

WEST NORTHAMPTONSHIRE COUNCIL CABINET

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Portfolio Holder Environment, Transport, Highways & Waste – Councillor
Phil Larratt

Report Title	Innovative Flood Resilience Project
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List of Appendices

None

1. Purpose of Report

- 1.1 This report outlines the Northamptonshire Innovative Flood Resilience Project, which will bring in approximately £6.2m of grant funding into West Northamptonshire and North Northamptonshire over the next five and a half years to support delivery of innovative flood resilience measures.

- 1.2 The purpose of this report is to seek the necessary approvals to deliver the Northamptonshire Innovative Flood Resilience Project. This includes approving the use of the ringfenced grant funding and making all necessary appointments, including the project team and contractors.

2. Executive Summary

- 2.1 In its 2020 Budget, the government announced a £200 million fund for the Flood and Coastal Resilience Innovation Programme (FCRIP), to help meet the government's aims on flooding and coastal erosion. The programme will allocate £150 million to 25 local areas between 1 April 2021 and 31 March 2027, with each area receiving around £6 million. With this funding, projects will demonstrate how practical innovative actions can work to improve resilience to flooding and coastal erosion in their areas.
- 2.2 This report outlines how the FCRIP will deliver innovative flood resilience measures across two catchments in Northamptonshire, including the Wootton Brook catchment in West Northamptonshire. The programme is fully funded by a £6.2m Environment Agency capital grant and is led by WNC.
- 2.3 The report sets out the proposed measures to be delivered in order to improve the flood resilience of the communities in each of the catchments. These will work at three levels: catchment, community and property. Together, these offer a real opportunity to improve the lives of residents and viability of businesses currently at risk of flooding. The programme will also create learning which can be used in other at-risk communities in West Northamptonshire and indeed nationally.
- 2.4 Work has already commenced in order to secure approval for the studies and baseline work need to inform the Outline Business Case, which is required to confirm the full grant amount required to deliver the proposed measures. A project team is required in order to manage the project partners and contractors, and to deliver the project. The team would include a programme manager, project manager and project officer, as well as a project executive from existing staff.
- 2.5 The nature of the programme means that the risks to WNC should be low, and the benefits considerable. In addition to the direct benefits, continuing with the programme would help develop WNC's credibility as a trusted partner of the Environment Agency and other relevant bodies.

3. Recommendations

- 3.1 Cabinet is asked to:
- a) Note the work to date on securing £6.2m of Flood and Coastal Resilience Innovation Programme grant allocation for West Northamptonshire and North Northamptonshire, and the next steps required to progress the project.
 - b) Approve the use of the ring-fenced Flood and Coastal Resilience Innovation Programme grant funding of £6.2m to deliver innovative flood resilience measures across the two catchments, one in each of West Northamptonshire and North Northamptonshire, as set out in the report.

4. Reason for Recommendations

- 4.1 The recommendations proposed align closely with the objectives established in the WNC Corporate Plan 2021-2025.
- 4.2 The recommendations proposed align with the Northamptonshire Local Flood Risk Management Strategy and will see the significant improvement in flood resilience of communities in two priority catchments, with learning to be applied to future flood risk management work across both councils.
- 4.3 The recommended course of action is in line with the objectives, outputs and benefits expected from the Flood and Coastal Risk Innovation Programme (FCRIP), to develop and test new approaches to improving flood resilience.
- 4.4 The recommendations above are required to progress the flood resilience measures as submitted to the FCRIP.

5. Report Background

Flood and Coastal Risk Innovation Programme (FCRIP)

- 5.1 In the 2020 Budget, the Government announced a £200 million fund for innovative projects to help communities be more resilient to flooding and coastal change. This fund provides a valuable opportunity to develop and test new and emerging approaches and ambitions set out in the Government's Policy Statement and National Flood & Coastal Erosion Risk Management Strategy. The aim is to fund 25 projects that can use this funding to show how practical innovative actions can work in combination to improve resilience to flooding and coastal erosion.
- 5.2 In March 2021, Defra announced that the former Northamptonshire County Council was successful in its bid to the fund. The project, now being led by WNC on behalf of itself and North Northamptonshire Council (NNC), will see two areas in Northamptonshire benefit from improved flood resilience. The catchments to be addressed are Harpers Brook in North Northamptonshire and Wootton Brook in West Northamptonshire.
- 5.3 Working with partners, NCC put in an expression of interest (EOI) for the money into Defra in January 2021 with the two new unitary authorities taking the project forward. The project team is working closely with Defra and the Environment Agency during this funded development stage to develop the EOI into a detailed project plan. Once finalised and approved, it is anticipated the final grant will be in the region of £6.2 million, with the project delivered over the next five and a half years with the communities and project partners.

