

# Flood Risk Management (Scotland) Act 2009

## Solway Local Plan District

### Local Flood Risk Management Plan

## FINAL 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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## Summary Solway Local Flood Risk Management Plan

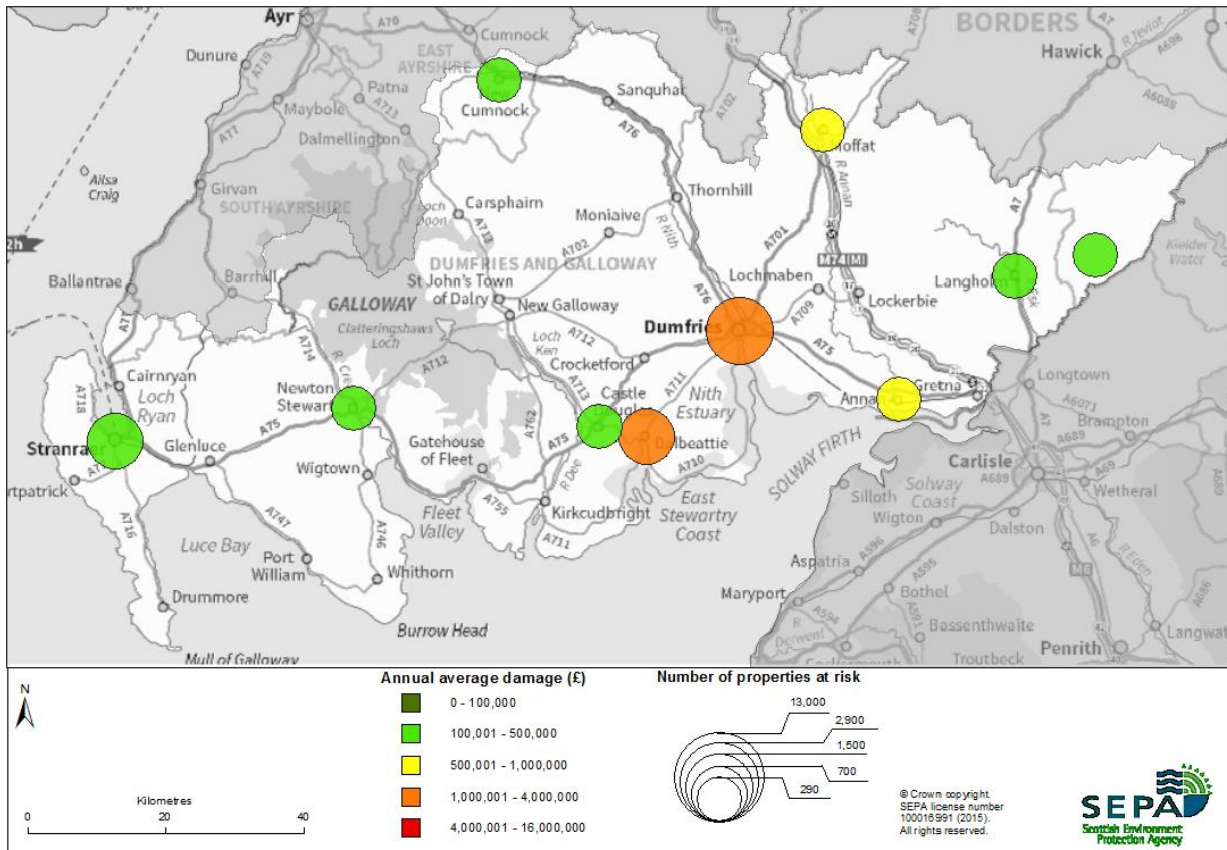


Figure 1: Map of flooding impacts. (Reproduced from Solway Local Plan District Local Plan District Flood Risk Management Strategy, SEPA (December 2015))

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 of these are located in Dumfries and Galloway; one in East Ayrshire; and one in Scottish Borders. The Plan District area covers an area approximately 6,426km<sup>2</sup>.

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Action	Number	Action	Number
Flood protection 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

Table 1: Action List

## Foreword

This FINAL REPORT to the Local Flood Risk Management Plan shows the progress made in delivering actions to avoid and reduce the risk of flooding, and to 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 FINAL REPORT demonstrates the long-term coordinated and collaborative efforts of public bodies to deliver sustainable outcomes.

The FINAL 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 and Land Scotland.

Individuals are the first line of defense against flooding and have responsibilities to protect themselves from flooding. Through self-help and property flood resilience measures, awareness raising and registering with 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 FINAL REPORT.

Since publication of the Plan in June 2016, public sector finances in Scotland have continued to be under considerable pressure, even more so with the impact of the pandemic and most recently the cost-of-living crisis. This places an even greater responsibility on SEPA, local authorities, 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, 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 FINAL REPORT is a legal requirement of the Flood Risk Management (Scotland) Act 2009 (Section 38). The FINAL REPORT is required to be published on 22 December 2022. The FINAL 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 towards implementing actions identified in the Plan.

Further details on flood risk management responsibilities in Scotland and the legal requirement for the publication of this FINAL 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 follow 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 conclusions of the Plan review, and a summary of action delivery progress detailed in Solway Local Plan District Local Flood Risk Management Plan.

