# PERTH AND KINROSS COUNCIL

# Climate Change & Sustainability Committee

# 27 November 2023

# CRAIGIE BURN FLOOD STUDY

# Report by Head of Environmental and Consumer Service

(Report No. 23/331)

# 1. PURPOSE

1.1 This report sets out the outcome of the Council's flood study on the Craigie Burn, Perth. The report recommends that a small flood protection scheme is taken forward as it has been found to be economically viable. As such, the proposed scheme will be submitted to SEPA for national prioritisation and inclusion in the next Tay Flood Risk Management Plan and Local Flood Risk Management Plan, to be published in 2028.

## 2. RECOMMENDATIONS

- 2.1 It is recommended that Committee:
  - (i) notes the completion of the Craigie Burn Flood Study, as required by the Tay Flood Risk Management Plan and Local Flood Risk Management Plan.
  - (ii) notes that public engagement events have been held to disseminate the findings of the flood study.
  - (iii) approves the recommendations of the study, including the proposals for a small flood protection scheme on the Craigie Burn.
  - (iv) notes that details of the recommended flood protection scheme will be submitted to SEPA for national prioritisation and inclusion in the Cycle 3 (2027-2033) Tay Flood Risk Management Plan, to be published in December 2027, and Tay Local Flood Risk Management Plan, due for publication in 2028.

# 3. STRUCTURE OF REPORT

- 3.1 This report is structured over the following sections:
  - Section 4: Background/Main Issues
  - Section 5: Proposals
  - Section 6: Conclusion
  - Appendices

# 4. BACKGROUND / MAIN ISSUES

- 4.1 Under the Flood Risk Management (Scotland) Act 2009, SEPA and lead local authorities published their Cycle 1 Flood Risk Management (FRM) Plans (referred to as 'Strategies' at the time) and Local FRM Plans in December 2015 and June 2016 respectively. These documents set out a range of actions that SEPA and responsible authorities took to manage and, where possible, reduce the risk of flooding over a six-year period.
- 4.2 The (then) Environment Committee approved the content and publication of the Cycle 1 Tay Local FRM Plan on 1 June 2016 (Report 16/241 refers). The (then) Environment and Infrastructure Committee subsequently approved the content of an Interim Report on the progress made in implementing the Cycle 1 Local FRM Plans on 23 January 2019 (Report 19/16 refers).
- 4.3 SEPA and lead local authorities published updated Cycle 2 FRM Plans and Local FRM Plans in December 2021 and December 2022 respectively for the six-year period from 2022 to 2028. The Climate Change & Sustainability Committee approved the content and publication of the Cycle 1 Final Report and Cycle 2 Tay Local FRM Plan on 19 December 2022 (Report 22/307 refers). The published documents can be viewed at the following link: <u>http://www.pkc.gov.uk/frmplans.</u>
- 4.4 The published FRM plans and Local FRM plans identify various flood studies as a means of further improving the understanding of flood risk in certain locations. A flood protection study was identified for the Craigie Burn in Perth.
- 4.5 The purpose of the flood study was to investigate what further action would be required to manage flood risk at this location. Such action can be implemented through flood protection schemes, where these are found to be technically feasible and economically viable.
- 4.6 The 2009 Act provides local authorities with discretionary powers to promote flood protection schemes. Only those flood schemes which have been included in the published FRM Plans, the Local FRM Plans and the national priority list are taken forward in the subsequent 6-year period.
- 4.7 Although public authorities are expected to take a proactive role in managing and, where achievable, lowering flood risk, the primary responsibility for avoiding or managing flood risk still remains with land and property owners. The 2009 Act does not alter this. Individuals, businesses and communities must, therefore, play a critical role in making themselves more resilient and helping to reduce the impact of flooding.
- 4.8 The Craigie Burn is situated within the south and western areas of Perth within the River Tay catchment and Potentially Vulnerable Area (PVA) 02/08/12.

