

Anglian (Northern) Regional Flood & Coastal Committee

Friday April 5 2019 at 11.30am

Boardroom, Kingfisher House, Goldhay Way, Orton Goldhay, Peterborough, PE25ZR



Local Resilience Forum Discussion Training Partnerships
Future Focused Sharing Skills & Knowledge Efficiencies and Risks RMA's Communication
Fens Flood Risk Management Shoreline Management Plans
Surface and Groundwater Flooding Environment Agency Collaboration Local Choices
FCERM 6 Year Capital Programme 2015 – 2021
Protecting Incident Management Debate Natural Flood Management Defra
Communities Asset Maintenance Local Levy Funded Projects
Public Sector Cooperation Agreements Capital and Revenue Expenditure IDB's Long Term Strategy
Catchment Management Households better protected
Community Engagement Local Authorities Opportunities Innovation



We are the Environment Agency. We protect and improve the environment and make it **a better place** for people and wildlife.

We operate at the place where environmental change has its greatest impact on people's lives. We reduce the risks to people and properties from flooding; make sure there is enough water for people and wildlife; protect and improve air, land and water quality and apply the environmental standards within which industry can operate.

Acting to reduce climate change and helping people and wildlife adapt to its consequences are at the heart of all that we do.

We cannot do this alone. We work closely with a wide range of partners including government, business, local authorities, other agencies, civil society groups and the communities we serve.

Published by:

Environment Agency
Kingfisher House
Goldhay Way, Orton Goldhay,
Peterborough PE2 5ZR

Tel: 03708 506506
Email: enquiries@environment-agency.gov.uk
www.gov.uk/government/organisations/environment-agency

© Environment Agency 2011

All rights reserved. This document may be reproduced with prior permission of the Environment Agency.

Members are reminded of the RFCC purposes, and the expectations of RFCCs based on the statutory functions in the 2010 Flood and Water Management Act, and the 2011 Regulations.

Statutory Functions and the Role of the RFCC

Section 23 of the Flood and Water Management Act 2010 requires the Environment Agency (the Agency) to:

- consult with each RFCC about the way it proposes to carry out its flood and coastal erosion risk management functions in the Committee's region [s23(1)(a)].
- take into account representations made by the Committee about the exercise of its flood and coastal erosion risk management functions in the Committee's region [s23(1)(b)].
- obtain the consent of the RFCC before the Agency can implement its regional programme for the Committee's region[s23(2)].
- obtain the consent of the RFCC before the Agency can issue a levy under Section 17 of the Act [s23(3)].

RFCC Purposes

The RFCC brings together members appointed by Lead Local Flood Authorities (LLFAs) and independent members with relevant experience:

- ⇒ to ensure there are coherent plans for identifying, communicating and managing flood and coastal erosion risks across catchments and shorelines;
- ⇒ to promote efficient, targeted and risk-based investment in flood and coastal erosion risk management that optimises value for money and benefits to local communities;
- ⇒ to provide a link between the Environment Agency, LLFAs, other risk management authorities and other relevant bodies, to engender mutual understanding of flood and coastal erosion risks in its area.

Expectations of RFCCs

Defra advises that the RFCC will be expected to:

- ⇒ engage constructively with, and offer advice to, the Agency, having developed its own view as to the flood and coastal erosion risk management needs within its region informed by local knowledge, contacts with other risk management authorities and engagement with risk management planning.

Regulations: Holding Office

19. – (3) The conditions for removal from office are –

(d) the member has been absent from meetings of the Committee for a period of 6 consecutive months without the approval of the Committee.

Agenda

Friday 5 April 2019

Venue: Boardroom, Kingfisher House, Goldhay Way, Peterborough PE2 5ZR

Time: 11.30 to ~ 13.00 (lunch included)

WebEx Details:

Meeting Number – 704 075 373

Meeting Password – 5april2019

Meeting Link - <https://vgeweb.webex.com/vgeweb/j.php?MTID=m5a7e49ef1d5005f7d0b5467799a6626f>

Telecom Details: Call-in Number – 08000 730694

Conference Code – 8831047879

EP - Eddy Poll; NR - Norman Robinson; DC - Deborah Campbell; BT – Ben Thornely; MB – Mark Bowlit; PR – Pete Reilly; GS – Guy Szomi; JG – Jonathan Glerum

		Lead	Page No
1.	Welcome and housekeeping	EP	
2.	Apologies for absence, greetings to visitors	EP	
3.	Declarations of members' interests	EP	
4.	Minutes of the meeting held on 18 January 2019	EP	1
5.	Matters arising	EP	
6.	Chair's announcements	EP	
7.	Environment Agency announcements (Inc. an update on EU Exit)	NR	
8.	Members' feedback: relevant meetings & events	All	
For Approval			
9.	Change to Shoreline Management Plan, Policy Unit P – Bulldog Bank (NFCC 19/09)	DC	21
For Advice			
10.	FCERM Programming: Current in-year position (NFCC 19/10)	MB	25
11.	Anglian (Northern) RFCC Capital Programme (NFCC 19/11)	BT/DC	39
12.	Anglian (Northern) RFCC Revenue Programme (NFCC 19/12)	PR/GS	63
13.	Refreshing the Capital and Revenue Programmes (NFCC 19/13)	MB	71
Committee Administration			
14.	Forward Look (NFCC 19/15)	All	87
15.	Any Other Business	All	
Date of Next Meeting			
16.	Friday 12 July 2019, Boardroom, Kingfisher House, Peterborough		

Information Papers
Incident Management in Lincolnshire and Northamptonshire (INF 04)
Humber Strategy and Programme Update (INF 05)
RFCC Chairs Update Paper (INF 06)
Strategic working with water companies: Price Review 2019 (PR19) & drainage and wastewater management plans (DWMPs) (INF 07)

If you are experiencing difficulties in getting to the meeting on the day or have to give last minute apologies, please call 0208 474 7929 to leave a message which will be passed on to a member of staff at the meeting.

Members are reminded that papers are public documents so can be recycled without the need for shredding. If no local recycling facilities exist members/observers can return or leave papers at meetings for recycling.

Minutes

Anglian (Northern) Regional Flood & Coastal Committee (RFCC)

Minutes of the Anglian (Northern) RFCC held on 18 January 2019, Boardroom, Kingfisher House, Goldhay Way, Peterborough, PE2 5ZR

Present:

Edward Poll	Chairman
Cllr Ron Allcock	North Lincolnshire Council
Cllr Tom Ashton	Lincolnshire County Council
Cllr Edward Baines	Rutland County Council
Ian Benn	Environment Agency Appointee
Cllr Ian Fleetwood	Lincolnshire County Council
Kathryn Hardcastle	Environment Agency Appointee
Caroline Kariuki	Environment Agency Appointee
Paul Learoyd	Environment Agency Appointee (Conservation)
Cllr Daniel McNally	Lincolnshire County Council
Cllr Winston Strachan	Northamptonshire County Council
Richard Thomas	Environment Agency Appointee (Coastal)
Steven Trehwella	Environment Agency Appointee
Ruth Burnham	Northamptonshire County Council
Malcolm Ball	Northamptonshire County Council

In Attendance:

Norman Robinson	Area Director
Deborah Campbell	Coastal Flood Risk Manager
Mark Bowlit	FCRM Programme Team Leader
Lianne Chamberlain	RFCC Secretariat Officer
Abigail Jackson	Asset Performance Officer
Pete Reilly	Operations Manager – Lincolnshire
Matt Latham	Environment Programme Manager
Laura Hopton	Humber Engagement Manager
Adam Robinson	Boston Barrier Manager
Martin Morrell	Local Delivery Lead, Northamptonshire

Observers:

David Hickman	Lincolnshire County Council
Peter Bateson	Witham 4 th IDB
Richard Whelan	Peterborough District Council
Nicola McGarry	Grant Applications Manager
Kerry Rhodes	Anglian Water Officer
Ewan Larcombe	Member of the Public

1. Apologies for Absence, Greetings to Visitors

- 1.1. Apologies for absence were received from: Cllr Pinder Chauhan (Northamptonshire County Council), Cllr Colin Davie (Lincolnshire County Council), Jonathan Glerum (Environment Agency Appointee), Cllr Peter Hiller (Peterborough County Council), Mark Leggott (Environment Agency Appointee), Cllr Christine Radford (Leicestershire County Council), Cllr Judith Shephard (Northamptonshire County Council), and Ben Thornely (FCRM Manager).
- 1.2. The Chairman welcomed Ruth Burnham (voting right for Cllr Shephard), Malcolm Ball (voting right for Cllr Chauhan), Caroline Kariuki (new Environment Agency Appointee), and Nicola McGarry (IDB Grant Applications Manager). The Chairman welcomed all other staff and visitors in attendance.
- 1.3. The Chairman noted that Cllr Edward Baines would hold the voting right for Cllr Radford in her absence.

2. Declarations of Members' Interests

- 2.1. The Chairman reminded those Committee Members that had not returned their Declaration of Interest forms for 2018/19 to do so as soon as possible. All previously declared interests were carried forward.

3. Minutes of the meeting held on 12 October 2018

- 3.1. The Minutes of the meeting were approved as an accurate record of the meeting held on 12 October 2018 with no amendments.

4. Matters Arising

- 4.1. None.

5. Chairman's Announcements

- 5.1. The Chairman attended the quarterly meeting 'Regional Flood and Coastal Committee's Chairs' in December 2018. The recent Climate Change Report from the Committee on Climate Change (CCC) was discussed, including the coastal issues highlighted therein that were deemed 'unaffordable' to defend. This included the Saltfleet to Gibraltar Point (SF2GP) coastline, which the Chairman noted that he does not agree with this, underlining that the Lincolnshire coastline has a strong benefit to cost ratio.
- 5.2. Deborah Campbell advised that the Environment Agency is taking a strong view on this conclusion in the report, noting that the finding is incorrect. The review of the SF2GP Strategy shows that is achievable and affordable, with a good business case for investment along the coast. Officers developed strong lines in response to any queries about this, but to date there has been no media interest.

- 5.3. In addition to discussion on the above report, the Chairman also noted that he felt there was a suggestion during the meeting that RFCCs and other organisations were being lined up for less Flood and Coastal Risk Management (FCRM) work along the coast, leaving some areas with a reduced standard of defence. The general view was that only properties of a certain value are worth defending, which the Chairman disagreed with and stated that everyone's home is important.
- 5.4. The Chairman also attended the Lincolnshire Flood Risk and Water Management (FRWM) Strategy Group quarterly meeting on Friday 11 January 2019. The Chairman noted that since Norman Robinson has taken over as Chair of this group it has vastly improved, and it is producing a good partnership approach to work in the county.

6. Environment Agency Announcements

- 6.1. Norman Robinson, Area Director, advised that a Humber visit for the Committee is being planned for March 2019. If anyone is interested in attending then please give your name to RFCC Secretariat. It was also advised that there has been some interest in the options for the Humber Strategy Review, and any lines to take will be shared with members when needed.
- 6.2. **Action**
Any Committee Member interested in this trip to give their name to the RFCC Secretariat.
- 6.3. Alison Baptiste has now moved to the Cabinet Office, and Julie Foley has been appointed as Director for FCRM Strategy & Investment. She was previously Area Director for Cambridgeshire and Bedfordshire Area, and many congratulations were extended to her.
- 6.4. The Committee were asked to note the 'Variation of Anglian (Northern) RFCC Constitution' information paper. The Committee were advised to be aware of the changes happening to Northamptonshire County Council and the likely change to two Unitary Authorities in the next 2 years. This may impact the make-up of the RFCC, and members would be kept up to date on progress.
- 6.5. The Oxford to Cambridgeshire Corridor (OxCam) is being watched with interest by many organisations involved. This is a significant strategy in terms of growth and development for the country, and does include the southern end of this Committees area. There is a specific Flood Management meeting on 13 March 2019, which members may wish to attend. The aim is to work with leaders to make sure IDB's in particular are in this. Ben Thornely is the Environment Agency point of contact for this, and will provide updates to the Committee as and when required.
- 6.6. **Action**
Secretariat to share further information on this event with members.

- 6.7. The National FCERM Strategy consultation has been delayed until after the 29 March 2019, for a variety of reasons. This may have some impact on adoption of outcomes of the Strategy review. However, there is an understanding of what the expected changes will be allowing local areas to prepare for changes to local strategies.
- 6.8. The Committee were advised that the Lincolnshire FRWM Strategy Partnership are holding a workshop on 22 January 2019 at the Petwood Hotel in Woodall Spa to review the Terms of Reference and strategic aim of the group.

7. Member's Feedback

- 7.1. Ms Hardcastle informed the Committee of the Water Management workshop held yesterday (Thursday 17 January 2019), and thanked the Secretariat and Members for sharing the advertisement flyer. 55 people attended, with a good mix of stakeholders. It was very well received, with a variety of presentations around flood procedures and flood management. This includes support for a proposed Urban Water Management Group, which will be taken forward in the coming months.
- 7.2. Mr Trehwella extended a thank you on behalf of the Committee to Adam Robinson for a recent guided tour around the Boston Barrier site. He noted in particular how well presented and run the site was, in particular the great effort to reduce sound to neighbours.
- 7.3. The Boston barrier project tested the National Strategy and some of the work will be useful to consider in regards to the Humber Strategy.
- 7.4. Mr Trehwella also thanked Mr Learoyd for the event held at the Gibraltar Point Café, and the new facilities there. He also recommended to the Committee a book called 'Lines across Lincolnshire' by Jon Fox. The important message on sustainability is that if areas across Lincolnshire have been sustainable since medieval times, then why can we not continue to maintain it now.
- 7.5. Mr Thomas advised that he had attended the North East Coastal Group meeting in October 2018. There had original been an item on the report on the Shoreline Management Plan's (SMP) refresh, but nothing was available at the time. There was a paper issued on the 'Coastal Overview', which noted that the first stage of the refresh would be looked at in January, but it has gone quiet. There is supposedly £1 million available for the refresh, with £50k for each SMP. However, the view from those 'on the ground' is that there is no need for this funding in some areas, a need for more funding in others, and no clarity on what it will be used for or when it will be available. Officers agreed with Mr Thomas and noted that nothing further had come out to the Environment Agency.

Mr Thomas stated that on 8 – 10 May, the annual Coastal Practitioners Conference is being held in Lincolnshire. It is run by the Environment Agency and attended by coastal engineers, local authorities, RFCC members etc. and covers England and Wales. The format of this conference is not to duplicate other events such as the

Flood & Coast Conference, but to provide a brief seminar on various local issues surrounding the place where it is hosted, as well as site visits. The site visit proposed include the beach renourishment along the coast, the Boston Barrier Scheme and Black Sluice Pumping Station, but this is to be confirmed. The numbers are limited to 140 places, therefore members were advised that if they are invited and cannot attend, please inform the events team to allow the place to be reallocated. Mr Thomas seconded Mr Trehwella's earlier point about the visit to the Boston Barrier, noting the previous site visit by RFCC members in September 2018 which included an informative visit to the Black Sluice Pumping Station.

- 7.6. Mr Bateson introduced Nicola McGarry, who is the new Grant Applications Manager. Nicola has a strong project management background and is currently going through training. She is being hosted by Black Sluice IDB.
- 7.7. Mr Bateson also informed the Committee of the FloodEx event, organised by ADA, which will be on the 27 and 28 of February at Peterborough Arena. It is free to attend, with trade stands and a range of seminars that he would be pleased to see everyone attend.
- 7.8. **Action**
Secretariat to share further information on the event.
- 7.9. Mr Hickman added to the previous SMP refresh discussion, that there are practical issues surrounding what an SMP refresh looks like. In particular, how to manage the ongoing changes to SMP policy (such as changes to the approval process) whilst avoiding the previous 'hoops'. For example, a relic sea bank which was heavily flooded in 2013, is realistically not going to achieve Grant in Aid funding but it is a frontline defence for important agricultural land. The question is whether this is included in the hold the line policy for the SMP, and Officers are exploring ways to amend the policy to find a practical way forward.
- 7.10. The Chairman noted that the above bank offered no flood protection to people and property, and the proposal was to reinstate to maintain a level of protection, to work through the procedure and learn from it as a potential 'hold the line' option. The Chairman stated that there is a place for Hold the Line, but it needs to be low risk and low consequence.
- 7.11. The Chairman added that there is a general criticism that SMP's were developed without any thought to the cost of the projects they are conserving. He noted that he doesn't believe this comment as relevant as, for this area, it was intentional to understand what was needed, and then adapt if not affordable considering the whole approach.
- 7.12. Cllr Allcock mentioned South Ferriby and stated that project is progressing well. The planning application has gone into the council. Some roads are likely to be closed and residents are concerned, but Cllr Allcock noted that he was sure there would be a way round this.

7.13. Cllr Allcock attended a recent public meeting about Winteringham, which was mainly concerning surface water flooding. A lot of the issues involve Anglian Water; however they did not attend the meeting. The Council will continue to look at measures to alleviate flooding for those properties.

7.14. Cllr Allcock noted that the Isle of Axholme Strategy is progressing well, particularly at Keadby pumping station. The pumping station maintains the water level for the area and is in need of significant investment. There is also work looking at all pumping stations around this area and how they may be rationalised to save some money and be more efficient in the future. There was a public meeting to discuss the proposals at Keadby, and updates on other works in the area.

8. 2019/20 FCRM Grant in Aid (GiA) Allocation for Capital and Revenue Funding (NFCC 19/01)

8.1. The paper was taken as read by the Committee. Officers advised that, as is usual at this time of year, the Committee are requested to consent the Capital, Revenue and local choices initiatives programmes. This was previously presented in October, with draft approval from the Committee. If any further information is required on specifics projects, Officers were happy to provide an update outside of the meeting.

8.2. Members were advised to note point 3.7 of the paper, which puts into context some National challenges. It can be seen that the National Capital Programme was oversubscribed in terms of what is affordable by 27%. The refresh this year has focused on projects that contribute towards the 300,000 homes better protected target. However, Anglian Northern RFCC has done well in terms of the allocation as noted in section 3.13. This shows that the overall Grant in Aid allocation of the indicative 6 year Programme is £197 million, with over 47,000 homes better protected. The current position is £9 million more than this time last year, allowing the South Ferriby and Lincoln Defences schemes to be brought forward. There is predicted to be a £4 million shortfall in the final two years, however Officers are looking to manage this through over-programme, should any surplus grant become available across the country. In addition, the Committee has previously endorsed £1 million of local levy to support progression.

8.3. Table 3 in Appendix A shows the national context, and of note is the final column which shows the size of the Capital Programme for each RFCC region. The Anglian Northern RFCC programme is the second largest in the country, and has the largest number of homes protected for 2019/20.

8.4. The third column in Table 4 of Appendix A gives the value of what each Committee bid during the refresh versus what has been allocated for the final 2 years of the current programme. For Anglian Northern RFCC, £4 million less than asked for has been allocated, but in percentage terms this is still the best settlement in the country and puts the Committee in a favourable position.

- 8.5. Officers noted point 7.5 of the paper in relation the Revenue Programme. With £10m of GiA allocated, plus the additional local funding allocated previously by Committee, this equates to a £13.4m revenue programme. This is £0.5m more than the current year, and ensures that all cost beneficial work will be carried out. Officers also noted the programme of local choices initiatives in Appendix D.
- 8.6. Cllr Fleetwood noted that whilst over-programming is important, so is budgeting. He noted that Committee and Officers should continue to be reminded to look at how projects are costed and delivered, in particular where there is a large surplus of funding due to the risk added on.
- 8.7. Mr Thomas agreed that this was the best settlement we could have achieved compared to others, and shared congratulations with Officers for achieving this result. He also would be interested to know why this area did so well.
- 8.8. The Chairman noted the positive outcome. Officers advised that the strong funding allocation is a result of the evidence and how it is presented. In addition, the number of homes at risk also helps to secure GiA under current Partnership Funding arrangements and allocation principles focussed on homes better protected.
- 8.9. Mr Trehwella directed the Committee to Table 2 on Page 27 and enquired as to what the retained services are.
- 8.10. **Action**
Officers to find out the Retained Services as above and to feedback to Mr Trehwella.
- 8.11. **Post Meeting Resolution**
The 'Retained Services' comprise a number of teams across Operations, the Directorates and Retained Corporate Services that are fully or partly funded from FCRM GiA revenue. They include teams in Regulation Monitoring and Customer; Estates; Health Safety and Wellbeing; Environment & Business Directorate; FCRM Directorate - Digital and Skills, and Governance & Engagement.
- 8.12. Mr Hickman asked the Committee to compare Tables A1 and A3, noting the impact on Local Authorities due to deferral. Mr Hickman stated that he does understand the reasons, but it also does impact on local resources when GiA is moved around nationally. Some projects or plans that Local Authorities promise get delayed when GiA is moved locally as a result of national changes. For this Committee, it is not a significant overall impact this time, but for other areas it will be difficult to plan work and manage the expectation. However, the positive approach to managing this situation locally was noted.
- 8.13. Mr Robinson noted that the national changes with GiA income, such as this year's focus on 300,000 homes better protected, does create local tension. This Committee has avoid significant impacts, and this is a testament to the strong partnership relationship the Environment Agency has with other Risk Management

Authorities. Whilst the changes nationally are late on in the programme, Officers were already working with RMAs to be prepared for the risk etc. as much as possible.

- 8.14. GiA allocation, in terms of revenue, is one of the biggest challenges with the Corporate Spending Review ongoing. The current position is that the programme is well funded and managed, but if there is a move back to an annual settlement, this could be very different. The Government needs to be fully aware of the benefits of a long term revenue settlement to allow that consistency and certainty.
- 8.15. Mr Bateson added that it is particularly important for PSCA work to assure long term settlements. This allows IDBs to have the resource and plant available, and the success of PSCAs to date should be used as evidence to Government. The Chairman agreed and asked members to, where possible, influence this agenda.

8.16. Resolution

- **The Committee consented the FCRM Grant in Aid Capital Programme, based on the indicative allocations for national FCRM Grant in Aid for 2019/20.**
- **The Committee consented the FCRM Grant in Aid Revenue Maintenance Programme, based on the indicative allocations for national FCRM Grant in Aid for 2019/20.**
- **The Committee consented the programme of levy funded local choices initiatives for 2019/20.**

9. Local Funding 2019/20 (NFCC 19/02)

- 9.1. Officers took the paper as read, noting the change in the paper to not present the detailed figures associated with various levy options. The Chairman highlighted, as previously discussed at Committee, the situation of Northamptonshire County Council finances, and the decision by all Council representatives to not enforce a statutory levy rise on an LLFA that cannot meet it.
- 9.2. The Chairman proposed a vote for a 0% increase in Local Levy and IDB Precepts. Cllr Fleetwood seconded this. There were no votes against this proposal and the motion was carried.

9.3. Resolution

- **The Committee recommended that the main board of the Environment Agency approve the levying of the amounts as approved by the Local Authority Members of the Committee, on the relevant Local Authorities for the year ending 31 March 2020.**
- **The Committee approved that the Environment Agency (Lincolnshire & Northamptonshire Area), continues to raise General Drainage Charges and IDB Precepts for the year ending 31 March 2020.**

- **The Committee determined and approved the precepts on Internal Drainage Boards for the year ending 31 March 2020, representing no change.**
- **The Committee approved that Precepts be paid by Internal Drainage Boards by two equal, as near as may be, instalments, on or before 31 May 2019 and 30 November 2019.**
- **The Local Authority members of the Committee voted for a 0% increase to the Local Levy, for the year ending 31 March 2020.**
- **The Local Authority members of the Committee approved that Local Authorities pay the levies by four equal, as near as may be, instalments, on or before 1 May 2019, 1 July 2019, 1 October 2019 and 1 January 2020.**

10. Drainage and Waste Water Management Plans

- 10.1. Kerry Rhodes from Anglian Water gave a presentation informing the Committee of the new Water UK Drainage and Waste Water Management Plan's (DWMP). Anglian Water are currently engaging stakeholders to gain interest in the topic, before moving onto more detailed partnership involvement.
- 10.2. The pressures of rapid changes in the water industry, policy, economy etc. means that there is a need for adaptive plans. There are more houses being built and there for an increase in demand for water. There has been a good steer from Ofwat and the Defra 25 Year Plan, which sees the importance of a long term resilience for water resources. The DWMP is not a regulatory document yet, but the ambition is for it to be that tool.
- 10.3. Anglian Water have produced their first water recycling long term plan (WRLTP), focusing on growth investment. The aim is to use it to influence the external market, encouraging development in areas where the infrastructure is there. In addition to this, it recognises the important of Sustainable Urban Drainage Systems (SuDS) within catchments, and how SuDS away from developments can help reduce flows across the catchment and alleviate pressures, as noted in the Water Industry National Environment Programme (WINEP). It complements the Water Resource Management Plan, and recognises the need for an annual review. The WRLTP was developed before the DWMP framework was produced, and provides an effective platform to roll out implementation of the DWMP.
- 10.4. DWMPs were first developed by Water UK, and the aim is for all WaSCs to publish them by Summer 2022 and inform intervention proposals for 2025 onwards. Their development involved key partners including water companies, Natural England and ADEPT. Below this sits and implementation group which already recognises areas of the framework that need clarity and improvement to embed a consistent and effective process. The aim is to report nationally on risks, with mapping to show where there are opportunities to work together.
- 10.5. The DWMPs aim to find a balance between the different systems such as waste water recycling and interconnecting drainage systems. There are 6 stage to the

framework from Strategic Context up too Programme Appraisal. Anglian Water have over 1100 catchments in their area, and using the stages to prioritise those will be essential. This will also be done in partnership, collectively modelling to form a whole picture.

- 10.6. It will also be important to use existing groups and structures to take this work forward. The stakeholders involved are wide ranging from RMAs to NGOs and individual customers. The DWMPs aim to be an effective planning tool, highlight partnership opportunities, and increase confidence in the industry. Committee were asked to note the diagram showing the framework management structure.
- 10.7. In terms of the timeline, Anglian Water are on track to publish by 2022, which will then be followed by a consultation to feed into business planning. The DWMP and Water Resource Management Plan timelines also align, which is a positive for engagement.
- 10.8. **Action**
Secretariat to share slides with Committee members.
- 10.9. Mr Thomas asked whether any allowances had been made for climate change. Ms Rhodes responded that climate change does feature heavily in the modelling scenarios. Anglian Water are keeping up-to-date with any new guidance that comes in, using the most up to date predictions and data, and climate change has also been recorded as an issue on the Implementation Group log.
- 10.10. Mr Hickman noted that from the perspective of Local Authorities, he would encourage Anglian Water to use existing local networks and would caution them on the reliance on using River Basins scale as the catchment basis. The Local Authority's don't really use them and he did not think any extra benefit would be gained. Ms Rhodes responded that they hadn't yet decided on their level 2 strategy, and she would take this feedback to the group for how to deliver the plan.
- 10.11. Officers noted that the River Basin Management Plans which implement the Water Framework Directive, also struggled to get traction, though these boundaries were a statutory requirement in this case. It was added that this is especially difficult for securing Partnership Funding.
- 10.12. Ms Rhodes noted that there would also be some cross-border working for Water Companies throughout the process to ensure nowhere is missed. For example, Anglian Water and Severn Trent Water.
- 10.13. Cllr Allcock stated that North Lincolnshire Council currently have a very good relationship with Anglian Water and Severn Trent, which is good as there is an overlap between the sewage and water companies. During the last couple of years, the council has worked together with both water companies a lot more (mainly regarding surface water). However, from a planning perspective, Anglian Water always have to accept new development structures into the system, whether the system can treat it or not. In the future he would like there to be a statutory

consultation for big developments in overloaded systems, and water companies would be a statutory consultee in that process.

- 10.14. Mr Trehwella noted that we are a couple of years ahead of our equivalents, but the National Strategy is going through consultation now. It was questioned whether this would influence the work, and create a risk that new requirements could impact the drainage programme.
- 10.15. Ms Rhodes responded that yes, the timings haven't been the best and that the National Strategy has come a little late. It is important to make sure the DWMP is referred to in key documents now being developed or under already published, and Awareness needs to be increased when other engagement is underway.
- 10.16. Cllr Strachan noted that Anglian Water are extremely good at passing on costs to consumers. A cost for this work hasn't yet been mentioned, therefore an idea of the costs involvement and any impact on customers would be welcome.
- 10.17. Ms Rhodes commented that investment had been put into place in AMP 7, but the aim is to utilise routes already out there. As resource is a big requirement for engagement, Anglian Water want to use these existing groups and partnerships, rather than create new ones. There is a cost involved with the work, but they are hoping it will be offset by the benefits. Investment has been put in place for modelling and Anglian Water resource for that, but currently the investment impacts on AMP 8 are not known.
- 10.18. Mr Robinson noted that Anglian Water have a challenging asset management cycle this time with a large target for efficiencies. Because of those efficiency targets, this has resulted in only a 1% increase this year to current payments for customers.

10.19. Action

Secretariat to share links to the various plans mentioned.

11. Working with Natural Processes (and wider stakeholders) to Support FCERM Objectives (NFCC 19/03)

- 11.1. Officers thanked Mr Learoyd for his involvement with the producing paper, and highlighted a number of points of interest.
- 11.2. Section 3 of the paper outlines the need to be ambitious with natural processes and flood risk management, to support the FCRM Programmes, and ensure they are aligning and finding opportunities to integrate catchment thinking. Environment Programme Officers have been working with FCRM Programme Team and Local Delivery Leads to see where areas of work cross over, where resource can be shared etc. which will support funding opportunities and shared goals. This piece of work will also help learning, delivery and may inform future local choice proposals. An outcome of this item is to ask Committee to allow time at future meetings to discuss these proposals and projects in more detail.

- 11.3. The Chairman noted that Natural Flood Management (NFM) and better use of land, as both a preventative measure and a defensive measure, will become more important. The recent National Chairs meeting asked for innovative ideas for changing the way funding is allocated in, for example, Environmental Stewardship schemes, in particular how we can use that funding better. For example leaving untouched 'buffer strips' around the edge of fields creates not only a wildlife area, but a barrier to reduce silt and pollutants entering the watercourse. Receiving a payment for taking land out of production could help everyone to achieve more.
- 11.4. Mr Trehwella stated that it was very positive to see this work and noted that the requirement for net environmental gain and investment links well to the FCERM Programme, and principles of Natural Capital.
- 11.5. Mr Benn added his support for this great piece of work. There is a similar piece of work developing in Yorkshire, looking at heavily pumped catchments and natural Capital benefits alongside new measures.
- 11.6. Action:**
Officers to speak to Mr Benn outside of meeting regarding the similar work in Yorkshire.
- 11.7. Officers noted that in learning more, we can transfer this new knowledge to places that where this type of work is required. For example, in this area there are the Swaton and Wootton Brook NFM Schemes, and work along the Upper Nene, that can be showcases.
- 11.8. Mr Benn noted that people often don't understand how important water quality is, and that all RMAs and land managers etc. need to manage that water better. Water is often treated as an enemy, getting it out of a system to avoid flood risk, but it is now very important to learn how to store water, keep it clean, and use it in the right way. It is also necessary to work together to achieve this.
- 11.9. Mr Thomas mentioned that there are certain NFM initiatives, as noted in the paper, that are in fact very similar to other conventional flood risk management activities. Some of these NFM schemes cost more, but others cost less or nothing at all, it is only a change in agricultural practice. Mr Thomas suggested it would be good to have a list of all these types of projects, including those that do not cost any money but are producing benefits. It is worthwhile to consider all options of NFM, from paid schemes to engagement initiatives, training etc.
- 11.10. The Chairman and Committee supported the request to return to Committee, as and when necessary, to provide on update on progress with this piece of work and further information on the whole portfolio, including the cost and benefits.
- 11.11. Action**
Officers to present wider portfolio to Committee at a future meeting, including a wider list of options and initiatives with their costs and benefits.

12. FCERM Programming: current in-year position (NFCC 19/04)

- 12.1. The paper was taken as read by the Committee. Officers noted that this is the final chance to show the Committee where the programmes are expecting to land at the end of the financial year. Officers highlighted a number of points of specific interest in the paper, as follows.
- 12.2. Fig.1 shows that the Environment Agency Capital FCERM Programme is currently running at a forecast of £51 million, compared to a budget of £46 million. Whilst this is not a significant over programme locally, nationally there is a need to collectively manage this down to an affordable position. However in managing this forecast down, it is important that the 300,000 homes better protected target is not affected.
- 12.3. A revised target of £49m has been agreed. Officers noted that around £41 million of this spend is linked to schemes that better protect almost 47,000 homes by the end of March 2021. The other £8 million is for asset management activities. This means we will have taken on an additional £3m of budget since start of year.
- 12.4. Officers noted Figure 3, which shows the position for other RMAs. IDB's are running with a large over-programme, which is offset by an underspend by Local Authorities, primarily due to delays with East Halton. There is still a lot of Grant in Aid to claim (~£3m) and Officers encouraged all RMA's to claim these before the year end. Next year there is the deferred queue of schemes totalling £4 million waiting to get a place in the affordable programme. Every pound of underspend this year will add to this queue and increase affordability pressures next year.
- 12.5. Figure 4 shows the Revenue maintenance program, which is currently £600k over-programme. The steer from National is to manage this down and Operations Managers and Local Delivery Leads are looking into this with the least impact possible. This will primarily be through maintenance projects rather than routine work and is manageable.
- 12.6. Officers highlighted Section 6, regarding the efficiencies target. £3 million of efficiencies have been reached so far and in Q3 it is hoped another £5 million relating to the Boston Barrier will go through. If so, overall efficiencies realised will be £23 million since the start of this 6 year programme, meaning the full 6 year efficiency target will have been achieved. Officers also noted that the Committee has taken on around £26m of additional GiA to date, which means that for every pound saved, and equivalent amount has been reinvested to deliver more locally.
- 12.7. Focussing on Section 8, Officers informed the Committee that the programme is still on track to exceed its household's target, as well as delivering over 100km and 5 hectares of habitat on the Wrangle Sea Bank Scheme. This links into the integration work mentioned earlier and the future ambition is to identify more opportunities for river restoration and creation of habitat.
- 12.8. Section 10 covers the impact from savings in-year with the asset reconditioning ambition. There is a tough target of 98.48% for high consequence assets to be in

the required condition. Currently the forecast is 98.29%, though this equates to only 9 assets out of more than 3,000 that are below the required condition. This is still an improvement on last year, and overall this programme has been pulled back to affordable without any major impact on flood risk.