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

- Following public consultation, the Council confirmed the preferred scheme for Whitesands. Over 300 objections were received, and the Council therefore requested Scottish Government hold a Public Local Inquiry (PLI). The PLI began in November 2018 and concluded with written submissions in January 2019. The reporter submitted their report to Scottish Ministers who subsequently approved the scheme to progress in March 2020. The next step will be to carry out detailed design once the Council has appointed a consultant.
- Works towards a flood protection scheme for Langholm began in August 2018 with the appointment of a consultant to identify a preferred option which was presented to the community.
- A preferred option was identified for Newton Stewart flood protection scheme, and following public consultation and committee approval, outline design has progressed in preparation for publication of the scheme in early 2023.
- 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 standard of protection, a favorable benefit-cost ratio (BCR) was not evident.
- The Shoreline Management Plan has been progressed. Public consultation was undertaken between June and September 2022 on the draft Shoreline Management Plan. Final publication will be early 2023 following committee approval.
- New Cumnock Flood Prevention Scheme is due to complete construction in early 2023.
- Works on the Newcastleton Flood Study are nearing completion, and the Final Appraisal Reports was completed.
- Newcastleton Surface Water Management Plan was completed in 2019.
- SEPA launched five new flood warning services for the Solway Local Plan District; Upper Nith at Kirckonnel, River Cree, River Esk at Langholm and for the Solway Firth coast.
- Dumfries and Galloway Council and Scottish Borders Council continue to operate a Subsidy Scheme offering property flood resilience measures at a discounted cost to the business and residential properties across the region. Over 550 properties across Dumfries and Galloway have purchased property flood resilience measures to date.
- Stranraer Flood Protection works are programmed to be complete by summer 2023.

## 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 have informed the delivery of 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 FINAL REPORT, is current, albeit the planned delivery, and actual delivery, 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 FINAL 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 in both staffing and consultancy service. The Covid-19 Pandemic has also had a significant impact on a number of Actions.

## Significant weather events

The Solway Local Plan District LPD was adversely affected by a number of significant weather events notably, in late 2015, October 2021 and February 2022 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 caused consequential delays in the planned delivery of actions as staff resource, which would have been delivering planned actions, had 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 FINAL 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 the Plan was dependent on the availability of the necessary funding in each year of the six-year Plan'.

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.

Local Authorities have undergone a significant review of capital and revenue funding. Resulting changes reduced funding towards flood risk management leading to some actions being delayed. Dumfries and Galloway Council has continued to fund the requirements of the Solway LFRMP to the levels outlined by Scottish Government while balancing priorities.

The Dumfries and Galloway Council's Flood Risk Management Team has been under-resourced on occasions due to staff secondments and difficulties in recruitment. Dumfries and Galloway Council's Flood Risk Management Team continued to progress actions in the plan (funding and resources permitted).

Dumfries and Galloway Council has prioritised its resources to support ongoing Flood Scheme development, Flood Studies and delivery statutory duties.

## Allocation of Resources

The availability and retention of skilled staff from other council services to support 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. In particular the council has had difficulties with tender returns and retention of staff within appointed consultants.

## Cost increases

Delays to the anticipated timescales of scheme delivery as published in the Cycle 1 Plan have resulted in cost increases for all three flood protection schemes.

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The Whitesands project costs have increased as a result of the Public Local Inquiry, and the delay in appointing a consultant to design and deliver the scheme following the Scottish Ministers decision to confirm the scheme will have consequential impact on costs. Costs have increased from the estimated £30.84M to £35.5M.

Initial costs of Langholm Flood Protection Scheme were based on a 1:25 year return period standard of protection (SoP) 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 £8.6M to protect 264 properties.

The initial flood study for Newton Stewart highlighted a positive benefit-cost ratio (BCR) was only achievable for Newton Stewart and did not include Minnigaff. Further investigations during the outline design stage demonstrated that in protecting both Newton Stewart and Minnigaff, a positive BCR was achieved. As a result of providing defenses to a more extensive area within Newton Stewart to include Minnigaff, the scheme costs rose from £7.9m to approximately £16.4M.

### The Covid-19 Pandemic

The global Covid-19 pandemic had significant impacts on service delivery nationally and internationally. This has significantly impacted the delivery of Cycle 1 Plan actions, in particular, the progress of flood protection schemes, flood modelling and the Shoreline Management Plan.

Due to national 'lockdowns' and subsequent restrictions, council staff were redeployed to facilitate national and local response, consultancy staff were placed on furlough, traditional methods of community engagement were not viable.

The Solway local plan partnership has continued to work together and progress actions though there have been many additional challenges through impacts of the pandemic on every aspect of life and the economy.

### Other actions

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

On 24 December 2020, SEPA was subject to a serious and complex cyber-attack, which significantly impacted the organisation, staff, public and private partners, and the communities who rely on SEPA's services. Since the attack, SEPA has worked with Scottish Government, Police Scotland, the National Cyber Security Centre (NCSC) and the Scottish Business Resilience Centre (SBRC), to a clear recovery strategy. The incident has, however, temporarily impacted progress on a number of actions

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such as new flood warnings, mapping and modelling projects and some engagement activities. Many of these projects are still going ahead but the timescales for them have been adjusted.

### **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 resilience group is set up to increase resilience to flooding, or that flood defenses 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 was set as December 2019. The actions submitted were 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 December 2022. Any actions that missed this deadline may therefore be delayed for consideration in the next cycle from 2028-34.

### **Arrangements planned to deliver the remaining actions**

On-going actions in the Plan will continue to be delivered into the next planning cycle period. This will be as per the published Plan, subject to revisions in delivery dates as detailed in the 'Assessment of the progress of actions' section of this FINAL REPORT.

The majority of actions in the Plan will be delivered by December 2022.

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

### **Next steps**

The second subsequent local Flood Risk Management Plan is currently in development for publication in December 2022. Some actions from the first Plan, particularly continuous actions such as clearance and repair works and watercourse inspections will be carried forward to continue in the new plan. Delivery of Cycle 1 flood protection schemes will continue into Cycle 2 delivery timeframe.