- 4.9 The main potential source of flooding in this area of Perth is from the Craigie Burn and its tributaries, the Scouring and Buckie Burns. This river (or fluvial) flood risk was the main focus of this flood study. There are already existing flood defences in the catchment, which form part of the Perth Flood Scheme, and these already serve to reduce flood risk in the area.
- 4.10 It is also acknowledged that there is also a significant risk of surface water (or pluvial) and sewer flooding within the Craigie Burn catchment. However, as set out by the Tay Local FRM Plan, this form of flooding is being investigated as part of the on-going Perth Surface Water Management Plan. The Council's flooding team is coordinating the work of this project with the Craigie Burn flood study.
- 4.11 Much of the existing hydraulic model for the Craigie Burn was developed as part of earlier work on the Perth Integrated Catchment Study, which was undertaken jointly with Scottish Water. In December 2021, consulting engineers, Amey Consulting Ltd, were engaged to develop this model further and to complete a flood study for the Craigie Burn.
- 4.12 Amey's investigations involved extensive data gathering and analysis, consultations, topographic surveys, a hydrological assessment, hydraulic modelling, an environmental desk study, an options study, an economic appraisal and the production of final reports.
- 4.13 The flood study analysed the flooding mechanisms affecting the Craigie Burn catchment and a series of flood maps were produced. The study confirmed properties are at risk of flooding in the following areas:
  - Cherrybank area Glasgow Rd, Necessity Brae and Low Road
  - Orchard Place and Murray Crescent
  - Balmoral Place, Queen's Avenue, Queen Street and Windsor Terrace
  - Croft Park and the South Inch
- 4.14 The study also highlighted the complex interaction between different sources of flooding within the catchment, namely river, surface water and sewer flooding.
- 4.15 The study estimates that up to 57 properties are potentially at risk during a 1 in 200-year flood event (the flood event with a 0.5% chance of occurring in any one year). In future, this is estimated to increase to 114 properties due to the effects of climate change. These numbers relate to those properties at risk of internal flooding, i.e., where flooding occurs above the property threshold level. The large increase in the number of properties potentially at risk of flooding in the future (due to climate change) is mainly due to a predicted increase in risk from surface water and sewer flooding.
- 4.16 In managing flood risk, the Council is required to have regard to the economic, social and environmental impact of its actions. The Scottish Government's guidance recommends that decision making in flood risk management should be supported by an options appraisal.

- 4.17 An options appraisal includes a cost-benefit analysis and other techniques to determine whether a flood protection scheme meets its objectives, is sustainable and represents best value for money. In general, the cost of flood damage avoided over time must be greater than the cost of building the flood defences, i.e., they must achieve a benefit/cost ratio of greater than 1.0.
- 4.18 Amey initially considered a long list of potential actions to manage the risk of flooding. This long list was screened to remove actions that were clearly not feasible, leaving an initial short list of 14 potential actions. These actions were assessed in detail within the hydraulic model to arrive at the final short list of 8 actions listed below:
  - 1. Upstream flood storage and natural flood management in the rural catchment south of the M90. (Option 1 in the flood study report).
  - Increase storage capacity at the existing flood storage ponds adjacent to the Glasgow Road (these form part of the Perth Flood Scheme). (Option 3 in the flood study report).
  - 3. Improve river channel conveyance by dredging the Craigie Burn from Buckie Braes to the South Inch. (Option 7 in the flood study report).
  - 4. Create a flood storage area on the Craige Burn in the land between Low Road and Orchard Place. (Option 8 in the flood study report).
  - 5. Improve capacity of existing culvert at Queens Avenue (beneath the access to Queen's Court). (Option 10 in the flood study report).
  - 6. Improve capacity of existing culvert at Queens Avenue (beneath the access to Queens Court) and modify adjacent river channel. (Option 11 in the flood study report).
  - 7. Improve the Craigie Burn to South Inch reservoir spill mechanism (to the east of Croft Park). (Option 13 in the flood study report).
  - 8. Combination of options 6 and 7 (Options 11 and 13 in the flood study report).
- 4.19 These 8 options were subject to a technical, environmental and economic appraisal. Details of the initial and final short-list of actions are shown in Appendix 1, together with the estimated costs and benefit cost ratios.
- 4.20 The flood study concluded that most of the identified options are not economically viable as they have benefit/cost ratios of 1.0 or less. The study has confirmed that the benefit/cost ratios for the short-listed options are generally low, and this is due to the presence of the existing flood defences within the catchment (which form part of the Perth Flood Scheme), and the on-going maintenance that the Council currently undertakes.
- 4.21 However, the short-listed options for upgrading the culvert at Queen's Avenue (options 5 & 6) did achieve a benefit/cost ratio of greater than 1.0 and Option 6 has been identified as the most cost-effective.

