

# Flood Risk Management (Scotland) Act 2009

## Solway Local Plan District

### Local Flood Risk Management Plan

## INTERIM REPORT



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**Dumfries and Galloway Council**



Lead Local Authority for the Solway Local Plan District

In partnership with:



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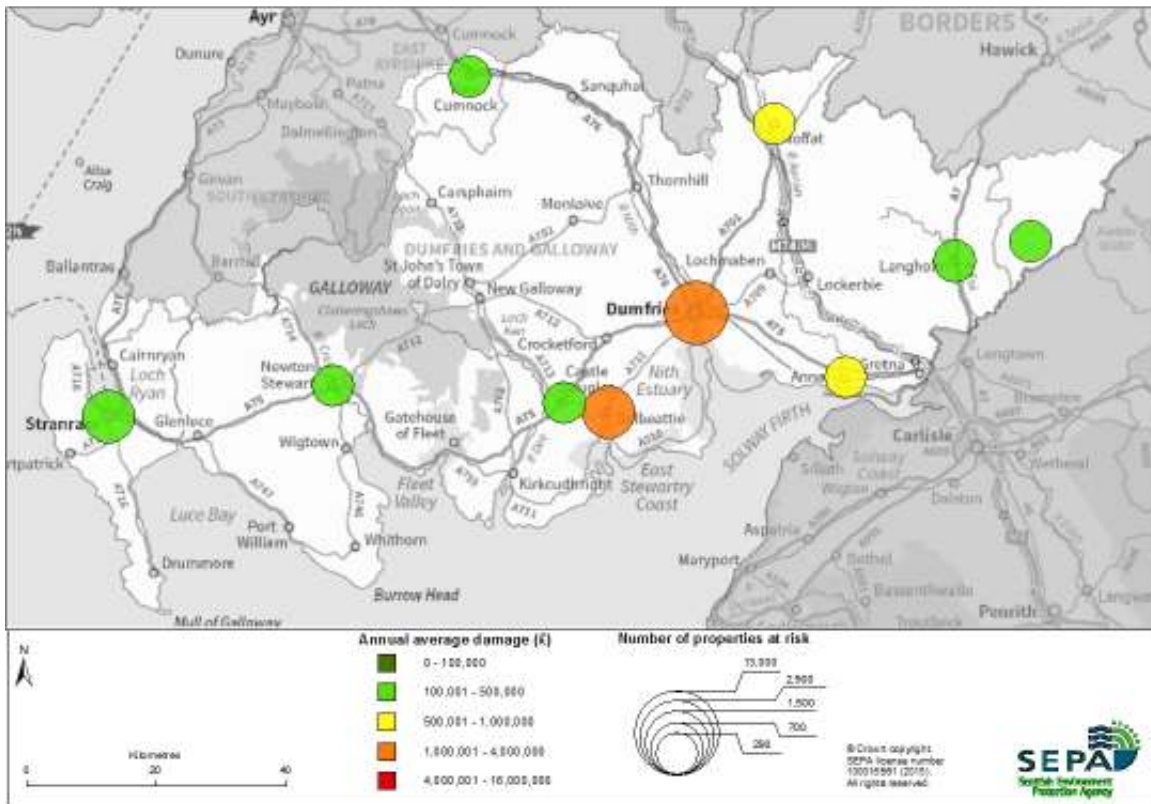
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# Summary Solway Local Flood Risk Management Plan



Reproduced from Solway Local Plan District Local Plan District Flood Risk Management Strategy, SEPA (December 2015)

The Solway Local Plan District covers the south west of mainland Scotland. It contains five local authorities; Dumfries and Galloway; South Ayrshire; East Ayrshire; Scottish Borders and South Lanarkshire. There are 26 Potentially Vulnerable Areas in the Local Plan District, 24 are in Dumfries and Galloway; one in East Ayrshire; and one in Scottish Borders. It covers an area approximately 6,426km<sup>2</sup>.

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<b>Action</b>	<b>Number</b>	<b>Action</b>	<b>Number</b>
Flood protections scheme / works	6	Property level protection scheme	1
Natural flood management works	N/A	Community flood action groups	4
New flood warning	3	Self help	LPD Wide
Flood protection study	7	Awareness raising	LPD Wide
Natural flood management study	1	Maintenance	LPD Wide
Surface water plan / study	3	Site protection plans	N/A
Strategic mapping & modelling	21	Emergency plans / response	LPD Wide
Maintain flood protection scheme	12	Planning policies	LPD Wide
Maintain flood warning	15	Integrated catchment study	0
Flood forecasting	LPD Wide	Section 16 assessment	9

## Foreword

This INTERIM REPORT to the Local Flood Risk Management Plan shows the progress made in delivering the actions to avoid and reduce the risk of flooding, and prepare and protect ourselves and our communities across the local plan district.

"The impacts of flooding experienced by individuals, communities and businesses can be devastating and long lasting. It is vital that we continue to reduce the risk of any such future events and improve Scotland's ability to manage and recover from any events which do occur."

(Solway Local Plan District Local Flood Risk Management Plan, June 2016)

The publication of the INTERIM REPORT shows that the coordinated and collaborative efforts of public bodies can be brought together to deliver sustainable outcomes.

The INTERIM REPORT is published by Dumfries and Galloway Council on behalf of a partnership comprising three local authorities: Dumfries and Galloway Council; East Ayrshire Council and Scottish Borders Council; as well as Scottish Water; SEPA; and Forestry Commission Scotland.

Individuals are the first line of defence against flooding and have responsibilities to protect themselves from flooding. Through self-help and property level protection, awareness raising and signing up to Floodline, individuals, businesses and communities can and have made key contributions to the delivery of the actions in the Plan, which are detailed in this INTERIM REPORT.

Since the publication of the Plan in June 2016, public sector finances in Scotland have continued to be under considerable pressure. This places an even greater responsibility on SEPA, local authorities and Scottish Water and other responsible authorities to deliver their flood risk management responsibilities and, in particular the actions in the Plan, to manage flooding in a sustainable way.

SEPA, local authorities and Scottish Water and other responsible authorities will continue to work collaboratively to implement the actions in the Plan to its conclusion in June 2022.



## Background

The INTERIM REPORT is a legal requirement of the Flood Risk Management (Scotland) Act 2009 (Section 37). The INTERIM REPORT is required to be published between July 2018 and June 2019. The INTERIM REPORT includes the conclusions of a review of the Solway Local Plan District Local Flood Risk Management Plan (the 'Plan'), published in June 2016 and includes information on the progress that has been made towards implementing the actions identified in the Plan.

Further details on flood risk management responsibilities in Scotland and the legal requirement for the publication of this INTERIM REPORT can be found in Appendix 1.

A copy of the Solway Local Plan District Local Flood Risk Management Plan can be found at the following link <http://www.dumgal.gov.uk/flooding> and [http://apps.sepa.org.uk/frmstrategies/pdf/lpd/LPD\\_14\\_Overview.pdf](http://apps.sepa.org.uk/frmstrategies/pdf/lpd/LPD_14_Overview.pdf)

## Review of the plan

This section sets out the conclusions of the review of the plan and a summary of progress of actions detailed in Solway Local Plan District Local Flood Risk Management Plan. It draws upon the assessment of progress of actions presented in the subsequent sections.

### Key progress in reducing the impacts of flooding since publication

- Following public consultation, the Council confirmed the preferred scheme for Whitesands, as a result of over 300 objections the Council requested Scottish Government hold a Public Local Inquiry. The PLI began in November 2018 and will conclude with written submissions in January 2019. The reporter will submit their report to Scottish Ministers for a decision, it is hoped the Flood Order will be approved then the detailed scheme design can be developed in 2019 with construction expected to be completed by end of 2021.
- Works towards a flood protection scheme for Langholm began in August 2018 with the appointment of a consultant to identify a preferred option, and seek committee approval to develop the scheme to outline design, before promoting a Flood Order in quarter 2 of 2019.
- A preferred option was identified for Newton Stewart flood protection scheme, and following committee approval it will progress to outline design. Flood Order due to be submitted early 2019.
- A flood risk appraisal of Moffat was undertaken in late 2017 / early 2018, with the final report published in August 2018. The report identified a series of flood mitigation measures, however for the 1 in 200 year protection a favourable cost-benefit ratio was not evident intrusive actions including ground investigation would be required to reduce scheme costs and improve BCR.
- Works on producing a scope for a Shoreline Management Policy study, were undertaken during summer 2018, with a consultant being sought early 2019 to undertake works to determine level of intervention with regards to coastal protection works, targeted at highest risk areas.
- New Cumnock Flood Prevention Scheme Phase 1 (Leggate) started in April 2018 and works are now substantially complete, with works proposed on Phase 2 (Afton Water) anticipated to start early in 2019.
- Works on the Newcastleton Flood Study are nearing completion, and the Final Appraisal Reports are being completed.
- Newcastleton Surface Water Management Plan is expected to be finalised quarter 1 2019.
- SEPA launched five new Forecast Early Warning Strategy for the Solway Local Plan District; Langholm, Upper Nith, Cree, Esk and for the Solway Firth coast.

- Dumfries and Galloway Council and Scottish Borders Council continue to operate a Subsidy Scheme aimed at raising awareness of flooding across the region, and offering property level protection at a discounted cost to the business and residential properties across the region. 197 properties across Dumfries and Galloway have purchased property level protection to date.

## How current is the Plan?

The Plan was published in June 2016 supplementing the Flood Risk Management Strategy published by SEPA in December 2015. The Plan details how the actions identified in the Strategy were to be implemented over the period 2016 to 2022. The Strategy and Plan are based on the National Flood Risk Assessment and the designated Potentially Vulnerable Areas at that time.

Since the identification of the actions in the Plan, there have and continue to be advancements in our knowledge and development of assessment techniques. These include the publication by SEPA of a new National Flood Risk Assessment and revised designation of Potentially Vulnerable Areas in December 2018. These advancements may inform the delivery of the actions in this Plan and will be used in the development of future Strategies and Plans.

It is therefore considered that the Plan on which this is the INTERIM REPORT is current, albeit the planned delivery and actual delivery of actions has changed for some actions as detailed in the 'Assessment of the progress of actions'.

## Significant issues

Based on a review of the assessment of the progress of actions detailed in this INTERIM REPORT, the following key themes and issues have been identified that have or may have an impact on the delivery of actions to manage flood risk. Arrangements planned to deliver the remaining actions are described below. Where these issues have had an impact on the delivery of specific actions or actions across an LPD, this is detailed in the 'Assessment of the progress of actions'.

However, the overall delivery of actions in the Plan has been impacted by resource issues.

## Significant weather events

The Solway Local Plan District LPD was adversely affected by significant weather events in late 2015 and early 2016, which had knock on impacts on the delivery of actions in the Plan from June 2016 onwards. For example, Dumfries and Galloway Council, East Ayrshire Council and Scottish Borders

Council resources were deployed to deal with the emergency events at that time as well as the follow up activities and necessary works, *which were still being delivered into financial year 2016 / 17*. This has caused consequential delays in the planned delivery of actions as staff resource that would have been delivering planned actions has been delivering emergent actions.

Arrangements planned to deliver the remaining actions affected by significant weather events are described below and detailed in the 'Assessment of the progress of actions' section of this INTERIM REPORT.

## Funding

The 'actions in the Plan to meet agreed goals and objectives in the first six-year cycle considered what would be achievable assuming a similar level of funding for flood risk management activities from The Scottish Government. However, given the timing of spending reviews and annualised financial settlements for local government, the actual ability to deliver all the actions set in the Strategies in December 2015 and detailed in this Plan will be dependent on the availability of the necessary funding in each year of the six year Plan', (Solway Local Plan District Local Flood Risk Management Plan, June 2016).

The level of funding from Scottish Government for flood risk activities for the first years of the six year Plan has been at the levels anticipated. As per the principals of financial settlements for local government, the funding is not 'ring fenced' and local authorities may have allocated these funds to the delivery of other priorities.

Dumfries and Galloway Council has underwent a significant review of capital and revenue funding. These changes reduced funding towards flood risk management which has led to some actions being delayed (due to reduced funding). Dumfries and Galloway Council has continued to fund the requirements of the Solway LFRMP to the levels outlined by Scottish Government.

Due to staff turnover the Dumfries and Galloway Council's Flood Risk Management Team has been under resourced on a number of occasions. Currently there is a vacancy in the team, it is hoped to fill this in quarter 1 2019. Dumfries and Galloway Council's Flood Risk Management Team continue to progress actions in the plan (funding and resources permitted).

Dumfries and Galloway Council has prioritised its resources to support ongoing Flood Scheme development and Flood Studies / Surface Water Management Plans. The Council has employed two project managers to lead on the Flood Protection Schemes

## Allocation of Resources

The availability and retention of skilled staff to deliver procurement services on behalf of the flood risk actions has been a limiting factor in some areas. This has caused consequential delays in the planned delivery of actions.

## Use of Consultants

The availability and performance of consultants and professional advisors has been a limiting factor in some areas. This has caused consequential delays in the planned delivery of actions.

Initial tendering process for Langholm received no submission bids due to a number of consultants on LOT5 not receiving the invitation while others were not viewed due to staff members being unavailable at time of issue. The invite to tender for Langholm was reissued, although awarding of the tender was delayed due to an abnormally low bid from one consultant. Subsequent meetings held to with the consultants to ensure they were able to meet the requirements of the scope for the price submitted resulted in the withdrawal of their tender.

A number of work packages for managing flood risk in Stranraer have been completed, but two remain outstanding, namely Work Item 4 and Work Item 6. Work Item 4 involves the collection of excess run-off from the Gallowhill above Ochtreure Way and diversion to the catchment of the Black Stank. Work Item 6 involves the formalisation of floodwater storage on fields to the south of the railway line at Blackparks through the installation of a flow control structure on the Town Burn at the point where the watercourse passes under Edinburgh Road.

Due to further refinement of original BCR following updated guidance and inclusion of previously unaccounted for properties, BCR dropped below unity. Further subsequent works by the Consultant on the BCR, now gives a positive Benefit to Cost Ratio, allowing DGC to progress with the outstanding items.

## Cost increases

Following public consultation, the decision to confirm a Flood Protection Scheme for Whitesands was made by Councillors and a formal request made to Scottish Ministers to hold a Public Local Inquiry. The Public Local Inquiry began on 6th November 2018 and ran over a four week period. Following written submissions in January 2019 the reporter will complete the report for Scottish Ministers who will decide either to confirm the scheme (with or without modification) or reject the

scheme. As a result of the Public Local Inquiry, Whitesands costs have increased. The final increase will not be known until the outcome of the Public Local Inquiry is known.

Initial costs of Langholm Flood Protection Scheme were based on a 1:25 year return period standard of protection with an estimated cost of £2M. Following a review of the hydraulic model by SEPA an error was identified and rectified which led to an increase in the numbers of properties at risk. As a consequence it was determined that the most economically advantageous scheme was one offering a 1:200 year return period SoP, and subsequently the estimated costs rose to £8M.

The initial flood study for Newton Stewart highlighted a positive BCR was only achievable for Newton Stewart and did including Minnigaff. Further investigations during the outline design stage demonstrated protecting both Newton Stewart and Minnigaff a positive BCR was achieved. As a result of providing defences to a more extensive area within Newton Stewart to include Minnigaff, the scheme costs rose from £7.9m to approximately £13.2m.

## Other actions

Working in partnership with Scottish Water and other stakeholders brings additional challenges as funding cycles, priorities and resource allocations are not necessarily aligned to allow projects to proceed within the planned timescales.

## Prioritisation of actions for next plan cycle

Many actions contained in the plan are to undertake studies that will assess the need for further actions to be implemented in future plans. For example, a flood protection study may recommend that a community flood action group is set up to increase resilience to flooding, or that a flood defences are constructed. This introduces a deadline date by when such actions need to be detailed and submitted by responsible authorities for consideration as actions in the next plans from 2022-28. The deadline date for submission of these actions to SEPA has been set as December 2019. The actions submitted will then be assessed and prioritised against the flood risk objectives, and consulted upon ahead of the publication of the next cycle of Flood Risk Management Strategies in December 2021 and Local Flood Risk Management Plans in June 2022. Any actions that miss this deadline may therefore be delayed for consideration in the next cycle from 2028-34.

## Arrangements planned to deliver the remaining actions

The actions in the Plan will continue to be delivered over the remainder of the 2016 to 2022 period. This will be as per the published Plan, subject to revisions in deliver dates as detailed in the 'Assessment of the progress of actions' section of this INTERIM REPORT.

In general, all of the actions in the Plan will be delivered by June 2022.

Where specific measures are required to address a delay and ensure an action is completed then this is described against the relevant action. In addition where there is a risk that remaining actions will not be delivered by the end of the Plan, planned contingencies have been considered, which are described against the relevant action.

## Next steps

A Final Report on the plan will be published in between July 2021 and June 2022. This will include an updated assessment of the progress made towards implementing the current actions, a summary of the current measures which were not implemented, with reasons for their non-implementation; and a description of any other measures implemented since the plan was finalised which the lead authority considers have contributed to the achievement of the flood risk objectives.

In the meantime, to find out more about how flood risk is being managed please visit [www.dumgal.gov.uk/flooding](http://www.dumgal.gov.uk/flooding).

## Conclusions

This Interim Report provides details on the progress that has been made in implementing the measures identified in the Plan, nearly three years after publication.

In general, significant measurable progress has been made by all responsible authorities across the Local Plan District.

The number of prioritised actions, including promoting and completing a number of Flood Protection Schemes in the Plan published in June 2016 was ambitious. Issues around resources, timing and funding have all had an affect on the progress of some actions during this cycle. In some areas, additional work has been carried out in response to opportunities and unforeseen circumstances.

In conclusion the Local Flood Risk Management Plan (2016-2022) remains current and relevant. Dumfries and Galloway, East Ayrshire and Scottish Borders Councils along with SEPA, Scottish Water and other responsible authorities have worked collaboratively in progressing the delivery of the actions contained in the Solway Local Flood Risk Management Plan.

Implementation of the Solway Local Flood Risk Management Plan has and will continue to reduce risk for communities across the Solway Local Plan District which fully encompasses Dumfries and Galloway and gives strategic direction for the management of flood risk now and in the future.



## Assessment of progress

This section sets out an assessment of the progress towards implementing the actions set out in the LFRMP.

There are actions that apply across the whole of the Solway LPD and actions that are specific to each of the 26 Potentially Vulnerable Areas (as defined under Section 13 of the Act) in the Solway LPD, which are shown in figure below.



Reproduced from Solway Local Plan District Local Plan District Flood Risk Management Strategy, SEPA (December 2015)

The actions that apply to individual PVA across the Solway LPD are shown overleaf in Table 1. The summary of the assessment of progress is shown using the traffic light system, where each item is marked as Red, Amber or Green (RAG) and where:

- **GREEN** – Action has been delivered or is on time and cost;
- **AMBER** – Action delayed or above cost but will be delivered with Plan cycle;
- **RED** – Action delayed or above cost and at risk of not being delivered with Plan cycle.

