

Slough Borough Council

Report To:	Cabinet
Date:	Monday 21 st November 2022
Subject:	Smart, Sponge Catchments Project
Lead Member:	Councillor Nazir, Transport & The Local Environment
Chief Officer:	Richard West
Contact Officer:	Savio DeCruz/ Jason Newman
Ward(s):	Haymill & Lynch Hill; Britwell & Northborough; Farnham; Cippenham Green; Cippenham Meadows; Baylis & Stoke; Elliman; and Chalvey
Key Decision:	YES
Exempt:	NO
Decision Subject To Call In:	YES
Appendices:	Appendix 1 Map of Project Study Area Appendix 2 Flood Maps Appendix 3 OBC Risk Register Appendix 4 Project Costs Summary Table

1. Summary and Recommendations

- 1.1 This report sets out the partnership approach and procurement strategy for the Smart, Sponge Catchments Project, a capital grant funded flood resilience project in the Chalvey Ditches and Salt Hill Stream Catchments in the north-western wards of Slough and with upper reaches extending into south Buckinghamshire. Traditional flood risk solutions are not appropriate for these two catchments, so the project will work with partner organisations and communities to raise awareness and install sustainable drainage and natural management methods.

Recommendations:

- 1.2 Cabinet is recommended to:
1. Agree to continuance of the project (subject to grant funding) with the Council as Lead Authority for project management, noting in particular the partnership approach, the proposed procurement strategy and governance arrangements;
 2. Delegate authority to the Executive Director – Place and Communities, in consultation with the Lead Member for Transport & The Local Environment to:
 - (a) Enter into the grant agreements with Wildfowl & Wetlands Trust (WWT) and National Flood Forum (NFF);

- (b) Approve extensions and variations to the grant agreements to WWT and NFF, subject to available grant funding, for the life of the project through to April 2027, encompassing extensions for 2023/24, 2024/25, 2025/26 and 2026/7 financial years.
3. Delegate authority to the Executive Director – Place and Communities, in consultation with the Lead Member for Transport & The Local Environment to commence the process for commissioning technical consultancy and smart technology services for the project, to have oversight of the procurement process and to:
- (a) Approve the procurement and award of contract of technical consultancy services to complete hydraulic modelling of options, assessments, and conceptual design to an expected maximum value of £106,000;
 - (b) Approve the procurement and award of contract of technical consultancy services to inform and prepare the Full Business Case to an expected maximum value of £455,000;
 - (c) Approve the procurement and award of contract of smart technology services to inform the Full Business Case, including the proof of concept, sensor trials and development of a data sharing platform, to an expected maximum value of £92,800; and
 - (d) Approve the procurement of smart technology services to operate and evaluate sensor monitoring and the data platform to an expected maximum value of £511,500 to cover the period to 31st March 2027 and to note that the Executive Director will report to Cabinet for recommendation of award of contract where the contract value exceeds £500,000.
4. Approve the Executive Director - Place and Communities as project sponsor and delegate responsibility to maintain and update the Governance Strategy for the project.

Reason:

- 1.3 Agreement to the recommendations in this report would allow the project to proceed as a partnership without further delay with the Council as Lead Authority, enabling the project to progress beyond the Outline Business Case funding gateway, releasing access to the full capital grant funding of £5.65 - £7.9m, including up to £709k of officer funding for the Council. The partnership is with Buckinghamshire Council, Wildfowl & Wetlands Trust, National Flood Forum, Thames Water Utilities, Thames 21 and the regional Environment Agency.

Commissioner Review

The Commissioners have reviewed and support the recommendations.

2 Report

Introductory paragraph

- 2.3 In March 2021, the Council was awarded central Government Grant funding of £5.65m - £7.9m, subject to Outline and Full Business Case approval, for delivery of the Smart, Sponge Catchments Project to improve flood resilience in the Chalvey

Ditches and Salt Hill Stream river catchments in north-west Slough and southern Buckinghamshire (see map of study area in Appendix 1). The capital grant funding from Defra (Department for Environment, Food and Rural Affairs) is administered by the Environment Agency. The project will help the Council to meet its corporate priority for an environment that helps residents live more independent, healthier and safer lives, by delivering infrastructure and enriched public spaces that can act as sponges, soaking up surface water to improve resilience to flooding. The project also aligns with the Council's recovery framework themes in delivering a new way of working with external partners and actively seeking involvement in community engagement and co-production; and contributing to financial sustainability through funding officer time on the project. In July 2021 the Council was approved by the Environment Agency for spending against the grant for up to £543,000 to undertake further studies towards submission of an outline business case. This enabled the Council to work with the proposed project partners and suppliers to prepare and submit the required Outline Business Case at the end of June 2022. The business case is due to complete Environment Agency assurance approval in Autumn 2022 for the project to progress to design and delivery phases.

