

Meeting date: 1st SEPTEMBER 2020
Report to: CABINET MEMBER FOR
ENVIRONMENT AND HIGHWAYS



Subject/report title: FLOOD RISK MANAGEMENT – INTRODUCTION OF FLOOD MITIGATION SCHEMES
Report from: HEAD OF HIGHWAY INFRASTRUCTURE
Report author/lead contact officer: EDWARD BRADFORD

Wards affected:

All Wards | Bickenhill | Blythe | Castle Bromwich | Chelmsley Wood |
 Dorridge/Hockley Heath | Elmdon | Kingshurst/Fordbridge | Knowle |
 Lyndon | Meriden | Olton | Shirley East | Shirley South |
 Shirley West | Silhill | Smith's Wood | St Alphege

Public/private report: Public

Exempt by virtue of paragraph: N/A

1. Purpose of Report

1.1 To seek Cabinet Member approval for the introduction of flood mitigation schemes at Cheswick Green, Aqueduct Road and Corley Close, Pear Tree Crescent and Yardley Wood Road and Tidbury Green.

2. Decision(s) recommended

- a) To note the work undertaken by Officers since January 2020
- b) To approve the sign off of four flood mitigation schemes at Cheswick Green, Aqueduct Road and Corley Close, Pear Tree Crescent and Yardley Wood Road and Tidbury Green, as set out in Table 1 of this report, and their delivery through the National Property Flood Resilience Framework
- c) To note and endorse the continuation of work by Officers on flood mitigation schemes for Willow Drive/Saxon Wood Road Area, Griffin Lane/Waterside Heights Area, Nethercote Gardens, Brook Lane/Swanswell Road Area and the Stratford Road Area, Hockley Heath, as set out in Table 2 of this report
- d) To approve the use of up to £104k of monies held in the Flood Risk Management reserve as partnership funding in order to unlock Flood Defence Grant in Aid and Local Levy funding, as set out in Table 3 of this report

3. Matters for Consideration

- 3.1 In January 2020 the Cabinet Member received a report setting out work that had been undertaken by Officers in relation to the funding and delivery of measures to reduce the risk of future flooding at locations that were affected by flooding in May 2018.
- 3.2 As set out in the January 2020 report, an Initial Assessment had been undertaken for the areas of Dickens Heath, Tidbury Green, Cheswick Green, the area around Pear Tree Crescent and the River Cole corridor. The Initial Assessment sought to define a baseline that describes the risk in each area and against which future projects can be assessed.
- 3.3 As part of the Initial Assessment, long list options had been developed before being assessed and then scored using Multi-Criteria Analysis against Flood Risk, Technical, Economic, Environment, Stakeholders and Health and Safety categories. From this a short list of options had been developed for further analysis, including the calculation of a benefit cost ratio, as well as a partnership funding score. Based on the calculated benefit cost ratio, a leading economic option for each area had been identified, with Property Level Resistance and Resilience (PLR) emerging as the leading option for each area.
- 3.4 At the January 2020 decision session, the Cabinet Member gave approval for Officers to consult with the communities of Cheswick Green, Dickens Heath, Tidbury Green and the River Cole Corridor on the findings of the Initial Assessment and where relevant to develop appropriate business cases for the leading options.
- 3.5 Since January 2020, Officers have continued their work to enable the delivery of flood mitigation schemes. In summary, for any scheme to be delivered, FDGiA funding needs to be in place, Local Levy and partnership funding needs to be secured and in order to be able to draw down such monies, a Short Form Business Case needs to have been submitted to the Environment Agency and granted technical approval.
- 3.6 Bids for Local Levy funding were approved by the Trent Regional Flood and Coastal Committee and the relevant Short Form Business Cases were submitted to the Environment Agency for technical approval in July 2020. Subject to receiving a formal decision at the end of August 2020 from the Environment Agency on the award of FDGiA funding for use in 2020/21, Officers are now in a position to introduce four flood mitigation schemes as part of a first phase of investment. These schemes will help better protect 104 properties at various locations across the Blythe and Shirley West wards, as set out in Table 1.