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	Flood protection scheme / works	Natural flood management works	New flood warning	Community flood action groups	Property level protection scheme	Site protection plans	Flood protection study	Natural flood management study	Maintain flood warning*	Awareness raising	Surface water plan / study	Emergency plans / response	Maintain flood protection scheme*	Strategic mapping and modelling	Flood forecasting	Self help	Maintenance	Planning policies
<b>PVA</b>																		
Kirkconnel (14/01)			✓				✓			✓		✓	✓	✓	✓	✓	✓	✓
Moffat (14/02)				✓			✓			✓		✓	✓	✓	✓	✓	✓	✓
Newcastleton (14/03)				✓			✓		✓	✓	✓	✓		✓	✓	✓	✓	✓
Langholm (14/04)	✓		✓							✓		✓		✓	✓	✓	✓	✓
Dumfries Nith (14/05)	✓		✓						✓	✓	✓	✓		✓	✓	✓	✓	✓
Dumfries east (14/06)										✓	✓	✓		✓	✓	✓	✓	✓
Lochmaben - Lockerbie (14/07)										✓		✓		✓	✓	✓	✓	✓
Ecclefechan - Annan (14/08)							✓		✓	✓	✓	✓		✓	✓	✓	✓	✓
Kirtle Water catchment (14/09)									✓	✓		✓		✓	✓	✓	✓	✓
Springholm (14/10)										✓		✓	✓		✓	✓	✓	✓
Castle Douglas (14/11)								✓		✓		✓		✓	✓	✓	✓	✓
Newton Stewart (14/12)	✓		✓	✓						✓		✓		✓	✓	✓	✓	✓
Kirkcolm (14/13)										✓		✓	✓		✓	✓	✓	✓
Portpatrick (14/14)									✓	✓		✓	✓	✓	✓	✓	✓	✓
Stranraer (14/15)	✓						✓		✓	✓		✓	✓	✓	✓	✓	✓	✓
Spittal (14/16)										✓		✓			✓	✓	✓	✓
Creetown (14/17)							✓		✓	✓		✓	✓	✓	✓	✓	✓	✓
Gatehouse of Fleet (14/18)									✓	✓		✓		✓	✓	✓	✓	✓

Solway Local Plan District Local Flood Risk Management Plan 2016-2022: INTERIM REPORT

	Flood protection scheme / works	Natural flood management works	New flood warning	Community flood action groups	Property level protection scheme	Site protection plans	Flood protection study	Natural flood management study	Maintain flood warning*	Awareness raising	Surface water plan / study	Emergency plans / response	Maintain flood protection scheme*	Strategic mapping and modelling	Flood forecasting	Self help	Maintenance	Planning policies
<b>PVA</b>																		
Dalbeattie (14/19)							✓		✓	✓		✓	✓	✓	✓	✓	✓	✓
Palnackie (14/20)									✓	✓		✓	✓	✓	✓	✓	✓	✓
Southerness and Carsethorn (14/21)							✓		✓	✓		✓	✓	✓	✓	✓	✓	✓
Kirkcudbright (14/22)							✓	✓	✓	✓		✓		✓	✓	✓	✓	✓
Braehead and Whauphill (14/23)									✓	✓		✓			✓	✓	✓	✓
Isle of Whithorn and Garlieston (14/24)							✓		✓	✓		✓	✓	✓	✓	✓	✓	✓
Moniavie (14/25c)							✓			✓		✓	✓		✓	✓	✓	✓
New Cumnock (14/26c)	✓			✓	✓				✓	✓		✓		✓	✓	✓	✓	✓

Table 1: Summary of progress of actions to manage flood risk in Potentially Vulnerable Areas of the Solway Local Plan District

## Progress with LPD-wide Actions

This section sets out an assessment of the progress towards implementing actions that apply across the whole of the Solway LPD over all years of the six-year Plan, which is presented in Table 2 overleaf.

Solway Local Plan District Local Flood Risk Management Plan 2016-2022: INTERIM REPORT

Action	Status	Description	Delivery Lead	Interim Report	Planned actions to complete / address delay
Flood forecasting	<b>G</b>	<p>The Scottish Flood Forecasting Service is a joint initiative between SEPA and the Met Office that produces daily, national flood guidance statements which are issued to Category 1 and 2 Responders. The flood guidance statements provide an assessment of the risk of flooding for a five day period allowing responders time to put preparations in place to reduce the impact of flooding. The service also provides information which allows SEPA to issue flood warnings, giving people a better chance of reducing the impact of flooding on their home or business.</p> <p>For more information please visit SEPA's website.</p>	SEPA	<p>Upper Nith / Cree / Esk / Solway Firth – Update Whitesands SEPA has continued to operate the Scottish Flood Forecasting Service (SFFS) Partnership with the Met Office with daily, national Flood Guidance Statements issued to Category 1 and 2 agencies (such as emergency responders, local authorities and other organisations with flooding management duties) and regional Flood Alerts issued to the public. Each daily statement gives an assessment of the risk of flooding for the next five days to enable these organisations to put preparations in place to reduce the impact of flooding. SEPA's Flood Alert service is freely available to everyone and enables communities to be aware and prepared to reduce the impacts of flooding.</p>	<p>SEPA will continue and improve the Scottish Flood Forecasting Service (SFFS) with the Met Office, with daily Flood Guidance Statements and regional Flood Alerts issued as required to enable communities and responders to reduce the impacts of flooding. SEPA is currently exploring options to develop a public version of the daily Flood Guidance Statement to provide better and earlier information to the public.</p>
Awareness raising	<b>G</b>	<p>SEPA and the responsible authorities have a duty to raise public awareness of flood risk. Improved awareness of flood risk and actions that prepare</p>	Responsible Authorities	<p><b>SEPA</b> SEPA has delivered a range of awareness raising activities through campaigning, education activities and</p>	<p><b>SEPA</b> SEPA will continue to raise awareness of flood risk through campaigning, developing education and engagement</p>

Solway Local Plan District Local Flood Risk Management Plan 2016-2022: INTERIM REPORT

Action	Status	Description	Delivery Lead	Interim Report	Planned actions to complete / address delay
		<p>individuals, homes and businesses for flooding can reduce the overall impact.</p> <p>From 2016, SEPA will engage with the community through local participation in national initiatives, including partnership working with Neighbourhood Watch Scotland. In addition, SEPA will engage with local authorities and community resilience groups where possible. Local authorities will be undertaking additional awareness raising activities. Further details will be set out in the Local FRM Plan.</p>		<p>partnership delivery. SEPA have run national and local digital and direct engagement campaigns to raise awareness of flood risk and SEPA's flood warning service, Floodline. SEPA publish and publicise an electronic newsletter (Flooding Gateway) four times a year which is distributed to a wide audience. SEPA are working with Education Scotland and Scottish Government Resilience team to embed flooding awareness within the Curriculum for Excellence, and resilience partners in Safer Communities programmes. SEPA have also developed an online tool that helps everyone share information on current flooding issues (Report-a-Flood). SEPA have worked in partnership with local authorities, emergency services and community organisations (e.g. Neighbourhood Watch Scotland, Citizens Advice Scotland and others) to share our resources and help to promote preparedness and understanding of how SEPA</p>	<p>tools, creating new partnerships and improving the flood warning and forecasting service. Many of our awareness raising activities currently underway will continue. Our focus will be on promoting flood warning and forecasting service, innovation, education and engagement with partners, customers and the public.</p> <p><b><u>Dumfries and Galloway Council</u></b></p> <p>DGC have held a number of awareness raising sessions across a range of end users, and have worked with partner agencies where applicable.</p> <p>Winter Workshops have been held with councillors, and community councillors to raise awareness of severe weather incidents and promote joint working / best practices.</p> <p>Winter Roadshows have been held across the region to promote what actions the public should take during severe weather events.</p> <p>School workshops have been held with local schools to promote flooding response.</p>

Solway Local Plan District Local Flood Risk Management Plan 2016-2022: INTERIM REPORT

Action	Status	Description	Delivery Lead	Interim Report	Planned actions to complete / address delay
				<p>manage flood risk in Scotland. SEPA have actively supported the Scottish Flood Forum and worked closely with UK agencies to develop joint flooding information. In association with the launch of the Flood Warning Schemes, SEPA engaged with the local community to raise awareness of flood risk and encourage uptake of targeted flood warnings.</p> <p><b><u>Dumfries and Galloway Council</u></b> DGC officers continue to attend a number of Community engagement sessions and school events, to promote weather related issues, and what actions are available.</p> <p><b><u>Scottish Borders Council</u></b> SBC now operates and continues to set up resilient communities' schemes in the Borders, signing up 46 of 67 community areas within the Scottish Borders. The Council worked with FloodRE in some Border Towns to increase awareness of the new Flood RE Insurance Scheme which</p>	<p><b><u>Scottish Borders Council</u></b> SBC will continue to raise awareness of flood risk through flood schemes and flood studies, liaising closely with the public in the areas being assessed. SBC will continue to work closely with flood action groups and resilience groups to encourage actions to raise awareness of flood risk. The Council will continue to raise awareness of the Council-run Subsidised Flood Product Scheme to provide affordable Property Level Protection. SBC will also continue to work on the resilient communities' initiative, with priority in working with the remaining 21 communities to introduce resilient community groups in those areas.</p> <p><b><u>Scottish Water</u></b> Scottish Water are continuing to support SEPA and Local Authorities in their awareness raising activities. General awareness raising is carried out through the Scottish Water website and national advertising campaigns to increase public</p>

Solway Local Plan District Local Flood Risk Management Plan 2016-2022: INTERIM REPORT

Action	Status	Description	Delivery Lead	Interim Report	Planned actions to complete / address delay
				<p>provides affordable insurance scheme for those properties at Flood Risk. Scottish Borders Council continues to work closely with flood action groups and resilience groups to encourage actions to raise awareness of flood risk within the Scottish Borders. This includes letter dropping and attending Community Council and Local Flood Group Meetings</p> <p><b><u>East Ayrshire Council</u></b> General Awareness raising is a continuous activity via ARA website for all Ayrshire. Supporting flood groups in New Cumnock is a monthly activity, we produce a monthly Newsletter of progress on the scheme and also contribute flooding updates to the ARA monthly Newsletter. All of these are available to elected members and the public. The community has formed the New Cumnock Flood Working Party, to help raise awareness of flood risk in the area</p>	<p>awareness of the implications of their actions on sewer flooding . For site specific capital projects and local studies, targeted public engagement is being carried out at a local level.</p> <p><b><u>East Ayrshire Council</u></b> Continue as before.</p>



Solway Local Plan District Local Flood Risk Management Plan 2016-2022: INTERIM REPORT

Action	Status	Description	Delivery Lead	Interim Report	Planned actions to complete / address delay
				<p><b><u>Scottish Water</u></b>                      Scottish Water will support SEPA and responsible authorities with their awareness raising activities as required and provide targeted communications for Scottish Water sewer flooding programme activities. Scottish Water will raise awareness by producing and supplying targeted information to the public on large capital projects and detailed local studies.</p>	
Self help	<b>G</b>	Everyone is responsible for protecting themselves and their property from flooding. Property and business owners can take simple steps to reduce damage and disruption to their homes and businesses should flooding happen. This includes preparing a flood plan and flood kit, installing property level protection, signing up to Floodline and Resilient Communities initiatives, and ensuring that properties and businesses are insured against flood damage. Dumfries and Galloway Council has a Flood Product Subsidy Scheme in place, it is recommended that this should be continued. Residential	Responsible Authorities	<p><b><u>Dumfries and Galloway Council</u></b>                      To date the number of requests for surveys from interested property owners is over 250+ across the region, with a vast majority of those going on to purchase some form of PLP.</p> <p><b><u>Scottish Borders Council</u></b>                      SBC operates a subsidised Flood Product Scheme throughout the Scottish Borders to offer all residents' access to affordable Property Level Protection. This is promoted through attendance at community meetings and undertaking visits to properties as requested. Scottish Borders Council Emergency Planning</p>	<p><b><u>Dumfries and Galloway Council</u></b>                      DGC continue to promote and provide premises owners across the region access to subsidised property level protection as part of its scheme  <a href="http://www.dumgal.gov.uk/article/15833/Preparing-for-flooding">http://www.dumgal.gov.uk/article/15833/Preparing-for-flooding</a>.</p> <p><b><u>Scottish Borders Council</u></b>                      SBC will continue providing a Subsidised Flood Protection Product Scheme throughout the Scottish Borders to offer all residents access to affordable flood products  <a href="https://www.scotborders.gov.uk">https://www.scotborders.gov.uk</a></p>

Solway Local Plan District Local Flood Risk Management Plan 2016-2022: INTERIM REPORT

Action	Status	Description	Delivery Lead	Interim Report	Planned actions to complete / address delay
		<p>or business properties that are identified as being at risk of flooding are eligible for the scheme. There are various products to reduce the impact of flooding to properties, which can be purchased as part of the scheme.</p>		<p>continues to promote and implement the Resilient Communities Scheme, signing up 46 of 67 community areas within the Scottish Borders.</p> <p><b><u>East Ayrshire Council</u></b> Community Engagement includes, PLP exhibitions, selection, surveys and appropriate and relevant information to enable clients to make the right decisions.</p> <p><b><u>Scottish Flood Forum</u></b> SFF offered a wide range of support, advice and practical assistance on group development that covers preparing for flooding, funding and learning opportunities. SFF raised awareness within Moffat, Moniaive and Tynron through community engagement actions that help the community prepare for flooding. This was done through input at community meetings, events to support engagements, insurance and developing community resilience.</p>	<p><a href="/downloads/download/73/flood_protection_products">/downloads/download/73/flood_protection_products</a>.</p> <p><b><u>East Ayrshire Council</u></b> Ongoing community PLP training, Flood Warden/Scouts and resilience group promotion.</p>

Solway Local Plan District Local Flood Risk Management Plan 2016-2022: INTERIM REPORT

Action	Status	Description	Delivery Lead	Interim Report	Planned actions to complete / address delay
				SFF supported Moniaive and Tynron community groups to take part in a community flood alerting trial with RiverTrack. SFF promoted and delivered 3 peer to peer flood risk community networking events; produced 3 flood risk community focussed newsletters which were sent to group and individuals across Scotland.	
Maintenance	<b>A</b>	Local authorities have a duty to assess watercourses and carry out clearance and repair works where such works would substantially reduce flood risk. They produce schedules of clearance and repair works and make these available for public inspection. Scottish Water undertake inspection and repair on the public sewer network. Asset owners and riparian landowners are responsible for the maintenance and management of their own assets including those, which help to reduce flood risk.	Local Council Authority; Asset / Land Managers.	<b>Dumfries and Galloway Council</b> In accordance with Section 18, DGC continue to assess watercourses, and have undertaken works deemed to substantially reduce flood risk across the region. DGC has replaced, where identified, a number of substandard trash screens. DGC have carried out clearance works where flood risk will be significantly reduced, Clearance works have been undertaken in, amongst other areas, Creetown, Annan and Stranraer. DGC have undertaken works in Glenluce to rebuild a section of river wall in 2017/18 to reduce	<b>Dumfries and Galloway Council</b> DGC will continue to undertake annual watercourse inspections as per guidelines, and subject to funding and prioritisation, undertake works in accordance with duties outlined in Section 18.  <b>Scottish Borders Council</b> SBC continue to undertake a regime of watercourse inspections on a risk-based approach, updating and publishing online the Section 18 Clearance & Repair Schedule and undertaking the necessary repairs to reduce flood risk

Solway Local Plan District Local Flood Risk Management Plan 2016-2022: INTERIM REPORT

Action	Status	Description	Delivery Lead	Interim Report	Planned actions to complete / address delay
				<p>flood risk to the medical centre / properties. DGC installed a non return duck bill flap valve at Port Logan in 2017/18.</p> <p><b><u>Scottish Borders Council</u></b> SBC has carried out water course inspections of 128 of 129 (99%) watercourses within the Scottish Borders as well as undertaking clearance and repair works to reduce flood risk as per Section 18, Clearance &amp; Repair Schedule. The Council also undertakes inspections of other flood mitigation measures and has undertaken 15 of 15 (100%) inspections of flood protection schemes within the Scottish Borders</p> <p><b><u>East Ayrshire Council</u></b> EAC has 60 number Culvert screens of which 14 number cause sufficient issues to be inspected and cleared on a weekly basis. The remaining 46 are inspected and cleared every 6 months. (Bi-annually) Additionally EAC carry out approx. 40 km length</p>	<p><b><u>East Ayrshire Council</u></b> Local authorities have a duty to assess watercourses and carry out clearance and repair works where such works would substantially reduce flood risk. They produce schedules of clearance and repair works and make these available for public inspection. Scottish Water undertake risk based inspection, maintenance and repair on the public sewer network. Asset owners and riparian landowners are responsible for the maintenance and management of their own assets including those which help to reduce flood risk.</p>

Solway Local Plan District Local Flood Risk Management Plan 2016-2022: INTERIM REPORT

Action	Status	Description	Delivery Lead	Interim Report	Planned actions to complete / address delay
				watercourse inspections Bi-annually, and action any issues identified, actions vary from notifying Riparian Landowners to taking direct action where appropriate	
Emergency plans / response	<b>A</b>	Providing an emergency response to flooding is the responsibility of many organisations, including local authorities, the emergency services and SEPA. Effective management of an emergency response relies on emergency plans that are prepared under the Civil Contingencies Act 2004 by Category 1 and 2 Responders. The emergency response by these organisations is co-ordinated through regional and local resilience partnerships. This response may be supported by the work of voluntary organisations. Dumfries and Galloway Council along with the Scottish Fire and Rescue Service, SEPA and the Scottish Flood Forum have procured a Flood Pod and Flood Trailer. The Pod & trailer can be deployed to an area at risk of a flood emergency and is filled with flood protection	Category 1 & 2 Responders	<p><b><u>Dumfries and Galloway Council</u></b> D&amp;G Local Resilience Partnership has adopted a Graduated Response Plan for Severe Weather events, predicated on the warnings / alerts issued by the Met Office and Scottish Flood Forecasting Service. These Graduated arrangements allow responders to come together and prepare for Severe Weather events rather than responding in a reactive manner as was the norm previously. The model is seen as good practice and has been adopted by other areas and organisations in Scotland, such as Ayrshire Local Resilience Partnership and Police Scotland Emergency Planning.</p> <p><b><u>Scottish Borders Council</u></b> Reviewed and updated Severe Weather Plan in July 2018. This included review and update of</p>	<p><b><u>Dumfries and Galloway Council</u></b> With regards to flood warning areas locally, there are established arrangements for the River Nith and specifically Whitesands, Dumfries which are tried and tested in terms of a coordinated response. For the recently introduced Warning Schemes such as the Esk and the Cree, and also the various Coastal Flood Warning areas along the Solway, it is hoped that plans similar to the River Nith plan can be developed which will allow Responding agencies to respond to more significant flooding events in an informed and co-ordinated manner. Currently these newer Flood Warning Schemes are in the process of "bedding in" with regards to the efficacy of the warning thresholds which makes it difficult to effectively plan for flooding, additionally</p>

Action	Status	Description	Delivery Lead	Interim Report	Planned actions to complete / address delay
		equipment, which is issued to the public.		<p>the Council's emergency response procedures, flood gate procedures and flood warning procedures. Introduced strategic severe weather co-ordination group to co-ordinate emergency response. Initiated co-ordinated approaches during emergency situations, including named Storms, with representation from all Category 1 and Category 2 responders including Scottish Water, Emergency Services and voluntary groups through the Joint Agency Control Centre (Bunker) at SBC Headquarters.</p> <p><b><u>East Ayrshire Council</u></b> Emergency Response Planning is carried out by Ayrshire Civil Contingencies Team (ACCT) this is an all Ayrshire shared service. ACCT update and co-ordinate (all Emergency Responders) the emergency response plans (ERP) as required (in direct consultation with ARA, where appropriate). In addition to the ERP EAC has implemented a system of river monitors in known areas and a</p>	<p>responders are awaiting detailed information from SEPA as to the dynamics of flooding events in these areas - consequently it may be some time before these plans are as developed as the River Nith Plan.</p> <p><b><u>Scottish Borders Council</u></b> SBC to continue to revise and develop relevant Emergency Plans as new information becomes available. SBC will also continue to undertake duties as Category 1 responders under the Civil Contingencies Act 2004 and contribute towards Resilience Partnership groups at local and regional levels.</p> <p><b><u>East Ayrshire Council</u></b> Providing an emergency response to flooding is the responsibility of many organisations, including local authorities, the emergency services and SEPA. Effective management of an emergency response relies on emergency plans that are prepared under</p>

Solway Local Plan District Local Flood Risk Management Plan 2016-2022: INTERIM REPORT

Action	Status	Description	Delivery Lead	Interim Report	Planned actions to complete / address delay
				rota of Flood Scouts (FS). Is maintained who are tasked to monitor and report back on status on receipt of any alarm.	the Civil Contingencies Act 2004 by Category 1 and 2 Responders. Scottish Water are a Category 2 responder under the Civil Contingencies Act 2004 and will support regional and local resilience partnerships as required. The emergency response by these organisations is coordinated through regional and local resilience partnerships. This response may be supported by the work of voluntary organisations.
Planning Policy	<b>A</b>	Scottish Planning Policy and accompanying Planning Advice Notes set out Scottish Ministers' priorities for the operation of the planning system and for the development and use of land. In terms of flood risk management, the policy supports a catchment-scale approach to sustainable flood risk management and aims to build the resilience of our cities and towns, encourage sustainable land management in our rural areas, and to address the long-term vulnerability of parts of our coasts and islands. Under this approach, development in areas	Planning Authority – Local Council Authority	<b><u>Dumfries and Galloway Council</u></b> All Planning Authorities within the LPD continue to ensure that new developments satisfy relevant guidance and policies on flooding and drainage. The Local Development Plan is being reviewed with the publication of the Main Issues Report (January 2017) and the Proposed Local Development Plan 2 (LDP2) (January 2018). The LDP2 has now been submitted to the Scottish Government Planning and Environmental Appeals Division (DPEA) for examination together with all unresolved	<b><u>Dumfries and Galloway Council</u></b> The proposed LDP2 is now the subject of examination by the Scottish Government's DPEA. The Examination Report is expected by June 2019 and adoption of LDP2 is scheduled for September 2019. The Council's planning policies will be reviewed periodically to ensure that all current national policies are implemented and that the recommendations of strategic studies are considered.  <b><u>Scottish Borders Council</u></b> SBC will continue to provide advice on all relevant planning

Solway Local Plan District Local Flood Risk Management Plan 2016-2022: INTERIM REPORT

Action	Status	Description	Delivery Lead	Interim Report	Planned actions to complete / address delay
		<p>with medium to high likelihood of flooding should be avoided. For further information on the application of national planning policies see SEPA's Strategy.</p>		<p>representations made to the Proposed Plan along with the Council's response. Examination of the Proposed LDP2 commenced on 23 October 2018 and it is anticipated to run until June 2019. The Examination Report is expected by June 2019 and adoption of LDP2 is scheduled for September 2019.</p> <p><b><u>Scottish Borders Council</u></b>                      SBC will provide advice as the local flood authority on local planning publications within the Scottish Borders, including the Housing Supplementary Guidance and the Main Issues Report which supplements the Local Development Plan 2, ensuring that these assess all aspects of flood risk, encourage sustainable flood risk management and comply with Scottish Planning Policy and the FRM Act 2009. SBC Flood &amp; Coastal Management Team will provide advice as the local flood authority on all relevant planning applications, ensuring there is an appropriate assessment of all aspects of</p>	<p>applications and local planning publications within the Scottish Borders, ensuring that all aspects of flood risk are assessed, encourage sustainable flood risk management and comply with Scottish Planning Policy, Local Council Policies and the FRM Act 2009.</p>



Solway Local Plan District Local Flood Risk Management Plan 2016-2022: INTERIM REPORT

Action	Status	Description	Delivery Lead	Interim Report	Planned actions to complete / address delay
				flood risk, encourage sustainable flood risk management and comply with Scottish Planning Policy and the FRM Act 2009	

Table 2: Progress with LPD-wide Actions for the Solway Local Plan District

## Progress with PVA-specific Actions

This section sets out an assessment of the progress towards implementing actions that are specific to each of the 26 PVA as shown in Figure 2. Assessments of the progress of actions within each PVA are presented.

