

## APPENDIX C: RELEVANT PLANS, PROGRAMMES AND ENVIRONMENTAL PROTECTION OBJECTIVES

### Key European Legislation, Plans and Policies

Legislation	Relevance to flood risk management	Primary SEA Directive Topic
<b>EU Birds Directive</b> , 2009/147/EC /409/EEC on the conservation of wild birds	Provides for the protection of all naturally occurring wild bird species and their habitats, with particular protection afforded to rare species. The Directive requires, measures taken to preserve, maintain or re-establish a diversity of habitats for all the birds listed in Annex I.	<ul style="list-style-type: none"> <li>• Biodiversity;</li> <li>• Flora and Fauna</li> </ul>
<b>EU Floods Directive</b> , 2007/60/EC on the assessment and management of flood risks	Requires all Member States to assess whether all water courses and coast lines are at risk from flooding. It requires a six-year cycle of flood risk assessment, mapping and planning, including considering the impact of flooding to people, the economy and the environment.	<ul style="list-style-type: none"> <li>• Water;</li> <li>• Material Assets; and</li> <li>• Population</li> </ul>
<b>EU Water Framework Directive</b> , 2000/60/EC establishing a framework for the community action in the field of water policy	Introduces a new strategic planning process to manage, protect and enhance the water environment, including; surface freshwater (including lakes, streams and rivers), groundwater's, groundwater dependant ecosystems, estuaries and coastal waters out to one mile from low-water.	<ul style="list-style-type: none"> <li>• Water;</li> <li>• Soil;</li> <li>• Biodiversity;</li> <li>• Flora and Fauna</li> </ul>
<b>EU Habitats Directive</b> , 92/43/EEC on the conservation of natural habitats and of wild flora	This directive requires the protection of species and habitats of EU nature conservation designations. Due to the potential for the LFRMS to have significant effects on sites of European importance in the Nottinghamshire area. Habitats Regulation Assessment's (HRA) are required for sites of European significance. HRA will need to be undertaken for individual schemes to determine potentially significant effects on European sites.	<ul style="list-style-type: none"> <li>• Biodiversity;</li> <li>• Flora and Fauna</li> </ul>
<b>The EU Nitrates Directives</b> 1991	Objective of this directive is to reduce and prevent water pollution caused or induced by nitrates from agricultural sources. This directive requires the identification of waters, either actually or potentially affected by nitrate pollution or designate all areas draining into such waters as vulnerable. The LFRMS must be aware of designated zones. The majority of Nottinghamshire is identified as Surface Water Nitrate Vulnerable Zone (NVZ), with Groundwater NVZ's and Eutrophic NVZ's scattered throughout <sup>11</sup> .	<ul style="list-style-type: none"> <li>• Water</li> </ul>

<sup>11</sup> Data from EA map resource available at: [http://maps.environment-agency.gov.uk/wiyby/wiybyController?x=453500.0&y=361500.0&topic=nvz&ep=map&scale=5&location=Mansfield, Nottinghamshire&lang=\\_e&layerGroups=default&distance=&textonly=off](http://maps.environment-agency.gov.uk/wiyby/wiybyController?x=453500.0&y=361500.0&topic=nvz&ep=map&scale=5&location=Mansfield, Nottinghamshire&lang=_e&layerGroups=default&distance=&textonly=off)