Harpers Brook and Wootton Brook Catchments

- 5.4 The two catchments on which the project will be centred (Harpers Brook and Wootton Brook) were selected due to the number of flood incidents reported and the combined sources of flood risk. In the past, it has been more difficult to secure funding for flood alleviation measures due to the viability of previous schemes.

5.5 The Harpers Brook area, in North Northamptonshire, includes the communities of Brigstock, Lowick, Sudborough, Stanion and South Corby, and the Wootton Brook area, in West Northamptonshire, includes Collingtree, Wootton, West and East Hunsbury, Hunsbury Meadows and Hackleton. Within each of these catchments, there are approximately 500 properties (residential and non-residential) currently at risk of flooding, with many more likely to become at risk with the impacts of climate change. Since 2012 (when detailed records commenced), there have been 358 reports of flood incidents across the two catchments, affecting both properties and infrastructure. Of these, 237 were for the Wootton Brook and 121 were for Harpers Brook.

Project Aims and Objectives

5.6 The overall aim of the project is to engage with landowners, communities and individuals throughout these two catchments, at three different spatial scales (catchment, community and property), to deliver a series of interventions to improve resilience against flooding from multiple sources; and to evaluate how effectively these measures work in combination with each other.

5.7 **CATCHMENT SCALE: Work with landowners and farmers in the upstream areas of these catchments to implement nature-based solutions**

- Building on learning from previous catchment management work and utilising existing groups, undertake landowner/farmer engagement through the Local Nature Partnership, Catchment Partnership and catchment sensitive farmers to help advise on and deliver resilience actions.
- Utilise existing natural flood management mapping and modelling, and local habitat opportunity / natural capital mapping, to evidence most effective and viable nature-based measures throughout the catchment area to support additional ecosystem services.
- Trial an innovative funding mechanism, similar to environmental land management schemes (ELMS), via the existing Northamptonshire Landscape Enterprise Networks approach, to fund nature-based solutions via landowner engagement, collaboration, reverse auctions and local delivery to support flood risk management and other ecosystem services.

5.8 **COMMUNITY SCALE: Work with the key communities that are at risk and have flooded a number of times over the past several years**

- Building on innovative work of the Northamptonshire Community Resilience Pathfinder project, provide a series of interventions to enhance community flood resilience to residential, SMEs and community infrastructure assets including engagement, flood risk mitigation investigations, flood warden training and community flood plans.
- Explore legal opportunities for parish councils and flood wardens to close roads during times of flooding.
- Provide emergency response flood resilience stores to communities.
- Set up a surface water and groundwater flood warning system for the catchments and explore proxy warnings of flooding on ordinary watercourse, to help support community preparedness.
- Carry out live exercises of the community flood plans and deployment of community resilience flood stores through the multi-agency flood plan and Local Resilience Forum, to ensure they are robust and built into the regional emergency response.

- 5.9 **PROPERTY SCALE: Work with individuals and properties within these communities.**
- Utilise the newly created property flood resilience (PFR) Mobile Demonstration Vehicle and Flood Demonstration Property at HR Wallingford to support innovative engagement with communities to help increase the uptake of PFR.
 - Implement the findings of the Ox-Cam PFR Pathfinder project (which was led by NCC), to deliver property flood resilience measures to those people and property most vulnerable to flooding and climate change and seek to align delivery with energy efficiency measures.
 - Train specialist officers to embed opportunistic PFR into renovations/improvements as part of building control processes or planning applications.
- 5.10 **ALL SPATIAL SCALES: Evaluate the costs and benefits of the project and develop an integrated resilience framework to be shared nationally**
- Seek opportunities to trial international approaches and incorporate learning including from the Institute for Water Resources of the United States Army Corps of Engineers, following on from work they have done on community flood resilience and engagement with communities following Hurricane Katrina, and other major floods.
 - Evaluate and produce a framework to assess how resilience measures interact and work collectively together at different spatial scales to help improve overall holistic resilience to a community, and the costs and benefits of these.
- 5.11 These objectives will be delivered via the five work packages below:
- Work Package 1: Project governance and reporting.
 - Work Package 2: Catchment scale natural resilience.
 - Work Package 3: Community resilience and preparedness.
 - Work Package 4: Individual and property resilience.
 - Work Package 5: Project Evaluation and Framework.

