

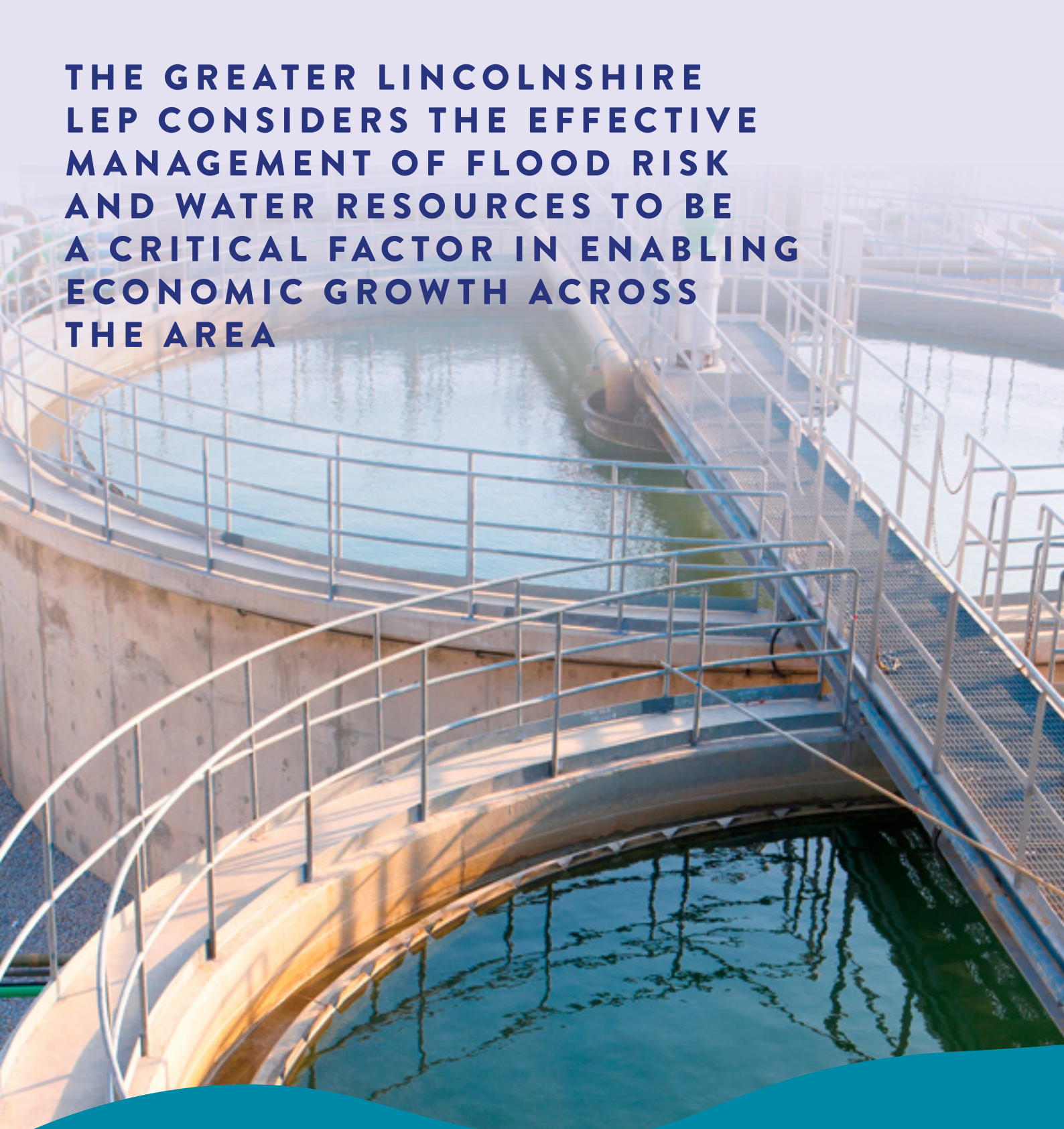


**Greater  
Lincolnshire**  
Local Enterprise Partnership

# **WATER FOR GROWTH**

## **WATER MANAGEMENT PLAN 2015-2040**





# THE GREATER LINCOLNSHIRE LEP CONSIDERS THE EFFECTIVE MANAGEMENT OF FLOOD RISK AND WATER RESOURCES TO BE A CRITICAL FACTOR IN ENABLING ECONOMIC GROWTH ACROSS THE AREA

The strength of an existing long-standing partnership working in flood risk management in Greater Lincolnshire provides an opportunity to develop this further and to drive links with organisations responsible for water supply and management.