Options considered

Option 1 – Discontinue the project

The Council could opt, given the current financial position and constraints, to discontinue the project. The project, while it would as outlined in Section 3.2.4 deliver a number of actions from the Council's corporate strategies and plans, and support development of the emerging Local Plan, does not in itself fulfil the Council's statutory functions in respect of flood management. However, the project is fully funded by capital grant including for project management and cross-directorate participation by officers. Therefore, the project would help to finance existing payroll salaries and reduce revenue budget pressure on salaries. Discontinuing the project would mean the Council would need to return grant funds drawn down and forgo officer funding of up to £709k over the life of the project to April 2027.

The project funding will also enable officers to be funded to participate in a sister project, Project Groundwater¹, led by Buckinghamshire Council – facilitated via a Memorandum of Understanding that the Councils will participate in both projects, drawing on funding from their own lead project. Project Groundwater aims to make use of new ways of groundwater monitoring, modelling, mapping and warnings to transform how groundwater flooding is addressed. One of their study areas is the Colne Catchment, which will include parts of the Colnbrook & Poyle Ward. Without the Sponge project, input into Project Groundwater may need to be met from existing revenue budgets.

This option is not recommended.

Option 2 – Step Down as Lead Authority

The Council is currently Lead Authority on the project for a study area in the north-west of Slough and into southern Buckinghamshire. The project could continue with Lead transferred to another local authority, namely Buckinghamshire Council. This would also result in a transfer of the majority of the funding for officer time, as project management would transfer to Buckinghamshire Council.

¹ Previously known as GRACE (Groundwater Resilience and Community Engagement) - [Groundwater Resilience And Community Engagement \(GRACE\) | Buckinghamshire Council](#)

The project will work with communities across both north-west Slough and southern Buckinghamshire and implement flood measures in both areas. It is anticipated that the majority of Sustainable Urban Drainage Schemes would be located within the Slough urban realm on highway land, within Slough's Parks and Open Spaces or within Slough Schools. Without Slough as the Lead Authority, it could be difficult to achieve these schemes if the project does not achieve the same level of political and management priority and support.

This option is not recommended.

Option 3 - Continue project with proposed partners

The Council would continue with the project entering into grant agreements with the two charities Wildfowl & Wetlands Trust (WWT) and the National Flood Forum (NFF), enabling them to support delivery of the project using their specialist skills and past experience in community engagement on flood and water management issues in the Borough, securing a mechanism for their involvement in the partnership for the duration of the project. The proposed project governance structure would also be implemented. The project team would pursue a competitive procurement strategy to select suppliers for technical consultancy support and smart technology monitoring and data sharing platform. This would allow the project to proceed as a partnership without further delay with the Council as Lead Authority, enabling the project to progress beyond the Outline Business Case funding gateway, releasing access to the full capital grant funding of £5.65 - £7.9m, including up to £709k of officer funding for the Council. This option significantly mitigates the risk of the Environment Agency withdrawing the project funding or enforcing transfer of lead authority to another local authority.

This option is recommended.

Option 4 - Continue project without proposed partners

The Council would continue with the project without pursuing the grant agreements and partnership with the two charities Wildfowl & Wetlands Trust (WWT) and the National Flood Forum (NFF). Instead, the Council could undertake to procure community engagement specialists via competitive open tender. However, the Environment Agency has indicated that one of the reasons why the project application was successful was on the basis of the partnership with WWT and NFF. In addition, this would lead to significant project delays to prepare tender documentation, run the tender, and select and appoint a preferred supplier. The project would not, in the meantime, be able to pass through the Outline Business Case assurance approval gateway to unlock further funding for other technical and technology-based work streams of the project to proceed, causing knock on delays across the project. The project has already experienced delay, with an extension to the original Outline Business Case submission deadline from April 2022 to end of June 2022, deferring of some studies from Outline to Full Business Case and the Environment Agency's target deadline for Outline Business Case approval of September 2022 being deferred to November 2022. A change to the partnership arrangements and further delay significantly elevates the risk of the Environment Agency withdrawing the project funding or enforcing transfer of lead authority to another local authority.

This option is not recommended.