## Key National Legislation, Plans and Policies

Legislation	Relevance to flood risk management	Primary SEA Directive Topic
<p><b>National Planning Policy Framework (NPPF), 2012</b></p> <p>Technical Guidance to the NPPF<sup>12</sup></p>	<p>National policy in terms of development and flood risk is set out in the NPPF and accompanying documents. The NPPF;</p> <ul style="list-style-type: none"> <li>• Directs development to the lowest flood risk areas and ensure that where development does go ahead, that it has taken into account the flood risk both to and from that development for the lifetime of that development (hence the development should be resilient to the effects of climate change).</li> <li>• Supports the concepts of Sustainable Drainage Systems (SUDS) and green infrastructure;</li> </ul>	<ul style="list-style-type: none"> <li>• Water;</li> <li>• Biodiversity, Flora and Fauna;</li> <li>• Material Assets;</li> <li>• Climate Change;</li> <li>• Cultural Heritage;</li> <li>• Human Health and population</li> <li>• Landscape</li> </ul>
<p>Flood and Water Management Act (2010)</p>	<p>This Act provides for the role of Lead Local Flood Authorities. The Act establishes a SUDS Approving Body at County or Unitary Local Authority levels, who would have responsibility for the approval of proposed drainage systems in new developments and redevelopments.</p>	<ul style="list-style-type: none"> <li>• Water</li> </ul>
<p>Foresight Future Flooding Report (Office of Science and Technology, 2004);</p> <p>Future Water - The Government's Water Strategy for England (Defra, 2008);</p> <p>Water for people and the environment: Water Resources Strategy for England and Wales (Environment Agency, 2009); and The National Flood and Coastal Erosion Risk Management Strategy (2011).</p>	<p>These national legislative documents set out objectives to provide guidance for the protection, improvement, sustainable management and the use of the water environment in terms of quantity and quality for the benefit of the human and natural environment.</p>	<ul style="list-style-type: none"> <li>• Water</li> </ul>
<p>Securing the Future: Delivering the Sustainable Development Strategy (Defra, 2005);</p>	<p>This document aims to enable people to satisfy their basic needs and enjoy a better quality of life without compromising the quality of life of future generations.</p>	<ul style="list-style-type: none"> <li>• All topics (inter-related sustainability issues)</li> </ul>

<sup>12</sup> National Planning Policy Framework Document (2012) and Technical Guidance. Available: [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/6077/2116950.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/6077/2116950.pdf)

## Key Local Legislation, Plans and Policies

A summary of the key County Level plans is included below.

- ***Nottinghamshire Minerals Local Plan<sup>13</sup> (draft)***

The new Minerals Local Plan will set out our overall approach to future minerals provision in Nottinghamshire up to 2030. Key issues will include the amount of mineral we will need to produce to meet demand, the location of future sites and the social and environmental impacts of mineral working. The preferred approach document was published for public consultation from October through December 2013.

- ***Nottinghamshire and Nottingham Waste Core Strategy – Replacement Waste Local Plan Part 1<sup>14</sup>***

This document sets out the approach to future waste management, including estimates of waste capacity over the next 20 years and what types of sites are suitable. The first part of the new plan was adopted on 10<sup>th</sup> December 2013. The second part will be made up of the site specific allocations and the development management policies. Preparation of these documents is at an early stage; the minerals and waste development scheme suggests an indicative adoption date of August 2015.

- ***Nottinghamshire Third Local Transport Plan 2011 -2026***

The Local Transport Plan (LTP) consists of firstly the LTP Strategy 2011 - 2026 which sets out the Councils vision and the strategy to achieve the vision; and secondly the LTP Implementation Plan which details the funding allocations and proposed transport measures to be funded over the next three financial years. The relevant objective of the Nottinghamshire LTP3 to the LFRMS is to provide a reliable, resilient transport system to support growth;

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<sup>13</sup> Nottinghamshire County Council, Mineral Local Plan Consultation Jan – March 2012. Available at: <http://www.nottinghamshire.gov.uk/thecouncil/democracy/planning/local-development-framework/mineralsdevplandocuments/minerals/>

<sup>14</sup> Further information on the Draft Nottinghamshire and Nottingham Waste Core Strategy is available on the Nottinghamshire County Council public website.