- 4.22 The flood study therefore recommends Option 6 which consists of the following two actions:
  - a) upgrade and increase the capacity of the existing culvert on the Craigie Burn at Queen's Avenue (at the access to Queen's Court).
  - b) localised channel modifications on the Craigie Burn (adjacent to Balmoral Place and Queen's Avenue) upstream and downstream of the upgraded culvert.
- 4.23 The recommended option is estimated to have a capital cost of £0.314M and an overall benefit/cost ratio of 1.42. The flood study has, therefore, concluded that this flood protection option is economically viable and should be implemented.
- 4.24 If these actions were to be implemented, then the estimated flow capacity of the channel of the Craigie Burn at Queens Avenue would increase from its current 1 in 5-year flood to the predicted 1 in 100-year flood. A total of 22 properties would be protected up to the 1 in 100-year flood (and up to 18 properties would benefit in the 1 in 200-year flood), as described in Appendix 2.
- 4.25 It is recognised that the recommended actions noted above have a limited benefit and that properties in other areas of the catchment will remain at risk of flooding from the Craigie Burn. The existing Perth Flood Scheme does offer a limited degree of protection but, as acknowledged at 4.20, this and the on-going maintenance activities within the catchment limits the potential benefits for any new actions. Unfortunately, it is not always possible to remove all flood risk in a catchment and some residual flood risk will always remain. This would remain the case, even if it were possible to implement all of the potential actions identified in the study. Even if it were possible to remove the river (or fluvial) flood risk, the risk of surface water and sewer flooding would remain. The nature of the catchment also means that there is limited scope for more extensive options.
- 4.26 The current Tay Local FRM Plan therefore includes other actions for this area of Perth including:
  - Sewer flood risk assessment (Scottish Water)
  - Perth Surface Water Management Plan
  - Community engagement
  - Community resilience groups
  - Maintenance of the Perth Flood Scheme, watercourses, drainage networks, etc.
  - Awareness raising
  - Flood forecasting (SEPA)
  - Self-help measures
  - Emergency plans/response
  - Land use planning managing flood risk through the application of development planning policy.

- 4.27 The recommendations and conclusions within Amey's flood study report align with the actions set out in the current Tay Local FRM Plan.
- 4.28 As noted at 4.10, the Perth Surface Water Management Plan is on-going. While this project covers the whole of the city of Perth, it will give further consideration to the potential means of managing, and where possible reducing, surface water flood risk within this catchment.
- 4.29 As noted at 4.7, individuals, businesses and communities must play a critical role in making themselves more resilient and helping to reduce the impact of flooding. The Tay Local FRM Plan, therefore, includes actions which are intended to enable communities to act and to become more resilient to flooding. The flood study has also confirmed that property flood resilience measures are an effective way for residents and communities to improve their resilience to flooding and recommends that those in flood affected areas consider installing these.
- 4.30 In order to disseminate the findings of the flood study, and to outline how flood risk is being managed in the area, community drop-in sessions were held at the Dewar's Centre, Perth on 20 and 28 June 2023 from 2 8pm. The display information was also made available on the Council's consultation hub between 16 June and 16 July 2023. This allowed the community to view and comment on the study findings. Further details are provided in Section 4 of the Annex to this report.
- 4.31 The Council will continue to raise awareness of flooding and encourage the local community and other landowners to become more prepared and resilient to deal with flooding in the future.

