1 PURPOSE AND SUMMARY

1.1 This report provides an update on the development of the Preferred Scheme through the Outline Design process and seeks authority for the Scheme’s Project Board to commence taking this Preferred Scheme through the statutory process under the Flood Risk Management (Scotland) Act 2009 and the Flood Risk Management (Flood Protection Schemes, Potentially Vulnerable Areas and Local Plan Districts) (Scotland) Regulations 2010; as the Scheme requires an Environmental Impact Assessment.

1.2 In 2013 the project team obtained Council approval to develop the Preferred Scheme through the Outline Design stage and the publication of the Scheme through the statutory process.

1.3 The key principles of the Preferred Hawick Flood Protection Scheme (the Scheme) have been maintained through the development of the Outline Design Process.

1.4 The project team have continued to deliver the output in accordance with the programme reported in September 2016 to maintain the target of publishing the Scheme in April 2017.

1.5 It is important to publish the Scheme in April 2017 so that the project team have sufficient time to resolve objection(s), to allow the Council to ‘Confirm’ the Scheme in September 2017.

1.6 The publication of the Scheme is the most important stage of the project for determining the programme and successfully obtaining funding as it opens up the Final Outline Design to public query and challenge that could result in an objection. If the programmed objection resolution process goes beyond the estimated three months it puts at risk delivering flood protection by June 2021 and the funding of the Scheme. The project team have mitigated this as far as possible with proactive engagement with statutory consultees and the community over the past two years to overcome key concerns.
1.7 The project team have undertaken a robust land referencing process to identify all land owners, land occupiers, businesses, individuals, agencies and community groups that need to be legally notified of the Scheme publication. The project team are currently undertaking a due diligence review of this information and using all reasonable endeavours to fill any gaps in owner or occupier details. This process will be complete prior to publication.

2 RECOMMENDATIONS

2.1 I recommend that the Council:-

(a) Notes the progress made on the project since the update in September 2016.

(b) Approves the Final Outline Design for the Hawick Flood Protection Scheme that has been developed over the last two years.

(c) Authorises the project team to commence the Statutory Approvals processes identified in the Flood Risk Management (Scotland) Act 2009 and the 2010 Regulations.

(d) Instructs the project team to present the Hawick Flood Protection Scheme to Council for a decision (as detailed in the Flood Risk Management (Scotland) Act 2009 and the 2010 Regulations) as soon as possible after the end of the formal 28 days objection period.
3 CURRENT APPROVAL BY COUNCIL

3.1 On 28 March 2013 Scottish Borders Council agreed to:

- acknowledge progress in advancing the design of the proposed Hawick Flood Protection Scheme since June 2012;
- approve the Preferred Hawick Flood Protection Scheme as detailed in the report; and
- delegate authority to the Scheme’s Project Board to authorise the Project Team to commence Stage 4 (Outline Design) and Stage 5 (The Statutory Approvals Processes) of the Scheme’s design.

3.2 A copy of the 2013 Preferred Scheme alignment is provided in Annex 1.

3.3 The approval allowed the project team to progress the Outline Design stage over the course of 2015 and 2016 based on the Preferred Scheme of 2013, adhering to the original objectives, where possible, as below:

1. The Scheme will protect against flooding from the River Teviot through the length of the town of Hawick;
2. The Scheme will protect against flooding from the Slitrig Water between Drumlanrig bridge and when it joins the Teviot;
3. The Scheme will not protect against the Slitrig above Drumlanrig Bridge;
4. A uniform level of protection will be provided to all areas of the town that are being protected. This will be against the 1 in 75 year flood event. This does not include an allowance for climate change;
5. The foundations of the flood defences will be designed such that the defence heights can be increased to protect against the 1 in 100 year flood event;
6. The total length of flood defences will be approx. 5.5km;
7. The average height of the flood defences will be approx. 1.5m above existing ground level;
8. Where the height of the new flood defences is greater than 1.4m it is intended to raise the existing ground level behind the new defences to restrict the height to no greater than 1.4m;
9. It will be required to provide seven new flood gates; and
10. New flood walls and embankments will be provided, however wherever it is possible the Scheme will incorporate the walls that currently exist at the edge of the river.