In the meantime, to find out more about how flood risk is being managed across the partnership please visit:

[Flooding – Dumfries and Galloway Council \(dumgal.gov.uk\)](https://dumgal.gov.uk)

[Flood Risk Management Plans – SEPA](#)

[Flooding – East Ayrshire Council \(east-ayrshire.gov.uk\)](https://east-ayrshire.gov.uk)

## Conclusions

This FINAL REPORT provides details on the progress that has been made in implementing the measures identified in the Plan, six 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 and works in the Plan published in June 2016 was ambitious. Issues around resource, timing, funding and restrictions relating to the pandemic have all had an effect on the progress of some actions during this cycle. As a result of significant flooding events, where the need has been identified, additional work has been carried out.

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 actions contained in the Solway Local Flood Risk Management Plan under challenging circumstances.

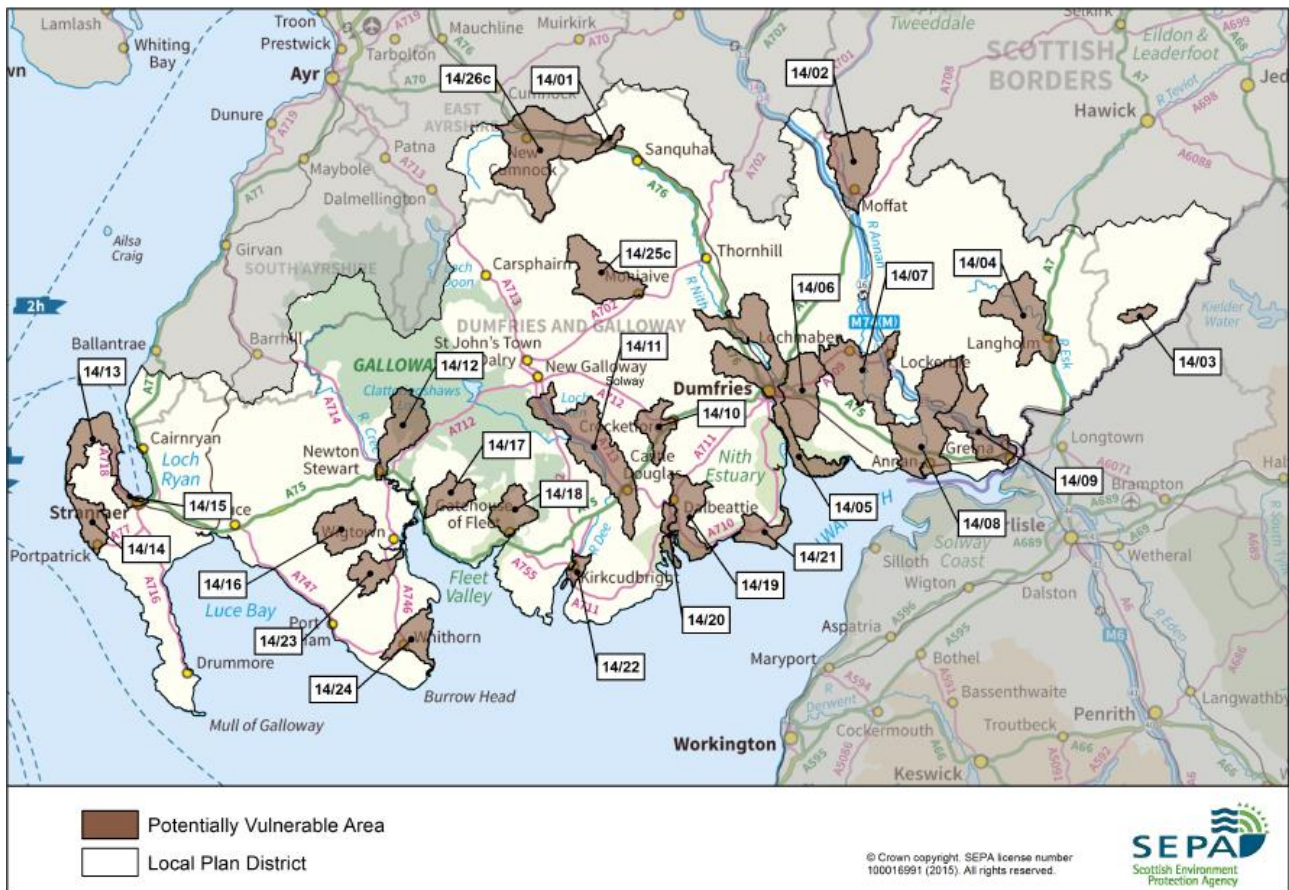
Implementation of the Solway Local Flood Risk Management Plan has, and will, continue to reduce risk for communities across the Solway Local Plan District which fully encompasses Dumfries and Galloway and gives strategic direction for the management of flood risk now and in the future.



## 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 completed.
- **AMBER** – Action has commenced but has not progressed as far as envisaged in the Plan.
- **RED** – Action has not commenced.

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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 protection scheme*	Strategic mapping and modelling	Surface water plan / study	Maintain flood warning*	Awareness raising	Emergency plans / response	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)																		
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Isle of Whithorn and Garlieston (14/24)																		
Moniavie (14/25c)																		
New Cumnock (14/26c)																		