## Local Planning Authority Policy Framework

Within Nottinghamshire the District and Borough Councils are Local Planning Authorities for the majority of development types. The below sets out the key development proposals for Nottinghamshire relevant to the LFRMS

Policy/Reference	Relevance to the LFRMS
<b>Ashfield District Council Local Plan<sup>15</sup></b>	
SPH4: Hucknall Town Centre Improvement Scheme	Improvements to the town centre include construction of relief road close to the Baker Lane Brook.
Council-wide housing allocation	Ashfield District Council has a housing allocation for 6,748 new homes
<b>Bassetlaw District Council Core Strategy<sup>16</sup></b>	
CS2: Worksop	Enhancements to the built and natural environment. Promote mixed-use canal and riverside development sites, increasing their usage.
CS3: Retford	Encourage the protection of the sensitive environmental sites that surround the town. Increase the amount of open space. Support proposal for a Marina on the Chesterfield Canal and flood alleviation measures in relation to Retford Beck.
Council wide housing allocation	Bassetlaw District Council has a housing allocation for 6,384 homes
<b>Newark and Sherwood District Council Core Strategy<sup>17</sup></b>	
NAP 2A: Land South of Newark	Provision of Green Infrastructure framework to include; creation of open spaces, improvements to existing spaces, links to countryside, enhancements to existing habitats and local landscape, measures to mitigate any detrimental impact on environmental and heritage features on or adjacent to the site and the retention of the Middle Beck as an open watercourse. Provision of flood mitigation necessary to the south of Middle Beck. Flood Zone 2 and 3.
NAP 2B: Land East of Newark	Provision of green infrastructure including: creation of open spaces, improvements to existing space, links to the countryside, enhancements to existing habitats and the local landscape, retention of important landscape features including mature hedgerows and wooded slopes Flood Zone 2 and 3 within areas, provision of flood mitigation
NAP 2C: Land around Fernwood	Provision of green infrastructure including: safeguarding and enhancement of protected habitat of Shire Dyke (SINC), creation of open spaces and improvements to existing open spaces, enhancements to habitats. Site contains flood zone 2 and 3 areas therefore provision of flood mitigation and incorporation of SUDS.
Council wide housing allocation	Newark and Sherwood District has a housing allocation for 9,913 homes

<sup>15</sup> Ashfield District Council, Local Plan (2002), available: <http://www.ashfield-dc.gov.uk/residents/planning,-property-and-housing/forward-planning/the-adopted-local-plan-2002.aspx>

<sup>16</sup> Bassetlaw District Council, Core Strategy (2011), available: [http://www.bassetlaw.gov.uk/planning\\_and\\_building/planning\\_policy/local\\_development\\_framework/core\\_strategy.aspx](http://www.bassetlaw.gov.uk/planning_and_building/planning_policy/local_development_framework/core_strategy.aspx)

<sup>17</sup> Newark and Sherwood District Council, Core Strategy (2011), available: <http://www.newark-sherwooddc.gov.uk/corestrategy/>

Mansfield District Council Local Plan <sup>18</sup>	
Lindhurst Urban Extension	Major (170 ha) mixed use development including housing, employment, retail, commercial, community use facilities a new local centre and community park. Habitat creation and enhancement is promoted in the scheme, new road infrastructure and SUDS.
Council wide housing allocation	Mansfield District Council has a housing allocation for <sup>19</sup> 7,820 homes
Rushcliffe Borough Council Core Strategy <sup>20</sup>	
Clifton Sustainable Urban Extension	Mixed-use(20ha) housing and employment scheme including sewage and off-site drainage improvements; appropriate SUDS, creation and enhancement of open space and green infrastructure and green corridors, retention of area to the south for surface water balancing.
Edwalton Sustainable Urban Extension	Mixed use urban extension to include housing, employment and community facilities consisting of a community park and outdoor sports/open space and enhanced Green Infrastructure (Sharphill Wood)
North of Bingham	Mixed-use (15.5 ha) housing and employment scheme with commitments to include off site drainage improvements, SUE, flood mitigation scheme for Car Dyke, creation of open space and landscape buffers.
Policy 6: Regeneration Former RAF Newton Former Cotgrave Colliery	RAF Newton: Regeneration site 6.5 ha mixed-use scheme including housing employment and enhanced green infrastructure, protection, enhancement and creation of natural habitats and exploitation of the riverside and water corridor.  Cotgrave Colliery: Regeneration site mixed use residential and employment scheme; conserving the existing nature conservation features and improving accessibility links between new and existing neighbourhoods.
Council wide housing allocation	Rushcliffe Core Strategy allocates 9,400 housing units from 2011- 2026.
Greater Nottingham Aligned Core Strategies <sup>21</sup> ; Broxtowe, Gedling and Nottingham City	
Policy 7: Regeneration The Boots Campus on the border of Nottingham City and Broxtowe Gedling Colliery	Boots Campus: mixed use development on a currently underused site.  Gedling Colliery: housing development on brownfield requiring construction of Gedling Access Road.
Council wide housing allocation	Broxtowe Borough Council area has a housing allocation for 6,150 homes; and Gedling Borough Council an allocation for 7,250.