Ward	Area	Location	No of Properties Affected
Blythe	Cheswick Green	Coppice Walk/ Tanworth Lane area.	22
Shirley West	Solihull Lodge	Pear Tree Crescent/ Yardley Wood Road area.	37
Shirley West	Shirley	Aqueduct Road and Corley Close area.	21
Blythe	Tidbury Green	Fulford Hall Road, Norton Lane and Rumbush Lane area.	24
Total			104

Table 1: List of Flood Mitigation Schemes ready for delivery as of September 2020

- 3.7 It should be noted that Officers are continuing to progress appropriate flood mitigation schemes for other locations that experienced flooding in May 2018, as set out in Table 2. It should also be noted that a scheme to introduce PLR measures at properties at Beech Lane, Dickens Heath is currently being delivered and funded by Severn Trent Water.

Ward	Area	Location
Blythe	Cheswick Green	Willow Drive/Saxon Wood Road Area
Blythe	Dickens Heath	Griffin Lane/Waterside Heights Area
Shirley West	Shirley	Nethercote Gardens
Olton	Olton	Brook Lane/Swanswell Road Area
Dorridge and Hockley Heath	Hockley Heath	Stratford Road Area

Table 2: List of Flood Mitigation Schemes in progress as of September 2020

- 3.8 In order to deliver the four schemes set out in Table 1, as set out in the January 2020 report to Cabinet Member, Officers intend to use the National Property Flood Resilience Framework.

- 3.9 In summary, a consultant will be appointed through the framework to undertake Property Flood Surveys. As part of their scope, the Consultant shall assess how water can enter the property and suggest ways to mitigate potential flooding. As well as resistance methods (preventing water entering the property), the survey will also include the investigation of resilience measures (adapting inside the property), to limit the damage and disruption that occurs when water enters.
- 3.10 A contractor appointed through the framework will then provide design management, supervision of other services as required and programme management. The contractor will also provide the design and construction in accordance with the requirements of this framework.
- 3.11 On completion of the works the Consultant will produce a Post Installation Flood Risk Report (PIFRR) on their findings. They will also sign off the work by the installer who has carried out the Consultant's suggested measures. The PIFRR shall summarise the available information on the flood risk and will detail the flood resistance and resilience measures that have been provided for the property.
- 3.12 Whilst subject to the successful award of FDGiA funding for use in 2020/21 and confirmation from the consultants and contractors involved, Officers anticipate the necessary survey and design work to have been completed by the end of 2020, with installation taking place in early 2021, to allow completion by the end of March 2021.

4. What options have been considered and what is the evidence telling us about them?

- 4.1 In May 2018 over 300 reports of flooding to property were received, with residents being forced to leave their homes and live in alternative accommodation. The local road network was also impacted and impassable in places.
- 4.2 11 locations were investigated in more detail to identify the causes and mechanisms of the flooding and a report produced in accordance with the Flood and Water Management Act 2010. An action from the report was to consider measures that can reduce the risk of future flooding at locations that were affected in May 2018.
- 4.3 In 2019, an Initial Assessment was undertaken of the areas of Dickens Heath, Tidbury Green, Cheswick Green, the area around Pear Tree Crescent and the River Cole corridor. This work defined a baseline situation, against which identified options have been appraised and assessed in accordance with Flood and Coastal Erosion Risk Management guidance.
- 4.4 Various options were short listed but based on the calculated benefit cost ratio, a leading economic option for each area of PLR has been identified.

5. Reasons for recommending preferred option

- 5.1 For the areas of Dickens Heath, Tidbury Green, Cheswick Green, the area around Pear Tree Crescent and the River Cole corridor, the Initial Assessment has identified leading options in accordance with Flood and Coastal Erosion Risk Management guidance. Whilst it may be technically feasible to deliver alternative capital interventions across each area, the economic analysis indicates that the FDGiA

mechanism is unlikely to constitute a significant source of project funding due to the low levels of qualifying benefits under the current Partnership Funding rules. Significant alternative sources of local funding would therefore need to be obtained to promote the delivery of alternative, less cost-effective capital interventions.

