

# **PERTH AND KINROSS COUNCIL**

## **Climate Change & Sustainability Committee**

**27 November 2023**

### **SOUTH KINROSS FLOOD PROTECTION SCHEME**

#### **Report by Head of Environmental & Consumer Services**

(Report No. 23/332)

#### **1. PURPOSE**

- 1.1 This report provides an update on the progress of the Council's investigations into a potential flood protection scheme in Kinross. The report proposes that the Committee approves the preferred scheme, and that it is developed further through the statutory process, detailed design and eventual construction.

#### **2. RECOMMENDATIONS**

- 2.1 It is recommended that Committee:

(i) notes that the development of a flood protection scheme for South Kinross is consistent with the published Forth Estuary Flood Risk Management Plan and Local Flood Risk Management Plan.

(ii) notes the progress on the development of the proposed South Kinross Flood Protection Scheme.

(iii) notes that the flood scheme proposals were put to public consultation in September and October 2023.

(iv) approves that the recommended proposals are adopted as the Council's preferred flood scheme.

(v) agrees that the recommended scheme be published under the Flood Risk Management (Scotland) Act and, subject to obtaining statutory approval and funding remaining in place, progress to detailed design and construction.

(vi) notes the 31 March 2024 deadline for the publication of the South Kinross Flood Protection Scheme under the Flood Risk Management (Scotland) Act, to comply with current capital flood grant requirements.

(vii) notes that, subject to the scheme being confirmed under the 2009 Act, the same legislation ensures that planning consent will be deemed to have been granted.

### **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 The approach to tackling flooding in Scotland has changed in recent years. Under the Flood Risk Management (Scotland) Act 2009, SEPA and lead local authorities have published Flood Risk Management (FRM) Plans and Local FRM Plans. These documents set out a range of actions that SEPA and responsible authorities will take to manage and, where possible, reduce the risk of flooding over a six-year period.
- 4.2 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.
- 4.3 The Climate Change and Sustainability Committee approved the publication of the updated Forth Estuary Local FRM Plan on 19 December 2022 (Report 22/302 refers). The Committee also approved the publication of a Final Report, which provided an update on progress on the South Kinross flood protection Scheme at that time. The published documents can be viewed at the following link: <http://www.pkc.gov.uk/frmplans>.
- 4.4 Since the publication of the FRM Plans and Local FRM Plans, the Council has been progressing with the implementation of the actions set out therein.
- 4.5 The 2009 Act provides local authorities with discretionary powers to promote new 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 will be taken forward in the six-year period.
- 4.6 One of the key actions included within the Forth Estuary Local FRM Plan is to implement a flood protection scheme in South Kinross. The flood scheme was originally included as the 28th highest priority scheme on the national priority list.
- 4.7 This scheme, therefore, attracts capital grant assistance. In general, the Scottish Government will provide 80% of the project cost (at tender stage) with the Council contributing the remaining 20%.

- 4.8 Recent changes to the Scottish Government and COSLA funding arrangements have introduced deadlines for flood protection schemes. All Cycle 1 flood schemes must be published under the Flood Risk Management (Scotland) Act by 31 March 2024 in order to continue to attract capital grant assistance.

### **Flood Risk Management in Kinross**

- 4.9 Kinross is located in the River Leven catchment within Potentially Vulnerable Area (PVA) 02/10/03. There are three watercourses in this area - the South Queich, the Gelly Burn and the Clash Burn – which all flow into Loch Leven to the east.
- 4.10 There has been a history of flooding in the town. It is estimated that 194 businesses and residential properties are currently at risk of flooding.
- 4.11 Consulting engineers, Mouchel, were previously engaged to carry out a flood study for South Kinross. The flood study considered various potential options for a flood scheme including:
- the use of flow controls (at the M90 motorway) and managed flooding on upstream farmland.
  - flood defences (flood walls and embankments, river channel widening, etc).
  - a new river channel to divert the South Queich and Gelly Burn directly to Loch Leven (bypassing the town).
  - flood storage.
  - catchment land management
  - partial diversion of the Clash Burn to the South Queich
  - various combinations of the above.
- The flood study concluded that a flood scheme involving walls and embankments would be economically viable.
- 4.12 The flood scheme was, therefore, included in the original Forth Estuary FRM Strategy and Local FRM Plan for Cycle 1 (2016-2022) and the national priority list of flood schemes.
- 4.13 Consulting engineers, RPS, were engaged in February 2019 to develop the proposals set out in the existing flood study and to deliver a flood scheme for the area. Extensive investigations have been undertaken, including data gathering and analysis, consultations, topographic surveys, a hydrological assessment, the development of a new hydraulic model and further hydraulic modelling work, ground investigations, public utility investigations, outline design work, an environmental impact assessment, an economic appraisal and the production of reports.
- 4.14 The original flood study focussed on the flood risk from the South Queich and the Gelly Burn. However, further flood modelling work confirmed the need to manage flooding on the Clash Burn and the risk to the M90 services at Turfhill from further upstream on the South Queich.