There are no specific actions identified for 'property level protection scheme' and 'site protection plans' actions. Consideration of property level protection schemes will be included in the 'flood protection study', 'surface water plan / study' and / or 'emergency plans / response' actions. Site protection plans will be identified through these same 'study' actions and also 'planning policies' action.

### Kirkconnel (Potentially Vulnerable Area 14/01)

Local Plan District	Local authority	Main catchment
Solway Local Plan District	Dumfries and Galloway Council	River Nith Dumfries Coastal



#### Summary of Progress for Kirkconnel

There are approximately 90 residential properties at risk of flooding. The Annual Average Damages are approximately £150,000. Further information can be found in LFRMP under PVA 14/01. Page 20 of the SLPD Local Flood Risk Management Plan (<http://www.dumgal.gov.uk/flooding/>)

Key Progress in reducing impacts of flooding since publication:

- Sepa launched FEWS for Upper Nith on 3<sup>rd</sup> March 2018.

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#### Overview of actions to manage flooding in Kirkconnel

PVA	Flood protection scheme / works	Natural flood management works	New flood warning	Community flood action groups	Property level protection scheme	Site protection plans	Flood protection study	Natural flood management study	Maintain flood warning*	Awareness raising	Surface water plan / study	Emergency plans / response	Maintain flood protection scheme*	Strategic mapping and modelling	Flood forecasting	Self help	Maintenance	Planning policies
Kirkconnel (14/01)			✓				✓			✓		✓	✓	✓	✓	✓	✓	✓

Summary of progress of actions to manage flood risk in Kirkconnel (PVA 14/01)

Action	Status	Description	Delivery Lead	Interim Progress	Revised dates and planned actions to complete / address delay
New Flood Warning	<b>G</b>	The area under consideration includes properties affected by flooding from the Upper River Nith (from Kirkconnel downstream). Forecasting capability is currently under development in this area.	SEPA	SEPA has completed development of a flood forecasting model for the Upper Nith and has worked with local authorities to develop procedures for the new flood warning service. A new flood warning area has been introduced for Kirkconnel 3rd March 2018.	SEPA will continue to operate the flood warning service.
Flood Protection Study	<b>G</b>	A flood protection study has been completed by Dumfries and Galloway Council, to assess flood risk within Kirkconnel and the feasibility of flood protection actions to mitigate the risk. The study also looked at the potential for natural flood management actions to reduce the impact of flooding, taking into account the proposed work from the New Cumnock pilot catchment study. The study also considered a localised property level protection schemes giving consideration of the achievable flood warning times for the upper River Nith.	DGC	Following floods in December 2013, a report was commissioned to look at the flood risks from the River Nith and Polbower Burn. This report was subsequently updated following flooding in Storm Frank (December 2015).	

Solway Local Plan District Local Flood Risk Management Plan 2016-2022: INTERIM REPORT

Action	Status	Description	Delivery Lead	Interim Progress	Revised dates and planned actions to complete / address delay
		It is recommended that this study is reviewed to determine the current risk in the town and the potential future risk with climate change. This will determine if / when further work is required to investigate how to reduce the flood risk.			
Maintain Flood Protection Scheme	<b>G</b>	Kirkconnel Flood Protection Scheme was constructed in 1984 on the Polbower Burn and consisted of the installation of a concrete channel, culvert and reinforcing gabions. The standard of protection is not known. Maintenance of this scheme should be continued. A flood protection study has been carried out by Dumfries and Galloway Council to look at further action to reduce risk.	DGC	Ongoing assessment of scheme to be undertaken as part of the Councils duties in accordance with Section 18.	
Strategic Mapping and Modelling	<b>A</b>	SEPA will seek to develop flood mapping in the Upper River Nith area to improve understanding of flood risk. The extent and timing of improvements will depend on detailed scoping and data availability. Where this work coincides with local authority studies, SEPA will work	SEPA	Following a screening exercise to characterise the catchment and identify the data necessary to support mapping improvements, a topographic survey of the catchment has been undertaken. A local authority study for Kirkconnel has also been undertaken.	A project to combine existing modelling and new topographic data to support the revision of flood mapping for this area is planned. This will be progressed with the action for PVA 14/26c (New Cumnock). It is planned to complete this action by the end of Cycle 1.

Solway Local Plan District Local Flood Risk Management Plan 2016-2022: INTERIM REPORT

Action	Status	Description	Delivery Lead	Interim Progress	Revised dates and planned actions to complete / address delay
		collaboratively to ensure consistent modelling approaches are applied.			
Strategic Mapping and Modelling	<b>G</b>	Scottish Water will carry out an assessment of flood risk within the highest risk sewer catchments to improve knowledge and understanding of surface water flood risk.	Scottish Water	Works not started.	On track to deliver within agreed LFRMP timescales.
Awareness Raising	<b>G</b>	<i>For details see "Progress with LPD-wide Actions".</i>			
Emergency Plans / Response	<b>A</b>				
Flood Forecasting	<b>G</b>				
Self Help	<b>G</b>				
Maintance	<b>A</b>				
Planning Policies	<b>A</b>				

### Moffat (Potentially Vulnerable Area 14/02)

Local Plan District	Local authority	Main catchment
Solway Local Plan District	Dumfries and Galloway Council	River Annan



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#### Summary of Progress for Moffat

There are approximately 370 residential properties and 50 non-residential properties at risk of flooding. The Annual Average Damages are approximately £680,000. Further information can be found in LFRMP under PVA 14/02. Page 32 of the SLPD Local Flood Risk Management Plan (<http://www.dumgal.gov.uk/flooding/>)

Key Progress in reducing impacts of flooding since publication:

- Completion of a Flood Protection Study published 31<sup>st</sup> August 2018
- Number of properties identified at risk of flooding during the 1:200 event as 45 residential and 57 non-residential properties.
- A favourable cost-benefit ratio was not evident and intrusive actions including ground investigation would be required to reduce scheme costs and improve BCR.

#### Overview of actions to manage flooding in Moffat

PVA	Flood protection scheme / works	Natural flood management works	New flood warning	Community flood action groups	Property level protection scheme	Site protection plans	Flood protection study	Natural flood management study	Maintain flood warning*	Awareness raising	Surface water plan / study	Emergency plans / response	Maintain flood protection scheme*	Strategic mapping and modelling	Flood forecasting	Self help	Maintenance	Planning policies
Moffat (14/02)				✓			✓			✓		✓	✓	✓	✓	✓	✓	✓

## Summary of progress of actions to manage flood risk in Moffat (PVA 14/02)

Action	Status	Description	Delivery Lead	Interim Report	Revised dates and planned actions to complete / address delay
Community Flood Action Groups	<b>G</b>	The local community set up the Moffat Flood Action group, to raise awareness of flood risk in the area. An informal flood warning scheme run by the group is currently in place.	Community	Moffat Flood Action Group amalgamated with local Community Council.	
Flood Protection Study	<b>G</b>	Moffat Flood Study which was completed in 2006, identified potential works within Moffat including improvements to culverts and construction of flood defences. Since this study further information has been gathered which has increased the confidence in the modelling. The study should also investigate the potential for natural flood management actions to reduce runoff locally and the wider Birnock Water catchment. Other actions may also be considered to select the most sustainable combination of actions.	DGC	Flood study completed 31st August 2018 outlined number of properties at risk of flooding were far less than previously identified in the National Flood Risk Assessment 2011 ( <a href="http://apps.sepa.org.uk/nfra/lpd/pdf/lpd_14.pdf">http://apps.sepa.org.uk/nfra/lpd/pdf/lpd_14.pdf</a> ). The conclusions of the cost-benefit analysis were that the benefit-cost ratio for a direct defences scheme providing 200 year level of protection is not economically viable. Estimated scheme cost involved sheetpile cut-off walls below proposed flood walls and embankments to prevent seepage. Limited ground investigation data available for Annanside area suggested ground conditions in this area are permeable at least down to	The flood study recommends the next stage involves an investigation to assess seepage and refine the cost of the scheme before the scheme progressed further. In addition, the efficacy of flood defences should be assessed for all areas, and in particular in the Annanside and The Glebe area. Given the type and extent of defences involved, it may also be beneficial to involve a consultant to identify possible savings which could be made to reduce the cost of the scheme. This will be programmed for Cycle 2.



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Action	Status	Description	Delivery Lead	Interim Report	Revised dates and planned actions to complete / address delay
				6m below ground and sheet-pile cut-off walls would likely be required (although this would depend on the rate and volume of seepage).	
Maintain Flood Protection Scheme	<b>G</b>	A Flood Protection Scheme was constructed on Well Road, Moffat in 1989 which consisted of replacing an old mill piped scheme on the banks of the Birnock Water. The standard of protection is 5 years. The flood study should investigate the potential enhancement of these defences. Maintenance of this scheme should be continued.	DGC		Ongoing assessment of scheme to be undertaken as part of the Councils duties in accordance with Section 18.
Strategic Mapping and Modelling	<b>G</b>	Scottish Water will carry out an assessment of flood risk within the highest risk sewer catchments to improve knowledge and understanding of surface water flood risk.	Scottish Water	Works started.	On track to deliver within agreed LFRMP timescales.
Awareness Raising	<b>G</b>	<i>For details see "Progress with LPD-wide Actions".</i>			
Emergency Plans / Response	<b>A</b>				
Flood Forecasting	<b>G</b>				
Self Help	<b>G</b>				
Maintance	<b>A</b>				
Planning Policies	<b>A</b>				

## Newcastleton (Potentially Vulnerable Area 14/03)

Local Plan District	Local authority	Main catchment
Solway Local Plan District	Scottish Borders Council	Liddel Water



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### Summary of Progress for Newcastleton

There are approximately 140 residential properties and 10 non residential properties at risk of flooding. The Annual Average Damages are approximately £160,000. Further information can be found in LFRMP under PVA 14/03. Page 43 of the SLPD Local Flood Risk Management Plan (<http://www.dumgal.gov.uk/flooding/>)

Key Progress in reducing impacts of flooding since publication:

- Newcastleton Flood Study is nearing completion, with a public exhibition held to present the findings. Final Appraisal Reports are being completed.
- Newcastleton Surface Water Management Plan is nearing completion and due to be completed in Quarter 1 2019.
- Newcastleton is now an active Resilient Communities Group.

### Overview of actions to manage flooding in Newcastleton

PVA	Flood protection scheme / works	Natural flood management works	New flood warning	Community flood action groups	Property level protection scheme	Site protection plans	Flood protection study	Natural flood management study	Maintain flood warning*	Awareness raising	Surface water plan / study	Emergency plans / response	Maintain flood protection scheme*	Strategic mapping and modelling	Flood forecasting	Self help	Maintenance	Planning policies
Newcastleton (14/03)				✓			✓		✓	✓	✓	✓		✓	✓	✓	✓	✓

Summary of progress of actions to manage flood risk in Newcastleton (PVA 14/03)

Action	Status	Description	Delivery Lead	Interim Report	Revised dates and planned actions to complete / address delay
Community Flood Action Groups	<b>G</b>	Scottish Borders Council is currently in discussion with Newcastleton and District Community Council with a view to forming a Resilient Communities Group which would take action in the event of a flood.	Community	SBC has facilitated the setup of a resilient communities group in Newcastleton.	SBC will continue to work closely with Newcastleton resilient communities group, other local groups and members of the public to raise awareness of flood risk. Work together towards a group that is capable of taking action during a flood event.
Flood Protection Study	<b>G</b>	A study is recommended to develop upon previous studies, incorporating the most up to date information. The study will further investigate the feasibility of a flood protection scheme in Newcastleton, focusing on the benefit of direct flood defences on the Liddel Water and further property level protection scheme. This study should also consider natural flood management action to reduce runoff into the town. Other actions may also be considered to select the most sustainable combination of actions.	SBC	Flood Study has progressed well, with public exhibition held in Newcastleton to gain public feedback. The study is due for completion with in the timescales specified in the Solway LFRMP.	Complete final appraisal reports and assess outputs against prioritisation criteria. This work is programmed for completion with in the timescales specified in the Solway LFRMP.
Maintain Flood Warning	<b>G</b>	Continue to maintain the Newcastleton Village flood warning area which is part of the	SEPA	SEPA has continued to operate the flood warning service.	SEPA will continue to operate the flood warning service.

Solway Local Plan District Local Flood Risk Management Plan 2016-2022: INTERIM REPORT

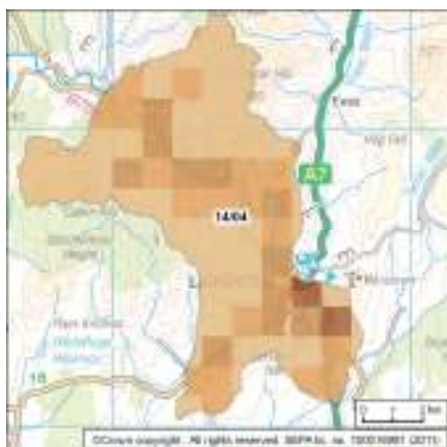
Action	Status	Description	Delivery Lead	Interim Report	Revised dates and planned actions to complete / address delay
	<b>G</b>	Newcastleton river flood warning scheme. When flood events occur in an area with a flood warning service, SEPA will seek to verify and validate the warning service. SEPA will use feedback and post-event data to ensure that our flood warning service is timely and accurate.		Continued maintaining the Newcastleton Village flood warning area. Site visits and refinement of the flood warning have taken place to increase accuracy on site.	
Surface Water Plan / Study	<b>G</b>	The area must be covered by a surface water management plan or plans that set objectives for the management of surface water flood risk and identify the most sustainable actions to achieve the objectives.	SBC	Newcastleton Surface Water Management Plan has been drafted and is currently at the internal review stage and is due for completion within Q1 2019, within the timescales specified in the Solway LFRMP.	Incorporate internal review comments. This study is scheduled for completion within Q1 2019, within the timescales specified in the Solway LFRMP.
Strategic Mapping and Modelling	<b>G</b>	Scottish Water will carry out an assessment of flood risk within the highest risk sewer catchments to improve knowledge and understanding of surface water flood risk.	Scottish Water	Works started.	On track to deliver within agreed LFRMP timescales.
Awareness Raising	<b>G</b>	<i>For details see "Progress with LPD-wide Actions".</i>			
Emergency Plans / Response	<b>G</b>				
Flood Forecasting	<b>G</b>				
Self Help	<b>G</b>				
Maintenance	<b>G</b>				

Solway Local Plan District Local Flood Risk Management Plan 2016-2022: INTERIM REPORT

Action	Status	Description	Delivery Lead	Interim Report	Revised dates and planned actions to complete / address delay
Planning Policies	G				

## Langholm (Potentially Vulnerable Area 14/04)

Local Plan District	Local authority	Main catchment
Solway Local Plan District	Dumfries and Galloway Council	River Esk (Solway)



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### Summary of Progress for Langholm

There are approximately 180 residential properties and 20 non-residential properties at risk of flooding. The Annual Average Damages are approximately £300,000. Further information can be found in LFRMP under PVA 14/04. Page 53 of the SLPD Local Flood Risk Management Plan (<http://www.dumgal.gov.uk/flooding/>)

Key Progress in reducing impacts of flooding since publication:

- Consultant has been appointed to progress a scheme to outline design and flood order.
- DGC agreed at Committee in January 2018 to include drainage works at Holmwood, Langholm within their capital programme for 2018/19.

### Overview of actions to manage flooding in Langholm

PVA	Flood protection scheme / works	Natural flood management works	New flood warning	Community flood action groups	Property level protection scheme	Site protection plans	Flood protection study	Natural flood management study	Maintain flood warning*	Awareness raising	Surface water plan / study	Emergency plans / response	Maintain flood protection scheme*	Strategic mapping and modelling	Flood forecasting	Self help	Maintenance	Planning policies
Langholm (14/04)	✓		✓							✓		✓		✓	✓	✓	✓	✓

Summary of progress of actions to manage flood risk in Langholm (PVA 14/04)

Action	Status	Description	Delivery Lead	Interim Report	Revised dates and planned actions to complete / address delay
Flood Protection Scheme / Works	<b>G</b>	It is recommended that the Council progress work on the proposed flood protection scheme in Langholm. The Langholm Flood Risk Assessment has been completed which identified potential works within Langholm, including construction of flood defences along the River Esk and Wauchope Water. Further work should be carried out to identify the most sustainable combination of actions and further investigation made into the impact of surface water runoff. Design options should take account of the new flood warning scheme and potential use of property level protection.	DGC	RPS have been appointed to progress a scheme to outline design & flood order. Work is ongoing to analyse the long list of options and select a preferred scheme to be taken forward.	May 2019 – Confirmation of preferred option. December 2019 – Completion of Flood Order Documents. February 2020 – Publish Flood Order. March to July 2020 – post Flood Order review and report to Scottish Government. March 2021 – Completion of Detailed Design. May 2021 – Appoint Main Consultant. End 2022 – Completion of Scheme.
New Flood Warning	<b>G</b>	Continue with the development and implementation of flood warnings on the River Esk at Langholm.	SEPA	SEPA has completed development of a flood forecasting model for the River Esk and has worked with Dumfries and Galloway local authority to develop procedures for the new flood warning service. A new flood warning area has been introduced for Langholm December 2016.	SEPA will continue to operate the flood warning service.