- 12.9. Cllr Ashton asked officers to explain the variance highlighted in Section 5, of the Boston Barrage/Barrier Works, in particular what are the large risks that may not materialise.
- 12.10. Officers responded the key risks are still there, but some have moved to next year. For example, there is still some risk around temporary turning circle arrangements for ships coming into the port. The project requires a temporary closure to the entrance to the port dock to construct the wet dock once the barrier is in place. Port vessels still need to be turned, and there needs to be a safe way to enable this.
- 12.11. Cllr Fleetwood noted that he would encourage more efficiencies for the future and more projects brought forward.
- 12.12. Mr Trehwella stated that the GiA investment in the current 6 year programme equates to £4100 per house. Nationally the figure is much higher than this and there is already a large amount of efficiency built into this Committee's programme compared to other areas.
- 12.13. Action**
Officers to look into this query and consider presenting a comparison to national figures in future papers.
- 12.14. Mr Robinson commented on KPI 962, which is the Asset Condition Performance KPI. This is getting increasingly difficult to improve on the percentage year on year, as asset degradation is a continuous rolling problem. The Environment Agency was recently ISO 55000 accredited and this will also influence the approach to managing asset condition in future.

13. Anglian Northern Revenue FCERM Programme (NFCC 19/05)

- 13.1. Officers took the paper as read by the Committee. Paragraph 1.1 highlights this year's budget of £13 million to maintain our assets. With regards to the KPI 962 condition target, this is a very tight target to hit and that it is squeezing up incrementally year on year. This year, for the first time, it has dropped into the Amber category; however this is the last area in the country to do so. Despite this, Officers will continue to push this target to meet the requirement, though there will be ongoing fluctuation over the next 2 years.
- 13.2. The current figure for how much of the routine maintenance programme is completed this year is 83%, with works to be completed by the end of March. In terms of intermittent works, point 4.3 highlights the project work related to this. There are 122 projects in total, around £7.2m of funding which is detailed in Figure

2. Detailed survey work as reduced the number of projects, which underlines the need for this initial assessment process before works begin.
- 13.3. Point 4.12 shows the addition of Capital Investment in the revenue programme, and vice versa that a revenue cost is recognised in capital schemes. There are examples of this in the paper.
- 13.4. Section 4.16 onwards details to the problem with the South Humber Bank after the 'Beast from the East' last year. Erosion damage caused a void under the concrete track and floodwall. A short term fix was first put in place, but now the longer term work has been carried out to fix this. Contractors have pumped out the void, and the holes injected with grout. It was a complex job, but this has restored the revetment on that bank.
- 13.5. Section 5 notes the Stanwick Sluices project proposal. Whilst Black Sluice Pumping Station (note update in Section 6) is a leading national example of the Effectiveness Initiative Programme, and the need to reassess the role of assets for flood risk, Stanwick Sluices is another project with similar aims. We no longer require this asset for flood risk management purposes and it is falling into disrepair. Due to it having no benefit for protecting people and property, it does not meet the criteria for GiA investment. The Environment Agency would not be able to justify repair of the sluice, but there is a role for the asset in managing water levels in the area for the surrounding nature preserve area. Officers are currently looking at the option of transferring the asset to the Local Authority permanently, and will return with an update to Committee in April for approval.
- 13.6. Officers noted the update on the Rationalising the Main River Network South Forty Foot Pilot Project in Section 7, which has now been completed. This was one of 5 pilot projects that aimed to de-main 5 low consequence watercourses in the catchment. Following a formal public notice period no objections were raised and the water courses were de-mained and transferred to Black Sluice IDB. This local project is a trail blazer in terms of how the Environment Agency is working with partners to achieve more locally, and showcases the local approach nationally.
- 13.7. The Chairman noted, from the examples given in the paper, that there are large quantities of silt being taken out of water courses, that shouldn't get into the water courses in the first place. Officers agreed, and noted again the good work of the Environment Programme team, and the opportunities to reduce the maintenance needs going forward.
- 13.8. Officers would like to present to the ANRFCC in the future about this work.
- 13.9. Action:**
RFCC Secretariat to add the above to the forward look.
- 13.10. Cllr Fleetwood noted that it is good to hear that the assets are being maintained, with a full programme. He commented that the Environment Agency does good work with IDB in some areas, and there was a need for this to continue. He added

that it would be good for organisations to plan forward to ensure flood resilience for all of the area is maintained as best as possible, utilising joint resource and expertise. In particular, is there a way to quantify the future effort required regarding funding and resource to allow that longer term planning? Officers responded by reiterating the unknowns of a long term settlement for revenue spend in the future, but agreed that the Environment Agency has a good long term relationships with IDB's already in place which will help mitigate that risk – PSCAs are a testament to this. There is still a risk though that it will return to annual settlements for revenue. Also, whilst there is still area to improve, such as along the borders of IDB boundaries, there is work ongoing to improve this.

13.11. Mr Benn noted the excellent working relationship with the Environment Agency, which has been built over several years. He made reference to the fact that initially, about 15 years ago, there was disagreement but now there is an excellent working relationship. Mr Benn went on to note that the current relationship is probably the best it has ever been.

13.12. Cllr Fleetwood added that he would be interested to know more about how the RMAs align not only resource, by plant equipment needs etc. to action problems, take forward projects and so on. In some cases maybe the IDB's have the best tools, but in others maybe the Environment Agency has the best tools.

13.13. Action

Officers to consider this partnership working as a case study for a future meeting, in particular related to resource and equipment investment.

13.14. Officers noted that some investment by IDB's has been realised thanks to the long term settlement this programme, and the value of this for all organisations. Whilst the Environment Agency cannot give cast iron guarantee, the risk has been reduced around investment needs for the future.

14. Anglian Northern Capital FCERM Programme (NFCC 19/06)

14.1. The paper was taken as read by the Committee. Officers have an update on the Salt Fleet to Gibraltar Point Strategy, noting the review has been back to Committee several times on the options to be considered. The intention was to go out for formal consultation before the local elections, but the Environment Agency is now engaging with Executive Directors about to open up a wider conversation with Defra and Treasury around the options that are being put forward. Some of these options would require significant investment in a short space of time, which is a real step change to the current annual re-nourishment scheme. The Environment Agency are having this conversation before it goes out to consultation, so it can ensure it goes forward with supported, viable options.

14.2. In the meantime the beach nourishment will continue, and if members want to see this work there may be an opportunity to visit the site in the next quarter. In addition, a paper can be brought back to Committee on the consultation options in the future.

- 14.3. The Haven Banks project will be completed alongside the Boston Barrier Scheme, which the Environment Agency is committed to delivery to a similar timescale. The enabling works for this project are almost completed, including environmental preparation works, with the last week of this on Monday 21 January 2019. The Business Case is due to go to approval in the next couple of weeks, and the team are working closely with the Boston Barrier team as there is some overlap. Officers are also continuing to work closely with the County Council as they are leading on the ESIF bid for the project.

15. Incident Management in Lincolnshire and Northamptonshire (NFCC 19/07)

- 15.1. The paper was taken by read by the Committee. Officers advised that there had been no incidents since the last Committee meeting, and this focus has been on preparing and training.
- 15.2. Officers drew the Committee's attention to Section 4.1 and the current position on Brexit which, as a Category 1 responder, the Environment Agency is closely involved with. It is expected that all strategic commands will open up too respond to Brexit, which will impact on resources for other incidents over the coming months. All authorities are working to manage this risk.
- 15.3. Officers also noted Brexit does highlight some risks with within the programme. For example, around carrying out the beach re-nourishment works and, the bigger risk, export and treatment of waste.
- 15.4. The Committee were advised that there will be a high Spring Tide on 22 March 2019. With the time of Brexit preparations, teams locally will be ensuring the area is prepared for any potential incidents.

16. Forward Look (NFCC 19/08)

- 16.1. The Committee noted the Forward Look for April 2019.
- 16.2. The Committee were reminded to give their names to the RFCC Secretariat if they were interested in the Humber tour, though a date has not yet been set for this.
- 16.3. The Committee noted that an item on Agriculture Policy Work would be added to the forward look for April 2019, and further information on the work being developed with Paul Learoyd as Conservation Member.
- 16.4. Mr Thomas requested that more information on the Salt Fleet to Gibraltar Point Strategy should be brought to Committee meetings, as there is a massive expenditure on this. Any outcome from the consultation would also be valuable to the Committee.
- 16.5. The Chairman asked Officers to provide an update on the Holdingham Mill Property Level Resilience project and wider Welland & Nene PLR works at the next meeting.

16.6. Action

RFCC Secretariat to add the above items to the Forward Look.

17. Any Other Business

17.1. None

18. Date of Next Meeting

Friday 5 April 2019, Boardroom, Kingfisher House, Peterborough, PE2 5ZR

Draft

Actions Log: 18 January 2019

Item	Action required	Who by?	Comments
6. Environment Agency Announcements	Committee Members interest in Humber visit to give their names to the RFCC Secretariat	All	Send reminder out with minutes
6. Environment Agency Announcements	OxCam - Secretariat to share further information on this event with members	Lianne Chamberlain	With minutes
7. Member's Feedback	FloodEx - Secretariat to share further information on this event with members	Lianne Chamberlain	With minutes (if sent out before FloodEx)
8. 2019/20 FCRM GiA Allocation for Capital and Revenue Funding	Officers to find out the retained services as stated in the paper and feedback to Mr Trehwella.	Mark Bowlt	Post Meeting Note included in minutes with response, as well as a response sent directly to Mr. Trehwella.
10. Drainage and Waste Water Management Plans	Secretariat to share slides with Committee Members	Lianne Chamberlain	With minutes
10. Drainage and Waste Water Management Plans	Secretariat to share links to the various plans mentioned	Lianne Chamberlain	With minutes

11. Working with Natural Processes to Support FECERM Objectives	Officers to speak to Mr Benn outside of meeting regarding the similar work in Yorkshire	Matt Latham	
11. Working with Natural Processes to Support FECERM Objectives	Officers to present wider portfolio to Committee at a future meeting, including a wider list of options and initiatives with their costs and benefits	Matt Latham	To be added to Forward Look
12. FCERM Programming: current in-year position	Officers to look into this query and consider presenting a comparison to national figures in future papers	Mark Bowlt	
13. Anglian Northern Revenue FECERM Programme	RFCC Secretariat to add EPT reducing maintenance needs going forward to forward look	Lianne Chamberlain	To be added to Forward Look
13. Anglian Northern Revenue FECERM Programme	Officers to consider this partnership working (IDB's and EA) as a case study for a future meeting, in particular related to resource and equipment investment		
16. Forward Look	RFCC Secretariat to add above items to forward look (Holdingham Mill Property Level Resilience and Wider Welland and Nene PLR works)	Lianne Chamberlain	To be added to Forward Look

ENVIRONMENT AGENCY LINCOLNSHIRE & NORTHAMPTONSHIRE AREA		Item No: 9	Report No: NFCC 19/09
Meeting:	ANGLIAN (NORTHERN) REGIONAL FLOOD AND COASTAL COMMITTEE (RFCC)	Subject:	CHANGE TO SHORELINE MANAGEMENT PLAN, POLICY UNIT P – BULLDOG BANK
Date:	5 April 2019	Officer Responsible:	Deborah Campbell (Coastal Area Flood Risk Manager)

RECOMMENDATIONS

- A. The committee is asked to approve the change to the Humber Estuary Coastal Authorities Group, Shoreline Management Plan (SMP) Policy Unit P at the location of Bulldog bank, Gibraltar Point, Skegness.

1. Introduction

- 1.1 In the tidal surge of December 2013, Bulldog bank, a 400m cross bank within a wide dune system, breached in five locations. The tidal surge was in excess of the 0.5% design tide and no residential or commercial buildings were flooded at this location as a result of these breaches. Bulldog Bank is shown within the Humber Estuary Coastal Authorities Group (HECAG) SMP in Policy Unit P Map.

2. Aim

- 2.1 In order to adapt to changing circumstances Shoreline Management Plans (SMPs) must be kept valid by updating them as necessary. There are various reasons which justify a change to an SMP, which includes 'a severe event has made an element of the existing SMP policy or action plan untenable'.
- 2.2 This case for change seeks approval to duplicate the Managed Realignment option in Epoch 3 (2055-2105) into Epoch 1 (present day-2025), whilst retaining the principle to sustain flood risk to people and properties at current levels.

3. Current Situation

- 3.1 In early 2014 repairs to uplift known low spots within the dune system were completed, under the recovery package, to ensure continuity of design tidal defence standard to the wider flood cell, while the future justification of Bulldog Bank was explored. This work was undertaken within the designated site, under licence from Natural England.
- 3.2 As part of the evidence for the proposed works in 2017/18 Lincs Wildlife Trust were the client for the Gibraltar Point Coastal Wetland Adaptation Study, which was conducted by HR Wallingford. This highlighted that more investigation was required to ensure a true reflection of any possible inundation was provided.
- 3.3 Further investigation concluded that hydraulic modelling outputs for the current day design tide, that has a 0.5% chance of occurring in any one year, show that the Bulldog Bank dune does not benefit residential properties. Water is shown to be migrating across the tidal floodplain, to a greater extent when compared to the scenario prior to Bulldog Banks failure.
- 3.4 The topography shows that for the short duration of overtopping, the existing residential properties will not be impacted. It is anticipated that the local watercourses and arable land

can accommodate these limited overland flows that are generated and it would be reasonable to have a proactive engagement plan in place for dissemination of information.

- 3.5 If further reassurances are required, then minor adjustments within the dunal system inside the golf course could be made to further limit the volumes of overtopping entering the tidal floodplain for this design tide scenario, which could be discussed with the golf club.

4. Business Needs

- 4.1 The justification to repair Bulldog Bank has been examined. The economic and benefits assessment do not support the case for Flood Risk Grant in Aid, as there are no residential properties (Outcome Measure 2) at risk and a small area of golf course.
- 4.2 Initial costings suggest that the repair or replacement cost associated with Bulldog Bank would be between £70k and £350k, depending on the material source; extent of repair or replacement; and any constraints associated with working within a designated site of National and International importance.

5. Benefits

- 5.1 There are benefits to this approach to the restoration of brackish habitat within the dune slack, behind the line of Bulldog Bank, this occurs within a designated site and Natural England are a partner in making this case for change. This early adaptation may also reduce, to some small degree, the future SMP risks of coastal squeeze associated with the current Policy 'Hold the Line' in this designated site.

6. Mitigation of Risk

- 6.1 The golf course is in discussion with Natural England about the construction of a new bank, which would fall within the designated site but on land owned by the golf course, where the golf course would be the sole beneficiary.
- 6.2 Hydraulic modelling has shown that a cross bank may be required in this area as sea levels rise; the SMP Policy Plan, as proposed, would support this future requirement as a further action to sustain current levels of flood risk into the future.

7. Conclusion/Recommendation

- 7.1 Move primary defence line to a strengthened Western dune.
- 7.2 This natural dune system is sheltered and has reasonable grass and vegetation cover. The northern end of this bank now forms a continuous line of defence. This option leaves the golf course to construct a new ecological bank along the southern boundary of their land or increase the height of the existing dunes within the golf course.
- 7.3 This is the recommended option to be used to update the HECAG SMP Policy Unit, as shown at Figure 1.

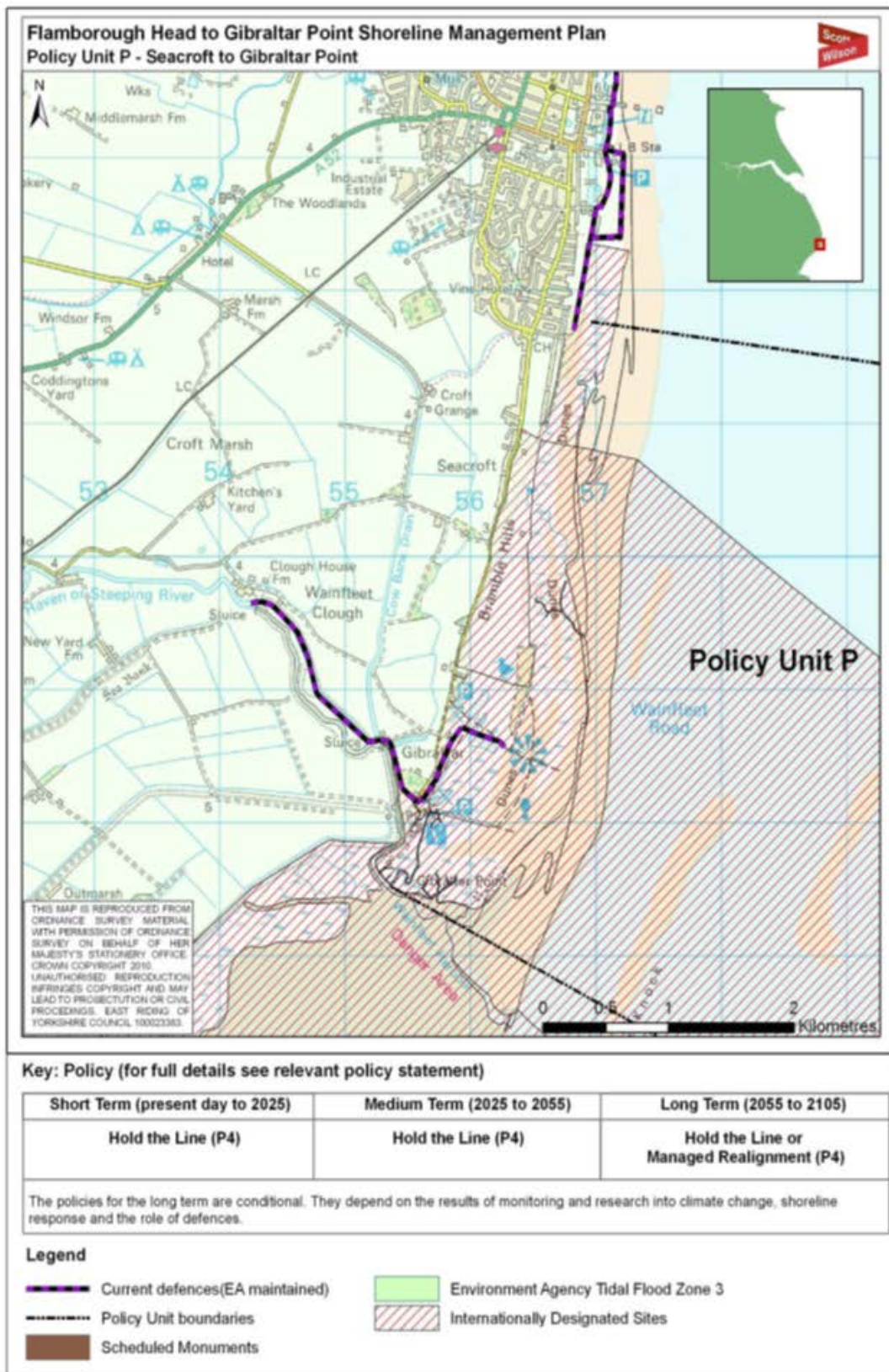


Figure 1. Flamborough Head to Gibraltar Point Shoreline Management Plan
 Policy Unit P – Seacroft to Gibraltar Point

DEBORAH CAMPBELL
 Coastal Area Flood Risk Manager

ENVIRONMENT AGENCY LINCOLNSHIRE & NORTHAMPTONSHIRE AREA		Item No: 10	Report No: NFCC 19/10
Meeting:	ANGLIAN (NORTHERN) REGIONAL FLOOD AND COASTAL COMMITTEE (RFCC)	Subject:	FLOOD & COASTAL EROSION RISK MANAGEMENT (FCRM) PROGRAMMING: CURRENT IN-YEAR POSITION
Date:	5 April 2019	Officer Responsible:	Mark Bowlit (FCRM Programme Team Leader)

RECOMMENDATIONS





The Committee are asked to:










- A. Note the current position and the year-end forecast out-turn for expenditure and delivery of outcomes.

1. Purpose of Report and Introduction

- 1.1 This report updates the committee on the current in-year capital and revenue programme position, comprising the latest information presented to the Area Delivery Programme Board on 25 February 2019 and 'live' updates on the EA capital position at the time of writing the paper.
- 1.2 Please refer to the '*Glossary of terms used in FCRM programming and financial management*' that is included in the members handbook.

2. Summary

Element	Report Section	Current Position	Mitigation	Level of Concern (LMH)
Grant-in-Aid Position – EA	3	<p>The current EA FCRM GiA Capital forecast is £0.9m (-2%) below our revised target of £49m (£2m above our start of year allocation).</p> <p>There is still a forecast over-spend nationally and Areas are required to reduce expenditure on activities that do not support the 300,000 homes better protected target.</p> <p>The GiA Revenue maintenance programme is forecasting to budget. However, there is forecast over-spend nationally.</p>	<p>We continue to work closely with national colleagues; our local ambition is to out-turn in line with the £49m target, if this can be accommodated nationally.</p> <p>We are working with national colleagues to explore ways of supporting the national position.</p>	 
Grant-in-Aid Position – IDB/LA		<p>The IDB/LA GiA Capital forecast is £3.8m (-49%) below budget. A large proportion of this relates to the East Halton scheme, which requires a wider funding package to be put in place in order to secure FCRM GiA.</p>	<p>The current under-spend in the IDB/LA programme is supporting the wider national capital affordability position, but slippage may increase affordability pressures in the next two years.</p>	
Local Funding Position	4	<p>Levy, GDC and IDBP is forecast to be delivered to budget. The Levy budget has been reduced in line with forecasts and the remainder put into balances for future years.</p>	<p>Accumulated Levy will be carried forward in balances to 2019-20</p>	

Programme Exceptions	5	<p>The main changes since the last meeting are a reduction on Boston Barrier, reductions in the IDB/LA programme, acceleration of schemes supporting the homes better protected target and slowing of some asset recondition work to support the national affordability position.</p>	The programme will continue to be monitored and opportunities sought to mitigate the limited risk remaining in the programme.	
Efficiency Savings	6	<p>The capital target is £6.1m (£5.4m EA (12%); £0.7m IDB/LA (10%).</p> <p>Our revenue target is set at £0.9m (10%).</p> <p>By Q3 we had delivered £6.7m (+10%) of the Capital target and expect to realise some £8.1m of efficiencies by year end (+36%).</p> <p>Our revenue target has been set at £0.9m and at Q3 we had delivered £0.3m (+33%); we expect to achieve the target by year end.</p>	We are currently collating Q4 efficiency submissions; progress will be reported at future meetings.	
Financial Risk	6	There is limited financial risk remaining in our programmes.	We will continue to closely monitor this and manage this alongside the national position.	
Expenditure Opportunities	7	We have progressed a number of opportunities throughout the year. We still have some opportunities to land the EA capital programme at £49m.	Our ambition is to out-turn in line with the £49m target, if this can be accommodated nationally.	
Outcome Measures	8	<p>The OM2 household forecast currently exceeds the target by 1,586 (+46%). By Q2 we had better protected 3,265 homes (+21%) above our target.</p>	We remain on track and the position will be closely monitored to year end.	
		<p>We are currently forecasting to deliver 74km of healthier watercourses and create 5Ha of new habitat. By Q3 we had opened up 7km to fish and eel passage and delivered 5Ha of new habitat.</p>		
Partnership Funding Contributions	9	National are no longer setting Area-level contributions targets. We are forecasting to receive £4.6m of contributions; £0.6m to EA schemes and £4.0m to IDB/LA schemes.	The key contributions required to better protect homes have been secured or are in advanced stages of negotiation.	
KPI 962 (% of assets at required condition)	10	We are currently forecasting that 98.43% of our high consequence assets will be at the required condition. This is 0.05% (3 assets) below target, out of 4,262 assets.	We will continue to maximise the position to year end. This does not pose a significant increase in flood risk and work is programmed for 19-20.	
KPI 965 (households at risk from assets not at required condition)	10	Our target has been set at a maximum of 6,201 households at increased flood risk. We will not meet this target, as 8,515 households are forecast to remain at risk.	This is because there is an opportunity for planned work at Woldgrift Outfall to now be undertaken more efficiently in Q1 of 19-20 as part of the Interim Beach Management works. This re-programming is not considered to pose a significant increased risk.	

3. Grant-in-Aid Position

- 3.1 Figure 1 highlights the forecast Environment Agency out-turns against FCRM GiA Capital and Revenue including Boston Barrier. As such a large proportion of the programme is Boston Barrier, the programme position excluding this scheme is also presented in Figure 2.
- 3.2 The current capital position shows a forecast -£0.9m (-2%) below our revised target, a reduction of £3m since the last meeting, as we have managed our programmes to a more affordable position. Our ambition is to increase expenditure in line with our revised target, if this can be accommodated nationally.
- 3.3 The current revenue position shows a forecast £0.9m (+6%) above affordable budget, no change since the last meeting.

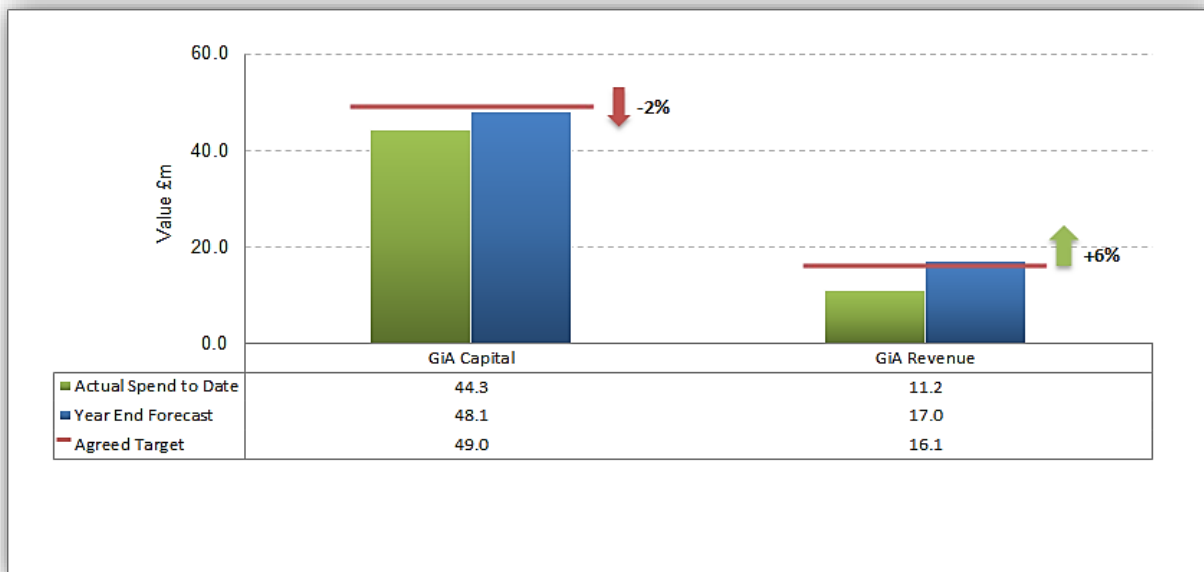


Figure 1. 2018-19 Environment Agency expenditure position including Boston

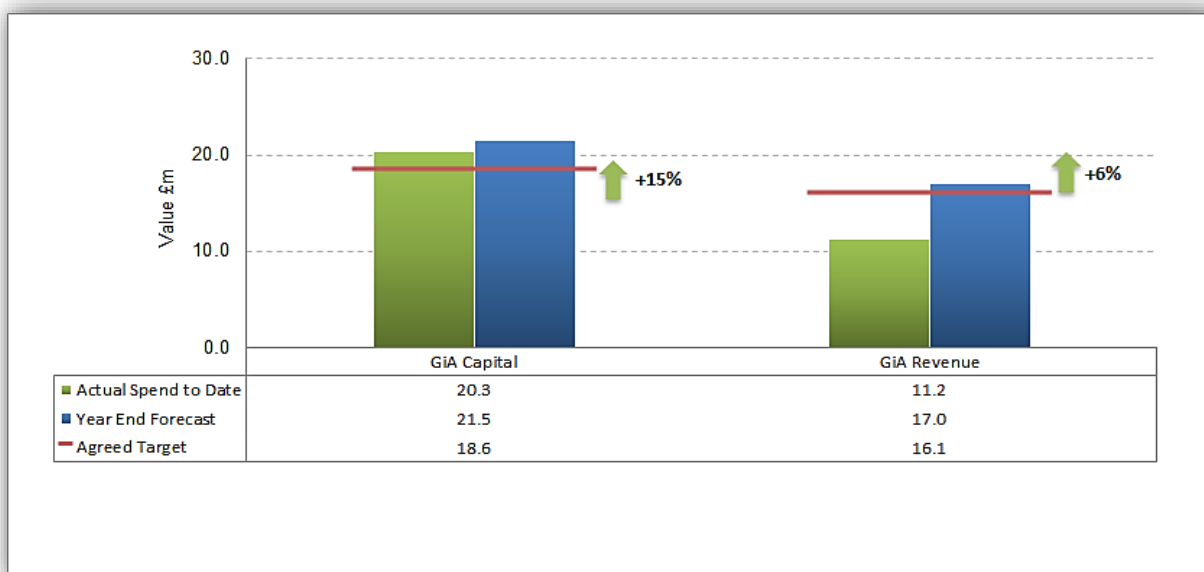


Figure 2. 2018-19 Environment Agency expenditure position excluding Boston

- 3.4 The IDB and LA FCRM GiA Capital programmes for Anglian (Northern) RFCC are highlighted in Figure 3.
- 3.5 The IDB programme is forecasting £0.9m (+36%) above start of year affordable budget, a decrease of £1m since the last meeting.
- 3.6 The LA programme is forecasting £4.5m (-92%) below start of year affordable budget, as decrease of £0.4m since the last meeting.
- 3.7 Combined, the overall IDB/LA forecast is £3.6m (-49%) below affordable budget, a reduction of £1.4m since the last meeting.

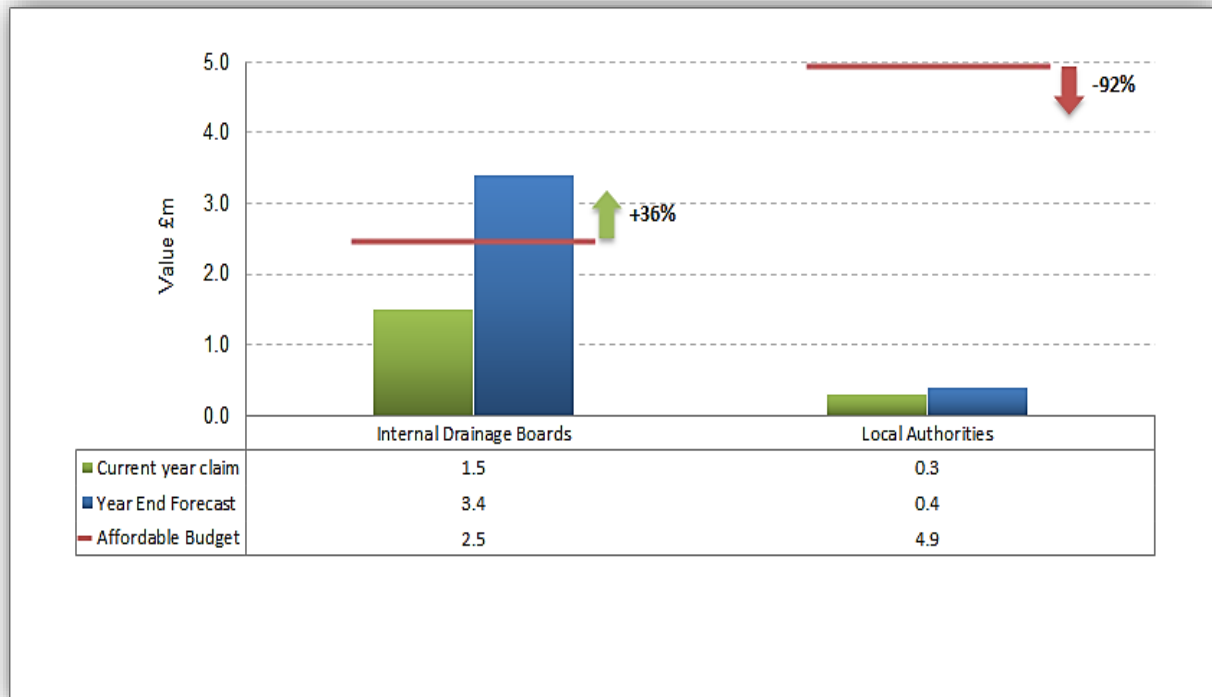


Figure 3. 2018-19 Other Risk Management Authorities Capital expenditure position

- 3.8 Figure 4 highlights the element of the overall Revenue position relating to maintenance.
- 3.9 FCRM GiA is forecasting to budget. FCRM GDC and IDBP forecasts are in line with budgets.

