

---

## North East Lincolnshire Local Flood Risk Management Strategy Action Plan

The production and publication of this Action Plan is required by Measure M3.2 of the Local Strategy and is also referred to in Section 7.

This details the works that the council and other partners have identified which need to be carried out to reduce flood risk in the borough. Each action is identified as contributing to relevant objectives from the strategy.

The Action Plan is divided into five separate tables which cover the following categories:

- Maintenance
- Community Engagement / Information
- Studies and Investigations
- Construction / Installation of Flood Mitigation Works
- Production of Plans and Strategies
- Section 19 Actions from July and August 2014 Floods

Each table highlights the key objectives of the strategy and associated actions to achieve them. For each of the actions the location and number of properties affected, the flood risk management issue, the relevant strategy objective, details of the action, funding sources, partners and completion timescale are all outlined. The final table contains the actions resulting from investigating the flooding in July and August 2014. These have been included in a separate table to make it clear to see how these actions in particular by the risk management authorities involved.

The actions include potential flood alleviation schemes, critical maintenance work, installation of monitoring equipment and community engagement plans, all of which have been identified at the time of writing.

Some actions will require further investigation to assess their viability, but they have been compiled from information drawn from a number of existing sources (referred to in Section 1 of the strategy). Whilst sources of funding have been identified for many of the actions this will often only be available after a successful application to the organisation responsible (more detail on funding sources is included in Section 4.3 of the strategy).

Further investigations will be carried out into areas in the borough that are at risk of flooding which will enable more specific plans/proposals to be established to manage this risk. This will also help to update the Action Plan and prioritise where work is most urgently needed.

The Action Plan is a living document so when this information is available it will be updated and published on the council website.

---

All actions included on the plan will have to comply with existing environmental legislation and the requirements outlined in section 6 of the Local Strategy.

### Objectives from the Strategy

- 1) All stakeholders (including members of the public) will have an improved understanding of their responsibilities for flood risk management
- 2) Improve our understanding of local flood risk
- 3) Reduce the risks to those most vulnerable to local flooding
- 4) Increase the amount of flood risk management work undertaken, ensuring there is a contribution to wider social, economic and environmental outcomes and sustainable development
- 5) Create a strong collaborative approach across stakeholders to address risks from all sources of flooding
- 6) Ensure that local communities are prepared to manage the risks of flooding
- 7) Ensure that new development does not increase local flood risk and contributes to a reduction where possible
- 8) Ensure effective emergency flood response plans are in place

### Timescales

Short term	Within 1 year
Medium term	1 – 5 years
Long term	More than 5 years

### Glossary

AWS	Anglian Water Services
EA	Environment Agency
DBs	Drainage Boards (North East Lindsey & Lindsey Marsh)
FCRM GiA	Flood and Coastal Risk Management Grant in Aid, allocated using the partnership funding approach
LEP	Local Enterprise Partnership
NELC	North East Lincolnshire Council / Cofely
PFRA	Preliminary Flood Risk Assessment
PR14	A potential allocation of funding from Anglian Water to support other partnership funding money.
SAB	SuDS Approving Body – NELC with consultees EA, AWS and DB's as necessary
SuDS	Sustainable Drainage Systems
WFD	Water Framework Directive

## Maintenance

These actions are the on-going maintenance activities which are carried out by the council to make sure that assets remain operational.

Location & no. properties affected	Flood Risk Management issue	Relevant Objective or Measure	Action or recommendation	Estimated costs and funding source	Potential Partners (lead in bold)	Timescale - Short, Medium or Long term
Waltham <i>Approx. 140 properties</i>	Managing the Buck Beck in Waltham. System is difficult to maintain due to access problems.	Objectives 1, 3, 4, 5	Planned programme of inspection, cleaning and vegetation clearance involving all parties with responsibilities	NELC revenue. Full clean of Buck Beck system costs up to £25,000 plus staff time	<b>NELC</b> EA DB Riparian owners	Routine work.
Borough coastal frontage	Maintenance of estuary watercourse outfalls particularly from the build-up of silt.	Objectives 3, 4, 5	Work with other flood risk management authorities to ensure required works are carried out.	Cost currently unknown until specific maintenance work is identified	<b>EA</b> DB	Routine monitoring of situation to identify if action is required.
Rural areas of North East Lincolnshire <i>Differing numbers of properties at different locations</i>	Unmaintained ordinary watercourses and associated infrastructure may lead to flooding of properties and highways.	Objectives 1, 2, 3, 4, 5	Inspections of strategically important ordinary watercourses and associated infrastructure and resultant negotiation with riparian owners to arrange maintenance works. At some locations NELC take the lead on maintenance in their role as a land drainage or highway drainage authority.	NELC revenue. Annual maintenance cost of up to £2,000 plus staff time	<b>NELC</b> Riparian Landowners	Routine inspections carried out monthly and upon receipt of weather warnings.

