

Association of Drainage Authorities  
**Joint Lincolnshire and Welland and Nene Branch**

Minutes of a Meeting held at 1.30 p.m. on Thursday, 20th October 2022 at the Admiral Rodney Hotel, Horncastle.

**Present:**

ADA	Mr I. Thomson	Chief Executive
Black Sluice IDB	Mr K.C. Casswell	Chairman
	Mr P. Bedford	Peter Bedford
	Mr I. Warsap	Chief Executive
	Mr D. Withnall	Finance Officer
East Lindsey District Council	Mr T. Ashton	Councillor
Lincolnshire County Council	Mr M. Harrison	Flood and Water Manager
Lindsey Marsh DB	Mr G.C Crust	Chairman
	Mr S.W. Eyre	Vice-Chairman
	Mr A. McGill	Chief Executive
	Mr D. Hickman	Executive Officer
North Level DIDB	Mr M. Sly	Chairman
	Mr J. Stublely	Operations Engineer
South Holland IDB	Mr L. Taylor	Flood Risk Engineer
Welland and Deepings IDB	Mr T. Purlant	Chairman
	Mrs K. Daft	Chief Executive
Witham and Humber Boards	Mr P. Gilbert	Witham 1st Member
	Mr I. Parker	Witham 3rd Chairman
	Mrs J. Froggatt	Chief Executive
Witham Fourth DIDB	Mr P. Richardson	Chairman
	Mr P. Bateson	Chief Executive

**1. CHAIRMAN'S ANNOUNCEMENTS**

None.

**2. APOLOGIES**

Apologies for absence were received from Messrs D. Branton, P. Carrott, W. Gee, E. Johnson, I. Moodie, N. Morris, F. Myers, L. Pennell, J. Scarborough, M. Shilling, B. Tidswell, K. Vines and Cllr P. Vaughan.

**3. MINUTES OF THE LAST JOINT BRANCH MEETING**

The minutes of the meeting held on 23rd February 2022 were confirmed as a correct record.

**4. MATTERS ARISING**

None.

**5. MINUTES OF THE LINCOLNSHIRE BRANCH ANNUAL GENERAL MEETING - 21ST APRIL 2022**

These were circulated for information and would be confirmed at the next AGM.

**6. REPORT FROM ADA NATIONAL**

Mr I. Thomson gave the following update from ADA National:

Challenges

## *Joint ADA Lincolnshire / Welland and Nene Branch Meeting - 20th October 2022*

Staffing - The resignation of Ms Lloyd to take up a position at the Middle Level Commissioners would mean some delay to the ADA workstreams.

Inflation - With the current inflationary pressures, the forecast for this financial year was for a deficit of £25k and it had therefore been decided to delay filling the above post. This would be reviewed again once the financial situation was more certain. All overheads had been reviewed and savings sought where possible. To save on meeting expenses, in future only one officer from ADA would be in attendance at each Branch meeting. Mr T. Purlant highlighted that ADA was effectively two posts down as the Junior role had not been filled.

Political - The new DEFRA Ministerial Team had been announced although this may change depending on the situation today. The new Secretary of State for Environment, Food and Rural Affairs was Ranil Jayawardena who had expressed an interest around water and the Parliamentary Under-Secretary for DEFRA was Mrs T. Harrison, M.P. For Coupland. Future policy direction was uncertain but being monitored closely.

### Opportunities

Strength of ADA Membership - 95% of IDBs were members of ADA and DEFRA saw this as positive, recognising ADA as the collective voice - ADA's role was to listen and distil the voice of the Boards.

Collaboration - supporting relations with EA and DEFRA key contacts - more success with Government and the EA engaging with us, e.g. DEFRA team asking where cost pressures were for members and asking for data to push upwards, ADA thanked the WMC boards who had already provided this information to DEFRA. No promises from DEFRA but encouraging that they were asking. There was also good collaboration with others such as ASA and CIWEM, a joint approach ensuring Government being influenced. ADA was also represented on the local authority ADEPT and Water UK which was useful to understand the direction of travel.

Influencing policy decisions - although behind on the red diesel issue, there was a positive outcome in the end. Ahead on the asset report fund - the £240M from Government directed at the EA to replace aged equipment was not previously eligible for FDGiA but ADA had challenged why this was not available to IDBs and it had now been agreed that from 1st April 2023 this fund would be available to all flood and water management authorities although only £80M remained in the fund. IDBs were being encouraged to apply if they had any projects that may qualify.

*An announcement was made that the Prime Minister had resigned, this would likely mean a new ministerial team and possibly a cabinet reshuffle.*

Mr K. Casswell queried how much of the additional £5B Government funding the EA had actually spent. Mr I. Thomson understood that they were currently reprofiling the expenditure but manpower shortages or around 15/20% vacancy rate at the moment had delayed that process. He reported that with material costs rising exponentially and Framework suppliers costs doing the same, it was likely that either some of the £5B would be taken back or the six-year programme extended.

Mrs J. Froggatt emphasised that it was important to engage early with the new Ministerial Team particularly if there was a lag in the EA achieving the capital expenditure, we lobby hard on this. If not cost effective now to invest in capital assets, serious consideration should be given to transfer funds to the revenue budget to enable smaller authorities such as IDBs stability over next few months. Mr I. Thomson agreed but stated that this would require a change from Treasury. Mrs Froggatt stated we needed to make it clear that this would be a very difficult budget setting round for IDBs, even with business energy relief and that the impact on special levy and ratepayers would be the greatest ever. Mr I. Thomson encouraged members to liaise directly with their M.P.s and take the issue back to the

Department for Levelling Up, Housing and Communities (DELUC) along with councillor members feeding back to councils at the local level.

Mr A. McGill stated that the EA had been asked by DEFRA for years how they could simplify the flood defence grant-in-aid process to prevent IDBs falling behind with delivery. Mr I. Thomson reported that Mr I. Hodge would be presenting a framework to ADA for discussion on how to cut through the red tape surrounding grant-in-aid and ADA would be calling in IDBs for comment too.

To raise the profile of ADA members, ADA national had been fully engaged in establishing the recent APPG which had already significantly increased the number of M.P.s taking an interest in the industry. Mr I. Thomson stated that we needed to encourage Lincolnshire M.P.s to attend and Mr G. Crust reported that the Water Management Consortium had recently met with Mrs V. Atkins, M.P. and Mr A. Percy, M.P. to raise the current issues facing all IDBs.

Cllr T. Ashton stated that Lincolnshire councils were fully aware of the scale of the financial problems faced by IDBs and the potential impact. He would be meeting Mr M. Warman, M.P. tomorrow and he was to speak about the current central Government position on rate caps as in the short term the types of increase that were being considered for the special levy would have a big impact on the councils and the services they provided. He wished to emphasise that the three councils he was engaged with were fully supportive of the IDBs and the work they do and wished to have a joint approach on overcoming the issue.

It was highlighted that it was important for IDBs to engage with opposition parties too, as ADA was non-political, and also noted that the Shadow Minister for Flooding (Mr A. Sobel, M.P.) would be speaking to Conference.

#### ADA Membership

All RFCCs contributed towards ADA although only half covered IDB areas. Local authority membership was not as good as it could be and ADA continued to encourage local authorities to join and asked members for ideas to encourage them. Mr T. Ashton felt that all local authorities within IDB areas should join ADA and he would be promoting this with the Local Government Association. Mr I. Thomson emphasised that ADA membership gave councils access to specialist advice relating to surface water drainage which they may not have in-house.

Mr D. Withnall suggested that IDBs could offer technical knowledge and information with regard to lobbying etc. and stated that IDBs did not have a problem with disaggregation. Mrs J. Froggatt stated that careful consideration must be given to the impact of splitting out as she would not like IDBs to be politicised and would not want them to become elected bodies. Mr T. Ashton suggested it would be a nice to have but would require high administration and extra effort and he shared the concerns raised by Mrs Froggatt. He suggested that a change in referendum cap to exclude the special levy would be the best way forward.

#### Successes

These included the red diesel exemption, Good Governance Guide, Asset Replacement Funding, All Party Parliamentary Review, Flood and Water Live, ELMS, Agreement with ASA, publication of educational resources, consultation on Land Valuation SI (linked to the Environment Act) expected soon. DEFRA had indicated that there would be a simple process to enabling the SI, e.g. if after following consultation no major issues were raised, it should go through. The new SI would set the ground for IDBs to extend their districts as well as for new IDBs to be set up. If IDBs come with no objections from landowners, he understood that DEFRA would be keen to sign these off.

Forward Look

Cost pressures on IDBs.

Carbon accounting guide and carbon reduction template.

IDB1 reporting and feedback. DEFRA would be producing a report on the last few years IDB1s and may approach some IDBs for further information - members were asked to treat this seriously.

Second IDB health, safety and welfare survey - this would be a similar exercise as last time and any information provided would be anonymous.

Flood and Water Live - 5th and 6th July in the Witham Fourth area with an event dinner at the Petwood Hotel and Mr S. Roberts as Guest Speaker.

Environmental Good Governance Guide seminar planned for February 2023 in Lincolnshire.

Keeping our Rivers Flowing Summit - April 2023.

Key Dates

ADA Conference 2022 - 9th November 2022 at Nocton.

Flood and Water Live - 5th and 6th July 2023

AGM - 27th November 2023

ADA Conference - 8th November 2023

Mr I Thomson reported that Nottingham Trent University was being considered as a possible venue for the 2023 Conference but welcomed suggestions from members as to alternative locations. Cllr T. Ashton stated that holding the Conference in London did give an opportunity for senior EA and DEFRA representatives to attend, however, Mr Thomson confirmed that senior speakers did not appear to be put off by this and would be attending the 2022 Conference.

Mr W. Fletcher stated that the 2022 Conference was to be hosted in the Witham First area with a visit to the chalk streams at Dunston Beck and Board members were very disappointed that it was not highlighted that this drained into the poorly maintained EA Carr Dyke, outfalling into very neglected EA main rivers. Their members would not be attending. He further stated that there was very good practices around Dyson's land but it was not a good example overall.

Members gave several examples of poorly maintained EA assets which raised concerns locally in terms of flood risk and water level management and that the EA required to be held to account. Mr P. Bateson referred to delays with projects such as the Lower Witham and Billingham.

Mrs J. Froggatt reported that one of her Boards had invested a significant amount of time with the EA talking about PSCA works, which had been in previous years circa £1M, only to be told that this was no longer affordable. This amount was reduced to £800k only for this to be subsequently reduced further. Members agreed that there had been a change with the EA treating IDBs as contractors rather than partners. ADA undertook to discuss this with Mr I. Hodge.