**Table 2:** 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 3 overleaf.

Action	Status	Description	Delivery Lead	FINAL REPORT	Planned actions to complete / address delay
<b>Flood forecasting</b>	G	<p>The Scottish Flood Forecasting Service is a partnership between SEPA and the Met Office. The service continues to produce a daily, national flood guidance statement, issued to emergency responders, local authorities, and other organisations with flood risk management duties. In 2022 a new 3-day daily Scottish Flood Forecast was launched for the public.</p> <p>As the flood warning authority for Scotland SEPA continues to provide its flood warning service issuing flood alerts and warnings when required, giving people a better chance of reducing the impact of flooding on their home or business.</p>	SEPA	<p>Upper Nith / Cree / Esk / Solway Firth – Update Whitesands</p> <p>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 in partnership with the Met Office has developed a public version of the daily Flood Guidance Statement, the Scottish Flood Forecast, to provide better and earlier information to the public. A beta version of this product was launched in May 2022. It will be refined in the wake of user feedback. A more focused version of the product, producing guidance at a local level, is planned for the next flood risk management cycle. Options for developing forecasts of surface water flooding have been published in 2022 to help urban areas and the transport network improve their resilience to and preparedness for flooding. The development and wider roll-out of this service is being considered alongside the technical, resource and communication challenges associated with providing surface water flooding guidance.</p>
<b>Awareness raising</b>	G	<p>SEPA, the responsible authorities and other organisations such as the Scottish Flood Forum work together through national and local initiatives to help communities understand the risk of flooding and what actions individuals can take. Improved awareness of flood risk and actions that prepare</p>	Responsible Authorities	<p><b>SEPA</b></p> <p>SEPA has delivered a range of awareness raising activities through campaigning, education activities and 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</p>	<p><b>SEPA</b></p> <p>SEPA continued to raise awareness of flood risk through campaigning, developing education and engagement tools, creating new partnerships and improving the flood warning and forecasting service. Many of SEPA's awareness raising activities will continue. The focus will be on promoting flood warning and forecasting service, innovation, education and engagement with partners, customers and the public.</p> <p><b>Dumfries and Galloway Council</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>

Action	Status	Description	Delivery Lead	FINAL REPORT	Planned actions to complete / address delay
		<p>individuals, homes and businesses for flooding can reduce the overall impact of flooding.</p> <p>Local authorities undertake additional awareness raising activities when developing any specific project proposals and will engage with community resilience groups and local communities.</p> <p>Scottish Flood Forum support flood risk communities by raising community awareness, promoting self-help, developing community groups and establish a recovery support programme after a flood.</p>		<p>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 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>Dumfries and Galloway Council</b></p> <p>DGC officers attended a number of Community engagement sessions to promote weather related issues, and what actions are available.</p> <p><b>Scottish Borders Council</b></p> <p>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 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>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> <p>DGC will continue to raise awareness of the 'Flood Subsidy Scheme' to provide the community with subsidised property flood resilience products.</p> <p><b>Scottish Borders Council</b></p> <p>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 Flood Resilience Measures. 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>East Ayrshire Council</b></p> <p>Continue as before.</p> <p><b>Scottish Water</b></p> <p>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 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>

Action	Status	Description	Delivery Lead	FINAL REPORT	Planned actions to complete / address delay
				<p><b>East Ayrshire Council</b></p> <p>General Awareness raising is a continuous activity via ARA website for all Ayrshire.</p> <p>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.</p> <p>The community has formed the New Cumnock Flood Working Party, to help raise awareness of flood risk in the area</p> <p><b>Scottish Water</b></p> <p>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	G	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 flood resilience, signing up to Floodline and Resilient Communities initiatives, and	Responsible Authorities	<p><b>Dumfries and Galloway Council</b></p> <p>To date the number of requests for surveys from interested property owners is sitting at over 580 across the region, with a vast majority of those going on to purchase some form of PFR.</p> <p><b>Scottish Borders Council</b></p> <p>SBC operates a subsidised Flood Product Scheme throughout the Scottish Borders to offer all residents' access to affordable Property flood resilience. This is promoted through attendance at community meetings and undertaking visits to properties as requested. Scottish Borders Council Emergency Planning continues to promote and implement the Resilient Communities</p>	<p><b>Dumfries and Galloway Council</b></p> <p>DGC continue to promote and provide premises owners across the region access to subsidised property flood resilience measures 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>Scottish Borders Council</b></p> <p>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/downloads/download/73/flood_protection_products">https://www.scotborders.gov.uk/downloads/download/73/flood_protection_products</a>.</p> <p><b>East Ayrshire Council</b></p> <p>Ongoing community PFR training, Flood Warden/Scouts and resilience group promotion.</p>

Action	Status	Description	Delivery Lead	FINAL REPORT	Planned actions to complete / address delay
		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 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>Scheme, signing up 46 of 67 community areas within the Scottish Borders.</p> <p><b>East Ayrshire Council</b></p> <p>Community Engagement includes, PFR exhibitions, selection, surveys and appropriate and relevant information to enable clients to make the right decisions.</p> <p><b>Scottish Flood Forum</b></p> <p>SFF offered a wide range of support, advice and practical assistance on group development that covers preparing for flooding, funding and learning opportunities.</p> <p>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>SFF supported Moniaive and Tynron community groups to take part in a community flood alerting trial with RiverTrack.</p> <p>SFF promoted and delivered 3 peer-to-peer flood risk community networking events; produced 3 flood risk community focused newsletters which were sent to group and individuals across Scotland.</p>	
<b>Maintenance</b>	<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	Local Council Authority; Asset / Land Managers.	<p><b>Dumfries and Galloway Council</b></p> <p>In accordance with Section 18, DGC continue to assess watercourses, and have undertaken works deemed to substantially reduce flood risk across the region.</p> <p>DGC has replaced, where identified, a number of substandard trash screens.</p>	<p><b>Dumfries and Galloway Council</b></p> <p>DGC will continue to inspect watercourses to identify flood risks as part of the Councils duties in accordance with Section 18. Identified maintenance works will continue to be carried out on a risk-based priority.</p>