Location & no. properties affected	Flood Risk Management issue	Relevant Objective or Measure	Action or recommendation	Estimated costs and funding source	Potential Partners (lead in bold)	Timescale - Short, Medium or Long term
Humberston Fitties <i>230 properties</i>	Maintain frontline coastal embankment at the Fitties to protect 230 chalets on seaward side of the strategic defence.  The dynamic estuary processes have varying effects on the maintenance and repairs required for the sea defence. These are difficult to predict and present a challenge when planning work and managing budgets.	Objective 3	Repairs to gabion walling and timber groynes as necessary.  The Shoreline Management Plan (SMP) has a policy of reviewing the feasibility of maintaining the current standards of defence in the long term. This could have an influence on activities carried out to fulfil this action.	NELC revenue. Up to £20,000 annually plus staff time	<b>NELC</b>	Routine work.
North & Central Promenade sea walls <i>In excess of 2000 properties</i>	The need for on-going maintenance to prevent damage to the sea wall and prevent a breach and resultant loss of the promenade, businesses and flooding to the coastal floodplain behind.	Objectives 2, 3, 4, 5	Maintain vertical promenade walls and maintain sand levels fronting the promenade by the maintenance and repair of timber groynes.	NELC revenue. £25,000	<b>NELC</b>	Routine work.

## Community Engagement / Information

Actions that will be undertaken to ensure that those who have a role to play in managing are given the appropriate advice.

Location & no. properties affected	Flood Risk Management issue	Relevant Objective or Measure	Action or recommendation	Estimated costs and funding source	Potential Partners (lead in bold)	Timescale - Short, Medium or Long term
Residents within all flood risk areas, including coastal <i>Up to 33,000 in the tidal floodplain, 1,600 at risk from fluvial sources and 1,850 at risk from surface water</i>	Residents are generally unaware their role in protecting their own property from flooding and how they can undertake measures to prepare for flooding.	Objectives 1, 3, 4, 6, 8	Confirmation of the NELC sand bag policy, raising of awareness of flood risk, promotion and awareness of self-help through community engagement events and literature distribution.	Not applicable	<b>NELC</b> EA Humber LRF Parish Councils Other partners (to be identified depending on location affected)	Routine work.
Borough wide	On line publication of asset register.	Objectives 1, 2	Arrange on line publication and continue to populate the register with structures or features that have a significant effect on flood risk in the Borough.	NELC revenue. Main costs associated with staff time	<b>NELC</b>	Short term - 2015/16.
Rural areas of North East Lincolnshire Differing numbers of properties at different locations	Unmaintained ordinary watercourses and associated infrastructure may lead to flooding of properties and highways.	Objectives 1,2, 3, 4, 5	Inspections of strategically important ordinary watercourses and associated infrastructure and resultant negotiation with riparian owners to arrange maintenance works. At some locations NELC take the lead on maintenance in their role as a land drainage or highway drainage authority.	NELC revenue Annual maintenance cost up to £2,500k plus staff time	<b>NELC</b>	Routine inspections carried out monthly and upon receipt of weather warnings.

Location & no. properties affected	Flood Risk Management issue	Relevant Objective or Measure	Action or recommendation	Estimated costs and funding source	Potential Partners (lead in bold)	Timescale - Short, Medium or Long term
Borough wide	NELC website improvements and expansion.	Objectives 1, 2, 3, 5, 7, 8	Develop website to provide clear and concise information and advice on all local flood risk management issues.	Not applicable	<b>NELC</b>	Short term – 2015/16.

## Studies and Investigations

Further work that will be carried out to carry out further work to establish the locations and extent of flood risk. Some of the actions here may lead to actions in the following table.