Mr A. McGill agreed with LCC that we needed to get back around the table as Lincolnshire Flood Risk Management Authorities.

## 7. REPORTS FROM COMMITTEES

### (a) Executive Board

This had been largely covered in item 6 above, however, it was noted that they were currently sorting budgets and keeping an eye on staffing and pay and conditions.

### (b) Policy and Finance Committee

The Committee had met on 21st September and most of the points discussed at the meeting had already been covered above. It was noted that applications from this geographical area would be sought to fill the vacancy when Mrs J. Froggatt stepped down in March 2023.

Mr I. Thomson reported that membership costs had been reviewed.

### (c) Technical and Environment Committee

The Committee had also met on 21st September and, again, the majority of matters discussed had been covered above. It was noted that many of the workstreams tasked to the Committee would not be completed due to the staff shortages. It was noted that Mr T. Purlant's term of office as Chairman would end in March 2023 and Mr I. Thomson stated that they would be looking for a new Chairman and asked for expressions of interest.

### (a) Events Committee

Mr P. Richardson reported that a meeting of the Committee was to be arranged shortly but the intention was to attend the Lincolnshire Show in 2023. Mr M. Harrison confirmed that LCC would continue to support this. It was agreed that commitment was required from the EA (who had not attended last year) as this was intended to be a partnership event. Mr P. Richardson stated that there needed to be one message from the partnership.

### (b) Pay and Conditions Committee

Mr D. Withnall reported on the outcome of the meeting on 10th October 2022 where the 2023/24 pay award had been considered. The Committee had agreed to base their offer on the Office for National Statistics Earning 01 Average Weekly Earnings total pay, Great Britain (seasonally adjusted) (EARN01) provisional figure for July (published in September) for the public sector, 12-month average of the Single Month Changes (KAC8), % change year on year, as they felt that this was more representative over the longer term. To give some certainty for the following year, they agreed a two-year deal with continuation beyond unless either party gave 12 months' notice to re-enter negotiations. Based on this formula, the average cost-of-living increase for 2023/24 would be 2.1%.

In addition to this, the Committee had agreed to an un-consolidated payment of £1,500 to be paid in the salary over 12 months with effect from 1st April 2023/24.

Details of the EARN01 were presented for consideration together with a copy of the pay scales showing the impact of the 2.1% and the £1,500.

As the WMC were undertaking their own negotiations, they abstained from voting.

It was proposed by Mr K. Casswell and seconded by Mrs J. Froggatt that the formula detailed above be approved and an offer of 2.1% be made to employees plus an

unconsolidated amount of £1,500 to be paid monthly over the 12 months with effect from 1st April 2023.

RESOLVED

That the Lincolnshire Branch recommend a pay increase of 2.1% be made to employees plus an unconsolidated amount of £1,500 to be paid monthly over the 12 months with effect from 1st April 2023; it would be up to the individual boards to approve and adopt this.

8. LEAD LOCAL FLOOD AUTHORITY UPDATE

Mr M. Harrison (Flood and Water Manager) gave an update on staff changes, Mr C. Miller had been appointed to fill the vacancy of Head of Environment. Mr A. Myers, Flood Risk Project Coordinator, would be heading up the capital programme and engaging in partnership schemes. As new to the post, Mr Harrison was mindful of what had worked well in the past and would like to see reset of the partnership, stating that it was important to get people around the table to facilitate discussions. Also local drainage groups (four) had worked well to deliver local benefits.

Storm 16th and 17th August caused a lot of issues particularly around Market Rasen, Spalding, Pinchbeck, Fosdyke areas resulting in 54 Section 19 investigations. There had been very good partnership working between IDBs and LCC during the event.

Mr R. Davies was heading up the Riparian Project and had received great support from IDBs, district councils and the EA were also involved. A copy of the Riparian Guide would be circulated with the minutes. The document would be sent to the Flood and Water Management Group and Strategy Group for endorsement and forwarded to the Association of Directors of Environment, Economy, Planning and Transport (ADEPT) for consideration. Members were asked to forward any comments on the document to Mr R. Davies at LCC.

In response to Mr D. Withnall, Mr M. Harrison reported that it had not been possible to examine the Memorandum of Understanding in detail at this time. It was agreed that an extension for further year would be acceptable to allow this work to be undertaken.

9. ENVIRONMENT AGENCY UPDATE

There were no EA officers present but they had provided the attached update for information.

10. PRESENTATION ON THE SOUTH LINCOLNSHIRE RESERVOIR

Mr I. Warsap gave a presentation on the proposed south Lincolnshire reservoir which would be sited south-east of Sleaford, halfway between Grantham and Boston. This was being developed by Anglian Water and Affinity Water to supply enough water for around 500,000 homes. This was still in the concept stage and was one of two reservoirs, the other in the Cambridge area.

Should the scheme be approved, work was expected to commence around 2029 and was estimated to take 4-6 years to complete. The consultation document was open until Christmas.

11. MEETING DATES

The following meeting dates were noted:

23rd February 2023 (Joint Branch meeting).

20th April 2023 (Lincolnshire Branch meeting AGM).

12. ANY OTHER BUSINESS

Mr I. Thomson stated that Branch constitutions were being reviewed and would be forwarded to Branches with recommendations for any changes.

CHAIRMAN

DRAFT

**ADA Lincolnshire & Welland and Nene joint branch meeting.**

**Environment Agency Update**

**1.0 In Year Capital and resource programme position - Grant-in-Aid Position**

The EA GiA forecast has decreased by £9.5m since the last quarter, primarily due to an £11.7m reduction on the Boston Barrier scheme, resulting from ongoing wet dock issues. The current forecast is £3.2m (-7%) below start of year allocation.

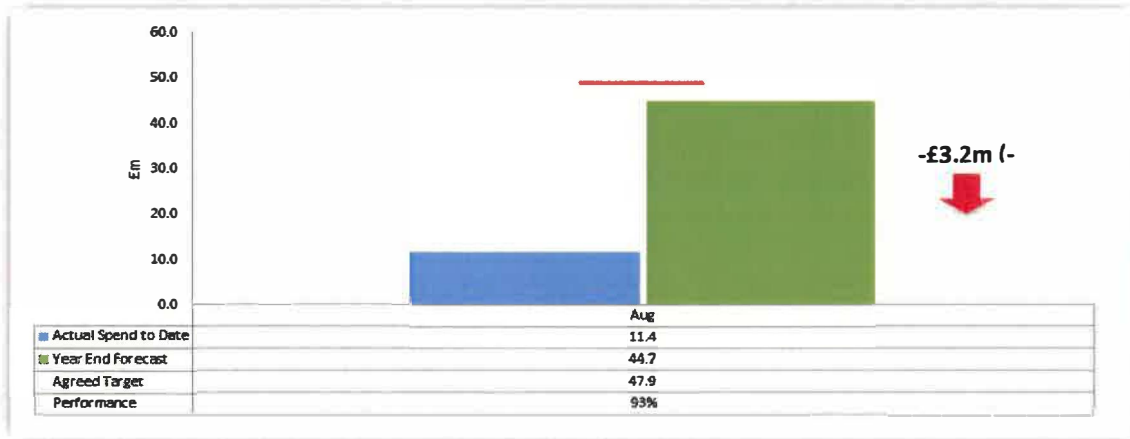


Figure 1: 2022-23 Environment Agency expenditure position

The IDB and LLFA FCRM GiA Capital programmes for Anglian (Northern) RFCC are highlighted in Figure 2.

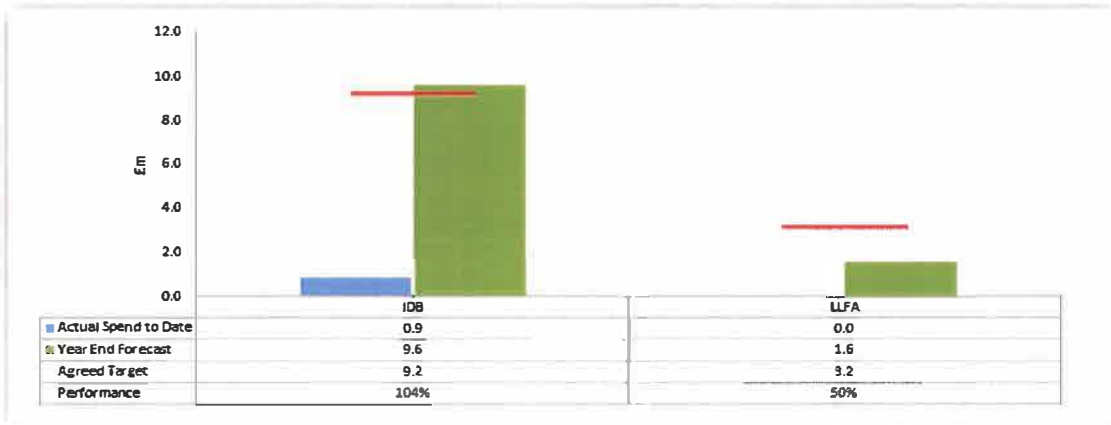


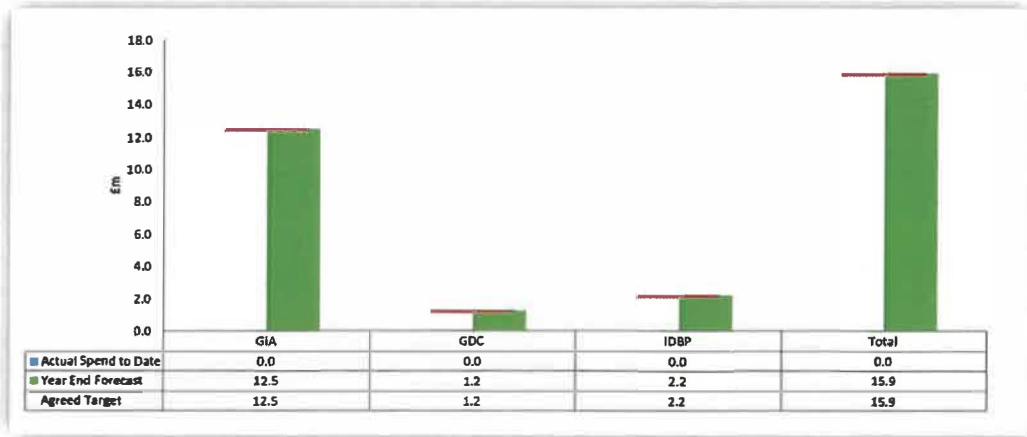
Figure 2: 2022-23 Other Risk Management Authorities Capital expenditure position

The GiA forecast has increased by £0.8m since the last meeting, through the introduction of a number of acceleration opportunities. The current forecast is £1.2m (-10%) below the start of year allocation, as a number of schemes were delayed in Q1 due to issues including resource availability and scheme viability.