Solway Local Plan District Local Flood Risk Management Plan 2016-2022: INTERIM REPORT

Action	Status	Description	Delivery Lead	Interim Report	Revised dates and planned actions to complete / address delay
Strategic Mapping and Modelling	<b>G</b>	Scottish Water will carry out an assessment of flood risk within the highest risk sewer catchments to improve knowledge and understanding of surface water flood risk.	Scottish Water	Works started.	On track to deliver within agreed LFRMP timescales.
Maintenance	<b>G</b>	Local authorities have a duty to assess watercourses and carry out clearance and repair works where such works would substantially reduce flood risk. They produce schedules of clearance and repair works and make these available for public inspection. Scottish Water undertake inspection and repair on the public sewer network. Asset owners and riparian landowners are responsible for the maintenance and management of their own assets including those which help to reduce flood risk.	DGC, asset / land managers		Ongoing assessment of scheme to be undertaken as part of the Councils duties in accordance with Section 18.
Awareness Raising	<b>G</b>	<i>For details see "Progress with LPD-wide Actions".</i>			
Emergency Plans / Response	<b>A</b>				
Flood Forecasting	<b>G</b>				
Self Help	<b>G</b>				
Maintenance	<b>A</b>				



Solway Local Plan District Local Flood Risk Management Plan 2016-2022: INTERIM REPORT

Action	Status	Description	Delivery Lead	Interim Report	Revised dates and planned actions to complete / address delay
Planning Policies	A				

### Dumfries Nith (Potentially Vulnerable Area 14/05)

Local Plan District	Local authority	Main catchment
Solway Local Plan District	Dumfries and Galloway Council	River Nith



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#### Summary of Progress for Dumfries Nith

There are approximately 600 residential properties and 240 non-residential properties at risk of flooding. The Annual Average Damages are approximately £2.3 million. Further information can be found in LFRMP under PVA 14/05. Page 65 of the SLPD Local Flood Risk Management Plan (<http://www.dumgal.gov.uk/flooding/>)

Key progress in reducing the impacts of flooding since publication:

- Promotion of Flood Order for FPS
- Improvements in the Whitesands Flood Warning

#### Overview of actions to manage flooding in Dumfries Nith

PVA	Flood protection scheme / works	Natural flood management works	New flood warning	Community flood action groups	Property level protection scheme	Site protection plans	Flood protection study	Natural flood management study	Maintain flood warning*	Awareness raising	Surface water plan / study	Emergency plans / response	Maintain flood protection scheme*	Strategic mapping and modelling	Flood forecasting	Self help	Maintenance	Planning policies
Dumfries Nith (14/05)	✓		✓						✓	✓	✓	✓		✓	✓	✓	✓	✓

Summary of progress of actions to manage flood risk in Dumfries Nith (PVA 14/05)

Action	Status	Description	Delivery Lead	Interim Report	Revised dates and planned actions to complete / address delay
Flood Protection Scheme / Works	<b>A</b>	It is recommended that the council progress work on the proposed flood protection scheme in Whitesands, Dumfries. Over a number of years Dumfries and Galloway Council have commissioned a number of studies to examine and understand the flooding issues along with potential mitigation options. The Whitesands Project (Flood Protection Scheme and Public Realm) identified potential works within Dumfries. Further work on the design of the scheme is still being carried out. The identified design should look to promote the most sustainable combination of actions, enhance the local amenity value of the river while taking account of the local concerns including construction of flood defences along the River Nith in Dumfries.	DGC	<p>Dumfries and Galloway Council completed design work and promoted the Flood Order in December 2016.</p> <ul style="list-style-type: none"> <li>Provisional decision to confirm the scheme without modification - June 2017.</li> <li>Scottish Government informed of preliminary decision - 4<sup>th</sup> August 2017</li> <li>Scottish Government decided to hold a Public Local Inquiry - September 2017.</li> <li>Public Local Inquiry held in November/ December 2018 (closing submissions; end of January 2019).</li> </ul> <p>The inquiry process from notification to decision is now expected to add 24 months to the programme, based on receipt of a decision by end of August 2019.</p>	<p>Revised timescale and any planned actions are entirely dependant on the Scottish Ministers decision on the future of the scheme following the PLI. The following timeline assumes the scheme is confirmed by August 2019:</p> <ul style="list-style-type: none"> <li>Detailed design completion –February 2020</li> <li>Tender award – May 2020</li> <li>Site start – June 2020</li> <li>Completion June 2022.</li> </ul>
New Flood Warning	<b>A</b>	The area under consideration includes properties affected by flooding from the Upper River Nith (from Kirkconnel downstream).	SEPA	The first phase of the Upper River Nith project was completed in 2018 with the provision of a new flood warning area in Kirkconnel.	SEPA will continue to operate the flood warning service.

Solway Local Plan District Local Flood Risk Management Plan 2016-2022: INTERIM REPORT

Action	Status	Description	Delivery Lead	Interim Report	Revised dates and planned actions to complete / address delay
		Forecasting capability is currently under development in this area.			
Maintain Flood Warning	<b>G</b>	Continue to maintain the Whitesands flood warning area which is part of the Nith river flood warning scheme. Continue to maintain the Upper Solway Firth and Nith Tidal flood warning areas which are part of the Solway coastal flood warning scheme. When flood events occur in an area with a flood warning service, SEPA will seek to verify and validate the warning service. SEPA will use feedback and post-event data to ensure that our flood warning service is timely and accurate.	SEPA	SEPA has continued to operate the flood warning service.	Continue to maintain the Whitesands flood warning area which is part of the Nith river flood warning scheme. Continue to maintain the Upper Solway Firth and Nith Tidal flood warning areas which are part of the Solway coastal flood warning scheme.
Surface Water Plan / Study	<b>G</b>	The area must be covered by a surface water management plan or plans that set objectives for the management of surface water flood risk and identify the most sustainable actions to achieve the objectives.	DGC	On track to deliver within agreed LFRMP timescales.	
Strategic Mapping and Modelling	<b>A</b>	River Nith Mapping Improvements SEPA will seek to develop flood mapping in the Middle and Lower River Nith area to improve understanding of flood risk. SEPA	SEPA	A screening exercise to characterise the catchment and identify the data necessary to support mapping improvements has been	A specification for topographic survey for the middle Nith is under development to support a future modelling project. It is

Solway Local Plan District Local Flood Risk Management Plan 2016-2022: INTERIM REPORT

Action	Status	Description	Delivery Lead	Interim Report	Revised dates and planned actions to complete / address delay
		<p>will seek to develop flood mapping in the Gretna to Portpatrick area to improve understanding of coastal flood risk. The extent and timing of improvements will depend on detailed scoping and data availability. Where this work coincides with local authority studies, SEPA will work collaboratively to ensure consistent modelling approaches are applied.</p> <p>SEPA will seek to incorporate additional surface water data into the flood maps to improve understanding of flood risk. Approximately 1,100km<sup>2</sup> of improved surface water data is currently available within this Local Plan District. The inclusion of additional surface water hazard data resulting from the completion of local authority surface water management plans will be considered as these projects are completed.</p>		<p>undertaken. A local authority study for the lower Nith has been undertaken in support of the proposed flood protection scheme.</p>	<p>planned to complete this action by the end of Cycle 1.</p>
Strategic Mapping and Modelling	<b>R</b>	<p>Solway Coastal Improvements SEPA will seek to develop flood mapping in the Middle and Lower River Nith area to improve</p>	SEPA	<p>Following the establishment of a coastal flood hazard map development framework and characterisation of the</p>	<p>It is anticipated that the technical specification for modelling and mapping of this coastline will be developed prior</p>

Solway Local Plan District Local Flood Risk Management Plan 2016-2022: INTERIM REPORT

Action	Status	Description	Delivery Lead	Interim Report	Revised dates and planned actions to complete / address delay
		<p>understanding of flood risk. SEPA will seek to develop flood mapping in the Gretna to Portpatrick area to improve understanding of coastal flood risk. The extent and timing of improvements will depend on detailed scoping and data availability. Where this work coincides with local authority studies, SEPA will work collaboratively to ensure consistent modelling approaches are applied.</p> <p>SEPA will seek to incorporate additional surface water data into the flood maps to improve understanding of flood risk. Approximately 1,100km<sup>2</sup> of improved surface water data is currently available within this Local Plan District. The inclusion of additional surface water hazard data resulting from the completion of local authority surface water management plans will be considered as these projects are completed.</p>		<p>coastline, several projects are currently underway at this location:</p> <ul style="list-style-type: none"> <li>• Development of a national coastal joint probability dataset;</li> <li>• Update to the UK design extreme sea level dataset</li> </ul> <p>These projects/datasets will inform a future coastal modelling and mapping project for the coastline from Gretna to Loch Ryan.</p>	<p>to the end of Cycle 1. Due to the geographical extent and technical complexity of this action combined with the availability of SEPA resources, it is not anticipated that this will progress to a study prior to Cycle 2. Topographic survey will be necessary prior to any modelling study.</p>
Strategic Mapping and Modelling	R	<p>Pluvial Mapping Updates</p> <p>SEPA will seek to develop flood mapping in the Middle and Lower</p>	SEPA	SEPA's current Surface water hazard maps use design rainfall estimates based on FEH99	This action will not be taken forwards as described. SEPA will develop new Surface water

Solway Local Plan District Local Flood Risk Management Plan 2016-2022: INTERIM REPORT

Action	Status	Description	Delivery Lead	Interim Report	Revised dates and planned actions to complete / address delay
		<p>River Nith area to improve understanding of flood risk. SEPA will seek to develop flood mapping in the Gretna to Portpatrick area to improve understanding of coastal flood risk. The extent and timing of improvements will depend on detailed scoping and data availability. Where this work coincides with local authority studies, SEPA will work collaboratively to ensure consistent modelling approaches are applied.</p> <p>SEPA will seek to incorporate additional surface water data into the flood maps to improve understanding of flood risk. Approximately 1,100km<sup>2</sup> of improved surface water data is currently available within this Local Plan District. The inclusion of additional surface water hazard data resulting from the completion of local authority surface water management plans will be considered as these projects are completed.</p>		<p>methodology, this has now been superseded by FEH13 methodology. The FEH13 dataset contains the latest science and understanding of rainfall across Scotland and represents a significant change in rainfall amounts compared to FEH99 dataset, as such it is no longer considered appropriate to deliver this action as originally intended.</p>	<p>flood hazard maps over the remainder of Cycle 1. It is anticipated that updated flood mapping from this revised action will be available early in Cycle 2. Alongside this SEPA is investigating the feasibility of developing an interim approach to assess the change in Surface water hazard (and risk) associated with FEH13, such that we could consider it in the development of the 2021 FRM Strategies.</p>

Solway Local Plan District Local Flood Risk Management Plan 2016-2022: INTERIM REPORT

Action	Status	Description	Delivery Lead	Interim Report	Revised dates and planned actions to complete / address delay
Strategic Mapping and Modelling	<b>G</b>	Scottish Water will carry out an assessment of flood risk within the highest risk sewer catchments to improve knowledge and understanding of surface water flood risk.	Scottish Water	Works started at Dalscone Works complete at Lincluden.	On track to deliver within agreed LFRMP timescales.
Awareness Raising	<b>G</b>	<i>For details see "Progress with LPD-wide Actions".</i>			
Emergency Plans / Response	<b>A</b>				
Flood Forecasting	<b>G</b>				
Self Help	<b>G</b>				
Maintenance	<b>A</b>				
Planning Policies	<b>A</b>				



## Dumfries East (Potentially Vulnerable Area 14/06)

Local Plan District	Local authority	Main catchment
Solway Local Plan District	Dumfries and Galloway Council	Lochar Water



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### Summary of Progress for Dumfries East

There are approximately 110 residential properties at risk of flooding. The Annual Average Damages are approximately £240,000. Further information can be found in LFRMP under PVA 14/06. Page 81 of the SLPD Local Flood Risk Management Plan (<http://www.dumgal.gov.uk/flooding/>)

Key progress in reducing the impacts of flooding since publication:

- Responsible Authorities continue to meet the actions of the PVA highlighted within the Solway LFRMP.

### Overview of actions to manage flooding in Dumfries East

PVA	Flood protection scheme / works	Natural flood management works	New flood warning	Community flood action groups	Property level protection scheme	Site protection plans	Flood protection study	Natural flood management study	Maintain flood warning*	Awareness raising	Surface water plan / study	Emergency plans / response	Maintain flood protection scheme*	Strategic mapping and modelling	Flood forecasting	Self help	Maintenance	Planning policies
Dumfries East (14/06)										✓	✓	✓		✓	✓	✓	✓	✓

Summary of progress of actions to manage flood risk in Dumfries East (PVA 14/06)

Action	Status	Description	Delivery Lead	Interim Report	Revised dates and planned actions to complete / address delay
Surface Water Plan / Study	<b>G</b>	The area must be covered by a surface water management plan or plans that set objectives for the management of surface water flood risk and identify the most sustainable actions to achieve the objectives.	DGC	On track to deliver within agreed LFRMP timescales.	
Strategic Mapping and Modelling	<b>G</b>	Scottish Water will carry out an assessment of flood risk within the highest risk sewer catchments to improve knowledge and understanding of surface water flood risk.	Scottish Water	Works started.	On track to deliver within agreed LFRMP timescales.
Awareness Raising	<b>G</b>	<i>For details see "Progress with LPD-wide Actions".</i>			
Emergency Plans / Response	<b>A</b>				
Flood Forecasting	<b>G</b>				
Self Help	<b>G</b>				
Maintance	<b>A</b>				
Planning Policies	<b>A</b>				

## Lochmaben - Lockerbie (Potentially Vulnerable Area 14/07)

Local Plan District	Local authority	Main catchment
Solway Local Plan District	Dumfries and Galloway Council	River Annan



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### Summary of Progress for Lochmaben - Lockerbie

There are approximately 50 residential properties and 20 non-residential properties at risk of flooding. The Annual Average Damages are approximately £300,000. Further information can be found in LFRMP under PVA 14/07. Page 91 of the SLPD Local Flood Risk Management Plan (<http://www.dumgal.gov.uk/flooding/>)

Key progress in reducing the impacts of flooding since publication:

- Responsible Authorities continue to meet the actions of the PVA highlighted within the Solway LFRMP.

### Overview of actions to manage flooding in Lochmaben - Lockerbie

PVA	Flood protection scheme / works	Natural flood management works	New flood warning	Community flood action groups	Property level protection scheme	Site protection plans	Flood protection study	Natural flood management study	Maintain flood warning*	Awareness raising	Surface water plan / study	Emergency plans / response	Maintain flood protection scheme*	Strategic mapping and modelling	Flood forecasting	Self help	Maintenance	Planning policies
Lochmaben - Lockerbie (14/07)										✓		✓		✓	✓	✓	✓	✓

Summary of progress of actions to manage flood risk in Lochmaben - Lockerbie (PVA 14/07)

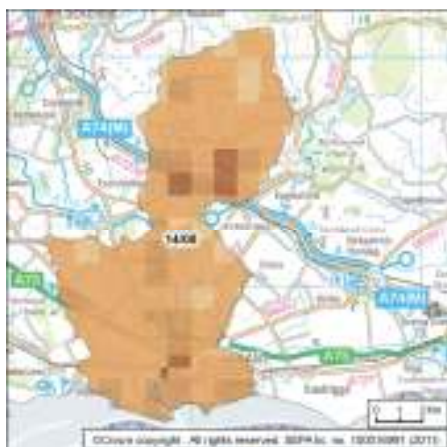
Action	Status	Description	Delivery Lead	Interim Report	Revised dates and planned actions to complete / address delay
Strategic Mapping and Modelling	<b>R</b>	SEPA will seek to incorporate additional surface water data into the flood maps to improve understanding of flood risk. Approximately 1,100km <sup>2</sup> of improved surface water data is currently available within this Local Plan District. The inclusion of additional surface water hazard data resulting from the completion of local authority surface water management plans will be considered as these projects are completed.	SEPA	SEPA's current Surface water hazard maps use design rainfall estimates based on FEH99 methodology, this has now been superseded by FEH13 methodology. The FEH13 dataset contains the latest science and understanding of rainfall across Scotland and represents a significant change in rainfall amounts compared to FEH99 dataset, as such it is no longer considered appropriate to deliver this action as originally intended.	This action will not be taken forwards as described. SEPA will develop new Surface water flood hazard maps over the remainder of Cycle 1. It is anticipated that updated flood mapping from this revised action will be available early in Cycle 2. Alongside this SEPA is investigating the feasibility of developing an interim approach to assess the change in Surface water hazard (and risk) associated with FEH13, such that we could consider it in the development of the 2021 FRM Strategies.
Strategic Mapping and Modelling	<b>G</b>	Scottish Water will carry out an assessment of flood risk within the highest risk sewer catchments to improve knowledge and understanding of surface water flood risk.	Scottish Water	Works complete at Lochmaben. Works started at Lockerbie.	Lockerbie on track to deliver within agreed LFRMP timescales.
Awareness Raising	<b>G</b>	<i>For details see "Progress with LPD-wide Actions".</i>			
Emergency Plans / Response	<b>A</b>				
Flood Forecasting	<b>G</b>				
Self Help	<b>G</b>				

Solway Local Plan District Local Flood Risk Management Plan 2016-2022: INTERIM REPORT

Action	Status	Description	Delivery Lead	Interim Report	Revised dates and planned actions to complete / address delay
Maintenance	A				
Planning Policies	A				

## Ecclefechan - Annan (Potentially Vulnerable Area 14/08)

Local Plan District	Local authority	Main catchment
Solway Local Plan District	Dumfries and Galloway Council	River Annan Annan Coastal



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### Summary of Progress for Ecclefechan - Annan

There are approximately 240 residential properties and 70 non-residential properties at risk of flooding. The Annual Average Damages are approximately £590,000. Further information can be found in LFRMP under PVA 14/08. Page 100 of the SLPD Local Flood Risk Management Plan (<http://www.dumgal.gov.uk/flooding/>)

Key progress in reducing the impacts of flooding since publication:

- Shoreline Management Plan Scope completed, Invitation to Tender issued March 2019.

### Overview of actions to manage flooding in Ecclefechan - Annan

	Flood protection scheme / works	Natural flood management works	New flood warning	Community flood action groups	Property level protection scheme	Site protection plans	Flood protection study	Natural flood management study	Maintain flood warning*	Awareness raising	Surface water plan / study	Emergency plans / response	Maintain flood protection scheme*	Strategic mapping and modelling	Flood forecasting	Self help	Maintenance	Planning policies
PVA																		
Ecclefechan - Annan (14/08)							✓		✓	✓	✓	✓		✓	✓	✓	✓	✓

Summary of progress of actions to manage flood risk in Ecclefechan - Annan (PVA 14/08)

Action	Status	Description	Delivery Lead	Interim Report	Revised dates and planned actions to complete / address delay
Flood Protection Study	<b>A</b>	A study is recommended to further develop the understanding of coastal flooding along the Solway coastline. This study should build on from the previous shoreline management plan to investigate flooding and coastal erosion, wave overtopping and the current coastal protection offered. The study may focus in detail on Potentially Vulnerable Areas however it could also look at the risk to other areas. The study will help to develop an understanding of coastal issues and identify where further work may be required to mitigate against flooding.	DGC	A scope for the Shoreline Management Plan Study has been completed, and an Invitation to Tender will be issued March 2019. The Shoreline Management Policy Study (SMPS) will reviews the 2005 Shoreline Management Plan policies. It will include extending and recommending updated policy for management of coastal flood and erosion risks along DGC coastline over a 100-year planning horizon. The updated policy may then be developed and adopted as a formal plan by Dumfries & Galloway Council at a later date.	A brief outline of proposed dates below: <ul style="list-style-type: none"> <li>• Invitation to Tender issued January 2019;</li> <li>• Study commence May 2019;</li> <li>• Study completed May 2021.</li> </ul>
Maintain Flood Warning	<b>G</b>	Continue to maintain the Upper Solway Firth flood warning area which is part of the Solway coastal flood warning scheme. When flood events occur in an area with a flood warning service, SEPA will seek to verify and validate the warning service. SEPA will use feedback and post-event data to ensure that our	SEPA	SEPA has continued to operate the flood warning service.	SEPA will continue to operate the flood warning service.

Solway Local Plan District Local Flood Risk Management Plan 2016-2022: INTERIM REPORT

Action	Status	Description	Delivery Lead	Interim Report	Revised dates and planned actions to complete / address delay
		flood warning service is timely and accurate.			
Surface Water Plan / Study	<b>G</b>	The area must be covered by a surface water management plan or plans that set objectives for the management of surface water flood risk and identify the most sustainable actions to achieve the objectives.	DGC	On track to deliver within agreed LFRMP timescales.	
Strategic Mapping and Modelling	<b>R</b>	SEPA will seek to incorporate additional surface water data into the flood maps to improve understanding of flood risk. Approximately 1,100km <sup>2</sup> of improved surface water data is currently available within this Local Plan District. The inclusion of additional surface water hazard data resulting from the completion of local authority surface water management plans will be considered as these projects are completed. SEPA will seek to develop flood mapping in the Gretna to Portpatrick area to improve understanding of coastal flood risk. The extent and timing of improvements will depend on detailed scoping and data	SEPA	<p>Following the establishment of a coastal flood hazard map development framework and characterisation of the coastline, several projects are currently underway at this location:</p> <ul style="list-style-type: none"> <li>• Development of a national coastal joint probability dataset;</li> <li>• Update to the UK design extreme sea level dataset</li> </ul> <p>These projects/datasets will inform a future coastal modelling and mapping project for the coastline from Gretna to Loch Ryan.</p>	It is anticipated that the technical specification for modelling and mapping of this coastline will be developed prior to the end of Cycle 1. Due to the geographical extent and technical complexity of this action combined with the availability of SEPA resources, it is not anticipated that this will progress to a study prior to Cycle 2. Topographic survey will be necessary prior to any modelling study.