Action	Status	Description	Delivery Lead	FINAL REPORT	Planned actions to complete / address delay
		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.		<p>DGC have carried out clearance works where flood risk will be significantly reduced, DGC have undertaken a number of CCTV inspections of piped watercourses and installed access points for maintenance.</p> <p><b>Scottish Borders Council</b></p> <p>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>East Ayrshire Council</b></p> <p>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)</p> <p>Additionally EAC carry out approx. 40 km length watercourse inspections Bi-annually, and action any issues identified, actions vary from notifying Riparian Landowners to taking direct action where appropriate</p>	<p><b>Scottish Borders Council</b></p> <p>SBC continue to undertake a regime of watercourse inspections on a risk-based approach, updating and publishing online the Section 18 Clearance &amp; Repair Schedule and undertaking the necessary repairs to reduce flood risk</p> <p><b>East Ayrshire Council</b></p> <p>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>
<b>Emergency plans / response</b>	<b>G</b>	Many organisations, including local authorities, the emergency services and SEPA provide an emergency response to flooding. Emergency plans are prepared and maintained under the Civil Contingencies Act 2004 by Category 1 and 2 Responders and are coordinated through regional	Category 1 & 2 Responders	<p><b>Dumfries and Galloway Council</b></p> <p>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</p>	<p><b>Dumfries and Galloway Council</b></p> <p>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 newer 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 coordinated manner. Currently, these newer Flood Warning Schemes are in the process of "bedding in".</p>



Action	Status	Description	Delivery Lead	FINAL REPORT	Planned actions to complete / address delay
		and local resilience partnerships, often supported by voluntary organisations. They set out the steps to be taken to maximise safety and minimise impacts during flooding. Emergency plans may also be prepared by individuals, businesses, organisations or communities. Scottish Water is a Category 2 responder under the Civil Contingencies Act 2004 and will support regional and local resilience partnerships as required.		<p>Scotland, such as Ayrshire Local Resilience Partnership and Police Scotland Emergency Planning.</p> <p><b>Scottish Borders Council</b></p> <p>Reviewed and updated Severe Weather Plan in July 2018. This included review and update of 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>East Ayrshire Council</b></p> <p>Emergency Response Planning is carried out by Ayrshire Civil Contingencies Team (ACCT) this is an all Ayrshire shared service.</p> <p>ACCT update and co-ordinate (all Emergency Responders) the emergency response plans (ERP) as required (in direct consultation with ARA, where appropriate).</p> <p>In addition to the ERP EAC has implemented a system of river monitors in known areas and a rota of Flood Scouts (FS). Is maintained who are tasked to monitor and report back on status on receipt of any alarm.</p>	<p><b>Scottish Borders Council</b></p> <p>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>East Ayrshire Council</b></p> <p>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. 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.</p>
<b>Planning Policy</b>	G	Local authorities, SEPA and Scottish Water all have a responsibility under the Flood Risk Management (Scotland) Act 2009 to support sustainable flood risk management through the	Planning Authority – Local Council Authority	<p><b>Dumfries and Galloway Council</b></p> <p>All Planning Authorities within the LPD continue to ensure that new developments satisfy relevant guidance and policies on flooding and drainage.</p> <p>The DGC Local Development Plan 2 was adopted in October 2019 and the written policies give guidance on</p>	<p><b>Dumfries and Galloway Council</b></p> <p>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.</p>

Action	Status	Description	Delivery Lead	FINAL REPORT	Planned actions to complete / address delay
		<p>land use planning process.</p> <p>National planning policies set out the Scottish Ministers' priorities for the development and use of land. Under this approach, new development in areas with medium to high likelihood of flooding should generally be avoided.</p> <p>Current national planning policies aim to restrict development within the floodplain and limit exposure of new receptors to flood risk, promote flood reduction via natural and structural flood management measures and restoration of natural features, and avoid increased surface water flooding through sustainable drainage and the minimisation of impermeable surfaces. Locally determined planning policies may place further requirements within their area of operation to restrict inappropriate development and prevent unacceptable risk.</p>		<p>all aspects of development, with a view of supporting sustainable development, including the reduction of overall flood risk by avoiding areas at risk of flooding.</p> <p><b>Scottish Borders Council</b></p> <p>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 flood risk, encourage sustainable flood risk management and comply with Scottish Planning Policy and the FRM Act 2009.</p> <p><b>SEPA</b></p> <p>SEPA continues to exercise its planning functions with a view to reducing overall flood risk. We effectively contribute to the delivery of sustainable flood risk management and we support the delivery of FRM Plans and Local FRM Plans. In line with the management actions that accord with national planning policies, we have and will continue to object to development at medium to high risk of flooding when it is contrary to the risk framework set out in Scottish Planning Policy. We have and will continue to engage from the start of the development plan process and encourage planning authorities to undertake a Strategic Flood Risk Assessment to inform their spatial strategy. We remain committed to exercising our planning functions with a view to reducing overall flood risk, and when a new national planning</p>	<p><b>Scottish Borders Council</b></p> <p>SBC will continue to provide advice on all relevant planning 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>



Action	Status	Description	Delivery Lead	FINAL REPORT	Planned actions to complete / address delay
				policy context is finalised later in 2022 via the National Planning Framework 4, we will take the same approach.	
<b>Strategic Mapping and Modelling (surface water)</b>	A	SEPA will be seeking to incorporate additional surface water hazard mapping information into the flood maps to improve understanding of flood risk. Approximately 2,100km <sup>2</sup> of improved data is currently available within this Local Plan District.	SEPA	SEPA's current Surface water hazard maps use design rainfall estimates based on FEH99 methodology, this has now been superseded by FEH22 methodology. The FEH22 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. A major national update of the surface water maps is underway which will deliver updated surface water flooding maps for Scotland representing the latest scientific understanding.	The national surface water flooding modelling project will be completed in 2023. The outputs from this will be used to update SEPA maps early in cycle 2 and will inform SEPA's flood risk assessments for the next flood risk management cycle.