Figure 3 highlights the Environment Agency Resource Maintenance position. The forecast is currently in line with start of year allocations and will be subject to further update during Q2.

Figure 3: 2022-23 Resource Maintenance expenditure position

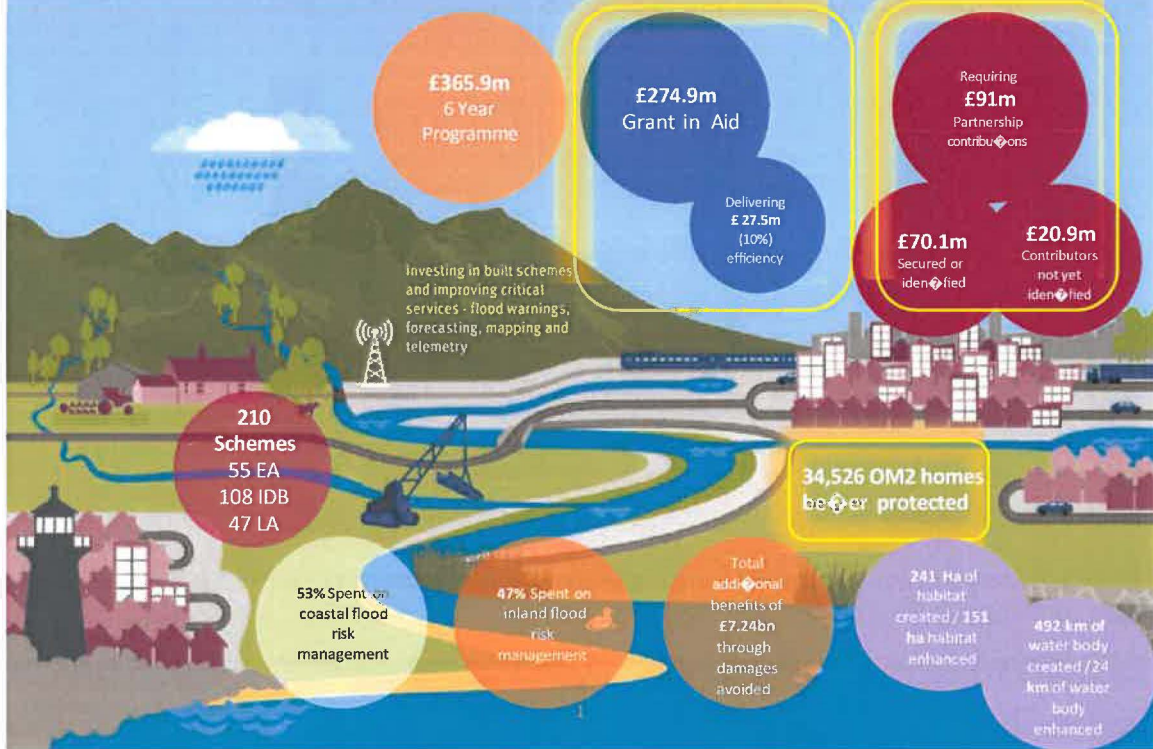


### 1.1 Programme Exceptions

Project forecasts vary throughout the year as opportunities and risks materialise. Figure 4 shows the key FCRM GiA Capital project variances that have occurred since the last RFCC meeting.

Project Title	RMA	Variance (£m)	Reason
Capital Recondition Programme	EA	+2.5	Additional asset refurbishment opportunities identified.
Saltfleet to Gibraltar Point Beach Management	EA	+1.5	Forecast includes additional defence and outfall work.
Safety Works Bridges Replacement Programme	EA	+0.7	Acceleration of programme to include additional bridges.
Pyewipe Pumping Station Refurbishment	Upper Witham IDB	+0.5	Additional works required to increase resilience at the site.
Humber - Barton to New Holland Flood Alleviation Scheme	EA	+0.3	Ground investigation accelerated.
Hobhole Pumping Station Refurbishment	Witham Fourth District IDB	+0.3	Progression of business case development.
Exeter Drain pipeline and channel rehabilitation, Spalding	South Holland IDB	+0.2	Additional project identified by IDB.
Boston Upstream Tidal System Sustain Project	EA	-0.9	Project plan updated and some ground investigation costs reprofiled to 23-24.
Boston Barrage-Barrier Works	EA	-11.7	Ongoing delays, pending the securing of agreement to commence wet dock works on the Port Estate. defence improvements

**Flood and coastal erosion risk management  
Lincolnshire and Northamptonshire  
January 2022 Consented Capital Schemes– 2021 to 2027**



*Infographic 1: The 2021-2027 Consented Schemes overview*

### 1.3 South Humber & East Coast: Key EA Scheme Updates

#### 1.3.1 Humber - Barton Haven to New Holland Flood Alleviation Scheme

Lead Organisation	Environment Agency
Start Date	Jun-16
End Date	Mar-27
Total project cost	£27,961,742
Partnership Funding required?	Y
Total Partnership Funding	£6,000,000
Who is contributing?	Asset Replacement Allowance, Greater Lincolnshire Local Enterprise Partnership (GL LEP), other sources identified but agreements not yet confirmed
Households better protected	1,130

#### Background:

The tidal defences along the majority of the frontage from Barton to New Holland, including Barrow Haven and Far Ings, were substantially overtopped in the December 2013 tidal surge. The incident caused extensive damage to the earth embankment along 3.5km of the defences, with approximately 40 properties and businesses flooded, together with local highways, railway line, sewage treatment works, timber yards and grain stores at New Holland.

Although fully repaired soon afterwards, similar future incidents could lead to breaches of the existing defences, increasing the risk to life and the number of properties and businesses affected as the current SoP is as low as 5%. The Initial Assessment indicates that there are up to nearly 2000 properties at risk of flooding within the tidal flood plain. This risk is exacerbated by the predicted sea level rise due to climate change of up to 1.0m.

The current Humber Flood Risk Management Strategy (2008) indicates the requirement to make some improvements, but ongoing maintenance and capital investment may be difficult to justify for all of this frontage. Therefore, significant local contributions are likely to be required.

As the whole of the Estuary and much of the hinterland at this location is designated as high ecological importance's, strategic and sustainable options include considering secondary defences around key infrastructure and communities, with a longer term adaptive approach to some places. Opportunities exist to enhance the local landscape for wildlife and recreational purposes. This is in line with the emerging direction signposted within the Humber2100+ strategy.

#### Update since last meeting:

The contract with the framework consultants to complete the Outline Business Case is now expected by around the end of September. However, the time charges contract continues to deliver other activities. The long list of options is being further refined to determine those appropriate for the appraisal. The modelling has helped develop the baseline economic benefits, and the strategic modelling has indicated that the project shouldn't have significant impacts elsewhere in the Estuary.

The ecological survey programme continues, with more being planned through winter 2022/23. The heritage and landscape surveys have been completed. The first phase of ground investigation works has been planned, which is envisaged to be undertaken before

winter. Liaison with Natural England on the ecological constraints are ongoing regarding these investigations and anticipated construction working windows.

The stakeholder engagement is continuing through ongoing programme of Resilience Advisory Group and Steering Group meetings. Further communications will continue through the project's newsletter, citizen space and dedicated e-mail address. This is being complemented by regular articles in a local free community magazine. Identifying funding contribution opportunities continue to be a challenge, especially due to predicted cost inflation ahead of the construction, starting no earlier than 2025.

### 1.3.2 Humber - Stallingborough 3 sea defence improvements

Lead Organisation	Environment Agency
Start Date	Aug-20
End Date	Aug-24
Total project cost	£22,001,089
Partnership Funding required?	Y
Total Partnership Funding	£2,300,000
Who is contributing?	Greater Lincolnshire Local Enterprise Partnership (GL LEP), Anglian Water, National Highways
Households better protected	1,300

#### Background:

This project forms the third phase of works for the flood defence running between the Port of Immingham and the Port of Grimsby. The previous phases of works took place in 2008/9 (Stallingborough 1) and 2012 (Stallingborough 2). The benefit period for the second phase of works ended in 2018, allowing this this third phase to be progressed. The defences currently offer around a 0.5% (1:200) standard of protection, but the defence is highly susceptible to damage from extreme tidal and wave loading.

Urgent repairs have been required several times over the last 3 years due to undermining and collapse of the revetment and wave wall. In addition to the risk of tidal flooding, there is also the potential of flooding within the tidal flood plain from both surface water and fluvial sources managed by other Risk Management Authorities. A strategic apportionment approach of the benefits has been taken to allow scheme to manage these risks to be developed separately.

There is a high ambition in the Local Plan to further develop considerable industrial areas and associated infrastructure across the benefiting flood plain.

There are several communities better protected by the flood defences as well as industrial developments such as the chemical plants, sewage treatment works, infrastructure such as the A180 road and a large agricultural area.

This project aligns with the original 2008 Humber Strategy, the National FCERM Strategy and the developing Humber 2100+ Strategy, to reflect the emerging strategic direction and align with principles of an adaptive and resilient approach.

#### Update since last meeting:

The detailed design of the rock amour revetment is near completion, so the target costs can be determined soon. The outfall desilting and investigation work has advanced over the summer, so the scope of these improvement works can be determined and thus improve flood resilience. Some early construction works is expected through the Autumn on these to maintain defence integrity. The contractor has worked with the consultants to optimise a 2 year construction programme expected to commence in Spring 2023. But the main rock amour works is now deferred to 2024, to reduce the significant commercial risks associated with the long material delivery times.

The team are work hard on preparing the planning application with the necessary IROPI case and Marine Licence, by close liaison with NE, MMO and the planers. Biodiversity Net Gain and amenity enhancement opportunities are also being incorporated into the overall scheme. A stakeholder engagement event is being planned for October, with further local engagement with community representatives as necessary. The project team continue to liaise with North East Lindsey IDB, to ensure their pumping station and outfall improvements align with this project, to further enhance tidal flood resilience.