<sup>18</sup> Mansfield District Local Plan 2011-2031, available: <http://www.mansfield.gov.uk/index.aspx?articleid=527>

<sup>19</sup> Figure from Mansfield housing monitoring report, 2013:

[http://www.mansfield.gov.uk/CHttpHandler.ashx?id=5356&p=0&bcsi\\_scan\\_E956BCBE8ADBC89F=Ud4HgQzUbbVUOWevTnBHIMBgAfkqAQAAGx7p+w==&bcsi\\_scan\\_filename=CHttpHandler.ashx](http://www.mansfield.gov.uk/CHttpHandler.ashx?id=5356&p=0&bcsi_scan_E956BCBE8ADBC89F=Ud4HgQzUbbVUOWevTnBHIMBgAfkqAQAAGx7p+w==&bcsi_scan_filename=CHttpHandler.ashx)

<sup>20</sup> Rushcliffe Borough Council, Core Strategy, 2012. Available at:

[http://www.rushcliffe.gov.uk/media/rushcliffe/media/documents/pdf/strategiesandpolicies/localdevelopmentframework/1\\_RBC%20Core%20Strategy%20Publication\\_Final\\_23\\_3\\_12.pdf](http://www.rushcliffe.gov.uk/media/rushcliffe/media/documents/pdf/strategiesandpolicies/localdevelopmentframework/1_RBC%20Core%20Strategy%20Publication_Final_23_3_12.pdf)

<sup>21</sup> Greater Nottingham Aligned Core Strategies, 2012. Available at:

[http://www.broxtowe.gov.uk/CHttpHandler.ashx?id=24852&p=0&bcsi\\_scan\\_AB11CAA0E2721250=CtZYCNuj2isN+kK+ePovBwCgVngMAQAAnKaN6w==&bcsi\\_scan\\_filename=CHttpHandler.ashx](http://www.broxtowe.gov.uk/CHttpHandler.ashx?id=24852&p=0&bcsi_scan_AB11CAA0E2721250=CtZYCNuj2isN+kK+ePovBwCgVngMAQAAnKaN6w==&bcsi_scan_filename=CHttpHandler.ashx)

## Flood Risk/Alleviation Policies in Nottinghamshire

Throughout Nottinghamshire there is a requirement for the implementation of SUDS within new development set out within the various authority DPDs.