Background

- 2.4 The Council has been awarded, subject to Outline and Full Business Case approval, central Government Grant funding of £5.65m - £7.9m for delivery of the Project. This project is funded by Defra (Department for Environment, Food and Rural Affairs) as part of the £150 million Flood and Coastal Resilience Innovation Programme which is managed by the Environment Agency to develop and test new approaches to resilience tailored to local communities.
- 2.5 The project area is the Chalvey Ditches and Salt Hill Stream river catchments in north-west Slough and southern Buckinghamshire (see map of study area in Appendix 1). Surface water flooding has caused disruption to communities that live and work in the catchments at risk as outlined in the Slough Strategic Flood Risk Assessment (SFRA) (Slough Borough Council, 2020) and Buckinghamshire Councils' Local Flood Risk Management Strategy (LFRMS) (Buckinghamshire Council, 2017). There is a lack of awareness and understanding of surface water flood risk within these communities, resulting in a lack of preparedness and resilience. Within Slough, multiple flood incidents have been recorded in seven of the thirteen years preceding the 2020 SFRA. Across the two river catchments there are 3,476 residential properties and 681 non-residential properties at risk of surface water flooding in a 1 in 100 (1%) annual probability flood event – see Appendix 2 for Environment Agency Risk of Surface Water Flooding (RoFSW) flood mapping for each catchment and mapping of past flood incidents within Slough. Climate change is predicted to increase rainfall intensity in the future by up to 40%. This will increase the frequency and intensity of surface water flooding, especially in impermeable urban areas like Slough and those currently susceptible to surface water flood risk.
- 2.6 The project will deliver:
- Development of a sponge city approach for retrofitting sustainable urban drainage systems (SuDS) and natural flood management (NFM) which will reduce the current level of risk and manage flooding at the source.
 - Through river restoration, provision of more sustainable and enriched public spaces within the catchments, creating multiple benefits including greater flood resilience and improved public wellbeing.
 - A new collaborative approach to catchment management through focused partnership with the community to empower them to learn about the benefits of these solutions and support them to co-create and deliver these measures on the ground.
 - A network of monitoring, enhancing Slough's Smart City platform and Buckinghamshire's SMART places programme, creating a 'smart catchment', to gather evidence on the effectiveness of the SuDS and NFM measures, to assist with information flow to and from communities and citizen science programmes and optimise asset management.
- 2.7 The grant funding is for a six-year partnership project from the grant award in April 2021 through to the end of 2026/27. The Council is the lead project partner to oversee project management, financial management, procurement and reporting to the Environment Agency. The partnership is with Buckinghamshire Council, Wildfowl & Wetlands Trust, National Flood Forum, Thames Water Utilities, Thames 21 and the regional Environment Agency. In Year 1 of the project an Outline Business Case was required to be prepared and this was submitted in compliance with the revised

deadline set by the Environment Agency for the end of June 2022. The project is currently engaging with the Agency's assurance team to complete this approval gateway. Over the next twelve months the project planning phase will continue, culminating in submission of a Full Business Case in Autumn 2023. The project will then move into the Delivery Phase, with monitoring and evaluation, until April 2027.

- 2.8 The project will deliver against the objectives outlined in Section 2.6 through three main work streams. The first is creation of a Sponge catchment: using a sponge city approach, SuDS will be retrofitted, and NFM installed in the most beneficial locations across the catchments; from a flood risk, cost and multiple benefit perspective. This will be supported by updated hydraulic modelling and the use of specialist software to identify the potential options in not only the study area but across the whole of the Borough. An initial phase of work on this work stream has commenced, updating the Council's existing Integrated Catchment Model for the Salt Hill Stream Catchment and extending it to cover the whole study area, plus undertaking the SuDS and NFM optioneering using proprietary tools. This work is being undertaken currently by Atkins, procured via a National Framework Agreement, Crown Commercial Services. The next phase of specialist technical consultancy required will be to model SuDS and NFM options in the new hydraulic model, undertake a more detailed benefits assessment including environmental benefits (natural capital, biodiversity new gain, social value, carbon and sustainability), and conceptual option design and costings. This will be commissioned in 2022/23, progressing into 2023/24. Following this there will be a need to procure detailed option design and costings, pre-construction technical and environmental surveys, and construction supervision. Further phases of technical work will be competitively secured via a National Framework Agreement. Details about the grant budget allocated for this work stream are provided in Section 3.1.8.
- 2.9 The second work stream is to create a community empowered catchment. Through strong partnerships with targeted local communities in the study area, the project will empower them to be involved in co-creating and delivering community-based solutions. The UK's first citizen science catchments will also be developed to collect, evaluate and store evidence of the social, health and environmental impact of SuDS and NFM. This is a very important aspect of the project as evidence of the full benefits of these types of measures is currently lacking nationally, with the consequence that funding for their installation is not widely available. Gathering this evidence will help influence future funding opportunities locally (for the rest of the Borough) and for other Councils. This project was conceived and awarded funding on the basis of previous partnership projects with two charities, the National Flood Forum (NFF) and the Wildfowl and Wetlands Trust (WWT) in setting up Flood Action Groups through the Pathfinder Project and the Saving the Salt Hill Stream Project. It is therefore proposed to secure their involvement and partnership in this project via grant agreements with an initial period through to the end of 2022/23, with the option to extend annually (subject to availability of the capital grant funding from the Environment Agency) for each subsequent year of the project through to the end of 2026/27. The two organisations will work closely with the Council's Community Development and Communications team, whose input will be supported by the EA grant funding as well. Details about the grant budget allocated for this work stream are provided in Section 3.1.7.
- 2.10 The third main work stream of the project is to create a smart catchment. This will use emerging remote sensor monitoring technology to gather evidence on the effectiveness of the resilience measures implemented. SuDS and NFMs are typically not currently eligible for (or not supported by) flood management grants as there is a

