
NORTH AYRSHIRE COUNCIL

10 November 2020

Cabinet

Title: **Millburn Flood Protection Scheme, Isle of Cumbrae:
Scheme Notification**

Purpose: To update Cabinet on the development of the Millburn Flood Protection Scheme, provide feedback from the recent community consultation, and to seek approval to submit a formal Scheme Notification to Scottish Government.

Recommendation: It is proposed that Cabinet: (a) notes the feedback from the recent community consultations on the scheme options; and (b) approves the preferred scheme option and submission of a formal Scheme Notification to the Scottish Government.

1. Executive Summary

- 1.1 The requirement for the Millburn Flood Protection Scheme for Millport was identified within the National Flood Risk Assessment and subsequently included within the Ayrshire Local Flood Risk Management Strategy and Plan in 2015 and 2016 respectively.
- 1.2. The proposed scheme was estimated to require funding of £1.1m, and provision was made within the capital investment programme for the Council's 20% share of the required costs, with 80% of the estimated costs being funded by Scottish Government.
- 1.3 A high-level flood protection option appraisal was completed which identified potential options to mitigate flooding from the Mill Burn, Millport. Final optioneering for the scheme was completed in February 2020, and two potential design solutions were developed. Option 1 is estimated to cost £1.31m and option 2 has an estimated cost of £1.86m.
- 1.4 A non-statutory community consultation was undertaken between 13 July 2020 and 10 August 2020. The objective of the consultation was to inform the community on progress and to seek views on the proposed scheme options to support decision making in future stages of the flood scheme.
- 1.5 Of the consultation responses received, there was a clear preference for Option 1 which minimises impacts to the community during construction and has the most favourable cost benefit appraisal.
- 1.6 The recommended and preferred solution (Option 1) involves the construction of a flow diversion culvert between Golf Road/Kirkton Crescent junction and West Bay via Nether

Kirkton Farm following the perimeter of the land. This would provide protection for up to 124 properties on the island in a 1 in 200 years flood event.

- 1.7 Cabinet approval is sought for the preferred option, and for submission of a formal scheme notification to the Scottish Government. This will allow outline design works to be completed, after which the scheme notification will be submitted. A summary of the key steps and indicative timescales is provided at paragraph 3.4.

2. Background

- 2.1 A high-level Flood Risk Assessment (FRA) and option appraisal was completed which identified potential options to mitigate flooding from the Mill Burn, which is located on the Isle of Cumbrae. The requirement for the Millburn Flood Protection Scheme for Millport was included within the Ayrshire Local Flood Risk Management Strategy and Plan in 2015 and 2016 respectively. The estimated cost of the proposed scheme was originally anticipated to be £1.1m. Based on the estimated costs and expected flood protection benefits the scheme was included in the list of national prioritised flood protection schemes and as a result attracts 80% funding from Scottish Government.
- 2.2 A review of the original Flood Risk Assessment was undertaken following the publication of new climate change data by SEPA. In addition, improvements in modelling and data availability since 2015 also allowed better analysis of the number of affected properties from any given flood event, therefore making the damage assessment more accurate.
- 2.3 An optioneering exercise was completed in February 2020, based on this improved information and two potential scheme options were developed as shown in Figure 1 below.
 - Option 1: construction of a 495 metre long, 1000mm diameter flow diversion culvert between Golf Road/Kirkton Crescent Junction and West Bay via Nether Kirkton Farm following the perimeter of the land. This provides protection for 124 properties up to a 1 in 200 years flood return period.
 - Option 2: upgrade of the existing culvert at the lower part of Golf Course Road and the full length of Crawford Street (258m) providing protection for 124 properties up to a 1 in 200 years flood return period.