Solway Local Plan District Local Flood Risk Management Plan 2016-2022: INTERIM REPORT

Action	Status	Description	Delivery Lead	Interim Report	Revised dates and planned actions to complete / address delay
		availability. Where this work coincides with local authority studies, SEPA will work collaboratively to ensure consistent modelling approaches are applied.			
Strategic Mapping and Modelling	<b>G</b>	Scottish Water will carry out an assessment of flood risk within the highest risk sewer catchments to improve knowledge and understanding of surface water flood risk.	Scottish Water	Works started at Annan. Works complete at Eaglesfield.	On track to deliver within agreed LFRMP timescales.
Awareness Raising	<b>G</b>	<i>For details see "Progress with LPD-wide Actions".</i>			
Emergency Plans / Response	<b>A</b>				
Flood Forecasting	<b>G</b>				
Self Help	<b>G</b>				
Maintance	<b>A</b>				
Planning Policies	<b>A</b>				

### Kirtle Water Catchment (Potentially Vulnerable Area 14/09)

Local Plan District	Local authority	Main catchment
Solway Local Plan District	Dumfries and Galloway Council	Gretna Coastal



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#### Summary of Progress for Kirtle Water Catchment

There are approximately 20 residential properties and 10 non-residential properties at risk of flooding. The Annual Average Damages are approximately £140,000. Further information can be found in LFRMP under PVA 14/09. Page 114 of the SLPD Local Flood Risk Management Plan (<http://www.dumgal.gov.uk/flooding/>)

Key progress in reducing the impacts of flooding since publication:

- Responsible Authorities continue to meet the actions of the PVA highlighted within the Solway LFRMP.

#### Overview of actions to manage flooding in Kirtle Water Catchment

PVA	Flood protection scheme / works	Natural flood management works	New flood warning	Community flood action groups	Property level protection scheme	Site protection plans	Flood protection study	Natural flood management study	Maintain flood warning*	Awareness raising	Surface water plan / study	Emergency plans / response	Maintain flood protection scheme*	Strategic mapping and modelling	Flood forecasting	Self help	Maintenance	Planning policies
Kirtle Water catchment (14/09)									✓	✓		✓		✓	✓	✓	✓	✓

Summary of progress of actions to manage flood risk in Kirtle Water Catchment (PVA 14/09)

Action	Status	Description	Delivery Lead	Interim Report	Revised dates and planned actions to complete / address delay
Maintain Flood Warning	<b>G</b>	Continue to maintain the Upper Solway Firth flood warning area which is part of the Solway coastal flood warning scheme. When flood events occur in an area with a flood warning service, SEPA will seek to verify and validate the warning service. SEPA will use feedback and post-event data to ensure that our flood warning service is timely and accurate	SEPA	SEPA has continued to operate the flood warning service.	SEPA will continue to operate the flood warning service.
Strategic Mapping and Modelling	<b>R</b>	Scottish Planning Policy and accompanying Planning Advice Notes set out Scottish Ministers' priorities for the operation of the planning system and for the development and use of land. In terms of flood risk management, the policy supports a catchment-scale approach to sustainable flood risk management and aims to build the resilience of our cities and towns, encourage sustainable land management in our rural areas, and to address the long-term vulnerability of parts of our coasts and islands. Under this	SEPA	SEPA's current Surface water hazard maps use design rainfall estimates based on FEH99 methodology, this has now been superseded by FEH13 methodology. The FEH13 dataset contains the latest science and understanding of rainfall across Scotland and represents a significant change in rainfall amounts compared to FEH99 dataset, as such it is no longer considered appropriate to deliver this action as originally intended.	This action will not be taken forwards as described. SEPA will develop new Surface water flood hazard maps over the remainder of Cycle 1. It is anticipated that updated flood mapping from this revised action will be available early in Cycle 2. Alongside this SEPA is investigating the feasibility of developing an interim approach to assess the change in Surface water hazard (and risk) associated with FEH13, such that we could consider it in the development of the 2021 FRM Strategies.

Solway Local Plan District Local Flood Risk Management Plan 2016-2022: INTERIM REPORT

Action	Status	Description	Delivery Lead	Interim Report	Revised dates and planned actions to complete / address delay
		approach, development in areas with medium to high likelihood of flooding should be avoided. For further information on the application of national planning policies see SEPA's Strategy.			
Strategic Mapping and Modelling	<b>G</b>	Scottish Water will carry out an assessment of flood risk within the highest risk sewer catchments to improve knowledge and understanding of surface water flood risk.	Scottish Water	Works started.	On track to deliver within agreed LFRMP timescales.
Awareness Raising	<b>G</b>	<i>For details see "Progress with LPD-wide Actions".</i>			
Emergency Plans / Response	<b>A</b>				
Flood Forecasting	<b>G</b>				
Self Help	<b>G</b>				
Maintance	<b>A</b>				
Planning Policies	<b>A</b>				

## Springholm (Potentially Vulnerable Area 14/10)

Local Plan District	Local authority	Main catchment
Solway Local Plan District	Dumfries and Galloway Council	Urr Water



### Summary of Progress for Springholm

There are approximately 30 residential properties and 10 non-residential properties at risk of flooding. The Annual Average Damages are approximately £100,000. Further information can be found in LFRMP under PVA 14/10. Page 124 of the SLPD Local Flood Risk Management Plan (<http://www.dumgal.gov.uk/flooding/>)

Key progress in reducing the impacts of flooding since publication:

- Responsible Authorities continue to meet the actions of the PVA highlighted within the Solway LFRMP.

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### Overview of actions to manage flooding in Springholm

PVA	Flood protection scheme / works	Natural flood management works	New flood warning	Community flood action groups	Property level protection scheme	Site protection plans	Flood protection study	Natural flood management study	Maintain flood warning*	Awareness raising	Surface water plan / study	Emergency plans / response	Maintain flood protection scheme*	Strategic mapping and modelling	Flood forecasting	Self help	Maintenance	Planning policies
Springholm (14/10)										✓		✓	✓		✓	✓	✓	✓

Summary of progress of actions to manage flood risk in Springholm (PVA 14/10)

Action	Status	Description	Delivery Lead	Interim Report	Revised dates and planned actions to complete / address delay
Maintain Flood Protection Scheme	<b>G</b>	Continue to maintain the existing Springholm flood defences. The Springholm Flood Protection Scheme was completed in 1990 and consisted of the installation of a water gate, channel improvements and replacement culverts on the Culsharn Burn.	DGC		Ongoing assessment of scheme to be undertaken as part of the Councils duties in accordance with Section 18.
Awareness Raising	<b>G</b>	<i>For details see "Progress with LPD-wide Actions".</i>			
Emergency Plans / Response	<b>A</b>				
Flood Forecasting	<b>G</b>				
Self Help	<b>G</b>				
Maintance	<b>A</b>				
Planning Policies	<b>A</b>				

### Castle Douglas (Potentially Vulnerable Area 14/11)

Local Plan District	Local authority	Main catchment
Solway Local Plan District	Dumfries and Galloway Council	River Dee (Solway)



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#### Summary of Progress for Castle Douglas

There are approximately 180 residential properties and 30 non-residential properties at risk of flooding. The Annual Average Damages are approximately £430,000. Further information can be found in LFRMP under PVA 14/11. Page 132 of the SLPD Local Flood Risk Management Plan (<http://www.dumgal.gov.uk/flooding/>)

Key progress in reducing the impacts of flooding since publication:

- Responsible Authorities continue to meet the actions of the PVA highlighted within the Solway LFRMP.

#### Overview of actions to manage flooding in Castle Douglas

PVA	Flood protection scheme / works	Natural flood management works	New flood warning	Community flood action groups	Property level protection scheme	Site protection plans	Flood protection study	Natural flood management study	Maintain flood warning*	Awareness raising	Surface water plan / study	Emergency plans / response	Maintain flood protection scheme*	Strategic mapping and modelling	Flood forecasting	Self help	Maintenance	Planning policies
Castle Douglas (14/11)								✓		✓		✓		✓	✓	✓	✓	✓

Summary of progress of actions to manage flood risk in Castle Douglas (PVA 14/11)

Action	Status	Description	Delivery Lead	Interim Report	Revised dates and planned actions to complete / address delay
Natural Flood Management Study	<b>G</b>	As part of the wider Galloway Glens Landscape Partnership Scheme, Dumfries and Galloway Council propose to investigate whether Natural Flood Management measures can be utilised on the small tributaries of the Dee to reduce flood risk to settlements in the Dee catchment and provide other ecological and habitat benefits.	DGC	Galloway Glens Partnership Natural Flood Management Scoping Study published 6 December 2016 ( <a href="http://www.gallowayglens.org/wp-content/uploads/2016/06/GG-NFM-Feasibility-Study.pdf">http://www.gallowayglens.org/wp-content/uploads/2016/06/GG-NFM-Feasibility-Study.pdf</a> ) The report highlights potential opportunities for NFM measures but these are subject to a number of complex considerations such as suitability in landscape terms, landowner approval and require a scale of operation not immediately possible through the Galloway Glens Landscape Partnership Scheme.	The study and related flood model will be used to inform a smaller education and facilitation project through the delivery phase which will run from 2018 until 2023.
Strategic Mapping and Modelling	<b>R</b>	SEPA will review existing modelling and data for this area, to determine if any improvements can be made to the flood maps. SEPA will support the local authority if further detailed study beyond a strategic scale is required.	SEPA	A detailed study has been identified which would enable SEPA to review the national hazard mapping for this area, however it has not been possible to obtain the hydraulic model.	In the absence of the detailed study being made available SEPA is unable to progress this action. SEPA will continue to engage with the local authority regarding the availability of this study to enable this action to be progressed.
Strategic Mapping and Modelling	<b>G</b>	Scottish Water will carry out an assessment of flood risk within the highest risk sewer catchments to improve	Scottish Water	Action Complete.	



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Action	Status	Description	Delivery Lead	Interim Report	Revised dates and planned actions to complete / address delay
		knowledge and understanding of surface water flood risk.			
Awareness Raising	<b>G</b>	<i>For details see "Progress with LPD-wide Actions".</i>			
Emergency Plans / Response	<b>A</b>				
Flood Forecasting	<b>G</b>				
Self Help	<b>G</b>				
Maintance	<b>A</b>				
Planning Policies	<b>A</b>				

## Newton Stewart (Potentially Vulnerable Area 14/12)

Local Plan District	Local authority	Main catchment
Solway Local Plan District	Dumfries and Galloway Council	River Cree



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### Summary of Progress for Newton Stewart

There are approximately 210 residential properties and 70 non-residential properties at risk of flooding. The Annual Average Damages are approximately £540,000. Further information can be found in LFRMP under PVA 14/12. Page 143 of the SLPD Local Flood Risk Management Plan (<http://www.dumgal.gov.uk/flooding/>)

Key progress in reducing the impacts of flooding since publication:

- Development of Flood Protection Scheme to preferred option.
- Flood Order document to be completed January 2019.
- Sparling Bridge design complete, construction works to start in April 2019.

### Overview of actions to manage flooding in Newton Stewart

PVA	Flood protection scheme / works	Natural flood management works	New flood warning	Community flood action groups	Property level protection scheme	Site protection plans	Flood protection study	Natural flood management study	Maintain flood warning*	Awareness raising	Surface water plan / study	Emergency plans / response	Maintain flood protection scheme*	Strategic mapping and modelling	Flood forecasting	Self help	Maintenance	Planning policies
Newton Stewart (14/12)	✓		✓	✓						✓		✓		✓	✓	✓	✓	✓

Summary of progress of actions to manage flood risk in Newton Stewart (PVA 14/12)

Action	Status	Description	Delivery Lead	Interim Report	Revised dates and planned actions to complete / address delay
Flood Protection Scheme / Works	<b>G</b>	It is recommended that the Council progress work on the proposed flood protection scheme in Newton Stewart. The Newton Stewart Flood Study identified potential works, including construction of direct defences along the River Cree and Penkilm Burn. The study is being further refined to consider actions that increase the level of protection offered. This includes raising of a footbridge over the River Cree in combination with increased direct defences. Other actions may also be considered to select the most sustainable combination of actions.	DGC	Work is ongoing to replace the new footbridge in 2019. Direct defences (walls, embankments, and walls/glass panels) are the Councils preferred scheme and the outline design is almost complete. There will also be 2 areas re-profiled which improves the flows resulting in the reduction to the height of the defences. It is anticipated that the scheme will proceed to Flood Order stage in April 2019.	November 2018 – Finalise design. January 2019 – Complete Flood Documents. March 2019 – Committee Approval to Publish Flood Order. April 2019 – Publish Flood Order. May to September 2019 – post Flood Order review and report to Scottish Government. March 2020 – Completion of Detailed Design. June 2020 – Appoint Main Consultant. End 2021 – Completion of Scheme.
New Flood Warning	<b>G</b>	The maintenance of SEPA's flood warning service is funded by Scottish Government through SEPA's grant in aid settlement. In addition, the Government provide grant funding to enable SEPA to implement new flood warning schemes.	SEPA	SEPA has completed development of a flood forecasting model for River Cree and has worked with Dumfries and Galloway local authority to develop procedures for the new flood warning service. A new flood warning area has been introduced December 2016.	SEPA will continue to operate the flood warning service.

Solway Local Plan District Local Flood Risk Management Plan 2016-2022: INTERIM REPORT

Action	Status	Description	Delivery Lead	Interim Report	Revised dates and planned actions to complete / address delay
Community Flood Action Groups	<b>G</b>	The local community set up the Newton Stewart Flood Action group, to raise awareness of flood risk in the area.	Community	Cree Valley Community Council Flood Action Group representatives have had representation during the outline design process of the Newton Stewart FPS and replacement of Sparling Bridge.	
Strategic Mapping and Modelling	<b>G</b>	Scottish Water will carry out an assessment of flood risk within the highest risk sewer catchments to improve knowledge and understanding of surface water flood risk.	Scottish Water	Works not started.	On track to deliver within agreed LFRMP timescales.
Awareness Raising	<b>G</b>	<i>For details see "Progress with LPD-wide Actions".</i>			
Emergency Plans / Response	<b>A</b>				
Flood Forecasting	<b>G</b>				
Self Help	<b>G</b>				
Maintance	<b>A</b>				
Planning Policies	<b>A</b>				

### Kirkcolm (Potentially Vulnerable Area 14/13)

Local Plan District	Local authority	Main catchment
Solway Local Plan District	Dumfries and Galloway Council	Galloway Coastal



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#### Summary of Progress for Kirkcolm

There are approximately 10 residential properties at risk of flooding. The Annual Average Damages are approximately £59,000. Further information can be found in LFRMP under PVA 14/13. Page 155 of the SLPD Local Flood Risk Management Plan (<http://www.dumgal.gov.uk/flooding/>)

Key progress in reducing the impacts of flooding since publication:

- Responsible Authorities continue to meet the actions of the PVA highlighted within the Solway LFRMP.

#### Overview of actions to manage flooding in Kirkcolm

PVA	Flood protection scheme / works	Natural flood management works	New flood warning	Community flood action groups	Property level protection scheme	Site protection plans	Flood protection study	Natural flood management study	Maintain flood warning*	Awareness raising	Surface water plan / study	Emergency plans / response	Maintain flood protection scheme*	Strategic mapping and modelling	Flood forecasting	Self help	Maintenance	Planning policies
Kirkcolm (14/13)										✓		✓	✓		✓	✓	✓	✓

Summary of progress of actions to manage flood risk in Kirkcolm (PVA 14/13)

Action	Status	Description	Delivery Lead	Interim Report	Revised dates and planned actions to complete / address delay
Maintain Flood Protection Scheme	<b>G</b>	Continue to maintain the existing Kirkcolm flood defences. The Kirkcolm Flood Protection Scheme was constructed on behalf of Dumfries and Galloway Council in 1981 and involved channel improvements and culvert up-grades. Installation of a new headwall and trash screen occurred in 2012 along with the installation of a water level gauging station at the site of the 1981 Flood Protection Scheme. Dumfries and Galloway Council also have sections of coastal erosion defences including seawalls at Kirkcolm.	DGC	Responsible Authorities continue to meet the actions of the PVA highlighted within the Solway LFRMP.	Ongoing assessment of scheme to be undertaken as part of the Councils duties in accordance with Section 18.
Awareness Raising	<b>G</b>	<i>For details see "Progress with LPD-wide Actions"</i>			
Emergency Plans / Response	<b>A</b>				
Flood Forecasting	<b>G</b>				
Self Help	<b>G</b>				
Maintenance	<b>A</b>				
Planning Policies	<b>A</b>				

## Portpatrick (Potentially Vulnerable Area 14/14)

Local Plan District	Local authority	Main catchment
Solway Local Plan District	Dumfries and Galloway Council	Galloway Coastal



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### Summary of Progress for Portpatrick

There are approximately 10 residential properties and 10 non-residential properties at risk of flooding. The Annual Average Damages are approximately £54,000. Further information can be found in LFRMP under PVA 14/14. Page 163 of the SLPD Local Flood Risk Management Plan (<http://www.dumgal.gov.uk/flooding/>)

Key progress in reducing the impacts of flooding since publication:

- Installation of Baffle Arrangements.

### Overview of actions to manage flooding in Portpatrick

PVA	Flood protection scheme / works	Natural flood management works	New flood warning	Community flood action groups	Property level protection scheme	Site protection plans	Flood protection study	Natural flood management study	Maintain flood warning*	Awareness raising	Surface water plan / study	Emergency plans / response	Maintain flood protection scheme*	Strategic mapping and modelling	Flood forecasting	Self help	Maintenance	Planning policies
Portpatrick (14/14)									✓	✓		✓	✓	✓	✓	✓	✓	✓

Summary of progress of actions to manage flood risk in Portpatrick (PVA 14/14)

Action	Status	Description	Delivery Lead	Interim Report	Revised dates and planned actions to complete / address delay
Maintain Flood Warning	<b>G</b>	Continue to maintain the South West Rhins flood warning area which is part of the Solway coastal flood warning scheme. When flood events occur in an area with a flood warning service, SEPA will seek to verify and validate the warning service. SEPA will use feedback and post-event data to ensure that our flood warning service is timely and accurate.	SEPA	SEPA has continued to operate the flood warning service.	SEPA will continue to operate the flood warning service.
Maintain Flood Protection Scheme	<b>G</b>	Continue to maintain the existing Portpatrick flood defences. The Portpatrick Flood Protection Scheme was constructed in 2004 on behalf of Dumfries and Galloway Council and consisted of upstream attenuation areas, channel improvements, bridge raising, a storm bypass pipe and walls.	DGC	Drain covers were replaced at a number of locations early 2018 following storm damage inspections.	
Strategic Mapping and Modelling	<b>R</b>	SEPA will seek to develop flood mapping in the Gretna to Portpatrick area to improve understanding of coastal flood risk. The extent and timing of improvements will depend on detailed scoping and data	SEPA	Following the establishment of a coastal flood hazard map development framework and characterisation of the coastline, several projects are currently underway at this location:	It is anticipated that the technical specification for modelling and mapping of this coastline will be developed prior to the end of Cycle 1. Due to the geographical extent and technical complexity of this



Solway Local Plan District Local Flood Risk Management Plan 2016-2022: INTERIM REPORT

Action	Status	Description	Delivery Lead	Interim Report	Revised dates and planned actions to complete / address delay
		availability. Where this work coincides with local authority studies, SEPA will work collaboratively to ensure consistent modelling approaches are applied.		<ul style="list-style-type: none"> <li>• Development of a national coastal joint probability dataset;</li> <li>• Update to the UK design extreme sea level dataset</li> </ul> These projects/datasets will inform a future coastal modelling and mapping project for the coastline from Gretna to Loch Ryan.	action combined with the availability of SEPA resources, it is not anticipated that this will progress to a study prior to Cycle 2. Topographic survey will be necessary prior to any modelling study.
Maintenance	<b>G</b>	Local authorities have a duty to assess watercourses and carry out clearance and repair works where such works would substantially reduce flood risk. They produce schedules of clearance and repair works and make these available for public inspection. Scottish Water undertake inspection and repair on the public sewer network. Asset owners and riparian landowners are responsible for the maintenance and management of their own assets including those which help to reduce flood risk. Dumfries and Galloway Council also have sections of coastal defences including a concrete seawall at Portpatrick. There are also	DGC	DGC installed Baffle Arrangement in 2017/18 to reduce the burden of clearance of boulders and stones from the culvert entrance. The resulting flood risk due to blockage at the culvert entrance has been substantially reduced.	Ongoing assessment of scheme to be undertaken as part of the Councils duties in accordance with Section 18.