poor scientific evidence base quantifying their effectiveness. Demonstrating the cost-effectiveness of these solutions, especially by measuring the wider environmental benefits, will enable the Council to pursue further funding to roll them out to other areas of the Borough and provide the evidence base to support a sustainable drainage policy within the emerging Local Plan. The work will also look at using an online platform to collect and review monitoring data, enabling data sharing with stakeholders and citizen science programmes. It can also provide data to ensure the Council's gully maintenance programme is optimised. The pressure on the revenue budget for managing highways gullies, culverts and their trash screen clearance has increased in recent years and these activities are now undertaken by a single crew and gully tanker for the whole Borough. Previously, sensor technology was more costly than the annual maintenance budget, but low-cost sensors are now entering the market and could help the Council ensure it has an effective gully maintenance programme and during the project to alert the officers to localised problems prior to flooding occurring, targeting our limited resources. The Council has trialled the SSE Mayflower Smart City platform to integrate street lighting and air quality monitoring into a web-based management platform. Buckinghamshire Council operate their own SMART places programme for highways asset management. The project team has worked with SSE Mayflower to develop a non-proprietary specification for proof-of-concept trials for low-cost sensor technology and development of a platform to host the monitoring and share information. The specification will form the basis of a competitive tender to secure a Smart Technology supplier for the life of the project through to the end of 2026/27. Details about the grant budget allocated for this work stream are provided in Section 3.1.9.

- 2.11 The sponge catchment workstream will output SuDS opportunities across the whole of the Borough enabling officers to investigate funding options to bring these forward in the future, including where they could be incorporated within new development or highways schemes. The project will also review the policy challenges, local and national, to retrofitting SuDS schemes. These elements will gather evidence to inform the development of the Council's emerging Local Plan.
- 2.12 In addition to the key delivery partners leading on the work streams outlined above, the project partnership includes Buckinghamshire Council (as Lead Local Flood Authority for the study area in Buckinghamshire), Thames Water Utilities Ltd (as the local water supply and wastewater treatment undertaker), Thames 21 (as catchment coordinator for the Thames Maidenhead to Teddington Catchment Partnership) and Regional Environment Agency. Inputs to the project by these partners will be secured via Memorandums of Understanding or collaboration agreements and Data Sharing Agreements as appropriate with the assistance of the Council's legal advisors.

3. Implications of the Recommendation

3.1 Financial implications

- 3.1.1 The project was awarded capital grant funding from Defra in April 2021, subject to Outline and Full Business Case approval, of £5.65m - £7.9m – the latter figure accounting for inflation, optimism bias and risk over the 6-year project. A summary table of project costs for 2022/23 to 2026/7 is provided in Appendix 4. As referenced in paragraph 3.3.3 below, the project is being looked at in a scalable manner to account for the potential of funding and/or expenditure to reduce or increase, hence

there should be capacity to manage within moving variables on inflation, procurement bids coming in over budget etc. Paragraphs 3.1.6 and 3.3.4 below also indicate allowances for optimism bias in the projections to further protect council finances and manage the project within the approved grant limits.