The aim is for Greater Lincolnshire to be seen as a national exemplar for water management, in both flood reduction and water supply, and to act as an incentive for investors in the LEP's priority sectors. This will enable effective water management to be a positive contributor to economic growth.

In achieving this aim, the LEP believes that close collaboration with the neighbouring Humber LEP, Greater Cambridge and Greater Peterborough LEP, and the New Anglia LEP is essential, as these areas share many important economic challenges and opportunities.

Because of this, the Greater Lincolnshire LEP has established a Water Management Board and commissioned a Water Management Plan.



# PURPOSE OF THE WATER MANAGEMENT PLAN

The Greater Lincolnshire LEP's Water Management Plan:-

- › Sets out the aims and objectives for water management as a driver for economic growth
- › Identifies current, emerging and future projects that will secure these aims and objectives
- › Sets out the water supply challenges for Greater Lincolnshire and the potential construction of major new reservoirs and/or water distribution infrastructure
- › Establishes a 'pipeline' of potential bids for funding from a range of sources
- › Draws on core actions set out in the three Lead Local Flood Authorities' Local Flood Risk Management Strategies where these directly contribute to economic growth
- › Promotes integration between flood risk and water resource management in terms of focused projects that facilitate economic growth
- › Defines specific opportunities to promote co-operative ventures with neighbouring LEPs

These high cost, large scale projects will require national support and strategic commitment from multiple partners and stakeholders to succeed and the Greater Lincolnshire LEP welcomes the Government's creation in 2015, of the National Infrastructure Commission to support the development of large scale infrastructure to drive growth.

The Greater Lincolnshire LEP will open a dialogue with the National Infrastructure Commission on how these major water projects could be supported and will, where appropriate, establish task and finish groups to work with stakeholders to develop larger strategic water projects.

The Greater Lincolnshire LEP recognises that in addition to local small to medium scale projects, some of the interventions which may need to be developed over the next 25 years will require large scale, long term strategic projects. This could include:-

- › Meeting the long term water needs of the area (and neighbouring LEP areas as appropriate) through the construction of major new reservoirs and/or water distribution infrastructure. These projects will take many years to plan and finance and, in line with the emerging Water Resources East (WRE) programme, Greater Lincolnshire is keen to explore the potential for shared water resource infrastructure which simultaneously meets the needs of domestic, industrial and agri-food users
- › Projects to defend the coastline in conjunction with neighbouring LEPs and local authorities in the Humber or Wash areas to provide long term security to the large areas of coastal land and to the many thousands of businesses and homes in these locations







## BUSINESS CASE: WATER MANAGEMENT AND ECONOMIC GROWTH

Greater Lincolnshire faces significant challenges from the risk of flooding and future availability of water. The Humber, East Anglia, Peterborough and large parts of Cambridgeshire share these challenges to a considerable degree.



WITH JUST 613MM OF  
RAIN PER YEAR, THE  
CITY OF LINCOLN IS  
**DRIER THAN**  
MIAMI, BUENOS AIRES  
**AND NAIROBI**  
SHARING THE SAME  
RAINFALL AS CAPE TOWN

## FLOOD RISK

Greater Lincolnshire is subject to flood risk from the sea, main rivers, surface water and groundwater. The extent and nature of this risk varies across the area, and is described in more detail in the Local Flood Risk Management Strategy for Lincolnshire, North Lincolnshire and North East Lincolnshire. The risk of coastal and river flooding affects up to 45% of the land area of Greater Lincolnshire, whilst surface water flooding, although of more localised and limited impact, occurs more frequently and is more difficult to predict.

The impacts on economic growth from flood risk are:-

- Risk to existing economic activity
- Perceived risk impacting on the confidence to invest in the area
- Costs of recovery from flooding events
- Costs of mitigating flood risk
- Cost of insurance





## WATER RESOURCES

Greater Lincolnshire is one of the driest regions of the country, and current models of climate change predict increasing scarcity of water over the 21st century. Current models also predict that whilst winter rainfall will increase, by possibly 15-20%, summer rainfall levels will fall by a similar amount. The historic reliance on summer abstraction from surface and groundwater will therefore be less sustainable in the future. Furthermore, climate models predict that we will see more frequent and longer periods of drought or flooding. In the case of drought, the increased frequency of multi-year periods of below average rainfall is particularly difficult to respond to and will necessitate more investment in water storage for both domestic and commercial use.