- 4.15 RPS considered several options for managing flood risk within Kinross. These options were appraised on technical, environmental and economic grounds. The flood risk management options considered are summarised in Appendix A.
- 4.16 The flood scheme recommended by RPS involves the construction of flood walls and embankments along the South Queich, culvert improvements on the Clash Burn and a flood storage embankment adjacent to the M90 motorway services at Turfhill. Property flood resilience measures will be adopted for a small number of properties next to Loch Leven.
- 4.17 The proposed scheme has been designed to protect properties up to the predicted 1 in 200-year flood event (the flood that has a 0.5% chance of occurring in any one year).
- 4.18 In order to make the scheme adaptable to the effects of future climate change, the foundations for the proposed flood defences will be designed to allow them to be raised in the future. The proposed improvements to the Clash Burn culverts will also be designed to allow for future climate change.
- 4.19 The estimated cost of the scheme has increased considerably due to the need for more extensive flood defences and recent construction cost inflation. The scheme is now estimated to have a capital cost over the financial years to 2025/2026 of £15.3M.
- 4.20 As noted in 4.7, the Scottish Government normally provides capital grant of up to 80% of the costs of the scheme (at tender stage) and the Council's contribution is expected to be 20%. As such, consideration of funding for the Scheme will need to be undertaken by both the Scottish Government and the Council, as part of its capital budget discussions.
- 4.21 The Benefit Cost Ratio (BCR) of the Scheme at this cost is 1.1. This value estimates that the economic benefits accrued over the lifetime of the Scheme, through the avoidance of flood damages, is greater than the estimated cost of the Scheme.
- 4.22 The recommended flood scheme, and the alternative options that were considered, were put to public consultation in September and October 2023. The details can be viewed at the following link:-  
<https://consult.pkc.gov.uk/communities/southkinrossfloodscheme/>
- 4.23 In general, the response from the community and key stakeholders to the recommended scheme was positive. Their responses will continue to inform the future design and development of the proposals for the flood protection scheme.

## **5. PROPOSALS**

- 5.1 The consulting engineers have recommended a flood scheme involving flood walls, embankments and culvert upgrades. It is proposed that this is adopted as the Council's preferred flood scheme. This will allow the Council to focus on this option and to promote it as the South Kinross Flood Protection Scheme.
- 5.2 The preferred flood scheme is shown in Appendix B. The proposed scheme includes the provision of approximately 1,019m of new flood walls and 365m of flood embankments along the South Queich, Gelly Burn and Clash Burn.

### **Next Steps**

- 5.3 It is proposed that the flood scheme be published under the Flood Risk Management (Scotland) Act 2009. This will require to be undertaken prior to the deadline of 31 March 2024, to meet recent changes in capital grant requirements. This will provide the Council with the legal powers to construct the flood scheme.
- 5.4 Subject to the scheme being confirmed under the 2009 Act, the same legislation ensures that planning consent will be deemed to have been granted.
- 5.5 It is proposed that the scheme will then be designed in detail, put out to tender and eventually constructed.
- 5.6 The recent changes to the Scottish Government and COSLA funding arrangements have introduced a further deadline for flood protection schemes. All Cycle 1 flood schemes must have a works contractor appointed by 31 March 2026 to continue to attract capital grant assistance.