Local Authority	Policy Guidance
Ashfield District LDF publication document	<p>Policy SP2: (Overall Strategy for Growth): Seeks to ensure that where appropriate, development will integrate measures for water and flood management, including;</p> <ul style="list-style-type: none"> <li>• Improving the quality of water resources and the natural features of the Districts Rivers, streams, ponds and associated habitats</li> <li>• Applying sequential approach to minimise flood risk</li> <li>• Taking opportunities to protect and enhance the water environment through the design process</li> </ul> <p>Achieving Greenfield runoff rates within the catchment of the River Leen to minimise the risk of flooding to the City of Nottingham.</p> <p>Policy CC3: (Flood Risk), requires development proposals to take account of flood risk, promoting SUDS to be incorporated with all new developments furthermore any development in Hucknall or the catchment of River Leen should be designed to reduce surface water flows and water quality within the District is further promoted within Policy SD6: (Contaminated Land and Unstable Land) which seeks to ensure proposals avoid causing contamination of any watercourse, water body, groundwater or aquifer.</p>
Greater Nottingham Aligned Core Strategy	Policy 1: (Climate Change): Seeks to increase the amount of SUDS implemented within Gedling and Broxtowe
Rushcliffe's Core Strategy	Policy 1 emphasises the requirement for SUDS with all new development schemes
Mansfield District Local Plan	Policy U5: restricts development on sites where the discharge of additional surface water could exacerbate existing flooding problems or create new flooding problems, unless infrastructure improvements are provided.
Bassetlaw Core Strategy	Policy DM12: (Flood Risk, Sewerage and Drainage) seeks to ensure site specific FRA are prepared for all proposals for development within flood risk areas. DM12 also requires all new development (other than minor extensions) to incorporate SUDS.
Newark and Sherwood Core Strategy	Core Policy 9: (Sustainable Design) promotes the use of SUDS with all new development.
The Nottinghamshire and Nottingham Waste Core Strategy	<p>Section 5 deals with future challenges including flood risk; it highlights the importance of locating new waste infrastructure only within lower risk areas.</p> <p>Policy WCS3 – Broad Locations for Waste Treatment Facilities, states large-scale waste treatment facilities will be supported in or close to the built-up areas of Nottingham, Mansfield and Ashfield, whilst smaller facilities around Newark, Retford and Worksop and small scale facilities will be supported in all locations where there is a local need.</p>

Flood risk management and drainage infrastructure needs are part of the evidence base needed to inform the development of strategic planning policies and allocations in Core Strategies and the more detailed Site Allocation and Development Management Policy documents, all of which form or will form part of an adopted Local Plan. All of the Districts and Boroughs have produced Strategic Flood Risk Assessments (SFRAs) that are of relevance to the LFRMS, although some are now dated and do not reflect the most up-to-date data on flood risk. The following SFRAs exist in Nottinghamshire:

#### Ashfield SFRA 2009<sup>22</sup>

- Although areas of Ashfield have flooded in the past, flood risk in the District of Ashfield is relatively low compared to other districts.
- The main rivers in Ashfield are River Erewash, River Leen and Baker Lane Brook. Both the main rivers and a number of small water courses are associated with Flood Zones 2 and 3.
- Any future development needs to take into account the potential risk of flooding to areas outside of the District. Additional water into the **River Leen at Hucknall** will have major implications for flooding in Nottingham.
- Climate change is perceived to be a contributor to flooding in the District. There is not currently a significant risk of groundwater flooding in Ashfield.
- The SFRA supports the promotion of SUDS with all new development schemes.

#### Bassetlaw 2009<sup>23</sup>

- Fluvial flood risk within Bassetlaw is high
- Urban areas of **Retford and Worksop have minimal defence protection** and fluvial channels have a limited capacity. The majority of flooding affects open ground although in more extreme flood events, existing buildings are affected.
- The risk of pluvial flooding and surface water run-off is considered to be medium in Bassetlaw, however it is expected that during moderate rainfall events the drainage system capacity is likely to be exceeded in some areas and further development in these areas will exacerbate this problem.
- The topography of the district results in **Sturton Le Steeple and Beckingham** and other villages located on heavy clay soils to be more prone to surface run-off problems.

