

SOUTH KINROSS FLOOD PROTECTION SCHEME

Public Consultation Report



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Public Consultation Report
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PUBLIC CONSULTATION REPORT

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APPENDIX A - BLANK COMMENT FORM

1 INTRODUCTION

Perth and Kinross Council (PKC) have appointed RPS to develop the South Kinross Flood Protection Scheme (FPS) through to the detailed design phase.

Following the development of the outline design for the South Kinross FPS, RPS and PKC held two community public exhibitions and an online consultation in September / October 2023. The purpose of the consultation was to provide information on the outline design to the public, discuss the proposals and record their views on the flood scheme prior to publishing the scheme under the Flood Risk Management (Scotland) Act 2009.

This report provides the following:

- details of the community public exhibitions and online consultation event;
- records of the comments provided by the local community during the consultation period and;
- responses to any questions raised.

2 CONSULTATION

2.1 Purpose

Public consultation is key to the successful delivery of any flood scheme. The Council aims to encourage public engagement when developing a flood scheme with the intention of allowing the community to inform and ‘buy in’ to the final proposals.

Overall, this should lead to better decision making and to the establishment of on-going dialogue and relationships with the community well in advance of ‘publishing’ the scheme or the future construction works. This should lead to better level of satisfaction within the community and a greater chance of successfully implementing the scheme for the good of the local residents and businesses.

An overview of the public consultation activity undertaken to date is provided below.

2.2 Previous Consultations

Prior to September 2023, RPS and PKC had undertaken consultation with SEPA, PKC internal council departments (structures, heritage and green space), Public Utility companies, environmental consultants and individual meetings with some local landowners, businesses and residents within the scheme area.

The Council has consulted with the vast majority of affected landowners, however, there are still (at the time of writing) some landowners with whom it has not yet been possible to schedule a meeting. The Council will continue to attempt to discuss the flood scheme proposals with those parties prior to publication.

Updates have been made to PKC’s website periodically to keep the community abreast of scheme development and newsletters have been issued to the local community.

2.3 Consultation (Outline Design)

2.3.1 Format, Time and Location

A public exhibition was held in Kinross Parish Church (10 Station Road, Kinross, Scotland, KY13 8TG), on the 28th September 2023 and 5th October 2023, from 2pm to 8pm on both days. The display boards (Section 2.3.3) were also available to view on the Council’s Consultation Hub ([South Kinross Flood Scheme - Perth & Kinross Council Citizen Space - Citizen Space \(pkc.gov.uk\)](#)) from Thursday 28th September 2023 until Friday 20th October 2023 (Figure 2-1).

Display materials

- [01 Introduction \(PDF\) \[588KB\]](#)
- [02 Project progress \(PDF\) \[392KB\]](#)
- [03 Flood risk in Kinross \(PDF\) \[462KB\]](#)
- [04 Options considered \(PDF\) \[706KB\]](#)
- [05 Recommended outline design - 1 of 2 \(PDF\) \[727KB\]](#)
- [06 Recommended outline design - 2 of 2 \(PDF\) \[726KB\]](#)
- [07 How will the flood walls look \(PDF\) \[707KB\]](#)
- [08 How will the flood embankments look \(PDF\) \[956KB\]](#)
- [09 Reducing flood risk \(PDF\) \[334KB\]](#)
- [10 Options appraisal \(PDF\) \[246KB\]](#)
- [11 Environmental Impact Assessment \(PDF\) \[338KB\]](#)
- [12 How will my property be affected \(PDF\) \[635KB\]](#)
- [13 What happens next \(PDF\) \[435KB\]](#)
- [Comment form \(PDF\) \[55KB\]](#)
- [Public exhibition presentation \(PDF\) \[1MB\]](#)

The display materials will also be made available on the Council's Consultation Hub from Thursday 28 September until Friday 20 October.

[Access the Consultation Hub](#)

PKC
Chat

Figure 2-1 Display materials accessible online

2.3.2 Advertising the Event

The public exhibition was advertised through several means. The local community was invited to attend the exhibition through the distribution of newsletters and personal letters/emails to interested parties. The Council prepared information to be posted on the Council's social media platforms (Figure 2-2). The event details were added to the widget on the home page of the project website ([South Kinross flood protection scheme - Perth & Kinross Council \(pkc.gov.uk\)](#)). PKC also briefed local elected members.