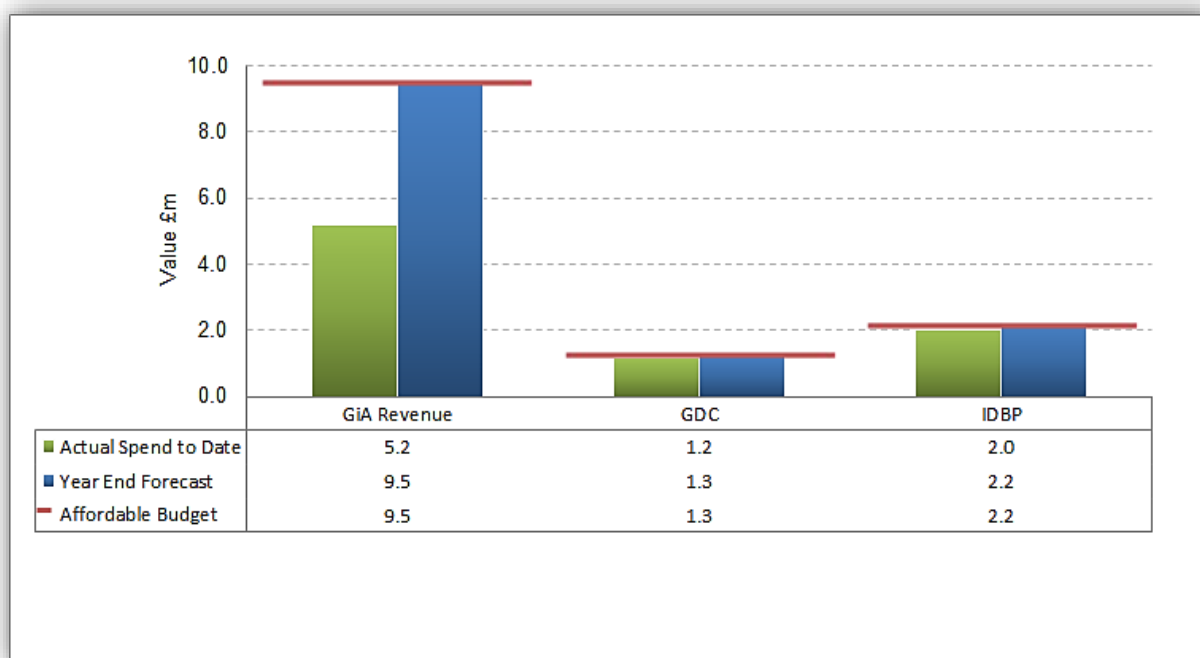


Figure 4. 2018-19 Revenue Maintenance expenditure position

4. Current Local Funding Position

4.1 Figure 5 outlines the current local funding position for Anglian (Northern) RFCC against budgets.

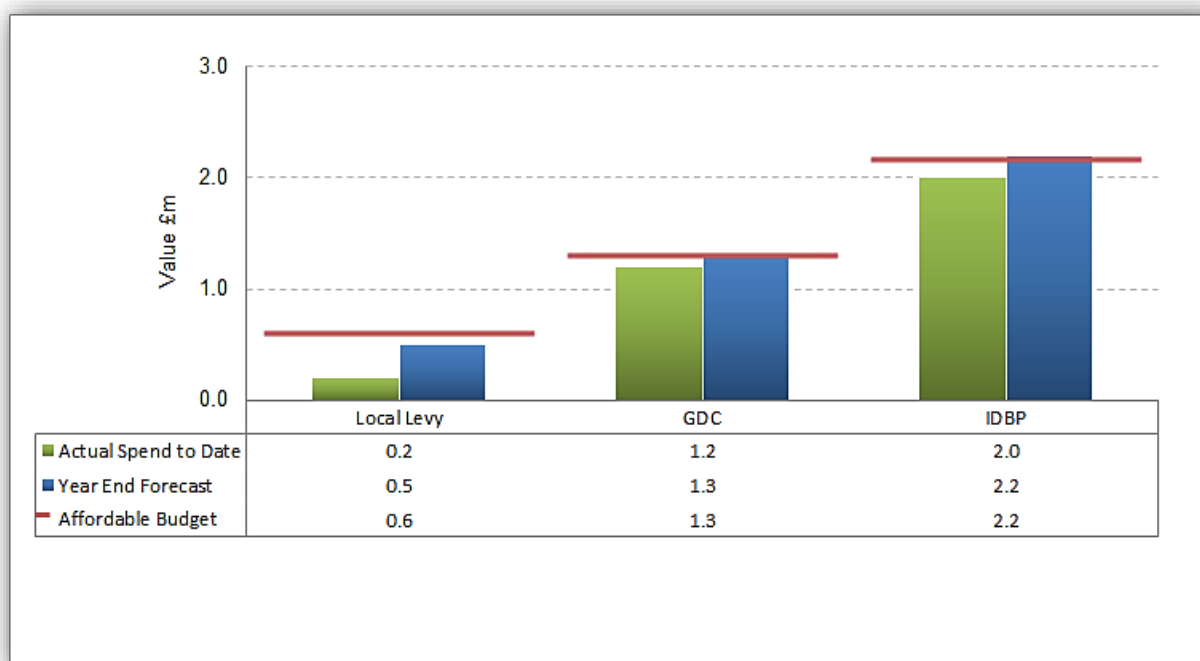


Figure 5. 2018-19 Local Funding expenditure position

4.2 GDC and IDBP are forecasting to budget. The Levy budget has been reduced in line with forecasts and the remaining put into balances for future years.

5. Programme Exceptions

- 5.1 Project forecasts vary throughout the year as opportunities and risks materialise. The key FCRM GiA Capital project variances that have occurred since January in Anglian (Northern) RFCC are as shown in Figure 6.

Project	Variance (£m)	Description
EA		
Humber – Winteringham Ings & South Ferriby	+0.4	Acceleration of scheme, supporting the homes better protected target.
Boston Haven Banks	+0.3	Acceleration of scheme, supporting the homes better protected target.
Lincoln Defences	+0.2	Acceleration of scheme, supporting the homes better protected target.
Asset recondition and bridge work	-0.7	Re-prioritisation of work to support the national position.
Boston Barrage/Barrier Works	-3.6	Cofferdam seepage and weather related issues delaying concrete placement.
LA		
East Brook Culvert, Kettering (NCC)	-0.1	Programme slippage to 19/20.
Port of Immingham (NELC)	-0.2	Programme slippage to 19/20.
IDB		
Billinghay Pumping Stn (W1st)	-0.1	Programme slippage to 19/20.
Boygrift Pumping Stn (LMDB)	-0.1	Board contribution to support PF arrangements, to reflect reduced GiA eligibility.
Metheringham Pumping Stn (W1st)	-0.2	Programme slippage to 19/20.
Theddlethorpe Pumping Stn (LMDB)	-0.2	Programme slippage to 19/20.
Works Arising – Wrangle Seabanks (W4th)	-0.2	Amended to reflect final account value.

Figure 6. Key Project GiA variances since last meeting

6. Efficiencies and Risks

- 6.1 The Anglian (Northern) RFCC Capital efficiencies target is £6.1m; £5.4m for EA schemes (12% of GiA allocation), and £0.7m for other RMA schemes (10% of GiA allocation). The current target and forecasts are shown in Figure 7 below.
- 6.2 The EA Revenue efficiencies target has been set at £0.9m (10%) for 2018-19.
- 6.3 We are currently forecasting £2m (+36%) above our EA Capital target, and forecasting on target for revenue. At Q3, we had achieved £6.7m of Capital and £0.3m of Revenue efficiencies.

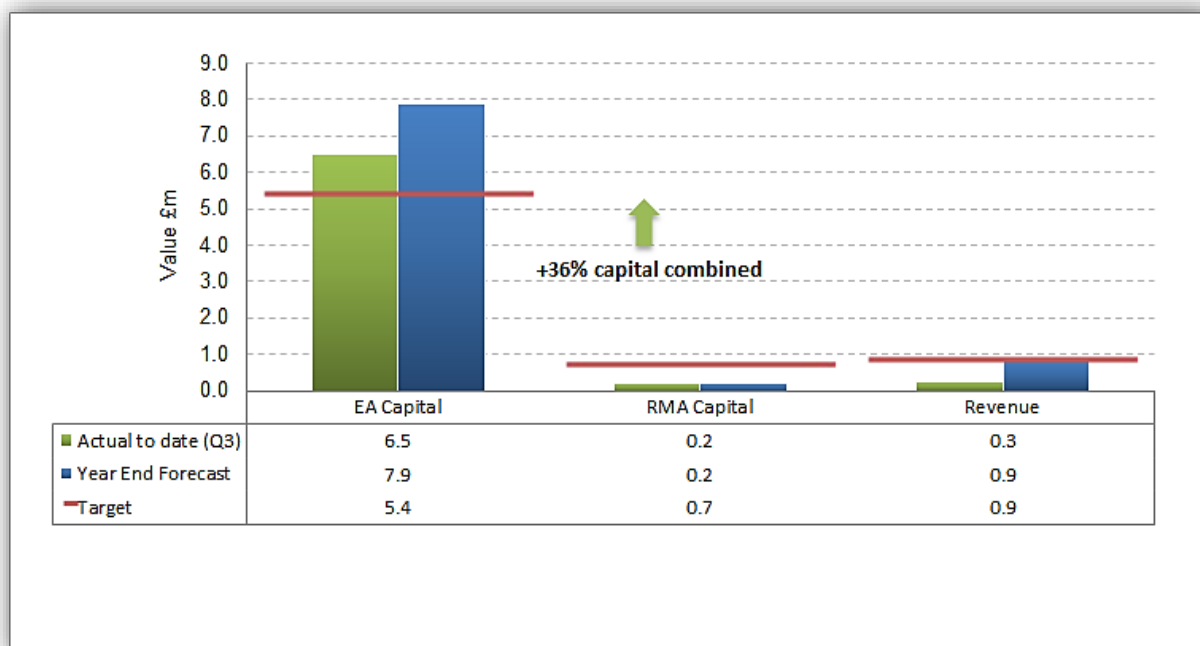


Figure 7. 2018-19 Capital and Revenue Efficiency position

Project	Efficiency (£m)	Description
Capital – Boston Barrier Works (EA)	3.0	Advance work reducing site overheads; revised conveyor work; revised guard boat requirements.
Capital – Five Towns and Risegate Eau Sluice Refurbishments (W&D IDB)	0.2	Additional testing of the timber piles enabled a revised design to be identified for refurbishment of the timber outfall wingwalls.

Figure 8. Q3 Efficiencies

6.4 A project risk can be defined as an event which could negatively impact upon the scheme's delivery. Some risks have the potential to affect the benefits of the scheme; whereas others can impact upon spend, resulting in an increase or decrease. Risk in the programme is to be expected and will be managed throughout the year.

6.5 There is currently limited remaining risk to report in our programme.

7. Expenditure Opportunities

7.1 We have progressed a number of opportunities throughout the year; our approach to year end will be to maximise delivery where possible, whilst supporting the national position.

8. RFCC contribution to national Outcome Measure delivery

8.1 The suite of Outcome Measures defined in Figure 8.1 is used nationally to highlight the benefits achieved by carrying out Capital projects. Nationally, the commitment to government is that we reduce flood risk to 300,000 households across the 6 year programme. To provide confidence in achieving this target (OM2), figures are split down into individual years and RFCCs.

8.2 Figure 9 charts progress against the 2018-19 Outcome Measure ambitions for the Anglian (Northern) RFCC.

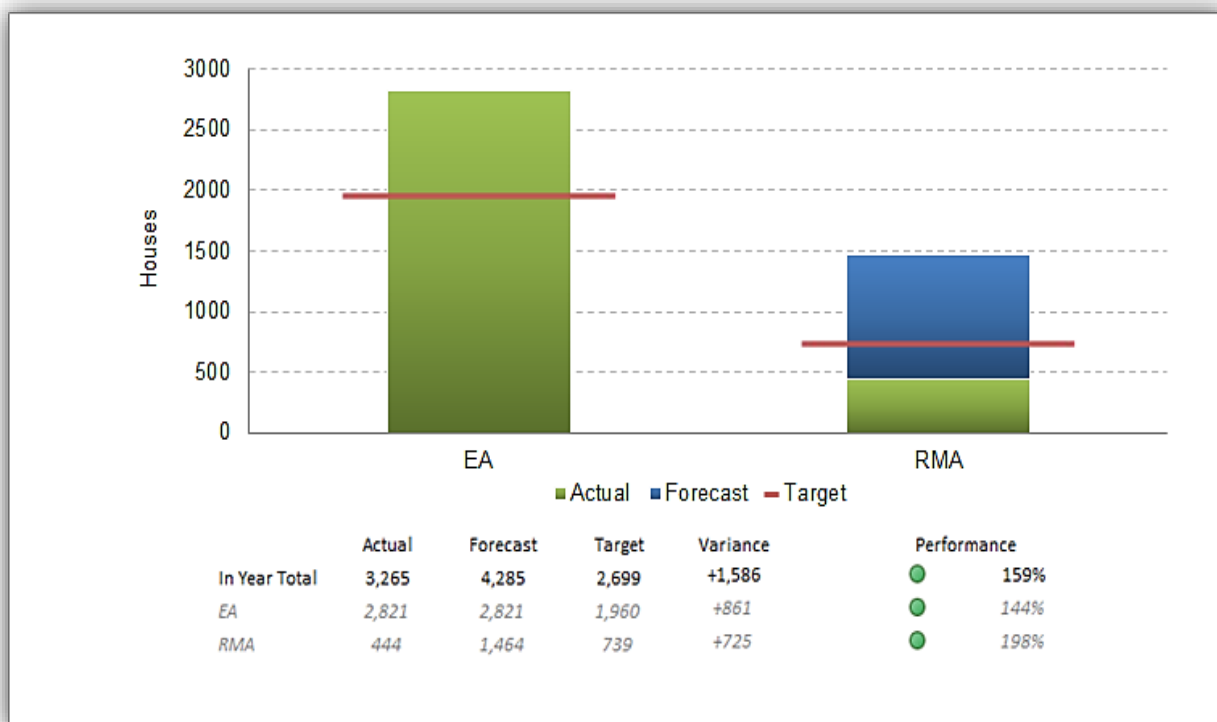


Figure 9. 2018-19 Outcome Measure position (OM2)

- 8.3 We are currently forecasting 1,586 (+59%) above our households' target. By Q3 we had better protected 3,265 households (+21% above our target).
- 8.4 With regard to environmental outcomes, measurement of these enhancements is linked to the wider suite of OM4 environmental outcomes (OM4d to OM4h). This will include the improvements presented in Figure 10 below.
- 8.5 We are currently forecasting to deliver 74km (60% of overall Area target) of healthier watercourses and create 5Ha of new habitat
- 8.6 By Q3, we had opened up 7km to fish and eel passage and delivered 5Ha of habitat at Wrangle.

Project location	Km or Ha enhanced	Description	OM4 category
Lade Bank Pumping Station Refurbishment (Witham)	43km	Fish and eel passage installation as part of asset refurbishment	OM4e - Km water body opened up to fish / eel passage through FCRM
South Ferriby Sluice (Ancholme)	24km	Fish and eel passage installation as part of asset refurbishment	OM4e - Km water body opened up to fish / eel passage through FCRM

Figure 10: Remaining Forecast 2018-19 Environmental Outcomes

9. Contributions

- 9.1 A condition of the consented programme is to secure Partnership Funding contributions. The national ambition is 15% of contributions, compared to the total GiA allocation.
- 9.2 National are no longer setting Area-level contributions targets. The key contributions required to better protect homes have been secured or are in the advanced stages of negotiation.

10. Asset Condition Performance

- 10.1 KPI 962 provides an indication of the percentage of assets that are at their target flood defence condition - known as passing assets. The Revenue Maintenance programme helps to prevent assets from falling below condition; whilst our Capital Recondition programme restores assets to their required level. Both these programmes are supplemented with GDC and IDB Precept funding – bolstering the condition of our assets and ensuring that fewer properties are at flood risk as a result.
- 10.2 The current forecast position on KPI 962 is presented in Figure 11. We are currently forecasting that 98.43% of our high consequence assets will be at the required condition. This is 0.05% (3 assets) below target, out of 4,262 assets.

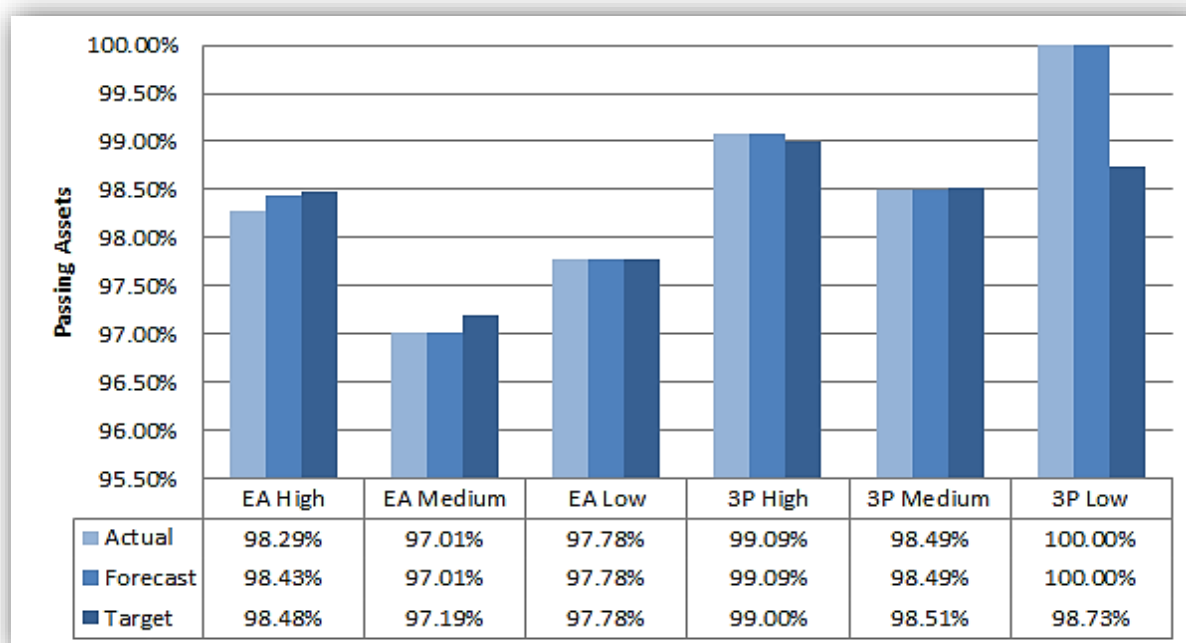


Figure 11: 2018-19 Asset Condition Performance

- 10.3 KPI 965 quantifies the number of households that are at increased flood risk from assets that are not in their target flood defence condition ('failing' assets). In an ideal world all assets would be at condition and, hence, the *additional* households at risk would equal zero.
- 10.4 Our target has been set at a maximum of 6,201 households at increased flood risk. We will not meet this target, as 8,515 households are forecast to remain at risk. This is because there is an opportunity for planned work at Woldgrift Outfall to now be undertaken more efficiently in Q1 of 19-20 as part of the Interim Beach Management works. This re-programming is not considered to pose a significant increased risk.

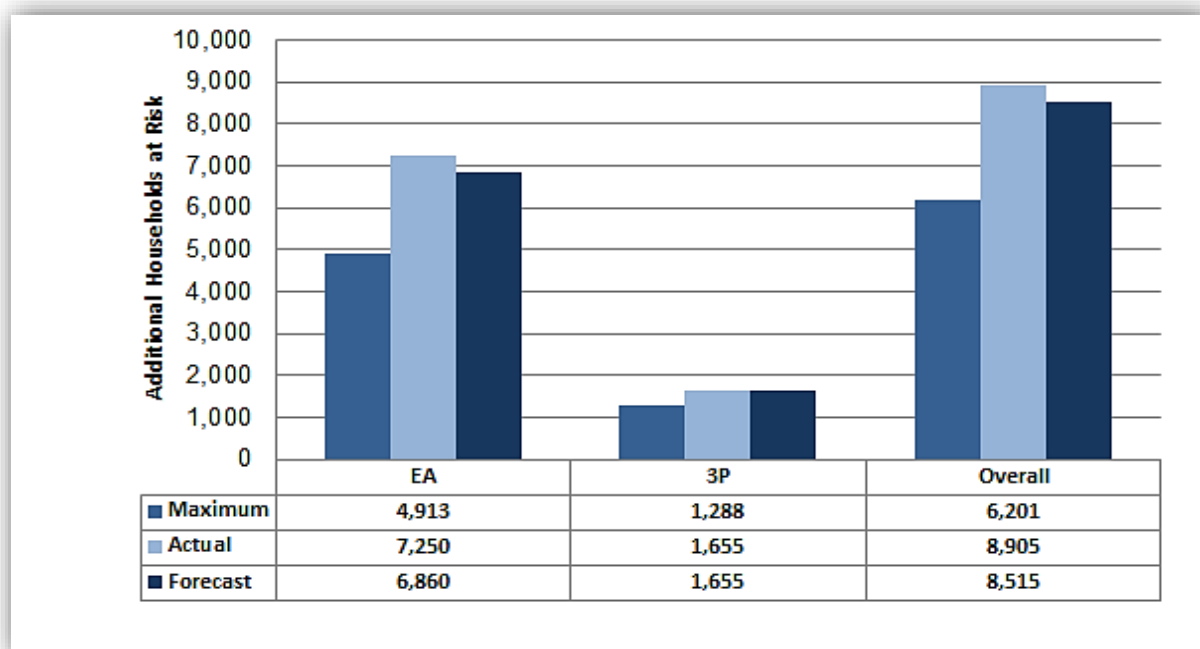


Figure 12: 2018-19 Asset Condition Performance – KPI 965

11. Recommendations

- 11.1 The Committee is asked to note the current position and the year-end forecast out-turn for expenditure and delivery of outcomes.

MARK BOWLT
Programme Team Leader

Appendix 1 (Standing Item)

Performance of the Anglian (Northern) RFCC against ambition: Current 6 Year Programme & Future Programme

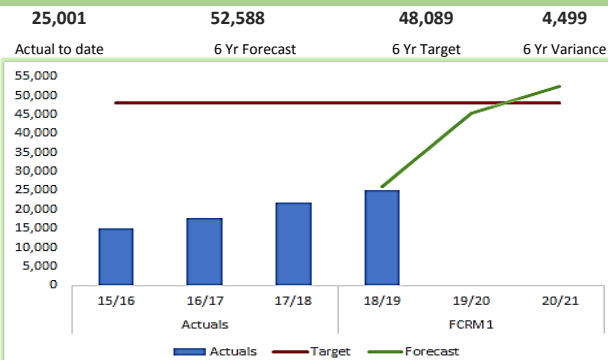
Performance of the Anglian (Northern) RFCC against ambition: Current 6 Year Capital Programme (2015/16 - 2020/21) & Future Capital Programme (2021/22 - 2026/27)

The top section presents progress towards the targets and conditions associated with the current 6 year programme (January 2019 consented)
The lower section presents the key metrics in the indicative future programme (6 years assumed, January 2019 consented)



Current 6 Year Capital Programme (2015/16 - 2020/21)

A Households (OM2) - Reducing flood and coastal erosion risk: the number of houses with a reduced risk of flooding or coastal erosion



Update:

We are forecasting to better protect 52,588 households by 20/21. This is 4,499 above our current Target. To date, we have better protected 25,001 households, 51% of our Target.

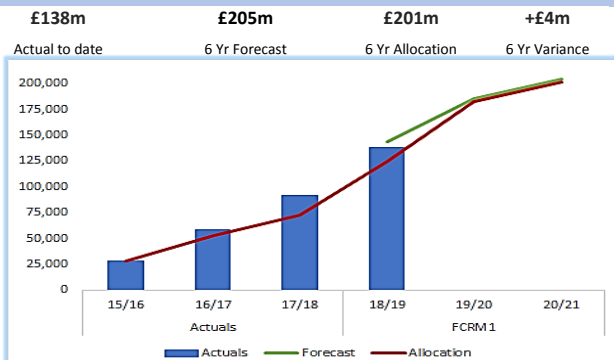
Top 5 Delivered

12,179	Humber Grimsby Docks (EA)
8,777	Lincshire / Interim Beach Mgt (EA)
682	North Promenade (NELC)
631	Culverted Watercourse Relining (WD IDB)
478	Hobhole Refurbishment (W4th IDB)

Top 5 Remaining

14,256	Boston Barrier (EA)
4,438	Interim Beach Management (EA)
1,969	Lincoln Washlands (EA)
1,842	Lincoln Defences (EA)
937	Boston Haven Banks (EA)

B Finance: Capital GiA Spend and Allocation



Update:

We are forecasting £205m of expenditure against a total allocation of £201m. This is £4m above our indicative allocation, reflecting the ambition in our programme to date, delivering more to support the overall national position. To date, we have spent £138m, 68% of our allocation. (Note, this presents the full capital allocation including the capital support programme, such as asset recondition work that does not contribute to the OM2 households target; the allocation for 'schemes' that do contribute to OM2 delivery is £195m).

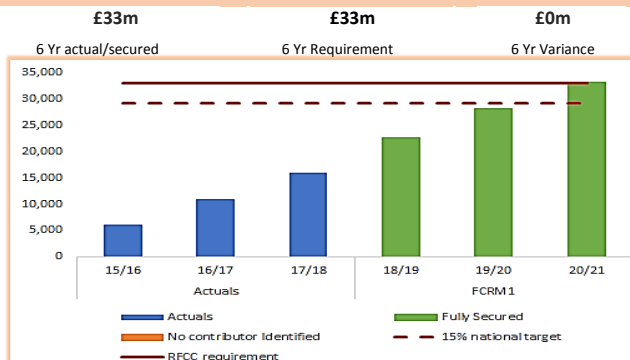
Top 5 Delivered (£m)

40.3	Boston Barrier (EA)
25.0	Lincshire / Int Beach Mgt (EA)
5.0	Reservoirs: Whittlesey (EA)
2.9	Northern Area Reservoirs (EA)
2.6	Port of Immingham (NELC)

Top 5 Remaining (£m)

51.3	Boston Barrier (EA)
13.9	Interim Beach Management (EA)
5.4	H - Wint Ings & South Ferriby (EA)
4.0	Lincoln Defences (EA)
1.7	Port of Immingham (NELC)

C Contributions - Making taxpayers' funding go further: contributions from other sources need to be at least 15% of the real terms total GiA spend over the 6 year programme period



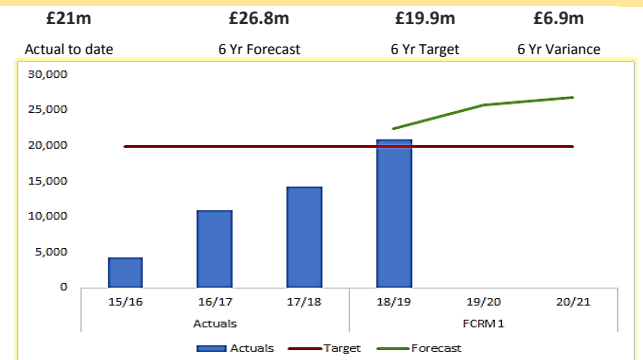
Update:

The national target is 15%, which locally represents £29m. However, to unlock all of the GiA available, we need to secure £33m of Partnership Funding contributions. We are currently forecasting to secure these.

Top 5 Actual/Secured (£m)

8.4	Port of Immingham (NELC)
5.6	Horncastle (EA)
6.0	Wint Ings & S Ferriby (EA)
3.5	Louth (EA)
2.3	Lincoln Defences (EA)

D Efficiencies - Making taxpayers' funding go further: government capital is used at a 10% increased level of efficiency compared to a 2014/15 baseline



Update:

We are forecasting to achieve £26.8m of efficiencies by 20/21, exceeding our Target. However, we expect to realise more efficiencies as individual schemes are developed, with the ambition of further exceeding our target and continuing to re-invest savings to deliver more locally. To date, we have achieved £21m of efficiencies, 106% of our 6 year Target.

Top 3 Realised (£m)

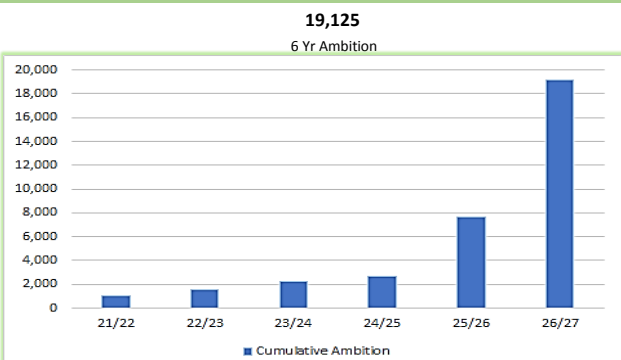
8.9	Lincshire / Interim Beach Mgt (EA)
4.1	Asset repair programme (EA)
2.9	Boston Barrier (EA)

Top 5 Potential

Boston Barrier (EA)
Interim Beach Management (EA)
H - Wint Ings & South Ferriby (EA)
Port of Immingham (NELC)
Lincoln Defences (EA)

Future Capital Programme (2021/22 - 2026/27)

A Households (OM2) - Reducing flood and coastal erosion risk: the number of houses with a reduced risk of flooding or coastal erosion



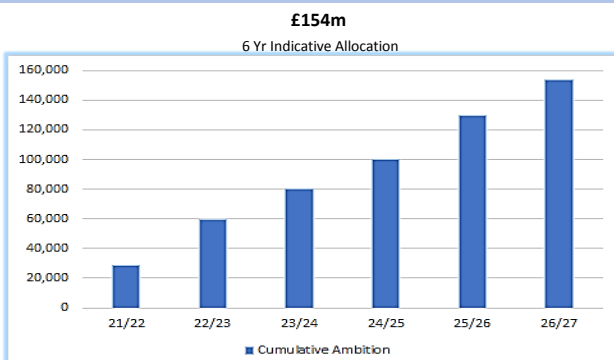
Update:

We are forecasting to better protect 19,125 homes by March 2027. The key schemes that will help us to achieve this ambition are listed below.

Top 10 Schemes

10,387	Saltfleet to Gibraltar Point (EA)	523	Wisbech Defences Ph 2 (EA)
1,718	H- Cleethorpes & Humberston (EA)	497	H- Barton Haven to New Holland (EA)
853	River Slea System Sustain (EA)	287	Maxey Cut Banks (EA)
567	Crowland & Cowbit Washes (EA)	246	Long Skirth System Sustain (EA)
540	H- Barton Cliff to New Holland (EA)	214	East Brook Culvert, Kettering (NCC)

B Finance: Capital GiA Indicative Allocation (schemes only)



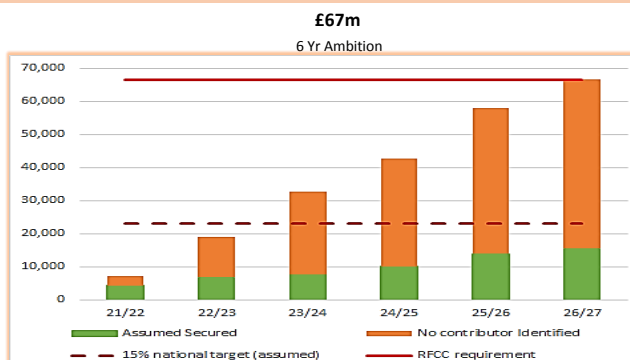
Update:

Our indicative GiA allocation is £154m. The key schemes in terms of GiA spend are listed below. (Note, this excludes the capital support programme that does not contribute towards OM2 delivery; support programme indicative funding is tba).

Top 10 Schemes (£m)

75.2	Saltfleet to Gib Point Works Arising (EA)	3.0	Lincoln City System Sustain (EA)
19.0	H- Barton Haven to New Holland (EA)	3.0	Boston Upstream Tidal System (EA)
3.2	Witham Lower System Sustain (EA)	2.7	H- Cleethorpes & Humberston (EA)
3.2	H- Immingham to Freshney (EA)	2.1	Maxey Cut Banks (EA)
3.1	Crowland Cowbit Washes (EA)	1.8	Wisbech Defences Ph2 (EA)

C Contributions - Making taxpayers' funding go further: contributions from other sources need to be at least 15% of the real terms total GiA spend over the 6 year programme period



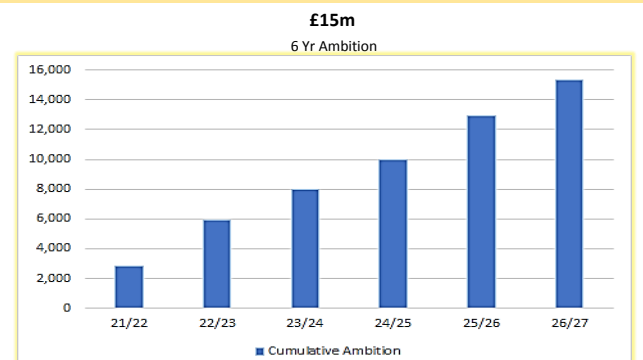
Update:

The programme currently identifies £67m of contributions required. The key schemes requiring contributions are listed below. The contributions are required to unlock £54m of GiA and better protect 6,571 homes.

Top 10 Contributions Required (£m)

6.8	Nene Navigable Structures (EA)	2.5	H- Halton & Killingholme Marshes (EA)
4.1	Carr Dyke & Delphs System Sustain (EA)	2.2	Crowland & Cowbit Washes (EA)
4.1	H- Barton Haven to New Holland (EA)	1.9	Raunds Hog Dyke (EA)
3.3	H- Immingham to Freshney (EA)	1.7	Maxey Cut Banks (EA)
3.0	Bourne Fen Wetland Scheme (BSIDB)	1.3	Wisbech Defences Ph 2 (EA)

D Efficiencies - Making taxpayers' funding go further: government capital is used at a 10% increased level of efficiency



Update:

Our efficiencies target is linked to our GiA schemes settlement. It is assumed that the current 10% target will continue, but this is subject to change. The key schemes that are expected to help us to achieve the largest efficiencies are listed below. However, the ambition is for every individual scheme to realise some efficiency, no matter how small.