# 5. PROPOSALS

- 5.1 The Council's consulting engineers, Amey Consulting Ltd, have recommended a flood protection scheme to reduce flood risk from the Craigie Burn at Queen's Avenue. It is proposed that this scheme is taken forward by the Council.
- 5.2 The recommended flood protection scheme involves two localised actions, as set out in section 4.22 of this report.
- 5.3 The proposed flood protection scheme is noted as Option 6 at 4.18 (and Option 11 in Appendices 1 & 2) of this report.
- 5.4 The Council will continue to manage flood risk in these areas by implementing the other actions set out in the published Tay FRM Plan and Local FRM Plan.

#### **Next Steps**

- 5.5 The Council will submit details of the proposed scheme to SEPA for prioritisation (within the national list of flood schemes) and inclusion within the Cycle 3 Tay FRM Plan and Local FRM Plan covering the period from 2028 2034. This process is essential to secure the necessary capital grant funding to design and construct the scheme.
- 5.6 The Cycle 3 Tay Local FRM Plan should set out the proposed implementation arrangements for the flood scheme at Queen's Avenue, Perth, including timescales and how it will be funded. However, due to the on-going Scottish Government/CoSLA review of capital funding for flood schemes, and the other schemes that the Council is already progressing, the timescales and funding arrangements remain unclear for the time being. The next phases of work to develop the flood scheme proposals will therefore not commence until this funding review provides further clarity around capital grant funding and provision is made within the Council's capital programme.

## 6. CONCLUSION

- 6.1 This report provides an update on the outcome of the Craigie Burn flood study.
- 6.2 The Council engaged consulting engineers to carry out this study, which was included within the Tay Flood Risk Management Strategy and Local Flood Risk Management Plan.
- 6.3 The Council's consulting engineers have recommended a flood protection scheme for the Craigie Burn at Queen's Avenue, Perth. The proposed scheme is economically viable, and the preliminary proposals consist of upgrading an existing culvert and channel modifications to reduce the risk of flooding from the Craigie Burn in Perth. This report, therefore, seeks the Committee's approval that the consulting engineer's recommended proposals be promoted as a flood scheme for the Craigie Burn, subject to funding.

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# APPENDICES

- Appendix 1 Craigie Burn Flood Study Short List of Potential Options
- Appendix 2 Craigie Burn Flood Study Recommended Option

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All Council Services can offer a telephone translation facility.

# 1. IMPLICATIONS, ASSESSMENTS, CONSULTATION AND COMMUNICATION

Strategic Implications	Yes / None
Community Plan / Single Outcome Agreement	Yes
Corporate Plan	Yes
Resource Implications	
Financial	Yes
Workforce	None
Asset Management (land, property, IST)	None
Assessments	
Equality Impact Assessment	Yes
Strategic Environmental Assessment	Yes
Sustainability (community, economic, environmental)	Yes
Legal and Governance	Yes
Risk	Yes
Consultation	
Internal	Yes
External	Yes
Communication	
Communications Plan	Yes

#### 1. Strategic Implications

Community Plan/Single Outcome Agreement

- 1.1 This report supports all of the priorities within the Community Plan 2022-27.
  - (ii) Mental and physical wellbeing
  - (v) Employability

#### Corporate Plan

- 1.2 This report supports the objectives within the draft new Corporate Plan:-
  - (i) Children and young people grow up safe, respected, well-educated, and confident in their ability to realise their full potential;
  - (ii) People and businesses are increasingly able to prosper in a local economy which support low carbon ambitions and offers opportunities for all;
  - (iii) People can achieve their best physical and mental health and have access to quality care and support when they need it;
  - *(iv)* Communities are resilient and physically, digital and socially connected;
  - (v) Perth and Kinross is a safe and vibrant place, mitigating the impact of climate and environmental change for this and future generations.