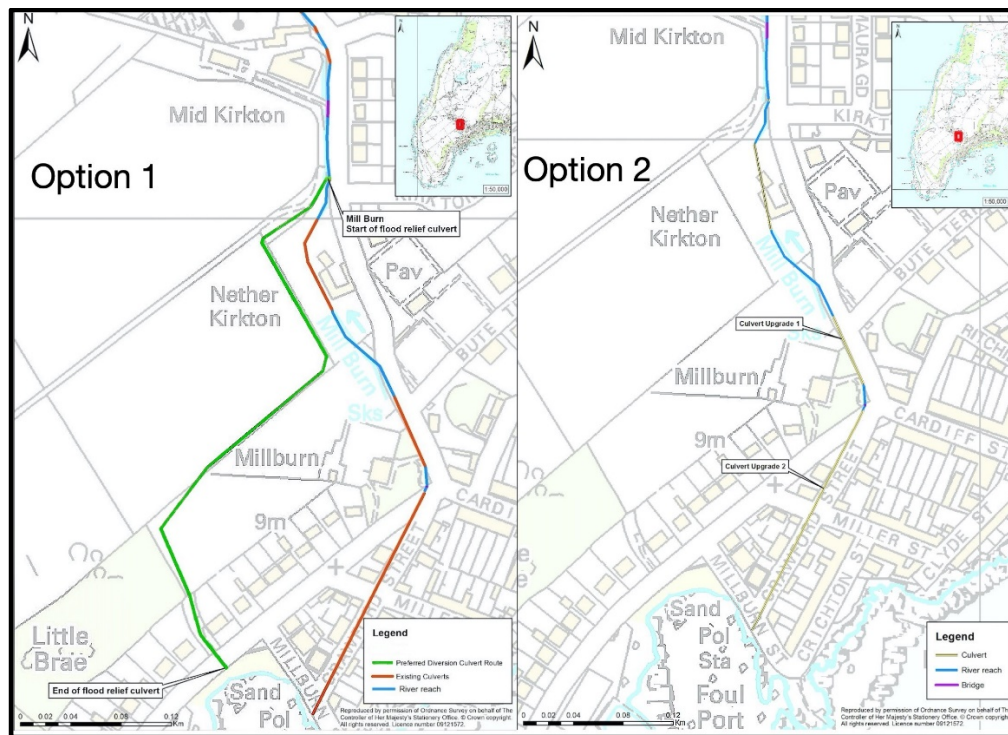


Figure1 Option layouts

2.4 The options were assessed to consider how well they met two primary objectives:

- Value for money (i.e. optimum benefit/cost ratio (BCR));
- Minimising impact on the community during construction

2.5 The assessment demonstrated that Option 1 would provide 1 in 200 years protection for 124 properties and requires £1.31m investment, with a robust 5.27 BCR. The investment required for Option 2 is £1.86m and there is more disruption to the community during construction and greater risks due to the possibility of uncharted public utilities. All figures contain contingency reflecting the varying risks and uncertainties at this stage.

2.6 A non-statutory community consultation was undertaken between 13 July 2020 and 10 August 2020. The objective of the consultation was to inform the community on progress and to seek views on the proposed scheme options to support decision making in future stages of the flood scheme. The two options proposed through the consultation affect a relatively small area of the town and this is reflected in the number of responses received. A further statutory consultation will be carried out as part of the scheme development, however, of the seven responses received during the initial consultation, the greatest support was for Option 1, where five of the respondents were in favour of this option. The remaining two later withdrew their opposition following further clarification provided by officers. A full summary of the consultation is provided at Appendix 1.

2.7 During the option development, officers have worked closely with the affected private landowners to assess the technical feasibility of the options considered on their land. The landowners have expressed support for the scheme and understand the positive impact this flood alleviation scheme would have on the Millport community. The landowners also gave permission to undertake a geotechnical site investigation on their

land in November 2019, which confirmed ground conditions and provided increased confidence in the option development.

3. Proposals

- 3.1 Cabinet is requested to note the work undertaken to date in developing the scheme options for the proposed Millburn Flood Protection Scheme.
- 3.2 Cabinet approval is sought for the preferred option (i.e. Option 1) which involves the construction of a flow diversion culvert between Golf Road/Kirkton Crescent Junction and West Bay via Nether Kirkton Farm. This option is proposed on the basis that it provides protection for 124 properties in a 1 in 200 year flooding event, is the most economically viable, and would cause minimal disruption to local residents.
- 3.3 Subject to Cabinet approval, officers will finalise the scheme notification documents and submit a formal scheme notification to the Scottish Government.
- 3.4 The key next steps with indicative timescales are detailed below:
 - Winter 2020/21: completion of outline design, EIA and scheme notification documents
 - Spring 2021: formal notification of scheme and commencement of statutory public consultation
 - Late Spring 2021: conclusion of statutory public consultation period
 - Late Spring 2021: update to Cabinet
 - Early Summer 2021: detailed design begins
 - Autumn/early Winter 2021: tender period
 - Late 2021/early 2022: construction commences
 - Late Spring 2022: scheme completion

4. Implications/Socio-economic Duty

Financial

- 4.1 The proposed scheme was estimated to require funding of £1.100m, and provision was made within the capital investment programme for the Council's 20% share (£0.220m) of the required costs, with 80% (£0.880m) of the estimated costs being funded by Scottish Government.
- 4.1.1 Following the revised FRA and option appraisal undertaken it is now estimated that the preferred option (Option 1) will require a total budget of £1.310m. The Council's 20% share of the total estimated costs will require an additional £0.042m. The required additional funding will be considered as part of the Council's capital budget setting process in February 2021.

Human Resources

- 4.2 None.

Legal

- 4.3 The Scheme must be developed in accordance with the Flood Risk Management (Scotland) Act 2009.

