

Newton Stewart Flood Protection Scheme – Council Response to Points Raised in Objections (General)

Topic	Response	Actions/Mitigation
River should be Dredged/River Management/River Maintenance	<p>In some instances, the removal of sediment (gravel) from a river channel will increase the capacity, however any positive impact will only be seen during low flows. In Newton Stewart, within the Scheme extents, the amount of sediment in the river was found to be negligible compared to the amount of flow during flood/extreme events. Removal of the sediment would offer no significant or long-term benefits on water levels in a flood event that impacts property or infrastructure. Sediment management is an ongoing process. The river will naturally carry and deposit sediment and so removal would need to be repeated on a regular basis. The removal of sediment, in addition to not being a solution for extreme flood events, will generally have a negative environmental impact on the river ecosystem resulting in a loss of wildlife and habitats. It is acknowledged that dredging was undertaken in the past, and while this may have been undertaken to reduce bed levels at specific locations, the evidence shows that overall effects would be minimal at all but low flow events. It should also be acknowledged that another reason dredging was undertaken here, and at many other locations across the region, was for a supply of washed gravel, useful in farm drainage works or as a general source of aggregate.</p> <p>Several specific options were considered during the optioneering stage for the Scheme namely:</p> <ul style="list-style-type: none"> • Removal of Gravel Berm • Removal of Mill Island • Remove Sediment Around Key Structures • Dredging of River <p>These options were considered and modelled but the results from the Hydraulic Modelling clearly demonstrated that they would not either individually, or in combination, reduce water levels during the high flood events and could not therefore be taken forward.</p> <p>There are a number of reports available on this topic which outline that dredging is not a solution to flood risk and can in fact have detrimental consequences.</p> <p>https://environmentagency.blog.gov.uk/2021/12/23/floods-and-dredging</p> <p>https://www.sepa.org.uk/media/147022/floods_dredging_and_river_changes.pdf</p> <p>https://www.ciwem.org/assets/pdf/Policy/Reports/Floods-and-Dredging-a-reality-check.pdf</p> <p>Further information can be found at in the Flood Management Optioneering Report at www.dumgal.gov.uk/newtonstewartfloodprotection</p>	<p><i>No further action proposed – dredging/sediment management would not reduce levels to any significant degree and could have adverse environmental impacts.</i></p>
Loss of Views and Visual Impact	<p>In developing the Scheme, the Council has been mindful of the need to balance the visual impact of the flood defences with achieving the highest standard of protection possible. There is already a</p>	<p><i>The Project Team will undertake further consultation</i></p>

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	<p>wall along the riverside road for example, and this will be rebuilt or adapted to provide a flood wall with increased height where necessary. Where new walls are to be built, consideration will be given to cladding/materials which complement the existing surroundings and the use of glass panels (which are a tried and tested flood defence) to maintain views/visibility, or raising of footways to allow views to the river over the defences.</p> <p>The height of walls and embankments varies throughout the town to maintain a consistent 1 in 200 year standard of protection. Where there is sufficient width, the preference is usually to build an embankment, as this generally is more in keeping with the riverbank environment.</p>	<p><i>with NatureScot and Planning Conservation Officers to better inform the developing design of the defences. Landscape Architects will form a key part of the detailed design process to ensure that where possible opportunities to improve the area are identified and included in the final Scheme.</i></p>
Concern over Cost of Scheme	<p>The present cost estimate of the Scheme is £18.5 Million. This is based on the Scheme being completed in 2027. The cost is funded by Scottish Government (80%) and Dumfries and Galloway Council (20%). The replacement of Sparling Bridge which is included in the overall cost attracted a grant of over £0.5 Million from Sustrans. The cost is a 'whole-life' (up to 100 years) cost and includes all work from the modelling stage, options appraisals, design, construction, and future maintenance. A Scheme is only considered to be viable if the benefits of the Scheme outweigh the potential damages. The benefit-cost ratio (BCR) looks at the reduction in damages due to a defence option (i.e. the benefit) divided by the cost of the work. If the BCR is greater than 1.00, this is considered an indicator of economic viability. (in essence the cost of the Scheme is lower than predicted cost of accumulated future damages) The benefit calculations consider the impact of damages (flood recovery, clean-up, rebuild/replacement etc) avoided through construction of the scheme on the following:</p> <ul style="list-style-type: none"> •Residential properties, •Non-residential properties (e.g. shops/industry); •Road closures; •Evacuation of residential properties; •Damage to vehicles; •Costs on the emergency services; and •Impacts on health. •Recovery and Clean up <p>For the Newton Stewart Scheme the estimated benefits exceeds the cost of the project and is therefore a cost-effective Scheme.</p>	<p><i>No further action is proposed as the Economic Appraisal provides a positive BCR.</i></p>