Figure 2-2- Perth & Kinross Council Facebook post advertising the public exhibition

2.3.3 Event Materials

The public exhibition consisted of the following display boards which were available to view in the consultation room (as shown in Figure 2-3):

- Display Board 1 – Introduction
- Display Board 2 – Project Progress
- Display Board 3 – Flood Risk In Kinross
- Display Board 4 – Options Considered
- Display Board 5 – Recommended Outline Design 1 of 2
- Display Board 6 – Recommended Outline Design 2 of 2
- Display Board 7 – How Will The Flood Walls Look
- Display Board 8 – How Will The Flood Embankment Look
- Display Board 9 – Reducing Flood Risk
- Display Board 10 – Appraisal
- Display Board 11 – Environmental Impact Assessment
- Display Board 12 – How Will My Property Be Affected
- Display Board 13 – What Happens Next

There were also A1 print outs of the proposed scheme's outline design drawings and large maps of the Kinross area available to view and discuss with attendees.



Figure 2-3- View of the Consultation Room

A PowerPoint presentation was created for display by PKC on continual loop at the event. This provided background information on other actions to raise awareness of flood risk and improve flood resilience in South Kinross. RPS and PKC also had additional material including flood mapping and relevant reports (e.g. Environmental Impact Assessment Report) to support discussions where relevant.



Figure 2-4- View of the Consultation Room with PowerPoint visible

At the 5th October 2023 public exhibition, the Scottish Flood Forum were in attendance and provided brochures with details on how the local community can be prepared and protect themselves from flooding (Figure 2-5).



Figure 2-5- Scottish Flood Forum Pamphlets

2.3.4 Opportunity for Comment

Blank comment forms (shown in Appendix A) were provided to allow the local community to formally record their comments and highlight any issues of interest or concern. These forms could either be returned on the day of the exhibition, posted back to the Council or sent to the Council via email. In addition, RPS made a note of any anecdotal comments made during the public exhibitions which were not included in any of the written responses received.

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Local residents also had the opportunity to provide feedback using the consultation hub accessed at <https://consult.pkc.gov.uk/communities/southkinrossfps/> between the 28th September 2023 and the 27th October 2023.

Section 3 provides an overall summary of the comments received following the completion of the public exhibitions and online consultation. To comply with GDPR and Data Protection requirements, individual consultees have not been named for confidentiality reasons.

3 LOCAL COMMUNITY FEEDBACK

3.1 Summary

A total of 35 people (excluding RPS and PKC representatives) attended the public exhibitions. Each exhibition was attended by three representatives from PKC and three representatives from RPS. There were a total of four comment forms completed at the public exhibitions and eight responses via the Consultation Hub. Although the majority of attendees who were present at the public exhibitions did not complete a comment form, it was evident that all attendees were generally in support of the flood scheme through the discussions with RPS and PKC. Many of the attendees had unfortunately experienced flooding in the past and consequently displayed enthusiasm for the scheme to be delivered.

3.2 Anecdotal Comments from Public Exhibitions

RPS and PKC staff were available at the consultation events to describe the scheme and answer any queries or discuss any comments. In general, the impression received from the public consultation was that the local community continues to support the flood scheme. A summary of the comments related to the outline design were:

- **Pumping station of the Koronka Yard** – to be moved to facilitate operations in the yard – this has been reflected on the drawings and landowner engagement will be carried out at detailed design stage to position the pumping station in the least disruptive location;
- **Routing of the Myre culvert** – one resident was concerned that the scheme would result in the loss of open water through his garden which is an aesthetic feature. The design has been updated with a new culvert route around this property through the Myre Playing fields area allowing flow to be retained in the open channel section, with reduction in water level during flood events to reduce flood risk.
- **Wall finish** – There were no strong opinions regarding the finish of the wall and there was an understanding that cost would play a part in this. There was a positive response to images of bare sheet piled walls with coping stone as in keeping with industrial parts of Kinross.
- **Drainage works at Todd and Duncan Site** – planned redevelopment work in this site may create an opportunity to realign drainage to avoid reinstating multiple outfalls and replace with a pumped solution to discharge flow above the wall. This would provide greater resilience for drainage in high flow events and simpler construction of walls. It was noted that there is ongoing engagement with the landowner.