Equality/Socio-economic

- 4.4 An Equality Impact Assessment will be carried out during the detailed design stage of the project.

Environmental and Sustainability

- 4.5 The flood protection scheme will protect up to 124 properties in Millport against flooding from the Mill Burn in the long term. An Environmental Impact Assessment (EIA) will be submitted with the scheme notification, with reference to the Flood Risk Management Act and the Environmental Impact Assessment (Scotland) Regulations 2017.

Key Priorities

- 4.6 The construction of the scheme will contribute to the Council Plan priority of creating a sustainable environment with effective infrastructure.

Community Wealth Building

- 4.7 A package of community wealth building measures will be incorporated into the construction project and this will be considered further at the tender preparation stage.

5. Consultation

- 5.1 A non-statutory community consultation was carried out between 13 July 2020 and 10 August 2020 to inform the community on progress and to seek views on the proposed scheme options to support decision making in future stages of the flood scheme. The two options proposed through the consultation affect a relatively small area of the town and this is reflected in the number of responses received. Of those that did respond, there is a clear preference for Option 1 over Option 2. The Community Consultation Summary is attached at Appendix 1. A further statutory consultation will be carried out as part of the development of the proposed flood protection scheme.

RUSSELL McCUTCHEON
Executive Director (Place)

For further information please contact **David Hammond , Interim Head of Commercial Services**, on 01294 324570.

Background Papers

Nil

MILL BURN FLOOD ALLEVIATION SCHEME

Consultation Summary Report



IBE1496
Mill Burn FAS
F04
12th October 2020

Document status

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Approval for issue

Andrew Jackson

12 October 2020

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Contents

1	INTRODUCTION	4
2	CONSULTATION METHOD	5
2.1	Previous Consultation	5
2.2	Current Consultation	5
3	SUMMARY OF CONSULTATION RESPONSES.....	6
3.1	Overview	6
3.2	Responses regarding Option 1 – Flow Diversion Culvert	6
3.3	Responses regarding Option 2 – Culvert Upgrade	7
3.4	Responses to Other Questions	8
3.4.1	Local Events during Construction	8
3.4.2	Consultation Process	8
3.4.3	Other Comments.....	10
4	CONCLUSIONS.....	11

Figures

Figure 3.1	Summary of the responses to: Do you accept that the proposed Option 1 solution is appropriate?	7
Figure 3.2	Summary of the responses to: Do you accept that the proposed Option 2 solution is appropriate?	8
Figure 3.3	Summary of the responses to: Was the consultation adequately advertised?	9
Figure 3.4	Summary of the responses to: Has enough information been provided to explain the proposals?	9
Figure 3.5	Summary of the responses to: Has this online questionnaire adequately explained the scheme and provided you with the opportunity to state your views on the proposals?	10

Appendices

Appendix A Questionnaire

1 INTRODUCTION

As part of the Mill Burn Flood Alleviation Scheme (FAS), North Ayrshire Council (NAC) undertook a non-statutory community consultation from the 13 July 2020 until 10th August 2020. The purpose of the consultation was to involve the local community in the development of the Mill Burn FAS, seeking their views and acquiring local knowledge to support decision making in future stages of the flood scheme.

In order to follow government guidance in relation to COVID-19, the consultation was conducted online instead of via a face-to-face event in Millport. The consultation details were provided on www.north-ayrshire.gov.uk/flooding, under the 'Mill Burn, Millport Flood Scheme' page.

Further information on the flood risk identified from the Mill Burn, and the options which have been considered can be found in the following reports:

- Mill Burn Flood Alleviation Scheme : Stage A - Interim Report Review of Existing Studies and Hydraulic Modelling to Facilitate the Identification of a Preferred Scheme (*IBE1496_Mill_Burn_FAS_Rp01_F02*)
- Mill Burn Flood Alleviation Scheme: Option Recommendation Report (*200623_IBE1496_MillBurn_Option Recommendation Report_F02*)

2 CONSULTATION METHOD

2.1 Previous Consultation

Both of the identified options are located within land owned by a single landowner. To date, a number of informal targeted consultations have been undertaken with the landowner to determine their views on the potential for the flood scheme to be implemented.

2.2 Current Consultation

The current consultation, held from 13/07/20 to 10/08/20, was advertised through a press release in a local newspaper, on posters located within shops in Millport and within the 'News' section on the North Ayrshire Council website on 10th July 2020 (<https://www.north-ayrshire.gov.uk/news/Mill-Burn-flood-alleviation-consultation-to-be-held.aspx>). This included commentary from Councillor Jim Montgomerie, Cabinet Member for Green New Deal & Sustainability. It also included a link to the Mill Burn Consultation webpage (<https://www.north-ayrshire.gov.uk/community-safety/flooding/flooding.aspx>), which provided a Story Map. The contents of the Story Map included the following:

- Why we need to develop a flood scheme?
- What are the legislative drivers for the Scheme and how do we finance it?
- What is the identified flood risk from the Mill Burn?
- Which options are technically feasible?
- Which other options have been considered and discarded?
- What are the key stages of the Flood Scheme and what have we done so far?
- What is your view and what can you influence? – Including link to questionnaire

The Story Map provided a questionnaire (Appendix A) which could either be completed online, or printed and submitted as a hard copy in a collection box, located at the Premier Store / Post Office. Printed copies of the questionnaire were also available for collection at this location. The deadline for receipt of completed questionnaires was the 31st August 2020.