### 1.3.4 Saltfleet to Gibraltar Point Beach Management

Lead Organisation	Environment Agency
Start Date	Mar-20
End Date	Dec-21
Total project cost	£31,958,170
Partnership Funding required?	N
Total Partnership Funding	N/A
Who is contributing?	N/A
Households better protected	9,352

#### Background:

Beach re-nourishment scheme protecting approximately 20,000 houses, 35,000ha prime agricultural land and 30,000 static caravans as well as major tourism developments between Mablethorpe and Skegness.

#### Update since last meeting:

The Project Team have again delivered another successful nourishment campaign which was completed at the end of July. A total of approximately 400,000m<sup>3</sup> of sand was dredged, pumped and profiled. Beaches at Trusthorpe, Boygriff, Huttoft, Wolla Bank, Chapel Six Marshes, Trunch Lane and Ingoldmells were nourished, and we carried out beach re-cycling at Sutton on Sea. There are various minor maintenance projects being undertaken along with detailed asset inspections of the outfalls in the area.

### 1.3.5 Saltfleet to Gibraltar Point Enhancing Lincolnshire Coast

Lead Organisation	Environment Agency
Start Date	Jul-20
End Date	Aug-35
Total project cost	£32,006,000
Partnership Funding required?	N
Total Partnership Funding	N/A
Who is contributing?	N/A
Households better protected	4,676

#### Background:

Enhancing Lincolnshire Coast project would be a significant investment from government and therefore needs to deliver the maximum returns for all partners and stakeholders, by 'doing the project right' and 'doing the right project'. Enhancing the Lincolnshire Coast project will be the phase of works that follows on from the nourishment which is currently proposed until around 2040 and will evidence and deliver transformation of flood risk management infrastructure of the East Coast of Lincolnshire.

#### Update since last meeting:

Longlisting options will be assessed against multi-criteria analysis tables (currently being prepared) to produce a short list of options for the project.

### 1.3.6 Wainfleet Flood Resilience Scheme

Lead Organisation	Environment Agency
Start Date	Aug-21
End Date	Jul-24
Total project cost	£3,178,824
Partnership Funding required?	Y
Total Partnership Funding	£2,000,000
Who is contributing?	Other Government Departments (OGD)
Households better protected	47

#### Background:

In June 2019 two and a half times the month's average rainfall fell in 3 days in the Steeping catchment. This led to overtopping of the defences and ultimately a breach in the right bank of the Wainfleet Relief Channel on 12 June 2019. As a direct result 75 homes and businesses were flooded as well as 2000 acres of agricultural land.

In response to this the Steeping River Steering Group was set up and published a Catchment action Plan which was recently refreshed and published in May 2021. This contains an action to increase the resilience of the raised defences that protect the western side of Wainfleet against overtopping and the effects of climate change. This capital project seeks to deliver this action.

#### Update since last meeting:

The Strategic Outline Case (SOC) of the Wainfleet Flood Resilience Project is complete and will now be put through the assurance process. Once approved it will then progress onto the development of an Outline Business Case (OBC). More work will then be required in order to develop option(s), obtain outline costs and then undertake a more detailed analysis on the economic benefits to build the case for investment.

## 1.4 Witham Catchment: Key Environment Agency Scheme Updates

### 1.4.1 Boston Barrage-Barrier Works

Lead Organisation	Environment Agency
Start Date	May-14
End Date	Sep-22
Total project cost	£42,147,805
Partnership Funding required?	N
Total Partnership Funding	N/A
Who is contributing?	N/A
Households better protected	525

#### Background:

The Boston Barrier scheme once finished will provide better protection to over 14,000 properties against tidal flooding and is deemed a 'National Priority Project' within the Environment Agency's Six Year Programme.

#### Update since last meeting:

More than 13,700 properties are now better protected from tidal flooding by the primary barrier gate which was used for the first time against a high tide in November 2021 and continues to be available as required.

The project is currently incurring delays associated with the agreement of temporary works that are required before the wet dock can be closed to enable Port of Boston operations to continue without the use of the wet dock. Once temporary works are finalised, the wet dock works can proceed.

The latest construction programme anticipates completion of the Boston Barrier Scheme as a whole in Q4 2023/2024.

Once finished, this work will further protect 525 properties from tidal flooding taking the total number of properties better protected from tidal flooding to 14,256.

### 1.4.2 Boston Upstream Tidal System Sustain Project

Lead Organisation	Environment Agency
Start Date	Aug-21
End Date	Mar-25
Total project cost	£6,201,034
Partnership Funding required?	N
Total Partnership Funding	N/A
Who is contributing?	N/A
Households better protected	900

#### Background:

The geographical scope of the project is along the Witham Haven between the Boston Barrier and Grand Sluice (Grand Sluice refurb. being excluded).

The objective of this commission is to sustain a revised standard of service of 5.5m AOD, improve the management of flood risk assets in the town of Boston and reduce the risk of an asset failure.

#### We are undertaking the following:

Review of the data: a desktop study of the existing asset data.

Screening of the data and assessment of the robustness/ usability of data.

Undertake gap analysis of existing data.

Provide a report with recommendations, for asset inspection or further surveys as and if required to allow for the SOC to be written including options and costings.

Prepare a plan for the next stage of the asset inspections. Provide programme, number of people and durations.

The next stage - surveys will be added under a separate instruction before SOC stage.

Update since last meeting:

Ground investigation works now expected February 2023, following challenges in securing site access and business case approval.

### 1.4.3 Gibraltar Point to Freiston Shore System Sustain Project

Lead Organisation	Environment Agency
Start Date	Mar-22
End Date	Jan-24
Total project cost	£1,774,948
Partnership Funding required?	N
Total Partnership Funding	£0
Who is contributing?	N/A
Households better protected	2,018

Background:

The project is to look at sustaining the primary line of defence of the Wash Frontage from Gibraltar Point to Freiston Shore. The Asset Performance (AP) team have identified key Low spots, cattle poaching and burrowing animal areas of concern which are resulting in red card maintenance activities and concern for bank stability. This project will look to repair the embankment and sustain the whole line back to its nominal standard of protection and service.

Update since last meeting:

The Strategic Outline Business Case has been submitted to, and reviewed by, the National Project Assurance Service. As of 1st September the project team were working through questions raised. Works on site now expected 2024.

### 1.4.4 Lincoln Defences

Lead Organisation	Environment Agency
Start Date	Nov-18
End Date	Oct-22
Total project cost	£1,982,802
Partnership Funding required?	Y
Total Partnership Funding	£946,535
Who is contributing?	Other Government Departments (OGD), Anglian Water
Households better protected	347

Background:

Lincoln is located in a limestone ridge, through which the River Witham flows. A complex system of channels runs through the City managed by several water level management structures. Key river channels within the City of Lincoln include The River Brant, The Fosdyke Canal, The Sincil Dyke, Boultham Catchwater and Great Gowts Drain. The City of Lincoln has suffered flooding on numerous occasions, most notably in 1947 and



1958.

Water levels are controlled by three sluices (namely Great Gowt Sluice, Stamp End Sluice and Bargate Sluice). The Lincoln Washlands and a system of linear flood defences comprising walls and embankments works in conjunction with the sluices to protect Lincoln from fluvial flooding.

Flood defence assets are generally in good condition, however a section of the defences along the Foss Bank was reported to be leaking through cracks/ joints in the flood wall. Surveys carried out in 2017, also highlighted that sections of the walls along the River Witham are in need of repair work.

The electric components of the three sluices are near the end of their mechanical and electrical life and are unreliable. Good status of the defences is crucial to maintain the existing Standard of Protection in Lincoln and avoid flooding even in relatively moderate flood events.

Update since last meeting:  
This project is complete.

#### 1.4.5 Lincoln Washlands control panels

Lead Organisation	Environment Agency
Start Date	Sep-19
End Date	Jun-21
Total project cost	£843,350
Partnership Funding required?	Y
Total Partnership Funding	£60,000
Who is contributing?	Upper Witham IDB
Households better protected	1,969

Background:

The project consists of replacing key components to the control panels and instrumentation for the Lincoln washlands on the River Till, River Witham and River Brant. Additional works to bolster site security and safety have also been carried out.

Update since last meeting:  
This project is complete.

#### 1.4.6 Lower Witham Flood Resilience Project

Lead Organisation	Environment Agency
Start Date	Jun-21
End Date	Aug-27
Total project cost	£29,914,388
Partnership Funding required?	Y
Total Partnership Funding	£6,000,000
Who is contributing?	Other Government Departments (OGD)
Households better protected	1,362

##### Background:

In 1997 the Lower Witham Strategy recommended reinforcement of key embankments whilst allowing some areas to flood, in order to relieve the pressure on the system. Since then 30km embankments have been reinforced, but repeated high flows have damaged more. Storage options have not been implemented, due to availability of suitable sites and difficulties in meeting HM Treasury funding rules of the time.

The works in the 2000s included the creation of Fiskerton Nature Reserve, as environmental mitigation. Now these types of works are seen as offering a real alternative to hard defences, providing room for flood water as well as having a lower carbon footprint and enhancing the local environment. Flooding in 2019 has again highlighted the need to update the long term plan to manage flood risk in the area.

With revised partnership funding rules, allowing more projects to proceed, and a new interest from land owners in providing public goods such as flood storage, it is hoped that the original vision can now be realised. The Lower Witham is one of six river catchments within the East of England Fens that will come together under the Future Fens: Flood Risk Management programme. This work will contribute towards the ambitions for Climate Resilient Places within the National Flood & Coastal Erosion Risk Management Strategy where there is a specific measure focussed on the Fens.

It is anticipated that a significant capital investment programme will start on the ground in 2025, and in the meantime the Environment Agency's operational teams will continue to maintain and manage the flood risk assets where resources allow.

##### Update since last meeting:

Survey Data continues to be reviewed, and discussions to agree the baseline scenario and sensitivity runs for the updated model are ongoing. The first newsletter for the project was issued in July and will be updated as the project progresses, along with updates to the Citizen Space webpage for the project. More detailed meetings have been held with key partners and will continue throughout the project as we work together. Data gathering of all flood risk assets in the project area has started.

#### 1.4.7 River Slea Flood Resilience Project

Lead Organisation	Environment Agency
Start Date	Oct-22
End Date	Dec-26
Total project cost	£6,860,709
Partnership Funding required?	N
Total Partnership Funding	N/A
Who is contributing?	N/A
Households better protected	582

##### Background:

This project covers the River Slea main river which runs through the town of Sleaford to Cobblers Lock. In the east of the town the river splits to follow the Sleas Navigation channel to the north and the original course of the Old River Sleas to the south. The navigation follows the contours of the land, dropping the river level from around 13m above sea level in Sleaford, to around 3.5m above sea level via a series of historical locks (not all of which are operational). The Old River Sleas follows a more natural course through the Sleas valley before joining back with the navigation again at Cobblers Lock.