3.3 Written Responses

3.3.1 Comments – via Public Exhibitions

A summary of the main written comments received, and the *PKC response*, is as follows:

- Drains blocked in High Street and Montgomery Road;
 - *PKC response: PKC can confirm that this comment has been forwarded to the Council's Roads department.*
- Very positive steps moving forward.

- *PKC response: Point noted.*
- The redevelopment of the former BCA site is dependent on the scheme, and so delivery is required otherwise the site will remain derelict for years to come;
 - *PKC response: Point noted.*
- Request for a drain damaged by a developer to be reinstated to alleviate flooding at a property on Bowton Road.
 - *PKC response: PKC can confirm that this comment has been forwarded to the Council's Roads department.*

3.3.2 Comments – via Consultation Hub

A summary of the main comments made in the written responses received is as follows:

- Note to state that the respondent is “whole heartedly in favour” of the scheme;
- Note to state that the respondent would like work to start as soon as possible, although noted concern of safe access / egress from local streets during the construction works;
- Proposal to culvert the burn at the car mart to alleviate flood risk (see Question 1 in Section 3.3.3);
- Note to state support for the scheme and being reassured that the measures are proposed to protect natural heritage. Request to incorporate a path to connect the roundabout at Hopefield Place to the existing path by the playpark as part of the scheme (see Question 2 in Section 3.3.3).
- Note to state that their Client was supportive of the South Kinross FPS, along with Question 3 (see Section 3.3.3).
- Note to state that the respondent feels that it is “imperative” and “would certainly welcome” the installation of flood defences.
- One respondent provided the following comments:
 - provided a summary of the cost increases of other Scottish flood schemes and predicted the final total cost of the South Kinross FPS as over £30m. Provided Question 4 – see Section 3.3.3.
 - Burns should be dredged instead of flood walls being constructed (see Question 5 in Section 3.3.3).
 - Use the M90 as a barrier to hold back flood water (see Question 6 in Section 3.3.3), preventing the need to use the area off Old Cleish Road as a floodplain, and allowing this to be used as a commercial yard for local trades (which is a scarce commodity in Kinross).
 - Need to use a more nature-based approach such as tree-planting and re-meandering of rivers rather than manmade structures (see Question 7 in Section 3.3.3).
- Note to state that the scheme is a “farcical waste of money and needs to be binned immediately before any more money is wasted on it”.

3.3.3 Questions and Answers

A summary of the main questions made in the written responses received, and the PKC response, is as follows:

Question 1: Proposal to culvert the burn at the car mart to alleviate flood risk.

Answer: Culverting of watercourses can increase the flood risk due to blockages, the culvert restricting flow during extreme flood events and eliminating natural flood routes. The practice of culverting watercourses also has a negative impact on amenity and biodiversity. There is also the likelihood that culverting the watercourse would pass forward more flow more quickly resulting in greater sediment loading to Loch Leven - this would be unacceptable due to the status of the Loch as a protected area. Therefore, the proposal to culvert the burn at the car mart is not considered to be suitable for inclusion within the scheme.

Question 2: Request to incorporate a path to connect the roundabout at Hopefield Place to the existing path by the playpark as part of the scheme.

Answer: This request will be considered during the detailed design phase of the scheme.

Question 3: Request from landowner for confirmation in writing that the scheme, will not;

- a) hinder or delay the granting of a planning application for their site, or
- b) increase the risk of overtopping as a consequence.

Answer (a): All capital infrastructure projects have an inherent uncertainty in their programme to completion, due to numerous, wide-ranging factors. Therefore, it is not possible for PKC to confirm that the scheme will not delay any planning applications which are dependent on the South Kinross FPS. The scheme is currently scheduled to be published before end of March 2024. For your information, the indicative scheme timeline is provided in Figure 3-1.