3 SUMMARY OF CONSULTATION RESPONSES

3.1 Overview

There were a total of seven responses received, six of which were via the online form with one questionnaire submitted in hard copy format.

3.2 Responses regarding Option 1 – Flow Diversion Culvert

Figure 3.1 shows the responses to whether the proposed Option 1 solution is appropriate. The single submission which replied 'No' stated that:

"Option 1 will totally alter the topography and appearance of Foule Port - either by introducing a freshwater stream down the centre of the beach or introducing another pipeline down the centre which will prevent access to the beach cleaning vehicles."

On 22nd September 2020, NAC contacted the resident who made the above comment. NAC stated that the outfall of the flow diversion pipe would be located below tidal level and in a way which would not impede beach cleaning vehicles. The resident subsequently stated that if this was the case, then they would have no objection with Option 1.

The single submission which replied 'Other' queried whether the proposal is to divert the burn permanently or if the diversion will only occur when there is a risk of flooding. They commented that Option 1 would negatively affect the value of their property if the burn was completely diverted. NAC issued a response letter (on 8th September 2020), to confirm that the flood relief culvert, as part of Option 1, would divert flow from the burn in flood conditions only, maintaining a base flow within the burn at all times. It also confirmed that Option 1 includes a flow control structure, in the form of a weir, at the opening of the flood relief culvert to ensure that a base flow is maintained within the Mill Burn channel.

On 17th September 2020, NAC contacted the Mill Burn Street resident who was issued the aforementioned letter via a telephone call. They verbally confirmed receipt of the letter and stated that they had no objection or any further concerns about the scheme proposal.

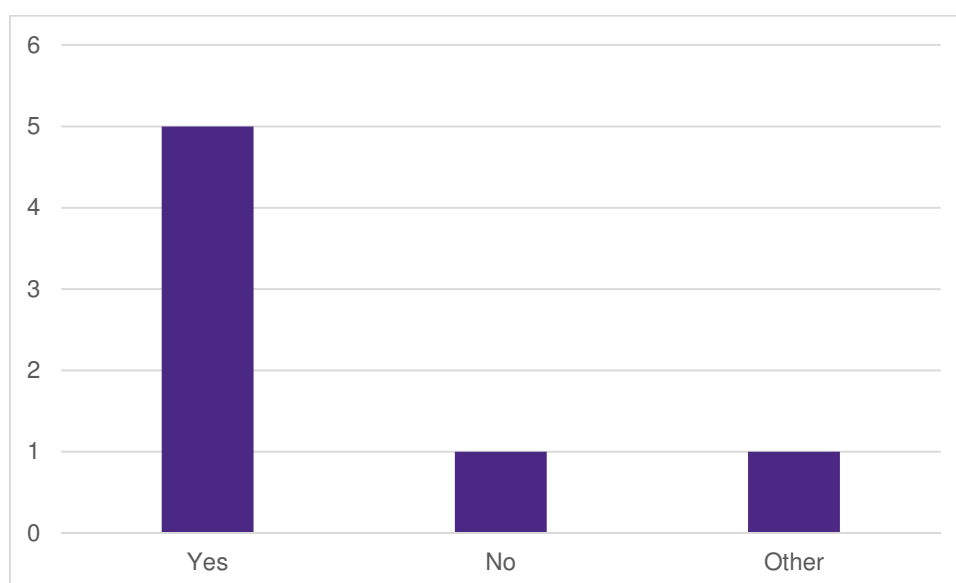


Figure 3.1 Summary of the responses to: Do you accept that the proposed Option 1 solution is appropriate?

3.3 Responses regarding Option 2 – Culvert Upgrade

Figure 3.2 shows the responses to whether the proposed Option 2 solution is appropriate.

The three submissions which replied 'No' did not offer any comment to provide context for their response.

Two of the three submissions which replied 'Yes' provided the following comments:

- Option 2 would seem to cause considerable disruption at a higher financial cost;
- Provided detail of the flow mechanism in the culvert along Millburn Street, stating that there is a restriction in the culvert resulting in flow diverting into the sewer system which results in flow being backed up to Golf Road.