As a river heavily influenced by groundwater flows, the Sleas can suffer from low flows at times making abstractions for drinking water and irrigation a challenge. A flow augmentation scheme supports water levels in the river during dry periods.

Through the town itself, a series of movable structures maintain a water level for aesthetic reasons, although these do interfere with natural river processes, are a barrier to fish and eel migration and increase flood risk, which is why they have to open during high flows. These structures now require significant investment. Structures along the old navigation channel are also in a state of disrepair. With government funding to the EA dependent upon evidenced reductions in flood risk, securing sufficient funding to repair/replace assets with no flood risk benefit is not possible.

##### Update since last meeting:

Introductory presentations and the first newsletter were carried out and issued in July to introduce key internal and external stakeholders to the project. A longlisting workshop with internal and external stakeholders has been scheduled for the end of September.

Longlisting options will be assessed against multi-criteria analysis tables (currently being prepared) to produce a short list of options for the project.

The hydraulic modelling baseline scenario and final hydrology is currently being reviewed by the EA. Agreed sensitivity model runs are being prepared by the supplier. Once reviewed, model outputs can be used to inform which options are taken forward and can be used to assist with engagement activities.

## 1.5 Welland and Nene Catchment: Key Scheme Updates

### 1.5.1 Crowland and Cowbit Washes (Welland Flood Banks) refurbishment

Lead Organisation	Environment Agency
Start Date	Sep-21
End Date	Mar-28
Total project cost	£2,799,759
Partnership Funding required?	N
Total Partnership Funding	N/A
Who is contributing?	N/A
Households better protected	0

#### Background:

The Crowland and Cowbit Washes (the Washes) are not performing as anticipated. The Cradge bank for the Crowland and Cowbit Washes is in need of refurbishment along with inlet syphons. The current focus of the study is to understand the area that benefits from the Washes. The Washes have not been utilised in recent years and the Welland system has been significantly altered since their construction.

This project aims to provide a better representation of flood risk associated with the operation (or non-operation) of the Washes through modelling and mapping. We need to better understand how the Washes function, which communities benefit from their existence and whether any improvements can be made to utilise them more effectively and reduce flood risk. We also need to better understand the implications of failure to store water in the Washes to define the benefit area. The number of properties currently benefitting is estimated at 663.

It is intended that this evidence base will be used in conjunction with that derived for Maxey Cut Banks to support development of an Initial Assessment that supports a strategic approach to continue maintain the standard of protection for Lower Welland catchment in line with the Welland CFMP recommendations.

#### Update since last meeting:

Following completion of the hydraulic modelling and review, this project is now moving to the next stage of development - the strategic Outline Case (SOC). The long-listing of options has started and Pre-SOC uplift documents for both Crowland and Cowbit and Maxey Cut are being prepared to ensure that we have sufficient funds available to complete the SOC.

## 1.5.2 Islip Sluice Replacement

Lead Organisation	Environment Agency
Start Date	Jul-21
End Date	Oct-22
Total project cost	£1,954,000
Partnership Funding required?	Y
Total Partnership Funding	£1,701,003
Who is contributing?	Asset Replacement Allowance (ARA), RFCC Local Levy
Households better protected	2

### Background:

A detailed asset survey in 2013 identified a number of maintenance activities that were required to be completed to Islip sluice to ensure the continued operation of the sluice. During the preliminary work in June 2015 the contractors discovered a number of serious defects, including that the piles and wing walls had completely disintegrated under water and there is a scour hole located under the supporting structure.

Further investigations and emergency works took place in 2015/16 to ensure the structure was stable for the winter months. The sluice gate is critical for retaining the water level for navigation; failure of the structure will lead to a loss of navigation as the upstream water level could drop by 1.75m. The length of Navigation would be from Islip to Denford lock.

The Environment Agency Moorings at Thrapston Nine Arches would be impacted, along with the proposed new marina at Thrapston Mill. Modelling work is being undertaken to clarify the benefits to flooding the structure provides as part of the Thrapston and Islip flood defence scheme, to inform the project appraisal and business case for capital maintenance works.

### Update since last meeting:

The business case is being drafted for a contingency solution that will protect the existing sluice and enable continued operation during times of high flow. The benefits to navigation mean the efficiencies in permitting process have been realised.

### 1.5.3 Maxey Cut Banks Refurbishment

Lead Organisation	Environment Agency
Start Date	Apr-22
End Date	Apr-28
Total project cost	£3,438,855
Partnership Funding required?	Y
Total Partnership Funding	£637,678
Who is contributing?	RFCC Local Levy, further contributions required - to be identified
Households better protected	0

**Background:**

The Maxey Cut was constructed in the 1950s to divert the majority of flows in the River Welland, bypassing Market Deeping and reducing flood risk in the town. The channel flows between raised flood banks which are between approximately 1m and 3m in height above surrounding ground levels.

A recent geotechnical investigation in to the condition of the banks has revealed that there is potential for bank failure either through seepage or bank instability. The locations considered to be at flood risk in the event of overtopping or breaching are Northborough, Market Deeping, Tallington, Helpston, Maxey, Glinton, West Deeping and Peakirk with up to 676 properties affected.

**Update since last meeting:**

This project is being undertaken with the Crowland and Cowbit Washes refurbishment, so this update is the same as that update.

Following completion of the hydraulic modelling and review, this project is now moving to the next stage of development - the strategic Outline Case (SOC). The long-listing of options has started and Pre-SOC uplift documents for both Crowland and Cowbit and Maxey Cut are being prepared to ensure that we have sufficient funds available to complete the SOC.

#### 1.5.4 Nene Navigable Structures - CM Phase 1

Lead Organisation	Environment Agency
Start Date	Dec-21
End Date	Mar-27
Total project cost	£10,575,000
Partnership Funding required?	Y
Total Partnership Funding	£9,685,647
Who is contributing?	RFCC Local Levy, further contributions required - to be identified
Households better protected	0

#### Background:

Structures on the River Nene manage water levels to maintain the statutory navigation to allow boat passage from the Northampton Arm of the Grand Union Canal in the Centre of Northampton to the Parish of Wisbech St Mary in the Fens, just East of Peterborough. These structures also play a role in flood risk management in floods of low magnitude and high frequency. Sluices and tilting weirs are automated or manually operated to regulate water levels to increased flow of water through during Strong Stream Advice / high flows.

The structures all require management and well-timed investment throughout their asset 'life' to ensure they operate efficiently and cost-effectively. A strategy is being developed for the whole life management of all the structures on the Nene (sluices, weirs, locks, bridges) which is due for publication in FY 2024/25.

Four structures have been identified as needing investment in a 'Phase 1' after this strategy is produced - Wollaston Sluice, Upper Wellingborough Sluices and Stanwick Sluices are currently at Condition Grade 3 but are expected to deteriorate to condition grade 4 within this 6 year CSR. Ashton Sluice Tilting Gate is Grade 4 (below target condition) but has temporary measures in place. High level estimates for cost and benefits have been compiled, for refinement in the years before project start. An SOC for these works will be completed in 2021/22 as part of the Strategy development.

#### Update since last meeting:

No progress since last meeting. Local Levy funding has been allocated to the project to support modelling and design in financial years 2024/25 and 2025/26. Capital maintenance works to commence in financial year 2026/27, informed by the completed Structures of the Navigable River Nene Strategy.

### 1.5.5 Nene Navigable Structures - Dog in A Doublet and Stanground Sluices

Lead Organisation	Environment Agency
Start Date	Mar-22
End Date	Mar-26
Total project cost	£5,600,000
Partnership Funding required?	Y
Total Partnership Funding	£887,000
Who is contributing?	RFCC Local Levy
Households better protected	1,129

#### Background:

The Asset Performance Team have identified an investment need for refurbishment of the Dog In A Doublet sluice complex and the Stanground sluice complex. Both structures are at target condition but require capital maintenance in the near future to maintain standard of service. Estimated refurbishment costs of the works bring the projects into the FCRM Capital Programme.

The team will appraise the long list of whole life asset management options at the sluices to ensure sustainable development, as part of the Structures of the Navigable River Nene Strategy. This will involve a modelling exercise to quantify the influence of the structures on fluvial and tidal risk in Peterborough, including combined scenarios and in light of climate change. The Environment Agency manages the interaction and movement of water between the River and the Nene Washes using both structure complexes.

The Lower Nene Partnership meets weekly in the summer months due to the sensitivity of water demands for abstraction including transfer into the middle levels. The Nene Washes are an extensive area of seasonally-flooding wet grassland ('washland'), a RAMSAR site, SPA and SAC of international importance for breeding and wintering birds preserved by winter flooding and high summer water tables. Cross-EA team working will ensure realisation of holistic benefits and climate change adaptation opportunities for these multi-beneficial assets.

#### Update since last meeting:

A review of modelling has identified efficiencies to the programme and costs. This has brought forward the schedule including drafting the business case, which is currently underway.



### 1.5.6 Tidal Nene Strategy

Lead Organisation	Environment Agency
Start Date	Oct-20
End Date	Jan-22
Total project cost	
Partnership Funding required?	N
Total Partnership Funding	N/A
Who is contributing?	N/A
Households better protected	0

#### Background:

As part of the Collaborative Delivery Framework (CDF), Arup was commissioned to draw together a holistic baseline of knowledge relating to current and future flood risk management of the Tidal River Nene System. Arup have completed hydraulic modelling and a condition assessment of the Tidal Nene defences to support this.

The updated evidence base is used to inform a suite of reports which seek to understand flood risk management now and, in the future, considering a whole system approach and working with stakeholders. A clear understanding of collective aims and ambitions for the Tidal Nene system, coupled with the knowledge of the latest contextual information will provide a solid foundation for making sustainable investment choices. This will lead to outcomes that are mutually beneficial for all stakeholders.

#### Update since last meeting:

Progress is still slow on this project however we are making progress with how this will tie in with Fens 2100+. The scoping of a review the optimal location for the tidal limit on the River Nene still needs to be finalised.

MORGAN WRAY  
Area Flood Risk Manager

DEBORAH CAMPBELL  
Area Flood Risk Manager

BEN THORNELY  
Area Flood Risk Manager

## 2.0 2022/23 Asset maintenance

Our revenue maintenance budget allocation for 2022/23 is £15.90m. This is made up of £12.49m Flood Defence Grant in Aid (FDGiA), £2.17m Internal Drainage Board Precept (IDBP), and £1.24m General Drainage Charge (GDC). This covers both frequent and intermittent revenue funded work across Lincolnshire and Northamptonshire.