# 2. Resource Implications

#### <u>Financial</u>

- 2.1 It should be noted that the proposed flood protection scheme at Queen's Avenue, Perth will not be implemented at this time. The implementation arrangements (if known) will be set out in the Cycle 3 Tay Local FRM Plan, which will cover the six year period from 2028-2034 and is due to be published in June 2028. Subject to available funding, consulting engineers will be re-engaged to carry out further investigations and develop the flood scheme proposals at some time during 2028-2034. As a result, there are no immediate resource implications arising directly from the recommendations in this report.
- 2.2 However, the flood risk management planning process will have future financial implications. The Cycle 3 Tay Local FRM Plan will contain the implementation arrangements including a timetable for the proposed flood scheme, who will be responsible for implementing it, as well as how it will be funded (if known) and coordinated by SEPA and the responsible authorities over the next six-year cycle from 2028-2034.
- 2.3 The 2009 Act requires the Scottish Government to have regard to the FRM Plans and Local FRM Plans when allocating funds to SEPA and responsible authorities. The Scottish Government, CoSLA and SEPA agreed the distribution of capital funding to the actions identified nationally in the Cycle 1 FRM Strategies and Local FRM Plans. The following arrangements currently apply:
  - (i) Only works and schemes that are prioritised in the FRM Plans and Local FRM Plans are eligible for capital funding.
  - (ii) Flood protection schemes attract capital grant assistance of up to 80% of their estimated project cost at tender stage from the Scottish Government. Local authorities are required to fund the remainder of the cost of flood schemes.
  - (iii) The Scottish Government allocates capital funding to local authorities engaged in flood risk management across Scotland. 80% of this capital funding will continue to be allocated to flood protection schemes with the remaining 20% to other actions within the FRM Plans, as detailed in the Local FRM Plans. This 20% is distributed to the 32 Scottish local authorities based on the number of properties at risk of flooding and the estimated annual average flood damages.
- 2.4 At present, the allocated capital grant is adjusted as the flood scheme proposals are developed. The estimated costs of flood schemes across Scotland will therefore continue to be reported to the Scottish Government by local authorities on an annual basis.
- 2.5 These arrangements are currently under review by the Scottish Government and CoSLA, due to the current projected costs of Cycle 1 flood schemes across the country, and the available funding.

- 2.6 The Council currently has four flood protection schemes that had been included in the national priority list for Cycle 1 from 2016-2022 and work on them continues. However, as a result of the above review, the 4<sup>th</sup> priority flood scheme, on the Annaty Burn in Scone, has been paused. While this scheme may still progress in the future, it is likely to take longer to implement due to these funding limitations.
- 2.7 No capital funding has been allocated to any new Cycle 2 or 3 flood schemes in Scotland. The Council has not made an allocation for its 20% contribution to the capital costs at this time. The timescales and funding arrangements for the proposed new flood scheme at Queen's Avenue in Perth therefore remain unclear for the time being.
- 2.8 The conclusion of the national review into capital funding for flood schemes is awaited. In the meantime, COSLA leaders have confirmed that it is expected that the Local Government General Capital Grant will continue to include resources allocated for flooding projects, and decisions on quantum and distribution will be taken by Scottish Ministers and COSLA Leaders nearer the time.
- 2.9 The proposals and cost estimates for the recommended flood scheme at Queen's Avenue in Perth still have to be developed through a process of further investigations, consultation, outline design, the statutory process, detailed design, tendering and construction. Experience on other similar schemes has invariably shown that the costs estimated at feasibility stage always increase. The scheme costs noted in this report are therefore subject to change and will have to be carefully monitored going forward.
- 2.10 There are no current revenue funding implications arising from the recommendations in this report.