The single submission which replied 'Other' queried whether the construction works would be phased to maintain access to their business on Crawford Street, stating that they also needed access to the bus garage. In the letter referred to in Section 3.2, NAC confirmed that due to the nature of the works required, there is likely to be some disruption. However, NAC would endeavour to keep this disruption to a minimum, with further details will be provided prior to the works being undertaken.

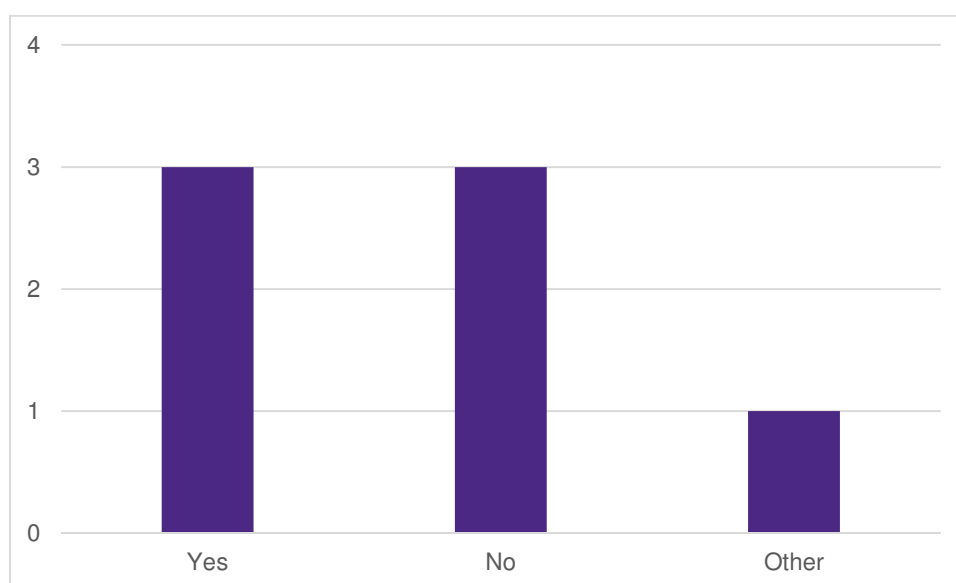


Figure 3.2 Summary of the responses to: Do you accept that the proposed Option 2 solution is appropriate?

3.4 Responses to Other Questions

3.4.1 Local Events during Construction

In response to the question regarding local events that might occur during the works (Autumn 2021), there were three responses referring to the island being busy during September weekend, festivals on the island and stating that access to the caravan park and golf club would still be required.

3.4.2 Consultation Process

The responses received to questions relating to the Consultation Process are shown below. Figure 3.3 shows that two respondents stated that the consultation was not adequately advertised, Figure 3.4 shows that one respondent believed that there was insufficient information provided to explain the proposals and Figure 3.5 shows that one respondent felt that the online questionnaire did not adequately explain the scheme and allow an opportunity to provide feedback.

There were no further details provided on why these responses were given. It is noted that one respondent stated 'No' to all three of the aforementioned questions. This respondent is the Mill Burn Street resident (referred to in Section 3.2 and Section 3.3) who has subsequently confirmed that they had no objection or any further concerns about the scheme proposal.

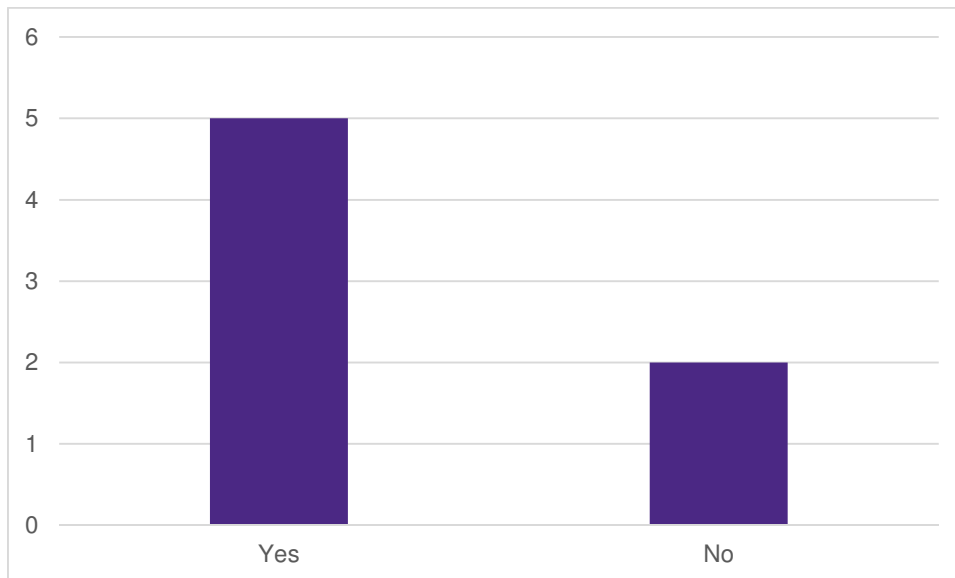


Figure 3.3 Summary of the responses to: Was the consultation adequately advertised?