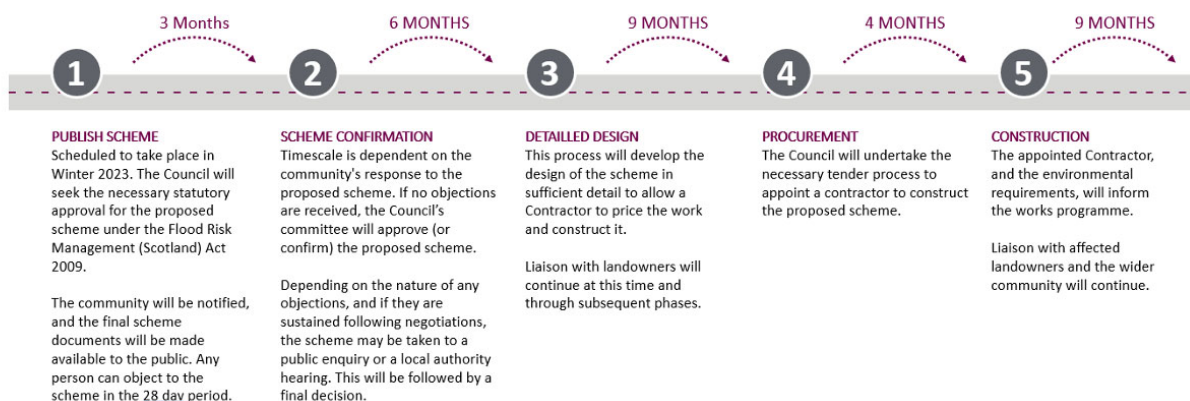


Figure 23 – Indicative Timeline

Figure 3-1- Indicative Scheme Timeline (subject to change)

Answer (b): A computational hydraulic model has been constructed and calibrated to represent the current flood mechanisms (i.e. the baseline scenario). This model has been used to simulate the impact that the preferred option would have on the flooding mechanisms following scheme implementation, to demonstrate that the scheme will not increase the risk of flooding or overtopping of defences to existing properties.

A 300mm - 600mm freeboard has been added to the predicted 0.5% AEP flood level to form the design flood level of defences. This is to account for uncertainties involved in flood estimation, and other physical factors that vary between sites such as post-construction settlement or wave action.

Question 4: Query if PKC will abandon the scheme as being unviable, considering that the cost benefit ratio is 1.1 and that any small increases in cost will result in the ratio being less than one.

Answer: RPS and PKC have completed a robust economic analysis of the scheme in order to determine the benefit-cost ratio (BCR). This has adopted a conservative approach by making an allowance for all risk items (which may or may not materialise) and considering data from other flood relief schemes. PKC's recent experience in scheme development in Comrie and Almondbank has resulted in the costing being taken to a greater level of detail than typical at the outline design stage of most flood schemes. This has resulted in ancillary works outwith the main elements of the scheme such as access tracks, fencing etc. being accounted for. Other fees indirectly associated with construction have been included in the cost estimate such as environmental surveys, SEPA licencing, ground investigation etc.

The current high inflation on materials, labour, plant and fuel has impacted costs of the scheme, like all construction projects. Current predictions from the Bank of England indicate inflation has now peaked and will continue to fall. Up to date prices have been used to factor in this peak inflationary pressure with risk uplift also incorporated in the cost to account for future inflation.

Elements such as Early Contractor Involvement and utility investigation work and initial analysis of ground conditions has been brought forward to outline design ahead of detail design in order to gain greater certainty in costs earlier than typical in most flood schemes.

There will also be opportunities to improve the BCR through Value Engineering during future project stages.

Further benefits will be realised from the scheme which have not been monetised such as reduced disruption and damage to roads and reduced mental health costs associated with flooding. At each stage of the scheme, the project costs are reviewed to ensure that the scheme remains viable with a positive cost benefit ratio.

Question 5: Burns should be dredged instead of flood walls being constructed.

Answer: An assessment of improving the channel conveyance on both the South Queich and the Clash Burn was completed, with details provided in South Kinross FPS Options Review Report. For the South Queich, hydraulic modelling was undertaken which indicated that the excavation of 4,731m³ of bed material over a distance of 745m (equivalent to reducing the bed level by approximately 1m) was not able to fully alleviate the 0.5% AEP fluvial flood risk. Consequently, dredging would need to be combined with another action, such as direct defences, which would increase the costs. There would also be negative environmental impacts associated with dredging the South Queich, which would be required periodically (e.g. every 10 years) over the 100-year design life of the scheme.

The Clash Burn is located within a predominantly urban setting which poses challenges in regard to increasing the capacity of existing culverts which are undersized, where sections of culvert are heavily constrained by existing structures.