#### <u>Workforce</u>

2.11 There are no workforce implications arising directly from the recommendations in this report.

# Asset Management (land, property, IT)

2.12 The proposals in this report have no asset management implications at this time.

## 3. Assessments

#### Equality Impact Assessment

- 3.1 Under the Equality Act 2010, the Council is required to eliminate discrimination, advance equality of opportunity, and foster good relations between equality groups. Carrying out Equality Impact Assessments for plans and policies allows the Council to demonstrate that it is meeting these duties. The Equality Impact Assessment undertaken in relation to this report can be viewed clicking <u>here</u>.
- 3.2 The proposals in this report have been considered under the Corporate Equalities Impact Assessment process (EqIA) with the following outcome:
  - (i) It was determined that the proposals be assessed as relevant with the following actions taken to reduce or remove the following negative impacts:
    - The construction works for the proposed flood scheme could temporarily have a greater impact on mobility impaired, sight impaired, blind people or disabled people, on children and the elderly and infirm, and on pregnant women or nursing mothers, in relation to adverse psychological, physical and health impacts. Appropriate mitigation measures will be adopted to minimise disruption, noise, dust and vibration and to ensure adequate safe access throughout the construction works.
  - (ii) The proposals be assessed as **relevant** and the following positive outcomes expected following implementation:
    - The proposed flood scheme will have the same positive impact for all equality groups as the reduction in flood risk to both communities will provide benefits for all (improved safety, health & wellbeing through the avoidance of flood impacts and damages) in the long term.

#### Strategic Environmental Assessment

- 3.3 The Environmental Assessment (Scotland) Act 2005 places a duty on the Council to identify and assess the environmental consequences of its proposals.
- 3.4 The matters presented in this report were considered under the Environmental Assessment (Scotland) Act 2005 and no further action is required as it does not qualify as a PPS as defined by the Act and is therefore exempt.
- 3.5 It is likely that an Environmental Impact Assessment will be required to support the proposed flood scheme described in this report. This assessment will be progressed once consulting engineers have been engaged.

#### <u>Sustainability</u>

- 3.6 Under the provisions of the Local Government in Scotland Act 2003, the Council has to discharge its duties in a way which contributes to the achievement of sustainable development. Under the Climate Change (Scotland) Act 2009 the Council also has a duty relating to climate change and, in exercising its functions must act:
  - in the way best calculated to delivery of the Act's emissions reduction targets;
  - in the way best calculated to deliver any statutory adaptation programmes; and
  - in a way that it considers most sustainable.
- 3.7 Following an assessment using the Integrated Appraisal Toolkit, it was previously determined that the proposal is likely to contribute positively to the following corporate sustainable development principles:
  - (i) Climate Change

Efficient use of resources now and in the future in the built environment and service provision (e.g. energy efficiency, land, water resources, flood defence, waste minimisation) (*Principle 2*) Mitigation and adaptation to manage the impact of climate change & reduce the production of greenhouse gases (*Principle 3*)

#### Justification:

The flood scheme proposed in this report will help to manage the increased flood risk in the Queens Avenue area of Perth brought about by climate change.

(ii) Community

Creating a sense of place (e.g. a place with a positive 'feeling' for people, and local distinctiveness) (*Principle 22*)

#### Justification:

The flood scheme proposed in the report will help to make the local community safer and more sustainable for residents, through a reduction in flood risk. This will help the communities to thrive in the longer term despite the temporary construction impacts.

- 3.8 Following an assessment using the Integrated Appraisal Toolkit, it was previously determined that the proposal is likely to contribute negatively to the following corporate sustainable development principles:
  - (iii) Consumption and Resources

Efficient use of resources now and in the future in the built environment and service provision (e.g. energy efficiency, land, water resources, flood defence, waste minimisation) (*Principle 2*) Mitigation and adaptation to manage the impact of climate change & reduce the production of greenhouse gases (*Principle 3*)

#### **Justification:**

There will be a short-term increase in the use of materials and resources during construction of the flood scheme, but a future reduction due to reduced flood risk.

#### Mitigation:

The Environmental Impact Assessment and eventual Construction Environmental Management Plan will consider energy consumption and waste management practices during construction.

#### Legal and Governance

- 3.9 The Head of Legal and Governance has been consulted on this report.
- 3.10 The legal basis for the proposals set out in this report in the Flood Risk management (Scotland) Act 2009.