## **6. CONCLUSION**

- 6.1 This report provides an update on the development of the proposals for the South Kinross Flood Protection Scheme.
- 6.2 The Council's consulting engineers have recommended a flood protection scheme consisting of flood walls, embankments, culvert improvements and property resilience measures. This form of scheme is economically viable.
- 6.3 The report seeks the Committee's approval that the consulting engineer's recommended proposal be adopted as the Council's preferred scheme, and that the preferred scheme be published under the Flood Risk Management (Scotland) Act.

## Authors

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## Approved

Name	Designation	Date
Barbara Renton	Executive Director (Communities)	20 November 2023

## APPENDICES

- Appendix A – Summary of Potential Flood Scheme Options Considered
- Appendix B – Plan of Recommended Flood Scheme

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## 1. IMPLICATIONS, ASSESSMENTS, CONSULTATION AND COMMUNICATION

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

### 1. Strategic Implications

#### Community Plan/Single Outcome Agreement

1.1 This report supports the following 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 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

### Financial

- 2.1 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 general arrangements currently apply:
1. Only works and schemes that are prioritised in the FRM Plans and Local FRM Plans are eligible for capital funding.
  2. 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.
  3. 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.
- 2.2 At present, the allocated capital grant is adjusted as 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.
- 2.3 These arrangements will come to an end in 2026/27 and are currently under on-going 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.
- 2.4 In the meantime, the Scottish Government and COSLA Leaders have recently introduced two new deadlines to this process :
- Any Cycle 1 schemes not published by 31 March 2024 will no longer be funded.
  - Any Cycle 1 schemes that haven't appointed a main works contractor by 31 March 2026 will no longer be funded.
- 2.5 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.



- 2.6 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.
- 2.7 The South Kinross Flood Protection Scheme has been prioritised in the published Forth Estuary Flood Risk Management (FRM) Plan and Local FRM Plan. The flood scheme is therefore receiving Scottish Government capital grant assistance, and this will continue up to 80% of its value at tender stage (provided the above deadlines are met). The Council is required to fund the remainder of the cost of the scheme, assuming it remains economically viable.
- 2.8 Although some funding for the scheme is in place, this is no longer sufficient to meet the current cost estimate. Additional funding is being sought for the scheme from the Scottish Government and the Council's Capital Programme. This is discussed further in 2.9 - 2.11 below.
- 2.9 It should also be noted that the implementation of the flood scheme will be some time away. The current outline design for the proposed scheme requires further development as part of the detailed design process and statutory consents require to be obtained. Construction is anticipated to commence in 2025, assuming no further delay to the statutory process and the detailed design programme.

### Capital

- 2.10 The estimated capital cost of the flood scheme over the financial years to 2025/26 has increased to £15.3m. The current funding in place of £3.7m is insufficient to meet this and so additional funding of £11.6m is being sought from the Scottish Government and within the Council's Capital Programme.
- 2.11 Clearly the issue of funding support from central government will continue to have a significant bearing on when the Council will be able to deliver the flood scheme. The scheme can only be implemented if sufficient capital funding is made available and remains in place.
- 2.12 In the meantime, the estimated costs of flood schemes across Scotland continue to be reported to the Scottish Government by local authorities on an annual basis.

### Revenue

- 2.13 The on-going maintenance costs for the scheme are estimated at £38,000 per annum. This additional cost will need to be considered through the Council's budget process once the scheme has been completed.

### Workforce

- 2.14 The project management of the flood scheme will be undertaken by the Council's Flooding Team. There will be an on-going resource implication for Legal and Property Services for technical assistance required throughout the remaining duration of the project.

#### Asset Management (land, property, IT)

- 2.15 In order to construct the proposed scheme there will be a requirement to purchase land and/or provide compensation to relevant landowners. Property Services have been consulted on the scheme and a landownership plan has been produced to inform on-going negotiations with relevant landowners.

### **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 [here](#).
- 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 South Kinross will provide benefits for all (improved safety, health & wellbeing through 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 As outlined in this report, an Environmental Impact Assessment Report (EIAR) was produced for the Scheme. The EIAR identified that the Scheme has some associated impacts that would arise as a result of its construction and future use. Mitigation measures have been identified with a view to reducing, managing and minimising those impacts.

### Sustainability

- 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 has been 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 significantly reduce flood risk in South Kinross and will therefore help in tackling the effects of 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 will help to make the local community safer and more sustainable for residents, through a reduction in flood risk. This will help the community to thrive in the longer term despite the temporary construction impacts.