Water and sewerage companies are addressing the impacts of this on their own operations through water resource management plans. A good example of this is provided by Anglian Water services, whose Water Resource Management Plan can be found [here](#) (pages 140-171).

The supply of water is clearly important for the agri-food industry, with its reliance on a plentiful and reliable supply of clean water for growing and processing foodstuffs. It also plays a major part in supporting the growth of the visitor economy and in sustaining well-planned and appropriate housing growth.

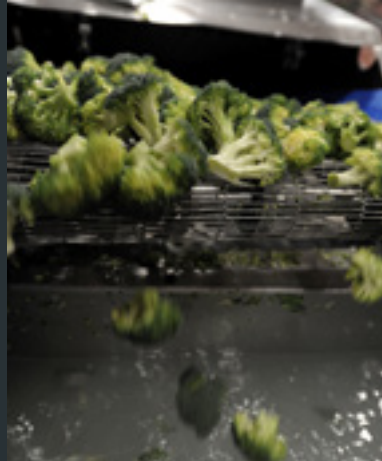
## THE ROLE OF WATER MANAGEMENT IN GROWING THE GREATER LINCOLNSHIRE ECONOMY

The Greater Lincolnshire LEP has developed an ambitious plan to increase the value of the local economy by £3.2bn by 2030. The Strategic Economic Plan (SEP) helped determine the share which the Greater Lincolnshire LEP, along with the 38 other LEPs in England, received from the £2bn Single Local Growth Fund, known as the Growth Deal. To date, the LEP has been successful in securing £146m from central Government.

The Strategic Economic Plan, also called the Growth Plan, is a business investment programme across Greater Lincolnshire, which aims to help create 13,000 new jobs, support the building of 100,000 new homes and help 22,000 businesses grow.

The plan can be found on the Greater Lincolnshire LEP's website at [www.greaterlincolnshirelep.co.uk](http://www.greaterlincolnshirelep.co.uk).





## CORE PRIORITY SECTORS

Greater Lincolnshire focuses on growth in four core priority sectors, three of which require a secure supply of water and protection from flooding to facilitate their growth. These are:-

### > AGRI-FOOD

Greater Lincolnshire has more grade 1 agricultural land than any other LEP in England, producing and processing over 12% of the UK's food supply, including more than 70% of its seafood and 25% of its vegetables. The sector employs more than 75,000 people across the supply chain, with a diverse mix of businesses, including Cranswick plc, Greencore, Moy Park, Walkers and Young's Seafood, alongside a wide range of primary producers. The Greater Lincolnshire Agri-food Sector Plan's vision is to double the sector's economic contribution by 2030 with a focus on high value manufacturing, increasing the production of intensive crops and livestock (eg, poultry) and investment in new areas such as aquaculture. All of these areas of growth will require additional water provision and improved water management.



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**PRODUCING & PROCESSING**

**OVER 12%  
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**AND  
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VEGETABLES**

### > MANUFACTURING AND ENGINEERING

This sector contributes over £1.9bn (11%) of Greater Lincolnshire's output and employs over 41,000 people. Our manufacturing/engineering strengths encompass power engineering, petrochemicals/chemicals, steel manufacture and motorsport engineering, with global businesses including Siemens, Total, Phillips 66, Tata Steel and Pilbeam Racing Designs.

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### > VISITOR ECONOMY

The visitor economy is worth over £1.9bn per annum to the Greater Lincolnshire economy, supports over 39,000 jobs and has long-term growth potential. More than 31million people visited Greater Lincolnshire's world-class visitor attractions in 2015, including Lincoln Castle and Cathedral, the Lincolnshire Wolds and the vibrant coastal resorts of Cleethorpes, Mablethorpe and Skegness – the UK's fourth most popular holiday resort.

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AND THE VIBRANT COASTAL RESORTS**

Around 45% (2,843km<sup>2</sup>) of Greater Lincolnshire lies within the floodplain - representing 17% of England's total floodplain area - and has been affected by a number of significant coastal and inland floods, most notably in 1953, 2007, 2012 and 2013.