Year 1 Work Programme and Funding

- 5.12 On announcement of the successful EOI in March 2021, the project was given until mid-July 2021 to prepare an application to secure funding to undertake the studies required to support the Outline Business Case (OBC) for the project. The OBC must be submitted by the end of March 2022.
- 5.13 The FCERM7 form was successfully submitted in July 2021. The FCERM7 applied for funding for initial studies (including engagement) that will define the resilience actions to be promoted in the final five years of the project. It also informs what and how evidence will be captured in the spatial resilience framework. The output of the initial studies will inform the Outline Business Case (OBC). The FCERM7 covers all work and estimated foreseeable costs to the end of March 2022.
- 5.14 Initial work plans are set out below, by work package. Note: (Stretch) indicates stretch target to try to achieve before April 2022, these may carry over past OBC phase.
- 5.15 **Work Package 1 (WP1): Project governance and reporting**
- Establish project governance and steering group (including readiness assessment report).

- Develop procurement strategy, prepare scopes & tender, award year 1 work, prepare scope for years 2-6.
- Establish baseline for evaluation of project success.
- Establish strategic engagement / communication plan (including public relations plan).
- Employ programme and project manager (as council staff) to manage the project.
- Coordinate inputs to the OBC.

5.16 **Work Package 2 (WP2): Catchment scale natural resilience**

- Consolidate/establish relationships in Harpers and Wootton Brook catchments, build initial awareness and establish landowner agreement templates.
- Carry out stakeholder mapping.
- Agree permitting approach with Environment Agency, WNC, NNC and Natural England for natural flood management measures (*stretch*).
- Employ land advisor to lead delivery.
- Data capture and land use modelling to inform proposals and undertake demand analysis.
- Identify a preferred trading platform.
- Develop a delivery plan for five years that will inform the OBC.

5.17 **Work Package 3 (WP3): Community resilience and preparedness**

- Consolidate/establish relationships in Harpers and Wootton Brook communities (approximately 12 communities), build initial awareness through engagement events and assess level of interest.
- Investigate other ways of engaging (including review lessons learnt from hurricane Katrina).
- Carry out initial maintenance and mitigations plans for selected communities.
- Identify and train flood wardens (*stretch*).
- Support communities writing their flood plans (*stretch*).
- Explore road closure legislation (what can local communities do legally) (*stretch*).
- Develop a delivery plan for five years that will inform the OBC.

5.18 **Work Package 4 (WP4): Individual and property resilience**

- Support Work Package 3 (WP3) at community engagement events.
- Training: identify individuals to train on PFR (including planning officers).
- Develop/ trial property level flood alerts system (identify communities, obtain data, trial mobile app) (*app trial is a stretch target*).
- Property Flood Resilience (PFR): identify community to trial PFR scheme, carry out PFR surveys, identify location to trial community flood product (e.g. flood stop/flood fence).
- Investigate opportunities to align PFR with energy saving measures and collaborate with CIWEM PFR flood compliance platform (*stretch*).
- Develop a delivery plan for last five years that will inform the OBC.

5.19 **Work Package 5 (WP5): Project Evaluation and Framework**

- Establish baseline integrated hydraulic model (pluvial (rain), fluvial (river), groundwater).
- Carry out initial assessment of hydraulic model and potential mitigation measures under two climate change scenarios.
- Provide consequence hazards maps (output from modelling).
- Develop evaluation framework to assess the resilience of different mitigation measures.

- Provide economic inputs for the OBC.
- Set out what modelling will be required and what evaluation data will be collated in the last five years to inform the OBC.

5.20 There is overlap between all work packages. All work packages are committed to working together. There would be a high-level engagement plan to inform all work packages, and resolved conflicts where these arise. There would be monthly working/steering group meetings to update all on progress and risk, as well as ad hoc conversations between work packages as required. In particular work packages 3 and 4 would work closely to align engagement and deliverables at community level. All work packages will contribute to the delivery plan for years 2-6.

5.21 The total value of the initial application was £870k to fund Year 1 work. This was approved by the FCRIIP Team in August 2021, so grant funding has now been secured to progress with year 1 work to develop the OBC for the project.

Project Team, Project Partners and Professional Appointments

5.22 The EOI set out the proposed project team deemed necessary to deliver the above aims and objectives, alongside the project partners and contractors. The proposed project team consists of the following roles:

- Project Executive
- Programme Manager
- Project Manager
- Project Officer

5.23 At present, no formal appointments have been made, or contracts agreed upon, to deliver the project. To date, the successful delivery of the project to date has been achieved by temporary measures as outlined below.