Location & no. properties affected	Flood Risk Management issue	Relevant Objective or Measure	Action or recommendation	Estimated costs and funding source	Potential Partners (lead in bold)	Timescale - Short, Medium or Long term
Buck Beck and Laceby Beck catchments	Water quality issues in main rivers.	Objectives 3, 4 Contribution to environmental improvements.	Work associated with the WFD to improve water quality by the identification of foul drains wrongly connected to surface water drains.	NELC revenue Cost currently unknown until specific work is identified. At this point funding sources will be investigated.	<b>NELC</b> EA AW	Reactive to reports received.
Park Street, Grimsby	Flood risk associated with old brick culvert to which some highway gullies are connected.	Objective 2	Assess connectivity of live old surface water culverts whose outfalls are currently unknown.	NELC revenue £2,500 annually plus staff time	<b>NELC</b>	Medium term – 2014 to 2017.

Location & no. properties affected	Flood Risk Management issue	Relevant Objective or Measure	Action or recommendation	Estimated costs and funding source	Potential Partners (lead in bold)	Timescale - Short, Medium or Long term
Borough wide	Locations of known flood risk have been identified in the PFRA and other reports. There will also be some areas at risk which have not been identified at present but will emerge during heavy rainfall.	Objectives 2 and 5	Further assessment of the known locations at risk to see what flood risk management options could be considered. As new areas are identified these will need to be added to the list of investigation work.	NELC revenue. Staff time plus up to £5,000 annually for investigation work on site.	<b>NELC</b>	Routine work.

### Construction / Installation of Flood Mitigation Works

The construction of defences or installation of equipment which will reduce the risk of flooding. Some of these actions will have had prior investigation work undertaken but are included in this table as the main part of the action fits in this category.

Location & no. properties affected	Flood Risk Management issue	Relevant Objective or Measure	Action or recommendation	Estimated costs and funding source	Potential Partners (lead in bold)	Timescale - Short, Medium or Long term
Highway drainage pumping stations serving underpasses on the adopted highway network	Telemetry systems serving the pumping stations are now obsolete. Pumping station breakdown leads to the closure of main roads and pedestrian walkways in the borough, especially around Grimsby town centre.	Objective 4	Monitoring and reporting improvements, including high level telemetry alarm systems at highway drainage pumping stations and in strategic watercourses.	NELC funding allocation £45,000	<b>NELC</b>	Short term – estimated 2015/16.
Waltham and Humberston <i>Approx. 150 properties</i>	High flood risk associated with ordinary watercourses in these areas.	Objectives 2, 3, 4	Water level telemetry systems to monitor the high risk watercourses. 4 rain telemetry gauges are to be installed across the borough to report on rainfall and to assist with modelling of future storm events.	NELC funding allocation £10,000	<b>NELC</b>	Short term – estimated 2015/16.

Location & no. properties affected	Flood Risk Management issue	Relevant Objective or Measure	Action or recommendation	Estimated costs and funding source	Potential Partners (lead in bold)	Timescale - Short, Medium or Long term
Grimsby Docks Flood Alleviation Scheme <i>17,000 properties</i>	Improvements works needed as identified by the Humber Flood Risk Management Strategy	Objectives 3, 4, 5	Improvements to the standard of defences around the Grimsby Docks which also protects residential areas in the town.	FCRM GiA NELC contribution of £189,000 ABP contribution Total £19.8m	<b>EA</b> NELC ABP	On-going Due for completion in 2015
Immingham to Freshney Phase 1 (Docks) Docks and Immingham	A lower standard of defences around the docks which overtopped during the December 2013 tidal surge.	Objectives 3, 4, 5	Improve the standard of defence.  Work with partners to investigate the problem and work on possible solutions. This will also need to consider potential funding sources.	FCRM GiA partnership funding £2.5m Total £2.5m	<b>NELC</b> EA ABP	Medium term – 2016/17.
North Promenade, railway and residential area off Grimsby Road (Terminal Groyne) <i>14,000 properties</i>	Deteriorating condition of Terminal groyne could exacerbate damage to sea wall which could lead to a breach and resultant loss of promenade, businesses and flooding to the coastal flood plain behind.	Objectives 2, 3, 4, 5	Replacement of the timber Terminal groyne with a rock groyne of similar length and width. This will help maintain sand levels which in turn greatly increases the standard of protection provided by the sea walls.	FCRM GiA partnership funding £735,000 Local Levy funding £15,000 Total £750,000	<b>NELC</b> EA	Medium term – estimated 2015/16.
Area of Humberston south of Grimsby Road and Coniston Crescent <i>Approx. 100 properties</i>	Low standard of protection in adjacent land drainage system in an area of Humberston.	Objectives 2, 3, 4, 5	Development of flood storage area leading to better standard of protection.	FCRM GiA partnership funding £95,000 PR14 bid £125,000, Potential Drainage Board contribution £30,000, Estimated total £250,000	<b>NELC</b> DB AW	Medium term – estimated 2016/17.
Willingham Street <i>161 properties</i>	Surface water flood risk to domestic property, full extent of risk yet to be established.	Objectives 2, 3, 4, 5	Improvements to the standards of protection provided by the surface water drainage system.	FCRM GiA partnership funding £190,000, PR14 bid £60,000, Estimated total £250,000	<b>NELC</b> AW	Medium term – estimated 2017/18.