3.4 During the development of the Outline Design the following amendments have been made to the original objectives above:

3.3.4 A uniform level of protection will be provided to all areas of the town that are being protected. This will be against the 1 in 75 year flood event. This does not include an allowance for climate change,
thereby protecting 930 residential and commercial properties at risk;

3.3.6 The total length of flood defences will be approximately 5.93km, with 5.6km or walls and 0.33km of embankments;

3.3.7 The average height of the flood defences will be approximately 1.63m above existing ground level, with a maximum of 2.55m at the High School;

3.3.8 Where the height of the new flood defences is greater than 1.4m it is intended to raise the existing ground level behind the new defences where possible, or use strategically placed glass panels to retain the visual connection with the River Teviot;

3.3.9 It will be required to provide a minimum of seven new flood gates;

New item 3.3.11 The walls will be designed for a lifespan of 100 years minimum.

New item 3.3.12 Maximise the cultural, heritage, educational, environmental, energy and health opportunities that a major Civil Engineering project can deliver in partnership with the community and external organisations.

3.5 During the development of the Outline Design the following amendments have been made to the original solutions:

Table 3.5 – Summary of the 2013 Preferred Scheme and the updated Outline Design for publication

<table>
<thead>
<tr>
<th>Cell No.</th>
<th>Cell Name</th>
<th>Level of Protection Proposed</th>
<th>Original Description of Preferred Options (March 2013)</th>
<th>Updated Description (February 2017)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Volunteer Park, Hawick High School &amp; Sandbed</td>
<td>1 in 75 year flood event</td>
<td>1. Solution at Volunteer Park to accommodate flood protection and proposals by Bill McLaren Foundation 2. Raise height of existing High School flood wall 3. New flood wall from Lawson Bridge to Albert Bridge and from Albert Bridge and approx. 15m around and past Sonia’s Bistro to meet new flood wall continuing to Drumlanrig Bridge.</td>
<td>1. Solution at Volunteer Park does not hinder any future development by the Bill McLaren Foundation; 2. No Change 3. Offsets of new walls to be agreed at the Detailed Design stage with property owners; 4. Automatic or mobile pumping station to be decided at the Detailed Design Stage;</td>
</tr>
<tr>
<td>Location</td>
<td>Works Details</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>----------</td>
<td>---------------</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| **Volunteer Park, Hawick High School & Sandbed cont.** | This new wall will be offset by approx. 2m from the existing buildings and will be located in what is currently river bed.  
4. Automatic pumping station in Sandbed  
5. High capacity drainage system behind defences |
| | 5. No Change. Mobile or insitu to be decided at Detailed Design Stage.  
6. Lawson Bridge to be raised by 1m increase water flow past the structure and reduce upstream wall heights. Ramp access required to bridge.  
7. Two new flood gates over this section.  
8. The preferred design solution over the majority of this section is to use driven sheet piling as the foundations to the defence walls at it creates seepage control and minimises the disruption and utility diversions during the construction period. |

<table>
<thead>
<tr>
<th>Location</th>
<th>Works Details</th>
</tr>
</thead>
</table>
| **2 Common Haugh & Commercial Road** | Against 1 in 75 year flood event  
1. New flood embankment and wall along outside of Common Haugh car-park  
2. New flood wall from Albert Bridge and Hawick Burn’s Club to meet new flood wall on continuing to James Thompson Bridge and onwards. This new wall will be offset by approx. 2m from the existing buildings and will be located in what is currently river bed  
3. Upgrade walls on Commercial Road to flood walls with new flood gate at footbridge |
| | 1. New flood walls through the grass area and to the south of the Common Haugh car-park. The walls are offset from the Lawson Bridge to allow an improved flow of water, thus reducing wall heights. 30% of the grassed area will be changed to new car parking to replace the space lost adjacent to the river by the offset of the wall.  
2. No change. The offset of this new wall will be determined at the Detailed Design Stage in consultation with property owners. |
<table>
<thead>
<tr>
<th>Scottish Borders Council - 23 February 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Common Haugh &amp; Commercial Road cont..</strong></td>
</tr>
<tr>
<td>3. Walls to be replaced with new flood walls as far as Bruce Motors.</td>
</tr>
<tr>
<td>3a. The alignment of the new flood wall between Bruce Motors and New Bridge Roundabout will be determined by the additional Ground Investigation results in February 2017. Preferred solution is along the existing alignment. Alternative solution is to the rear of the existing footway with a flood gate across the A7 and flood gates for the existing development site and Aldi’s.</td>
</tr>
<tr>
<td>4. Now also includes pumping stations. Insitu or mobile to be determined at the Detailed Design Stage.</td>
</tr>
<tr>
<td>5. Up to 6 flood gates over this cell.</td>
</tr>
<tr>
<td>6. The preferred design solution over the majority of this section is to use driven sheet piling as the foundations to the defence walls at it creates seepage control and minimises the disruption and utility diversions during the construction period.</td>
</tr>
<tr>
<td><strong>3</strong> Teviot Road, Teviot Crescent &amp; Laidlaw</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>
Terrace