Solway Local Plan District Local Flood Risk Management Plan 2016-2022: INTERIM REPORT

Action	Status	Description	Delivery Lead	Interim Report	Revised dates and planned actions to complete / address delay
		privately owned retaining wall defences at Portpatrick. Dumfries and Galloway Council has recently undertaken works in Hill Street, Portpatrick, to manage surface water flows into an upgraded culvert network with discharge to the sea.			
Awareness Raising	<b>G</b>	<i>For details see "Progress with LPD-wide Actions".</i>			
Emergency Plans / Response	<b>A</b>				
Flood Forecasting	<b>G</b>				
Self Help	<b>G</b>				
Planning Policies	<b>A</b>				

## Stranraer (Potentially Vulnerable Area 14/15)

Local Plan District	Local authority	Main catchment
Solway Local Plan District	Dumfries and Galloway Council	Galloway Coastal



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### Summary of Progress for Stranraer

There are approximately 290 residential properties and 60 non-residential properties at risk of flooding. The Annual Average Damages are approximately £3600,000. Further information can be found in LFRMP under PVA 14/15. Page 173 of the SLPD Local Flood Risk Management Plan (<http://www.dumgal.gov.uk/flooding/>)

Key progress in reducing the impacts of flooding since publication:

- Shoreline Management Plan Scope completed, Invitation to Tender issued March 2019.

### Overview of actions to manage flooding in Stranraer

PVA	Flood protection scheme / works	Natural flood management works	New flood warning	Community flood action groups	Property level protection scheme	Site protection plans	Flood protection study	Natural flood management study	Maintain flood warning*	Awareness raising	Surface water plan / study	Emergency plans / response	Maintain flood protection scheme*	Strategic mapping and modelling	Flood forecasting	Self help	Maintenance	Planning policies
Stranraer (14/15)	✓						✓		✓	✓		✓	✓	✓	✓	✓	✓	✓

Summary of progress of actions to manage flood risk in Stranraer (PVA 14/15)

Action	Status	Description	Delivery Lead	Interim Report	Revised dates and planned actions to complete / address delay
Flood Protection Scheme / Works	<b>A</b>	It is recommended that the council progress work on the proposed flood protection scheme in Stranraer. Assessment of the flood risk within Stranraer identified a number of works to reduce flooding to people and properties. The Stranraer Flood Protection Works is split into different items with two outstanding items of work. The first will help to alleviate flooding to properties in the Ochtrelure area, by increasing hydraulic capacity issues at the head of the system. The favoured option includes diversion of flows. The second item of work is concerned with flooding on the Town Burn mainly downstream of the railway culvert. The preferred option for the Station Road area is to regulate flow passing through the railway culvert and therefore alleviate flood risk in this area.	DGC	Land negotiation is progressing with a proposed solution report to be taken to the Strategic Asset Board to purchase the land to allow progressions with both outstanding work items.	Quarter 1 2019 purchase land and carry out advanced works in the Ochtrelure area. Detailed design will follow alongside public consultation. Revised date for completion will be within Cycle 1.
Flood Protection Scheme / Works	<b>G</b>	Network Rail will carry out civil engineering work which will reduce flood risk to identified	Network Rail		

Solway Local Plan District Local Flood Risk Management Plan 2016-2022: INTERIM REPORT

Action	Status	Description	Delivery Lead	Interim Report	Revised dates and planned actions to complete / address delay
		sections of the rail network within this Potentially Vulnerable Area.			
Flood Protection Study	<b>A</b>	<p>A study is recommended to further develop the understanding of coastal flooding along the Solway coastline. This study should build on from the completed Flood Risk Assessment for the Stranraer Harbour area and the previous shoreline management plan to investigate flooding and coastal erosion, wave overtopping and the current coastal protection offered.</p> <p>The study may focus in detail on Potentially Vulnerable Areas however it could also look at the risk to other areas.</p> <p>The study will help to develop an understanding of coastal issues and identify where further work may be required to mitigate against flooding.</p>	DGC	<p>A scope for the Shoreline Management Plan Study has been completed, and an Invitation to Tender will be issued March 2019. The Shoreline Management Policy Study (SMPS) will reviews the 2005 Shoreline Management Plan policies. It will include extending and recommending updated policy for management of coastal flood and erosion risks along DGC coastline over a 100-year planning horizon. The updated policy may then be developed and adopted as a formal plan by Dumfries &amp; Galloway Council at a later date.</p>	<p>A brief outline of proposed dates below:</p> <ul style="list-style-type: none"> <li>• Invitation to Tender issued January 2019;</li> <li>• Study commence May 2019;</li> <li>• Study completed May 2021.</li> </ul>
Maintain Flood Warning System	<b>G</b>	<p>Continue to maintain the Loch Ryan flood warning area which is part of the Solway coastal flood warning scheme.</p> <p>When flood events occur in an area with a flood warning service,</p>	SEPA	SEPA has continued to operate the flood warning service.	SEPA will continue to operate the flood warning service.

Solway Local Plan District Local Flood Risk Management Plan 2016-2022: INTERIM REPORT

Action	Status	Description	Delivery Lead	Interim Report	Revised dates and planned actions to complete / address delay
		SEPA will seek to verify and validate the warning service. SEPA will use feedback and post-event data to ensure that our flood warning service is timely and accurate.			
Maintain Flood Protection Scheme	<b>G</b>	Stranraer Flood Protection Works is split into work items which are currently at different stages of completion. Works to date include upgrading of culverts, installation of trash screens, silt traps and automatic air bricks to properties. The standard of protection of these works is 200 years. The works should all be maintained once completed. Levels of flood risk are likely to increase over time as a consequence of climate change.	DGC		
Strategic Mapping and Modelling	<b>G</b>	Scottish Water will carry out an assessment of flood risk within the highest risk sewer catchments to improve knowledge and understanding of surface water flood risk.	Scottish Water	Works started.	On track to deliver within agreed LFRMP timescales.
Awareness Raising	<b>G</b>	For details see "Progress with LPD-wide Actions".			
Emergency Plans / Response	<b>A</b>				

Solway Local Plan District Local Flood Risk Management Plan 2016-2022: INTERIM REPORT

Action	Status	Description	Delivery Lead	Interim Report	Revised dates and planned actions to complete / address delay
Flood Forecasting	G				
Self Help	G				
Maintenance	A				
Planning Policies	A				

### Spittal (Potentially Vulnerable Area 14/16)

Local Plan District	Local authority	Main catchment
Solway Local Plan District	Dumfries and Galloway Council	River Bladnoch



#### Summary of Progress for Spittal

There are approximately less than 10 residential properties at risk of flooding. The Annual Average Damages are approximately £26,000. Further information can be found in LFRMP under PVA 14/16. Page 187 of the SLPD Local Flood Risk Management Plan (<http://www.dumgal.gov.uk/flooding/>)

Key progress in reducing the impacts of flooding since publication:

- Responsible Authorities continue to meet the actions of the PVA highlighted within the Solway LFRMP.

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#### Overview of actions to manage flooding in Spittal

PVA	Flood protection scheme / works	Natural flood management works	New flood warning	Community flood action groups	Property level protection scheme	Site protection plans	Flood protection study	Natural flood management study	Maintain flood warning*	Awareness raising	Surface water plan / study	Emergency plans / response	Maintain flood protection scheme*	Strategic mapping and modelling	Flood forecasting	Self help	Maintenance	Planning policies
Spittal (14/16)										✓		✓			✓	✓	✓	✓



Solway Local Plan District Local Flood Risk Management Plan 2016-2022: INTERIM REPORT

Summary of progress of actions to manage flood risk in Spittal (PVA 14/16)

Action	Status	Description	Delivery Lead	Interim Report	Revised dates and planned actions to complete / address delay
Awareness Raising	G	For details see "Progress with LPD-wide Actions".			
Emergency Plans / Response	A				
Flood Forecasting	G				
Self Help	G				
Maintance	A				
Planning Policies	A				

## Creetown (Potentially Vulnerable Area 14/17)

Local Plan District	Local authority	Main catchment
Solway Local Plan District	Dumfries and Galloway Council	Galloway Coastal



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### Summary of Progress for Creetown

There are approximately 90 residential properties and 20 non-residential properties at risk of flooding. The Annual Average Damages are approximately £340,000. Further information can be found in LFRMP under PVA 14/17. Page 195 of the SLPD Local Flood Risk Management Plan (<http://www.dumgal.gov.uk/flooding/>)

Key progress in reducing the impacts of flooding since publication:

- Shoreline Management Plan Scope completed, Invitation to Tender issued March 2019.
- Responsible Authorities continue to meet the actions of the PVA highlighted within the Solway LFRMP.

### Overview of actions to manage flooding in Creetown

PVA	Flood protection scheme / works	Natural flood management works	New flood warning	Community flood action groups	Property level protection scheme	Site protection plans	Flood protection study	Natural flood management study	Maintain flood warning*	Awareness raising	Surface water plan / study	Emergency plans / response	Maintain flood protection scheme*	Strategic mapping and modelling	Flood forecasting	Self help	Maintenance	Planning policies
Creetown (14/17)							✓		✓	✓		✓	✓	✓	✓	✓	✓	✓

Summary of progress of actions to manage flood risk in Creetown (PVA 14/17)

Action	Status	Description	Delivery Lead	Interim Report	Revised dates and planned actions to complete / address delay
Flood Protection Study	<b>A</b>	A study is recommended to further develop the understanding of coastal flooding along the Solway coastline. This study should build on from the previous shoreline management plan to investigate flooding and coastal erosion, wave overtopping and the current coastal protection offered. The study may focus in detail on Potentially Vulnerable Areas however it could also look at the risk to other areas. The study will help to develop an understanding of coastal issues and identify where further work may be required to mitigate against flooding.	DGC	A scope for the Shoreline Management Plan Study has been completed, and an Invitation to Tender will be issued March 2019. The Shoreline Management Policy Study (SMPS) will reviews the 2005 Shoreline Management Plan policies. It will include extending and recommending updated policy for management of coastal flood and erosion risks along DGC coastline over a 100-year planning horizon. The updated policy may then be developed and adopted as a formal plan by Dumfries & Galloway Council at a later date.	A brief outline of proposed dates below: <ul style="list-style-type: none"> <li>• Invitation to Tender issued January 2019;</li> <li>• Study commence May 2019;</li> <li>• Study completed May 2021.</li> </ul>
Maintain Flood Warning	<b>G</b>	Continue to maintain the Inner Wigtown Bay flood warning area which is part of the Solway coastal flood warning scheme. When flood events occur in an area with a flood warning service, SEPA will seek to verify and validate the warning service. SEPA will use feedback and post-event data to ensure that our	SEPA	SEPA has continued to operate the flood warning service.	SEPA will continue to operate the flood warning service.

Solway Local Plan District Local Flood Risk Management Plan 2016-2022: INTERIM REPORT

Action	Status	Description	Delivery Lead	Interim Report	Revised dates and planned actions to complete / address delay
		flood warning service is timely and accurate.			
Strategic Mapping and Modelling	<b>G</b>	Scottish Water will carry out an assessment of flood risk within the highest risk sewer catchments to improve knowledge and understanding of surface water flood risk.	Scottish Water	Works started.	On track to deliver within agreed LFRMP timescales.
Awareness Raising	<b>G</b>	For details see "Progress with LPD-wide Actions".			
Emergency Plans / Response	<b>A</b>				
Flood Forecasting	<b>G</b>				
Self Help	<b>G</b>				
Maintance	<b>A</b>				
Planning Policies	<b>A</b>				

## Gatehouse of Fleet (Potentially Vulnerable Area 14/18)

Local Plan District	Local authority	Main catchment
Solway Local Plan District	Dumfries and Galloway Council	Galloway Coastal



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### Summary of Progress for Gatehouse of Fleet

There are approximately less than 10 residential properties and non-residential properties at risk of flooding. The Annual Average Damages are approximately £19,000. Further information can be found in LFRMP under PVA 14/18. Page 206 of the SLPD Local Flood Risk Management Plan (<http://www.dumgal.gov.uk/flooding/>)

Key progress in reducing the impacts of flooding since publication:

- Responsible Authorities continue to meet the actions of the PVA highlighted within the Solway LFRMP.

### Overview of actions to manage flooding in Gatehouse of Fleet

PVA	Flood protection scheme / works	Natural flood management works	New flood warning	Community flood action groups	Property level protection scheme	Site protection plans	Flood protection study	Natural flood management study	Maintain flood warning*	Awareness raising	Surface water plan / study	Emergency plans / response	Maintain flood protection scheme*	Strategic mapping and modelling	Flood forecasting	Self help	Maintenance	Planning policies
Gatehouse of Fleet (14/18)									✓	✓		✓		✓	✓	✓	✓	✓

Summary of progress of actions to manage flood risk in Gatehouse of Fleet (PVA 14/18)

Action	Status	Description	Delivery Lead	Interim Report	Revised dates and planned actions to complete / address delay
Maintain Flood Warning	<b>G</b>	Continue to maintain the Fleet Bay flood warning area which is part of the Solway coastal flood warning scheme. When flood events occur in an area with a flood warning service, SEPA will seek to verify and validate the warning service. SEPA will use feedback and post-event data to ensure that our flood warning service is timely and accurate.	SEPA	SEPA has continued to operate the flood warning service.	SEPA will continue to operate the flood warning service.
Strategic Mapping and Modelling	<b>G</b>	Scottish Water will carry out an assessment of flood risk within the highest risk sewer catchments to improve knowledge and understanding of surface water flood risk.	Scottish Water	Works completed.	
Awareness Raising	<b>G</b>	For details see "Progress with LPD-wide Actions".			
Emergency Plans / Response	<b>A</b>				
Flood Forecasting	<b>G</b>				
Self Help	<b>G</b>				
Maintance	<b>A</b>				
Planning Policies	<b>A</b>				

## Dalbeattie (Potentially Vulnerable Area 14/19)

Local Plan District	Local authority	Main catchment
Solway Local Plan District	Dumfries and Galloway Council	Stewartry Coastal



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### Summary of Progress for Dalbeattie

There are approximately 280 residential properties and 80 non-residential properties at risk of flooding. The Annual Average Damages are approximately £570,000. Further information can be found in LFRMP under PVA 14/19. Page 215 of the SLPD Local Flood Risk Management Plan (<http://www.dumgal.gov.uk/flooding/>)

Key progress in reducing the impacts of flooding since publication:

- Dalbeattie Flood Study updated August 2016.
- 41 no of flap valves fitted in 2016/17.

### Overview of actions to manage flooding in Dalbeattie

PVA	Flood protection scheme / works	Natural flood management works	New flood warning	Community flood action groups	Property level protection scheme	Site protection plans	Flood protection study	Natural flood management study	Maintain flood warning*	Awareness raising	Surface water plan / study	Emergency plans / response	Maintain flood protection scheme*	Strategic mapping and modelling	Flood forecasting	Self help	Maintenance	Planning policies
Dalbeattie (14/19)							✓		✓	✓		✓	✓	✓	✓	✓	✓	✓

Summary of progress of actions to manage flood risk in Dalbeattie (PVA 14/19)

Action	Status	Description	Delivery Lead	Interim Report	Revised dates and planned actions to complete / address delay
Flood Protection Study	<b>A</b>	A study is recommended to further develop the understanding of coastal flooding along the Solway coastline. This study should build on from the previous shoreline management plan to investigate flooding and coastal erosion, wave overtopping and the current coastal protection offered. The study may focus in detail on Potentially Vulnerable Areas however it could also look at the risk to other areas. The study will help to develop an understanding of coastal issues and identify where further work may be required to mitigate against flooding.	DGC	A scope for the Shoreline Management Plan Study has been completed, and an Invitation to Tender will be issued March 2019. The Shoreline Management Policy Study (SMPS) will reviews the 2005 Shoreline Management Plan policies. It will include extending and recommending updated policy for management of coastal flood and erosion risks along DGC coastline over a 100-year planning horizon. The updated policy may then be developed and adopted as a formal plan by Dumfries & Galloway Council at a later date.	A brief outline of proposed dates below: <ul style="list-style-type: none"> <li>• Invitation to Tender issued January 2019;</li> <li>• Study commence May 2019;</li> <li>• Study completed May 2021.</li> </ul>
Flood Protection Study	<b>G</b>	A study is recommended to further investigate the standard of protection of the current defences in Dalbeattie along with the current and future level of risk in the town. If a review of the risk identifies future work is required now or in the future, the study should examine the feasibility of enhancing the flood protection	DGC	Report finalised August 2016 ( <a href="http://www.dumgal.gov.uk/media/19603/Dalbeattie-Flood-Study-2016/pdf/Dalbeattie_Flood_Study.pdf?m=636428129691470000">http://www.dumgal.gov.uk/media/19603/Dalbeattie-Flood-Study-2016/pdf/Dalbeattie_Flood_Study.pdf?m=636428129691470000</a> ).	



Solway Local Plan District Local Flood Risk Management Plan 2016-2022: INTERIM REPORT

Action	Status	Description	Delivery Lead	Interim Report	Revised dates and planned actions to complete / address delay
		<p>scheme, focusing on improvement to the conveyance of the Kirkgunzeon Lane watercourse, and the improvement of direct flood defences on the Kirkgunzeon Lane.</p> <p>This study should also consider the role natural flood management actions can have to reduce runoff and slow water within the river. Other actions may also be considered to select the most sustainable combination of actions.</p>			
Maintain Flood Warning	<b>G</b>	<p>Continue to maintain the Rough Firth and Southerness Point flood warning areas which are part of the Solway coastal flood warning scheme.</p> <p>When flood events occur in an area with a flood warning service, SEPA will seek to verify and validate the warning service. SEPA will use feedback and post-event data to ensure that our flood warning service is timely and accurate.</p>	SEPA	SEPA has continued to operate the flood warning service.	SEPA will continue to operate the flood warning service.

Solway Local Plan District Local Flood Risk Management Plan 2016-2022: INTERIM REPORT

Action	Status	Description	Delivery Lead	Interim Report	Revised dates and planned actions to complete / address delay
Maintain Flood Protection Scheme	G	Dalbeattie Flood Protection Scheme was completed in 1981 and consisted of flood banks, flood walls, and channel improvements to Kirkgunzeon Lane, Dalbeattie Burn and Drumjohn Burn. Maintenance should be continued. The level of protection provided by these defences may decrease due to the impact of climate change.	DGC	41 Non Return Flap Valves purchased and installed in 2016/17.	Ongoing assessment of scheme to be undertaken as part of the Councils duties in accordance with Section 18.
Strategic Mapping and Modelling	R	Coastal Mapping Improvements SEPA will seek to develop flood mapping in the Gretna to Portpatrick area to improve understanding of coastal flood risk. The extent and timing of improvements will depend on detailed scoping and data availability. Where this work coincides with local authority studies, SEPA will work collaboratively to ensure consistent modelling approaches are applied. SEPA will seek to incorporate additional surface water data into the flood maps to improve understanding of flood risk. Approximately 1,100km <sup>2</sup> of improved surface water data is	SEPA	Following the establishment of a coastal flood hazard map development framework and characterisation of the coastline, several projects are currently underway at this location: <ul style="list-style-type: none"> <li>• Development of a national coastal joint probability dataset;</li> <li>• Update to the UK design extreme sea level dataset</li> </ul> These projects/datasets will inform a future coastal modelling and mapping project for the coastline from Gretna to Loch Ryan.	It is anticipated that the technical specification for modelling and mapping of this coastline will be developed prior to the end of Cycle 1. Due to the geographical extent and technical complexity of this action combined with the availability of SEPA resources, it is not anticipated that this will progress to a study prior to Cycle 2. Topographic survey will be necessary prior to any modelling study.