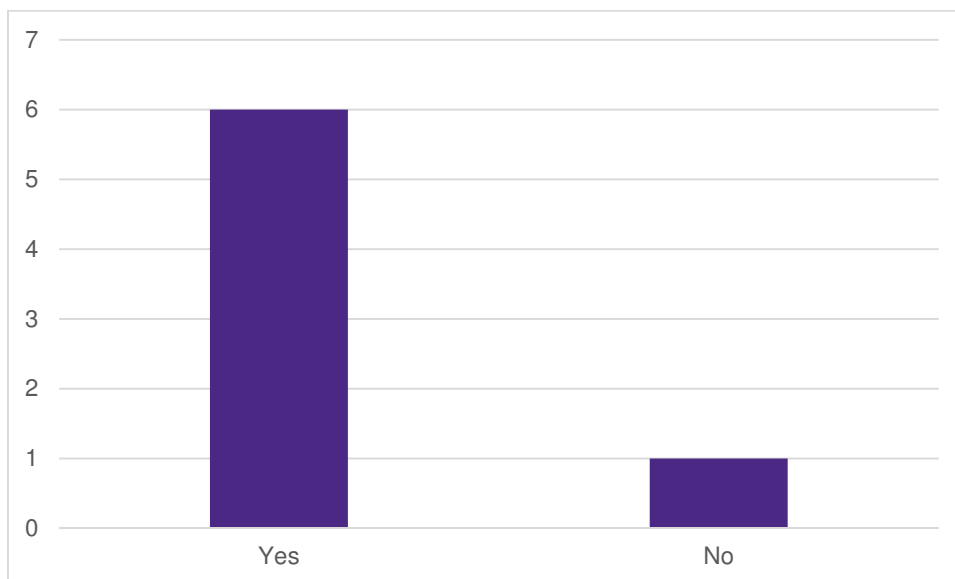


Figure 3.4 Summary of the responses to: Has enough information been provided to explain the proposals?

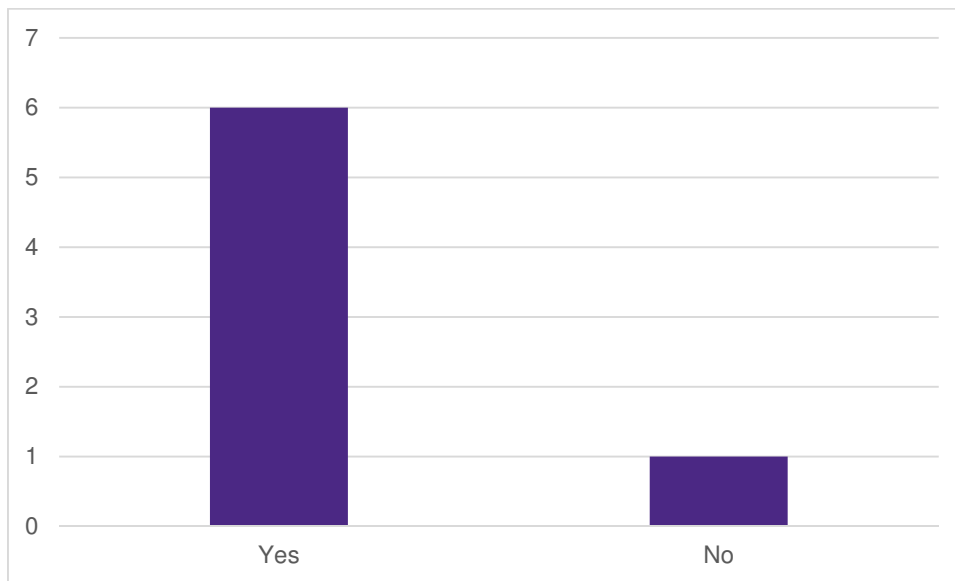


Figure 3.5 Summary of the responses to: Has this online questionnaire adequately explained the scheme and provided you with the opportunity to state your views on the proposals?

3.4.3 Other Comments

There was one single additional comment received:

Will local tradesmen be able to be involved in the work given NAC's commitment to Community Wealth Building?

The Council is committed to Community Wealth Building and local businesses will be given the opportunity to bid for work whenever it is appropriate.

4 CONCLUSIONS

Of the responses received, there is a preference for Option 1 over Option 2. With Option 1, a Mill Burn Street resident queried whether the proposal was to divert the burn permanently or if the diversion would only occur when there is a risk of flooding. This concern was addressed following written correspondence from NAC to the resident, who subsequently verbally stated that they had no objection or any further concerns about the scheme proposal.