3. Modifications to access to James Thompson Footbridge and new flood gate
4. Upgrade walls on Teviot Road to flood walls
5. Provide new set-back flood embankment around park at Under Haugh
6. New flood gate to Victoria Bridge
7. New flood wall / upgrade existing walls to flood walls from Victoria bridge to North Bridge
8. High capacity drainage system behind defences

Mill Lade

New walls to incorporate glass panels at strategic locations. The additional width created will allow the improvement to the road/footway.

2. No change
3. No change
4. Replace existing walls with new flood defences located in the water channel. New walls to incorporate glass panels at strategic locations. The additional width created will allow the improvement to the road/footway.
5. Wall solution rather than embankment to minimise impact.
6. Victoria footbridge raised by 1m to ease the flow of water and minimise wall heights. Additional access ramps at either side with flood gates.
7. New flood walls required.
8. Also includes a pumping station. Insitu or mobile to be determined at Detailed Design Stage.
9. A minimum of one flood gate over this cell.
10. The preferred design solution over the majority of this section is to use driven sheet piling as the foundations to the
|   | 4 | Duke Street | Against 1 in 75 year flood event | 1. New flood wall along line of existing railings to Noble Place with new flood gate at footbridge  
2. Continue new wall to tie into high ground behind Glebe Mill  
3. High capacity drainage system behind defences | 1. No change  
2. New wall continued along Glebe Mill Street past the Pringle factory to high ground. New ramp access over wall.  
3. No change. Pumping station required  
4. Mansfield Road footbridge raised by 400mm to ease flow and reduce wall heights upstream. Ramp access required.  
5. Glass panels included in walls to retain visual connection with the River Teviot.  
6. The preferred design solution over the majority of this section is to use driven sheet piling as the foundations to the defence walls as it creates seepage control and minimises the disruption and utility diversions during the construction period. |
|---|---|---|---|---|
|   | 5 | Mansfield Road (including HRFC to SBC Depot) | Against 1 in 75 year flood event | 1. New flood wall along line of existing railings to HRFC with new flood gate at footbridge  
2. New flood | 1. Also includes ramp access over wall opposite Mansfield Park and the SBC depot.  
2. Changed to flood wall |
<table>
<thead>
<tr>
<th>Mansfield Road (including HRFC to SBC Depot) cont...</th>
<th>embankment by HRFC on existing grass but retaining approx. 105 parking spaces by road</th>
</tr>
</thead>
<tbody>
<tr>
<td>3. New flood walls and embankments from HRFC to tie into high ground beyond the existing SBC Depot</td>
<td></td>
</tr>
<tr>
<td>4. High capacity drainage system behind defences</td>
<td></td>
</tr>
<tr>
<td>to retain channel width and reduce wall heights. The unofficial parking spaces are replaced with parallel spaces on the road side of the wall.</td>
<td></td>
</tr>
<tr>
<td>3. No change</td>
<td></td>
</tr>
<tr>
<td>4. A minimum of two pumping stations over this cell.</td>
<td></td>
</tr>
<tr>
<td>5. The preferred design solution over the majority of this section is to use driven sheet piling as the foundations to the defence walls at it creates seepage control and minimises the disruption and utility diversions during the construction period.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>6 Weensland</th>
<th>Against 1 in 75 year flood event</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. New flood embankment just outside existing buildings and yards crossing former Mill lade to tie into high ground at A698</td>
<td></td>
</tr>
<tr>
<td>2. High capacity drainage system behind defences</td>
<td></td>
</tr>
<tr>
<td>1. 50% of this solution changed to wall, as it maximises the channel width through this section to minimise overall defence heights.</td>
<td></td>
</tr>
<tr>
<td>2. Pumping station also included. Insitu or mobile to be determined at the detailed design phase.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>7 Natural Flood Management</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Cell 7 is the catchment behind Hawick. It is not proposed to include for NFM across the catchment in the Preferred Scheme. There are currently significant efforts being made by the Scottish Government, SEPA and others to</td>
<td></td>
</tr>
<tr>
<td>1. This is phase 3 of the development of flood defences strategy for Hawick. Scottish Government has provided funding for the feasibility of this option and it will be complete by 2018.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>advance NFM science. It is therefore proposed that NFM – Cell 7 is reviewed during Stage 4 and consideration made at that point as to whether it is included in the Scheme</td>
</tr>
</tbody>
</table>