Solway Local Plan District Local Flood Risk Management Plan 2016-2022: INTERIM REPORT

Action	Status	Description	Delivery Lead	Interim Report	Revised dates and planned actions to complete / address delay
		currently available within this Local Plan District. The inclusion of additional surface water hazard data resulting from the completion of local authority surface water management plans will be considered as these projects are completed.			
Strategic Mapping and Modelling	<b>R</b>	<p>Pluvial Mapping Updates SEPA will seek to develop flood mapping in the Gretna to Portpatrick area to improve understanding of coastal flood risk. The extent and timing of improvements will depend on detailed scoping and data availability. Where this work coincides with local authority studies, SEPA will work collaboratively to ensure consistent modelling approaches are applied.</p> <p>SEPA will seek to incorporate additional surface water data into the flood maps to improve understanding of flood risk. Approximately 1,100km<sup>2</sup> of improved surface water data is currently available within this Local Plan District. The inclusion of additional surface water hazard data resulting from the</p>	SEPA	SEPA's current Surface water hazard maps use design rainfall estimates based on FEH99 methodology, this has now been superseded by FEH13 methodology. The FEH13 dataset contains the latest science and understanding of rainfall across Scotland and represents a significant change in rainfall amounts compared to FEH99 dataset, as such it is no longer consider appropriate to deliver this action as originally intended.	This action will not be taken forwards as described. SEPA will develop new Surface water flood hazard maps over the remainder of Cycle 1. It is anticipated that updated flood mapping from this revised action will be available early in Cycle 2. Alongside this SEPA is investigating the feasibility of developing an interim approach to assess the change in Surface water hazard (and risk) associated with FEH13, such that we could consider it in the development of the 2021 FRM Strategies.

Solway Local Plan District Local Flood Risk Management Plan 2016-2022: INTERIM REPORT

Action	Status	Description	Delivery Lead	Interim Report	Revised dates and planned actions to complete / address delay
		completion of local authority surface water management plans will be considered as these projects are completed.			
Strategic Mapping and Modelling	<b>G</b>	Scottish Water will carry out an assessment of flood risk within the highest risk sewer catchments to improve knowledge and understanding of surface water flood risk.	Scottish Water	Works complete.	
Awareness Raising	<b>G</b>	For details see "Progress with LPD-wide Actions".			
Emergency Plans / Response	<b>A</b>				
Flood Forecasting	<b>G</b>				
Self Help	<b>G</b>				
Maintance	<b>A</b>				
Planning Policies	<b>A</b>				

### Palnackie (Potentially Vulnerable Area 14/20)

Local Plan District	Local authority	Main catchment
Solway Local Plan District	Dumfries and Galloway Council	Stewartry Coastal



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#### Summary of Progress for Palnackie

There are approximately less than 10 residential properties at risk of flooding. The Annual Average Damages are approximately £3,000. Further information can be found in LFRMP under PVA 14/20. Page 228 of the SLPD Local Flood Risk Management Plan (<http://www.dumgal.gov.uk/flooding/>)

Key progress in reducing the impacts of flooding since publication:

- Responsible Authorities continue to meet the actions of the PVA highlighted within the Solway LFRMP.

#### Overview of actions to manage flooding in Palnackie

PVA	Flood protection scheme / works	Natural flood management works	New flood warning	Community flood action groups	Property level protection scheme	Site protection plans	Flood protection study	Natural flood management study	Maintain flood warning*	Awareness raising	Surface water plan / study	Emergency plans / response	Maintain flood protection scheme*	Strategic mapping and modelling	Flood forecasting	Self help	Maintenance	Planning policies
Palnackie (14/20)									✓	✓		✓	✓	✓	✓	✓	✓	✓

Summary of progress of actions to manage flood risk in Palnackie (PVA 14/20)

Action	Status	Description	Delivery Lead	Interim Report	Revised dates and planned actions to complete / address delay
Maintain Flood Warning	<b>G</b>	Continue to maintain the Rough Firth flood warning area which is part of the Solway coastal flood warning scheme. When flood events occur in an area with a flood warning service, SEPA will seek to verify and validate the warning service. SEPA will use feedback and post-event data to ensure that our flood warning service is timely and accurate.	SEPA	SEPA has continued to operate the flood warning service.	SEPA will continue to operate the flood warning service.
Maintain Flood Protection Scheme	<b>G</b>	Continue to maintain the existing Palnackie flood defences. The Palnackie flood protection works were constructed on behalf of Dumfries and Galloway Council in 2004 and involved replacing a stone lade with a culvert and new outlet.	DGC		Ongoing assessment of scheme to be undertaken as part of the Councils duties in accordance with Section 18.
Strategic Mapping and Modelling	<b>R</b>	Coastal Mapping Improvements SEPA will seek to develop flood mapping in the Gretna to Portpatrick area to improve understanding of coastal flood risk. The extent and timing of improvements will depend on detailed scoping and data availability. Where this work	SEPA	Coastal: Following the establishment of a coastal flood hazard map development framework and characterisation of the coastline, several projects are currently underway at this location:	It is anticipated that this action will progress to a study prior to the end of Cycle 1 however completion is likely to be in early Cycle 2. Topographic survey will be necessary prior to any modelling study.

Solway Local Plan District Local Flood Risk Management Plan 2016-2022: INTERIM REPORT

Action	Status	Description	Delivery Lead	Interim Report	Revised dates and planned actions to complete / address delay
		<p>coincides with local authority studies, SEPA will work collaboratively to ensure consistent modelling approaches are applied.</p> <p>SEPA will seek to incorporate additional surface water data into the flood maps to improve understanding of flood risk. Approximately 1,100km<sup>2</sup> of improved surface water data is currently available within this Local Plan District. The inclusion of additional surface water hazard data resulting from the completion of local authority surface water management plans will be considered as these projects are completed.</p>		<ul style="list-style-type: none"> <li>• Development of a national coastal joint probability dataset;</li> <li>• Update to the UK design extreme sea level dataset</li> </ul> <p>These projects/datasets will inform a future coastal modelling and mapping project for the coastline from Gretna to Loch Ryan.</p>	
Strategic Mapping and Modelling	<b>R</b>	<p>Pluvial Mapping Updates</p> <p>SEPA will seek to develop flood mapping in the Gretna to Portpatrick area to improve understanding of coastal flood risk. The extent and timing of improvements will depend on detailed scoping and data availability. Where this work coincides with local authority studies, SEPA will work collaboratively to ensure</p>	SEPA	<p>SEPA's current Surface water hazard maps use design rainfall estimates based on FEH99 methodology, this has now been superseded by FEH13 methodology. The FEH13 dataset contains the latest science and understanding of rainfall across Scotland and represents a significant change in rainfall amounts compared to FEH99 dataset, as such it is no</p>	<p>This action will not be taken forwards as described. SEPA will develop new Surface water flood hazard maps over the remainder of Cycle 1. It is anticipated that updated flood mapping from this revised action will be available early in Cycle 2. Alongside this SEPA will investigate the feasibility of developing an interim approach to assess the change in Surface</p>

Solway Local Plan District Local Flood Risk Management Plan 2016-2022: INTERIM REPORT

Action	Status	Description	Delivery Lead	Interim Report	Revised dates and planned actions to complete / address delay
		<p>consistent modelling approaches are applied.</p> <p>SEPA will seek to incorporate additional surface water data into the flood maps to improve understanding of flood risk. Approximately 1,100km<sup>2</sup> of improved surface water data is currently available within this Local Plan District. The inclusion of additional surface water hazard data resulting from the completion of local authority surface water management plans will be considered as these projects are completed.</p>		<p>longer consider appropriate to deliver this action as originally intended.</p>	<p>water hazard (and risk) associated with FEH13, such that we could consider it in the development of the 2021 FRM Strategies.</p>
Awareness Raising	<b>G</b>	For details see "Progress with LPD-wide Actions"			
Emergency Plans / Response	<b>A</b>				
Flood Forecasting	<b>G</b>				
Self Help	<b>G</b>				
Maintance	<b>A</b>				
Planning Policies	<b>A</b>				



### Southernness and Carsethorn (Potentially Vulnerable Area 14/21)

Local Plan District	Local authority	Main catchment
Solway Local Plan District	Dumfries and Galloway Council	Stewartry Coastal



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#### Summary of Progress for Southernness and Carsethorn

There are approximately 50 residential properties at risk of flooding. The Annual Average Damages are approximately £210,000. Further information can be found in LFRMP under PVA 14/21. Page 238 of the SLPD Local Flood Risk Management Plan (<http://www.dumgal.gov.uk/flooding/>)

Key progress in reducing the impacts of flooding since publication:

- Shoreline Management Plan Scope completed, Invitation to Tender issued March 2019.
- Responsible Authorities continue to meet the actions of the PVA highlighted within the Solway LFRMP.

#### Overview of actions to manage flooding in Southernness and Carsethorn

PVA	Flood protection scheme / works	Natural flood management works	New flood warning	Community flood action groups	Property level protection scheme	Site protection plans	Flood protection study	Natural flood management study	Maintain flood warning*	Awareness raising	Surface water plan / study	Emergency plans / response	Maintain flood protection scheme*	Strategic mapping and modelling	Flood forecasting	Self help	Maintenance	Planning policies
Southernness and Carsethorn (14/21)							✓		✓	✓		✓	✓	✓	✓	✓	✓	✓

Summary of progress of actions to manage flood risk in Southernness and Carsethorn (PVA 14/21)

Action	Status	Description	Delivery Lead	Interim Report	Revised dates and planned actions to complete / address delay
Flood Protection Study	<b>A</b>	A study is recommended to further develop the understanding of coastal flooding along the Solway coastline. This study should build on from the previous shoreline management plan to investigate flooding and coastal erosion, wave overtopping and the current coastal protection offered. The study may focus in detail on Potentially Vulnerable Areas however it could also look at the risk to other areas. The study will help to develop an understanding of coastal issues and identify where further work may be required to mitigate against flooding.	DGC	A scope for the Shoreline Management Plan Study has been completed, and an Invitation to Tender will be issued March 2019. The Shoreline Management Policy Study (SMPS) will reviews the 2005 Shoreline Management Plan policies. It will include extending and recommending updated policy for management of coastal flood and erosion risks along DGC coastline over a 100-year planning horizon. The updated policy may then be developed and adopted as a formal plan by Dumfries & Galloway Council at a later date.	A brief outline of proposed dates below: <ul style="list-style-type: none"> <li>• Invitation to Tender issued January 2019;</li> <li>• Study commence May 2019;</li> <li>• Study completed May 2021.</li> </ul>
Maintain Flood Warning	<b>G</b>	Continue to maintain the Southernness Point flood warning area which is part of the Solway coastal flood warning scheme. When flood events occur in an area with a flood warning service, SEPA will seek to verify and validate the warning service. SEPA will use feedback and post-event data to ensure that our	SEPA	SEPA has continued to operate the flood warning service.	SEPA will continue to operate the flood warning service.

Solway Local Plan District Local Flood Risk Management Plan 2016-2022: INTERIM REPORT

Action	Status	Description	Delivery Lead	Interim Report	Revised dates and planned actions to complete / address delay
		flood warning service is timely and accurate.			
Maintain Flood Protection Scheme	<b>G</b>	Southernness Flood Protection Scheme was completed in 1983 and consisted of a diversion pipe and field drainage system (pluvial flooding). The standard of protection is not known. Maintenance should be continued. Dumfries and Galloway Council also owns erosion defences of rock armour protecting roads in Carsethorn. There are also privately owned coastal defences in Carsethorn and Southernness including rock armour and stone walls.	DGC		Ongoing assessment of scheme to be undertaken as part of the Councils duties in accordance with Section 18.
Strategic Mapping and Modelling	<b>R</b>	SEPA will seek to develop flood mapping in the Gretna to Portpatrick area to improve understanding of coastal flood risk. The extent and timing of improvements will depend on detailed scoping and data availability. Where this work coincides with local authority studies, SEPA will work collaboratively to ensure	SEPA	Following the establishment of a coastal flood hazard map development framework and characterisation of the coastline, several projects are currently underway at this location: <ul style="list-style-type: none"> <li>• Development of a national coastal joint probability dataset;</li> <li>• Update to the UK design extreme sea level dataset</li> </ul>	It is anticipated that this action will progress to a study prior to the end of Cycle 1 however completion is likely to be in early Cycle 2. Topographic survey will be necessary prior to any modelling study.

Solway Local Plan District Local Flood Risk Management Plan 2016-2022: INTERIM REPORT

Action	Status	Description	Delivery Lead	Interim Report	Revised dates and planned actions to complete / address delay
		consistent modelling approaches are applied.		These projects/datasets will inform a future coastal modelling and mapping project for the coastline from Gretna to Loch Ryan.	
Awareness Raising	<b>G</b>	For details see "Progress with LPD-wide Actions"			
Emergency Plans / Response	<b>A</b>				
Flood Forecasting	<b>G</b>				
Self Help	<b>G</b>				
Maintance	<b>A</b>				
Planning Policies	<b>A</b>				

### Kirkcudbright (Potentially Vulnerable Area 14/22)

Local Plan District	Local authority	Main catchment
Solway Local Plan District	Dumfries and Galloway Council	Stewartry Coastal



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#### Summary of Progress for Kirkcudbright

There are approximately 90 residential properties and 40 non-residential properties at risk of flooding. The Annual Average Damages are approximately £240,000. Further information can be found in LFRMP under PVA 14/22. Page 249 of the SLPD Local Flood Risk Management Plan (<http://www.dumgal.gov.uk/flooding/>)

Key progress in reducing the impacts of flooding since publication:

- Shoreline Management Plan Scope completed, Invitation to Tender issued March 2019.

#### Overview of actions to manage flooding in Kirkcudbright

PVA	Flood protection scheme / works	Natural flood management works	New flood warning	Community flood action groups	Property level protection scheme	Site protection plans	Flood protection study	Natural flood management study	Maintain flood warning*	Awareness raising	Surface water plan / study	Emergency plans / response	Maintain flood protection scheme*	Strategic mapping and modelling	Flood forecasting	Self help	Maintenance	Planning policies
Kirkcudbright (14/22)							✓	✓	✓	✓		✓		✓	✓	✓	✓	✓

Summary of progress of actions to manage flood risk in Kirkcudbright (PVA 14/22)

Action	Status	Description	Delivery Lead	Interim Report	Revised dates and planned actions to complete / address delay
Flood Protection Study	<b>A</b>	A study is recommended to further develop the understanding of coastal flooding along the Solway coastline. This study should build on from the previous shoreline management plan to investigate flooding and coastal erosion, wave overtopping and the current coastal protection offered. The study may focus in detail on Potentially Vulnerable Areas however it could also look at the risk to other areas. The study will help to develop an understanding of coastal issues and identify where further work may be required to mitigate against flooding.	DGC	A scope for the Shoreline Management Plan Study has been completed, and an Invitation to Tender will be issued March 2019. The Shoreline Management Policy Study (SMPS) will reviews the 2005 Shoreline Management Plan policies. It will include extending and recommending updated policy for management of coastal flood and erosion risks along DGC coastline over a 100-year planning horizon. The updated policy may then be developed and adopted as a formal plan by Dumfries & Galloway Council at a later date.	A brief outline of proposed dates below: <ul style="list-style-type: none"> <li>• Invitation to Tender issued January 2019;</li> <li>• Study commence May 2019;</li> <li>• Study completed May 2021.</li> </ul>
Natural Flood Management Study	<b>G</b>	As part of the wider Galloway Glens Landscape Partnership Scheme, Dumfries and Galloway Council propose to investigate whether Natural Flood Management measures can be utilised on the small tributaries of the Dee to reduce flood risk to settlements in the Dee	DGC	Galloway Glens Partnership Natural Flood Management Scoping Study published 6 December 2016 <a href="http://www.gallowayglens.org/wp-content/uploads/2016/06/GG-NFM-Feasibility-Study.pdf">http://www.gallowayglens.org/wp-content/uploads/2016/06/GG-NFM-Feasibility-Study.pdf</a> The report highlights potential opportunities for NFM measures	The study and related flood model will be used to inform a smaller education and facilitation project through the delivery phase which will run from 2018 until 2023.

Solway Local Plan District Local Flood Risk Management Plan 2016-2022: INTERIM REPORT

Action	Status	Description	Delivery Lead	Interim Report	Revised dates and planned actions to complete / address delay
		catchment and provide other ecological and habitat benefits.		but these are subject to a number of complex considerations such as suitability in landscape terms, landowner approval and require a scale of operation not immediately possible through the Galloway Glens Landscape Partnership Scheme.	
Maintain Flood Warning	<b>G</b>	Continue to maintain the Kirkcudbright Bay flood warning area which is part of the Solway coastal flood warning scheme. When flood events occur in an area with a flood warning service, SEPA will seek to verify and validate the warning service. SEPA will use feedback and post-event data to ensure that our flood warning service is timely and accurate.	SEPA	SEPA has continued to operate the flood warning service.	SEPA will continue to operate the flood warning service.
Strategic Mapping and Modelling	<b>R</b>	SEPA will seek to develop flood mapping in the Gretna to Portpatrick area to improve understanding of coastal flood risk. The extent and timing of improvements will depend on detailed scoping and data availability. Where this work coincides with local authority	SEPA	Following the establishment of a coastal flood hazard map development framework and characterisation of the coastline, several projects are currently underway at this location:	It is anticipated that this action will progress to a study prior to the end of Cycle 1 however completion is likely to be in early Cycle 2. Topographic survey will be necessary prior to any modelling study.

Solway Local Plan District Local Flood Risk Management Plan 2016-2022: INTERIM REPORT

Action	Status	Description	Delivery Lead	Interim Report	Revised dates and planned actions to complete / address delay
		studies, SEPA will work collaboratively to ensure consistent modelling approaches are applied.		<ul style="list-style-type: none"> <li>Development of a national coastal joint probability dataset;</li> <li>Update to the UK design extreme sea level dataset</li> </ul> These projects/datasets will inform a future coastal modelling and mapping project for the coastline from Gretna to Loch Ryan.	
Strategic Mapping and Modelling	<b>G</b>	Scottish Water will carry out an assessment of flood risk within the highest risk sewer catchments to improve knowledge and understanding of surface water flood risk	Scottish Water	Works complete.	
Awareness Raising	<b>G</b>	For details see "Progress with LPD-wide Actions"			
Emergency Plans / Response	<b>A</b>				
Flood Forecasting	<b>G</b>				
Self Help	<b>G</b>				
Maintance	<b>A</b>				
Planning Policies	<b>A</b>				



## Braehead and Whauphill (Potentially Vulnerable Area 14/23)

Local Plan District	Local authority	Main catchment
Solway Local Plan District	Dumfries and Galloway Council	Galloway Coastal



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### Summary of Progress for Braehead and Whauphill

There are approximately less than 10 residential properties and non-residential properties at risk of flooding. The Annual Average Damages are approximately £200,000. Further information can be found in LFRMP under PVA 14/23. Page 262 of the SLPD Local Flood Risk Management Plan (<http://www.dumgal.gov.uk/flooding/>)

Key progress in reducing the impacts of flooding since publication

- Responsible Authorities continue to meet the actions of the PVA highlighted within the Solway LFRMP.

### Overview of actions to manage flooding in Braehead and Whauphill

PVA	Flood protection scheme / works	Natural flood management works	New flood warning	Community flood action groups	Property level protection scheme	Site protection plans	Flood protection study	Natural flood management study	Maintain flood warning*	Awareness raising	Surface water plan / study	Emergency plans / response	Maintain flood protection scheme*	Strategic mapping and modelling	Flood forecasting	Self help	Maintenance	Planning policies
Braehead and Whauphill (14/23)									✓	✓		✓			✓	✓	✓	✓

Summary of progress of actions to manage flood risk in Braehead and Whauphill (PVA 14/23)

Action	Status	Description	Delivery Lead	Interim Report	Revised dates and planned actions to complete / address delay
Maintain Flood Warning	<b>G</b>	Continue to maintain the Inner Wigtown Bay flood warning area which is part of the Solway coastal flood warning scheme. When flood events occur in an area with a flood warning service, SEPA will seek to verify and validate the warning service. SEPA will use feedback and post-event data to ensure that our flood warning service is timely and accurate.	SEPA	SEPA has continued to operate the flood warning service.	SEPA will continue to operate the flood warning service.
Awareness Raising	<b>G</b>	For details see "Progress with LPD-wide Actions"			
Emergency Plans / Response	<b>A</b>				
Flood Forecasting	<b>G</b>				
Self Help	<b>G</b>				
Maintance	<b>A</b>				
Planning Policies	<b>A</b>				

### Isle of Whithorn and Garlieston (Potentially Vulnerable Area 14/24)

Local Plan District	Local authority	Main catchment
Solway Local Plan District	Dumfries and Galloway Council	Galloway Coastal



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#### Summary of Progress for Isle of Whithorn and Garlieston

There are approximately 90 residential properties and 30 non-residential properties at risk of flooding. The Annual Average Damages are approximately £470,000. Further information can be found in LFRMP under PVA 14/24. Page 270 of the SLPD Local Flood Risk Management Plan (<http://www.dumgal.gov.uk/flooding/>)

Key progress in reducing the impacts of flooding since publication:

- Shoreline Management Plan Scope completed, Invitation to Tender issued March 2019.
- Responsible Authorities continue to meet the actions of the PVA highlighted within the Solway LFRMP.