Top 10 Schemes

Saltfleet to Gib Point Works Arising (EA)	Lincoln City System Sustain (EA)
H- Barton Haven to New Holland (EA)	Boston Upstream Tidal System (EA)
Witham Lower System Sustain (EA)	H- Cleethorpes & Humberston (EA)
H- Immingham to Freshney (EA)	Maxey Cut Banks (EA)
Crowland Cowbit Washes (EA)	Wisbech Defences Ph2 (EA)

ENVIRONMENT AGENCY LINCOLNSHIRE & NORTHAMPTONSHIRE AREA		Item No: 11	Report No: NFCC 19/11
Meeting:	ANGLIAN (NORTHERN) REGIONAL FLOOD AND COASTAL COMMITTEE (RFCC)	Subject:	ANGLIAN (NORTHERN) RFCC CAPITAL PROGRAMME
Date:	5 April 2019	Officer Responsible:	Deborah Campbell & Ben Thornely (Area Flood Risk Managers)

RECOMMENDATIONS

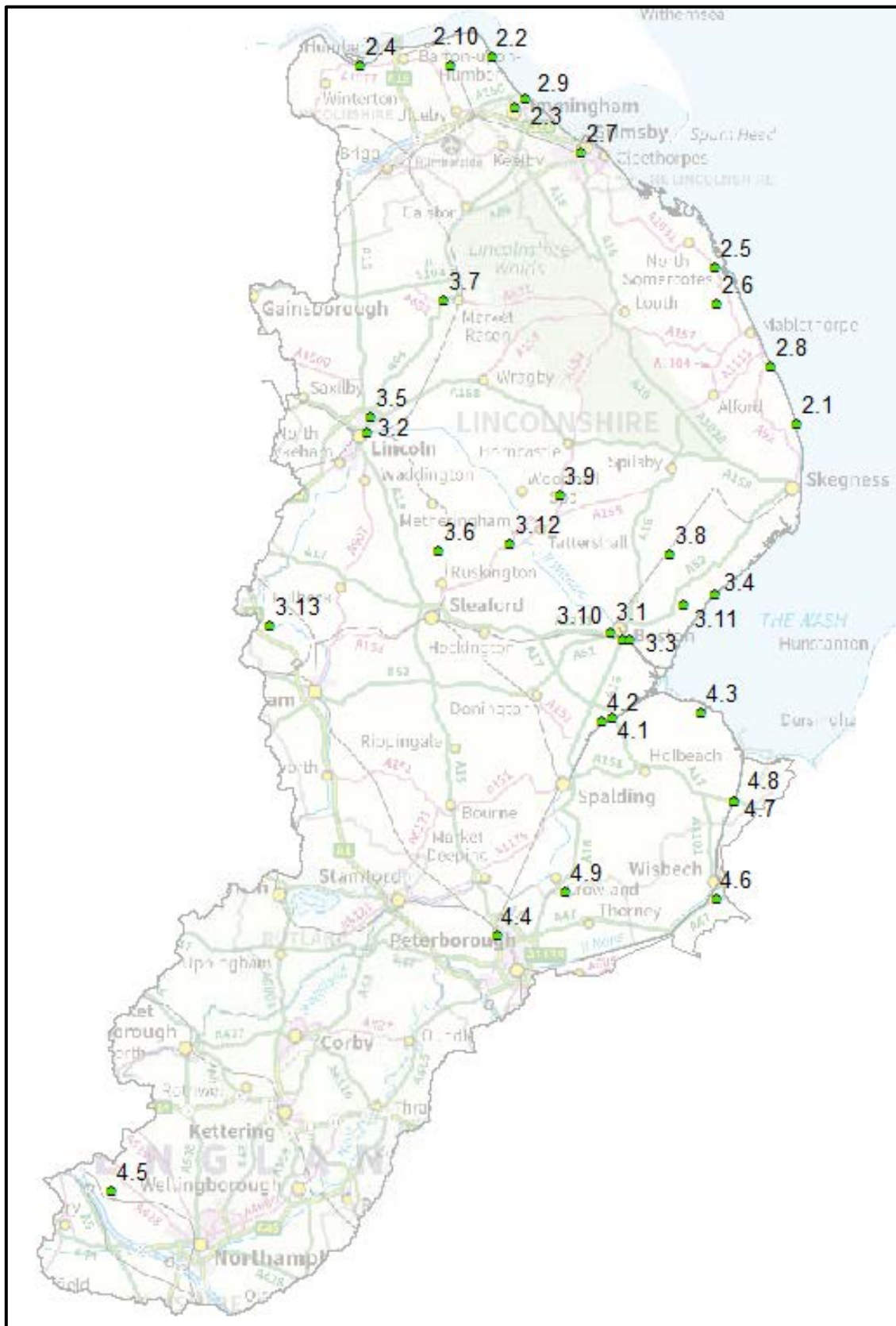
- A. The Committee is asked to note the update on the delivery of projects within the current consented capital programme.
- B. The Committee is invited to provide a steer on any projects which require additional funding or support.

1. Overview

- 1.1 The following prioritisation criteria have been applied to distinguish between 'Key Schemes' and 'Other Projects' in the consented programme.
 - National Priority Programme projects (NPP6) >225 homes better protected on the consented programme.
 - Area priority projects >100 homes better protected on the consented programme.

These have extra reporting requirements to the Area Delivery Board and to National on a quarterly basis, to ensure we remain on track to achieve the target to better protect 300,000 homes by March 2021.

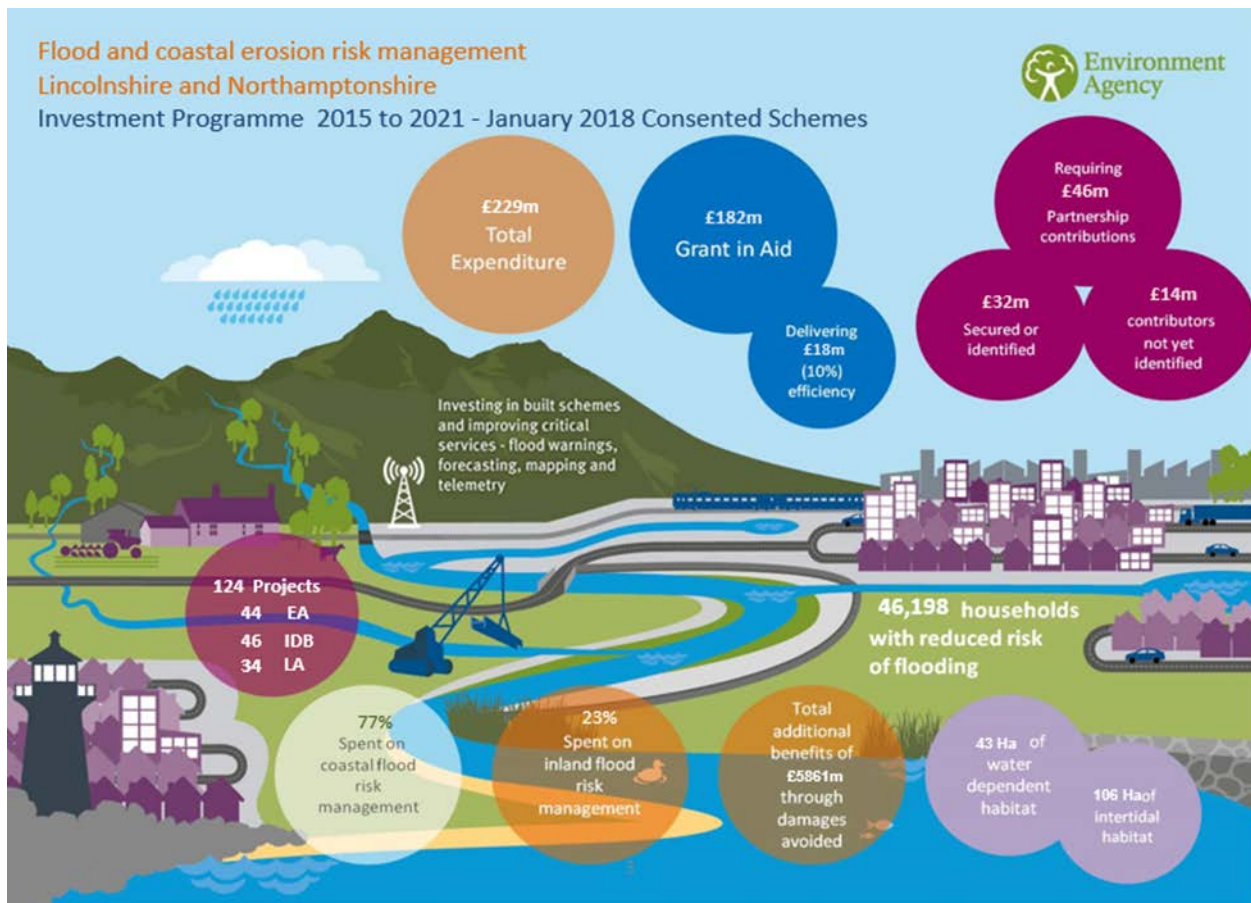
- 1.2 Locally, the Anglian (Northern) RFCC also wishes to receive updates from other Risk Management Authorities (RMAs) for schemes that do not meet the above criteria, but are still contributing towards the better protection of communities.
 - Better protect >50 homes in the consented programme.
 - Where an RMA does not have a project better protecting >50 homes, their largest project is reported, to ensure that all RMAs are able to share progress with the Committee.
- 1.3 Additionally, the Partnership and Strategic Overview (PSO) and Asset Performance (AP) teams have been structured to align to three operational catchments: South Humber & East Coast; Witham; and Welland and Nene, with each catchment having a PSO and AP team. The structure of this paper has been aligned to report on projects within each catchment geography, ordered from north to south.
- 1.4 Please refer to 'Map 1' for the location of projects within the Area, and a simple table with information around who is leading on the project on the following pages. Please refer to 'Infographic 1' which reflects the consented programme for 2015-2021.



Map 1. Location of top 32 Schemes in the Lincolnshire & Northamptonshire Area. Please see table (below) for further detail on the schemes

Ref.	Catchment	Project Title	RMA	Category
2.1	South Humber & East Coast	Interim Beach Management Lincs Coast 2018-2021 (NPP6)	Environment Agency	National Priority
2.2	South Humber & East Coast	East Halton flood defence improvements	North Lincolnshire Council	RFCC Update
2.3	South Humber & East Coast	Port of Immingham sea defence improvements	North East Lincolnshire Council	RFCC Update
2.4	South Humber & East Coast	Humber - Winteringham Ings and South Ferriby	Environment Agency	Local Priority
2.5	South Humber & East Coast	Saltfleet Pumping Station Replacement	Lindsey Marsh Drainage Board	Local Priority
2.6	South Humber & East Coast	Theddlethorpe Pumping Station Refurbishment	Lindsey Marsh Drainage Board	Local Priority
2.7	South Humber & East Coast	Willingham and Peaksfield Surface Water Scheme	North East Lincolnshire Council	Local Priority
2.8	South Humber & East Coast	Boygriff Pumping Station Refurbishment (NPP6)	Lindsey Marsh Drainage Board	National Priority
2.9	South Humber & East Coast	North East Lincolnshire Surface Water - North Immingham (NPP6)	North East Lincolnshire Council	National Priority
2.10	South Humber & East Coast	Goxhill Surface Water Flood Alleviation Scheme	North Lincolnshire Council	RFCC Update
3.1	Witham	Boston Barrier Works (NPP6)	Environment Agency	National Priority
3.2	Witham	Lincoln Defences	Environment Agency	Local Priority
3.3	Witham	Boston Haven Banks (NPP6)	Environment Agency	National Priority
3.4	Witham	Works Arising from Wash Banks Strategy - Wrangle seabanks (NPP6)	Witham 4 th District IDB	National Priority
3.5	Witham	Local Communities at Risk - Works Arising	Lincolnshire County Council	Local Priority
3.6	Witham	Digby - Surface Water Flood Risk Improvement Works	Lincolnshire County Council	RFCC Update
3.7	Witham	Middle Rasen - Surface Water Flood Risk Improvement Works	Lincolnshire County Council	RFCC Update
3.8	Witham	Lade Bank Pumping Station Refurbishment	Witham 4 th District IDB	Local Priority
3.9	Witham	Kirkby on Bain - Surface Water Flood Risk Improvement Works	Lincolnshire County Council	RFCC Update
3.10	Witham	North Forty Foot drain revetments	Black Sluice IDB	RFCC Update
3.11	Witham	Culverted Watercourse Lining	Witham 4 th District IDB	Local Priority
3.12	Witham	Billinghay Pumping Station Refurb'	Witham 1 st District	Local Priority
3.13	Witham	Westborough FAS	Upper Witham IDB	RFCC Update
4.1	Welland & Nene	Five Towns Sluice Refurbishment	Welland and Deepings IDB	Local Priority
4.2	Welland & Nene	Risegate Eau Sluice Refurbishment	Welland and Deepings IDB	Local Priority
4.3	Welland & Nene	Fleet Haven Pump Station Refurb'	South Holland IDB	RFCC Update
4.4	Welland & Nene	Brook Drain works, Peterborough	Environment Agency	Local Priority
4.5	Welland & Nene	East Street, Long Buckby - Surface Water FR Improvement Works	Northamptonshire County Council	RFCC Update
4.6	Welland & Nene	Hundreds of Wisbech Channel Conveyance Improvements	Hundreds of Wisbech IDB	Local Priority
4.7	Welland & Nene	Chalk Lane Sluice - Refurbishment	Kings Lynn IDB	Local Priority
4.8	Welland & Nene	Chalk Lane Catchment FRM Scheme	Kings Lynn IDB	Local Priority
4.9	Welland & Nene	Hundreds Pumping Station Refurb	North Level IDB	RFCC Update

Table 1. Further Details of top 32 Schemes in the Lincolnshire & Northamptonshire Area



Infographic 1. The 2015-2021 Consented Schemes overview

South Humber & East Coast: Key Scheme Update

2. Interim Beach Management Lincolnshire Coast 2018 to 2021

Start Date	January 2017
End Date	March 2021
Total project cost	£20,384,281
Partnership Funding required?	N
Total Partnership Funding	£0
Who is contributing?	N/A
Households better protected	6,558

Background:

- 2.1 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:

- 2.2 Repairs to the promenade will now take place after this year's nourishment works.
- 2.3 Detailed design works for Trusthorpe outfall improvements are now complete, this will be delivered next financial year (19-20).
- 2.4 Pre works start-up meeting has been held for the 2019 campaign, which is due to start on 6th May 2019.
- 2.5 There is a possibility of a delay to this year's nourishment campaign due to uncertainties around Brexit. The contractor's workforce is made up of EU nationals and international staff. Although they have experience of working all over the world there is uncertainty on what permissions will be required to work in UK waters.

3. East Halton Flood Defence Improvements

Start Date	August 2005
End Date	June 2019
Total project cost	£13,500,000
Partnership Funding required?	Y
Total Partnership Funding	£9,400,000
Who is contributing?	TBA
Households better protected	1

Background:

- 3.1 Scheme currently on hold – no further update.

Update since last meeting:

- 3.2 Scheme currently on hold – no further update.

4. Port of Immingham Sea Defence Improvements

Start Date	October 2015
End Date	March 2021
Total project cost	£13,313,000
Partnership Funding required?	Y
Total Partnership Funding	£8,818,000
Who is contributing?	ABP and ERDF
Households better protected	8

Background:

- 4.1 On 5th December 2013, the east coast of the United Kingdom experienced the most significant tidal surge since 1953. The surge was the highest on record in the Humber Estuary. Particularly hard hit was the Port of Immingham with direct financial losses of £15m for Associated British Ports and the port's users and tenants suffering losses of around £100M. The scheme is in two phases with Phase 1, new lock gates being completed last year. Phase 2 involves improvements to, or replacement of, more than 3km of the flood defences along the frontage east and west of the dock entrance lock.

Update since last meeting:

- 4.2 Since the middle of 2018 ABP have been looking at identifying the cheapest option that would deliver the necessary outcomes and have appointed a consultant to carry out this work. The revised option appraisal is due for completion by the end of April 2019 with project completion in March 2021.

5. Humber - Winteringham Ings and South Ferriby

Start Date	June 2016
End Date	March 2021
Total project cost	£8,182,000
Partnership Funding required?	Y
Total Partnership Funding	£3,550,000
Who is contributing?	To be confirmed
Households better protected	144

Background:

- 5.1 The Outline Business Case for the South Ferriby Flood Alleviation scheme was approved in April 2018. The scheme aims to reduce the risk of tidal flooding to 140 homes, businesses and the CEMEX plant.

Update since last meeting:

- 5.2 The Full Business case was approved in Jan 2019, with its Financial Scheme of Delegation sign-off in Feb 2019. Legal Agreement for £0.6m of NLC contribution has been completed.
- 5.3 Environmental mitigation measures and archaeological trenching works are completed by end of March 2019. Topsoil strip will follow in April 2019.
- 5.4 A Planning Application (PA) was submitted to North Lincs Council (NLC) in Nov 2018. We have carried out extensive pre-planning application engagement with NLC Highways Development Control, Planning, Ecology and Archaeology officers, as well as with South

Ferriby Parish Council, landowners and tenants. The PA will go to Planning Committee on 13 March 2019.

- 5.5 We continue to seek additional funding from Highways England, Anglian Water Services and Local Enterprise Partnership Growth Fund.
- 5.6 CEMEX continue to stockpile clay from their quarry for the South Ferriby, intended to be used in the embankments.

6. Saltfleet Pumping Station Replacement

Start Date	June 2019
End Date	October 2020
Total project cost	£1,128,000
Partnership Funding required?	Y
Total Partnership Funding	£586,000
Who is contributing?	RMA (Lindsey Marsh Drainage Board)
Households better protected	10 OM2 after EA S2GP strategy

Background:

- 6.1 *No update received from Lindsey Marsh Drainage Board.*

Update since last meeting:

- 6.2 *No update received from Lindsey Marsh Drainage Board.*

7. Theddlethorpe Pumping Station Refurbishment

Start Date	January 2019
End Date	November 2019
Total project cost	£676,400
Partnership Funding required?	Y
Total Partnership Funding	£291,000
Who is contributing?	RMA (Lindsey Marsh Drainage Board) to update
Households better protected	99 OM2 after EA S2GP strategy

Background:

- 7.1 *No update received from Lindsey Marsh Drainage Board.*

Update since last meeting:

- 7.2 *No update received from Lindsey Marsh Drainage Board.*

8. Willingham and Peaksfield Surface Water Scheme

Start Date	August 2017
End Date	March 2020
Total project cost	£525,000
Partnership Funding required?	Y
Total Partnership Funding	£220,000
Who is contributing?	<i>Anglian Water and North East Lincolnshire Council</i>
Households better protected	63

Background:

- 8.1 There are a number of properties in Willingham Street, Grimsby that have suffered internal flooding on at least 4 occasions in the last 12 years. Likewise, there are properties in the nearby Peaksfield Avenue who have flooded twice in the same period. The preferred scheme is likely to be a combination of adjustments to the local drainage system and property level protection.

Update since last meeting:

- 8.2 An order was placed with a PDU consultant in February 2018 for the production of the outline business case. There has been a number of issues but OBC submission is imminent with a view to starting work on site in late autumn 2019.

9. Boygriff Pumping Station Refurbishment

Start Date	June 2018
End Date	July 2019
Total project cost	£803,000
Partnership Funding required?	Y
Total Partnership Funding	£100,000
Who is contributing?	RMA (Lindsey Marsh Drainage Board) to update
Households better protected	205

Background:

- 9.1 *No update received from Lindsey Marsh Drainage Board.*

Update since last meeting:

- 9.2 *No update received from Lindsey Marsh Drainage Board.*

10. North East Lincolnshire Surface Water - North Immingham

Start Date	October 2018
End Date	March 2021
Total project cost	£350,000
Partnership Funding required?	Y
Total Partnership Funding	£160,000
Who is contributing?	Anglian Water (prove) and North East Lincolnshire Council
Households better protected	382

Background:

- 10.1 There are areas in north Immingham where a number of properties have suffered internal flooding 3 times in the last 12 years. All of the Anglian Water surface water systems serving Immingham discharge into IDB watercourses, the majority of which are in a pumped catchment. Consequently the full drainage catchment will need considering in the outline business case.

Update since last meeting:

- 10.2 On site investigations are underway and a consultant will be appointed for preparation of the outline business case.

11. Goxhill Surface Water Flood Alleviation Scheme

Start Date	September 2018
End Date	March 2021
Total project cost	£500,000
Partnership Funding required?	Y
Total Partnership Funding	£250,000+
Who is contributing?	North Lincolnshire Council, Environment Agency, Anglian Water
Households better protected	60+

Background:

- 11.1. Goxhill is identified at risk from local sources of flooding, and is ranked number 2 in North Lincolnshire Council's Local Flood Risk Management Strategy settlement priority list.

Update since last meeting:

- 11.2. A flood alleviation study is currently under way, which is taking into account flood flow paths and property threshold levels gathered from a recent topographical survey. An Outline Business Case is being developed and will be submitted August 2019.

Witham Catchment: Key Scheme Updates

12. Boston Barrage/Barrier Works

Start Date	May 2014
End Date	Winter 2020
Total project cost	£105,109,685
Partnership Funding required?	N
Total Partnership Funding	£0
Who is contributing?	N/A
Households better protected	14,256

Background:

- 12.1. 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:

- 12.2. The first phase of the scheme's piling work on the south bank of the Haven has now been completed by the WEM lot 4 BAM Nuttall & Mott MacDonald Joint Venture. They have installed the equivalent of 14km of steel sheet piles on the right bank to connect the Barrier works in to the Haven banks further downstream. Piling works for the cofferdam are now complete, with the cofferdam dewatered, drainage layers installed, blinding concrete placed and the first pre-fabricated reinforcement cages being lifted into the position for fixing in March 2019. The first concrete pours are due to commence in March 2019. The control building is now constructed up to the first floor with works progressing to make it watertight and commence the internal walls prior to MEICA fit out.
- 12.3. The primary barrier gate has been fabricated in the Netherlands by our suppliers Hollandia, and is due to be delivered in the summer 2019. The gate is due to undergo pressure testing in March 2020 prior to being moved to have its corrosive protection paint system applied. Temporary design works for installation is progressing well between BMMJV and their suppliers. Hunger have completed the fabrication of the three hydraulic rams for the barrier, in Germany, with the first Factory Acceptance Tests (FAT) being completed at the end of February 2019 with all three rams passing the pressure tests. Further acceptance tests are programmed for when the manifolds are complete followed by painting. BMMJV's supply chain is being used to fabricate materials off site as much as possible. This provides a better working environment for the team in delivering the product and ensures the high accuracy required in the steelwork, reinforcement cages and pre-cast concrete units whilst they are made. This also saves time on site during installation as well as providing increased benefits in health, safety & wellbeing for the labour force and installers.
- 12.4. The barrier is programmed for delivery in late summer 2019 with commissioning set for November 2019. The left bank works and primary barrier are programmed for completion by December 2019 but attendant works to secure the flood protection needed in surrounding assets (port wet dock in particular) is not due to be completed using temporary works until Spring/Summer 2020. The project as a whole is programmed to be finished by winter 2020.

The year ahead:

- Continued construction of flood walls
- Continued construction of barrier control room
- Secondary dredging
- Fabrication completion of barrier gate offsite
- Manufacture completion of hydraulic rams offsite
- Construction of the barrier
- Design of wet dock entrance and left bank works

13. Lincoln Defences

Start Date	March 2018
End Date	September 2021
Total project cost	£6,048,000
Partnership Funding required?	Y
Total Partnership Funding	£1,360,000
Who is contributing?	To be confirmed
Households better protected	1,880

Background:

- 13.1. 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.
- 13.2. 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.
- 13.3. 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.
- 13.4. 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 as shown by the existing breach flood maps.

Update since last meeting:

- 13.5. The Full Business Case has received approval from the National project Assurance Team. Works are expected to start summer 2019, with the programme currently being finalised.
- 13.6. The current order of works is to start at Great Gowts Sluice and the Witham Walls, moving on to Bargate Sluice towards the end of Summer/Autumn. Works would then move to the Fosdyke Canal, with Stamp End Sluice being the last part of the project next year. We will need to work closely with the Canals and Rivers Authority and other partners, to progress this work.

14. Boston Haven Banks

Start Date	January 2017
End Date	December 2018
Total project cost	£2,400,000
Partnership Funding required?	Y
Total Partnership Funding	£1,000,000
Who is contributing?	To be confirmed
Households better protected	312

Background:

- 14.1. A number of low spots exist along the Haven banks downstream of the proposed Barrier location. To keep pace with sea level rise and maintain the required standard of protection for Boston, these low spots and works to raise earth embankments to 6.50m AOD are required.
- 14.2. Programme of works to be undertaken over the current 6 year Medium Term Plan (MTP) in conjunction with the Barrier scheme as described in the various phases of the Boston Combined Strategy.
- 14.3. Through partnership working with Lincolnshire County Council, this project has secured £1M of European funding. To ensure we deliver this project within the European timeframe we are aligning with the Boston Barrier project programme to utilise a more efficient delivery route through a design and build contract.

Update since last meeting:

- 14.4. Tenders were returned on 22 February 2019, with GI completion mid-April. Tenders are within estimate and we are aiming to award the contract during April. The draft programme start date is July/August 2019, with practical completion by December 2020 to meet the ESIF deadline. The scheme will secure an additional 700 households.

15. Works Arising from Wash Banks Strategy - Wrangle Seabanks

Start Date	September 2016
End Date	December 2018
Total project cost	£1,800,000
Partnership Funding required?	Y
Total Partnership Funding	£486,000
Who is contributing?	Landowners MHCLG through ERDF Witham Fourth District IDB
Households better protected	438

Background:

- 15.1. *No update received from Witham 4th District IDB.*

Update since last meeting:

- 15.2. *No update received from Witham 4th District IDB.*

16. Local Communities at Risk - Works Arising

Start Date	April 2018
End Date	March 2022
Total project cost	£768,000
Partnership Funding required?	Y
Total Partnership Funding	£400,000
Who is contributing?	RMA - Lincolnshire County Council, Flood Defence Grant in Aid. Other contributors to be identified.
Households better protected	150

Background:

- 16.1. Traditionally, schemes are identified through flood investigations following significant flooding events and rely on historical flooding to justify a feasibility study. The Communities at Risk approach is to disregard historical flooding and assess the risk from individual and combined sources, not just to homes but to other receptors such as community buildings, infrastructure, heritage, ecology and agriculture. Using this information, risk to communities can be calculated and benefits to partners (not just flood risk management authorities) identified.
- 16.2. The approach described above will allow the development of a balanced capital programme which will:
- permit financial planning within the Medium Term Plan;
 - meet the aspirations of the national and local flood risk strategies in terms of properties protected; and
 - have the support of partners i.e. contributions.
- 16.3. The ambition is for the project to deliver approximately 50% of the County Council's Flood Risk capital programme:
- 2 schemes delivered per annum
 - 50 homes protected per annum
 - £600,000 total for both projects
- 16.4. This is a rolling process i.e. as schemes are developed (or unviable schemes dropped) the process is repeated for programming beyond the current MTP.

Update since last meeting:

- 16.5. Four schemes were approved by RFCC at its last meeting, and appear as pipeline schemes in the future Medium Term Plan (MTP). These schemes are for surface water flood risk management in Bourne, Gainsborough, Lincoln and Louth.

17. Digby - Surface Water Flood Risk Improvement Works

Start Date	June 2017
End Date	October 2018
Total project cost	£705,000
Partnership Funding required?	Y
Total Partnership Funding	£433,500

Who is contributing?	Lincolnshire County Council, Witham 4th Internal Drainage Board, Local Levy, Flood Defence Grant in Aid, Digby Parish Council
Households better protected	58

Background:

- 17.1. Digby, along with much of Lincolnshire, suffered severe flooding in June 2012. A total of 20 properties suffered internal flooding from a range of sources; from the main river (Digby Beck), and two smaller drainage catchments in the village (North Branch and Green Dyke). Flooding was also reported due to surface water and foul sewer surcharging. However, Anglian Water has indicated that the foul flooding was due to a pumping station failure issue, where during 2012 event the pumping station had to be turned on manually. Anglian Water has reported that this issue has since been resolved.
- 17.2. Some flood mitigation works were carried out in Digby by the Internal Drainage Board (IDB) and LCC Highways in Feb 2014 - April 2015.
- 17.3. The preferred option for the current capital scheme is to construct a new channel in mainly third-party land to the east of the village to take exceedance flows around the higher risk areas and discharge them to Digby Beck downstream of the village.

Update since last meeting:

- 17.4. Negotiations with landowners are still under way, and it is hoped to be able to start construction during 2019/20.

18. Middle Rasen - Surface Water Flood Risk Improvement Works

Start Date	September 2017
End Date	September 2018
Total project cost	£571,448
Partnership Funding required?	Y
Total Partnership Funding	£335,000
Who is contributing?	Lincolnshire County Council, Flood Defence Grant in Aid, Anglian Water, Local Levy
Households better protected	51

Background:

- 18.1. The Gainsborough Road area of Middle Rasen experiences regular localised flooding of the highway. During periods of intense rainfall the standing water on the carriageway is washed into the properties to the north of Gainsborough Road (situated below road level) and exacerbated by passing motor vehicles travelling at speed. More serious internal flooding has been mitigated to date by local action from residents and emergency services. The properties to the south of Gainsborough Road are saved from internal flooding by their elevated position relative to the highway.
- 18.2. The most recent significant flood events recorded during 2007, 2012 and 2013 have directly affected 10 properties on Gainsborough Road.

- 18.3. There are a number of factors affecting the performance of the surface water drainage systems, which together contribute to the flooding experienced, even during minor storm events.
- 18.4. The proposed scheme consists of miscellaneous carriageway drainage works and the installation of an additional culvert from Gainsborough Road to the Anglian Water surface water sewer in the recreation ground which outfalls to the River Rase.

Update since last meeting:

- 18.5. The scheme was completed in October 2018.

19. Lade Bank Pumping Station Refurbishment

Start Date	August 2017
End Date	March 2019
Total project cost	£399,997
Partnership Funding required?	Y
Total Partnership Funding	£55,000
Who is contributing?	FDGia and W4IDB
Households better protected	777

Background:

- 19.1. *No update received from Witham 4th District IDB.*

Update since last meeting:

- 19.2. *No update received from Witham 4th District IDB.*

20. Kirkby on Bain - Surface Water Flood Risk Improvement Works

Start Date	July 2017
End Date	October 2018
Total project cost	£504,327
Partnership Funding required?	Y
Total Partnership Funding	£361,281
Who is contributing?	Lincolnshire County Council, Flood Defence Grant in Aid, Local Levy
Households better protected	14

Background:

- 20.1. Kirkby on Bain village is located approximately 5km south of Horncastle and situated on the west bank of the River Bain (also referred to as the Horncastle Canal).
- 20.2. Kirkby on Bain has suffered from surface water flooding on a number of occasions with reported flooding instances in 1981, 1993, 1998 and 2007, when 13 residential properties were recorded as being affected.
- 20.3. The project is the implementation of a surface water drainage improvement scheme in the village through reducing the risk of flooding from pluvial, land and highway sources, the

principal objective being to raise the standard of flood protection to people and properties in the central village area to an economically justifiable level.

Update since last meeting:

- 20.4. Kirkby on Bain has been deferred in the Medium Term Plan as part of the national Flood Defence Grant in Aid review. The intention now is to develop the outline business case in preparation for delivery of the scheme early in the next MTP period i.e. after 2021.

21. North Forty Foot Drain Revetments

Start Date	April 2019
End Date	2021
Total project cost	£453,000
Partnership Funding required?	Y
Total Partnership Funding	£373,164
Who is contributing?	RMA (Black Sluice IDB) to update
Households better protected	43

Background:

- 21.1. This project is to complete revetment works required to 1.5km upstream of the Boards Cooks Lock pumping Station to both banks of North Forty Foot drain, to include silt removal to inaccessible areas with desilting dredger plant, also this project has been designed to renew/rehabilitate a length of culverted watercourse. The culvert was surveyed to reveal it was in a poor state of repair, remedial works being required as soon as possible. Originally these elements were being promoted as 2 separate schemes.

Start Date: tbc

Funding contributions from;

BSIDB: £70,000

Local Levy: £299,000

Update since last meeting:

- 21.2. The start date for this scheme is to be reviewed as the revised cost proposal for the outline business case is progressed and completed by Jacobs. The first draft of the business case for this project is expected to be received this week.

22. Culverted Watercourse Lining

Start Date	November 2016
End Date	March 2023
Total project cost	£450,000 (£45K per annum over 10 years)
Partnership Funding required?	N
Total Partnership Funding	£0
Who is contributing?	100% FDGiA
Households better protected	222

Background:

- 22.1. No update received from Witham 4th District IDB.

Update since last meeting:

- 22.2. No update received from Witham 4th District IDB.

23. Billingham Pumping Station Refurbishment

Start Date	June 2018
End Date	March 2021
Total project cost	£176,000
Partnership Funding required?	N
Total Partnership Funding	£0
Who is contributing?	RMA (Witham First District IDB) to update
Households better protected	108

Background:

- 23.1. This refurbishment is part of the Boards planned programme of work to ensure pumping station constructed in the 1970's provide the standard of protection they were originally designed to provide. Consideration is given to recent changes of land use within the catchment it serves and any regulatory changes.

Update since last meeting:

- 23.2. The Board's officers have met with the consulting engineers to discuss the draft catchment study report and its findings. This report combines work undertaken investigating the standard of protection provided by Timberland Pumping Station which work in conjunction with Billingham PS to serve a defined pumped catchment. The two sites were combined to provide efficiencies in both the survey & investigation stage, and to investigate more efficient use of the pumping capacity available within the catchment. Further investigation is to be undertaken in to the feasibility of alterations to the operation of the catchment and changes to the existing pumping capacity and configuration of plant.

24. Westborough FAS

Start Date	March 2016
End Date	March 2017
Total project cost	£49,000
Partnership Funding required?	Y
Total Partnership Funding	£12,000
Who is contributing?	RMA (Upper Witham Drainage Board) to update
Households better protected	8

Background:

- 24.1. Following several recent flooding events in the village of Westborough, Upper Witham Internal Drainage Board formulated a flood alleviation scheme to relieve high flows entering the village and better protect circa 11 residential properties from flooding. The scheme involves the construction of Eastern and Western bypass channels. In 2018, the Board successfully completed construction and commissioning of the Eastern bypass channel.

However, the construction of the Western bypass channel remains to be completed. Plans have been developed and discussed with the land owner.

Update since last meeting:

- 24.2. Following the successful completion of the Eastern bypass channel in 2018, negotiation continues with a new land owner (previous owner was Nottinghamshire County Council at scheme inception) to allow delivery of the Western bypass channel. Extensive work has been undertaken to address the concerns of the land owner and options presented. However, access to the land is still being refused. Further discussions are underway with both Lincolnshire County Council, as LLFA and South Kesteven District Council to explore powers of entry to carry-out the remaining Western bypass channel, should this be necessary.
- 24.3. Upper Witham has drawn down £37,000 so far, of the scheme monies.

Welland and Nene Catchment: Key Scheme Updates

25. Five Towns Sluice Refurbishment

Start Date	July 2017
End Date	March 2021
Total project cost	£792,000
Partnership Funding required?	Y
Total Partnership Funding	£10,000
Who is contributing?	Welland & Deepings IDB
Households better protected	189

Background:

- 25.1. This project is to refurbish the gravity tidal outfall sluice at Five Towns Pumping Station, Fosdyke, Lincs which was constructed in 1882. This sluice discharges water at low tide from the Five Towns catchment into the tidal River Welland.