- 3.1.2 The Council was approved by the Environment Agency in July 2021 for spending up to £543,000 (to be drawn down against the grant award) on feasibility studies to enable the partnership to prepare an Outline Business Case (OBC) for the project. To date, a claim of £311,000 was made in December 2021, leaving £232,000 available for future drawdowns to complete the outline business case. Once the OBC has been approved, the council will be able to access the remainder of the main grant and draw down from this in quarterly tranches in advance of spend.
- 3.1.3 The grant funding includes an allocation of £709k over the six-year project towards Council officer input into the project across project management, governance, finance, legal, planning, community, communications and parks teams. This funding would help offset revenue salary budget pressure in those service areas. If the project does not proceed, this external funding source would be lost.
- 3.1.4 Securing the recommendations of this report to enter into grant agreements with the Wildfowl & Wetlands Trust (WWT) and National Flood Forum (NFF), and to proceed with the procurement strategies outlined for the Sponge Catchment and Smart Catchment work streams, will mitigate risks of delays to the project and enable the project to pass assurance of the Outline Business Case. The Full Business Case gateway in Autumn 2023, does not place any financial restriction on the project. Approval of the Outline Business Case by the Environment Agency will give the project access to the full grant award value of up to £7.9m.
- 3.1.5 As outlined in Section 3.2.7, the grants to WWT and NFF shall be restricted to use in delivery of this project and shall only be made where the Council is in receipt of sufficient funds from the capital grant from the Environment Agency.
- 3.1.6 The value of the initial grant period award to WWT and NFF are shown in Table 1, together with estimated value of extension of the grant period into future years. Detailed costings will be prepared for the Full Business Case in Autumn 2023. The grant values are therefore shown as a range to reflect the present value cost and an allowance of up to 40% optimism bias (depending on the level of risk and uncertainty) for future costs. There is the potential for WWT to lead on the commissioning of detailed design and supervision of sustainable urban drainage schemes (SuDS) and natural flood management (NFM) measures if they are considered by the partnership as the most appropriate partner to lead on these project tasks. This would necessitate a variation to the grant agreement.

Table 1 Grant Values to Wildfowl & Wetlands Trust (WWT) and National Flood Forum (NFF)

	Wildfowl & Wetlands Trust (WWT)	National Flood Forum (NFF)
2022/23	£176,000 – 211,000	£125,000 - £145,000

2023/24	£183,000 - 214,000	£147,000 - £175,000
2024/25	£207,000 – 265,000	£137,000 - £165,000
2025/26	£207,000 – 265,000	£137,000 - £165,000
2026/27	£207,000 – 265,000	£137,000 - £165,000
<u>TOTAL</u>	<u>£980,000 - £1,220,000</u>	<u>£683,000 - £815,000</u>

3.1.7 The value of the grants if the agreements were extended through the life of the project to the end of 2026/27 would be £982,000 - £1,220,000 to WWT and £683,000 - £815,000 to NFF.

3.1.8A budget of £106,000 has been allocated within the Outline Business Case to complete the next phase of technical consultancy support for modelling of options in the hydraulic model, environmental benefit assessments and conceptual option designs as outlined at Section 2.8. A further £350,000 to £455,000 would be available for technical specialists to complete detailed designs, planning approvals, surveys and assessments to inform the Full Business Case. Some of these tasks could be led and commissioned by existing project partners, such as WWT, if the partnership (via the Project Board and Project Sponsor) decided that organisation was best placed to source the specialist(s) and this represented value for money for the project.

3.1.9A specification for the proof of concept, sensor trials and development of the data sharing platform for the Smart Catchment work stream has been prepared and informs the budget allocation for the planning phase of the work stream. An amendment to this budget is only anticipated if the scope of the platform or number of sensors is significantly increased. Together with operation of the platform and software for the life of the project through to April 2027, and monitoring and evaluation of the technologies, a budget of £406,000 to £511,500 has been allocated within the Outline Business Case for procurement of a supply partner.

3.1.10 A total of £2.5m - £3.5m has been allocated within the Outline Business Case towards construction works costs for SuDS and NFM measures (excluding design, planning and supervision costs). It is currently anticipated that these costs would be incurred by the project across three financial years of 2023/24 to 2025/26.

3.2 Legal implications

3.2.1 The Flood and Water Management Act 2010 places a statutory duty on the Environment Agency to develop a National Flood and Coastal Erosion Risk Management Strategy for England. This strategy describes what needs to be done by all risk management authorities (RMAs), including the Environment Agency, lead local flood authorities, district councils, internal drainage boards, highways authorities and water and sewerage companies. Each must exercise their flood and coastal erosion risk management (FCERM) activities, including plans and strategies, consistently with the strategy.

3.2.2 The Council, as defined by the 2010 Act, is a Lead Local Flood Authority (LLFA) and as such is responsible for developing, maintaining and applying a strategy for local flood risk management. A LLFA must maintain a register of their flood risk assets and has a duty to investigate flood incidents to the extent that it considers it necessary or appropriate. The LLFA are responsible for flooding from surface water, groundwater and Ordinary Watercourses.

3.2.3 The Environment Agency's 2020 National FCERM Strategy recognises that it is not possible to eliminate the risk of all flooding and coastal change and focuses on better protecting properties and reducing the impacts of flooding on people's lives and livelihoods, through improved resilience. The strategy directs authorities to work with partners to deliver practical and innovative actions to bolster resilience to floods in local places and make greater use of nature-based solutions that take a catchment led approach to managing the flow of water in both floods and droughts. This project is therefore in alignment with the direction of the National Strategy.