3.6 The layout plans for the Final Outline Design are provided in Annex 2.
4 PROGRESS UPDATE

4.1 Following the update to Council on 16 September 2016 the key outcome that have been achieved are:

- Stakeholder and public feedback analysis and review (Sept 2016);
- Complete Public Exhibition Report to review whole process and respond to the issues raised by Stakeholders and the Community (Sept/Oct 2016);
- Constructability audit of the Scheme to inform the final Outline Design and Land Referencing/Notification process (Sept 2016);
- Produce scopes of service for Utility diversions/protection, environmental mitigation and tree clearance enabling work packages (Sept to Dec 2016);
- Draft Environmental Statement (Sept to Dec 2016);
- Statutory bodies initial review of the Draft Environmental Statement (complete by 23 December 2016);
- Complete Land referencing process (Sept to Dec 2016);
- Micro exhibitions to inform the community of the development of the Outline Design following the comments received at the August 2016 exhibition (18 & 19 January 2017);
- Agreement in principle for solution to flooding problems at the Waste Water Treatment Works in Mansfield Road (18 January 2017);
- Meetings with groups and businesses within Hawick to inform them about the Outline Design development and deal with any concerns raised (Ongoing);
- Review of the Slitrig Water modelling with SEPA (ongoing);
- Review of structural capacity of the existing retaining structure in Commercial Road with Transport Scotland (Ongoing);
- Additional ground investigation in Commercial Road (25 January to 15 February 2017);
- Prepare notification process (January to March 2017); and
- £10k of SUSTRANS funding obtained to investigate the feasibility of upgrading of footways through the town into footway/cycleways. (ongoing).

5 FLOOD SCHEME APPROVAL PROCESS (CONFIRMED SCHEME)

5.1 The current mandate is to develop the Outline Design, the publication of the Preferred Scheme to obtain a ‘Confirmed Scheme’. Once a ‘Confirmed Scheme’ is in place it is one of four milestones (Confirmed Scheme, Deemed Planning & CAR Licence, confirmed construction tender price) required to validate the project for Scottish Government funding through the construction period.

5.2 This report presents the Final Outline Design (provided in Annex 2) and supporting documents to Scottish Borders Council that will be published as the Preferred Scheme under the Flood Risk Management (Scotland) Act 2009; and the Flood Risk Management (Flood Protection Schemes, Potentially Vulnerable Areas and Local Plan Districts) (Scotland) Regulations 2010; as the scheme requires an Environmental Impact Assessment. The
suite of supporting documents (Final Draft – Scheme Operations Schedule, Scheme Drawings, Design Report, Environmental Statement, Environmental Statement Appendices, Construction Methodology Report, Appropriate Assessment Report and Controlled Activities Regulation documents), are included in the publication of the Scheme, will be provided in the Members Library for the week in advance of 23 February 2017 and at the following link on the internet.

http://www.hawickfloodscheme.com/

5.3 The Determination Period allows statutory stakeholders or private individuals to review the suite of project documents and raise any objections in relation to the Scheme design or the affects the Scheme may cause.

5.4 The Project Team have been proactively engaging with the community over the last twelve/eighteen months to obtain information to develop the Outline Design, but also to ‘flush out’ any issues that the community or statutory stakeholders may have to the proposals, so that action can be taken to avoid issues being raised during the Determination Period as valid objections to the Preferred Scheme.