Update since last meeting:

- 25.2. The Outline Business Case was submitted to NPAS on 7.2.19. Comments received to date by NPAS have been answered.
- 25.3. The on-site testing of the timber outfall walls (described in the last update in Dec) enabled an efficiency claim of £90,000 to be submitted to the Environment Agency. This claimable efficiency of £90,000 was accepted which was good news.

26. Risegate Eau Sluice Refurbishment

Start Date	July 2017
End Date	March 2021
Total project cost	£792,000
Partnership Funding required?	Y
Total Partnership Funding	£10,000
Who is contributing?	Welland & Deepings IDB
Households better protected	129

Background:

- 26.1. This project is to refurbish the gravity tidal outfall sluice at Risegate Eau Pumping Station, near Fosseydyke, Lincs. It is believed that this sluice was constructed at approximately the same time as the nearby Five Towns Sluice (c 1882). This sluice discharges water at low tide from the Risegate Eau catchment into the tidal River Welland.

Update since last meeting:

- 26.2. The Outline Business Case was submitted to NPAS on 7.2.19. Comments received to date by NPAS have been answered.
- 26.3. The on-site testing of the timber outfall walls (described in the last update in Dec) enabled an efficiency claim of £90,000 to be submitted to the Environment Agency. This claimable efficiency of £90,000 was accepted which was good news.

27. Fleet Haven Pumping Station Refurbishment

Start Date	August 2017
End Date	March 2022
Total project cost	£1,079,000
Partnership Funding required?	Y
Total Partnership Funding	£856,000
Who is contributing?	South Holland IDB, Local Levy
Households better protected	1

Background:

- 27.1. This 1.76 cumec (cubic metre per second) capacity pumping station built in 1959, catering for catchment of 2,107 hectares of high value agricultural land, as well as parts of the villages of Gedney Dyke, and Holbeach Hurn. Due to age, the pumps and switchgear need replacing, and a civils refurbishment is required on the structure. As the station is situated on the Wash tidal bank, flood resilience will be incorporated in to the refurbishment by raising electrical equipment in the station.

Update since last meeting:

- 27.2. Business case prepared by Jacobs ready for submission.

28. Brook Drain Works, Peterborough

Start Date	April 2017
End Date	April 2019
Total project cost	£329,843
Partnership Funding required?	Y
Total Partnership Funding	£150,000
Who is contributing?	To Be Confirmed
Households better protected	140

Background:

- 28.1. We are working with Network Rail (NR) regarding a Nationally Significant Infrastructure Project (NSIP) they are proposing at Werrington Junction to improve freight movements and increase capacity for passenger trains on the East Coast Main Line (ECML). We have

been working collaboratively to address significant flood risk to the industrial/commercial area and potentially the ECML.

- 28.2. Prior to NR involvement, we had already identified a need to improve the Werrington Penstock which is poor condition and reduce the reliance on manual operation by Environment Agency staff. Working with NR we aim to have a scheme which will effectively manage flood risk, improve Health, Safety and Wellbeing and improve the Water Framework Directive (WFD) Status of watercourse in the area (in partnership with Peterborough City Council).
- 28.3. The works are to be carried out by NR under a Transport and Works Act Order (TWAO) which came into force on 24 August 2018.

Update since last meeting:

- 28.4. Work continues on site and we are in the process of handing over our existing penstock to Network Rail. Once this has happened, we will be reliant on the temporary arrangements Network Rail and their contractors have put in place until the works to the watercourses are operational.
- 28.5. The updated hydraulic modelling to support the detailed design for the new Marholm Brook/Brook Drain Structure (which replaces the penstock) has all been agreed. Therefore, we are now working with Network Rail to finalise the detailed design of the permanent works to ensure that our access and maintenance requirements are satisfied alongside capacity and conveyance.
- 28.6. Within the Order there is provision for us to agree the detailed design in lieu of working under the Environmental Permitting Regime. We are now working towards giving our approval for the first phases of the permanent works to divert and modify Brook Drain and Marholm Brook. This includes arrangements to replace the penstock with a passive flow control structure.
- 28.7. We also continue to work with Network Rail on a maintenance and access legal agreement. This legal agreement will also form part of the negotiations on land transfer.

29. East Street, Long Buckby - Surface Water Flood Risk Improvement Works

Start Date	April 2016
End Date	September 2020
Total project cost	£309,000
Partnership Funding required?	Y
Total Partnership Funding	GiA - £230,000 Local Levy - £40,000 Private Contributions - £39,000
Who is contributing?	RMA (Northamptonshire County Council) and Community
Households better protected	10

Background:

- 29.1. The focus of the project is to manage flood risk along and in the vicinity of East Street in Long Buckby. There is no defined network of drainage channels to divert runoff from the hills to the north of East Street past the properties on this side of the road. These properties are susceptible to flooding from heavy rainfall causing runoff from the hills.

- 29.2. East Street is itself a conduit for surface water runoff from catchments to the east and north of the town made worse by the limited capacity of the existing highways drainage system. Overland runoff along East Street ponds at the lowest point on East Street and floods properties in this location. A range of options were presented to the local community in June 2016 and feedback collected.
- 29.3. The preferred options were:
- A cut off drain to collect runoff from the hills to the north and divert it into an adjacent catchment. Local landowners are not amenable to this proposal and the preferred option will be to maintain the status quo and provide local property level resilience where residents are interested.
 - A new channel to convey flood waters from the low point in East Street to an existing drain to the south. Landowners have been engaged and are amenable to this proposal.
- 29.4. A draft Outline Business Case for flood risk management in Long Buckby has been prepared. This needs to be updated to reflect the outcome of the landowner engagement process.
- 29.5. Funding has now been secured from the RFCC to progress the scheme. The project is in the process of finalising the Outline Business Case. It is intended that the scheme be procured as a design and build and will most likely be delivered through Northamptonshire Highways joint framework with KierWSP.
- 29.6. The outstanding work on the draft Outline Business Case is to demonstrate the preferred options are deliverable and that local landowners are willing to permit the development on their land.
- Update since last meeting:**
- 29.7. Further meetings have been held with the local residents affected by flooding to the north of East Street. The message has been conveyed that local landowners are not amenable to the construction of a new drainage ditch and the preferred option will be to maintain the status quo and provide local property level resilience where residents are interested.
- 29.8. A meeting has been held with a further landowner for the proposed scheme to divert runoff from East Street to a drainage ditch to the south. The landowner in question was amenable to further discussion as the proposals are developed.
- 29.9. Looking forward the outline business case will be finalised recommending the following options:
- Maintain the status quo to the north of East Street and provide local property level resilience where residents are interested.
 - Construct a new channel to convey flood waters from the low point in East Street to an existing drain to the south.

30. Hundreds of Wisbech Channel Conveyance Improvements

Start Date	March 2020
End Date	March 2021
Total project cost	£250,000
Partnership Funding required?	Y
Total Partnership Funding	£100,000
Who is contributing?	RMA (Hundreds of Wisbech) to update
Households better protected	150

Background:

30.1. *No update from Hundreds of Wisbech IDB.*

Update since last meeting:

30.2. *No update received from Hundreds of Wisbech IDB.*

31. Chalk Lane Sluice – Refurbishment

Start Date	September 2018
End Date	March 2021
Total project cost	£140,000
Partnership Funding required?	Y
Total Partnership Funding	£21,000
Who is contributing?	RMA to update
Households better protected	224

Background:

31.1. *No update provided by Kings Lynn IDB.*

Update since last meeting:

31.2. *No update provided by Kings Lynn IDB.*

32. Chalk Lane Catchment Flood Risk Management Scheme

Start Date	September 2018
End Date	March 2021
Total project cost	£140,000
Partnership Funding required?	Y
Total Partnership Funding	£21,000
Who is contributing?	RMA to update
Households better protected	224

Background:

32.1. *No update provided by Kings Lynn IDB.*

Update since last meeting:

32.2. *No update provided by Kings Lynn IDB.*

33. Hundreds Pumping Station Refurbishment

Start Date	April 2019
End Date	March 2020
Total project cost	£250,000
Partnership Funding required?	Y
Total Partnership Funding	£22,000
Who is contributing?	North Level IDB, Environment Agency
Households better protected	13

Background:

- 33.1. Hundreds Pumping Station was constructed in 1988 and has had no major refurbishment since then. Routine maintenance has been carried out but the station will require full refurbishment of the pumping plant and equipment in 2019.

Update since last meeting:

- 33.2. A Consultant has been appointed and the outline business case has been started.

Witham Catchment: Additional

34. Sempringham Fen Pumping Station Refurbishment

Start Date	April 2019 tbc
End Date	2020
Total project cost	£208,000
Partnership Funding required?	Y
Total Partnership Funding	£180,500
Who is contributing?	RMA (Black Sluice IDB) to update
Households better protected	19

Background:

- 34.1. Sempringham Fen is a Fenland catchment of 823Ha located on the West side of the South Forty Foot Drain between the Environment Agency controlled Billingborough Lode(Northern catchment boundary), and Pointon Lode(Southern catchment boundary). The pumping station was commissioned in 1965, and this project is to complete modernisation and refurbishment to the pumping station site.

Start Date: tbc

Funding contributions from

BSIDB: £27,500

Local Levy: £137,500

Update since last meeting:

- 34.2. The start date for this scheme is to be reviewed as the revised cost proposal for the Outline Business Case (OBC) is progressed and completed by Jacobs.

- 34.3. Initial Assessment completed. Some preliminary works completed, and works estimates received.
- 34.4. Jacobs have produced an OBC which is now almost at the final stage. Mitigation for eels being the requirement for completion.

DEBORAH CAMPBELL
Coastal Area Flood Risk Manager

BEN THORNELLY
Area Flood Risk Manager

ENVIRONMENT AGENCY LINCOLNSHIRE & NORTHAMPTONSHIRE AREA		Item No: 12	Report No: (NFCC 19/12)
Meeting:	ANGLIAN (NORTHERN) REGIONAL FLOOD AND COASTAL COMMITTEE (RFCC)	Subject:	ANGLIAN (NORTHERN) RFCC REVENUE PROGRAMME
Date:	5 April 2019	Officer Responsible:	Guy Szomi & Pete Reilly (Operations Managers)

RECOMMENDATIONS

- A. The Committee is asked to note the projects and works delivered in 2018/19 through their revenue programme.

1. Asset Maintenance Update

- 1.1 Our asset revenue maintenance budget allocation for 2018/19 is £12,934k. This is made up of £9,476k FDGiA, £2,167k IDBP, and £1,291k GDC. This covers both frequent and intermittent revenue funded work across Lincolnshire and Northamptonshire. Throughout 2018/19 we have been over-programming our Intermittent Maintenance programme, however, due to national pressure on our revenue budget, we have been asked to scale back to our original allocation. Our end of year forecast has reduced to £12.94m, from a forecast of £13.5m at the end of 2018. Revenue maintenance is essential in keeping our assets at their target condition and greatly contributes to achieving Key Performance Indicator (KPI) 962 and KPI 965 – maintaining our own and third party assets at the required condition and meeting our targets to protect households at risk. Our revenue programme is published each year and can be viewed at:
<https://www.gov.uk/government/publications/river-and-coastal-maintenance-programme>.

1.2 Our asset maintenance activities cover:

- Channels – some plants and animal species are not native to the UK and spread quickly, grow rapidly and completely take over a whole area in a short space of time blocking watercourses. We may need to increase the ability of a river to convey water where the risk to property demands it. We can use a number of different approaches and activities – making the river bed and sides smooth, changing the channel size to make it wider or deeper.
- Flood defences along a water course provide increased capacity to convey flood waters. We inspect and maintain them to ensure that they perform how they were designed and that the flood channel capacity is maintained.
- Flood defence structures include walls made from stone, brick, concrete, glass, and timber. We inspect and maintain them to ensure that they perform how they were designed.
- In some high flood risk areas, working with local communities we erect temporary barriers at pre-determined locations to provide protection to property and key infrastructure.
- Inspecting and testing – we keep a record of the condition of all flood defences. This may be through routine inspections or in response to a call from a member of the public or professional partners.
- Keeping the river clear of blockages – removal of man-made obstructions such as shopping trolleys, or natural obstructions such as fallen trees or overhanging branches and weed. We assess the flood risk before we consider removal of any blockage.

- In managing flood risk, we maintain and operate many complex assets, including pumping stations, barrier structures and control structures to manage water flow and water storage capacity.

2. Frequent maintenance

- 2.1 The 2018/19 frequent maintenance programme is fully funded across the Lincolnshire and Northamptonshire area. The maintenance will be carried out using a variety of delivery routes. Our internal Field teams, national Water and Environment Management (WEM) framework, FCRM Operational framework, and Public Sector Co-operation Agreements (PSCA).
- 2.2 Figure 1 below shows a breakdown of how funding is allocated to different types of programmed work for 2018/19. The bar around the outside of the chart indicates how much of each item of the programme has been completed up to 28 February 2019 (The hollow segment indicates work still to be undertaken).

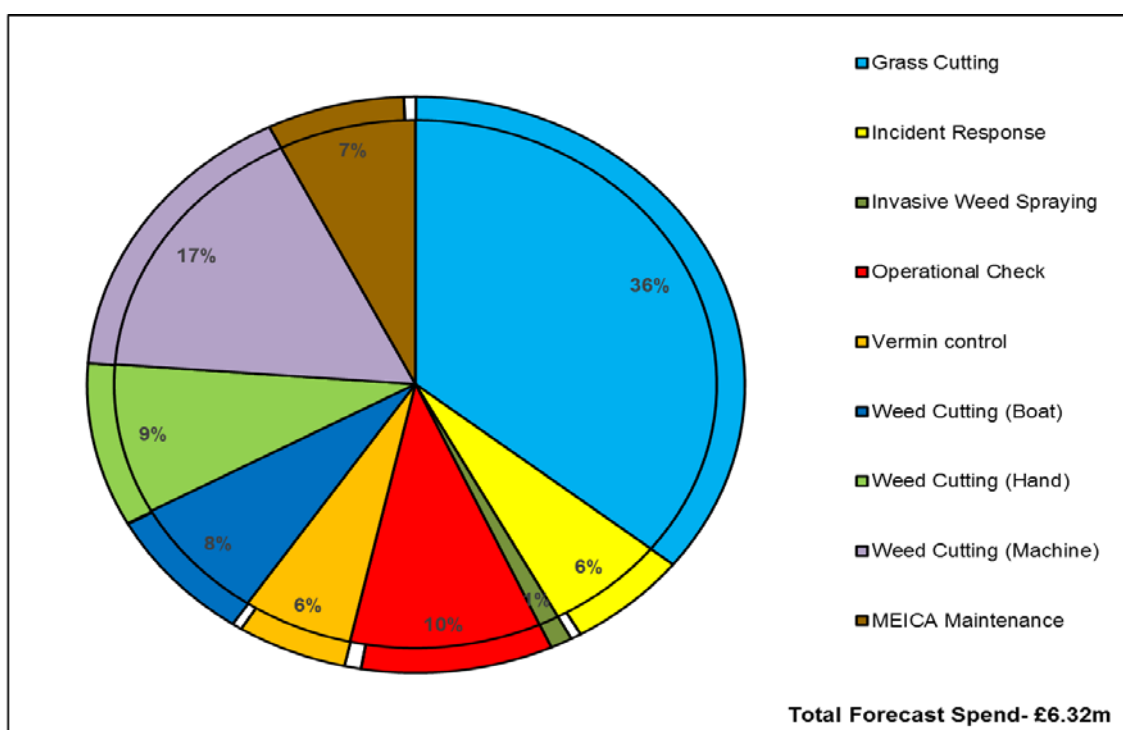


Figure 1. 2018/19 Frequent Maintenance - percentage split by work type and progress

- 2.3 Overall 97.6% of our 2018/19 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.
 - 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.

2.4 Our annual frequent maintenance programme has been adjusted, from our published programme. Items such as weed cutting, full grass cutting to raised embankments, and weed spraying are normally undertaken between June and October. The programme was extended to the end of November to accommodate embedding operations with our new suppliers. In addition to this we have also reviewed our programme and removed some items of weed and grass cutting no longer needed at some of our lower risk assets. Extending the programme is not anticipated next year as the new suppliers gain knowledge of the working locations, and our maintenance standards.

2.5 Vermin control completion is as expected as it is typically undertaken between October and March, outside of the breeding season in line with best practice.

3. Intermittent maintenance

3.1 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, WEM and Minor Frameworks, and Public Sector Co-operation Agreements.

3.2 The 2018/19 intermittent programme is periodically re-assessed to ensure that we are making the best use of our available budget, focussing on those areas of work that are the highest priority and taking into account recently identified items of work.

3.3 Throughout 2018/19 we have been over-programming our Intermittent Maintenance programme, however, due to national pressure on our revenue budget, we have been asked to scale back to our original allocation. This has resulted in some items of work being postponed until 2019/20.

3.4 Our revised intermittent programme for 2018/19 comprises of 102 active projects across the area. Our total forecast for Intermittent Projects this financial year has reduced from £7.22m last quarter, to £6.62m. Figure 2 below shows a high level breakdown of the proportion of funding allocated to different types of work.

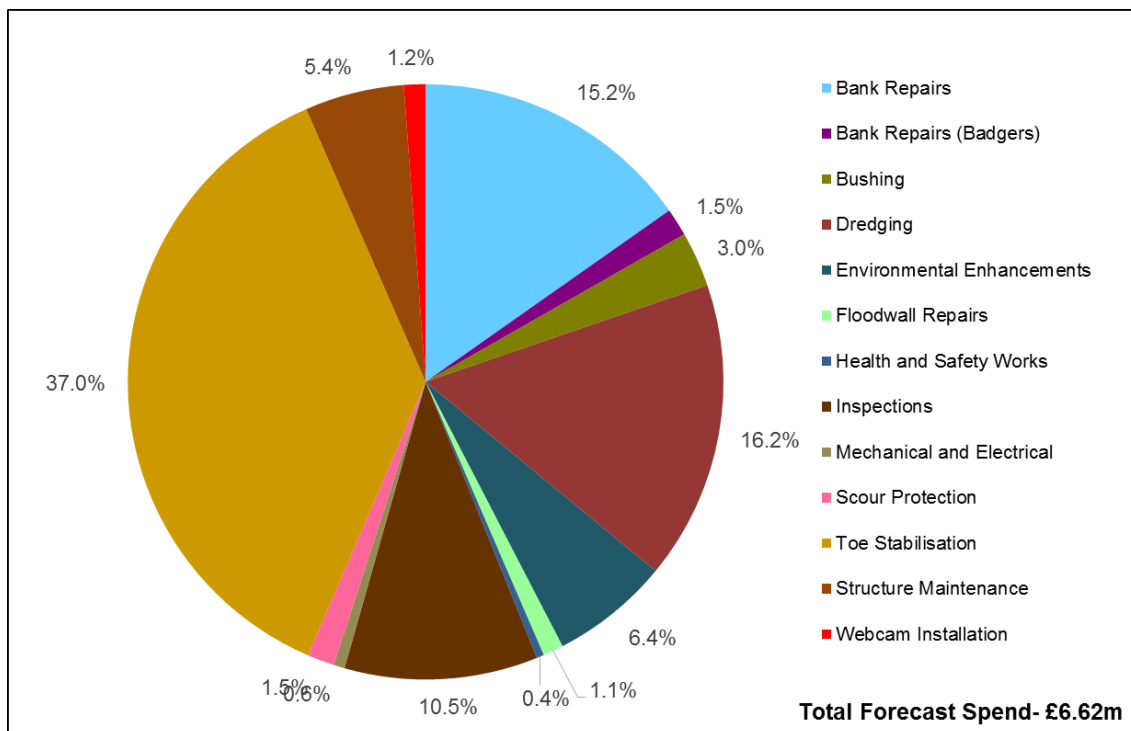


Figure 2. 2018/19 Intermittent Projects - percentage split by work type

- 3.5 Our intermittent programme is monitored closely to ensure that projects are progressed, to time and budget. As of 28 February, 56% of the active projects are currently being prepared or delivered, with the remaining 44% of projects having been completed. Figure 3 below shows the current status of the projects within the intermittent program, by number of projects. 45 projects have been withdrawn from our initial 2018/19 intermittent programme. 5 of these were brought forward to our 2017/18 programme by making use of available underspend from other areas. 20 projects were assessed in more detail and work is no longer required to be undertaken this financial year. 20 Projects have been cancelled or postponed due to funding restrictions.

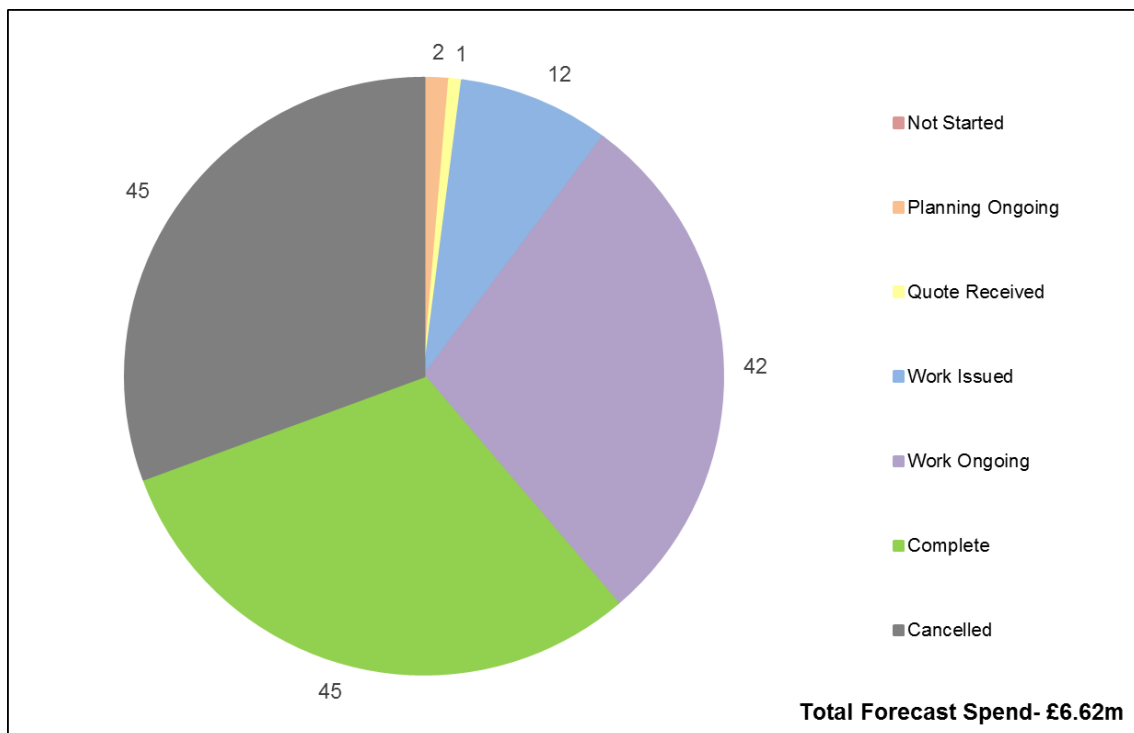


Figure 3. 2018/19 Intermittent Projects – current status by number of projects

- 3.6 The second phase of a 2 year programme to undertake erosion protection works along 2 sections of the River Steeping downstream of the town of Wainfleet, Lincolnshire, has been completed.
- 3.7 The erosion of the banks had occurred over several years and in some locations resulted in severe cliffing to the riverward face of the bank. To reinstate the banks, a stone toe was put in place and the banks re-graded with a coir matting installed over the new section of bank to protect it until the vegetation re-establishes.
- 3.8 Following completion of the first phase in March 2018, an additional 50m on both banks immediately downstream of Havenhouse Sluice was identified as requiring toe erosion protection. This was added to the second phase of the works, gaining efficiencies in mobilisation / demobilisation costs.
- 3.9 The second phase was completed in January 2019 by one of our WEM Framework suppliers, JBA Bentley, as part of our Asset Repair Programme of Works (ARPoW) which is managed by our National Capital Programme Management Service (NCPMS). The second phase of works cost £225k for approximately 375m on the right bank upstream of Havenhouse Sluice and 50m on both banks downstream of Havenhouse Sluice. See Figure 4 below.



Figure 4: River Steeping, Downstream of Wainfleet, Lincolnshire. Showing erosion to embankment toe and cliffing before works (left), and newly installed stone toe, and re-profiled embankment (right)

- 3.10 During a routine Reservoir Act inspection undertaken in October 2018, cracking and a slip was identified at the top of the drainage channel bank adjacent to one of the Till Flood Storage Reservoir embankments, near Saxilby, Lincolnshire. The total length of bank affected was approximately 50m.
- 3.11 The Inspecting Engineer advised that the bank should be repaired under the direction of a Qualified Civil Engineer.
- 3.12
- 3.13 Works commenced on site in January 2019, to remove the slipped material and reinstate the bank to its original design profile, the works were completed in February 2019 by one of our WEM Framework suppliers, Jacobs, at a cost of £130k. See Figure 5 below.



Figure 5: Till Flood Storage Reservoir, near Saxilby, Lincolnshire. Showing cracking and slippage to embankment before works (left), and repair works in progress (right)

- 3.14 We have completed topographical surveys of 7.4km of Boultham Catchwater and 9km of Buck Beck. This survey includes cross sections of structures on the watercourse, defence levels and hard and soft bed levels. The survey will be used to update hydraulic models of the catchment and inform on potential location that may benefit from desilting or defence raising.

- 3.15 The surveys were completed in 2018 and the deliverables were received in January 2019. The works were procured by the Environment Agency's Geomatics team and were completed by Storm Geomatics Limited and EDI Surveys. The cost of the survey was £31k.
- 3.16 We have completed desilting works to St James Mill Channel and West Bridge Dyke in central Northampton.
- 3.17 These works were vital to ensure that channel capacity along both stretches of watercourse is maintained as surrounding residential and commercial properties are susceptible to flooding and directly benefit from the works.
- 3.18 The works re-instated the capacity of the channel to convey flood flow, and improve surface water discharge from adjacent development. Approximately 100m³ of silt was removed from the channels.
- 3.19 The works were completed in January 2019 by one of our FCRM Operational Framework Lot 1 suppliers, Breheny Civil Engineering. The works cost £11.3k. See Figure 6 below.



Figure 6: Showing West Bridge Dyke channel, before (top left) and after (top right) desilting works, and St James Mill Channel, before (bottom left) and after (bottom right) desilting works. Both watercourses are in central Northampton

- 3.20 We have completed bushing works and blockage removal to the River Ise, upstream of Irthlingborough Road Bridge, Wellingborough, Northamptonshire.
- 3.21 Self-set willows were removed from the channel bed, and low hanging branches were removed from the trees along the edge of the watercourse.
- 3.22 These works maintain the conveyance capacity of the channel, and will help to prevent the build-up of blockages in the future.
- 3.23 The works were completed in February 2019 by our Kettering Field Team. The works cost £4.3k. See Figure 7 below.



Figure 7: River Ise, upstream of Irthlingborough Road Bridge, Wellingborough, Northamptonshire, before (left) and after works (right)

- 3.24 We have completed works to the Fence alongside Waterside North, Lincoln next to the River Witham. The works were to replace the 102 fence post bases which were rotten and repaint 91 post bases. These works were identified through a Public Safety Risk Assessment (PSRA) which was carried out on the fence.
- 3.25 The works were completed in February 2019 by one of our WEM Framework suppliers, JBA Bentley, as part of our Asset Repair Programme of Works (ARPoW) which is managed by our National Capital Programme Management Service (NCPMS). The works cost £125k. See Figure 8 below.



Figure 8: Waterside North, Lincoln. Fencing repair/replacement works being undertaken (left), and completed fence (right)

GUY SZOMI
Operations Manager (Welland and Nene)

PETE REILLY
Operations Manager (Lincolnshire)

ENVIRONMENT AGENCY LINCOLNSHIRE & NORTHAMPTONSHIRE AREA		Item No: 13	Report No: NFCC 19/13
Meeting:	ANGLIAN (NORTHERN) REGIONAL FLOOD AND COASTAL COMMITTEE (RFCC)	Subject:	REFRESHING THE CAPITAL AND REVENUE PROGRAMMES
Date:	5 April 2019	Officer Responsible:	Mark Bowlt (FCRM Programme Team Leader)

RECOMMENDATIONS

The Committee are asked to:

- A. Support the annual refresh of the current 6 year capital programme and the revenue maintenance programme.
- B. Note the targets associated with the 2019/20 funding allocation.

HEADLINE MESSAGES

- This paper is for information.
- The Environment Agency Board approved the capital and revenue allocation for 2019/20, following RFCC Committee consent in January.
- The allocation for 2019/20, and the targets associated with this are set out in appendix 1 for each RFCC.
- We expect the updated capital programme to be published during March, and the updated revenue programme in April. Both will be available on gov.uk in map form.
- This upcoming annual refresh is the final one of the current 6 year capital investment programme and will also focus on building the pipeline for beyond March 2021.
- An overview of the capital and revenue allocation process is set out in Appendix 2. This should be used as a reference document throughout the year, as required.

1. Background

- 1.1. In January, the Committees were presented with their indicative capital and revenue programmes for consent. On 7 February the Environment Agency Board approved the allocation of funding for 2019/20, and the indicative funding allocation for the remainder of the 6 year capital programme and the 5 year revenue maintenance programme.
- 1.2. The RFCC Committees played an important role in shaping and confirming the final programmes. The Environment Agency Board recognised and appreciated the support and guidance on local priorities which the Committees provide.
- 1.3. The allocations for 2019/20 and associated targets are set out in Appendix 1. The Committees are asked to note their individual contribution to these targets.
- 1.4. An overview of the allocation process for flood and coastal risk management (FCRM) capital and revenue funding is set out in Appendix 2 for your information. This can be used as a reference document throughout the year.

2. Programme publication

- 2.1. The updated capital investment programme is expected to be published during March on [gov.uk](https://www.gov.uk). This will be available in map form, alongside the revenue maintenance programme. By making the programme more accessible we are providing greater transparency in the work we are doing.
- 2.2. The 5 year revenue maintenance programme is expected to be published in April.

3. Latest position

- 3.1. At end of December 2018 we passed the 150,000 homes better protected milestone, against our target of 300,000 by March 2021. We would like to thank the RFCCs for their support, and our Risk Management Authority (RMA) partners for their part in achieving this collective milestone.
- 3.2. We are on track to achieve our 300,000 homes target but are not complacent as there are many potential risks to manage. There are still a number of schemes (around 400) left to deliver by March 2021.
- 3.3. We will shortly write to all Local Authorities and Internal Drainage Boards to inform them of their allocations for projects continuing into and starting in 2019/20.
- 3.4. The capital allocation is now prioritised to deliver the 300,000 homes better protected target, with clear contributions having been offered by each RFCC. At the RFCC Chairs meeting in May we will be discussing how we collectively achieve this target, recognising that this may require adjustments in year as projects progress. This will be reported to the RFCCs in July.
- 3.5. Our new framework for procuring and tendering work, the Next Generation Supplier Arrangements (NGSA), comes into effect on 1 April. This comprises a new Collaborative Delivery Framework, and supporting frameworks for Marine and Coastal, Mapping and Modelling, Client Services and Operational Services. Other Risk Management Authorities are also able to utilise services from these frameworks.

4. Annual refresh of the 6 year capital investment programme

- 4.1. The RFCCs are asked to support the final annual refresh of the current 6 year capital investment programme. This final refresh will need to ensure we deliver the 300,000 homes better protected target, and meet our settlement conditions set by government for partnership funding contributions (15%) and efficiency (10%).
- 4.2. The allocation for 2019/20 was created using a prioritisation method based on maximising the number of homes better protected. We aim to follow the same prioritisation approach during this next refresh.
- 4.3. In the upcoming refresh we aim to keep as much stability in the programme as we can. This is dependent on projects delivering to time and cost, in line with their current indicative allocations. The majority of the schemes within the programme will be in construction phase so there will be reduced opportunity to accommodate any changes.
- 4.4. Work is ongoing to influence, shape and secure a future funding settlement beyond March 2021. To support this it is important that future scheme opportunities are reviewed and identified through the upcoming refresh process to feed in to the Spending Review 2019 (SR19) discussions. We will continue to engage with RFCC Chairs on SR19 developments.

5. Annual refresh of the revenue maintenance programme

- 5.1. We are updating our Asset Management IT system in 2021. To free up resource within Area teams to transition to the new system we will be asking for data to allow for 2 years' of allocation to be generated during this year's refresh process.
- 5.2. The revenue maintenance allocation for 2020/21 is subject to the results of the Spending Review 2019 and we do not expect to know the outcome of this until the autumn. As a result we will prepare a range of scenarios for the RFCC Committees to review at their October meetings.
- 5.3. The guidance issued to Areas in April to support the refresh process will outline in more detail the allocation process and transition to the new asset management system. Further information can be provided to the Committees in the July paper if required.

6. Recommendations

- 6.1. The RFCC Committees are asked to:
 - A. Support the annual refresh of the current 6 year capital programme and the revenue maintenance programme.
 - B. Note the targets associated with the 2019/20 funding allocation.