Therefore, the proposal to dredge the burns is not considered to be suitable for inclusion within the scheme.

Question 6: Use the M90 as a barrier to hold back flood water.

Answer: The assessments completed as part of this project, using a computational hydraulic model, demonstrates that the M90 currently would restrict the flow during a 0.5% AEP fluvial flood event on the South

Queich, resulting in flooding of lands to the west of the motorway. An assessment was undertaken to review the potential of storing flood flows upstream of the M90. The viability of this action was assessed to be limited, as it would require large volumes to be excavated with multiple large embankments across multiple storage features to achieve the storage volumes required to significantly reduce flood risk downstream (in Kinross). These storage features would be situated on areas of high-grade agricultural land, which may be considered too valuable to flood. Furthermore, two of the storage areas identified are disconnected and set at a distance away from the main South Queich watercourse. This would require works to construct a new diversion feature to direct water to this area during flood events, and in addition construct a new flow route for stored water to be diverted back into the South Queich at a suitable location downstream. This action was ruled out as being technically unfeasible. This is detailed in the South Kinross FPS Options Review Report.

The preferred option does include a storage option upstream of the M90 on the Clash Burn.

Question 7: Need to use a more nature-based approach such as tree-planting and re-meandering of rivers rather than manmade structures.

Answer: A Natural Flood Management (NFM) report has been completed to assess the potential for including more sustainable solutions which may improve biodiversity, recreation and water quality whilst simultaneously reducing the impacts of flooding to South Kinross.

The report states that whilst there is good potential for effective NFM in the South Queich, there is a high level of uncertainty and unknowns associated with the measures which make it unfeasible to incorporate them into the South Kinross Flood Scheme. The report therefore recommends that a South Queich Catchment NFM Plan be formed in order to achieve NFM implementation over a long-term time period. This would improve the robustness of the preferred option, as well as providing some resilience against the impacts of climate change.

4 CONCLUSION

A public exhibition on the proposals was held in Kinross on 28th September and 5th October 2023, and online between 28th September and 27th October 2023. The exhibition was well attended, demonstrating a moderate level of interest in the proposed flood scheme. Perth & Kinross Council and RPS would like to thank those residents who took the time to attend and provide feedback.

The response to the exhibition was generally positive with the vast majority of the community being supportive of the proposed outline design for the flood scheme. Some concerns were raised, and these have been summarised and addressed in this report. The proposed South Kinross Flood Protection Scheme is therefore to be published under the Flood Risk Management (Scotland) Act 2009, in order to secure the necessary statutory consent. The detailed design of the scheme will proceed following confirmation that consent has been granted.

The Council will continue to consult with the local community and particularly with those landowners who may be directly affected by the proposed scheme. If anyone wishes to discuss further any aspects of the proposed scheme, then please contact:

Rory Stuart, Engineer (Flooding) – Skinrossfloodscheme@pkc.gov.uk

Appendix A

Blank Comment Form



Kinross Flood Protection Scheme Public Exhibition – 28th September & 5th October 2023 Comment Form

Contact Details (optional)

Name:	
Address:	
Email:	

If you have any comments then please provide details below:

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(More space for comments available overleaf)

Thank you for your comments. Please either pass this comment form to a representative of Perth and Kinross Council or RPS during the drop in session, send it via email to **SKinrossfloodscheme@pkc.gov.uk** or post it to: Rory Stuart Engineer (Flooding), Structures & Flooding, Perth and Kinross Council, Pullar House, 35 Kinnoull Street, Perth, PH1 5GD

HOW WE USE YOUR PERSONAL INFORMATION

The information provided by you will be used by Perth & Kinross Council to deliver the requirements of the Flood Risk Management (Scotland) Act 2009 and any subsequent action taken to manage flood risk. Where there is a specific need the information may be shared with suppliers, other responsible authorities and government agencies in order to manage flood risk. In addition, the information may be shared with neighbouring landowners affected by flooding or any action taken to manage flood risk.

The Council may check information provided by you, or information about you provided by a third party, with other information held by us. We may also get information from certain third parties or share your information with them in order to verify its accuracy, prevent or detect crime, protect public funds or where required by law.

For further information, please look at our website www.pkc.gov.uk/dataprotection; email dataprotection@pkc.gov.uk or phone 01738 475444.