3.2.4 The Flood Risk Regulations 2009 (FRR) require the EA and Lead Local Flood Authorities to prepare, review and update flood risk management plans (FRMPs) every six years. The original FRMP1 ran through to 2021. The Council, together with all other regional LLFAs, has collaborated with the Environment Agency on creation of the Thames River Basin District FRMP2 2021 – 2027. Within the plan the Council has committed to five actions, with three of these (1,2 and 5) to be delivered by the Sponge Project:

1. Between 2021 and 2027, Slough Borough Council will work in partnership with the Environment Agency to progress appraisal of options for Salt Hill Stream Flood Alleviation Scheme in Slough to reduce flood risk and provide wider environmental benefit in the Slough, Thames Flood Risk Area.
2. Between 2021 and 2023, Slough Borough Council will develop a strategic understanding of potential to retrofit Sustainable Drainage Solutions (SuDS) in Slough to reduce flood risk and provide wider multiple benefits in the Slough, Thames Flood Risk Area.
3. Between 2021 and 2023, Slough Borough Council will develop a council flood plan to set out the specific response procedure in the event of a flood incident in Slough to enhance the Council's preparedness for emergency response and recovery in the Slough, Thames Flood Risk Area.
4. Between 2021 and 2023, Slough Borough Council will update the Surface Water Management Plan (SWMP) in Slough to increase awareness of current and future flood risk in the Slough, Thames Flood Risk Area.
5. Between 2021 and 2027, Slough Borough Council will work in partnership with the Environment Agency to restore river corridors, de-culvert and assess removal of structures where appropriate in Slough to reduce flood risk and provide wider environmental benefit in the Slough, Thames Flood Risk Area.

3.2.5 The terms of the grant award to the Council from the Environment Agency for the project do not allow the funding to be used for business-as-usual LLFA duties, but will enable the Council to improve its understanding of flooding through enhanced modelling and monitoring, and review the effectiveness and efficiency of business as usual activities. If the impact of flood incidents is reduced, this will reduce the requirements to investigate and respond to flood incidents.

- 3.2.6 Any flood risk assets installed within the project would need to be added to the LLFA register.
- 3.2.7 The recommendations seek approval for the Council to enter into grant agreements with WWT and NFF for an initial grant period up to the end of 2022/23. The grant agreements have been drafted by the Council's legal advisors based on its standard grant agreement template. The grants shall be required to only be used for the delivery of this project and shall only be made to the extent that the Council has available resources from the EA capital grant to do so. The grant agreements include clauses relating to monitoring and reporting, intellectual property rights, confidentiality, data protection, termination, insurance, liability, warranties, and dispute resolution to protect the Council. Where the Council procures services using grant funding, the Council must comply with its Contract Procedure Rules (CPRs) (and the Public Contracts Regulations 2015 (PCR) as they apply).
- 3.2.8 The recommendation set out in paragraph 1.2.3 (namely the procurement and award of contracts, outlined at 3.1.8 – 3.1.10) needs to be in line with the CPRs. In addition, where the total value of the contract exceeds the threshold (currently £213,477 inclusive of VAT for services and £5,336,937 inclusive of VAT for works) the Council will need to comply with the main provisions of the PCR and the Council shall undertake a full competitive tendering procedure. Where the contract is below threshold, the Council need only comply with its CPRs along with the fairness, transparency, equal treatment and proportionality principles.

3.3 Risk management implications

- 3.3.1 A risk assessment was drafted for the Outline Business Case submitted to the Environment Agency, as grant administrator, in June 2022 – see Appendix 3. A project risk register will be maintained and reviewed as standard in Project Board meetings. The project will also be required to submit quarterly financial tracking reports to the Environment Agency, as well as reporting against the project's risk register.
- 3.3.2 This report and its recommendations will demonstrate the Council's commitment to resourcing the project and the proposed governance arrangements, provide the mechanism to secure partner involvement of Wildfowl & Wetlands Trust (WWT) and National Flood Forum (NFF), and outline the procurement strategy for technical consultancy support and a smart technology provider. In doing so, this will aid transition of the project through the Outline Business Case assurance gateway and will mitigate against the risk of the Environment Agency withdrawing funding or transferring lead authority status to another local authority due to programme delays.
- 3.3.3 The Outline Business Case required the project to identify rationalisation if the project had 20% less funding and consider potential extensions if the project had 20% extra funding. Consequently, the project has been considered in a scalable manner, with agility to amend scope in the future to adapt to any funding constraints – for example, if inflation exceeds projection or tender outturn costs exceed cost estimates for services and works being procured.
- 3.3.4 Cost projections will continue to be refined, with detailed costings to be presented in the Full Business Case due in Autumn 2023. A key financial risk mitigation is the application of optimism bias to all projected costs – at 20% for staff costs, 30% for consultancy, services and products, and 40% on works (construction).