Table 3: Progress with LPD-wide Actions for the Solway Local Plan District

## **Progress with PVA-specific Actions**

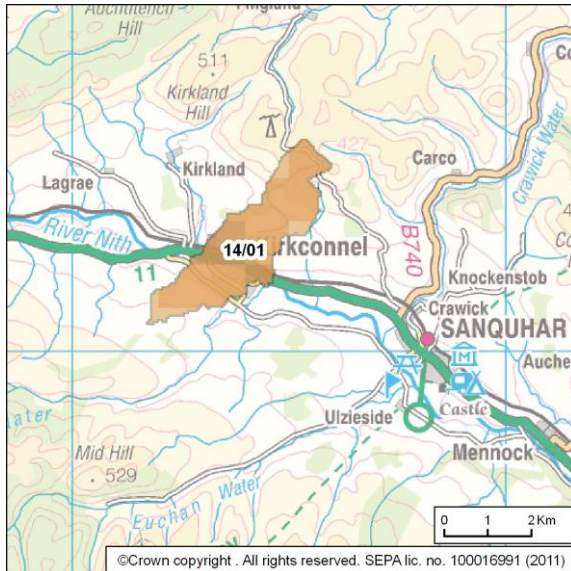
This section sets out an assessment of the progress towards implementing actions that are specific to each of the 26 PVA as shown in Figure 2. Assessments of the progress of actions within each PVA are presented.

There are no specific actions identified for 'property flood resilience measures' or 'site protection plans' actions. Consideration of property flood resilience measures 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.

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

**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



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## 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:

- The council and other responsible authorities continue to progress relevant LPD-wide actions for this area as detailed in Table 3.
- SEPA launched flood warning service for Upper Nith on 3<sup>rd</sup> March 2018.

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

## Overview of actions to manage flooding in Kirkconnel

	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																		
Kirkconnel (14/01)			✓				✓			✓		✓	✓	✓	✓	✓	✓	✓

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

Action	Status	Description	Delivery Lead	Final Progress	Revised dates and planned actions to complete / address delay
New Flood Warning	G	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	A new flood warning service for the Upper Nith at Kirkconnel was completed in 2018. SEPA has continued to operate the flood warning service since it was completed.	N/A
Flood Protection Study	G	A flood protection study has been completed by Dumfries and Galloway Council, to assess flood	DGC	Following floods in December 2013, a report was commissioned to look at the	Study completed in plan cycle.

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

Action	Status	Description	Delivery Lead	Final Progress	Revised dates and planned actions to complete / address delay
		<p>risk within Kirkconnel and the feasibility of flood protection actions to mitigate the risk.</p> <p>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.</p> <p>The study also considered a localised property flood resilience schemes giving consideration of the achievable flood warning times for the upper River Nith.</p> <p>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 /</p>		<p>flood risks from the River Nith and Polbower Burn. This report was subsequently updated following flooding in Storm Frank (December 2015).</p>	

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

Action	Status	Description	Delivery Lead	Final Progress	Revised dates and planned actions to complete / address delay
		when further work is required to investigate how to reduce the flood risk.			
Maintain Flood Protection Scheme	G	<p>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.</p> <p>A flood protection study has been carried out by Dumfries and Galloway Council to look at further action to reduce risk.</p>	DGC	Ongoing assessment of scheme to be undertaken as part of the Councils duties in accordance with Section 18.	Scheme maintenance is a recurring statutory process.
Strategic Mapping and Modelling	A	SEPA will seek to develop flood mapping in the Upper River Nith area to improve understanding of flood risk. The extent and timing	SEPA	Action not complete.	SEPA began working on river mapping updates in this area but upon review of the available information it is not appropriate

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

Action	Status	Description	Delivery Lead	Final Progress	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.			to complete the update at this time. A review of how modelling and mapping updates are undertaken is being conducted to develop a more effective method of regional and national updates.
Strategic Mapping and Modelling	G	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 2019	
Awareness Raising	G	For details see "Progress with LPD-wide Actions".			
Emergency Plans / Response	G				
Flood Forecasting	G				

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

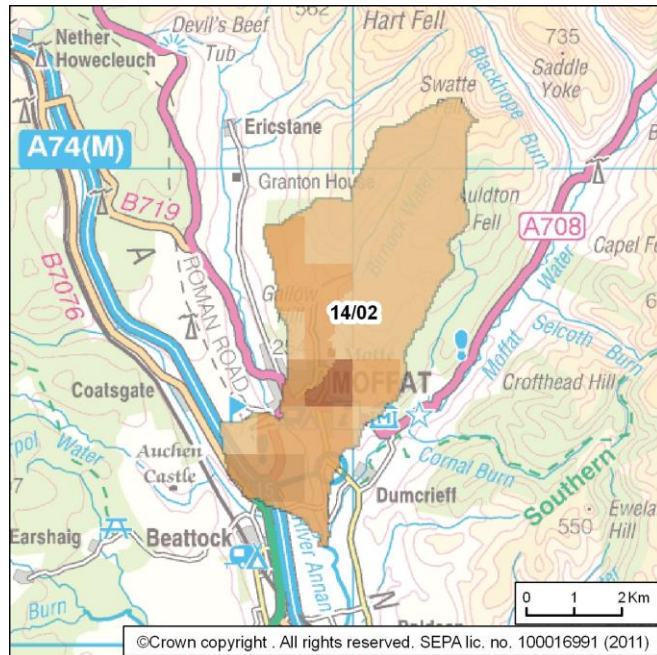
Action	Status	Description	Delivery Lead	Final Progress	Revised dates and planned actions to complete / address delay
Self Help	G				
Maintenance	G				
Planning Policies	G				



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

**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:**

- The council and other responsible authorities continue to progress relevant LPD-wide actions for this area as detailed in Table 3.
- Completion of a Flood Protection Study published 31<sup>st</sup> August 2018.
- The community have proactively purchased land from FLS and carried out vegetation planting to reduce surface water runoff