Broxtowe, Gedling, Rushcliffe (and also Erewash and Nottingham City) as part of the Greater Nottingham SFRA. 2008, 2010

<sup>22</sup> Ashfield SFRA: [http://www.ashfield-dc.gov.uk/ccm/cms-service/stream/asset/?asset\\_id=8118001&](http://www.ashfield-dc.gov.uk/ccm/cms-service/stream/asset/?asset_id=8118001&)

<sup>23</sup> Bassetlaw District Council SFRA, 2009. JBA Consulting:  
[http://www.bassetlaw.gov.uk/pdf/Strategic%20Flood%20Risk%20Assessment%20Vol%201.pdf?bcsi\\_scan\\_E956BCBE8ADBC89F=0&bcsi\\_scan\\_filename=Strategic%20Flood%20Risk%20Assessment%20Vol%201.pdf](http://www.bassetlaw.gov.uk/pdf/Strategic%20Flood%20Risk%20Assessment%20Vol%201.pdf?bcsi_scan_E956BCBE8ADBC89F=0&bcsi_scan_filename=Strategic%20Flood%20Risk%20Assessment%20Vol%201.pdf)

- Within the urban extent there are **20,000 properties at risk of flooding, on the east and west of the River Trent** from a 1 in 100 year event.
- Broxtowe: the flooding of the River Trent would likely impact Beeston, Toton, Stapleford and Ryland's. Some limited locations adjacent to Boundary and Beauvale Brooks (previously modelled by BBC using HECRAS) are at risk of flooding in a 1 in 100 year (1% AEP) event. These locations include around the cricket pitch and upstream of Mansfield Road (Boundary Brook), and at Devonshire Drive and Roehampton Drive (Beauvale Brook). Flooding along Beauvale Brook is affected by the flap valve under the River Erewash defences
- Rushcliffe: **Fairham Brook** was modelled by ISIS, the 1 in 100 annual flood events are considered likely to affect many properties in Wilford and Clifton Boulevard.
- Grantham Canal Adbolton, Gamston and Polser Brooks are likely to cause additional flooding behind the River Trent defences.

#### River Leen and Day Brook SFRA<sup>24</sup> 2008

- This study predicts flooding of major roads and infrastructure.
- One of the main aims of this SFRA was to establish the risk of flooding on 5 key regeneration sites in the River Leen and Day Brook corridor (Bulwell Town Centre, Vernon Road, PZ Cussons, Bobbers Mill South and Leengate) and to appraise mitigation measures. Although within the City area these measures included assessing catchment wide mitigation.

#### Mansfield 2008

- Mansfield District is considered to be at low risk of flooding.
- There are specific locations where flooding is a concern and should be addressed through the LDF process and water management practices.
- Implementation of SUDS and soak-aways should be more widely used which would alleviate conditions at **Vicar Water, Foul Evil Brook and Wainworth Water**.
- There is sufficient land availability to avoid future development on areas of Flood Zone 2 or 3.

#### Newark and Sherwood<sup>25</sup> 2009, 2010, 2012

- The Rivers Trent, Meden, Maun and Greet run through the area along with a number of tributaries and streams, brooks, dykes and drains. The fluvial flood risk from these watercourses is managed through allowing floodplain to flood in areas where it has no effect on the built environment;
- The level 1 assessment reviewed existing data including that from existing models from the EA, Halcrow and JBA consulting;
- The level 2 assessment focussed on three strategic sites centred on Newark's Growth Point. **The key finding of the Level 2 SFRA was that the majority of the land fell within areas of low fluvial flood risk.**

#### Nottinghamshire County Council and Nottingham City Council Waste and Minerals SFRA<sup>26</sup> 2011

<sup>24</sup> River Leen and Day Brook SFRA, EA, 2008: <http://www.nottingham.gov.uk/CHttpHandler.ashx?id=4805&p=0>

<sup>25</sup> Newark and Sherwood, SFRA phase 2 report: <http://www.newark-sherwooddc.gov.uk/media/newarkandsherwood/imagesandfiles/planningpolicy/pdfs/floodingandwaterinfrastructure/strategicfloodriskassessmentlevel2part2/Main%20Text.pdf>