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	<p>The Economic Appraisal carried out by Sweco using industry standard methods demonstrates the cost of the Scheme is less than the predicted costs of flood events over the whole life of the Scheme. Further information can be found in the Preferred Option and Economic Appraisal Report at www.dumgal.gov.uk/newtonstewartfloodprotection</p> <p>This scheme has been prioritised nationally for 80% Scottish Government Grant funding dedicated to flood protection schemes. This funding affords the council major investment in this priority project whilst only requiring to contribute 20% of the funding.</p>	
Alternative Scheme	<p>Alternative schemes were considered and costed, but ruled out through an iterative process which has involved extensive engagement. The Optioneering Report includes details of alternative Schemes and show that there are no other alternatives which provide either the same level of protection or are cost effective.</p> <p>Whilst the introduction of walls/embankments is often viewed as a draconian measure, it is the optimum solution to the risk of future flood events in Newton Stewart.</p> <p>Further information can be found in the Flood Management Optioneering Report at www.dumgal.gov.uk/newtonstewartfloodprotection</p>	<p><i>No further action is proposed as the optioneering and value management process concludes that the published Scheme is the optimum solution.</i></p>
Money Should Be Spent Elsewhere	<p>Scottish Government funding for the Scheme is 80% and includes design costs, construction costs and compensation payments. The grant funding is dedicated to flood protection only, and cannot be used on other Council works e.g. road maintenance, town centre improvements etc.</p>	<p><i>No further action is proposed – the 80% grant funding can only be used for the Flood Protection Scheme.</i></p>
Adverse Effect On Shops and Businesses	<p>There is provision under the Flood Risk Management (Scotland) Act 2009 for claims for depreciation or damage as a consequence of any operation (i.e. the construction of the Flood Defences). In the longer term it is expected that the robust flood protection and improved footways, landscaping, and sympathetic design will mitigate any adverse effect and vastly reduce future flood risk and damage to the town and improve confidence in shops/businesses/homes and stimulate future investment.</p>	<p><i>There will be early engagement by the Project Team with the Valuation Office to provide additional information to potentially affected parties.</i></p>
Maintenance of Defences	<p>The Flood Risk Management (Scotland) Act 2009 places duties upon the Local Authority to inspect and maintain the defences comprised in the Scheme. They will therefore be kept in good condition and repair to ensure they are effective against flood events. All the defences involved in the Scheme are designed to, and will be constructed to, appropriate industry standards.</p>	<p><i>The maintenance of the Scheme will be included in the detailed design stage with the development of a Maintenance and Operational Schedule.</i></p>

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Increase of Flooding Elsewhere	Using the findings of the hydraulic modelling, the Scheme has been designed so that areas within the Scheme extent where defences are not proposed, or those areas out-with the Scheme extent, will not be adversely affected by changes in water levels.	<i>It is one of the key requirements of the Scheme that flooding will not be increased elsewhere. Additional modelling will be undertaken as the Scheme develops to ensure this remains the case.</i>
Upstream Storage and Natural Flood Management	<p>Natural Flood Management (NFM) uses the environment to store or slow down flood water. The planting of woodlands, wetland and storage creation and river restoration are some of the measures that can help. In addition to benefitting flood control, NFM can also increase biodiversity, water quality, and can increase resilience to climate change. Commercial Forestry Practices (tree species, drainage works, road construction and felling operations etc.) can also have an influence on flood risk and improvements to these practices can contribute towards reducing flood risk downstream during less extreme events.</p> <p>Improvements within the catchment that provide NFM opportunities can be progressed as part of the overall catchment management by those currently in control of the land. The Council along with stakeholders would support any future development in that regard. NFM does have the potential to offer minor reductions in flood risk and would be supported. However, their implementation will be a long-term approach and would never replace the need for defences within the town.</p> <p>Extensive consideration was given to these matters from the outset of the Scheme with numerous options on upstream storage and NFM being modelled, and benefits assessed, namely:</p> <ul style="list-style-type: none"> • Upstream Storage at Glenhapple • Upstream Storage at Linloskin Bridge • Upstream Storage at Frankie Hill • Installation of Obstructions on the River Cree • Installation of Obstructions on Penkiln Burn • Reinstate Flood Storage Area at Water of Minnoch • Upstream Storage at the Ghyll • Upstream Storage on River Cree Tributaries • Natural Flood Management as part of forest management. <p>None of these options have a positive benefit cost ratio and some had extensive negative impacts and they could not be taken forward to the preferred option stage.</p>	<i>Natural Flood Management of itself will not provide sufficient benefit to reduce the risk of flooding in Newton Stewart. However, better practices and interventions will form part of future considerations to future-proof the level of protection provided by the Scheme.</i>