KEN ALLISON

Director of FCRM Allocation and Asset Management

Appendix 1 – Allocation and delivery targets

a) Capital and revenue allocation for 2019/20

RFCC	Total Capital Allocation (£m)	Total Revenue Maintenance Allocation (£m)
Anglian Central	13.5	4.77
Anglian Eastern	37.2	8.70
Anglian Northern	63.3	10.29
English Severn & Wye	3.9	4.83
North West	59.1	10.65
Northumbria	11.0	2.48
South West	24.4	5.12
Southern	45.0	11.28
Thames	50.1	19.40
Trent	50.9	12.34
Wessex	11.1	7.73
Yorkshire	96.7	12.43

1. Capital allocation figures are as consented in January 2019.

2. Revenue figures are for revenue maintenance only and include asset management revenue projects

Table 1. Capital and Revenue Allocation per RFCC (£m)

b) Homes better protected targets for 6 year capital programme

RFCC	Delivered ¹			Forecast ²	Forecast Delivery ³		Total
	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2015-2021
Anglian Central	419	81	26	55	66	2035	2,682
Anglian Eastern	2,048	621	325	1129	2,372	3,595	10,090
Anglian Northern	14,913	2,782	4,041	4,285	17,117	5,688	48,826
English Severn & Wye	287	325	752	615	407	1079	3,465
North West	9,532	9,859	7,269	7,041	3,100	8,854	45,655
Northumbria	1,458	587	890	1341	1204	1236	6,716
South West	447	822	3576	5417	2,075	1,284	13,621
Southern	10,215	13,258	13,694	13,541	11,811	15,161	77,680
Thames	4,715	3,219	7,997	3,892	5,987	5,533	31,343
Trent	1,369	1,983	472	2,001	2,666	10,427	18,918
Wessex	6,965	918	1440	4549	1,140	1,313	16,325
Yorkshire	2,101	8,062	5,382	8,945	24,751	18,253	67,494
Total	54,469	42,517	45,864	52,811	72,696	74,458	342,815⁴

¹ Figures taken from audited final figures

² Figures taken from latest forecast (February 2019)

³ Figures taken from latest refreshed programme (due to published March 2019). Figures exclude Natural Flood Management homes better protected

⁴ Figures show maximum possible outcome on homes better protected

Note: Figures show capital maintenance (CM), new capital defence (DEF) and property level protection (PLP) schemes only, and only those projects which have grant in aid (GiA) allocation in the 6 year programme period.

Table 2. Homes Better Protected Delivery and Forecasts per RFCC

c) Percentage of Environment Agency maintained, high-consequence assets in required condition against targets for 2018/19

Environment Agency Area¹	RFCC	Year-end position as of Feb 2019 (%)²	Year-end targets for 2018/19 (%)
Cambridgeshire & Bedfordshire	Anglian Central	97.7%	98.1%
Essex Norfolk & Suffolk	Anglian Eastern	96.9%	96.2%
Lincolnshire & Northamptonshire	Anglian Northern	98.2%	98.5%
Cumbria & Lancashire	North West	95.6%	97.2%
Greater Manchester, Merseyside & Cheshire	North West	96.2%	99.2%
Northumberland, Durham & Tees	Northumbria	96.9%	96.6%
Staffordshire, Warwickshire & West Midlands	English Severn & Wye / Trent	98.1%	98.7%
Shropshire, Hertfordshire, Worcestershire & Gloucestershire	English Severn & Wye	98.7%	98.8%
Devon & Cornwall	South West	98.3%	98.8%
Kent & South London	Southern / Thames	97.0%	96.0%
Solent & South Downs	Southern	98.2%	98.3%
Hertfordshire & North London	Thames	97.9%	98.7%
West Thames	Thames	93.3%	95.2%
Derbyshire, Nottingham & Leicestershire	Trent	97.2%	97.6%
Wessex	Wessex	97.8%	98.3%
Yorkshire	Yorkshire	96.0%	97.8%

¹ Targets are reported by EA Area rather than RFCC boundaries

² The national target for 2018/19 for high consequence assets is 97.5%. Nationally we are forecasting to be at or above the target for this year.

Table 3. Percentage of Environment Agency maintained, high-consequence assets in required condition against targets for 2018/19

Appendix 2

FCRM capital and revenue allocation process – a reference document

This section provides an overview of the annual capital and revenue Grant in Aid allocation process. It should be used as a reference document throughout the year. A glossary of key terms is provided in section 6. The RFCC Members Handbook should also be referred to for clarity on RFCC Committee roles and responsibilities.

1. FCRM capital and revenue funding allocation overview

- 1.1. RFCCs play a critical role in the allocation and approval of the Environment Agency's capital and revenue programmes for FCRM. These two separate programmes contain a number of projects which are led and delivered by Risk Management Authorities – the Environment Agency, Local Authorities and Internal Drainage Boards, and in some cases Water Companies and Highway Authorities, or in partnership with each other.
- 1.2. Within the capital programme, projects will be new schemes (e.g. new defences), improvements to existing schemes (e.g. capital maintenance of existing defences), support schemes (e.g. mapping and modelling), or other activities (e.g. property level resilience). Revenue allocation projects will be maintenance works to existing assets to ensure they do not fall below their target condition, and Environment Agency day to day costs including, salaries, specialist resources, maintaining mapping, modelling and telemetry systems.
- 1.3. In simple terms, the capital programme focuses on the building of new assets or reinstating failing assets, while the revenue programme supports day to day operational activities and the maintenance of existing assets.
- 1.4. RFCC Committees should scrutinise these programmes, hold the Environment Agency, Local Authorities and others to account to ensure delivery, and consent all final capital and revenue programmes. RFCCs should ensure local priorities are addressed through local choices, and raise local levy which can be used to fund additional FCRM works in the local area. The RFCC Members Handbook sets out the statutory functions and roles of RFCCs.
- 1.5. RFCCs have a role to play in helping to ensure the targets associated with this funding are achieved. The number of homes better protected and the percentage of Environment Agency owned assets in required condition are set out at the start of each financial year. These targets, otherwise known as Outcome Measures (OMs) or Key Performance Indicators (KPI) are set by Defra and their delivery is a requirement of the Environment Agency's funding settlement.

2. Annual FCRM capital Grant-in-Aid allocation process for 2020/21

- 2.1. We are currently in the penultimate year of our have a 6 year capital programme with confirmed funding up until March 2021. Work is currently underway to secure another long term funding settlement for FCRM, taking us beyond the 2020/21 financial year.
- 2.2. Before Government committed to a 6 year funding period, our programmes were substantially revised and changed each year as part of the annual funding process. With the 6 year programme, we now largely expect all Risk Management Authorities to stick to the approved programme as far as possible, and we undertake an annual refresh of the programme to allow projects to be removed or added where priorities or deliverability has changed.
- 2.3. This annual refresh of the programme and subsequent approval by RFCCs is a constant cyclical process. The process for allocating Government Grand-in-Aid capital funding and refreshing the programme is summarised below. It sets out where RFCCs input and

approve the programme as part of the annual cycle of Committee meetings. This is also set out in the table and diagram in section 5.

- 2.4. Quarter 1: The annual refresh process starts in March and April with the production and publication of new and updated guidance to support the next cycle of the refresh. This is put together by the National Portfolio Office within the Environment Agency. During April and May we invite all Risk Management Authorities to submit any new projects and any changes required to existing projects in the programme. This year we will again be focusing on schemes beyond 2021 to strengthen the pipeline of projects and the future programme.
- 2.5. Following submission of these changes, local Area teams will put together a new and 'refreshed' local programme, which is shared with RFCC Committees prior to and at their July meetings for support and endorsement.
- 2.6. Quarter 2: Following the July RFCC Committee meetings, local Areas Teams, on behalf of their RFCCs, will submit all project changes required to the national team (the National Portfolio Office). The National Portfolio Office will then collate all the changes and bids for additional or reduced funding for individual projects and nationally prioritise the required changes to ensure the programme remains affordable, on track to deliver its outcomes, and meet any wider national funding changes. They will then produce a revised investment allocation programme for the whole country for the next financial year. The national priorities for allocating funding are agreed with the RFCC Chairs.
- 2.7. The updated and refreshed programme, which is affordable within the current indicative allocation and shows which projects are eligible for funding, is then returned to local Area Teams to share with RFCC Committees.
- 2.8. Not all requested changes made during the refresh process will be able to be accommodated. These changes have to be balanced against other competing demands and priorities across the country and the programme must remain affordable.
- 2.9. Quarter 3: During September, where sub-groups exist, and in October for the main Committee meetings, the 'local choices' meetings take place. These are where RFCCs can make choices about their allocation programme based on local priorities. If further contributions are identified, from third parties or local levy, RFCCs may be able to increase their programme and deliver more projects. Additional Partnership Funding contributions often mean more projects can go ahead, or become viable for Grant-in-Aid funding.
- 2.10. During November and December the national team will collate and review all Committee returns. All local choices, as long as they meet the required criteria and are within budget, are approved and included in the production of the final draft allocation.
- 2.11. In January, the final allocation for capital Grant-in-Aid for the next financial year is shared with RFCCs for their review and consent.
- 2.12. Quarter 4: Following consent by the RFCCs, the allocation programme is shared with the Environment Agency Board for approval in February, and published on gov.uk in March. Once this programme has been approved, the refresh process for the next financial year starts again.

3. FCRM revenue Grant-in-Aid allocation process for 2020/21

- 3.1. Funding for revenue maintenance runs out at the end of 2019/20, the current Spending Review period. With no current funding settlement currently agreed for 2020/21 and beyond, this year's allocation process will prepare a number of scenarios. This will ensure we are prepared for a funding announcement when it is made. If an emergency budget is

put in place the timescales set out below may change. This will be communicated to the RFCCs as required.

- 3.2. The Asset Information Management System (AIMS) IT system is used to produce the funding allocations for the revenue maintenance programme. The system was first used to produce the 2017/18 allocation and is an improvement on the previous approach as it enables more targeted allocation of maintenance funding to individual assets based on their flood risk benefits, using nationally consistent maintenance standards.
- 3.3. We are in the process of upgrading the AIMS IT system to a new Asset Management System. To create capacity for the upgrade we intend to ask Area teams to provide data to allow for 2 years' of allocation to be generated during this year's refresh. This will allow us to run the 2021/22 allocation as normal without drawing on Area resources, should we need to, and create capacity for the system upgrade.
- 3.4. Quarter 1: During the first quarter guidance for the maintenance programme refresh and update to the 5 year maintenance programme will be provided.
- 3.5. The 'frequent' maintenance programmes for each operational Area will be automatically copied forward within the AIMS IT system. This will be generated at the start of April.
- 3.6. Throughout April, May and June local Area teams will be asked to review their baseline programmes. Work that is no longer required will need to be removed and additional work can be identified within the AIMS system. This will include both 'frequent' activities (e.g. grass and weed cuts, operational checks) and more 'intermittent' activities (e.g. dredging, tree work, asset repairs).
- 3.7. It will be important that all maintenance needs are properly identified and this review is complete by mid-July.
- 3.8. Quarter 2: Throughout August the national team (the National Portfolio Office), working closely with local Area teams, will quality assure the identified needs programme.
- 3.9. By the end of August a nationally prioritised indicative maintenance allocation will be produced within the AIMS system. Following a national review, the indicative maintenance programmes for each Environment Agency Area and RFCC will be provided to local Area teams in early September for use in their October RFCC papers.
- 3.10. Quarter 3: At the October RFCC meetings (and in September where sub-groups exist) local Area teams will share indicative allocations with their RFCCs. For the next financial year (2020/21) local choices can be undertaken if there are additional funding opportunities available locally (for example local levy, general drainage charges, Internal Drainage Board precepts).
- 3.11. The RFCCs will also be shown the indicative 5 year maintenance programme at the October meeting.
- 3.12. Between September and November local Area teams will undertake a 'programming' task within the AIMS system. This will enable any locally funded work approved at the October meetings to be allocated funding, generate the work programmes within the system to enable efficient work allocation to delivery teams, and also produce the published programme information. This must be completed by the end of November.
- 3.13. In early December the 'programmed' reports are generated which will provide the final indicative allocation at an Area and RFCC level. These will be made available to local Area teams for inclusion in their January RFCC papers.

- 3.14. Quarter 4: At the January meetings RFCCs will be asked to consent to the 2020/21 maintenance programme and endorse the 5 year maintenance programme. This will enable the Environment Agency Board to allocate the funding for the following financial year.
- 3.15. Throughout February and March the 2020/21 refreshed maintenance programme and 5 year maintenance programme will be prepared for publication in April.

4. Support programmes

- 4.1. We allocate funding to support the delivery of wider FCRM activities that are integral to the delivery of our whole FCRM business. Our support schemes and programmes include reconditioning existing assets, strategies, flood resilience activities including telemetry, coastal monitoring, works on bridges that provide access to our assets, and flood modelling and forecasting.
- 4.2. The Environment Programme is one of the support programmes. We seek to integrate environmental outcomes in to all our schemes where possible. Where this is not possible, this programme helps the Environment Agency to fulfil its environmental responsibilities to protect and enhance the water environment. It specifically helps meet legal requirements such as the Water Framework Directive.
- 4.3. In November 2016, the Secretary of State announced £15million of funding for Natural Flood Management (NFM) projects. This funding is spread over the remainder of the 6 year capital programme, and is intended to reduce FCRM risk, improve habitats and increase biodiversity and increase our overall learning and understanding of the contribution natural flood management can make to our work. This programme is separate to the Environment Programme and support programmes.

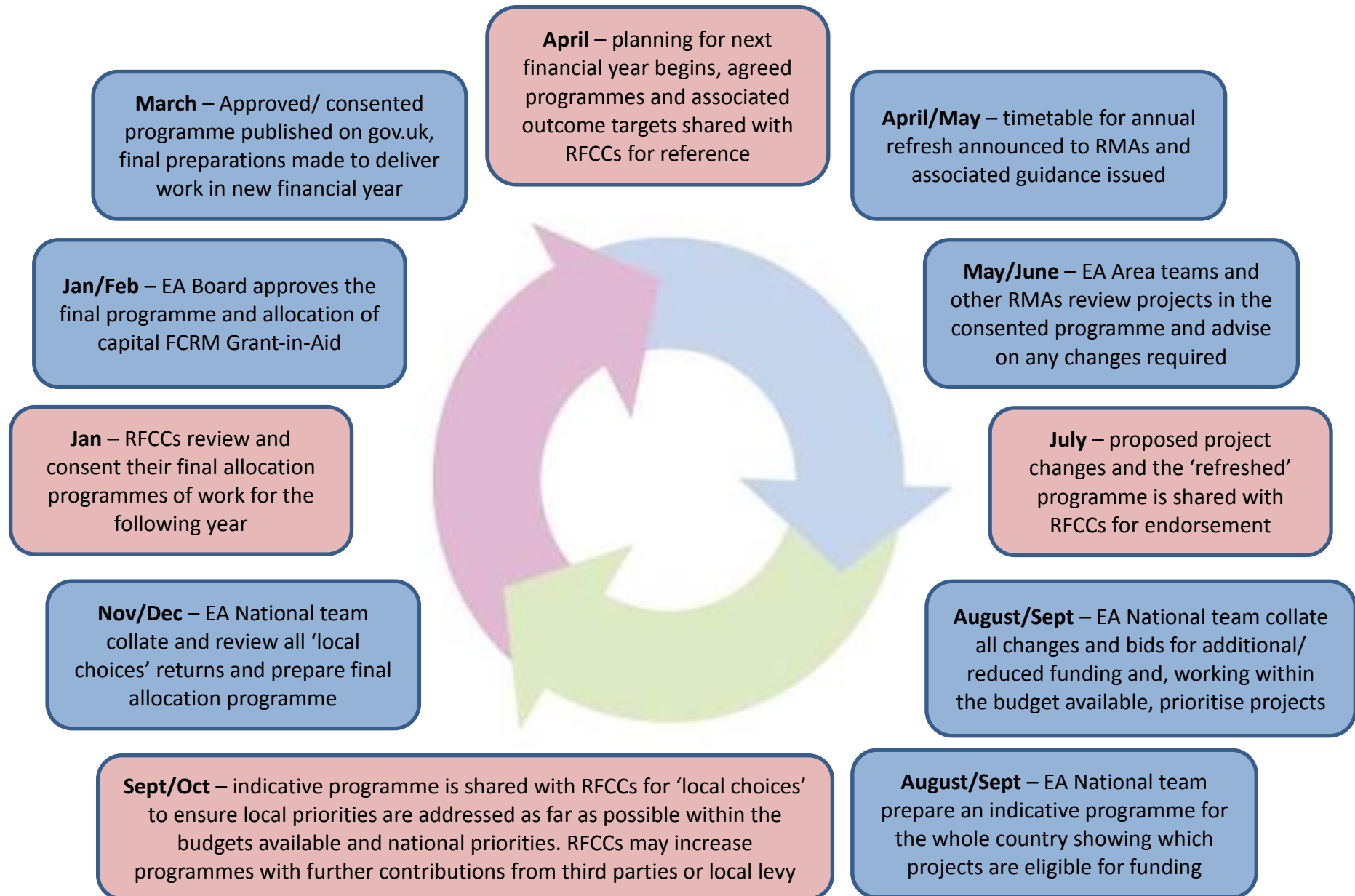
5. What RFCC Committees can expect and when

- 5.1. The following table summarises what the RFCC Committees can expect to receive at each of the 4 Committee meetings and what they will need to do:

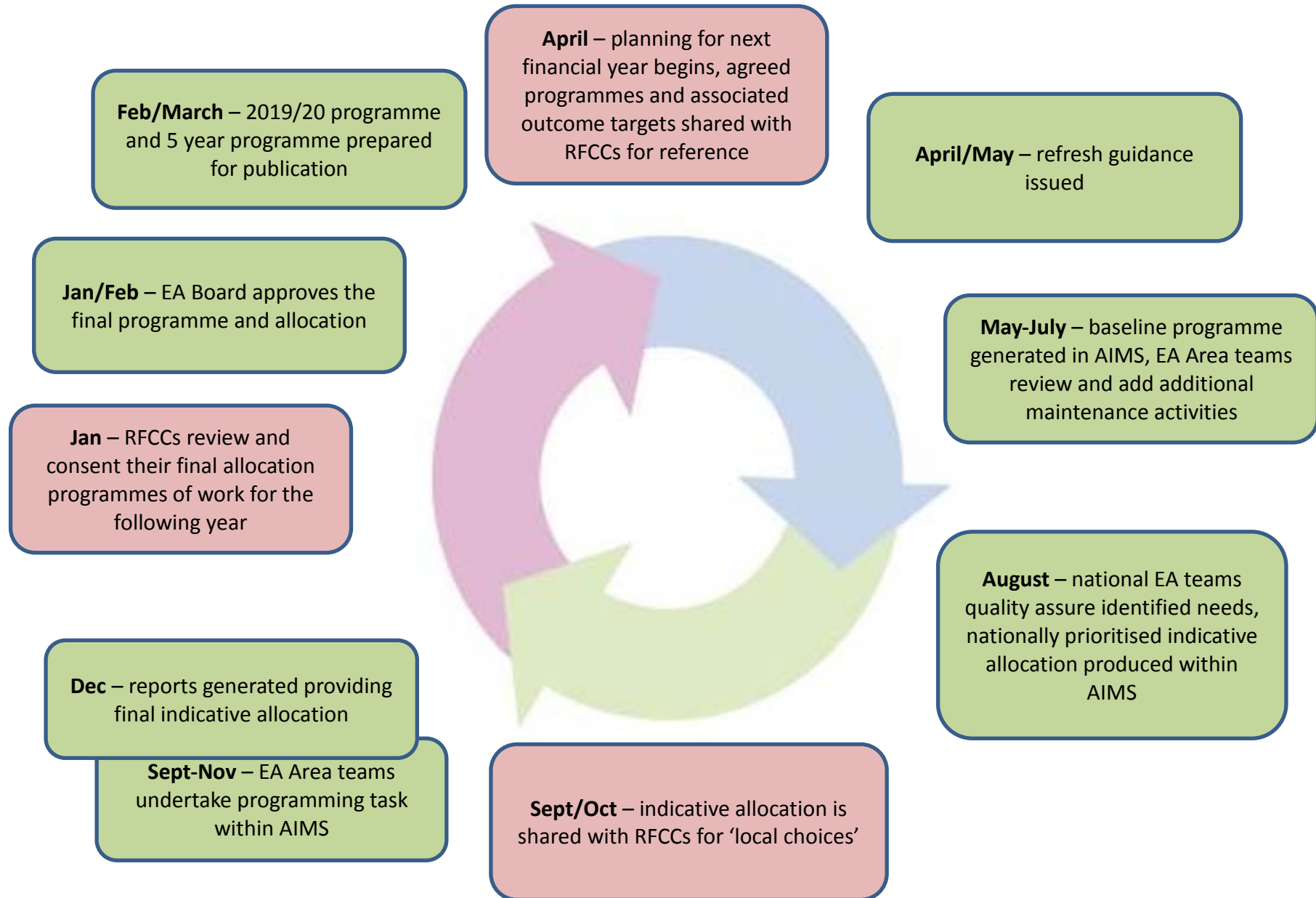
Committee Meeting	What to expect	Actions required
April	Capital: <ul style="list-style-type: none"> • Confirmation the programme for the financial year has been approved and published. • Details of the outcome targets to be achieved for the year – number of homes better protected. • Outline of the refresh process for the next financial year. 	No formal action required – RFCCs to note targets to be achieved and support refresh.
	Revenue: <ul style="list-style-type: none"> • Confirmation the programme for the financial year has been approved and published. • Details of outcome targets to be achieved for the year – percentage number of high consequence assets at required condition. • Outline of the refresh process for the next financial year. 	No formal actions required – RFCCs to note targets to be achieved and support refresh.
July	Capital: <ul style="list-style-type: none"> • Copy of the refreshed programme for review, following changes submitted by all Risk Management Authorities. 	Review and endorse the draft refreshed programme.
October	Capital: <ul style="list-style-type: none"> • Copy of the affordable indicative programme for local choices. 	Decide local choices based on local needs.
	Revenue: <ul style="list-style-type: none"> • Copy of the draft indicative allocation for 2020/21 for local choices. • Copy of the draft indicative 5 year maintenance programme. 	Decide local choices based on local needs.
January	Capital: <ul style="list-style-type: none"> • Copy of the final draft allocation for the next financial year. 	Consent final allocation.
	Revenue: <ul style="list-style-type: none"> • Copy of the final indicative maintenance allocation for the next financial year. • Copy of the final indicative 5 year maintenance programme. 	Consent final allocation. Endorse final indicative high level future programme.

5.2. The following diagram also shows the activities throughout the year and at each of the Committee meetings:

Annual process for allocating capital funding



Annual process for allocating revenue funding



6. Glossary

The following should be used as a reference guide to help explain some of the key terminology used when describing the capital and revenue programmes and the allocation process:

AIMS System

The Asset Information Management System (AIMS) is a computer based IT system used to produce the funding allocations for the revenue maintenance programme. It enables more targeted allocation of maintenance funding to individual assets based on their flood risk benefits, using nationally consistent maintenance standards.

Assets

Within FCRM these are usually categorised as either structures (e.g. sluices, pumping stations, etc.) or defences (e.g. channels, walls, embankments, etc.).

Capital

In general, capital funding is money spent on the construction, creation, purchase and improvement or replacement of assets.

Consented programme

The indicative allocation, or indicative programme, becomes the consented programme once the RFCCs give their consent in January and the Environment Agency Board approves in February. Only the programme for the next financial year is consented, future years within the 6 year programme (and longer term maintenance programme) remain indicative.

Funding codes

These are used in managing the programme to understand the type of works that the project is undertaking. Some of the more commonly used codes are:

- BRG – works to bridges which enable FCRM activities, such as widening to increase flow rates.
- CM – capital maintenance – works to reinstate an asset's standard of service and preserve its design life.
- DEF – works to change the current standard of service/protection of a defence or asset, or to create a new defence.
- REC – recondition work – projects to maintain the standard of protection of existing assets as capital maintenance projects but are only corrective, infrequent and one-off activities which restore the standard of service of failing assets.
- PLP – property level protection

Grant-in-Aid (FCRM GiA)

The Government, through Defra, provides the majority of funding for FCRM activities in England in the form of Grant-in-Aid administered by the Environment Agency. FCRM Grant-in-Aid is either capital or revenue funding.

- Capital funding is generally used for new assets, or extending the life of existing assets, and is available to all Risk Management Authorities.
- Revenue funding is generally used for 'day-to-day' Environment Agency activities and maintenance activities.

Indicative allocation

The indicative allocation, or indicative programme, is the initial and draft financial allocation (both capital and revenue) for the forthcoming financial year following national prioritisation. It is presented at the October meeting for review and/or amendment, and at the January meeting for approval. The allocation remains indicative until it is approved and becomes the consented allocation or programme.

Key Performance Indicators (KPIs)

These are the Environment Agency's corporate performance measures against which targets are set. They reflect our progress and demonstrate we are meeting our commitments to deliver. We report our position to the RFCCs on the 2 main indicators for FCRM – KPI 962 and KPI 965.

- KPI 962 reports on the percentage of assets that are at or above their target asset condition. The Environment Agency reports on all FCRM assets on Main Rivers, regardless of who owns or manages them.
- KPI 965 reports on the number of households that area at increased flood risk from assets that are not at their target flood defence condition (are failing assets).

Local choices

Funding bids are prioritised and allocated initially by the Environment Agency's national programme team according to agreed principles. Following this, RFCCs are invited to make adjustments to this programme within their allocated budgets and with any additional local funding they may have. This takes place during the October RFCC Committee meetings.

Local levy

Levy raised by the Environment Agency from Lead Local Flood Authorities (LLFAs). LLFAs are unitary authorities for an area, or if there are no unitary authorities, the county council for the area. The level at which the local levy is set is voted on annually by LLFA members on the RFCC. Levy is used to fund FCRM activities within the RFCCs region and supplements FCRM Grant-in-Aid funding.

National Portfolio Office

The Environment Agency's national programme and allocation team is otherwise known as the National Portfolio Office. It is the hub for managing the capital and revenue programmes and overseeing changes.

Outcome measures

Similar to KPIs, Outcome Measures (OMs) are a suite of performance measures for flood and coastal erosion risk management. Outcome Measures 1 to 4 are used to help prioritise projects within the programme, and are used as part of the Partnership Funding score to calculate the amount of FCRM Grant-in-Aid available to a project.

- OM1 reports on the overall benefits of a scheme and Grant-in-Aid investment, taking into account whole life costs and benefits.
- OM2 (also known as KPI 930) reports on the number of households benefiting from a reduced risk of flooding from schemes which create new assets or reinstate an asset's standard of protection.
- OM3 (also known as KPI 933) reports on the number of households benefiting from a reduced risk of coastal erosion from schemes which create new assets or reinstate an asset's standard of protection.
- OM4 – is linked to the environment programme and reports on the hectares of habitat created and kilometres of protected rivers improved. These Outcome Measures are in the process of being changed and updated.

Project Application and Funding Service (PAFS)

This is the new system for submitting proposals for new projects or project changes requiring Grant-in-Aid funding. This replaces the current project proposals process and the FCERM1 form. It requires all Risk Management Authorities to submit project proposals online. This service "submit a proposal for flood and coastal erosion risk management project funding" is accessible through gov.uk.

Partnership funding

Defra's current policy. It provides a system of funding which applies to all FCRM projects seeking Grant-in-Aid (GiA) funding. It is a way of increasing overall investment in FCRM by encouraging external contributions as a means to unlock GiA funding. GiA is capped based on the number of outcome measures a project will deliver, with each project having a Partnership Funding score as a means of prioritisation. RFCCs play a key role in working with partners and communities to maximise contributions, and to raise and allocate local levy which can be used as an external contribution.

Pipeline

The 'pipeline' refers to those projects which are included in the 6 year capital programme with a partnership funding score below 100% and therefore require some external contributions before they can go ahead. It also refers to those projects which are planned for beyond 2020/21. As part of the annual refresh process, and in looking to develop a future long term investment programme, we look to strength our pipeline of projects.

Project Status

This refers to the Gateway that a project has achieved so far. As part of good project management key milestones are identified within a projects lifecycle and progress is tracked. Key milestones or Gateways are:

- Gateway 0
- Gateway 1 – Business case and financial approval
- Gateway 2 – Detailed design
- Gateway 3 – Contract award
- Gateway 4 – Readiness for service
- Gateway 5 – Contract complete
- Gateway 6 – Project closure

Refresh

This is the annual opportunity for all Risk Management Authorities to review their capital and revenue programmes and to update project information and add new projects into the programme.

Revenue funding

In general, revenue funding is money spent by the Environment Agency on day to day activities. These include staff salary costs, revenue projects (e.g. inspections, maintaining hydrometric and telemetry systems), and revenue maintenance (e.g. preventing assets falling below target condition). Revenue funding also pays for the Environment Agency's response to flooding.

Risk Management Authorities

The collective name for the following organisations: the Environment Agency, Lead Local Flood Authorities, District Councils (where there are no unitary authorities), Internal Drainage Boards, Water Companies and Highway Authorities.

Spending Review 2019 (SR19)

This is our opportunity to build on the success of the current funding settlement and negotiate a long term programme that fits the needs of the future beyond 2020 (revenue) and 2021 (capital).

Forward Look (NFCC 19/14)

Please note: Agenda items for future meetings are subject to change.

12 July 2019

Main Agenda Items	Sponsor
Anglian Northern Capital FCERM Programme (Inc. RMA's Update)	Deborah Campbell/Ben Thornely
Anglian Northern Revenue FCERM Programme	Pete Reilly
FCERM Programming: Current in-year Position	Mark Bowlt
Incident Management Update	Ben Thornely
Humber Strategy Update	Philip Winn
FCERM Update Paper	National FCRM
Black Sluice Pumping Station (Abigail Jackson)	Pete Reilly
Riparian Issues (Julia Beeden)	Eddy Poll
Effectiveness Initiative (Abigail Jackson)	Pete Reilly/Guy Szomi
Programme Refresh	Mark Bowlt
Uni. of Lincoln - Riseholme	Matt Latham
NFM Case study update - Environment Programme Team - Reducing maintenance needs going forward	Matt Latham
SF2GP: outcome of the consultation	Deborah Campbell
Boston Barrier Update	Adam Robinson
Lock Reversal on the River Nene	Guy Szomi
Natural Capital	
Agricultural Payment Process Scheme	Matt Latham
Holdingham Mill Property Level Resilience Project	
Welland and Nene PLR Works	
Eel/Crayfish Update	

11 October 2019

Main Agenda Items	Sponsor
Anglian Northern Capital FCERM Programme (Inc. RMA's Update)	Deborah Campbell /Ben Thornely
Anglian Northern Revenue FCERM Programme	Pete Reilly
FCERM Programming: current in-year position	Mark Bowlt
FCERM Capital Programme: Refreshed Indicative Allocation Programme	Mark Bowlt
Incident Management Update	Ben Thornely
Humber Strategy Update	Philip Winn
FCERM Update Paper	National FCRM
Local Choices Proposal	Deborah Campbell/Ben Thornely
FCERM Update Paper	National FCERM

List of Information Papers

Friday 5 April 2019

Venue: Boardroom, Kingfisher House, Goldhay Way, Peterborough PE2 5ZR

Information Items	
1.	Incident Management in Lincolnshire and Northamptonshire (INF 04)
2.	Humber Strategy and Programme Update (INF 05)
3.	RFCC Chairs Update Paper (INF 06)
4.	Strategic working with water companies: Price Review 2019 (PR19) & drainage and wastewater management plans (DWMPs) (INF 07)

BLANK PAGE

ENVIRONMENT AGENCY LINCOLNSHIRE & NORTHAMPTONSHIRE AREA		Item No: N/A	Report No: INF 04
Meeting:	ANGLIAN (NORTHERN) REGIONAL FLOOD AND COASTAL COMMITTEE (RFCC)	Subject:	INCIDENT MANAGEMENT IN LINCOLNSHIRE AND NORTHAMPTONSHIRE
Date:	5 April 2019	Officer Responsible:	Ben Thornely (Area Flood Risk Manager)

RECOMMENDATIONS

- A. The intended outcome of this paper is that Members note the concurrent incidents the Environment Agency are managing at the present time and are aware that this may have an impact on the support we can provide partners in Lincolnshire and Northamptonshire.

1. Incident Management Overview

- 1.1. The Environment Agency has now scaled its Incident Management structures both nationally and locally in response to multiple concurrent incidents → EU Exit Contingency Planning, Prolonged Dry Weather & High Tide Periods. We continue to work closely with our professional partners in response to these issues to ensure we can protect people and the environment from adverse impacts.

1.2. EU Exit Contingency Planning:

- We are monitoring and, where appropriate, mitigating a number of risks including potential restrictions on waste exports and criminal activities as a result, supply chain disruptions, impacts on Food and Agriculture and potential delays to key projects.
- Internally we continue to report weekly on our preparations and are working with national colleagues to ensure that we understand the impacts on our normal workloads.
- We attending regular Strategic Local Resilience Form meetings for both Lincolnshire and Northamptonshire.

1.3. Prolonged Dry Weather:

- January was an exceptionally dry month and Lincolnshire and Northamptonshire Area only received 39% of the Long Term Average rainfall. We also received below average rainfall during February.
- In the first week of March groundwater levels were classified as below normal and river flows at a number of key sites classed as notably or Exceptionally Low.
- Public water supplies are currently secure however some reservoirs are below normal operating levels. Water company stocks are resilient at this time.

1.4. High Tides:

- There are a number of astronomically high tides throughout 2019 including the 21st – 24th March 2019 and 19th – 21st April 2019.
- There is currently no indication that tidal impacts are expected on astronomical levels alone. Tidal flooding will only occur if a storm surge occurs in parallel, which can be forecast up to five days ahead.

- To bolster our resilience additional duty staff have been rostered for these periods and will support the primary duty team, monitoring the situation and implement necessary operational actions (e.g. flood gate closures).

2. Local Resilience Forum (LRF)

- 2.1 **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 others. These agencies are known as Category 1 Responders, as defined by the Civil Contingencies Act.
- 2.2 We are working with Lincolnshire and Northamptonshire LRFs to plan and prepare for EU Exit – particularly if there is no deal. We have been involved in multiple planning meetings and exercises. To ratify LRF risk assessments and contingency plans.
- 2.3 We have a number of proactive LRF Strategic Command Group (Gold) and Tactical Command Group (Silver) meetings in the diary should these be required and have Managers and Officers in place to attend these.

3. Lincolnshire and Northamptonshire Area preparation

3.1 Rostering:

- Incident rosters are in place until the end of April 2019 to ensure our response and resilience to the abovementioned incidents in addition to any others which may occur.
- We have been instructed to extend this roster until the end of June 2019 and will be undertaking this task in the coming weeks.
- Staff are being encouraged to 'Stop and Slow' non-critical workloads to ensure incident response is prioritised.