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

## 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	FINAL REPORT	Revised dates and planned actions to complete / address delay
Community Flood Action Groups	G	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	G	Moffat Flood Study which was completed in 2006, identified potential works within Moffat	DGC	Flood study completed August 2018, the study concluded that the number of properties	

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

Action	Status	Description	Delivery Lead	FINAL REPORT	Revised dates and planned actions to complete / address delay
		<p>including improvements to culverts and construction of flood defenses. Since this study further information has been gathered which has increased the confidence in the modelling.</p> <p>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.</p>		<p>at risk of flooding were far less than previously identified in the National Flood Risk Assessment 2011</p> <p>(<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>).</p> <p>The conclusions of the cost-benefit analysis were that the benefit-cost ratio for a direct defenses scheme providing 200 year level of protection is not economically viable.</p>	
Maintain Flood Protection Scheme	G	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	DGC	Ongoing assessment of scheme to be undertaken as part of the Councils duties in accordance with Section 18.	Scheme maintenance is a recurring statutory process.

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

Action	Status	Description	Delivery Lead	FINAL REPORT	Revised dates and planned actions to complete / address delay
		protection is 5 years. The flood study should investigate the potential enhancement of these defenses. Maintenance of this scheme should be continued.			
Strategic Mapping and Modelling	G	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 Eaglesfield 2017 and Moffat 2019	
Awareness Raising	G	For details see "Progress with LPD-wide Actions".			
Emergency Plans / Response	G				
Flood Forecasting	G				
Self Help	G				
Maintenance	G				

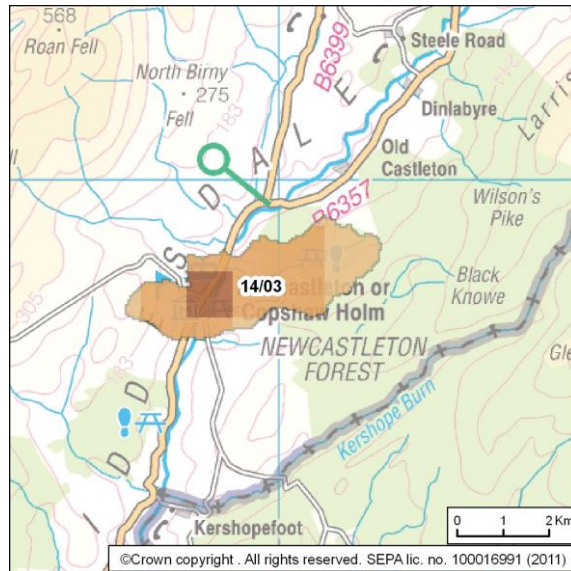
## Solway Local Plan District Local Flood Risk Management Plan 2016-2022: FINAL REPORT

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

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

**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:**

- The council and other responsible authorities continue to progress relevant LPD-wide actions for this area as detailed in Table 3.
- Works on the Newcastleton Flood Study are nearing completion, and the Final Appraisal Reports was completed.
- Newcastleton Surface Water Management Plan was completed in 2019.

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

## 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	FINAL REPORT	Revised dates and planned actions to complete / address delay
Community Flood Action Groups	G	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.

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

Action	Status	Description	Delivery Lead	FINAL REPORT	Revised dates and planned actions to complete / address delay
Flood Protection Study	G	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 defenses on the Liddel Water and further property flood resilience 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 within the timescales specified in the Solway LFRMP.	Complete final appraisal reports and assess outputs against Prioritisation criteria. This work is programmed for completion within the timescales specified in the Solway LFRMP.
Maintain Flood Warning	G	Continue to maintain the Newcastleton Village flood warning area which is part of the	SEPA	SEPA has continued to operate the flood warning service.	N/A



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

Action	Status	Description	Delivery Lead	FINAL REPORT	Revised dates and planned actions to complete / address delay
		<p>Newcastleton river 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>			
Surface Water Plan / Study	G	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.	Study completed in cycle timeframe.

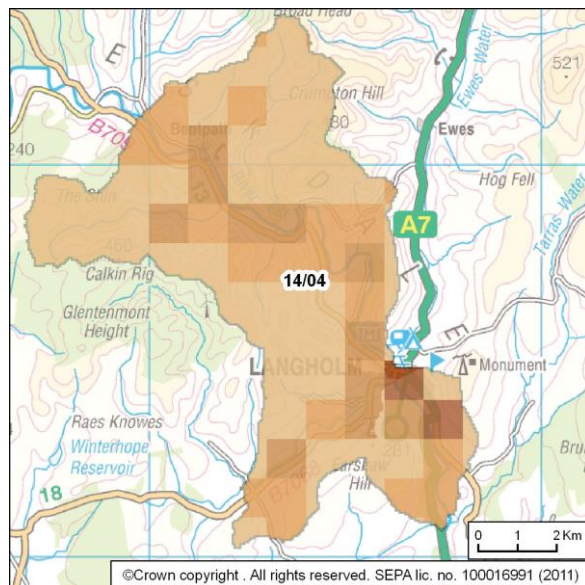
## Solway Local Plan District Local Flood Risk Management Plan 2016-2022: FINAL REPORT

Action	Status	Description	Delivery Lead	FINAL REPORT	Revised dates and planned actions to complete / address delay
Strategic Mapping and Modelling	G	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 2019.	
Awareness Raising	G	For details see "Progress with LPD-wide Actions".			
Emergency Plans / Response	G				
Flood Forecasting	G				
Self Help	G				
Maintenance	G				
Planning Policies	G				

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

**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:**

- The council and other responsible authorities continue to progress relevant LPD-wide actions for this area as detailed in Table 3.
- A new flood warning service for the River Esk was completed, with flood warning areas provided for Langholm (Esk) and Langholm (Wauchope).
- Consultant has been appointed to progress a scheme to outline design and flood order.
- Assessment of flooding at Holmwood, Langholm is complete. PFR is programmed to be installed in affected properties late 2022.