Another concern relating to Option 1 related to the potential of either introducing a freshwater stream down the centre of the beach (downstream of the outfall) or introducing another pipeline down the centre which would prevent access to the beach cleaning vehicles. This concern was addressed following discussion between NAC and the resident. NAC stated that the outfall of the flow diversion pipe would be located below tidal level and in a way which would not impede beach cleaning vehicles. The resident subsequently stated that if this was the case, then they would have no objection with Option 1.

The main issues identified with Option 2 relate to the disruption caused during the construction works.

Generally, the vast majority of respondents considered that there was sufficient information provided to explain the proposals in addition to providing the opportunity to state their views. The majority of respondents also indicated that the consultation was adequately advertised.

Appendix A

Questionnaire

Mill Burn, Millport Flood Scheme

Community Consultation Questionnaire, July 2020

Many homes and businesses in Millport are at risk of flooding from the Mill Burn. North Ayrshire Council is developing the Mill Burn Flood Protection Scheme in our continued commitment to reduce risk and help people improve their lives on Great Cumbrae.

To be able to identify and confirm the preferred way forward for the flood scheme the Council is seeking the views of the residents on the proposals.

Information about the flood scheme proposals, including layout plans and drawings are available on the North Ayrshire Council website: www.north-ayrshire.gov.uk/flooding.

Due to restrictions around the Covid -19 pandemic we are not able to present the scheme information in a traditional community consultation event.

This questionnaire gives you the opportunity to express your views about the scheme proposals. Please complete as much of the questionnaire as you wish. Your views will be taken into account in the preparation of the formal Flood Scheme documents. We will prepare a report to summarise the feedback from the responses to this questionnaire, which will be made available on the Council Flooding website.

Completed questionnaires should be returned to the Premier Store/ Post Office (free of charge) or posted to North Ayrshire Council at the address below, **before 31st August 2020**. The questionnaire can also be completed online, via the North Ayrshire Council website: www.north-ayrshire.gov.uk/flooding.

Privacy statement

We will only process your personal information provided in this questionnaire to contact you if you have expressly stated you wish to be contacted.

Your personal data will be stored securely, in line with the Council's policies, and only held for as long as is necessary. If you would like to find out more on how we manage your data, please visit:

<https://www.north-ayrshire.gov.uk/privacy-policy.aspx>

Thank you for your time and input. We will keep people informed about the development of the flood protection scheme using newsletters and the North Ayrshire Council website. For any immediate questions please contact:

North Ayrshire Council: Flooding Team, Cunninghame House, Irvine, KA12 8EE

Contact: Patricia Rowley

Tel: (01294) 310000

Your contact details

If you would like North Ayrshire Council to contact you, regarding your response to this questionnaire please tick here.

Please provide your name and contact information so that we can contact you:

Name:			
Address:			
Telephone:			
Email:			
Are you willing for North Ayrshire Council to retain your contact details in order to contact you regarding this response and/or the flood protection scheme proposals? Contact details will not be used for any other purpose.	YES		
	NO		

Flood protection scheme proposals

Option 1

Construct a 495 metre 1000mm diameter flow diversion culvert between Golf Road/Kirkton Crescent Junction and West Bay via Nether Kirkton Farm following the perimeter of the land to provide protection for all properties up to a 1 in 200 years return period. The estimated value is £1.15m including contingency.

Option 1

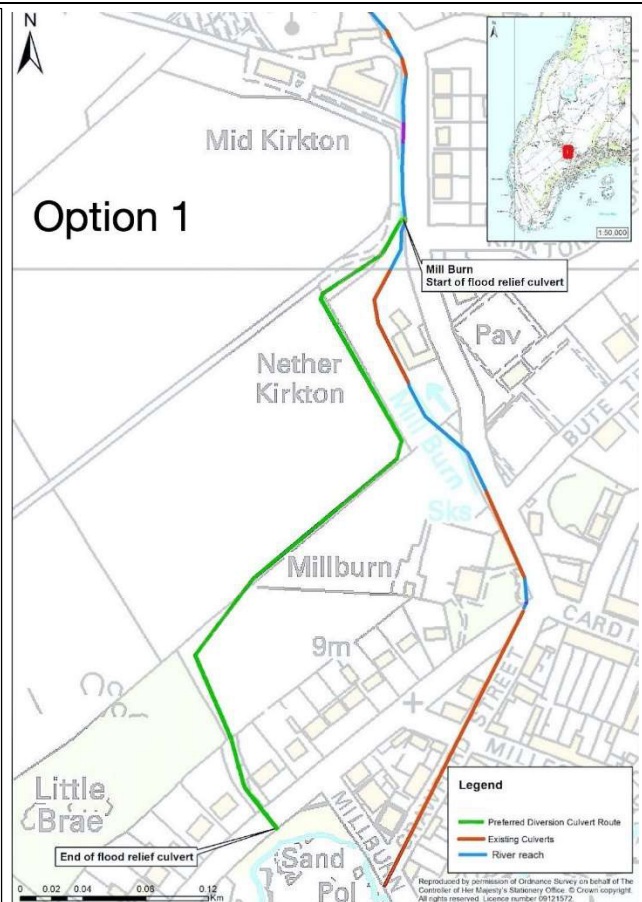
Description: construct a 495 metre 1000mm diameter flow diversion culvert between Golf Road/Kirkton Crescent Junction and West Bay via Nether Kirkton Farm with an outfall on the beach.