The Greater Lincolnshire area is also one of the driest in the country and is prone to drought. The two dry winters experienced in 2010/11 and 2011/12 demonstrated the challenges and raised awareness of the need to adapt to this element of our changing climate. In April 2012, the second of these two dry winters was followed by an exceptional summer which led to significant problems for our priority sectors and illustrates the need to prepare for more weather extremes.

Greater Lincolnshire also contains the ports of Immingham and Grimsby, the largest ports in the UK by tonnage as well as smaller ports in South Lincolnshire at Boston and Sutton Bridge.

A further way in which Greater Lincolnshire will grow is through population. The 100,000 new homes needed by 2030 to meet this growth, will bring economic growth but require a strong utility structure, not least in terms of water supply and flood protection.

Security from flooding is a strategic infrastructure requirement for our economy. The threat of flooding affects developer confidence and development viability. Our coast, which is a major part of our visitor economy, is particularly vulnerable to the impacts of climate change and sea level rise. We are committed to working with partners to secure long-term flood risk management through the sustainable development of our coastal economy whilst protecting our communities.

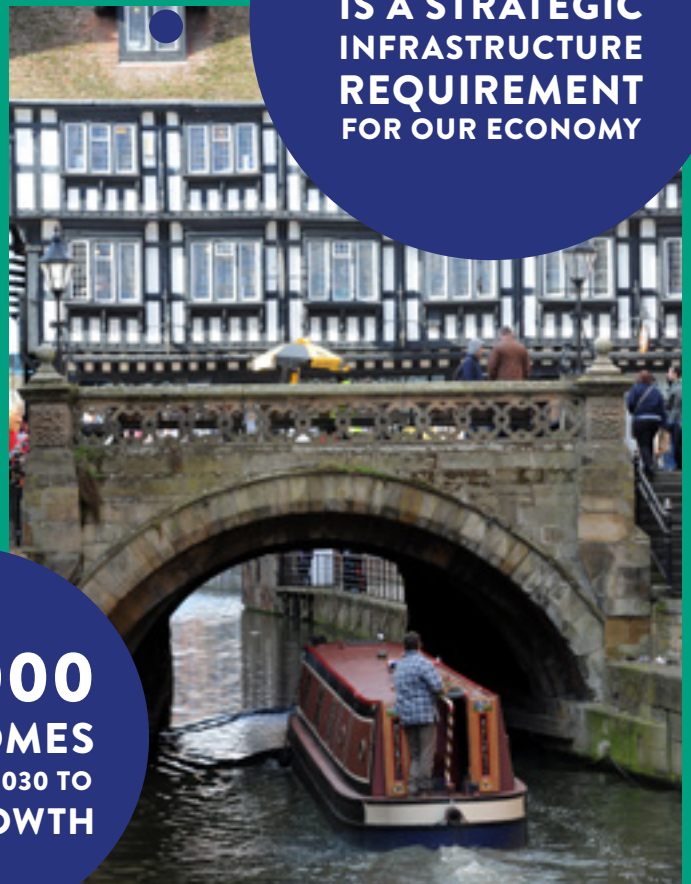
These impacts are also felt inland. At Louth and Horncastle, in the Lincolnshire Wolds, risk management authorities have combined their efforts to prepare flood resilience measures against significant flood risk which affects the potential of these towns to drive growth and provide development opportunities. The Greater Lincolnshire LEP wishes to seize this opportunity to harness the potential of effective flood risk management to boost local growth.

Water management is therefore fundamental to the growth of Greater Lincolnshire, not only because it provides valuable services that underpin our environment, economy and quality of life, but also because of our geography.

Through developing an integrated approach to water that fully links flood risk, drainage and water-resources management, we can maximise the services it provides, including drinking water, input for business, crop irrigation, tourism and recreation, and improved biodiversity. This will move us from just managing water, towards managing water sustainably and will help to ensure that Greater Lincolnshire is fit for the future, improve our competitiveness and facilitate economic growth.

**SECURITY  
FROM FLOODING  
IS A STRATEGIC  
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**100,000  
NEW HOMES  
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## DEVELOPING THE WATER MANAGEMENT PLAN

The Greater Lincolnshire LEP has developed the Water Management Plan in partnership with a wide range of stakeholders and partner organisations, shaping and refining it through workshops.

Stakeholders identified a number of actions which they considered fundamental in creating a more integrated, forward-looking approach to water management.