<sup>26</sup> Nottinghamshire County Council and Nottingham City Council, Level 1 Minerals & Waste SFRA, 2011. Available: <http://cms.nottinghamshire.gov.uk/sfra.pdf>



- Nottinghamshire falls within one major river catchment, the River Trent. Major tributaries include the River Soar, Erewash, Leen, Devon and Idle.
- **The predominant risk of flooding in Nottinghamshire is fluvial flooding** from the overtopping of surface watercourses including rivers, streams and drainage channels.
- The use of SUDS is promoted on sites taking into account the local geology EA aquifer designation, groundwater vulnerability and GW SPZs into account as well as any local ground contamination to avoid mobilising pollutants that could pollute the watercourses or groundwater.

## Regional Management Plans

In the UK, there are a number of high level management plans which guide the development of flood risk management strategies either directly by setting higher level flood risk management or coastal erosion management policy, or indirectly, by setting regional water quality, nature conservation or landscape management policies and plans. The regional plans relevant to the LFRMS are listed in Appendix A4 and those of particular relevance are summarised below.

**Catchment Flood Management Plans (River Trent, 2010<sup>27</sup>, River Witham, 2008 and River Don, 2008).** Plans that set the strategic direction for flood risk management over the next 50-100 years but in many cases because of the data available at the time and organisational arrangements did not consider localised flooding in great detail.

**River Basin Management Plans (Humber, 2009)<sup>28</sup>.** River Basin Management Plans deal with the pressures facing the water environment (and in particular water quality) and the actions that will address them. River Basin Management Plans are reproduced every 6 years, the next round of River Basin Management Plans are currently being prepared, and following consultation they will be updated and reissued in 2015. This plan provides key actions for improving the water quality of waterbodies in the various catchment areas within the plan area.

Catchment Area	Key Actions for the Area
<b>Idle and Torne</b> (Humber River Basin Management Plan)	<ul style="list-style-type: none"> <li>• Improve sewage works throughout the catchment to reduce inputs of nutrients and improve water quality.</li> <li>• Work to reduce diffuse pollution from agriculture through the Natural England Catchment Sensitive Farming</li> <li>• Sensitive Farming Delivery Initiative.</li> <li>• Partnership project to address diffuse and point source pollution in the River Poulter catchment.</li> <li>• Positive intervention to translocate native crayfish from their current limited population back to their former habitat.</li> </ul>
<b>Lower Trent and Erewash</b> (Humber River Basin Management Plan)	<ul style="list-style-type: none"> <li>• Phosphate removal to be applied to qualifying sewage treatment works in the catchment under the Urban Waste Water Treatment Directive Sensitive Areas (eutrophic).</li> <li>• Works with Severn Trent Water Ltd to reduce the number of misconnections within the catchment.</li> <li>• Address barriers to fish passage.</li> </ul>
<b>Soar</b>	<ul style="list-style-type: none"> <li>• Working with British Waterways, Leicester County Council, Angling clubs and Inlands Waterways Association to remove floating Pennywort from the River Soar.</li> </ul>

<sup>27</sup> <http://a0768b4a8a31e106d8b0-50dc802554eb38a24458b98ff72d550b.r19.cf3.rackcdn.com/gemi1109brdz-e-e.pdf>

<sup>28</sup> River Basin Management Plan, Humber River Basin District, EA: 2009. <http://a0768b4a8a31e106d8b0-50dc802554eb38a24458b98ff72d550b.r19.cf3.rackcdn.com/gene0910bsqr-e-e.pdf>