3.4 Environmental implications

3.4.1 The project is an environmental project to improve flood resilience and so the overall impacts are expected to be highly positive to the local environment. There will be direct benefit to restoration of degraded watercourses and floodplains, and daylighting of underground channels, which will bring multiple benefits to health, wellbeing and the environment in Slough's open spaces. These river catchments are currently failing to meeting the Water Framework Directive good status due to human pressures.

3.4.2 Wider environmental benefits will also include:

- Operational and embodied carbon reduction as well as carbon capture and improved natural capital;
- Improved public realm through good design principles in Sustainable Urban Drainage Schemes;
- Increased recreational amenity value of open spaces through creation of 'blue-green' spaces; and
- Improvements to low flows in watercourses, mitigating impacts of low flows on flora and fauna.

3.4.3 Further technical assessment in preparation of the Full Business Case for Autumn 2023 will carry out detailed quantitative benefits assessment of environmental issues including natural capital, biodiversity new gain, social value, carbon and sustainability.

3.5 Equality implications

3.5.1 The Equality Act 2010 outlines the provisions of the Public Sector Equalities Duty and under s.149 it requires Public Bodies as decision makers to have 'due regard' to achieving a number of equality goals, which includes the need to:

- a. Eliminate unlawful discrimination, harassment and victimisation and other conduct prohibited by the Equality Act 2010.
- b. Advance equality of opportunity between persons who share a relevant protected characteristic and persons who do not share it.
- c. Foster good relations between persons who share a relevant protected characteristic and persons who do not share it.

3.5.2 Relevant protected characteristics are: age, disability, gender reassignment, pregnancy and maternity, race, religion or belief, sex, sexual orientation.

3.5.3 The broad purpose of this duty is to integrate considerations of equality into day-to-day business and keep them under review in decision making, the design policies and the delivery of services.

3.5.4 The downstream of the catchments within Slough are heavily urbanised with areas that lie within the 20% most deprived nationwide on the Index of Multiple Deprivation². Furthermore, a large proportion of the study area within Slough is classified at an “Extreme” or “Acute” level of social flood risk³. The social flood risk index measures geographic flood disadvantage where social vulnerability and exposure to flood risk coincide. Low income and poor health are important drivers of flood vulnerability. Delivering flood risk management (FRM) more effectively in such areas includes preferentially selecting interventions to both reduce flood risk and have wider health and wellbeing benefits (for example, green infrastructure approaches such as SuDS) and supporting other policy agendas. Lower income and lower levels of insurance penetration heighten the ‘relative economic pain’ of flooding in vulnerable neighbourhoods.

3.5.5 The issue of social flood risk was identified by the project team at the outset of the project and has framed the development of the project to-date and in particular the choice of partners in the Wildfowl & Wetlands Trust (WWT) and National Flood Forum (NFF) for the community catchment work stream, as independent, respected charities with prior experience of working in communities within the project study area, and existing networks through community participation projects and support for Flood Action Groups. They also have an existing relationship with the Community Development team to further help in planning engagement activities to reach across key spokespeople, community groups and individuals in communities.

3.6 Procurement implications

3.6.1 The project will be undertaking procurement for technical consultancy services and smart technology goods and services as outlined in sections 3.1.8 – 3.1.9 to the maximum expected values outlined there and in the recommendations. The procurement process will follow the Council’s approved Contract Procedure Rules appropriate to the total aggregate value of the contract to determine the number of quotations required and the approach to market to be taken. In compliance with the rules the most economically advantageous tender is to be selected, to achieve Best Value and Value for Money for the Council. The Procurement Team will be contacted for guidance and support. Consideration will be given to accessing local/national framework agreements where available for the types of services being procured and running mini competitions or call offs. Where this is not appropriate, the SE Shared Services E-portal, Contracts Finder and the UK Find a Tender Service system will be used. Principles of fair access to public contracts will be followed, ensuring that local, SME and other suppliers have opportunity to compete.

3.6.2 The Contract Procedure Rules will also be followed to procure the SuDS & NFM construction works outlined in Section 3.1.10. Due to the value of these works further Cabinet approval will be sought once detailed specification and costings are available, prior to procurement and prior to contract award.

² Index of Multiple Deprivation is a National Statistics release published 26 September 2019 by the Ministry of Housing, Communities & Local Government. Available at [English indices of deprivation 2019 - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/statistics/english-indices-of-deprivation-2019).