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	<p>The Council will however continue to work with stakeholders to explore improvements upstream and in the wider catchment.</p> <p>Further information can be found in the Flood Management Optioneering Report at www.dumgal.gov.uk/newtonstewartfloodprotection</p>	
Disruption During Works	<p>The Council and its appointed Contactor will endeavour to minimise disruption by phasing the works in such a way to accommodate the movement of traffic, residents, recreational users, shoppers, and visitors. Compensation for demonstrable damage / loss is available for those impacted by the Scheme in the manner specified by the 2009 Act.</p>	<p><i>The construction of the Scheme will be done on a phased basis and include engagement before work commences and during the construction phase to minimise disruption where possible.</i></p>
Lack of Engagement	<p>The Scheme has been developed over several years, with major consultation events involving the community held on a regular basis. Throughout the process the Council and Project team have sought input and feedback from the community and Council Members as it has reviewed and developed the Project. Amendments and improvements have been made to the design because of the engagement process and attempts made to address the main concerns raised by the local community and the Elected Members within technical, budgetary and other constraints, whilst still achieving the required level of flood protection for the town.</p> <p>Further information can be found in the Flood Management Optioneering Report, Summary and Overview (Design Justification) Report, and the Community Engagement Report at www.dumgal.gov.uk/newtonstewartfloodprotection</p>	<p><i>The Project Team will continue to engage with individuals and organisations as the Scheme develops and look to set up various liaison groups through the detailed design phase.</i></p>
Health and Safety	<p>All aspects of the Scheme will comply with the relevant regulations and standards. Health and safety will be a particular consideration during the detailed design stage.</p>	<p><i>This will be considered and included as part of the detailed design stage.</i></p>
Do Nothing/Scheme Not Needed	<p>If the proposed Scheme does not go ahead then the town will continue to be at risk of future flooding which is predicted to become more severe and more frequent as a result of Climate Change. Whilst there are areas where defences are provided which have never experienced flooding, the Scheme is designed to protect these areas against predicted future events</p>	<p><i>It is one of the actions contained in the Councils Flood Risk Management Plan that a Flood Protection Scheme be progressed for Newton Stewart.</i></p>

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Concern on Effect to Access Road at Creebridge	<p>The outline design includes a wall along the edge of the access road at Creebridge. At the detailed design stage consideration will be given to maintaining or widening the width of the road to ensure that safe vehicle, pedestrian, and cycle movements are maintained.</p>	<p><i>The Project Team recognise this section of defences will have a significant effect on Creebridge and will therefore set up a residents liaison group to work with property owners as the Scheme develops.</i></p>
Loss of Biodiversity	<p>An Environmental Impact Assessment screening was completed as part of the outline design, and this is available to view on the Project website.</p> <p>The impact on wildlife is a major concern of any Scheme and a significant number of investigations have already been made to identify and inform what is located/affected within the Scheme area.</p> <p>With respect to Tree loss/removal, it is recognised that many of the existing trees are of significant importance. Efforts will be made to minimise the removal where possible and to replace or offset tree removal elsewhere in the area.</p>	<p><i>Any tree removal will be made in conjunction with approved procedures and in consultation with the Environmental Planners, seeking expert advice and reports during the development of the Scheme. During the detailed design phase there will be numerous further surveys and studies undertaken to ensure any proposals consider the impact and legislative requirements when designing and constructing around protected species.</i></p> <p><i>A construction phase plan will be prepared before any work starts on site to take full account of any breeding or nesting seasons.</i></p>
Adverse Impact on Creebridge	<p>Inspections will be completed on the bridge to assess the potential impacts of the change in flows. The bridge is on the Council's inspection programme, and this will continue to happen on regular basis even after the Scheme is completed.</p>	<p><i>Inspections to be carried out as prescribed.</i></p>