3.8 Following an assessment using the Integrated Appraisal Toolkit, it has been 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 Scheme of Administration authorises the Climate Change & Sustainability Committee delegated powers to exercise the Council's functions in relation to matters concerning The Flood Risk Management (Scotland) Act 2009 for which this report is applicable. However, given the current circumstances this matter is brought to the Council for consideration.

### Risk

- 3.11 Flooding is a natural phenomenon that can never be entirely prevented. However, the Council is required to manage and, where possible, reduce overall flood risk.
- 3.12 The flood scheme proposed in this report will reduce flood risk from the South Queich, the Gelly Burn and the Clash Burn in South Kinross. The risks associated with the proposal will be managed through appropriate communication and project management.

## **4. Consultation**

### Internal

- 4.1 The Head of Legal and Governance and the Head of Finance have been consulted in the preparation of this report.
- 4.2 The local elected members, Planning, Estates, Land Quality, Environmental Health, Structures Team and the Council's Biodiversity Officer were consulted during the development of the proposals.

### External

- 4.3 Kinross Community Council, Kinross Flooding Resilience Group, SEPA, Scottish Water, NatureScot, Historic Environment Scotland and all relevant landowners and occupiers were consulted during the development of the proposals.
- 4.4 Two community drop-in sessions were held in Kinross on 28 September and 5 October 2023. The aim of these events was to provide the local community with further information on:-
- the risk of flooding in South Kinross;
  - the Council's proposals for a flood scheme;
  - work to raise awareness of flooding and to help the local community to become more prepared and resilient to deal with flooding.
- 4.5 A letter was issued to elected members, the Community Council and the Kinross Flood Resilience Group summarising the work carried out by the consulting engineers and how flood risk will be managed in the future. 352

letters were sent to local residents and businesses within the community to advertise the events. Approximately 41 people attended the community drop-in sessions.

- 4.6 The drop-in sessions included a central display, a presentation and a series of plans of the scheme options. Representatives from the Council's flooding team, RPS, and the Scottish Flood Forum were available to answer questions and provide further information. Those attending were given an opportunity to record their views and questions on comment forms. 12 comment forms were returned to the Council after the sessions.
- 4.7 In general, the impression received from the drop-in sessions was that the local community were in favour of the preferred flood scheme (walls, embankments and culvert improvements). The majority of the returned comment forms also indicated general approval for this option.
- 4.8 The Council will issue a response to the community to answer any questions raised during the drop-in sessions or on comment forms.
- 4.9 The public consultation materials used at the drop-in sessions can still be viewed on the Council's website and on the Council's consultation hub:

<http://www.pkc.gov.uk/southkinrossfloodscheme>  
<https://consult.pkc.gov.uk/communities/southkinrossfloodscheme/>

The written response to the community (to answer any questions raised) will be uploaded to this webpage as well.

## **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. The above noted website will continue to be updated and further letters and newsletters will be issued to the local community as appropriate.

## **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 – Enterprise and Infrastructure Committee – 24 October 2007, Flood Mitigation Schemes and Flood Studies (Report No 07/681)
- PKC – Environment Committee – 30 January 2008, Biennial Report on Flood Prevention Responsibilities 2007 (Report No 08/41)
- PKC – Environment Committee – 4 November 2009, Biennial Report on Flood Prevention Responsibilities 2009 (Report No 09/504)
- PKC – Environment Committee – 21 March 2012, Biennial Report on Flood Prevention (Report No 12/135)
- PKC – Environment Committee – 20 November 2013, Progress Report Flood Risk Management (Scotland) Act 2009 (Report No 13/544)
- PKC – Environment Committee – 12 November 2014, The Flood Risk Management (Scotland) Act 2009, Short List of Potential Measures to Manage Flood Risk (Report No 14/483)
- PKC – Environment Committee – 9 September 2015, The Flood Risk Management (Scotland) Act 2009, Selected Actions and Prioritisation (Report No 15/359)
- PKC – Environment Committee – 1 June 2016, The Flood Risk Management (Scotland) Act 2009, 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 – Climate Change and Sustainability 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 and 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)