plans.**
7. **Improving access to and education/interpretation of biodiversity sites for tourism and the local population, providing their ecological integrity is not harmed.**

11.39 This policy is primarily about conserving and enhancing North Lincolnshire's wildlife, including intertidal and peat moor locations and supporting a richness of biodiversity that will underpin the creation of sustainable neighbourhoods and green tourism. Alkborough Flats is a recent example (completed in 2006) where a flood risk management scheme has been and a managed nature conservation area provided which includes the creation of some 170 hectares of intertidal habitat. The spatial distribution of the hierarchy of important nature conservation sites is illustrated in the Key Diagram. It recognises the importance of protecting species and the assets found within the statutorily designated sites, but also the need to view biodiversity enhancement as an integral opportunity in all development. Certain developments may be required to submit an impact assessment to quantify the effect on biodiversity and inform design and mitigation measures. Development proposals need to consider protected species at an early stage. Where development adversely affects biodiversity interest, negative impacts should be minimised and compensation to offset these impacts should be provided. Any proposed development likely to have a significant effect on a wildlife site of international importance will be subject to a thorough ecological assessment. A Habitat Regulations Assessment under the Habitat Regulations will be made by the council to inform development control decisions. Where it cannot be demonstrated that a development proposal will not have an adverse effect on the integrity of a site of European or international importance to nature conservation, such development is not supported by this Plan and will not be permitted.

11.40 This policy will be implemented through specific proposals, where appropriate, in supporting documents within or evidencing the LDF and by the planning application process to positively bring about development which supports wildlife policy. It will be amplified through special studies/delivery frameworks and by a Supplementary Planning Document.

CS18: SUSTAINABLE RESOURCE USE AND CLIMATE CHANGE

The council will actively promote development that utilises natural resources as efficiently and sustainably as possible. This will include:

1. Meeting high water efficiency standards, and incorporating new technologies to recycle and conserve water resources.

2. Requiring the use of Sustainable Urban Drainage Systems (SuDS) where practicable.

3. Supporting the necessary improvement of flood defences and surface water infrastructure required against the actions of climate change, and preventing development in high flood risk areas wherever practicable and possible.

4. Meeting required national reductions of predicted CO2 emissions by at least 34% in 2020 and 80% in 2050 by applying the following measures on development proposals. Requiring all industrial and commercial premises greater than 1000 square metres to provide 20% of their expected energy demand from on site renewable energy until the code for such buildings is applied nationally. Where developers consider these Codes and targets cannot be met on the basis of viability they will be required to provide proof through open book discussions with the council at the planning application stage.

5. Ensuring building design reduces energy consumption by appropriate methods such as high standards of insulation, avoiding development in areas subject to significant effects from shadow, wind and frost, using natural lighting and ventilation, capturing the sun's heat, where appropriate.

6. Supporting development that minimises the consumption and extraction of minerals by making the greatest possible reuse or recycling of materials in new construction, and by making best use of existing buildings and infrastructure.

7. Supporting development that seeks to minimise waste and facilitates recycling and using waste for energy where appropriate.

8. Ensuring that development and land use in areas close to the Humber Estuary and rivers responds appropriately to the character of the area, in the interests of preserving and making best use of limited resources.

9. Supporting development that will help to reduce the need to travel for people using that development.

10. Ensuring development and land use helps to protect people and the environment from unsafe, unhealthy and polluted environments, by protecting and improving the quality of the air, land and water.

11. Supporting renewable sources of energy in appropriate locations, where possible, and ensuring that development maximises the use of combined heat and power, particularly at the South Humber Bank employment site and where energy demands for more than 2MW are required for development.

12. Supporting new technology and development for carbon capture and the best available clean and efficient energy technology, particularly in relation to the heavy industrial users in North Lincolnshire, to help reduce CO2 emissions.

13. Promote the use of a greenspace strategy and a green infrastructure plan, where applicable, which could help reduce the effects of climate change.

11.41 This policy aims to reduce the size of North Lincolnshire's ecological footprint, reduce the causes of climate change, and move North Lincolnshire towards a more resource efficient future. It will be implemented through specific resource use policies and proposals in relevant Action Plans, and through the planning application and building control processes. The issue of renewable energy will be amplified through a Supplementary Planning Document. Examples of this include using renewable energy technology, being positive about supporting new carbon capture technologies, concentrating more on waste minimisation, reuse and recycling by applying the national waste hierarchy and delivering cleaned up, previously used contaminated land where it is sustainably located and where practicable, in accordance with Environment Agency and local guidance.

11.42 The Outline Water Cycle Strategy shows that there will be a need for major improvements to the sewage network to accommodate growth within and adjoining Scunthorpe. This policy makes it clear that development will need to be phased in a way that ensures that infrastructure is provided either before or alongside development for it to be sustainable. The phasing of development will need to be informed by further evidence on infrastructure as part of the development of the Lincolnshire Lakes Area Action Plan and the Housing and Employment Development Plan Document. This is necessary to ensure the protection of the water environment and to meet the objectives of the Water Framework Directive as set out in the Humber River Basin Management Plan.