5.24 A temporary project manager, an employee of WSP consultants, was secured via the existing Northamptonshire Highways Contract. This role is funded by £40k of initial funding provided by Defra at the commencement of the project in April 2021, to cover interim costs up to production of the FCERM7 application. Use of this existing contract was the best available option for short term initiation of the project given the quick turnaround expected by the Programme team and the lack of internal resources. However, the initial grant will only cover the project manager costs up until the end of October 2021.

5.25 The temporary Project Manager is currently being supported a NNC Project Manager approximately one day per week. He is expected to take up the Programme Manager role within the project team full time in October 2021 once his current fixed-term contract delivering the Ox-Cam Property Flood Resilience Project closes.

5.26 The Project Executive role is being delivered by the Senior Flood and Water Officer of WNC, approximately two days per week. It is expected that, once a project team is recruited, this level of resource will drop to one day per week for the duration of the project. Therefore, appropriate capacity needs to be secured within the West Northamptonshire Flood and Water Service.

- 5.27 External appointments may be required to fulfil the posts of Project Manager and Project Officer, as the skills, qualifications and experience required by the project team to undertake this innovative project may not be found in house at either WNC or NNC, with the exception of those identified above.
- 5.28 A number of partners agreed to support the EOI and are already delivering elements of work for the project at risk until agreements/contracts can be finalised. These partners are:
- HR Wallingford.
 - River Nene Regional Park (Nene Valley Catchment Partnership host).
 - Anglian Water Services.
 - Environment Agency (Northamptonshire and Lincolnshire Area).
 - Northamptonshire Local Nature Partnership (LNP) – members include Wildlife Trust BCN, Natural England, University of Northampton, National Farmers Union, Country and Business Land Association, Woodland Trust, Northants ACRE, Rockingham Forest Trust, Nene Park Trust.
 - Northamptonshire Local Resilience Forum – members include Fire and Rescue, Police, Voluntary Emergency Groups, and the Environment Agency.
 - Mary Dhonau Associates.
 - Institute for Water Resources of the United States Army Corps of Engineers.
 - GJB Consultancy – Oxford Ltd.
 - 3Keel.
 - Cambridge Institute of Sustainability Leadership.
- 5.29 The project itself, as set out in the EOI, was designed with the input of the partners who were able to set out innovations they could deliver through the project. Therefore, it is considered that the success of the EOI was in significant part due to the input of those partners.
- 5.30 The nature of the process has required working with partners prior to formal procurements taking place. This means it is possible that in some cases waivers from the Council's Contract Procedure Rules will be needed. If this is the case, the normal processes would be followed. In doing so, it would be necessary to ensure public procurement law is respected.
- 5.31 In addition to the above project team and project partners, the following external appointments are considered necessary:
- Project Evaluators to baseline current responses to flood resilience and evaluate the effectiveness of the measures implemented through the project. The cost of this appointment is expected to be in the region of £54k over the duration of the project. The appointment is required imminently in order to undertake baseline surveys of all communities prior to any significant engagement taking place.
 - PR company to support the significant amount of public engagement required in order to successfully deliver the project. Cost of this appointment is expected to be in the region of £136k over the duration of the project. The appointment is required imminently in order to support commencement of engagement with the communities involved.

- Engineering consultancy to prepare community mitigation and maintenance reports, which set out the details and condition of communities' flood-related infrastructure and make recommendations for improvement. Cost of this appointment is expected to be in the region of £40k over the duration of the project. The appointment is required imminently in order to provide baseline data.

5.32 A robust procurement strategy would be applied to these appointments, to ensure the best value for money as well as compliance with relevant legislation.

5.33 A project-level steering group has been created to have strategic oversight of the project aims and outcomes and will provide financial, quality and equality assurance for the project, to ensure funds are spent transparently and effectively throughout the lifetime of the project.

6. Issues and Choices

6.1 The choices available to the Council are considered to be:

- Endorse the project;
- Propose amendments to the project; or
- Not endorse the project.

6.2 The aims and objectives of the project have been carefully scoped through the EOI process, to not only meet the FCRIP requirements, but to ensure that long term delivery of flood risk management in West Northamptonshire (and North Northamptonshire) can be improved.

6.3 Whilst there are some resourcing implications, there is no budgetary requirement on the Council, and therefore not endorsing the project is unlikely to achieve more positive results with the limited resources available to the Council without this grant funding.

6.4 Not endorsing the project would also require WNC to withdraw from the programme, which would likely have negative repercussions on the Council with any future bids for flood-related funding.