As of 31 August 2022 we are forecasting an end of year spend of £15.90m, matching our allocation. Work will be undertaken throughout the year to review our intermittent project list, to ensure that our highest priority works continue, whilst postponing some of our lower consequence projects.

### 2.1 Frequent maintenance

The 2022/23 frequent maintenance programme is fully funded across the Lincolnshire and Northamptonshire area, with a forecast spend of £8.26m. The maintenance will be carried out using a variety of delivery routes. Our internal Field teams, FCRM Operational framework, and Public Sector Co-operation Agreements (PSCA).

We have adjusted our Grass Cutting programme due to lack of grass growth because of the Prolonged Dry Weather and Drought. This has resulted in a reduction in our Grass Cutting programme of £70k. This funding has been re-allocated to our intermittent programme and will be used to complete extra Bushing works later in the year.

Figure 1 below shows a breakdown of how funding is allocated to different types of programmed work for 2022/23. The bar around the outside of the chart indicates how much of each item of the programme has been completed up to 31 August 2022 (the hollow segment indicates work still to be undertaken).

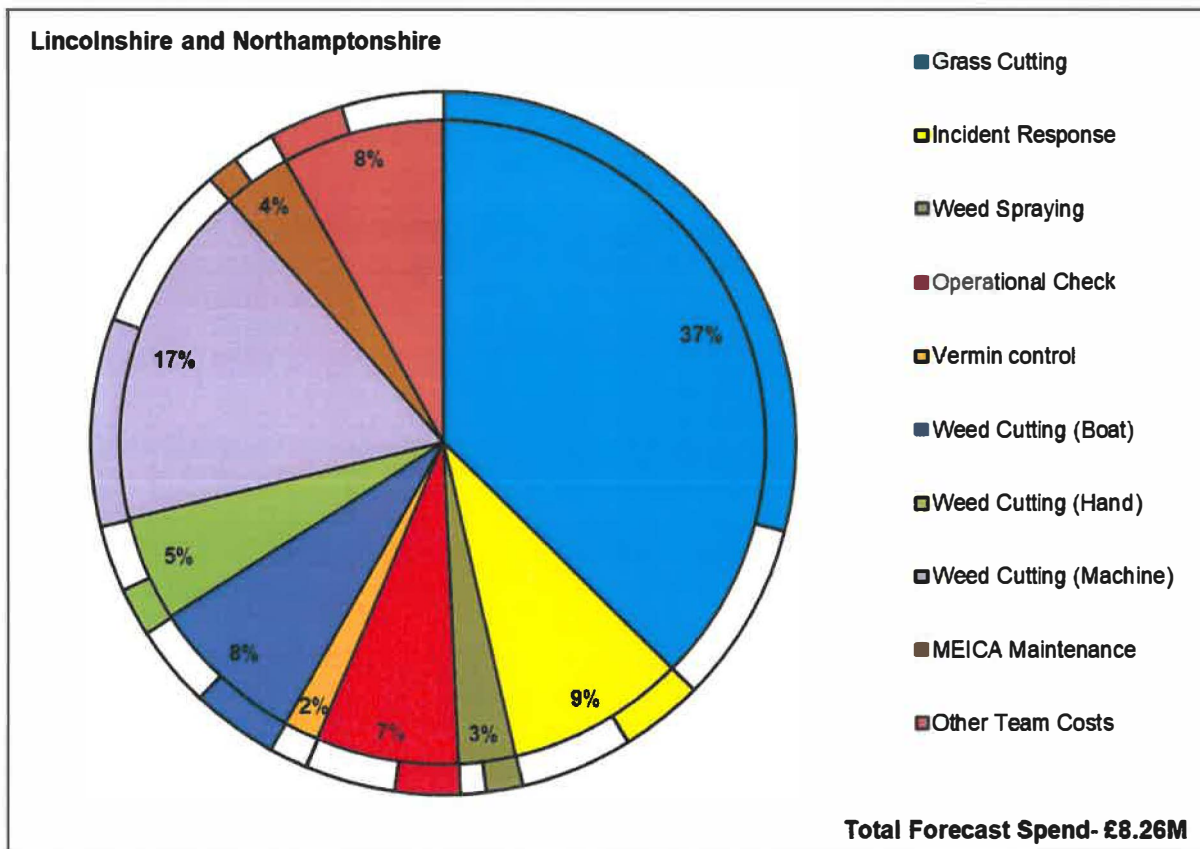


Figure 1: 2022/23 Frequent Maintenance - percentage split by work type and progress.

Overall 58.1% of our 2022/23 annual frequent maintenance programme has been completed. The works undertaken consist of the following items.

Health and Safety grass cutting to the tops of raised embankments to ensure safe access and good visibility for future maintenance.

Full grass cutting to our raised flood embankments and reservoir embankments to ensure good grass coverage is maintained.

Weed Control to ensure conveyance capacity for flood flow is maintained within channel.

Operational Checks to ensure that our assets, such as debris screens and outfalls, are able to perform when needed.

Planned MEICA Maintenance to ensure that our mechanical and electrical structures such as sluice gates are serviced and able to operate on demand.

Our frequent maintenance work is being undertaken to our revised programme. Vermin control is typically undertaken between October and March, outside of the breeding season in line with best practice.

In South Humber and East Coast Catchment, the South Ferriby Field Team have been undertaking routine weed control using Truxors on the River Ancholme. The Truxors are amphibious plant fitted with reed cutters for the purpose of aquatic vegetation removal. One unit will cut, and the other two boats will collect & lift cut material and deposit on the bank slope. Depositing on the banks allows any wildlife (including aquatic) to return safely to the water). This work goes ahead twice a year once in June and once in September/October.



Photo 1 & 2: Truxors undertaking routine weed control on the River Ancholme

We have also been carrying out maintenance using machinery from the banks. When we carry out our routine works, communication between the site supervisor and our Field Operations Technical and Contract Advisor is essential. For example, the initial grass cut must be carried out before the weed cut to ensure the excavator drivers can easily define the edge of the watercourse thereby mitigating the risk of damage to the toe of the embankment. The photos below are just some examples of the work carried out in the catchment using long-reach excavators, with the previous health and safety grass cut of the bank completed ensuring visibility for the drivers.



Photos 3, 4 and 5: (L) Waithe Beck (M) Oldfleet Drain (R) New Cut Drain Grimsby

In Donna Nook, the Mablethorpe Field Team have carried out works to repair cracking that has appeared along some sections of embankment. These cracks are the result of the prolonged dry weather. Following an assessment of the extent, the team used 8 tonnes worth of topsoil to fill the cracks. This was then impacted to prevent the situation getting worse with the expected rain and maintain the resilience of the defence. The bank is now being monitored to ensure its stability remains.





Photo 6 & 7: Donna Nook bank repairs to ensure stability with the forecast rain

In the Witham and South Forty Foot Catchments our contractors have been carrying out grass and weed cutting. For example, the photos below show handwork on Heighington Beck near Washingborough and grass cutting (ahead of weed cutting) in the Digby area. The second photos show before and after of our routine maintenance on Sandhill Beck.



Photo 8, 9 & 10: left – handwork on Heighington Beck; middle – grass cutting on New Cut



Photo 11, 12, 13 & 14: Before and after photos of work on Sandhill Beck

In the Welland and Nene Catchment teams have been continuing with the routine maintenance programme. During this dry weather period, we have also been closely monitoring the raised embankments of designated Flood Storage Reservoirs (FSRs). This is to inspect them for issues such as cracking which may occur during dry weather. We have also been carrying out maintenance on public access and safety structures. For example, replacement of the fencing downstream of the spillway on Melbourne FSR.



Photo 15: Fence and gate repairs on safety structures at Melbourne Flood Storage Reservoir

## 2.2 Intermittent Maintenance Programme

The intermittent programme comprises of projects across the area which repair or improve the condition of our flood risk assets. The projects will be carried out using a variety of delivery routes. Our Internal Field Teams, Collaborative Delivery Framework (CDF), FCRM Operational framework, and Public Sector Co-operation Agreements.

The 2022/23 revised intermittent programme includes 187 projects across the area.

Our total forecast for Intermittent Projects this financial year is £7.64M. Figure 2 below shows a high-level breakdown of the proportion of funding allocated to different types of work.

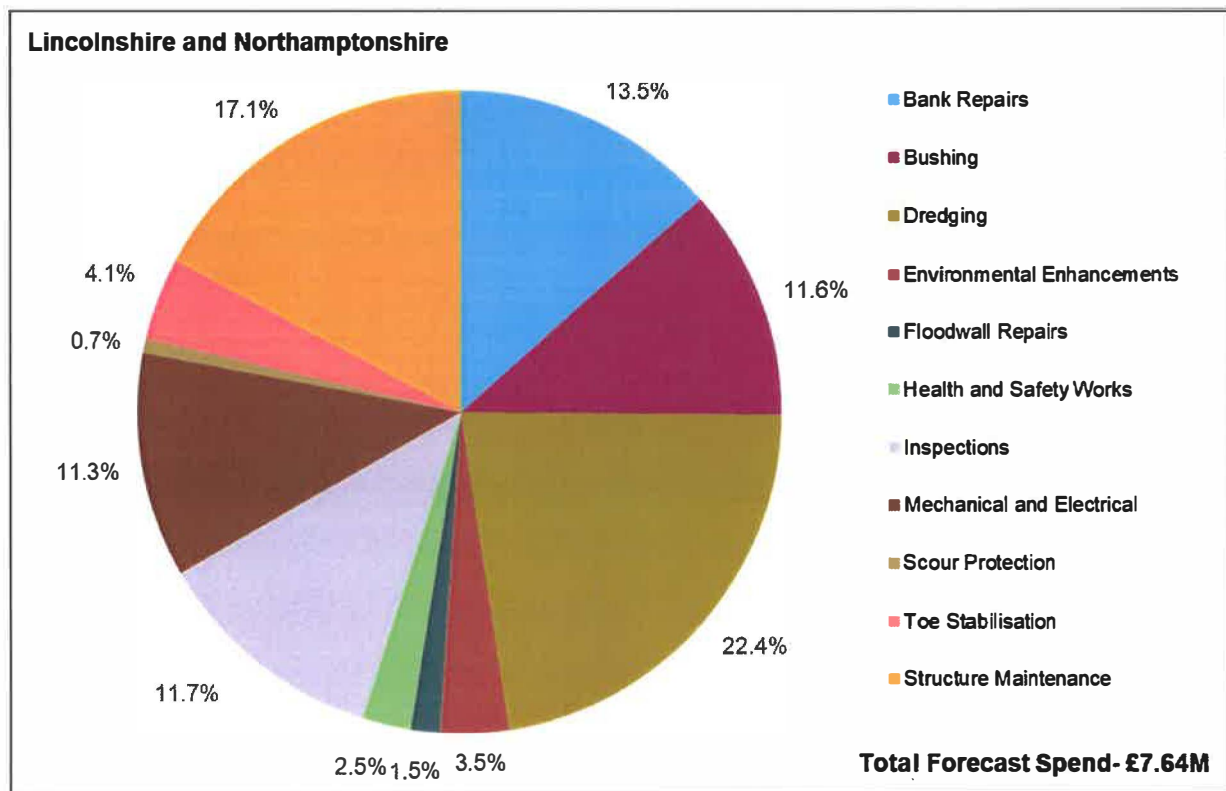


Figure 2: 2022/23 Intermittent Projects - percentage split by work type.