CS19: FLOOD RISK

The council will support development proposals that avoid areas of current or future flood risk, and which do not increase the risk of flooding elsewhere. This will involve a risk based sequential approach to determine the suitability of land for development that uses the principle of locating development, where possible, on land that has a lower flood risk, and relates land use to its vulnerability to flood. Development in areas of high flood risk will only be permitted where it meets the following prerequisites:

1. **It can be demonstrated that the development provides wider sustainability benefits to the community and the area that outweigh flood risk.**
2. **The development should be on previously used land. If not, there must be no reasonable alternative developable sites on previously developed land.**
3. **A flood risk assessment has demonstrated that the development will be safe, without increasing flood risk elsewhere by integrating water management methods into development.**

Development within the Lincolnshire Lakes area will comply with the flood management principals set out in the Western Scunthorpe Urban Extension Exception Test Strategy. Any further flood management proposals will have to be agreed by both the council and the Environment Agency during the process of the Lincolnshire Lakes Area Action Plan. Development proposals in flood risk areas which come forward in the remainder of North Lincolnshire shall be guided by the Strategic Flood Risk Assessment for North Lincolnshire and North East Lincolnshire. This will ensure that proposals include site specific flood risk assessments which take into account strategic flood management objectives and properly apply the Sequential and, where necessary, Exception Tests.

In addition development will be required, wherever practicable, to incorporate Sustainable Urban Drainage Systems (SUDS) to manage surface water drainage. The Council will also seek to reduce the increase in flood risk due to climate change through measures to reduce carbon dioxide emissions.

11.43 This policy is needed to safeguard people and property from the risks of flooding. The risks of flooding in North Lincolnshire are forecasted to increase due to climate change.

11.44 Flood risk is increased where there is a lack of capacity within the existing drainage infrastructure. SUDS are natural drainage systems that bring environmental, ecological and social benefits to residents. They are designed to slow the surface water run off from land into drains, watercourses and main rivers to limit the flooding and pollution problems associated with conventional drainage schemes. The systems also have a part to play in reducing flood risk to and from new development, and can be designed to function in most urban settings. SUDS can include green roofs, water butts, rain water harvesting, filter strips and swales, infiltration devices and basins or ponds.

11.45 The policy will be implemented in the following ways:

- By applying the flood risk sequential and exception tests and using the vulnerable land use classification in Annex D of PPS25 Development and Flood Risk
- Identification of specific policies and proposals to reduce flood risk as part of development proposals in other relevant Local Development Documents
- Development proposals will be informed by the SFRA and any subsequent review of this document, PPS25 and development based Flood Risk Assessment that demonstrates how it will make a positive contribution to reducing or managing flood risk. This will include a number of measures to ensure that:

  iv) Development is zoned to ensure the most vulnerable development types are avoided

  v) Drainage infrastructure is increased

  vi) Flood defence and flood warnings are increased

  vii) Flood resistant or resilient design is included as part of the development solution

  viii) SUDS will be required on all development and applied through the planning application process where practicable

  ix) Water management methods are integrated into development, particularly into developments that are required for other wider sustainable community reasons in the high flood risk zone.

Monitoring

11.46 The following indicators and targets will be used in monitoring the implementation and effectiveness of the policies contained in this chapter:

Indicator	Target
Renewable energy developments installed by type	54 MW of installed grid-connected renewable energy in 2010 112 MW of installed grid-connected renewable energy in 2021 These are both minimum targets – no maximum targets are set
Areas of parks and open spaces with a current Green Flag Award compared to the total amount of parks and open spaces	Annual increase in percentage of local authority managed parks and with a current Green Flag Award compared to the total amount of parks and open spaces
Proportion of total dwellings permitted and proportion of employment permissions granted, located in areas at risk of flooding (excluding the Lincolnshire Lakes project area – Western Scunthorpe Urban Extension and the South Humber Gateway).	15% -20%
Actions are taken to protect and enhance water quality.	Annual Environment Agency confirmation of satisfactory progress with the delivery of relevant actions from the Humber River Basin Management Plan.
Improved Local Biodiversity – local sites of biodiversity importance where active conservation management is being carried out	Proportion of local sites where positive conservation management has been, or is being implemented.
Change in areas of biodiversity importance	Change in areas (ha) of biodiversity habitat- sites of international, national, regional, sub-regional or local significance

Key Documents

- The Yorkshire & Humber Plan – Regional Spatial Strategy to 2026 (GOYH, 2008)
- A Carbon Capture and Storage Network for Yorkshire and Humber (Yorkshire Forward, 2008)
- Lincolnshire Biodiversity Action Plan (Lincolnshire Biodiversity Partnership, 2006)
- Strategic Flood Risk Assessment for North & North East Lincolnshire (NLC, 2006)
- Interim Review of Strategic Flood Risk Assessment for North & North East Lincolnshire (NLC & NELC 2009)
- South Humberside Water Cycle Scoping Study July 2008 (Halcrow, 2008)
- Humber Flood Risk Management Strategy March 2008 (Shoreline Management Plan) (Environment Agency, 2008)
- Draft Trent Catchment Flood Management Plan (to be finalised)
- Grimsby and Ancholme Catchment Flood Management Plan (Environment Agency,2009)
- Draft Humber River Basin Management Plan (July to September 2009) (Environment Agency, 2009)
- Planning Policy Statement (PPS) 25: Development & Flood Risk (DCLG, 2010)
- Planning Policy Statement 25: Development and Flood Risk - Practice Guide (DCLG, 2009)
- Nottingham Declaration on Climate Change 2007 – 2012 (Energy Saving Trust)
- North Lincolnshire Climate Change Action Plan (Annual reviews) (NLC)
- Emerging South Humber Bank Ecology Delivery Framework 2009

Link to Key Objectives

Spatial Objectives:

1, 2, 6, 7, 8, 10

SA Objectives:

SA1; SA5; SA7; SA8; SA9; SA11; SA12; SA13; SA14; SA15; SA18; SA19: SA20; SA21; SA22; SA23; SA28