<u>Risk</u>

- 3.11 Flooding is a natural phenomenon that can never be entirely prevented. However, the Council is required to manage and, where possible, reduce flood risk.
- 3.12 The flood scheme proposed in this report will reduce flood risk from the Craigie Burn in Perth. The risks associated with the proposals set out in this report will be identified and managed through this individual project.

#### 4. Consultation

<u>Internal</u>

4.1 The Head of Legal and Governance and the Head of Finance have been consulted in the preparation of this report.

## <u>External</u>

- 4.2 SEPA, Scottish Water and all relevant landowners and occupiers were consulted on the development of the proposals.
- 4.3 In June 2023, a letter was issued to the local elected members, and 585 letters were sent to residents and businesses within the local community. This letter directed residents to the Council's consultation hub, invited them to the drop-in sessions, and outlined an opportunity to record their views and questions on comment forms. Social media posts were also arranged through the Council's communications team.
- 4.4 A summary of the draft outputs from the flood study was placed on the Council's consultation hub at <u>https://consult.pkc.gov.uk/communities/craigieburn</u> from 16 June to 16 July 2023 to allow the community to view and comment on the study findings. This provided detail on:
  - the risk of flooding from the Craigie Burn in Perth;
  - the outcome of the Council's flood study;
  - work to raise awareness of flooding and to help the local community to become more prepared and resilient to deal with flooding.
- 4.5 Community drop-in sessions were held at the Dewars Centre, Perth from 2pm to 8pm on 20 June and 28 June 2023. These events offered residents the opportunity to view and comment on the draft outputs from the flood study. Representatives from the Council's Flooding Team and Amey were available at the events to answer questions and provide further information. SEPA, Scottish Water and the Scottish Flood Forum also attended the first community drop-in session held on 20 June 2023. A total of 60 residents recorded their attendance at the drop-in sessions.
- 4.6 A total of 50 responses were provided as a mixture of e-mails and completed comment forms.
- 4.7 Understandably, the community expressed frustration that it is not possible to implement more actions to manage the flood risk across the catchment. A wide range of comments were received covering different concerns. Queries were received regarding the study process, including the hydrology and modelling work, as well as the options appraisal. Comments were also received regarding the existing Perth Flood Protection Scheme and on-going maintenance within the catchment. Comments were also received regarding development within the catchment, and its perceived impact on flood risk.
- 4.8 The Council has collated all comments and will issue a response to the community answering all questions raised during the online consultation period. The Council's consultation hub will also be updated to confirm the outcome of this process. Unfortunately, the conclusion of this work has been delayed due to widespread flooding across the Council area in recent weeks.

# 5. Communication

- 5.1 The communication arrangements to date were as noted in Section 4 above.
- 5.2 The Council will continue to communicate with the local community, statutory consultees, local landowners and other stakeholders as the scheme proposals are developed.

# 2. BACKGROUND PAPERS

- 2.1 The following background papers, as defined by Section 50D of the Local Government (Scotland) Act 1973 (and not containing confidential or exempt information) were relied on to a material extent in the preparation of the above report;
  - PKC Environment Committee 9 September 2015, The Flood Risk Management (Scotland) Act 2008, Selected Actions and Prioritisation (Report No 15/359)
  - PKC Environment Committee 1 June 2016, The Flood Risk Management (Scotland) Act 2008, Publication of Local Flood Risk Management Plans (Report No 16/241)
  - PKC Environment and Infrastructure Committee 23 January 2019, The Flood Risk Management (Scotland) Act 2009, Publication of Interim Report (Report No 19/16)
  - PKC Environment and Infrastructure Committee 19 May 2021, The Flood Risk Management (Scotland) Act 2009, Second Cycle of Flood Risk Management Plans (Report No 21/60)
  - PKC Climate Change & Sustainability Committee 19 December 2022, The Flood Risk Management (Scotland) Act 2009, Publication of Final Reports (Cycle 1) & Local Flood Risk Management Plans (Cycle 2) (Report No 22/307)