### In brief, these consisted of:-

- › Increased water provision (eg additional storage capacity)
- › Water use efficiency by both industry and households
- › Flood risk management
- › Linking flood risk management and water provision

### With a focus on achieving these objectives through:-

- › Awareness raising and education
- › Increasing collaboration and focusing on new potential partnerships
- › Focusing on innovation in technology, organisational arrangements, funding and planning
- › New approaches to funding with a particular focus on facilitating collaborative larger scale schemes
- › More joined up approaches to planning

Our action plan is being developed to identify and progress projects that will help address these areas of activity.



# DELIVERY OF THE WATER MANAGEMENT PLAN

The importance of water management in Greater Lincolnshire and its established expertise in managing flood risk, a critical part of the solution, provides an opportunity to explore innovative approaches across the whole range of water management activities. No other part of the country is taking this comprehensive approach or has identified water management as so essential a factor in bringing about economic growth.

There are a number of existing mechanisms for progressing this approach, with flood risk management already well addressed through strong partnership arrangements across Greater Lincolnshire. In addition, in its Growth Deal, the LEP has already agreed a number of principles on working with Government and neighbouring LEPs to progress this agenda.

Known as 'freedoms and flexibilities', these principles establish how Government and LEPs will seek to explore the best ways of securing economic growth locally. Fundamental freedoms and flexibilities in the Greater Lincolnshire Growth Deal are:-

"...the LEP and local partners will lead the development of a local consortium of partners (including the lead local flood authorities in the area, the Environment Agency and the Regional Flood and Coastal Committee, and neighbouring LEPs), who will further develop a pipeline of projects to add value to outcomes for the area through new local governance arrangements that reflect national accountability requirements."

"DEFRA will support the continuing development of a strong strategic partnership approach between the LEP, the Lincolnshire Flood Risk and Drainage Management Partnership, and the risk management authorities in the Greater Lincolnshire LEP area, in which the LEP will play a prominent role. The partnership will enable the LEP and local risk management authorities to determine local priorities and make decisions on the use of national and locally raised funding allocated to their area so as to give greater certainty and flexibility. DEFRA will welcome any evidence the LEP can provide on a) the value of agricultural land and the impacts that flood management investment could have on the national economy and b) innovative ways of securing local funding, and will discuss with the LEP[s]\* any steps that might be taken by Government in the light of the evidence. (\* ie Humber and Greater Lincolnshire)."

Establishing a clear programme of emerging and proposed schemes for delivering enhanced water management will support these ambitions by providing partners and stakeholders with a clear focus for action and a means of coordinating efforts across the area. In order to promote wider co-operation across boundaries the Greater Lincolnshire LEP is also contributing to the wider Water Resources East (WRE) project, a potential route for integrating appropriate initiatives into the regulatory programmes of the industry.

As well as forming part of the Water Resources East (WRE) project Leadership Group, the Greater Lincolnshire LEP additionally has the opportunity to shape the projects work and to examine planning policy approaches that offer the best support to the delivery of identified water resources for the East of England and support sustainable growth.



## GOVERNANCE MONITORING AND REVIEWING THE WATER MANAGEMENT PLAN

Water management is reflected as a significant factor within Greater Lincolnshire's Strategic Economic Plan (SEP), through which project funding for appropriate schemes and activities is channelled.

Governance of the Water Management Plan will be provided by the Water Management Board, on behalf of the Greater Lincolnshire LEP, working with established bodies such as flood risk and drainage management partnerships and the Regional Flood and Coastal Committee. The Water Management Board will be responsible for monitoring progress in delivering the Water Management Plan, although individual projects and programmes will be the responsibility of particular lead agencies, who will manage progress on these in detail.

Because the plan covers a 25 year period it can be expected that circumstances will change and opportunities arise that will necessitate regular review of the plan overall, whilst the schedule of projects and programmes will require updating on a more frequent basis. The Water Management Board will ensure that these reviews take place, and will identify the appropriate partner resources to lead and manage the process.

## THE WATER MANAGEMENT PLAN ACTION PLAN: PROJECTS AND PROGRAMMES

The action plan of proposed projects and programmes will support economic growth through improved water management. Stakeholders will play an important role in developing this plan by putting forward ideas for further schemes to deliver the Greater Lincolnshire LEP's ambitions to drive a joined up agenda for water management, and in partnership with neighbouring LEPs.


See [www.greaterlincolnshirelep.co.uk](http://www.greaterlincolnshirelep.co.uk) for further information and an action plan of projects and programmes.





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