Location & no. properties affected	Flood Risk Management issue	Relevant Objective or Measure	Action or recommendation	Estimated costs and funding source	Potential Partners (lead in bold)	Timescale - Short, Medium or Long term
Peakesfield Avenue 148 properties.	Surface water flood risk to domestic property, full extent of risk yet to be established.	Objectives 2, 3, 4, 5	Improvements to the standards of protection provided by the surface water drainage system.	FCRM GiA partnership funding £115,000, PR14 bid £125,000, NELC funding bid £10,000, Estimated total £250,000	<b>NELC</b> AW	Medium term – estimated 2018/19.
Areas of North Immingham (Manby Road, Pelham Road and Woodlands Avenue) <i>Up to 500 properties</i>	Surface water flood risk is a particular problem in several areas. Inadequate surface water drainage systems are the primary cause.	Objectives 2, 3, 4, 5	Improved asset management and mapping of drainage infrastructure. Investigations and feasibility studies, including computer models to identify flood risk management works which are likely to constitute additional storage plus asset upgrades.	FCRM GiA partnership funding £290,000, Drainage Board development charges £60,000, Estimated total £350,000	<b>NELC</b> EA DB	Medium term – estimated 2019/2020.
South Cleethorpes and Humberston <i>2400 properties</i>	Sea level rise is forecast and future extreme weather events are predicted.	Objectives 2, 3, 4, 5	Raising of defences to protect against future rises in sea level due to climate change (FCRM GiA) and extreme weather event predictions as a result of climate change.	FCRM GiA partnership funding bid £1.8m	<b>EA</b>	Long term – estimated 2021/22.
Lower Kingsway sea wall, Cleethorpes <i>433 properties</i>	The concrete sea wall is aging and had been repaired and patched over the years when defects have been found. Failure of the wall could result in coastal erosion causing loss of the land behind.	Objectives 2, 3, 4, 5	Replacement of the sea wall.	FCRM GiA partnership funding bid £2,500,000, Estimated total £3.5 – 4m	<b>NELC</b>	Long term – estimated 2022/23.

## Production of Plans and Strategies

Statutory plans or approval processes that the council is contributing to or working on with partners

Location & no. properties affected	Flood Risk Management issue	Relevant Objective or Measure	Action or recommendation	Estimated costs and funding source	Potential Partners (lead in bold)	Timescale - Short, Medium or Long term
Borough wide	Production of the Humber Flood Risk Management Plan (FRMP).	Objectives 1, 2, 3, 5,	The Environment Agency is required to produce the FRMP under the Flood Risk Regulations 2009 to cover flooding from main rivers, the sea and reservoirs. The council is contributing information on local sources of flooding. The actions from the Catchment Flood Management Plan (CFMP) will be reviewed before they are carried forward and used in the FRMP.	Not applicable	<b>EA</b> NELC	Public consultation planned for September – December 2014. Publication in December 2015.
Borough wide (also covering the whole of the Humber Estuary)	Revision of the Humber Flood Risk Management Strategy originally published in 2008.	Objectives 1, 2, 3, 4, 5,	Work with all partners on the delivery of the revised strategy.	Not applicable	<b>EA</b> NELC Other local authorities Humber wide	Estimated 2015.

## Section 19 Actions from July and August 2014 Floods

Actions resulting directly from the investigations into the flooding from July and August 2014

Work is still ongoing to detail the actions from the 2014 floods in agreement with the other risk management authorities. This section will be updated when this is ready.