- 3.2 **Concept of Operations:** We have implemented a ConOps structure that we will use to manage our response to these concurrent incidents. The structure is scalable so can draw in more staff if required:

- In addition to the usual duty team we have also established Planning, Logistics, Intelligence & Reporting and Comms & Engagement Cells under the ConOps structure to manage our response to the specific risks identified above.
- Within some cells, sub-cells have been established to focus on each specific incident.
- This ConOps structure is managed by an offline Area Duty Manager and Area Base Controller to enable the normal duty team to prioritise any other emerging incidents.

3.3 Impact on our work and work with Partners:

- Our Executive Directors Team (EDT) has provided Area Directors and Area Leadership Teams with a steer on reprioritising workload as the impact of EU Exit and any other concurrent incidents become apparent.
- EDT have outlined work that we must protect (such as warning and informing the public of flood risk), work that we can slow (such as some pipeline work) and work that we can stop (such as low risk regulation). We are assessing the impact of this steer on workload and will liaise with partners if they are likely to see an impact.
- Given the uncertainty of EU Exit, it may be that we have to make short notice decision about workload should the incidents escalate and we require more staff support.

4. Recommendations

- 4.1 This paper has provided an overview to RFCC Members on key incident risks in the next few months in Lincolnshire and Northamptonshire Area.
- 4.2 Members are requested to support this important work and share with their staff that Environment Agency may be focussed on protecting our environment in dealing with these incidents as a priority over more traditional workloads in the next few months.

BEN THORNELY
Area Flood Risk Manager

ENVIRONMENT AGENCY LINCOLNSHIRE & NORTHAMPTONSHIRE AREA		Item No: N/A	Report No: INF 05
Meeting:	ANGLIAN (NORTHERN) REGIONAL FLOOD AND COASTAL COMMITTEE (RFCC)	Subject:	HUMBER STRATEGY AND PROGRAMME UPDATE
Date:	5 April 2019	Officer(s) Responsible:	Philip Winn (Humber Manager) & Helen Todd (Humber Flood Risk Manager)

RECOMMENDATIONS

1. The committee is asked to note the report and the progress made on reducing flood risk around the Humber.

1. Purpose of report and introduction

- 1.1 This paper provides an overview on our flood risk management work on the Humber across the following Environment Agency areas: Lincolnshire & Northamptonshire; Yorkshire; and East Midlands.

Update of progress of the Comprehensive Review of the Humber FRM Strategy (HFRMS)

2. Update since last meeting

- 2.1 The Humber Strategy Comprehensive Review aims to redefine the strategic approach to managing tidal flood risk on the Humber estuary for the next 100 years. The Environment Agency has worked together with the local authority partners to develop a draft list of strategic approaches (three 'baseline' approaches that are needed for economic checking purposes, and three new approaches for managing tidal flood risk at an estuary-wide scale) for further appraisal.
- 2.2 We are continuing with our work to define the strategic approaches for more detailed appraisal and identification of the approach by which the options will be appraised. This involves appraising a series of pathways through three time periods over the Strategy's 100 year period. The process will assess flood risk management scenarios and analyse the benefits, costs and impacts of each option. The appraisal will take into account risk modelling outputs, the Sustainability Appraisal, environmental, economic, social, landscape and funding factors. Each strategic measure will describe the approach taken over the three time periods and identify potential measures to be implemented within each time period.
- 2.3 In order to appraise the strategic approaches over such a large area we are developing tools that will help us achieve this. To test these tools and processes ahead of the 'real' appraisal we are planning to carry out test appraisals in the next few months. This will help us identify any issues or gaps that we can address proactively to help us ensure we get a good and robust outcome from the Comprehensive Review to sustainably manage future tidal flood risk in the Estuary and the tidal rivers.
- 2.4 Engagement has begun with key stakeholders and the wider public to broaden awareness of our work. We are focusing on working more closely with our partners to strengthen the mechanism to deliver this engagement as a partnership.

- 2.5 We have started to communicate the Humber Strategy and the three Strategic Approaches with the wider public. Newsletters have been sent to parish councils and 2000 landowners within the Strategy area. We have also launched our citizen space page and social media platforms (Twitter and Facebook). Further work will be carried out with other key stakeholder groups, with more extensive engagement expected to take place in the autumn.

Scheme Updates

3. South Humber Initial Assessments

- 3.1 The Environment Agency is progressing Initial Assessments to explore justification to reduce the risk of tidal flooding near Stallingborough and Humberston. These are to be considered as part of the ongoing Comprehensive Review of the Humber Strategy and the Investment Programme pipeline, as the works are expected to better protect a significant number of residential and commercial properties after 2021.
- 3.2 In addition to reviewing the outline scope of the Barton to New Holland scheme, an Initial Assessment for Barton Cliff to Barton Haven project has commenced, as there are shared benefits and potential efficiencies in joint delivery.
- 3.3 An Initial Assessment of a scheme to reduce the longer-term residual risk of flooding to the Humber Sea Terminal (C.Ro port complex) at North Killingholme, has commenced in preparation for the next Investment Programme. The scheme is being developed in line with the existing Humber Strategy, but the long term solution will consider the ongoing Comprehensive Review and very likely require substantial local funding.

4. South Ferriby and Winteringham Ings Sea Defence Improvements

- 4.1 The Outline Business Case for the South Ferriby Flood Alleviation scheme was approved in April 2018. The scheme aims to reduce the risk of tidal flooding to 140 homes, businesses and the CEMEX plant.
- 4.2 In July 2018 a more sustainable alignment option, considering future potential erosion, was discussed and accepted in consultation with landowners, residents and the wider community.
- 4.3 The Full Business Case was approved in Jan 2019, with its Financial Scheme of Delegation to allow expenditure signed in Feb 2019. This included £1.9m funding from the Defra Growth Fund.
- 4.4 A Planning Application was submitted to North Lincs Council (NLC) in Nov 2018. We have carried out extensive pre-planning application engagement with NLC Highways Development Control, Planning, Ecology and Archaeology officers, as well as with South Ferriby Parish Council, landowners and tenants. The application will go to Planning Committee on 13 March 2019.
- 4.5 Construction is expected to commence in April 2019, with completion by March 2021.
- 4.6 Legal agreement for a £0.6m of contribution from NLC has been completed. The legal agreement for the >£2.5m CEMEX contribution-in-kind is planned to be signed imminently.
- 4.7 Environmental mitigation measures and archaeological trenching works were completed by end of March 2019. Topsoil strip will follow in April 2019.
- 4.8 We continue to seek additional funding from Highways England, Anglian Water and Greater Lincolnshire Local Enterprise Partnership Growth Fund.

4.9 CEMEX continues to stockpile clay from their quarry at South Ferriby, to be used to construct the embankments.

4.10 A package of resilience measures to the existing tidal flood embankments across Winteringham Ings frontage is being developed to complement the main scheme.

5. Erosion protection

5.1 A scheme to proactively prevent erosion between New Holland and Skitter Ness (near Goxhill) is being developed.

5.2 Short term repairs to the revetment along the Halton Marshes frontage have been planned. These are envisaged to be undertaken in summer 2019.

5.3 A minor works programme of local revetment repairs, to maintain the integrity of other parts the south Humber bank defences, has been developed. The works are to be completed by late summer 2019.

6. Humber Hull Frontage Improvements

6.1 Funding has been secured for this £42 million tidal flood defence scheme which will reduce the risk of flooding to 113,000 homes and businesses. The scheme will improve around 7km of tidal defences through the city of Hull.

6.2 Hull City Council Planning Committee and the Secretary of State for the Ministry of Housing, Communities and Local Government have approved the scheme.

6.3 Construction started in January 2019 at St Andrew's Quay Retail Park. Work on the scheme will be complete by the end of 2020.



Figure 1. Digital rendering of how the Humber Hull Frontage will look once completed

7. Skeffling Habitat Compensation and Defence Scheme

7.1 This is a partnership project with ABP to provide compensatory habitat to replace coastal squeeze and direct losses in the Humber Estuary as required under EU and UK Law (Habitats Regulations).

7.2 The two planning applications have now been submitted to East Riding of Yorkshire Council. One for the West Scheme and one for the East Scheme. Planning determination, by committee, is expected by June 2019.

7.3 Engagement with the local community and local organisations has been on-going through 2019 with Parish Council meetings and a series of three sequential public drop-ins in the week before planning applications were submitted.

- 7.4 The aim is to begin construction in 2019, with completion in 2021 / 2022 to deliver in total approximately 300ha of intertidal and 75ha of supporting wet grassland habitats.

8. Keadby and the Isle of Axholme

- 8.1 We have been working in partnership with Local Authorities and Internal Drainage Boards to develop our plans for the renewal of the Keadby Pumping Station.
- 8.2 The project was informed by the Isle of Axholme Strategy and provides flood risk protection to over 3,100 properties.
- 8.3 The project involves replacing the existing diesel driven pumps with new electric pumps; constructing new electrical equipment buildings within the existing site; laying a new connection to the electricity network and re-building the outfall headwall, where the Three Rivers discharge to the River Trent.
- 8.4 We received approval for the project in January 2019. We have started investigation works on site to confirm services and are now finalising detailed design work of the new pumps and new outfall structure.
- 8.5 Preparation works will start on site at the pumping station in March 2019 with the main construction work to the outfall starting in May 2019 running until June 2020. All of the work to the pumping station will be complete by June 2021.



Figure 2. Photo showing the location of temporary traffic lights in front of Keadby Pumping Station

Estuary-wide Projects

9. Landscape and Investment Study

- 9.1 As part of the Comprehensive Review, we are commissioning a Landscape and Investment Study for the extended review area (to include the upper sections of the tidal rivers). The work will be delivered by Sheils Flynn, who completed the original 2016 study. The scope of this work has now been agreed, and work has started on gathering initial information for the extended area. Stakeholder workshops have been held, which were run in a similar manner to the original study stakeholder workshops (three workshop covering different geographical areas). Outputs are now being drafted into opportunity-mapping for review to inform the Study. Some work will feed into the Strategic Approaches appraisal process for

the Humber Strategy Review, and the project as a whole will be completed towards the end of 2019.



Figure 3. A photo of a Stakeholder Workshop

10. Water for Wildlife and Farmers

- 10.1. The Water for Farmers and Wildlife partnership project between the EA and the RSPB aims to bring together the objectives of farm management, habitat creation, and flood risk management, to identify the feasibility of delivering land management solutions which deliver multiple benefits for farmers and the environment. Currently in Phase 3 of the project, trial plots were carried out last winter and came to an end in March 2018, and a detailed report has been produced and can be provided on request.
- 10.2. The next step is the field-scale trials which will provide evidence on how this technique affects soil, water quality and the local environment. This has been delayed until this year, due to a number of factors, including the loss of our Project Manager. This will give the chance for the new Project Manager to become familiar with the project, develop relationships with farmers in the area to secure land for the field-scale trials as well as work with local universities with the aim to develop a post-graduate programme to support this area of research beyond the project. A new Project Manager has started on the project and is quickly getting up to speed. The project as a whole will be completed in 2021/22.

PHILIP WINN
Humber Manager

HELEN TODD
Humber Flood Risk Manager

RFFC Chairs Update Paper

February 2019

Financial pressures affecting flood and coastal risk management in 19/20

Next financial year, 2019/20, is the final year of the current Spending Review 2015 period for revenue funding. The 6 year capital settlement extends into 2020/21. The wider Defra group has financial pressure for revenue in 2019/20 that all parts of the Defra group need to contribute to resolving.

Contact: John.Russon@environment-agency.gov.uk

Flood and coastal risk management – the next long term funding settlement

Spending Review 2019 (SR19) is our opportunity to build on the success of the current funding settlement and negotiate a long term programme that meets our future needs beyond 2020 (revenue) and 2021 (capital).

The timing and shape of the Spending Review is uncertain. We are working to the assumption of a commission from HMT in May, concluding in the autumn, whilst aware of the possibility of an emergency budget in the event of an EU Exit 'no deal', followed by a later Spending Review.

Based on feedback from RFCC Chairs we have agreed in principle the following changes to the capital funding formula which will increase Grant in Aid (GiA) and, whilst being ambitious, recognise the constraints on partnership funding:

- **Updated Defra payment rates** to reflect inflation and new evidence on flood damages since 2011 – including social impacts such as mental health.
- **New immediate risk band payment rate** - in particular to help with surface water schemes.
- Improved payment rates for **environmental benefits** in line with the natural capital approach set out in the 25 Year Environment Plan, recognising the benefits of schemes for properties that will become at risk in the lifetime of the defences due to the impacts of **climate change**.
- Proposed **asset replacement fund** - £180m to £240m over 6 years for existing assets at the end of their design life that have low partnership funding score and therefore attract insufficient GiA and struggle to secure sufficient partnership funding.

We are also exploring the pipeline funding requirements associated with the larger programme scenarios.

Contact: jenny.hill@environment-agency.gov.uk

Get involved in Flood and Coast Conference 2019

The 2019 Flood and Coast Conference will take place from 18-20 June 2019 at the Telford International Centre. The event will draw together key partners from the flood and coastal risk management community, including local authorities, internal drainage boards, contractors and suppliers, community groups and academia.

Building on our previous success, we are currently working on an exciting programme for 2019. We have received a staggering amount of suggestions for stimulating discussion topics, interactive displays, facilitated workshops as well as lively presentations which we are now putting together to form that programme.

We're delighted that this year the Midlands RFCC Chair Vij Randeniya is on our Advisory Committee helping steer the programme content. As last year we plan to hold a meet and greet with RFCC chairs at the conference and are working with Vij on other ideas for chairs involvement, for example charring sessions.

Contact: rachel.walters@environment-agency.gov.uk

The Flood Hub

North West RFCC has funded a new website, which was launched at the end of 2018. The website, known as www.TheFloodHub.co.uk acts as a 'one-stop shop' for flood-related advice and guidance.

The Environment Agency and other risk management authorities are already using the website to promote events, share scheme updates and provide links to their online services. The Flood Hub has received positive feedback from partners and communities and many Flood Action Groups have added links to their own online pages.

The Flood Hub sign-posts partners to key live applications such as the Environment Agency Flood Warning Service and Flood Mapping Services. In its first 2 months the Flood Hub received 15,000 page views and around 1,000 downloads of resources. Over the coming months the website will continue to evolve and offer enhanced opportunities to promote new services. It provides a great example of good practice in linking partners and connecting digital services. The format has been designed to be as flexible as possible and as such could be replicated nationally across the RFCC network.

The Flood Hub contact: maria.ullyart@environment-agency.gov.uk

FCRM Digital Strategy contact: jim.walker@environment-agency.gov.uk

Apprenticeship opportunities

The Environment Agency recently led a collaboration of employers from across the sector to establish a new Level 3 Apprenticeship Standard for Water Environment Workers. The collaboration included a wide range of public and private sector organisations, professional bodies and training providers. The Standard was approved by the Institute for Apprenticeships just before Christmas. It will be fully published and available for delivery very shortly <https://www.instituteforapprenticeships.org/apprenticeship-standards/water-environment-worker/>.

This new apprenticeship represents a wonderful opportunity for our sector to attract talented people from all backgrounds and provide them with specific transferable skills and bespoke training to excel in the maintenance and management of the water environment. Suitable for anyone aged 16-65, the apprenticeship will offer:

- focussed and directed work based experience to develop knowledge, skills and behaviours;
- a range of technical qualifications;
- professional recognition (through CIWEM).

The Environment Agency anticipates recruiting and enrolling its first apprentices onto this new Standard between June and September 2019, once we have agreed an appropriate level of training provision across the country. We are keen to explore opportunities to continue collaborating with the entire sector around the attraction and development of apprentices who follow this route.

In addition, the Environment Agency (and many other large employers) contribute towards the Apprenticeship Levy. We have the ability to transfer a portion of any unspent Levy contributions to non-Levy paying organisations (including local authorities and other risk management authorities) to cover the training costs (excluding salary or other related costs) of their apprentices. If you are interested in exploring this opportunity further, please get in touch.

Contact: Paul.Cross@environment-agency.gov.uk

Working with international partners on Engineering with Nature Atlas

We have been working in partnership with the United States Army Corps of Engineers (USACE) and Rijkswaterstaat in the Netherlands to develop two international guides on Natural Flood Management. The guides are led by USACE, which since Hurricane Sandy is increasingly working with nature to reduce flood and coastal erosion risk.

This includes the recently published [Engineering with Nature – An Atlas](#) - a glossy coffee-table style document which shares case study examples from across the globe showing how we can engineer with nature to reduce flood and coastal erosion risk. Ten of the 56 case studies are from the UK.

Alongside the Atlas we are also currently contributing to the development of [Natural and Nature Based Features Guidelines](#) which will provide the technical details on how to develop flood risk management schemes which work with nature. This guide will be published in mid-2020.

From the 13-17 May 2019 the Environment Agency will be hosting a meeting with our international partners in Scotland to further develop the NNBF Guidelines. We are planning a one day symposium and two site visits. We will have some spaces available so please register your interest via e-mail: wnnp@environment-agency.gov.uk

Contact: Jo.Guy@environment-agency.gov.uk

International visit to the USA

In January Catherine Wright and Jon Hollis went to the USA for the launch of 'Engineering with Nature – An Atlas'. While in the USA, Catherine and Jon met with five members of Congress, utility companies, resilience officers and a think tank. Two highlights were hearing more about 'Green Bonds' and '100 Resilient Cities'. Green Bonds are being used in Washington DC by DC Water (<https://www.dewater.com/>) to fund experimental green infrastructure to reduce surface water entering sewers. The outcomes are less certain and the bond shares risk with investors. The investor agrees to pay for the work, with a return rate based on the performance of that work. Over performance gives the investor a 'bonus'; under-performance means the contractor foots some of the bill.

The Rockefeller Foundation celebrated its 100th birthday by launching '100 Resilient Cities' (<http://www.100resilientcities.org/>). Five of the cities are in the UK - London, Bristol, Manchester, Glasgow and Belfast. The foundation is funding a resilience officer in each city to develop a resilience strategy and action plan. In this context resilience is for any pressures failing the city from climate change, flood risk, water scarcity and food supply. The foundation bring partners and commercial organisations together to support the delivery of the plans.

Contact: Jon.Hollis@environment-agency.gov.uk

Visit from Japanese delegation

During the week 28 January to 1 February we hosted a group of flood risk managers from Japan. The group were from the National Institute for Land and Infrastructure Management, The Ministry on Land, Infrastructure, Transport and Tourism, and the Japan Institute of Country-ology and Engineering. They were interested to hear about the UKCP18 projections and how we were taking climate change into account in our schemes. We also discussed our Partnership Funding approach, natural flood risk management techniques and our incident management approach.

The group visited the Thames Barrier and viewed the development work in Nine Elms, which is being built with flood resilience in mind. On a visit to Southampton they discussed SuDS, spatial planning and working in partnership with our local team. Their final visit to Clacton-on-Sea allowed them to see the issues facing coastal communities and the potential options for these communities going forward.

The visit has been a great opportunity to share learning and we are keen to see this continue.

Contact: Alex.Hole@environment-agency.gov.uk

The Government publishes its response to the multi-agency flood plan review

On 30 January, Defra released the Government response to the review of multi-agency flood plans produced by Local Resilience Forums (LRFs) which the Secretary of State commissioned Major General Tim Cross to carry out in November 2017. In its response Government welcomed the findings of the review, which commended the Environment Agency's incident work, and accepted many of the report's key principles and recommendations. However, the Government response disagreed with the review's recommendations to introduce statutory duties for the Fire and Rescue Service and for the Environment Agency to take responsibility for responding to surface and groundwater flooding. It also recognised the importance of revising guidance and a new standard for LRFs that will set out clear Government expectations for these plans. The guidance and the new standard will be released for consultation in early 2019. You can read the Government response [here](#).

Natural Flood Management – lessons learnt

The £15m NFM programme is testing a range of NFM interventions through 60 pilots across England, which are split into catchment scale projects led by either the Environment Agency or other risk management authorities and community scale projects led by local groups and charities. The programme is a great opportunity to test the processes required to deliver these types of projects as well as test the interventions themselves. The team has completed an interim Lessons Learnt report across all the projects. Many of the projects are in the early stages of construction but we have reviewed the challenges setting them up, allocating funding to local community groups and measuring the benefits. We are drafting an action plan to overcome some of the challenges, but have already updated and integrated some new ways of working and shared best practice.

Contact: Jon.Hollis@environment-agency.gov.uk

Environment Agency modernising asset management milestone

The Environment Agency manages around £26 billion of flood and coastal risk management assets. We also have an oversight role on a further £17 billion of assets managed by others. Modernising Asset Management (AM) is one of our top priorities in developing our vision to be at the forefront of international best practice and to be recognised as a leading AM organisation.

Gaining ISO55000 certification in 2018/19 is an important step towards achieving this vision and delivering our AM Strategy 2017-22. We successfully completed stage 1 in June. The stage 2 Certification audit took place over 10 days in November-December 2018, it included both national AM leaders and 3 areas (Greater Manchester Merseyside & Cheshire/West Midlands/Wessex).

We received the audit report on 10 January which formally confirmed that our certification to the ISO55001 standard has been granted. There were 4 minor actions, some observations for future audits and several positive comments on our commitment and knowledge.

Contact: richard.jones@environment-agency.gov.uk

Glossary of Acronyms

ABCs	Area Base Controllers
ABD	Areas that Benefit from Defences
ABI	Association of British Insurers
ABP	Association of British Ports
ADA	Association of Drainage Authorities
AFFS	Anglian Flood Forecasting System
AIP	Asset, Investment and Planning
AOD	Above Ordnance Datum
ARPOW	Asset Repair Programme of Works
ASM	Asset Systems Management
ASP	Asset Safety Process
BAG	Biodiversity Action Group
BAP	Biodiversity Action Plan
CFMPs	Catchment Flood Management Plans
CGiA	Capital Grant in Aid
CHaMP	Coastal Habitat Management Plan
CIL	Community Infrastructure Levy
CLG	(Department for) Communities and Local Government
COBR	Cabinet Office Briefing Room
CRFCC	Central Regional Flood & Coastal Committee
CSR	Comprehensive Spending Review
DEFRA	Department for Environment, Food and Rural Affairs
EA	Environment Agency
EELGA	East of England Local Government Association
ERFCC	Eastern Regional Flood & Coastal Committee
EFRA	Environment, Food and Rural Affairs select committee
EMF	Elected Members Forum
ERYC	East Riding of Yorkshire Council
FAS	Flood Alleviation Scheme
FBC	Full Business Case
FCERM	Flood Risk and Coastal Erosion Risk Management
FCRM	Flood and Coastal Risk Management
FCRPF	Flood and Coastal Resilience Partnership Funding
FDGiA	Flood Defence Grant in Aid
FIDO	Flood Incident Duty Officer
FIM	Flood Incident Management
FRM	Flood Risk Management
FRMS	Flood Risk Management Strategy
FRM&DM	Flood Risk Mapping and Data Management
FWD	Floodline Warnings Direct
FWIP	Flood Warning Improvements Programme
FWMA	Flood and Water Management Act
GDC	General Drainage Charge
GIA	Grant in Aid
HCA	Homes and Communities Agency
HECAG	Humber Estuary Coastal Authorities Group

Glossary of Acronyms

HIRP	High Impact Refurbishment Programme
HMT	Her Majesty's Treasury
HRA	Habitat Regulations Assessment
IDBs	Internal Drainage Boards
IDDs	Internal Drainage Districts
IFCA	Inshore Fisheries and Conservation Authorities
IROPI	Imperative Reasons of Overriding Public Interest
KPI	Key Performance Indicator
LA	Local Authority (County, Borough or District Council)
LDF	Local Development Framework
LIDAR	Light Detection and Ranging
LLFA	Lead Local Flood Authorities
LNP	Local Nature Partnership
LPA	Local Planning Authority
LPRG	Large Project Review Group
LRF	Local Resilience Forum
LTIS	Long Term Investment Strategy
LTP	Long Term Plan
MAFPs	Multi-Agency Flood Plans
MEICA	Mechanical and Electrical, Instrumentation, Control and Automation
MMO	Marine Management Organisation
MORI	Market and Opinion Research Institute
MTP	Medium Team Plan
NAFRA	National Flood Risk Assessment
NAO	National Audit Office
NCPMS	National Capital Programme Management Service
NELC	North East Lincolnshire Council
NFCC	National Flood and Coastal Committee
NFCDD	National Flood and Coastal Defence Database
NFM	Natural Flood Management
NFU	National Farmers Union
NIA	Nature Improvement Area
NORA	Nar Ouse Regeneration Area
NRE	National Resilience Extranet
NRFCC	Northern Regional Flood and Coastal Committee
NRG	National Review Group
OM	Outcome Measure
OPUS	Operation Public Safety
PAR	Project Appraisal Report
PF	Partnership Funding
PFRA	Preliminary Flood Risk Assessment
PL	Planning Liaison
PPS25	Planning Policy Statement 25 - development and flood risk
RBD	River Basin District
REPAC	Regional Environmental Protection Advisory Committee
RFCC	Regional Flood and Coastal Committee

Glossary of Acronyms

RFERAC	Regional Fisheries, Ecology & Recreation Advisory Committee
RMA	Risk Management Authorities
RSS	Regional Spatial Strategies
SAB	SUDS Approving Body
SAC	Special Area of Conservation
SCAR	Suffolk Coast Against Retreat
SCG	Strategic Coordinating Group
SEA	Strategic Environmental Assessment
SFW	Severe Flood Warning
SFRA	Strategic Flood Risk Assessment
SGPSR	Saltfleet to Gibraltar Point Strategic Review
SHE	Safety, Health & Environment (team) of the Environment Agency
SMP	Shoreline Management Plan
SPA	Special Protection Areas
SR	Spending Review (eg SR10 = Spending Review 2010)
SRO	Surface water Run Off
SSSI	Sites of Special Scientific Interest
STP	Short Term Plan
SUDS	Sustainable Drainage Systems
SWMP	Surface Water Management Plan
TCG	Tactical Control Group
TES	Training and Exercise System
TWAO	Transport & Works Act Order
UA	Unitary Authority
WAG	Welsh Assembly Government
WEM	Water and Environment Management Framework
WFD	Water Framework Directive
WLMP	Water Level Management Plan



Glossary of terms used in FCRM programming and financial management

This glossary is intended as reference tool for Members to be used in conjunction with the papers on the RFCC programme.

It is a living document and will be updated periodically. If you have any feedback on it or would like additional clarification to support your role or learning & development then please contact vicky.eade@environment-agency.gov.uk



A

Accrual

Work done or a service received which has not been invoiced or paid for by the end of the accounting period. You allow for it to show a true figure of your financial position.

Allocation

The funding aligned to projects and programmes prior to Budgets being set; see Indicative Allocation and Final Allocation. It should be noted that receiving a funding allocation does not obviate the need to gain Approval.

Appraisal

The process of; defining the problem; setting objectives; examining options, assessing outcome benefit (inc benefit:cost ratio); weighing up costs, impacts (positive and negative) risks and uncertainties in order to make a decision. This is the period between Gateways 0 and 1. The appraisal follows a short Initial Assessment and culminates in a Business Case. The appraisal phase provides greatest scope for RFCC Members to get involved and support project development, eg as part of the associated community engagement.

Approval

This refers to a project's Financial Scheme of Delegation (FSoD) approval following Technical Review or the Environment Agency Board approval to the programme.

Area Flood & Coastal Risk Manager (AFCRM)

Our Area Flood & (or) Coastal Risk Managers (AFCRMs) lead the delivery of the National FCERM strategy and our strategic overview role locally. A key part of our strategic overview role is the bringing together of evidence and working with communities, potential funders and partners, especially other Risk Management Authorities, to develop complementary approaches to managing flood and coastal erosion risk.

AFCRMs promote candidates and once they are in the programme they sponsor Environment Agency led capital projects through the scheme appraisal stage to the approval of the Business Case. This includes associated engagement, partnership funding activity and the programming relationship with other Risk Management Authorities. It is at this stage of project development that the committee have the greatest opportunity to help shape the delivery of measures within their area.

They also have a role to work with regards to in-year monitoring of projects being delivered by other Risk Management Authorities; this includes signing-off project Business Justification and Business Case documentation prior to submission for Technical Review.

The majority of their programme accountabilities are delivered through their Partnerships & Strategic Overview (PSO) teams.

Asset

Within flood risk these are usually categorised as either structures (eg sluices, pumping stations etc) or defences (eg channels, walls, embankments etc), but equally the term applies to data, models and other tangible products.

Asset Performance (AP) team

See Operations Manager

Asset Systems

An asset system is a collection of individual assets that work together to provide flood risk protection to properties in a geographical area. They are defined for Environment Agency systems (main river and sea defence) and have a System Consequence rating associated with them. They do not relate to Coastal Erosion assets as these are not the responsibilities of the Environment Agency.

B

Baselining

In January the RFCC issue their consent to the programme. The financial allocation to deliver that programme is based on forecast project costs at a snap shot in time. As forecasts vary month on month, baselining is the process for making final budget adjustments before the start of the financial year.

Benefits

The positive quantifiable and unquantifiable changes that a project is expected to produce.

Budget

This is the amount of money given to a project or available to a programme within the accounting system. Project and programme budgets are set based on needs identified at a snap-shot in time and are reviewed and re-set at appropriate milestones in the financial year (see Baselining).

Business Case

Following approval for a project's Business Justification, a project's business case summarises and presents the project appraisal for Technical Review and FSoD approval. For most projects the business case is presented within a Project Appraisal Report (PAR), completed proportionately to a national template for consistency; for low risk/cost projects the business case can be presented within a Form A.

Business Justification

A project's business justification is reviewed following Initial Assessment to determine whether there is a case to progress to full project appraisal; this includes the development and presentation of the project's Business Case. The justification is presented for Technical Review and FSoD approval through a Form A template for Environment Agency projects or FCERM7 for other Risk Management Authorities.

C

Candidate

A candidate is a problem or need that has been identified and a Risk Management Authority believes there is a requirement for financial investment. It is in effect a potential project that is most often identified and submitted as part of the annual Investment Needs round. A candidate is identified in a Project Mandate form. A Pre-Gateway 0 analysis is undertaken to determine if the need is valid and suitable for submission for funding. Once funding has been allocated the Project Mandate is authorised and the candidate becomes a project.

Capital funding

Capital funding is the money spent on the construction, creation, purchase and improvement or replacement of assets.

Capital Programme

The list of projects from all Risk Management Authorities, which are funded by FCRM GiA and or Local Levy along with third party contributions where applicable. The programme is prioritised by Partnership Funding Score, and delivery of statutory requirements, and is allocated through the Investment Needs process. This is usually spent on building new assets, or extending the life of existing assets (Capital Reconditioning).

Capital Reconditioning (REC)

A sub-set of the capital programme, the purpose is to repair/recondition or refurbish assets that are below their Target Condition (or forecast to fall below within a reasonable timeframe) to sustain the assets' standard of service. In Anglian Region we package these works together for more efficient approval, procurement and delivery (called Reconditioning or RECON package). Works are sometimes also referred to as Capital Maintenance.

Before



After

Catchment Engineer

See Operations Manager. The Catchment Engineer also has a role to sign-off project Business Cases on behalf of the Senior User prior to their submission for Technical Review.

Comprehensive Spending Review (CSR)

The Spending Review is a Treasury-led process to allocate resources across all government departments, according to the Government's priorities. These allocations span across a number of years with the current spending review period running from April 2011 to March 2015 (called CSR10).

Consent

The Flood and Water Management Act 2010 (section 23) requires the Environment Agency to:

- obtain the RFCC's consent before the EA can implement its regional programme for the Committee's region (s23(2)).
- obtain the consent of the RFCC before the Agency can issue a levy under Section 17 of the Act (s23(3)).
- obtain the consent of the Committee to the spending of revenue under Section 118 of the Water Resources Act in the region where the revenue is raised (s23(4)).

Consent is sought in January as part of presentation of the Final Allocation. Approval by the Environment Agency Board follows RFCC consent in February. The RFCC are asked to consent to the projects, activities and outcomes of the proposed programmes.

Contributions

This is funding from sources other than FCRM GiA as part of Partnership Funding projects.

Cost Benefit Analysis (CBA)

This measures the costs and benefits of a project in a common currency (preferably £s) over its lifespan, and assesses the balance between the two. Costs and benefits that cannot be monetised should still be considered. Whilst any project with a >1:1 ratio is viable, we should be looking for a greater return (1:5 as a minimum and 1:8 is quoted as the average return for FCRM investments).

Current Magazine

This is produced by our Framework partners and gives some great examples of programme and project delivery across the Environment Agency. Well worth a read.

Link: <http://www.environment-agency.gov.uk/research/library/publications/119269.aspx>

D

Delivery

Scheme delivery follows Gateway 1 and concludes with Gateway 6.

Do minimum option

This option is where the minimum amount of action necessary is taken to manage an asset eg maintenance.

Do nothing option

This option is used in appraisal to act as a baseline against which all other options are tested. It assumes no action whatsoever is taken. In the case of existing works, it assumes for the purpose of appraisal that operating authorities cease all maintenance, repairs and other **activities immediately**. In the case of new works, it assumes that there is no intervention, and natural and other external processes are allowed to take their course.

Do something option

Any option other than do-nothing.

E

Efficiency targets

The Cabinet Office, via the Government's construction strategy, require government departments to achieve capital efficiency savings. As part of Defra's business plan, the Environment Agency nationally has a corporate target to achieve savings of 15% of the FCRM GiA allocation to the Environment Agency delivered elements of the capital programme by the end of this CSR period (2014/15). The aim is to deliver better outcomes and increase the number of properties protected through the reinvestment of efficiency savings.

To achieve this, the annual targets increase year on year and the national target has been split and allocated to each Environment Agency region. Targets have not been allocated or split down to RFCC or Environment Agency Area level.

2011/12 provides the baseline by which efficiencies are measured. Effectively there are two categories of efficiency.

- At Programme level; we build efficiencies into our GiA submission (ie ask for less budget upfront), this means there is more GiA available to allocate elsewhere at the start of the year.
- In-year project level: cash released by efficiencies made on projects after we have received a budget that can be reinvested

Exception

If a measurable element of a project changes (eg financial forecast or benefit delivery) beyond a certain limit then we call this an exception. Tolerances for such limits can be set at both an individual project, programme or corporate level. Exceptions are then escalated to the appropriate governance body. This may include the RFCC depending upon if, and what tolerances, have been agreed.