5.5 The key actions that are required to be undertaken to obtain a ‘Confirmed Scheme’ are as follows:

- Develop draft Flood Protection Scheme operations model – February 2017
- Final Outline design drawings into Scheme drawings – February 2017
- SBC Project team sign-off – February 2017
- **Scottish Borders Council approval to publish the Scheme – 23 February 2017**
- Review & revise package of Scheme drawings – March 2017
- Finalise Scheme of Publication (before Purdah period) – March 2017
- Organise advertisement & Notification – by 17/04/17
- Finalise Landownership details – 16/04/17
- Publication date – 18/04/17
- Determination Period – 19/04/17 to 16/05/17
- Identify valid objections – 17/05/17 to 19/05/17
- Discuss and negotiate with objectors (if required) – 22/05/17 to 28/07/17
- Report to Council for Preliminary decision (if there are any valid objections) – August 2017 (subject to 2017 meetings calendar)
- Process for withdrawal of objections (if there are any valid objections) – August 2017
- **Scheme ‘Confirmed’ by Scottish Borders Council – September 2017 (subject to 2017 meetings calendar)**

5.6 If objections to the Scheme are upheld by objectors, the Scheme could be referred to a Local Authority hearing process or a possible Scottish Government lead Public Local Inquiry (resulting in an unknown time period). The flow chart summarising the legal process of a Flood Protection Scheme is provided in **ANNEX 3**. Step 6a onwards sets out the possible routes for
dealing with objections that have been upheld.

5.7 The delivery programme that has been communicated publically has not included any time beyond the statutory determination period and objection resolution period (totalling 85 working days) to get the Scheme confirmed by Scottish Borders Council. If a valid/relevant objection is submitted that cannot be mitigated and removed the decision to ‘Confirm’ the Scheme may have to be determined by an Inquiry, led by either the Local Authority (for a non-statutory objection), or the Scottish Government for a statutory stakeholder objection. It is likely that this could add on a significant period to the delivery programme.

5.8 The current funding period for the 42 approved schemes on the SEPA and Scottish Government list expires in March 2022. The next funding period will commence in April 2022 and will run until 2028, with a new list of prioritised schemes, determined on their individual merits.

5.9 The current estimated construction substantial completion date is June 2021 (when the town will be protected from flooding at 1 in 75 return period), nine months prior to the end of the Scottish Government funding period. Any delay caused by an Inquiry can be absorbed, to a degree, during this period, but it is likely that the inquiry process could be longer that nine months. There are 42 approved schemes in the funding period of 2016 to 2022, however it is unlikely that there is sufficient funding available for all of these projects, so it is important to secure the confirmation of funding as early as possible.

5.10 Section 6 highlights the importance of keeping to the current programme and obtaining Scottish Borders Council approval to proceed with the publication of the Final Outline Design and supporting documents, to enable the determination period to run through the pre-election period (‘Purdah’) for the 2017 Local Government Elections.

5.11 All ongoing actions, at the time of writing this report, will be complete prior to the publication of the Scheme.

6 LAND REFERENCING PROCESS

6.1 The accuracy of the land referencing process is fundamental to the success of the Statutory Process, as the Authority has to take all reasonable steps to identify all land owners, land occupiers, businesses, individuals, agencies and community groups that need to be legally notified of the Scheme.

6.2 This is a hugely onerous process due to the accuracy that is required, to avoid any objections to ‘process’ after the Scheme is confirmed; and the number of notifications that will be required.

6.3 The project team have created a detailed database of more than 2000 data points within:

Scottish Borders Council - 23 February 2017
• The limit of land affected (area affected by the construction);
• The limit of flooding (area affected by 1 in 75 return period); and
• The limits of notification (wider area to cover both of the above).

6.4 The project team commissioned the Registers of Scotland in 2016 to undertake the title search for land/property ownership within the limits of notification. This information has been incorporated into the Council’s GIS system to allow a database of information to be formed and used for the notification process.

6.5 Further information has been gained from the Gazetteer, the Scottish Assessors Association to provide details in relation to occupation.

6.6 The project team have undertaken an on-site review of ownership and occupation of sites throughout the town to test the accuracy of the information.

6.7 The project team will also have to identify any national groups, agencies and local groups/clubs that will be negatively or positively affected by the final flood protection Scheme. The legislation requires these parties to be notified of the published Scheme.

6.8 Any remaining gaps in information, at the time of writing this report, will be dealt with prior to the publication of the Scheme.

7 IMPLICATIONS

7.1 Financial

(a) The budget estimate for the project was originally determined in September 2016 during the Outline Design development stage and the drafting of the Environmental Statement, and at that time, informed the preparation of the emerging Capital Programme. The proposed budget and profile was as follows:

Table 7.1(a) – Budget approved at Council on 9 February 2017, as part of the Capital Financial Plan.