Advantage

- a) disruption during construction is minimal to public
- b) least complex design option
- c) Expected to be lowest cost

Disadvantage

- a) Landowner negotiation require
- b) Access for maintenance is over private land



Do you accept that the proposed Option 1 solution is appropriate?

YES

NO

Other (please comment)

Comments on the proposals for Option 1 (please continue on an additional page if required):

Option 2

Upgrade the existing 258m long culvert at the lower part of Golf Course Road and the full length of Crawford Street, to provide protection for all properties up to a 1 in 200 years return period. The estimated value is £1.7m including contingency.

Option 2

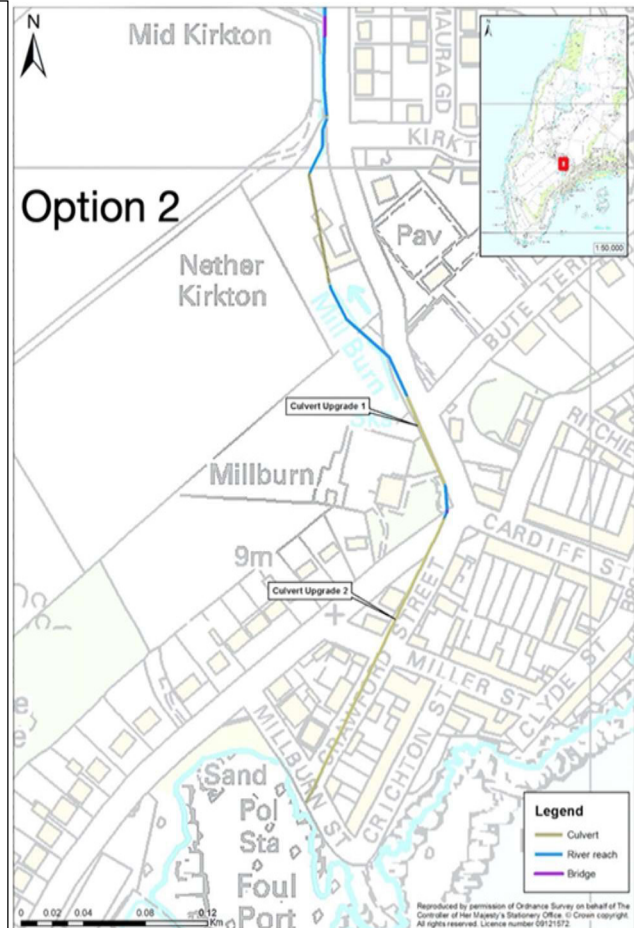
Description: upgrade the existing culvert at the lower part of Golf Course Road and the full length of Crawford Street, a distance of 258m.

Advantage

a) access to culvert for future maintenance is over public road

Disadvantage

a) Complexity of the work due to large number of services require diverted
b) construction will affect access to properties and parking
c) disruption of utility services
d) longer construction time
e) Expected to be higher cost



Do you accept that the proposed Option 2 solution is appropriate?

YES

NO

Other (please comment)

Comments on the proposals for Option 2 (please continue on an additional page if required):

What local events might occur during the proposed construction time (Autumn 2021)?

What concerns do you have about either of these proposals? (Please make it clear which proposal your comments relate to.)

Consultation Process

We appreciate your understanding that under the current circumstances limited by the Covid -19 social restriction the Council needs to change constancy practices to reach the local residents. However, the Council wishes to continually improve, so we would appreciate your comments on this consultation process to benefit future exercises like this one.

Was this consultation adequately advertised?	YES	NO
Has enough information been provided to explain the proposals?	YES	NO
Have you had an adequate opportunity to obtain further information and express your views?	YES	NO
Is there any other information that should be provided about the Flood Protection Scheme proposals, or any questions that have not yet been answered?		

Has this online questionnaire adequately explained the scheme and provided you with the opportunity to state your views on the proposals?	YES	NO
<p>Do you have any comments on the online consultation format?</p>		