6. Implications and Considerations

6.1 State how the proposals in this report contribute to the priorities in the [Council Plan](#):

Priority:	Contribution:
Economy: 1. Revitalising our towns and local centres. 2. UK Central (UKC) and maximising the opportunities of HS2. 3. Increase the supply of housing, especially affordable and social housing.	None.
Environment: 4. Enhance Solihull's natural environment. 5. Improve Solihull's air quality. 6. Reduce Solihull's net carbon emissions.	None.
People and Communities: 7. Take action to improve life chances in our most disadvantaged communities. 8. Enable communities to thrive. 9. Sustainable, quality, affordable provision for adults & children with complex needs.	It is proposed to introduce PLR measures to 104 properties that are currently at risk of flooding, many of which suffered in May 2018.

6.2 Consultation and Scrutiny:

6.2.1 The Stronger Communities and Neighbourhood Services Scrutiny Board received a briefing note at the November 2019 meeting on work undertaken by Officers following the May 2018 flooding.

6.3 Financial implications:

6.4 Flood risk mitigation schemes are not able to be entirely funded for delivery via the Flood Defence Grant in Aid mechanism available via the Environment Agency. Therefore Local Levy funding, which serves to top up the FDGiA funding to the amount required to deliver the scheme is required. However, Local Levy funding is limited and in order to be successful any proposal needs to demonstrate how it would meet certain 'Trent Outcome Measures' that are required by the Trent Regional Flood and Coastal Committee. With such funding there is also an expectation that partnership funding be made available to contribute to the proposed schemes.

6.4.1 In June 2020, Officers submitted remaining bids for Local Levy funding in order to deliver the Flood Mitigation schemes as set out in Table 1 earlier in this report, with these bids receiving approval from the Trent Regional Flood and Coastal Committee in July 2020. In addition to the Local Levy funding, Short Form Business Cases were submitted to the Environment Agency for technical approval in July 2020 along with requests for FDGiA funding. Officers expect to have received a formal decision at the end of August 2020 from the Environment Agency on the award of FDGiA funding for use in 2020/21.

6.4.2 Table 3 details the expected cost and the funding breakdown associated with each scheme.

Location	Expected Cost	FDGiA Available	Local Levy Available	SMBC Partnership Contribution
Coppice Walk/ Tanworth Lane area.	£181k	£84k	£75k	£22k
Pear Tree Crescent/ Yardley Wood Road area.	£386k	£182k	£167k	£37k
Aqueduct Road and Corley Close area.	£215k	£116k	£78k	£21k
Fulford Hall Road, Norton Lane and Rumbush Lane area.	£193k	£58k	£111k	£24k
Total	£975k	£440k	£431k	£104k

Table 3: Expected cost and funding breakdown associated with each scheme.

6.4.3 As set out in Table 3, partnership contributions from the Council totalling £104,000 are required in order to access £440,000 of FDGiA funding and £431,000 of Local Levy funding. Officers have identified that such contributions can be funded from the existing Flood Risk Management reserve which was set up for this purpose in 2016 with the balance of this being £150,000 prior to the proposed use above .

6.5 Legal implications:

6.5.1 The Flood and Water Management Act 2010 places a duty on Local Authorities to prepare and put in place strategies for managing flood risk from groundwater, surface water and ordinary watercourses in their areas.

6.6 Risk implications:

6.6.1 None.

6.7 Equality implications:

6.7.1 No implications have been identified as a result of the statutory public sector equality duty to have 'due regard' under the Equality Act 2010.

7. List of appendices referred to

7.1 None.

8. Background papers used to compile this report

8.1 Report to Cabinet Member for Environment and Highways, January 2020.

9. List of other relevant documents

9.1 None.