F

Final Allocation

The proposed final amount of capital and revenue funding allocated for the forthcoming financial year from the Investment Needs submission and following review of the Indicative Allocation. It is usually made in late November/December for RFCC review and consent in January. It is then signed off by the Environment Agency Board in February prior to Ministerial announcement. The word 'proposed' is used as the allocation is not confirmed until the Board have agreed it.

Financial Mandate (FM)

The Financial Mandate (FM) set by Defra contains the rules on Financial, Resource and Corporate Strategy and Performance matters through which Defra as lead sponsor administers control over the Environment Agency. These rules include limits on authority for expenditure and details where prior approval from Defra is required.

Financial Scheme of Delegation (FSoD)

The FSoD, as approved by the Environment Agency Board, prescribes the limits to the powers and duties that have been delegated to the Management and Officers of the Environment Agency within the terms of the Financial Mandate. Authority is delegated downwards from HM Treasury to our Government sponsors (Defra/WG) and then throughout the Environment Agency to the Board; Chief Executive (CE) and Directors; Regional Directors (RD) and other grades and specific posts. Capital project expenditure requires FSoD approval at Business Justification and Business Case stage (along with any Supplementary Expenditure) following Technical Review.

It should be noted that even if a project has received a funding allocation there are separate rules within the FSoD that govern and approve how that funding is spent; ie Allocation does not automatically mean Approval to spend.

Flood and Coastal Erosion Risk Management Appraisal Guidance (FCERM-AG)

The FCERM-AG has been produced by the Environment Agency. It provides best practice implementation guidance on appraisal and supports the Defra Policy Statement on Appraisal (June 2009). The previous Defra Flood and Coastal Defence Project Appraisal Guidance (FCDPAG) was published between 1999 and 2001. Since that time, the approach has changed from one focused on flood defences and coast protection to the management of risk.

The guidance was launched in June 2010 and its use is a requirement for all publicly funded Flood and Coastal Erosion Risk Management strategies and projects developed by Risk Management Authorities. The guidance aims to help users undertake efficient appraisals and encourages experience and knowledge to be applied at all stages. It has been designed based on key principles to reduce flood risk, enhance the environment, promote partnership working and to be proportional to the project being appraised.

Flood & Coastal Risk Management Grant-in-Aid (FCRM GiA)

The Government, through Defra, provides the majority of funding for flood and coastal erosion risk management activities for England in the form of Grant in Aid (GiA) administered by the Environment Agency. It is often still known and referred to as Flood Defence Grant-in-Aid (FDGiA). FCRM GiA is either Capital or Revenue. Capital is used for new assets, or extending the life, and is available to all Risk Management Authorities. Revenue is used for 'day to day' Environment Agency activities and maintenance activities.

Flood Risk Categories

There are four flood risk categories associated with Outcome Measures, they are:

- Low - 0.5% (200 to 1) chance of flooding each year or less.
- Moderate - Between 0.5% (200 to 1) and 1.3% (75 to 1) chance of flooding each year.
- Significant - 1.3% (75 to 1) chance of flooding each year or greater
- Very Significant – 5% (1 in 20) chance of flooding each year or greater

Forecast

This is an assessment by the project team of the most likely outcome of the project, including financial forecast, risk forecasts and outcome (benefit) forecasts. They are reviewed and updated on a monthly basis for the year end position, and also look at the total project forecast (ie when it is complete potentially on a future financial year). Project forecasts then inform a Programme level forecast position.

Form A/FCERM7

A template used for presentation of a project's Business Justification. A Form A is used for Environment Agency projects and a FCERM7 is the form for other Risk Management Authorities (RMAs) and can cover the whole business case for studies. A Form A can also be used for presentation of a Business Case for low risk projects.

Form G/ FCERM4

The form (G for Environment Agency and FCERM4 for other RMAs) used when the forecast project costs exceeds the project's FSoD approval, or there is a change to the scope of the project work. It presents the case for Supplementary Expenditure.

Framework

An approved list of external suppliers including contractors and consultants experienced in delivery of flood and coastal risk schemes. The frameworks are tendered for and allocated on a five year basis. The new framework WEM (Water and Environment Management) is due to begin in April 2013 and will be available for use by all Risk Management Authorities.

Frequent Maintenance

Revenue activities within the Revenue Maintenance programme carried out by the Environment Agency which prevents deterioration of an asset below Target Condition. This is an annual or recurring planned activity undertaken every 5 years or less, to keep assets at their Standard of Service. eg 2-yearly channel de-silting, bushing, grass cutting etc.



G

Gateways

The Office of Government Commerce promoted gateways as best practice. They are points during the project lifetime, when reviews are undertaken. They provide an opportunity for independent review of project progress and ensure we review business justification regularly. This enables us to stop projects that are not viable, or will not deliver the required outcome, as soon as possible.

Applying the gateway review process provides:

- Consistency and streamlining;
- A clear audit trail;
- Opportunities for effective risk management and forward planning;
- A framework for supporting performance management and sharing knowledge;
- Ultimately, better value for money.

Pre Gateway 0

The desk top analysis of a Candidate to assess them to ensure they have the potential to be a viable project. This includes the production of a Project Mandate to set out the background and need for the project, and an analysis of the potential benefits of the project.

Gateway 0

Is the review and authorisation of a Project Mandate by the Programme Manager on behalf of the Programme Board. It authorises inclusion within the programme and once funding is confirmed it can progress as a project to Gateway 1 first via an Initial Assessment.

Gateway 1

This is when a project's Business Case received FSoD approval.

Gateway 2

This gateway checks that the project design has been carried out in accordance with the approved business case

Gateway 3

This gateway checks that everything necessary is in place to ensure that the organisation will receive value for money, and we can award the construction contract.

Gateway 4

At this gateway construction work has been completed to our satisfaction, the contract project manager has prepared a completion certificate, and it is ready to be issued. Outcome Measures can be claimed at this point.

Gateway 5

At this gateway the contractor has corrected all the defects listed in the defects schedule and we have issued the defects correction certificate.

Gateway 6

At this gateway the project is complete and the project is closed

Gateway 7

The project sponsor identifies the need for and arranges a post-project appraisal.

General Drainage Charge (GDC)

A local income, General Drainage Charge is raised for additional maintenance of Environment Agency flood risk management assets and is raised from landowners whose land is greater than 4ha and is not within an IDB Boundary. Anglian Region is unique in raising this charge. The charge rate is linked to the % change in Local Levy contribution by a Council Tax Band D property within the region and it has to be spent in the financial year it is raised.

Governance

Usually governance relates to consistent management, cohesive policies, guidance, processes and decision-rights for a given area of responsibility. For flood risk the term is mostly associated with the control of a project or programme via clear roles, a Project Board or the Programme Board.

H

Highland Water Charge

Charge made by IDBs to the Environment Agency for additional operating costs within their districts due to the need to convey water through IDB systems that originates from higher ground outside our their district.

I

IDB Precept (IDBP)

A local income raised from Internal Drainage Boards, with the rate generally set locally at RFCC level. It must be spent in the financial year it is raised and contributes towards Environment Agency FCRM activities within the river catchment.

Identified Needs

A term applied to elements of work within the Revenue Maintenance programme. It comprises all the Frequent and Intermittent Maintenance needs within an Asset System (over and above the Minimum Needs) to maintain the performance of that system of assets.

Indicative Allocation

This is the initial financial allocation (capital and revenue) for the forthcoming financial year, following the submission of the Investment Needs bid, and national prioritisation. It is presented to the RFCC at the October meeting for review / amendment. The RFCC are able to allocate local income to projects or activities as part of this process. Any changes made by the RFCC are then submitted for the final allocation, subject to them being affordable nationally, and delivering the same or more outcomes.

Initial Assessment

Once a candidate has passed Gateway 0, the Risk Management Authority will need to investigate the project further to develop the Business Justification. This is the initial assessment which gathers more specific data (ie surveys) than the desktop review as a candidate. It is a review to ensure that the project is worthy of full appraisal. The RFCC could use the outputs of this stage to make a more informed decision about the use of Local Income on a project.

Intermittent Maintenance

These revenue funded activities form part of the Environment Agency Revenue Maintenance programme. It comprises a suite of works that prevents deterioration of assets below their Target Condition. This is usually a one off activity or an activity undertaken at greater than 5 yearly intervals (ie bushing works or re-grouting of sea walls)



Investment Needs Submission

The needs based bid for FCRM capital GiA funding for all RMAs for the next five years. Its aim is to deliver specific outcomes or benefits (ie numbers of properties protected, number of assets at or above target condition, number of Ha of habitat created / protected). The process starts in April, and the submission is made in July following RFCC agreement.

J

K

Key Performance Indicator (KPI)

These are the Environment Agency's corporate performance measures against which targets are set and agreed with Regions. They reflect our progress towards achieving our environmental outcomes and are one of the ways we demonstrate we are meeting our commitment to deliver. In programming, we report our position to the RFCCs on the key FCRM KPIs (962 and 965).

Key Performance Indicator 962 (KPI962)

KPI 962 reports the percentage of assets that are at or above their target asset condition, known as 'passing assets'. The Environment Agency reports on all Flood Risk Management assets on Main River, regardless of who owns or manages them. The national target is split by Region and, in Anglian, by the three RFCCs.

Key Performance Indicator 965 (KPI965)

KPI 965 quantifies the number of households that are at increased flood risk from assets that are not at their target flood defence condition ('failing' assets). In an ideal world all assets would be at condition and, hence, the *additional* households at risk would equal zero.

L

Large Projects Review Group (LPRG)

Previously known as National Review Group (NRG), it has the same Technical Review and assurance function as the Project Assurance Board (PAB) but recommends technical and financial approval for large and/or complex projects over the value of £10 million. It meets on a monthly basis, and reviews projects from all Risk Management Authorities across England & Wales.

Local income

A collective term for Local Levy, General Drainage Charge and IDB Precept income.

Local Levy

A local income raised by each RFCC to fund FCERM activities within the region that are a local priority and to support Partnership Funding projects by attracting FCRM GiA. The Local Levy required is discussed by the RFCC annually in January and voted on by Local Authority members only. The total agreed levy needed is raised from all LLFAs within the RFCC boundary and is proportioned across them based on the equivalent number of band D council tax properties that each LLFA has in the RFCC's area. This means that where Local Authority boundaries cross RFCC boundaries they may pay different rates of levy to different RFCCs. Local Levies do not have to be spent in the year they are raised as balances can be carried forward.

Long Term Investment Strategy (LTIS)

This sets out the scale of the investment needed nationally to meet the FCRM challenges over the next 25 years. The current LTIS was published in 2009 and was called 'Investing for the Future' (it is currently being updated). It sets out:

- the present scale of flood and coastal erosion risk, and the achievements in managing it so far;
- an analysis of the investment needed to adapt to climate change and manage the potential increased risk over the period 2010-2035;
- ways to manage flood and coastal erosion risk more efficiently;
- an analysis of the benefits of investment, and the potential to broaden the sources of investment.

Link: <http://www.environment-agency.gov.uk/research/library/publications/108673.aspx>

M

Maintenance Protocol

Our asset maintenance protocol sets out our approach to maintaining flood and coastal risk management assets in England. It describes how we decide which assets we maintain and how we work with those affected by our decisions.

The National Flood and Coastal Erosion Risk Management (FCERM) Strategy for England describes the strategic approach to maintaining our flood and coastal risk management (FCRM) assets. The asset maintenance protocol for England is an important part of the FCERM strategy and will support its implementation. It will help us apply a consistent approach to identifying which low risk assets should no longer be maintained and how we will work with those affected by our decisions. Reducing our investment in low risk assets will allow us to focus our maintenance in higher risk locations.

Link: <http://www.environment-agency.gov.uk/research/policy/135650.aspx>

Medium Term Plan (MTP)

The Medium Term Plan (MTP) is the spreadsheet that captures the capital Environment Agency, Internal Drainage Board and Local Authority candidates and projects over the next 20 years.

MEICA (Mechanical, Electrical, Instrumentation, Control and Automation)

The acronym for the regional team (that reports to an Operations Manager) and the type of assets that they look after. MEICA assets are typically pumping stations and other major assets with complex operational arrangements. The team also develops and manages the carbon reduction work.

Minimum Needs

A term applied to elements of work within the Revenue Maintenance programme. It is the lowest unavoidable cost to maintain statutory compliance and continue operation in an Asset System over the next year. We capture this figure (and all Identified Needs) in System Asset Management Plans (SAMPs). In undertaking the minimum maintenance required, asset condition may decline as a result. Typically this will mean that we ensure our assets meet Health and Safety standards for staff operating them, the public, and that we ensure our environmental obligations are met (eg WFD compliance).

Moderation

Not all capital Candidates contribute towards Outcome Measures targets, however, there is a clear and demonstrable need for them, eg for statutory or legal reasons, emergency works, health and safety, or time dependant works. In these cases there will be moderation evidence with the Project Mandate. Candidates with moderation are screened nationally as part of the Investment Needs submission to ensure the case is clear and robust, prior to the allocation of any funding.

N

National Allocation & Programming Team

Within the FCRM Directorate at Head Office, this team develops a set of key principles for the allocation of FCRM GiA to the Environment Agency and other Risk Management Authorities. The team are responsible for translating the Spending Review funding levels into national and regional budgets for all Flood and Coastal Risk Management (FCRM) and corporate activities funded by FCRM GiA.

National Capital Programme Management Service (ncpms)

A national Operations team, the National Capital Programme Management Service (ncpms) project manages schemes on behalf of Area teams. In Anglian Region they manage approximately 80%-90% of the Environment Agency delivered capital programme and their services can also be used by other Risk Management Authorities.

National Environmental Assessment Service (NEAS)

The National Environmental Assessment Service (NEAS) is responsible for managing the environmental impact of capital and revenue programmes to ensure projects are compliant with environmental legislation, have minimal environmental impact, uphold high standards in environmental design and contribute to national and regional environmental targets.

O

Operations Manager

Our Operations Managers lead on our asset management work to deliver professional asset creation, maintenance and operational services for local communities. This includes sponsoring Environment Agency led capital projects through their Delivery phases and the associated budget management. They are also accountable for the identification of need, prioritisation and delivery of the Revenue Maintenance programme.

Their programme accountabilities are delivered through their Asset Performance teams and Catchment Engineers.

Opportunities

This is a term that is used for candidates that can be brought forward within a financial year to make the most of any available budget, or indeed existing projects that can be accelerated.

Outcome Measures (OMs)

A suite of performance measures specifically related to managing flood and erosion risk. They replaced the priority score system and are used to assess the benefits of projects. They help prioritise the programme of works from all Risk Management Authorities and OM1 to OM4 are used as part of the Partnership Funding score to calculate the FCRM GiA available to a project. Flood and Coastal Erosion Risk Management have targets set for each OM. They are listed below :

OM1 - The ratio of benefits to costs that a project delivers. To ensure consistency in all schemes this is calculated over the whole life of the project (ie including the design, build, operation, maintenance and expected refurbishments). To mitigate for inflation, these figures are discounted to 'today's' price. This is applied to both costs and benefits and called Present Value whole life. A simple way to think about it, if we had all the money up front, how much would we need in the bank, allowing for interest on the account, so that we had a balance of £0 when the asset reached the end of its life. At a national programme level we aim for a minimum of 5:1, however, for the last CSR period we achieved a programme ratio of 8:1.

OM2 - The number of households moved out of any flood probability category to a lower probability category (see flood risk categories).

OM2b - The number of households moved from the very significant or significant probability category to the moderate or low probability category (see flood risk categories). In this case the 1:75 year (1.33% probability of flooding in any particular year) is the threshold.

OM2c - The number of households in the 20% most deprived areas moved out of the significant or very significant probability categories to the moderate or low probability category (OM2b). Therefore they are less likely to experience difficulties in arranging mortgages or insurance.

OM3 - The number of households with reduced risk of coastal erosion. Therefore they are less likely to experience difficulties in arranging mortgages or insurance.

OM3b - The number of households protected against loss in 20 years from coastal erosion. Therefore they are less likely to experience difficulties in arranging mortgages or insurance.

OM3c - The number of households in the 20% most deprived areas protected against loss in 20 years from coastal erosion. Therefore they are less likely to experience difficulties in arranging mortgages or insurance.

OM4a - Hectares of water dependent habitat created or improved to help meet the objectives of Water Framework Directive. Remedies to improve condition of Sites of Special Scientific Interest and measures needed for water bodies to achieve good ecological status/potential, meeting our statutory obligations under both the Countryside and Rights of Way Act and WFD.

OM4b - Hectares of intertidal habitat created to help meet the objectives of the Water Framework Directive for areas protected under the EU Habitats / Birds Directive. New habitat is created to offset habitat being lost to coastal squeeze.

OM4c - Kilometres of rivers protected under the EU Habitats/Birds Directive improved to help meet the objectives of the Water Framework Directive. FCRM actions to restore rivers designated as special areas of conservation.

Over-programme

This is a programme management technique to enable a programme to deliver to budget. Effectively you start a financial year progressing more projects than can be afforded on the basis that not all project risk budgets will be fully utilised, efficiencies will be made on projects, some projects will suffer a delay and a few may be found not to be viable.

P

Packaging

The combining of a number of projects which are similar in either nature or in geographic location. It is usually applied to lower value projects to make them more efficient by only having to let one contract, thus saving time and money on the procurement process. Packaging also provides for continuity of work for suppliers that enables specialist delivery teams to be formed resulting in greater delivery efficiency.

Partnership & Strategic Overview (PSO) teams

See Area Flood & Coastal Risk Managers

Partnership Funding

Flood and Coastal Erosion Resilience Partnership Funding is Defra's current policy. It provides a system of funding which applies to all Flood & Coastal Erosion Risk Management (FCERM) projects seeking FCRM GiA Capital funding in England. It is a way of increasing overall investment in flood and coastal erosion risk management by encouraging external contributions as a means to unlock GiA. GiA is capped based on the number of outcome measures a project will deliver, with each project having a Partnership Funding score as a means of prioritisation. The RFCC has a key role in working with partners and communities to maximise contributions and also raise and allocate local levy which can also be used as an external contribution.

Partnership Funding score (PF Score)

Based on the outcomes a project is expected to deliver, a maximum amount of FCRM GiA is calculated. The score is calculated based on the outcome measures benefit divide by funding, expressed as a percentage.

A project needs a minimum score of 100% to be considered for FCRM GiA. However, in many cases the raw score (based purely on its outcomes) will be below this threshold. In these cases the project will either need to increase the outcomes it delivers so that FCRM GiA could fund the whole scheme, reduce the costs of the scheme (ie a cheaper way of delivering) or increase contributions from other sources. This will then give an adjusted score, called the Partnership Funding Score. That is also used to prioritise both nationally and locally by RFCCs. A score of 100% will not guarantee funding of a scheme as there is a finite amount of GiA available, but the higher the score the more likely it is to secure GiA. The RFCC can use Local levy as a contribution to schemes and therefore improve the PF score.

PRINCE2

PRINCE2 (an acronym for PRojects IN Controlled Environments) is a de facto process-based method for effective project management. It is used extensively by the UK Government, PRINCE2 is also widely recognised and used in the private sector, both in the UK and internationally.

Programme

In its purest form programming is about organisational transformation. However, we use the term programme to describe a collection/dossier/portfolio of similar activities or projects.

Programme Board

In terms of programme governance each Region of the Environment Agency has a Programme Board and there is also a National Programme Board. In Anglian Region the Board is managed through monthly FCRM Business Group meetings where Flood & Coastal Risk Managers, Finance, ncpms and others meet to review by exception in-year performance, programme opportunities, risks as well as future programmes of investment. The Programme Team report performance to the Board following detailed monthly financial and programme monitoring review at an Area/RFCC level. The Programme Board take decisions and mitigating actions and escalate issues to the Regional Director and his leadership team as appropriate.

Programme level risks

Are risks that have the potential to affect the overall outcomes of the Programme. These may be in terms of external factors (budgets, extra funding from government, new legislation, PF Scores), significant project risks (ie a project being delayed by planning consent) or the accumulation of smaller risks (ie the aggregation of small individual risks across a number of projects).

Programme Management

The term programme management refers to the co-ordinated organisation, direction and implementation of a portfolio of projects and activities. Programme management aims to achieve results and realise benefits that are of strategic importance.

Programme Manager

Led by the FCRM Programme Manager, programming and monitoring of all Environment Agency supported FCRM delivery is done once at region. This includes developing and implementing RFCC programmes of work and assuring the outcomes of these programmes.

Programme Team

Reporting to the Programme Manager, the Programme Team leads FCRM programming for Anglian Region and monitors associated delivery. Business Partner aligned to each Environment Agency Area/RFCC. This team provides a clear link to the National Allocation and Programme team and works very closely with Area teams, Finance and ncpms.

Project

When a candidate passes through Gateway 0 it becomes a project. A collection of projects form part of a programme. An FCRM project is set up to scope, appraise and deliver tangible products to meet the needs identified and recorded in the Project Mandate. For FCRM capital projects, there are five types of project: they are Sustain; Simple Change; Supported Change, Legal Compliance and Complex Change (See Project Type)

Project Appraisal Report (PAR)

The project appraisal report (PAR) describes the appraisal that has been carried out on an FCRM project and provides the business case to support the recommendations proposed. It is used to gain formal approval under the Environment Agency Financial scheme of delegation (FSoD) and where appropriate approval from Defra, Welsh Assembly Government (WAG) and HM Treasury.

Project Assurance Board (PAB)

The purpose of PAB is to provide Technical Review and assurance of projects (up to the value of £10 million) throughout their entire lifecycle. PAB makes recommendations to project teams so they can improve their business case and once satisfied that issues have been appropriately resolved will recommend approval to the FSoD delegated officer.

Each Region has a PAB which meets on a monthly basis. Projects from all RMAs are reviewed for the following:

- are projects supported by a robust case for change that provides strategic fit – the ‘strategic case’
- do projects optimise value for money – the ‘economic case’
- are projects commercially viable – the ‘commercial case’
- are projects financially affordable – the ‘financial case’
- are projects achievable – the ‘management case’.

Membership of PAB is made up of managers and specialists from across the business.

Project Board

A small group of people (normally only the Project Executive, Senior User and, if in place, the Senior Supplier) who collectively monitor and control a project's overall progress. This group concentrates almost entirely on the process of project management and:

- acts as a quality assurance mechanism for a project's deliverables;
- provides an escalation and resolution route (to the Programme Board) for a project's risks and issues.

Project development costs

Activity and expenditure between Gateway 0 and Gateway 3 is defined as project development.

Project Executive

See Project Roles

Project Manager

See Project Roles

Project Mandate

This is the form where the outline need for investment is recorded and supports the submission of a candidate into the programme, recording Gateway 0.

Project risk

All projects have risk built up from potential occurrences that may affect the delivery of a project to time, cost, quality or outcome. Risks are explored as part of project development and monitored/managed routinely throughout a project. Project budgets (and FSoD approval) include for the costs of managing a project's identified risks (but not all of them) should they arise. The cumulative effect of this is that at a programme level a significant amount of budget is aligned to project risk that may or may not materialise and therefore require use of that budget. The over-programming approach is a means to manage this issue.

Project roles

Having clear and defined roles on a project is crucial to good governance. The key roles on a project are:

Project Executive:

Ultimately accountable for the project's delivery, they should be independent from the User and Supplier.

Project Sponsor:

Identifies a need within the organisation; acts as the ultimate 'client' for any project that is set up; and is the major driving force of the project shaping the benefits to be delivered. For Environment Agency FCRM capital projects this is the Area Flood & Coastal Risk Manager up to Gateway 1 and then the Operations Manager to Gateway 6. For high risk projects or packages of work the Area Manager may perform this role.

Senior User:

The senior user is responsible to the end users for ensuring that the products delivered by the project are fit for purpose. Their input continues throughout the life cycle of the project. The senior user:

- helps shape project deliverables;
- communicates the end users' needs and aspirations throughout the life of the project;
- provides a link to all the internal functions/teams during the life of the project;
- is the principal point of contact in FCRM for all project matters;
- leads on engagement with the community, partners and stakeholders;

- signs off the product descriptions for products to be delivered as part of the project board;
- accepts the completed project from the project executive.

For Environment Agency FCRM capital projects the Senior User is from within Operations Management, usually senior Asset Performance staff or the Catchment Engineer. They can be supported by a team and for most projects will draw upon the skills and resources from within our Partnership & Strategic Overview teams (eg regarding funding packages with partners), Flood Resilience teams (who coordinate community engagement) and Modelling & Hydrology teams.

Senior Supplier:

The senior supplier represents the interests of those designing, developing, facilitating, procuring, implementing, and possibly operating and maintaining the project products; they are also accountable for the quality of products delivered by the supplier(s) and they must have the authority to commit or acquire supplier resources required.

This role is most appropriate for high risk or key delivery projects or major packages of work. It would ordinarily be performed by a senior manager from within a Framework supplier.

Project Manager:

Appointed by the Project Executive, they have the authority and responsibility to manage a project day-to-day. This person must deliver the required products, within the tolerances agreed with the Project Board.

Project Type– Complex Change

A complex change project is a project that examines options at the strategic level or implements a strategic solution but where there is no agreed strategy in place. Complex change projects require a strategic approach to be developed to address the extent, integration or interconnection of different areas. A full cost:benefit appraisal is required.

Project Type– Simple Change (aka Standalone project)

A Simple Change Project is one where the problems to be addressed, potential solutions and effective decision-making can be taken independently of the wider catchment/coastal zone or framed so as to not constrain future long term management. A strategic context is still required for a Simple Change Project to support the decision-making process. This type of project is the most common in the programme.

A Simple Change Project is appropriate when:

- a change to the standard of service (SoS) is proposed
- justification to sustain the current SoS is not clear or beyond the control thresholds
- a strategy plan is not required

A full Benefit:Cost analysis is required for appraisal of these projects.

Project Type – Supported Change

A project to deliver the recommendation(s) of an approved (FSOD) strategy. As such the scope of this project is typically limited to assessing the specific needs to implement the strategy in the project location. The overall option and new SoS will already have been determined. This project will draw heavily upon information in and gained for the strategy which will minimise the time and effort required for this project.

Project Type – Sustain (standard of service (SoS))

A Sustain SoS project is one that delivers activities needed to continue the agreed standard of service of an existing asset or group of assets. Typically projects might include the refurbishment of assets or replacement of components of larger assets, which have reached their design life.

In addition, projects classified as Sustain must fall within Control Thresholds to ensure that the investment in them is justifiable and does not impede on any potential future strategic plans (ie we wouldn't replace an asset if we plan to build something else in 5 year which will negate the need for

that asset). If the project is not within the thresholds then the project should be classified as a Simple Change. Sustain projects are appraised using a cost effectiveness analysis.

Project Type – Legal Compliance

Projects that are required to fulfil legal obligations can typically be divided into:

- *legal requirements that drive the need for a project*: there are two types of legislation here:
 - legislation with ‘general’ application, such as the Habitats and Birds Directives or Water Framework Directive; and
 - specific legislation, including local legal agreements, such as navigation acts for specific rivers.
- *legal requirements that place duties or obligations on the project*: these can be sub-divided into:
 - duties that stem from legislation such as Health & Safety or Town and Country Planning; and obligations that arise from contractual agreements, such as contracts between an operating authority and a water company to provide adequate water levels for abstraction by pumps.

Defra policy also requires that the benefits of meeting the legal requirements are identified, described and, where possible and appropriate, quantified and valued in monetary terms. Information on the benefits will be used to help understand who is gaining or losing from the programme of work, and to help demonstrate that the programme provides good value for money. It is also important to consider whether there may be efficiency gains from providing wider benefits beyond those linked to the minimum legal requirements. The costs and benefits of providing the wider benefits would need to be appraised. This means that any incremental increases in investment

Project Sponsor

See Project Roles

Q

R

Reconditioning/RECON

See Capital Reconditioning

Revenue funding

FCRM GiA Revenue funding is the money spent by the Environment Agency on day to day activities. These include salary costs of most staff, revenue projects (ie typically inspections, maintaining our hydrometric and telemetry network and quality assurance of flood modelling) and Revenue Maintenance (ie preventing assets falling below target condition). Revenue also pays for our incident response to flooding..

Revenue programme

The revenue programme is the programme funded by FCRM GiA Revenue Funding and supported by Local Income.

Revenue projects

A subset of the Revenue programme, these are projects generally funded by FCRM GiA Revenue. These support Environment Agency day to day activities where we have to procure specialist resource, eg diver inspections of assets. They also include work on ensuring our mapping and modelling as at the required industry standard, biodiversity is preserved, and we maintain our operational capability for flood forecasting and incident management thought exercises and maintaining our telemetry systems.

Revenue maintenance

This is a subset of the Revenue programme and includes the maintenance activities the Environment Agency undertake to ensure that assets do not fall below their target condition. They are a combination of Frequent Maintenance and Intermittent Maintenance. The programme includes routine inspections of assets and correcting minor issues, and is captured in the System Asset Management Plans (SAMPS).

S

Senior User

See Project Roles

Standard of Protection

The probability of flooding expressed as either a return period (ie 1 in 75 years or 1:75 years) or as a percentage (1.33%) chance per year. The calculation is 1 divided by the return period multiplied by 100 ($1/75 \times 100 = 1.33\%$). If we maintain the Standard of Service then we accept that the standard of protection will reduce in time as the affects of climate change take hold.

Standard of Service

A measurable and objective description of an asset; for example the crest level of a wall or pumping capacity and a minimum condition grade. Not to be confused with the term Standard of Protection.

Senior Supplier

See Project Roles

Supplementary Expenditure

Extra funding that is required on a project, over and above what has already been allocated to it. This will also require further Technical Review and FSoD approval It is captured on a Form G (Environment Agency) or FCERM4 (other RMAs) that needs to demonstrate that the business justification/case for the project is still robust.

System Asset Management Plans (SAMPS)

These are long-term plans for each Asset System. They include information on the benefit of the system (ie what the system protects) and what the expected maintenance costs are for the assets in that system. We use SAMPS to hold the information on our revenue maintenance programme. Data from SAMPS is used by the National Allocation and Programme team to make an indicative and final allocation of FCRM GiA Revenue to each RFCC. Information in SAMPS is updated regularly by Operations teams.

System consequence

This provides an indication of potential impacts of flooding for an Asset System. Each system is defined as High, Medium or Low using a matrix that broadly compares the impact on people against the impact on property and land.

T

Target Condition

We use a condition grading system (1 – 5) for our assets and each asset has a target grade against which we monitor (through asset inspections), report (through KPIs) and improve (via asset recondition/refurbishment).

Technical Review

The project assurance role undertaken by PAB and LPRG.

Tolerance

Tolerances can be set at a project and programme level. They enable project/programme outcomes (eg cost, time, scope, quality and benefits) to vary up to set limits (positive or negative) and to be managed in the best possible way. Once the tolerance levels are forecast to be exceeded, they are considered an exception, and are flagged for discussion/agreement at the appropriate governance level (eg Project Board, Programme Board). The in-year programme papers for the RFCC now concentrate on projects which have exceeded their tolerances, and are now in exception. The RFCC could apply tolerances for their allocation of Local Levy

U

V

Variance

Variance is a measured from the previous month's forecast or the start of year position called the baseline. We track the variances of financial, outcome and risk forecasts. This data allows us to make decisions on bringing in opportunities in to the programme.

Virement

The Programme Board is able to make some adjustments to in-year project budgets and bring projects forward from future years. However, if these changes are above the threshold (eg a significant change >£500k) a formal application of the budget change is required via Head Office and Directors. If approved then a transfer of budget into or out of the RFCC takes place.

W

Whole Life Cost

The net present cost of a project, or the asset provided by the project, to deliver defined outputs that includes the running and maintenance costs over an extended period. The period can include the replacement of the asset, and is not fixed. The period is usually taken as that where the discounted future costs are material to the net present cost.

X

Y

Z

Agenda

Friday 5 April 2019

Venue: Boardroom, Kingfisher House, Goldhay Way, Orton Goldhay, Peterborough PE2 5ZR

Time: 11.30am to ~13.00pm (lunch included)

WebEx Details:

Meeting Number – 704 075 373

Meeting Password – 5april2019

Meeting Link -

<https://vgeweb.webex.com/vgweb/j.php?MTID=m5a7e49ef1d5005f7d0b5467799a6626f>

Telecom Details: Call-in Number – 08000 730694

Conference Code – 8831047879

EP - Eddy Poll; NR - Norman Robinson; DC - Deborah Campbell; BT – Ben Thornely; MB – Mark Bowlit; PR – Pete Reilly; GS – Guy Szomi; JG – Jonathan Glerum

		Lead	Page No
1.	Welcome and housekeeping	EP	
2.	Apologies for absence, greetings to visitors	EP	
3.	Declarations of members' interests	EP	
4.	Minutes of the meeting held on 18 January 2019	EP	1
5.	Matters arising	EP	
6.	Chair's announcements	EP	
7.	Environment Agency announcements (Inc. an update on EU Exit)	NR	
8.	Members' feedback: relevant meetings & events	All	
For Approval			
9.	Change to Shoreline Management Plan, Policy Unit P – Bulldog Bank (NFCC 19/09)	DC	21
For Advice			
10.	FCERM Programming: Current in-year position (NFCC 19/10)	MB	25
11.	Anglian (Northern) RFCC Capital Programme (NFCC 19/11)	BT/DC	39
12.	Anglian (Northern) RFCC Revenue Programme (NFCC 19/12)	PR/GS	63
13.	Refreshing the Capital and Revenue Programmes (NFCC 19/13)	MB	71
Committee Administration			
18.	Forward look (NFCC 19/14)	All	87
19.	Any other business	All	
Date of next meeting			
20.	Friday 12 July 2019 Boardroom, Kingfisher House, Peterborough		

BLANK PAGE

**Would you like to find out more about us
or about your environment?**

Then call us on

03708 506 506 (Monday to Friday, 8am to 6pm)

email

enquiries@environment-agency.gov.uk

or visit our website

www.gov.uk/environment-agency

incident hotline 0800 807060 (24 hours)

floodline 0345 988 1188 (24 hours)

Find out about call charges: www.gov.uk/call-charges



Environment first: Are you viewing this on screen? Please consider the environment and only print if absolutely necessary. If you are reading a paper copy, please don't forget to reuse and recycle if possible.