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Some Areas have Never Flooded	Whilst it is recognised that there are areas where defences are to be built which have never flooded, the Scheme is designed to consider the increased risk of flooding in future if a Scheme were not constructed, which includes the potential increase in both frequency and severity of flood events.	No further action proposed.
Lack of Detail	<p>The purpose of publication of a Scheme is to notify the public with an interest in land and statutory consultees of the Council's intention to propose a Flood Protection Scheme. The Council is legally required to publish Scheme documents which show, in outline only, the defences proposed, and the extent of the land affected. This is limited to descriptions and drawings in sufficient detail to identify and understand the proposed defences. There is no requirement at this stage in the process to provide detailed or precise information (including drawings), or to obtain any formal agreements from owners.</p> <p>If the Scheme is confirmed following publication, there will then be a detailed design phase which will include production of construction drawings, land entry agreements, individual engagement with affected owners etc. At this stage it is anticipated that construction will start in 2025, with completion in 2027.</p>	No further action proposed at present, but engagement will be a continual process and further detail will be provided as the Scheme progresses.
Fishing (General)	<p>Several specific objections on fishing have been received from Fishery Boards, Associations, and individual objectors. These raise issues such as effect on protected fish species and breeding/spawning as well as fishing rights, and the increased risk of access/egress through the defences.</p> <p>These detailed matters will be considered at the next phase of design and the Council is committed to engage with those affected to introduce mitigation and safeguards and this will include working with appropriate organisations ensuring all matters are addressed.</p> <p>It is acknowledged that many protected fish species including Atlantic salmon, sea/brown trout, European eel, sea lamprey, river lamprey, brook lamprey and spurling are resident and migrating through the River Cree and Penklin Burn, and that it is important to protect the fish and the river during construction of the Scheme.</p> <p>To ensure that there are no permanent changes to the riverbed, substrate, structure and flow, the flood defences have been designed to be set back from the riverbank and none are located in the river. Detailed design and construction phases will be informed by aquatic surveys and in consultation with the local fishing bodies.</p> <p>No in-water working will take place during the spawning season (October – May inclusive) and all works would have to be licenced and approved by SEPA,</p>	It is recommended that organisations such as the Galloway Fisheries Trust, River Cree District Salmon Fishery Board and Newton Stewart and District Angling Association assist with a mapping exercise of the river/pools is undertaken for DGC. This information will inform the detailed design and contractor to construct the Scheme in a way that avoids and reduces impacts to fish and does not alter the behaviour of the river.
Compensation/Effect on Value	The Flood Risk Management (Scotland) Act 2009 confers powers on the Council to enter land and carry out any operations to which a flood protection scheme relates and an accompanying duty to	The Project Team will make early contact with the

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	<p>compensate any person who has sustained damage in consequence of this. Claims for compensation are dealt with in terms of sections 82 and 83 of the 2009 Act. In general, a person is treated as having sustained damage if either the value of their interest in land has been depreciated or their enjoyment of land has been disturbed, although there are exceptions. Claims must be made within the statutory time limits stated in section 83.</p> <p>In managing the issue of compensation payments, the Council will engage the Valuation Office Agency (VOA) to ensure expertise and independence in decisions on compensation amounts due. In accordance with the 2009 Act, any dispute on compensation between the VOA and the claimant will be determined by the Lands Tribunal for Scotland.</p>	<p><i>Valuation Office and provide additional information on this aspect during the detailed design phase.</i></p>
Bank Erosion	<p>The riverbank on the west side of the Cree between the Sparling Bridge and the A75 Road Bridge currently has protection in the form of gabion baskets. This protection is failing in places and as part of the Scheme it has been identified that the full length should be replaced. A study is underway to look at this and consider the type of protection required. and whether this should be as required as advanced works or in the first phase of construction.</p>	<p>A separate report is being prepared to assess this section of work and should be completed shortly</p>
Adverse Effect on Access	<p>The effect of the Scheme on current access routes and use of some of the riverbanks for recreation, fishing etc, will form part of the detailed design process. The defences will include access points (these can for example be stepped arrangements over low walls, sloped pathways, or even gates), the location of which will be determined through consultation and may be in the same location as existing points or relocated depending on the outcome of engagement.</p>	<p><i>This will be considered and included as part of the detailed design stage.</i></p>
Carbon Footprint	<p>Providing Flood Protection Schemes can increase carbon and other Green House Gas emissions during the construction phase, however consideration will be given on how to offset these emissions through best practice during all stages of development. This needs to be considered in relation to the cost of 'doing nothing' and the carbon emissions from flood events being allowed to continue.</p> <p>A study by the Department of Environment, Food and Rural Affairs (DEFRA) on the impact of Flood and Coastal Erosion Risk Management (FCERM) activities on the causes of climate change has found that although FCERM activities are a contributor to GHG emissions, these activities largely represent a net reduction in emissions when compared to the lack of flood risk management measures, due to the flood alleviation that they provide, which reduce damages from flooding and consequential GHG emissions associated with those damages. The council through detailed design will also consider other ancillary project works within the catchment that may provide multiple benefits such as carbon sequestration and sediment management, or flood risk reduction.</p>	<p>The detailed design stage will assess the impacts of the Scheme and the tender documents will consider and include mitigation measures.</p>

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Adverse Impacts during Construction and Access during Works	It will be a formal requirement for a Contractor to produce Construction Phase Plans etc for approval before any works can commence.	<i>Undertake early contractor engagement to consider the phasing and timing of works to minimise disruption wherever possible.</i>