#### Overview of actions to manage flooding in Isle of Whithorn and Carsethorn

PVA	Flood protection scheme / works	Natural flood management works	New flood warning	Community flood action groups	Property level protection scheme	Site protection plans	Flood protection study	Natural flood management study	Maintain flood warning*	Awareness raising	Surface water plan / study	Emergency plans / response	Maintain flood protection scheme*	Strategic mapping and modelling	Flood forecasting	Self help	Maintenance	Planning policies
Isle of Whithorn and Garlieston (14/24)							✓		✓	✓		✓	✓	✓	✓	✓	✓	✓

Summary of progress of actions to manage flood risk in Isle of Whithorn and Garlieston (PVA 14/24)

Action	Status	Description	Delivery Lead	Interim Report	Revised dates and planned actions to complete / address delay
Flood Protection Study	<b>A</b>	A study is recommended to further develop the understanding of coastal flooding along the Solway coastline. This study should build on from the previous shoreline management plan to investigate flooding and coastal erosion, wave overtopping and the current coastal protection offered. The study may focus in detail on Potentially Vulnerable Areas however it could also look at the risk to other areas. The study will help to develop an understanding of coastal issues and identify where further work may be required to mitigate against flooding.	DGC	A scope for the Shoreline Management Plan Study has been completed, and an Invitation to Tender will be issued March 2019. The Shoreline Management Policy Study (SMPS) will reviews the 2005 Shoreline Management Plan policies. It will include extending and recommending updated policy for management of coastal flood and erosion risks along DGC coastline over a 100-year planning horizon. The updated policy may then be developed and adopted as a formal plan by Dumfries & Galloway Council at a later date.	A brief outline of proposed dates below: <ul style="list-style-type: none"> <li>• Invitation to Tender issued January 2019;</li> <li>• Study commence May 2019;</li> <li>• Study completed May 2021.</li> </ul>
Maintain Flood Warning	<b>G</b>	Continue to maintain the Outer Wigtown Bay flood warning area which is part of the Solway coastal flood warning scheme. When flood events occur in an area with a flood warning service, SEPA will seek to verify and validate the warning service. SEPA will use feedback and post-event data to ensure that our	SEPA	SEPA has continued to operate the flood warning service.	SEPA will continue to operate the flood warning service.

Solway Local Plan District Local Flood Risk Management Plan 2016-2022: INTERIM REPORT

Action	Status	Description	Delivery Lead	Interim Report	Revised dates and planned actions to complete / address delay
		flood warning service is timely and accurate.			
Maintain Flood Protection Scheme	<b>G</b>	Whithorn Flood Protection Scheme was completed in 1991 and consisted of channel improvements to the Ket Burn and sewer relaying. The standard of protection is not known. Maintenance should be continued. Dumfries and Galloway Council has a number of coastal defences within this area including harbour walls and masonry/concrete walls at the Isle of Whithorn and Portyerrock. There are also privately owned seawalls in Isle of Whithorn and Rigg Bay	DGC		Ongoing assessment of scheme to be undertaken as part of the Councils duties in accordance with Section 18.
Strategic Mapping and Modelling	<b>R</b>	SEPA will seek to develop flood mapping in the Gretna to Portpatrick area to improve understanding of coastal flood risk. The extent and timing of improvements will depend on detailed scoping and data availability. Where this work coincides with local authority studies, SEPA will work collaboratively to ensure	SEPA	Following the establishment of a coastal flood hazard map development framework and characterisation of the coastline, several projects are currently underway at this location: <ul style="list-style-type: none"> <li>• Development of a national coastal joint probability dataset;</li> </ul>	It is anticipated that this action will progress to a study prior to the end of Cycle 1 however completion is likely to be in early Cycle 2. Topographic survey will be necessary prior to any modelling study.

Solway Local Plan District Local Flood Risk Management Plan 2016-2022: INTERIM REPORT

Action	Status	Description	Delivery Lead	Interim Report	Revised dates and planned actions to complete / address delay
		consistent modelling approaches are applied.		<ul style="list-style-type: none"> <li>Update to the UK design extreme sea level dataset</li> </ul> These projects/datasets will inform a future coastal modelling and mapping project for the coastline from Gretna to Loch Ryan.	
Awareness Raising	<b>G</b>	For details see "Progress with LPD-wide Actions"			
Emergency Plans / Response	<b>A</b>				
Flood Forecasting	<b>G</b>				
Self Help	<b>G</b>				
Maintance	<b>A</b>				
Planning Policies	<b>A</b>				

## Moniaive (Potentially Vulnerable Area 14/25c)

Local Plan District	Local authority	Main catchment
Solway Local Plan District	Dumfries and Galloway Council	



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### Summary of Progress for Moniaive

There are approximately 20 residential properties at risk of flooding. The Annual Average Damages are approximately £55,000. Further information can be found in LFRMP under PVA 14/25c. Page 281 of the SLPD Local Flood Risk Management Plan (<http://www.dumgal.gov.uk/flooding/>)

Key progress in reducing the impacts of flooding since publication:

- Moniaive Flood Study updated August 2016

### Overview of actions to manage flooding in Moniaive

PVA	Flood protection scheme / works	Natural flood management works	New flood warning	Community flood action groups	Property level protection scheme	Site protection plans	Flood protection study	Natural flood management study	Maintain flood warning*	Awareness raising	Surface water plan / study	Emergency plans / response	Maintain flood protection scheme*	Strategic mapping and modelling	Flood forecasting	Self help	Maintenance	Planning policies
Moniaive (14/25c)							✓			✓		✓	✓		✓	✓	✓	✓

Summary of progress of actions to manage flood risk in Moniaive (PVA 14/25c)

Action	Status	Description	Delivery Lead	Interim Report	Revised dates and planned actions to complete / address delay
Flood Protection Study	<b>G</b>	A flood protection scheme has previously been built in Moniaive to address flooding experienced within the town. As the scheme was built more than 50 years ago it is recommended that a study is undertaken to assess the current flood risk within Moniaive and if further work is required to reduce the level of risk in the area now or in the future, due to climate change.	DGC	Report finalised August 2016 ( <a href="http://www.dumgal.gov.uk/media/19608/Moniaive-Flood-Study-2016/pdf/Moniaive_Flood_Study_-_Aug_16.pdf?m=636428133531370000">http://www.dumgal.gov.uk/media/19608/Moniaive-Flood-Study-2016/pdf/Moniaive_Flood_Study_-_Aug_16.pdf?m=636428133531370000</a> )	
Maintain Flood Protection Scheme	<b>G</b>	A flood protection scheme was built in Moniaive to address flooding experienced within the town. The level of protection offered by the scheme is not currently known. A flood protection study is being carried out by Dumfries and Galloway Council to establish the level of protection offered by the current scheme and potential further work to reduce flood risk.	DGC		Ongoing assessment of scheme to be undertaken as part of the Councils duties in accordance with Section 18.
Awareness Raising	<b>G</b>	For details see "Progress with LPD-wide Actions"			
Emergency Plans / Response	<b>A</b>				
Flood Forecasting	<b>G</b>				



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Action	Status	Description	Delivery Lead	Interim Report	Revised dates and planned actions to complete / address delay
Self Help	G				
Maintenance	A				
Planning Policies	A				

### New Cumnock (Potentially Vulnerable Area 14/26c)

Local Plan District	Local authority	Main catchment
Solway Local Plan District	East Ayrshire Council	



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#### Summary of Progress for New Cumnock

There are approximately 240 residential properties and 60 non-residential properties at risk of flooding. The Annual Average Damages are approximately £520,000. Further information can be found in LFRMP under PVA 14/26c. Page 292 of the SLPD Local Flood Risk Management Plan (<http://www.dumgal.gov.uk/flooding/>)

Key progress in reducing the impacts of flooding since publication:

- New Cumnock Flood Prevention Scheme Promoted (Ph1 & Ph 2).
- Deemed Planning Received (Ph1 & Ph 2).
- Phase 1 (Leggate Works) Detailed design completed and commenced scheme works April 2018.
- Phase 1 (Leggate Works) substantially complete.
- Phase 2 (Afton Works) Detailed design completed and anticipated phase start early 2019.

#### Overview of actions to manage flooding in New Cumnock

PVA	Flood protection scheme / works	Natural flood management works	New flood warning	Community flood action groups	Property level protection scheme	Site protection plans	Flood protection study	Natural flood management study	Maintain flood warning*	Awareness raising	Surface water plan / study	Emergency plans / response	Maintain flood protection scheme*	Strategic mapping and modelling	Flood forecasting	Self help	Maintenance	Planning policies
New Cumnock (14/26c)	✓			✓	✓				✓	✓		✓		✓	✓	✓	✓	✓

Summary of progress of actions to manage flood risk in New Cumnock (PVA 14/26c)

Action	Status	Description	Delivery Lead	Interim Report	Revised dates and planned actions to complete / address delay
Flood Protection Scheme / Works	<b>G</b>	It is recommended that the council progress work on the proposed flood protection scheme in New Cumnock. Previous flooding and the New Cumnock Flood Study have shown a risk of flooding in the area and identified actions that would help mitigate the risk, including construction of flood defences along the Afton Water and Connel Burn and sediment management along the Afton Water.	EAC	Phase 1 Leggate Scheme works substantially Completed, Phase 2 Afton Scheme works Going to Tender December 2018 with anticipated start date of April 2019 (program 18 months).	Complete works as planned.
Community Flood Action Group	<b>G</b>	The community has formed the New Cumnock Flood Working Party, to help raise awareness of flood risk in the area.	Community	General Awareness raising is a continuous activity via ARA website for all Ayrshire. Supporting flood groups in New Cumnock is a monthly activity, we produce a monthly Newsletter of progress on the scheme and also contribute flooding updates to the ARA monthly Newsletter. All of these are available to elected members and the public.	Continue as before.
Property Level Protection Scheme	<b>G</b>	East Ayrshire Council have implemented a property level protection scheme in New	EAC	All known issues addressed however ability to still request	Continue to offer PLP to any requiring it.

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Action	Status	Description	Delivery Lead	Interim Report	Revised dates and planned actions to complete / address delay
		Cumnock. The council have provided the property level protection (including the installation of fixed elements) and have provided training on the use of this equipment in conjunction with the flood warning levels and appropriate actions. A flood warning system has been installed by East Ayrshire Council to support this action.		help through working party mentioned above.	
Maintain Flood Warning	<b>G</b>	East Ayrshire Council have a flood warning system for New Cumnock which monitors levels on the River Nith, Afton water and Connel Burn. When flood events occur in an area with a flood warning service, SEPA will seek to verify and validate the warning service. SEPA will use feedback and post-event data to ensure that the flood warning service is timely and accurate.	EAC	EAC have a flood warning system for New Cumnock which monitors levels on the River Nith, Afton water and Connel Burn. Pre-determined warning levels have been set for each location – Level 1 provides a warning that water levels have risen and Level 2 provides a warning that the watercourse is due to overtop. At both levels warning text alerts are sent to recipients, Level 1 advising them to be aware, Level 2 advising that action is required.	Continue as before.
Strategic Mapping and Modelling	<b>A</b>	SEPA will seek to develop flood mapping in the Upper River Nith area to improve understanding of flood risk. The extent and timing	SEPA	Following a screening exercise to characterise the catchment and identify the data necessary to support mapping	A project to combine existing modelling and new topographic data to support the revision of flood mapping for his area is

Solway Local Plan District Local Flood Risk Management Plan 2016-2022: INTERIM REPORT

Action	Status	Description	Delivery Lead	Interim Report	Revised dates and planned actions to complete / address delay
		of improvements will depend on detailed scoping and data availability. Where this work coincides with local authority studies, SEPA will work collaboratively to ensure consistent modelling approaches are applied.		improvements, a topographic survey of the catchment has been undertaken. A local authority study for New Cumnock has also been undertaken.	planned. This will be progressed with the action for PVA 14/01 (Kirkconnel). It is planned to complete this action by the end of Cycle 1.
Awareness Raising	<b>G</b>	For details see "Progress with LPD-wide Actions"			
Emergency Plans / Response	<b>G</b>				
Flood Forecasting	<b>G</b>				
Self Help	<b>G</b>				
Maintance	<b>G</b>				
Planning Policies	<b>G</b>				

## Other actions

This section sets out details of additional significant actions undertaken in the LPD by local authorities to contribute to the implementation of the current actions in the plan and the achievement of the objectives in the plan.

Although not initially identified in a Potentially Vulnerable Area, Carsphairn suffered significant flooding three separate occasions in 2013 and 2015 and was identified for further study works in the Solway Local Plan District Local Flood Risk Management Plan.

At Council Committee on 13th September 2016

(<https://dumfriesgalloway.moderngov.co.uk/Data/Economy,%20Environment%20and%20Infrastructure%20Committee/201609131030/Agenda/att41924.pdf>), Members agree to use revenue monies to install temporary concrete barriers to retain floodwater within the active floodplain to protect Carsphairn, and works started December 2016, and were completed April 2017. Due to land negotiations, the agreement for siting of the temporary barrier around one property are upto 4th December 2019, at which time land access will need to have been renegotiated, or the barriers will need to be removed.

## List of Acronyms and Abbreviations

FRM	Flood Risk Management
ICS	Integrated Catchment Study
LFRMP	Local Flood Risk Management Plan
LPD	Local Plan District
NFM	Natural Flood Management
PVA	Potentially Vulnerable Area
Q&S	Quality & Standards (Scottish Water)
SEPA	Scottish Environment Protection Agency
SR10 / 15	Spending Review periods for 2010-2015 and 2016-2021 for Scottish Water capital maintenance expenditure
SWMP	Surface Water Management Planning
Solway LPD	Solway Local Plan District
SFF	Scottish Flood Forum
DGC	Dumfries and Galloway Council
EAC	East Ayrshire Council
SAC	South Ayrshire Council
SBC	Scottish Borders Council
SLC	South Lanarkshire Council

# Appendix 1: Flood risk management responsibilities in Scotland and the legal requirement for the publication of this INTERIM REPORT



## Flood risk management in Scotland

The Scottish Ministers, SEPA and responsible authorities must exercise their flood risk related functions with a view to reducing overall flood risk (reference Section 1 (1) of the Flood Risk Management (Scotland) Act 2009).

Through the preparation of a national flood risk assessment and setting of objectives to reduce the level of flood risk by SEPA, which is published in Flood Risk Management Strategy, and the publication of Local Flood Risk Management Plan's by 'lead' local authorities, which detail how and when the actions agreed to meet these objectives are to be done, SEPA and all responsible authorities must act to manage flood risk in a sustainable way.

Flood Risk Management Strategy for Solway Local Plan District  
Local Flood Risk Management Plan for Solway Local Plan District

### Legal requirement

This document sets out the conclusions of the review of the Local Flood Risk Management Plan (LFRMP) for the Solway Local Plan District (LPD) as required by Section 37 of the Flood Risk Management (Scotland) Act 2009 (the "Act").

#### **37 Local flood risk management plans: interim report**

- (1) Not earlier than 2 years and not later than 3 years after a local flood risk management plan is finalised, the lead authority must —
- (a) review the plan, and
  - (b) publish a report on the conclusions of the review including information on the progress that has been made towards implementing the measures identified in the implementation part of the plan.
- (2) The lead authority must make copies of the report available for public inspection.

The Solway LPD LFRMP, which includes the 'implementation part of the plan', was published in June 2016. The Interim Report is therefore to be published between July 2018 and June 2019. The Interim Report will provide a summary of the LFRMP actions ('measures') and the proposed delivery timescales.

The information on progress will include:

- an assessment of the progress towards implementing each of the actions;

## Solway Local Plan District Local Flood Risk Management Plan 2016-2022: INTERIM REPORT

- reasons for any actions where delivery is not as planned; and
- a description of arrangements planned to deliver the remaining actions and to address delayed actions.

The Interim Report is published by the 'lead authority' as defined by Section 34(9) of the Act in partnership with SEPA and the 'responsible authorities', as defined by Section 5 of the Act, will be in the LPD. The approval of the Interim Report will be in accordance with the agreed governance arrangements in the LPD. The responsible authorities for the Solway LPD are:

- Dumfries and Galloway Council (lead authority)
- South Ayrshire Council
- South Lanarkshire Council
- East Ayrshire Council
- Scottish Borders Council
- SEPA
- Forestry Commission Scotland
- Scottish Water.

The lead authority must also publish a Final Report on the LFRMP under Section 38 of the Act between July 2021 and June 2022 (not earlier than 5 years and not later than 6 years from the publication of the plan). The Final Report will provide an assessment of current actions and a summary of current actions not implemented, with reasons for their non-implementation. The Final Report will also include a description of any other measures implemented, which the lead authority considers have contributed to the achievement of the objectives summarised in the LFRMP.

## Publication

The published Interim Report for the Solway LPD LFRMP will be made available for public inspection, as per Section 37(2) of the Act, via the website of the lead authority, Dumfries and Galloway Council:

<http://www.dumgal.gov.uk/flooding>; search for "Interim Report LFRMP".

Links to the published Interim Report for the Solway LPD LFRMP will also be provided from Scottish Government, SEPA and other responsible authority websites.

A hard (paper) copy of the published Interim Report for the Solway LPD LFRMP is also available for public inspection on weekdays between 9am and 5pm at the following location(s):

Dumfries and Galloway Council, Kirkbank House, English Street, Dumfries, DG1 2DD.

Copies of the published Interim Report for the Solway LPD LFRMP may also be available at offices of other responsible authorities. It is advised that the responsible authority be contacted to make such arrangements.

Detailed arrangements for publication of the Interim Report for Solway LPD LFRMP are in Appendix 2.

## Appendix 2: Publication details (Solway LPD example)

## **Flood Risk Management (Scotland) Act 2009**

### **Publication of Interim Report for the Solway Local Flood Risk Management Plan – Summary of Proposed Communications Activities**

The following communications activities will be used to publicise and make the interim report available:

- Upon finalising the Interim Report for the Tay Local FRM Plan, Sections 37(2), 53 and 54 of the Flood Act also specifically require Perth and Kinross Council, as the lead authority, to
  - Publish an Interim Report on the Solway Local FRM Plan;
  - Make copies of the Interim Report available for public inspection free of charge and at all reasonable times;
  - Publicise the arrangements for making it available by means of a notice in the appropriate newspapers (at least one Scottish newspaper and such local newspapers within the LPD as considered appropriate)
- The Interim Report for the Solway Local FRM Plan will be published in a hard copy format and a pdf version will also be made available on the Council's website at <http://www.dumgal.gov.uk/flooding>
- Hard copies of the Interim Report for the Solway Local FRM Plan will be held and made available upon request within the Council's Area office (Kirkbank House, English Street, Dumfries, DG1 2DD) in a similar process to the public viewing of planning applications.
- A letter (with a pdf version on DVD) will be sent to SEPA and the Scottish Ministers.
- On or before the publication date [to be advised], public notices will be placed in the *Scotsman*, *Edinburgh Gazette*, *the Courier* and *Stirling Observer* fulfilling our duties to publicise the Interim Report in accordance with Sections 37, 53 and 54 of the 2009 Act.
- In June 2016, letters were issued to each community council that falls within a PVA to notify them of the publication of the Solway Local FRM Plan and how to access it both electronically and in hard copy. We will send these community councils a further letter to update and inform them of the publication of the Interim Report.
- Subject to the agreement of the Solway LPD Partnership, a draft of the Interim Report will be uploaded to the Council's web site at <http://www.dumgal.gov.uk/flooding>
- Announcements will be posted on social media (the Dumfries and Galloway Council Facebook and Twitter pages).

As the lead authority for the Solway LPD, we would suggest that the other local authorities within the Solway LPD Partnership undertake the following minimum activities in order to coordinate communications across the Solway LPD as follows:

- Write to the relevant Community Councils within the PVAs in their local authority area to alert them to the publication of the Interim Report and advise them how to access it. They

can then disseminate this information to their members and potentially other local groups that the Council may not have contact with.

- Update Council webpages to provide an update on the Flood act and a link to the Tay Local FRM Plan and SEPA strategies.
- Social media announcements. Each local authority will be able to share / like / retweet each other's social media posts to increase the audience reached.

SEPA, Scottish Flood Forum, Forestry Commission Scotland and Scottish Water are also invited to advertise the publication of the Interim Report on their websites and via social media.