7. Implications (including financial implications)

7.1 Resources and Financial

7.2 The project budget is currently set out as follows:

Project budget	Total, £k
Staffing (fixed term contracts)	760
External consultant costs (project partners)	1,288
Construction and delivery of resilience measures	3,640
Risk contingency	353
Inflation	162
Total project budget	6,203

- 7.3 All capital funding is via the FCRIP grant fund. The project has been assessed against the criteria relating to project viability and deliverability (via EOI process), and accepted on the programme, so full funding up to the values presented above is secured in principle. Year 1 funds have already been approved, and OBC approval is expected in April 2022 to fully secure funding for years 2-6.
- 7.4 It is expected that there will be financial contributions from third party organisations towards the catchment scale capital works, which will serve to extend the coverage of measures provided, thereby improving the outcomes of the project. However, project success is not dependent on securing this funding.
- 7.5 Resourcing of the project team (fixed term contracts for Programme Manager, Project Manager and Project Officer) is funded by the capital grant. The limited resourcing implications of the Project Executive role will need to be considered as part of a review of the Flood and Water Management Service.
- 7.6 In the long term, it is expected that the learning from this innovation project will bring significant improvements to the way flood risk is managed by the Council, with possible future revenue and capital resource efficiencies.
- 7.7 It is not anticipated that WNC will take on responsibility (and therefore financial implications) for any assets delivered through the project, except where these fall within WNC land ownership. The long-term implications would be considered prior to committing to delivering these specific assets.
- 7.8 **Legal**
- 7.9 There are no specific legal implications identified. The project lies clearly within the scope of the Council's powers and duties both specifically and generally. Legal advice will be required to ensure all due process is followed and procurements are undertaken in a correct and compliant way throughout the duration of the project term.
- 7.10 **Risk**
- 7.11 As an externally funded innovation programme, the financial risks on WNC are limited – at this time there are no specific expectations on delivery of the project except submission of an appropriate OBC in March 2022 as set out in section 5.
- 7.12 However, delaying or cutting activity on the project at this point would be likely to result in significant reputational and political risks:
- If the project is not delivered in a timely fashion, this would weaken the Council's position to leverage future funding from Government. There would also be reputational damage with the public with the project already having been promoted in the key communities.
 - As a new authority, the Council is under increased scrutiny from Government and the public and if the project is not delivered efficiently then this could harm the Council's perception to these audiences.

7.13 A project risk register is being developed and monitored to manage the project-specific risks. At present, the top five risks to delivering the OBC are considered to be:

Risk	Mitigation
1. Procuring partners and specialists in time to deliver inputs to the OBC	Discussions with WNC Procurement team have commenced. Where possible, prepare agreements/tender work during August and September.
2. Uncoordinated consultation leads to poor relations with partners and or communities	A strategic engagement plan will be developed and proactively managed by the project manager.
3. Council, partners or suppliers do not have resource to meet deliverables	Establish programme with key deliverables and review progress with work package (WP) leads minimum monthly at steering group meetings.
4. Duplication or conflict of solutions	Share WP tasks and outputs across all workstreams and with partners. Establish project communications plan that sets key touch points and minimum communication between individual WPs.
5. Do not have robust economic case to inform OBC.	Work with HR Wallingford, WP leads, Viridian, EA innovation team and OBC author to clarify minimum acceptable economic case for OBC. Include requirements in program deliverables.

7.14 Consultation

7.15 No formal consultation has been required to date, although the Council’s successful EOI has been widely advertised amongst those communities that will directly benefit from the project.

7.16 The project itself is centred around engagement. As set out above, one of the initial activities is to a stablish strategic engagement / communication plan, which will include a public relations plan.

7.17 Consideration by Overview and Scrutiny

None to date.

7.18 Climate Impact

7.19 At this point, it is unclear whether any of the specific measures to be delivered will meet the requirements to undertake environmental impact assessment (EIA). An allowance has been made for a basic environment assessment to inform the OBC. When work package 2 (catchment resilience) has identified what natural flood management measures they propose, an environmental specialist will review the proposals and prepare a technical note on what is required (e.g. scoping, full EIA, ecological survey, and so on). This technical note will also inform the OBC. If required environmental surveys will be carried out in year 2.

7.20 Reducing the impacts of climate change on flood risk and resilience is key to the project and included in the project objectives. The types of measure proposed should minimise adverse climate impacts and may well offer opportunities to improve environmental performance including reducing carbon emissions or capturing carbon.

7.21 **Community Impact**

7.22 The focus of the project is to provide benefit to communities within the two catchment areas. Through the significant community engagement proposed throughout the project, the communities will have opportunity to influence the scope of works to provide maximum positive impact.

7.23 **Communications**

7.24 The WNC and NNC Communications teams would be engaged throughout the project to ensure that the strategic engagement / communication plan (including public relations) is appropriate.

8. Background Papers

8.1 None.