<table>
<thead>
<tr>
<th>Historic all costs</th>
<th>2016/17 £000s</th>
<th>2017/18 £000s</th>
<th>2018/19 £000s</th>
<th>2019/20 £000s</th>
<th>2020/21 £000s</th>
<th>2021/22 £000s</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction Cost Date Q1 2020</td>
<td>0</td>
<td>1,061</td>
<td>976</td>
<td>945</td>
<td>1,945</td>
<td>11,948</td>
<td>15,703</td>
</tr>
<tr>
<td>Total Estimate 1</td>
<td>1,061</td>
<td>976</td>
<td>945</td>
<td>1,945</td>
<td>11,948</td>
<td>15,703</td>
<td>8,103</td>
</tr>
</tbody>
</table>

(b) Following the finalisation of the Outline Design and Environmental Statement however, and a subsequent update to the quantified risk assessment in December 2016 (as part of the risk management strategy for the project), a revised budget estimate was established as
(c) While the updated estimate for the project estimates a potential increase of £435k from the proposed budget approved in February 2017, it is not proposed to change the £40,681M estimate at this point in time as the project team are still pursuing returns from Utility companies, as the enabling works estimate was based on a comparison to the Selkirk Scheme; and undertaking an evaluation of the potential land and compensation costs. The quantified risk assessment will be re-evaluated in Summer 2017 and will hopefully be positively affected by the return of Utility diversion estimates and the Statutory process. If the Scheme successfully negotiates that Statutory process the budget will be re-assessed in the report to Council to ‘Confirm’ the Scheme. (It should also be noted that all these costs are pre-tender estimates which will be competitively tendered in the marketplace).

(d) The Hawick Flood Protection Scheme is 16th on the national priority list and Scottish Government has funded 80% of cost incurred to date and confirmed funding at the same intervention rate for 2017/18 and part of 2018/19. This equates to a commitment to date of £3,647M.

(e) The current estimated total Scottish Government funding, based on an 80% intervention rate, would equate to £32,545M, based on the approved Capital Financial Plan.

(f) In 2013 the project team provided an assessment of the Benefit Cost Ration for the project, based on the Total Avoided Damages (or Benefits), calculated in line with the DEFRA FCERM-AG and following best practice using “The Benefits of Flood and Coastal Risk Management: A Manual of Assessment Techniques” (Flood Hazard Research Centre, 2005), often referred to as the Multi Coloured Manual. The Multi Coloured Manual method provides the user with mechanisms to estimate the likely damages caused by flooding. The manual includes methods to assess the following types of damages: (i) damage to residential properties and the expense of clearing; (ii) damage to non-residential properties and the expense of clearing up; (iii) damage to agricultural land and the expense of clearing up; (iv) damage as a consequence of the closure of transport links; (v) expense incurred by emergency services; (vi) damage caused by the loss of energy supply; and (vii) intangible damage caused by flooding e.g. stress and poor health. The costs of these damages are not specific costs that would be incurred by SBC: they are the total costs that could be expected to be borne by all parties in the event of the flood being realised. The original table is provided below:
### Table 7.1(d)- BCR Summary of 2013 Preferred Scheme

#### Detail of the Preferred Scheme Total Scheme Cost (By cell)

<table>
<thead>
<tr>
<th>Cell No.</th>
<th>Cell Name</th>
<th>Present Value Costs (Q3 2012)</th>
<th>Benefit</th>
<th>Benefit to Cost Ratio (BCR)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Capital &amp; Maintenance Costs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Volunteer Park, Hawick High School &amp; Sandbed</td>
<td>£4,594,784</td>
<td>£16,453,987</td>
<td>3.58</td>
</tr>
<tr>
<td>2</td>
<td>Common Haugh &amp; Commercial Road</td>
<td>£4,684,635</td>
<td>£21,734,876</td>
<td>4.63</td>
</tr>
<tr>
<td>3</td>
<td>Teviot Road, Teviot Crescent &amp; Laidlaw Terrace</td>
<td>£4,182,320</td>
<td>£8,907,724</td>
<td>2.13</td>
</tr>
<tr>
<td>4</td>
<td>Duke Street</td>
<td>£3,505,975</td>
<td>£17,216,378</td>
<td>4.91</td>
</tr>
<tr>
<td>5</td>
<td>Mansfield Road (including HRFC to SBC Depot)</td>
<td>£8,726,800</td>
<td>£17,463,660</td>
<td>2.00</td>
</tr>
<tr>
<td>6</td>
<td>Weensland</td>
<td>£2,284,447</td>
<td>£2,617,206</td>
<td>1.26</td>
</tr>
<tr>
<td>7</td>
<td>Natural Flood Management (NFM)</td>
<td>£0</td>
<td>£0</td>
<td>0</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td></td>
<td><strong>£27,968,961</strong></td>
<td><strong>£84,393,831</strong></td>
<td><strong>3.02</strong></td>
</tr>
</tbody>
</table>