<p>(Humber River Basin Management Plan)</p>	<ul style="list-style-type: none"> <li>• Investigate and assess water quality issues within Cropston Reservoir catchment, including the Bradgate Brook which has been nominated as a Candidate Water Protection Zone.</li> <li>• Improve sewage works at locations throughout the catchment to reduce the input of nutrients and improve water quality.</li> <li>• Work with Severn Trent Water Ltd to reduce the number of misconnections within the catchment.</li> </ul>
<p><b>Witham</b> (Anglian River Basin Management Plan)</p>	<ul style="list-style-type: none"> <li>• The River Witham rises south of Grantham, passes through Lincoln and drains at the Wash at Boston. Other rivers include Rivers Brant, Till and Slea.</li> <li>• Extensively rural area with good agricultural land. Drainage has had a significant historical effect on the catchment with the IDB controlling water levels through a network of drains.</li> <li>• Lincolnshire Marsh Water Vole Project</li> <li>• A 94ha site at Frampton has been changed from intensive arable production to freshwater wetland grazing marsh. The land replaces habitat being affected by coastal change elsewhere in the river basin district.</li> <li>• Habitat enhancement work at Great Ponton and Syston.</li> </ul>

Source: River Basin Management Plan, Humber River Basin District

## Catchment Abstraction Management Strategies (CAMS)

**Idle and Torne, Lower Trent and Erewash, Witham, Don and Rother (2013)**<sup>29</sup>. These set out how the Environment Agency will contribute to implementing the Water Framework Directive and manage water resources within a catchment (further details at 4.2.8).

## Habitat and Landscape Management Plans

### ***UK Post-2010 Biodiversity Framework' (2012)***

The 'UK Post-2010 Biodiversity Framework' succeeds the previous UK Biodiversity Action Plan. It sets out how work in the UK contributes to meeting international targets and identifies activities required to complement the country biodiversity strategies in achieving the targets. The LFRMS will need to take into account the presence of any protected species and nature conservation sites and where practicable, contribute to enhancing ecology.

### **The Nottinghamshire [Local] Biodiversity Action Plan (2008)**

The Nottinghamshire Local Biodiversity Action Plan (LBAP) sets targets for key species and habitats and guidance for how these are to be achieved. The plan currently contains 19 Habitat Action Plans (HAPs) and 11 Species Action Plans (SAPs), details of these are included in Appendix E. The main water concerns in the County highlighted within the Nottinghamshire LBAP are<sup>30</sup>;

- Loss of and damage to wetland habitat and species diversity due to over abstraction of water;
- Loss of species diversity due to pollution arising from sources such as sewage works, run-off of agricultural or industrial processes; and
- The loss of wetland habitats through drainage and flood alleviation schemes and the straightening and canalisation of watercourses.

The Nottinghamshire LBAP suggests the main opportunities for enhancing biodiversity include:

- Preventing over-abstraction from boreholes and above ground sources where this will result in damage to wetland habitats;
- Further reducing pollution;
- Encouraging water conservation by industrial, agricultural and domestic consumers to reduce demand;
- Avoiding development in floodplains, and designing biodiversity friendly flood alleviation schemes where these are necessary;
- Restoring flooded gravel pits to maximise their value for biodiversity; and
- Integration of Green Infrastructure.

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<sup>29</sup> Don and Rother, Catchment Abstraction Management Strategy, 2013. Available at: <http://www.environment-agency.gov.uk/business/topics/water/119943.aspx>

<sup>30</sup> Local Biodiversity Action Plan, Available at: <http://www.nottsbaq.org.uk/pdfs/4ISSUES.DOC>

### ***RSPB Futurescapes Project***

The aim of the Futurescapes Project is the conservation of bird species on a landscape scale to counteract the failure to achieve the biodiversity targets set in various previous policy documents. It aims to do this by coordinating nature conservation projects over target areas, liaising with all land owners and providing funding for this work. Two of the projects are located completely or partially within Nottinghamshire, these are;

- The Sherwood Forest Futurescapes area – described as an internationally-renowned landscape and legend popular with visitors, a mosaic of woodland, lowland heath and farmland that is important for plants, insects and birds; and
- The Trent and Tame River Valleys Futurescapes area – described as a broad corridor for wildlife from the heartland of England to the Humberhead Levels, providing resilience to climate change and creating new wetlands and reed beds for waders, marsh harriers and bitterns.