Our intermittent programme is monitored closely to ensure that projects are progressed, to time and budget. Despite a large proportion of the projects needing to be delivered during the latter part of the year, 75% of the projects are currently being prepared or are ready for delivery, with a further 11% being undertaken on site, or already completed. Figure 3 below shows the current status of the projects within the intermittent program, by number of projects.

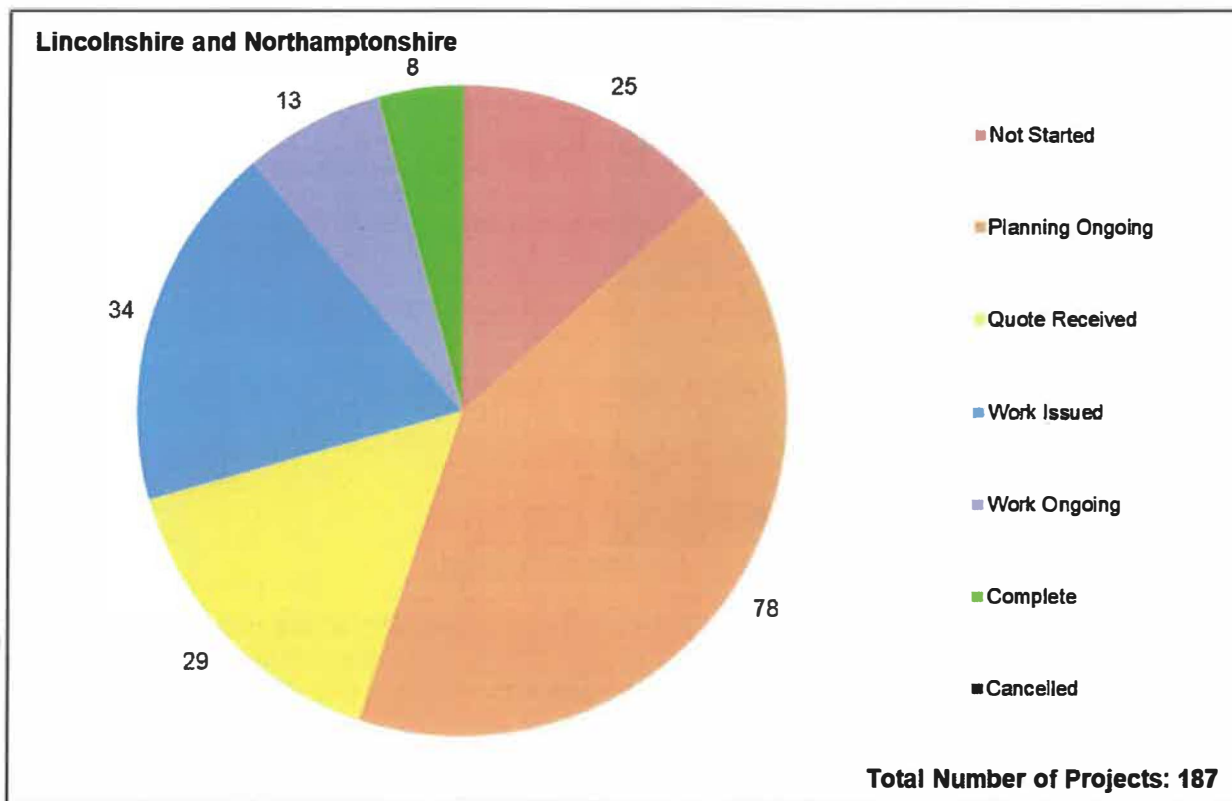


Figure 3: 2022/23 Intermittent Projects – current status by number of projects.

### 2.3 Working with Communities, Businesses and Partners

Our Field and Asset Performance Teams have been supporting colleagues in the Flood Resilience Team (FRT) on several community events over the summer. These events are important opportunities to not only tell people about the important work we do, but also make them aware of their flood risk and advise them on how to sign up for flood warnings and what to do during a flood event. We are also engaging with children during these events, ensuring they understand flood risk in their area and what to do.

**Billing Aquadrome Water Safety Day 2 Aug:** This event was in partnership with the site owner and local authority and saw our FRT officers visiting the caravans on site to talk with the residents. There were also activities for the children to show them what to put in an emergency bag, with a number of people signing up for flood warnings.

**Grimsby in Bloom 3 Aug:** this event was a great success with engagement with 70 children on the emergency bag, 24 new flood warnings sign ups and a large number informing on flood risk.

**Sutton on Sea:** The photo below was an event at Sutton-on-Sea attended by members of the South Ferriby Field Team. The stand included displays of the equipment Officers use and a demo on the risks around flood water.





Photo 16: South Ferriby Field Team at the Sutton-on-Sea community event

An important role for our Field and Incident Response Teams is investigating and, where needed, addressing issues reported through the National Incident Reporting System (NIRS) by members of the public. Our teams will review the issue raised and, if there is a risk of flooding as a result, carry out immediate works to mitigate or resolve the matter.

The photos below are two examples of works carried out because of the public, communities or partners reporting incidents to us. The first photos show removal of a tree on Carr Dyke near Billingham that was brought down during high winds. The second photos show a similar issue, but on Slade Brook in the Kettering area.



Photo 17: Removal of fallen tree on Carr Dyke near Billingham





Photos 18 & 19: Removal of tree branches on Slade Brook obstructing the flow of water

Our Teams also utilise opportunities to carry out on site training as part of both our routine and Incident Response role. This can range from putting up demountable defences to ensuring our Officers are safe when working in or near water. For example, the South Ferriby Field Team attended New Cut Drain in Grimsby to remove a large amount of vegetation in and around the channel. This work was used to train two new two members in incident response and allow Officers the opportunity to enact procedures when working near water.



Photos 20 & 21: Vegetation clearance and incident response training on the New Cut in Grimsby

KATE EDLIN, PETE RELLY and LEIGH EDLIN  
LNA Operations Managers

### 3.0 Incident Management Overview

#### 3.1 Local Resilience Forum (LRF)

Local resilience Forums (LRFs) are multi-agency partnerships made up of representatives from local public services, including the emergency services, local authorities, the NHS, the Environment Agency and other professional and voluntary organisations. These agencies are known as Category 1 & 2 Responders, as defined by the Civil Contingencies Act.

Flood Ex 2022: Flood Ex 22 had been postponed until November 14-18 due to the sad news on 8 September of the death of Her Majesty Queen Elizabeth II, as the funeral will be held on Monday 19 September.

FloodEx22 will be Lincolnshire's major LRF exercise for that year. Exercise planning activities are also progressing well with Northamptonshire and cross-boundary areas (including Cambridgeshire and Humber). LNA's Area Incident Team (AIT) are working with neighbouring AIT teams to facilitate the pan-area exercise, and we are working to update critical plans and procedures in readiness for the exercise so they can be tested, including producing a multi-agency Tactical Information Guide for coastal breaches in Lincolnshire.

We are also using the opportunity that FloodEx22 presents to improve our duty officers' overall expertise on tidal flood risk by preparing a variety of tidal flood workshops (more information in section 3.2) that will be rolled out throughout this year. This will maximise the training benefit by extending the opportunity beyond the duty officers that will be participating in the exercise as live players. So far, we have delivered sessions to more than 500 attendees leading to 750+ hours of training in total.

##### 3.1.1 Lincolnshire LRF update

Boston Barrier LRF Site Visit: In partnership with Lincolnshire County Council Emergency Planning team, we facilitated a site visit to the Boston barrier during one of the monthly test closures for a group of 10 LRF partners. Attendees included representatives from Boston Borough Council, East Lindsey District Council, South Holland District Council, and one of our military liaison officers, who were interested in learning more about how the barrier works to protect Boston from flooding.



Photo 1: Site visit to the Boston Barrier for LRF partners

The visit included a site walkover, observation of barrier closure, and a control building tour. Experts were on hand to give an overview of the scheme, explaining the barrier operational procedures, redundancies, and contingency plans. This was followed by a discussion around Coastal risk planning and Multi-Agency flood plans. The attendees found the trip extremely useful and thanked us for organising it.



Photo 2: Lincolnshire Coast Senior Officer Tour

On Thursday 8 September we co-hosted a trip to the East Coast with the Lincolnshire County Council Emergency Planning team for Senior Officers of some key LRF organisations including Lincs Police, Fire & Rescue Service (both Lincolnshire and Northamptonshire) and a local Councillor.

The aim was to increase understanding of the risk that East Coast Inundation poses to Lincolnshire, and what the strategic considerations and challenges are when planning, preparing, and responding to this risk. We visited a number of key sites along the coast, including Skegness, the caravan parks at Ingoldmells and Sutton-on-Sea.

The visit was well received by all attendees as it highlighted the significant multi agency challenges the LRF partners will face.

### 3.1.2 Humber LRF update

We continue to work with Humber LRF on flood risk matters and in preparation for FloodEx22. To further enhance our cross-boundary support for Humber LRF the East Midlands, Yorkshire and Lincolnshire & Northamptonshire AIT teams have recently initiated quarterly meetings to ensure our priority workloads align. Our first meeting is scheduled for October 2022.

### 3.1.3 Cambridgeshire and Peterborough LRF (CPLRF)

We continue to work the CPLRF on flood risk matters and in preparation for FloodEx22. We also attend their severe weather group twice a year.