(g) The 2013 Preferred Scheme provided an average Benefit Cost Ratio of 3.02 across all six cells and this information was used as supporting evidence to obtain a placing on the SEPA priority funding list for 2016 to 2022. Based on the current estimated cost of £40,681M and with no inflation added to the original benefits derived of £84,393M the updated Benefit Cost Ratio is 2.07 maintaining a positive benefit for the public money that will be invested.

(h) If we were to apply inflation to the calculated benefits, following the BCIS index for construction inflation, the benefits at today’s prices would be increased by 30.05% (£109,754M), equating to a Benefit Cost Ratio of 2.69.

#### 7.2 Risk and Mitigations

(a) Despite all of the proactive engagement the project team have undertaken with the community and statutory consultees over the last two years there is still a high chance of receiving ‘valid’ objections during the Statutory process, as the slightest concern can be lodged as an objection. The team have mitigated this by allowing three
months to engage with objectors and attempt to find a solution to their concerns.

(b) If there are objections still remaining in August 2017, the project team will assess the likelihood of the successful removal of the objection, prior to a decision to continue to negotiate with objectors; or implement the required inquiry process. If decisive action is taken in this scenario it will minimise the impact on programme and the likelihood of missing the funding window.

(c) The project team will continue to work with Transport Scotland to find the appropriate solution to provide flood protection to Commercial road in the vicinity of the existing retaining wall. If it is proven that the wall can cope with the loading from an additional flood defence structure then the new wall can be location along the existing wall alignment. If the current structure is proven not to have the capacity to cope with additional loading then the project team will work with Transport Scotland to identify a solution that maintains flood protection to the full length of Commercial Road. The worst case scenario for Commercial Road is that the section between Bruce Motors and the New Bridge Roundabout would not be protected, but the adjacent properties and land would be protected with a flood wall at the back of the existing footway.

(d) The project team have undertaken significant flood assessment in 2016 to aid SEPA in their analysis of the level of flood event that the Slitrig Water experienced in January 2016. This work will be complete prior to publication of the Scheme and will continue the flood modelling validation that is required with SEPA.

(e) The Final Outline Design contains a number of risks that will need to be investigated and mitigated at the Detailed Design stage. The project team have identified the risk and quantified their impact for inclusion in the project’s budget estimate.

7.3 **Equalities**
An Equalities Impact Assessment has been carried out on this proposal and it is anticipated that there are no adverse equality implications.

7.4 **Acting Sustainably**
There are no effects at this stage of the project.

7.5 **Carbon Management**
(a) The construction of a Flood Protection Scheme will generate a carbon footprint with the use of reinforced concrete walls and sheet piling. This is unavoidable in Hawick to deliver the project objective of a 1 in 75 level of protection with a 100 year design life.

(b) The impact has been mitigated by delivering a lower level of protection for direct defences and focusing on up-stream Natural Flood
Management provisions to increase the level of protection in future years.

7.6 **Rural Proofing**
Not applicable.

7.7 **Changes to Scheme of Administration or Scheme of Delegation**
Not applicable.

8 **CONSULTATION**

8.1 The Chief Financial Officer, the Monitoring Officer, the Chief Legal Officer, the Chief Officer Audit and Risk, the Chief Officer HR, the Clerk to the Council and Corporate Communications have been consulted and comments received have been incorporated into the final report.

Approved by

**Philip Barr**
Depute Chief Executive - Place

**Signature** ....................................................

**Author(s)**

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<tr>
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**Background Papers:** 28 March 2013, 29 September 2016

**Previous Minute Reference:**

**Note** – You can get this document on tape, in Braille, large print and various computer formats by contacting the address below. Jacqueline Whitelaw can also give information on other language translations as well as providing additional copies.

Contact us at Jacqueline Whitelaw, Place, Scottish Borders Council, Council Headquarters, Newtown St Boswells, Melrose, TD6 0SA, Tel 01835 825431, Fax 01835 825071, email eitranslationrequest@scotborders.gov.uk.
Legal Process

It has been assumed that technical appraisals, design, costing and initial informal public consultation has all been done.