³ Climate Just, 2018, Social Flood Risk Index Mapping. Available at [The Spatial Tool for Climate Just - assessing the geography of England’s vulnerability to climate change](https://www.climatejust.org.uk/resources/social-flood-risk-index-mapping).

3.7 Workforce implications

3.7.1 As outlined at Section 3.1.3, the grant funding includes an allocation of £709k over the six-year project towards Council officer input into the project across project management, governance, finance, legal, planning, community, communications and parks teams. This funding would help offset revenue salary budget pressure in those service areas.

3.7.2 It is currently anticipated that the project management would continue to be led by the Carbon & Sustainability team.

3.8 Property implications

3.8.1 An objective of the project is to retrofit sustainable drainage schemes into the urbanised areas of the two river catchments within Slough. While optioneering of the potential sites is still underway, the unbuilt open spaces within Slough in these two catchments are primarily public parks or school playing fields, land uses that can be suited to Sustainable Urban Drainage schemes (SuDS) such as detention basins, retention ponds, wetlands, and swales. Small scale SuDS schemes (such as permeable paving or swales) can also be highly effectively when retrofitted along highway land in road verges and within pavements. It is probable therefore that the selected SuDS measures will predominantly be on Council owned land. As in all partnership matters, this will involve consultation with the relevant external stakeholders and internal service areas including local communities and facility users. Given the nature of suitable land in the study area, these assets are very unlikely to be implicated in the Council's disposal programme.

3.8.2 Within the rural areas of the catchments in southern Buckinghamshire, suitable sites for natural flood management measures are likely to be in private ownership, rather than land owned by Buckinghamshire Council. Such schemes will only be possible through engagement and negotiation with relevant landowners.

4. Glossary

<u>Term</u>	<u>Definition</u>
River Catchment	A catchment is the area of land that captures rainfall which will drain to that water course (river system). So the Salt Hill Catchment is the area (see maps in Appendix 1 and 2) of land where all the rain that falls on that land will ultimately drain to the Salt Hill Stream (unless intercepted by man-made drainage systems).
Flood Resilience	Flood resilience can be defined as being prepared, ready to respond, able to cope and recover from a flood event. It can include reducing the risk (or likelihood) of flooding but is also about reducing the impact when there is a flood event.
Sponge city/ catchment	This is an approach to design an urban area to imitate the natural environment so that rainwater is delayed, kept or absorbed into the land where it falls helping that area to cope with excess rainfall, and the run-off of water is slowed to prevent or reduce the extent of flooding.
Sustainable Urban Drainage Systems (SuDS)	Sustainable drainage systems (SuDS) are drainage solutions that provide an alternative to the direct channelling of surface water through networks of pipes and sewers to nearby watercourses.

	<p>Piped drainage systems have a limited capacity to accept extreme rainfalls. When this capacity is exceeded, flooding occurs.</p> <p>Examples of SuDS include residential and commercial scale water butts, filter drains, retention tanks or ponds, permeable paving that allows water to soak into the ground instead of running off, and swales (beds of planting of water retaining plants including reeds and grasses).</p>
Natural flood management (NFM)	<p>Natural flood management is when natural processes are used to reduce the risk of flooding. Examples include: removing watercourses from culverts and artificial channels, restoring bends in rivers to slow flows, changing the way land is managed so soil can absorb more water, and creating retention ponds or depressions in land to hold water during storm rainfalls.</p>
Optimism Bias	<p>Optimism bias is the tendency of individuals to expect better than average outcomes from their actions. In the context of infrastructure projects, optimism bias can lead to underestimation of project duration, overestimation of its benefits and underestimation of its total cost. A contingency of up to 40% of the value of each component has been allowed for to cover any such underestimations.</p>
Outline Business Case	<p>An Outline Business Case (OBC) sets out the preliminary intentions of a proposed project. It contains the information needed to help the funding institution make decisions regarding the adoption of the project. It states draft costs, envisaged outcomes, benefits and potential risks associated with the proposal.</p>
Full Business Case	<p>A Full Business Case (FBC) is prepared when the project planning phase is complete and contains more detail, especially around costs and benefits. It should provide all the information needed to support a decision to award a contract and commit actual funding, and should provide a basis for the necessary project governance, management, monitoring, evaluation and benefits realisation.</p>
Citizen Science	<p>Citizen Science is scientific research conducted with participation from the public, including residents and communities sharing their knowledge on flooding (how, when, where), reporting on the impact of flood risk & resilience measures, and collecting or analysing data. This can also involve participation by students in education.</p>

5. Background Papers

None *[or list background papers]*