## 3.2 Incident Management

**Breach Planning:** The AIT, Flood Resilience and Asset Performance teams are continuing to work collectively to develop a specific procedure for a coastal (Tidal) and fluvial (river) breach response.

Work on a Lower Witham (River) Breach Plan is paused to allow for Flood Ex to be prioritised. Lincs EPU and 2 IDBs are engaged with assessing the impact on assets. The final plan is set to give emergency responders an overview of potential areas, called flood cells, that could flood and the impact on the local community and businesses.

In addition, work on a coastal breach Tactical Information Guide for Lincs EPU and partners is also paused to allow for Flood Ex work to take priority. The guide will encourage partners to develop plans for reacting to



breaches and how the Environment Agency can support them and provide information should they occur along the coast.

**Cell Broadcasting - ‘Emergency Alerts’:** The UK Government is implementing a national alerting capability to deliver geo-targeted messages to citizens in an area affected by a severe threat or hazard.

This project is currently paused whilst Cabinet Office finalise details of the go-live date and the focus of the Alerts, which may now increase to other environmental incidents beyond just flood.

See the Gov.uk website for more details: [www.gov.uk/alerts](http://www.gov.uk/alerts).

**Flood Warning Expansion Project:** Following a review of our data and local knowledge, we have expanded eight of our Flood Alert areas to include high risk properties which weren’t previously in an alert area. Further reviews are taking place.

### 3.3 Preparation

**Tidal Training Focus 2022:** In the build-up to Flood Ex 2022 we are taking the opportunity to improve our tidal flood resilience by running a range of tidal focussed training sessions over the coming months. The 8 sessions below have been run for those participating, each based on a different element of our response to tidal flooding.

Session Title	What’s covered
Tidal risk in LNA: Introducing the basics	<ul style="list-style-type: none"> <li>• Introduction to Tidal risk in LNA</li> <li>• Key historic incidents</li> <li>• Primary and secondary impacts</li> <li>• The difference between overtopping and breaches</li> <li>• Unique challenges of tidal flooding</li> </ul>
Tidal Warning and Informing	<ul style="list-style-type: none"> <li>• LNA’s tidal Flood Warning Service</li> <li>• New Emergency Alerts technology</li> <li>• Multi-Agency Comms</li> <li>• Warning &amp; Informing key messages</li> </ul>
Tidal Flood Forecasting and Timeline of Key Decisions	<ul style="list-style-type: none"> <li>• What causes tidal flooding</li> <li>• How we forecast tidal flooding</li> <li>• Confidence and uncertainty</li> <li>• Timeline of key actions</li> <li>• Case study: Jan 2017 tidal surge</li> </ul>
Resourcing and ConOps	<ul style="list-style-type: none"> <li>• Timeline of escalation</li> <li>• ConOps structure and shift patterns</li> <li>• HS&amp;W considerations</li> <li>• Mutual Aid</li> <li>• Recovery phase</li> </ul>
LRFs & Multi-Agency Response	<ul style="list-style-type: none"> <li>• LRF Timeline of decisions</li> <li>• Spotlight on each LRF covering: <ul style="list-style-type: none"> <li>○ What’s at risk</li> <li>○ Cross-boundary comms</li> <li>○ LRF incident structure</li> <li>○ LRF key strategies &amp; plans</li> </ul> </li> <li>• Military Aid</li> </ul>
Mapping & Data	<ul style="list-style-type: none"> <li>• The importance of LNA tidal maps in incidents</li> <li>• Sharing data with partners</li> <li>• Data collection</li> <li>• Aerial photography</li> </ul>
Environmental impacts	<ul style="list-style-type: none"> <li>• Pollution impacts resulting from tidal flooding</li> <li>• COMAH sites at risk</li> </ul>
Tidal Procedures and Tactical options	<ul style="list-style-type: none"> <li>• Overview of newly revised tidal procedures</li> <li>• Tidal tactical options</li> <li>• Data Collection</li> </ul>

Figure 1: The range of tidal focussed training sessions

**Multi Agency Safety Day at Billing Aquadrome:** Colleagues from a variety of teams attended their first face to face engagement event in a number of years (Covid19) at Billing Aquadrome.

We worked with a range of Local Resilience Forum Partners to provide multi agency safety messages to residents and holiday makers at the Aquadrome, which we know from the 23 and 24 December 2020 can flood given its location in the flood plain. Indeed the 2020 evacuation of the park was the second time a full-scale evacuation of the park has occurred in the last decade or so as a result of flooding on the River Nene - a

devastating impact on those affected.

Working alongside the park management team were LRF partners including ourselves, Northants Fire and Rescue Service, Northants Search and Rescue and the Emergency Planning Unit.

We spoke to over 100 people and got new sign ups to our flood warning service as well as leaflet dropping a number of caravans - the park management team agreed to leaflet drop the remaining 1000 caravans! The kids had a fantastic time completing our Emergency Bag activity.



Photo 3: Emergency Bag activity

**Furlongs Festival Public Engagement:** Teams from the Environment Agency attended the festival in Sutton-On-Sea to engage with local residents. Members of the Flood Resilience Team, Operations and Asset Performance managed to speak to around 400 residents about their flood risk, how flood risk is managed and job opportunities. 50 children drew pictures of what they would put in their Emergency Bag if they had to leave their home and earned themselves a real bag to prepare at home. 48 people were signed up to receive flood warnings and 45 Flood Action guides were given out on how to prepare for flooding.

**Grimsby in Bloom Public Engagement:** The sun was out, and Grimsby was definitely blooming, at the Grimsby in Bloom event attended by the Flood Resilience Team and Operations Team colleagues. Staff spoke to around 250 residents about their flood risk, how flood risk is managed and job opportunities. Our flood tank of underwater risks and dangers was put into use for the first time. 70 children outlined what they would put in their Emergency Bag. We then gave them a real one - made from recycled plastic bottles of course! - along with certificate, flood game and my family flood plan. 24 people signed up to get flood warnings, 3 had their contact details updated, 9 were already signed up and 17 people checked their risk but were outside the flood risk area. 1.073 people saw our tweet on their timelines.



Photo 5: Grimsby in Bloom event attendance

### 3.4 Incidents and Emergency Response

**Short Ferry 15072022:** Increased water demand throughout the Witham and Ancholme catchments resulted in an elevated requirement for water transfer via pumping operations at Short Ferry. This high level of pumping reduced river levels which combined with the amount of weed in the system blocked the weed screen creating a temporary cessation to our ability to pump. We worked closely with partners, including Anglian Water (AWS), as this temporarily impacted their ability to abstract water for potable water supplies. A weed screen repair was carried out and the high voltage power supply restored.

**Kettering, Spalding and Market Rasen Surface Water Flooding:** We are aware of several surface water flooding incidents during August. These occurred as a result of intense rainfall after a prolonged period of dry weather. We expect to see further incidents like this as the dry conditions lead to rapid runoff when there is intense rainfall as the ground does not absorb the rainfall.

During these incidents, the local main rivers had plenty of capacity to accept the surface water had it been able to reach the rivers – typically the drainage networks running to main river are overwhelmed i.e. the water simply can't get into main river before there is surface water flooding and property flooding.

We continue to support the Lead Local Flood Authorities, who lead of surface water flooding matters, with any follow-on work that they need to undertake e.g. Section 19 Flood Investigations.

We have also responded to correspondence about these incidents with those communities affected and with Members of Parliament.

**Look North Drone Use:** On August 11th BBC Look North was out with Niamh Connolly from Land and Water and EM drone pilots, Kim Mynard and Michael Fallon, as they used the drone to identify active abstractors for the first time. Interviews with Yvonne Daly and Jo Gass took place and were shared in a number of broadcasts.

As we are in Drought status it is vitally important, we make sure all abstractions are permitted are operating within their permit conditions. We used the drone to help identify active abstractions, which we can then check against permits. Any illegal abstractors can then be identified, and appropriate enforcement action taken.

The drone can see 2km in each direction and zoom right in, so it makes it much more efficient than only using staff out on the ground. There is also huge potential in using thermal imaging to quickly identify where water is or has been used.

This is a great example of joint working and making the most of our resources and new technology available. Thank you to all those involved.



Photo 6: Look North and drone use

**Drought Status 12082022:** Lincolnshire and Northamptonshire Area moved to drought status along with 7 other EA areas on the 12 August. LNA area took this step-in response to the environmental and agricultural pressures across the county. Lincolnshire and Northamptonshire area has had below average rainfall since the start of the year and above average temperatures. There is acute pressure on the water environment, ecology, agriculture and navigation.

We have therefore struggled to maintain normal retention levels in several of our lowland rivers in the Fens including the River Nene, Welland and Glen. We have issued over 40 notifications requesting licence holders to stop abstracting. No Section 57 restrictions have been imposed but we have asked for some voluntary restrictions. Water has been restricted from the River Nene to the Middle Level (in East Anglia) resulting in abstraction cessation for the area.

We scaled our response, utilising our ConOps structure and are taking the actions set out in our Drought Plan, including undertaking spray irrigation patrols, ecological sampling of key drought monitoring sites and operating our EA transfer/augmentation schemes, with Trent-Witham transfer on track to have highest amount pumped.

We require 150% long term average rainfall throughout the winter to return to 'normal' however current forecasts are for 60 – 80%.

**Islip Lock Failure 28/08/2022:** A mechanical failure occurred at Islip Lock on the River Nene, Northamptonshire. Boats are unable to move up or down stream until a repair had taken place. A navigation closure notice was issued advising users of the river. The repair was completed, and the lock reopened.

**South Forty Foot and Grand Sluice Fish Kills 31/08/2022:** A significant fish kill occurred on the South Forty Foot, resulting in the death of tens of thousands of fish. Our Duty and Fisheries staff reacted quickly and deployed chemical aeration equipment to increase the levels of dissolved oxygen in the watercourse and over a four day period the oxygen levels recovered significantly dramatically, supporting the remaining fish stocks.

We also responded to reports of eels struggling and dying at Grand Sluice as a result of the significant

amounts of weed that was blocking the river and the low dissolved oxygen levels. Whilst there was limited action we could take, we liaised with the Canals and Rivers Trust (who are lead authority on the River Witham) who were able to take action to move some of the weed to ameliorate the situation.

**Whiston Lock Failure 31/0/82022:** A mechanical failure occurred at Whiston Lock on the River Nene resulting in boats being unable to move up or downstream until repairs had taken place. A navigation closure notice was issued advising users of the river of the closure, until such time as the repairs could be completed.

**BEN THORNELY**  
**Area Flood Risk Manager**