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

## 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	FINAL REPORT	Revised dates and planned actions to complete / address delay
Flood Protection Scheme / Works	A	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	DGC	A scheme of direct defences (combination of walls and embankments) has been determined as the optimum solution to protect Langholm from future flooding. There is however significant local opposition to such a scheme which led to one of the most	Timescales and prioritisation of Schemes is currently being considered by DGC to ensure delivery. The scheme will crossover into Cycle 2, however, funding for Cycle 1 was over 10 years (up to 2026).

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

Action	Status	Description	Delivery Lead	FINAL REPORT	Revised dates and planned actions to complete / address delay
		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 flood resilience.		<p>unpopular elements (a relief overflow channel across the local park area) being removed. An Environmental Impact Assessment is required and this is being costed at present.</p> <p>Delays have been experienced as a result of COVID-19 (which adversely affected on-site engagement, surveys, and resourcing), the aforementioned objection which resulted in further engagement with the Community, and the Scottish Government/COSLA review which had meant some decisions on progressing the project have been put on hold until the outcome of the review is known.</p>	

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

Action	Status	Description	Delivery Lead	FINAL REPORT	Revised dates and planned actions to complete / address delay
New Flood Warning	G	Continue with the development and implementation of flood warnings on the River Esk at Langholm.	SEPA	A new flood warning service for the River Esk was completed, with flood warning areas provided for Langholm (Esk) and Langholm (Wauchope). SEPA has continued to operate the flood warning service since it was completed.	N/A
Strategic Mapping and Modelling	G	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 2019.	
Maintenance	G	For details see "Progress with LPD-wide Actions".			
Awareness Raising	G				
Emergency Plans / Response	G				

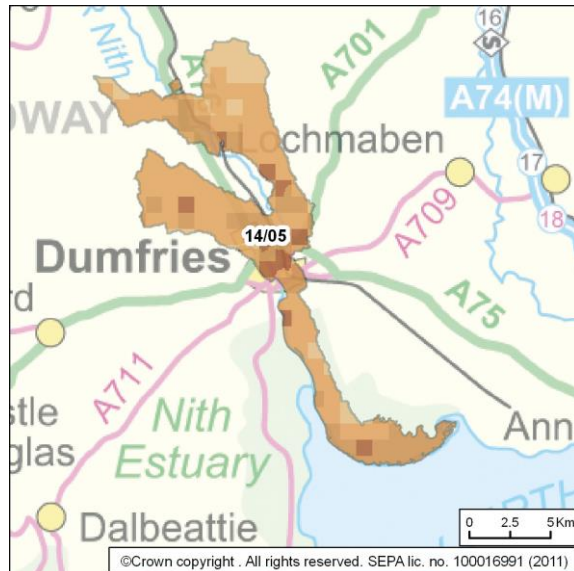
## Solway Local Plan District Local Flood Risk Management Plan 2016-2022: FINAL REPORT

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

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

**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:**

- The council and other responsible authorities continue to progress relevant LPD-wide actions for this area as detailed in Table 3.
- Whitesands project is now a confirmed flood protection scheme as at March 2020.
- Improvements undertaken on the Whitesands Flood Warning.
- Draft Shoreline Management Plan was put to public consultation between June and September 2022. Updated Plan to be publish in summer 2023.



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

## 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	FINAL REPORT	Revised dates and planned actions to complete / address delay
Flood Protection Scheme / Works	A	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	DGC	Scottish Ministers confirmed the Scheme without Modifications in March 2020, after reviewing the outcomes of the Public Local Inquiry (PLI) held in late 2018, DGC issued formal notification of the Scottish Ministers decision in 2020.	Timescales and prioritisation of Schemes is currently being considered by DGC to ensure delivery.  If the scheme is given a commitment to proceed, a realistic timescale would not see construction until 2025/2026.

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

Action	Status	Description	Delivery Lead	FINAL REPORT	Revised dates and planned actions to complete / address delay
		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 defenses along the River Nith in Dumfries.		The scheme has been delayed because of COVID-19, land ownership issues and discussions over the deemed planning consent (which is due to expire in March 2023, and the Scottish Government/COSLA review which had meant some decisions on progressing the project have been put on hold until the outcome of the review is known.	
New Flood Warning	G	The area under consideration includes properties affected by flooding from the Upper River Nith (from Kirkconnel downstream).	SEPA	A new flood warning service for the Upper Nith at Kirkconnel was completed in 2018. SEPA has continued to operate the flood	N/A

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

Action	Status	Description	Delivery Lead	FINAL REPORT	Revised dates and planned actions to complete / address delay
		Forecasting capability is currently under development in this area.		warning service since it was completed.	
Maintain Flood Warning	G	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.	SEPA	SEPA has continued to operate the flood warning service.	N/A
Surface Water Plan / Study	R	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	Surface water plan will not be delivered in the cycle timeframe.	Competing demands and budgets required the council to prioritise actions that were felt to deliver greatest benefits. There is a lower confidence in surface water flood risks therefore other actions were completed prior to these works. The council intend

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

Action	Status	Description	Delivery Lead	FINAL REPORT	Revised dates and planned actions to complete / address delay
					to address surface water issues in Cycle2 plan.
Strategic Mapping and Modelling	A	SEPA will seek to develop flood mapping in the Middle and Lower 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.	SEPA	Coastal: Work completed to date includes the production of key data sets including extreme water levels and offshore wave and wind conditions to support future coastal modelling work. Although this work has not been completed to the timescale described in the plan, the work that will be progressed will deliver a more comprehensive update of the coastal flood hazard maps across the whole area.  River: Action not complete. Surface water.	Coastal: SEPA will complete a review of coastal flood hazard mapping in south west Scotland including in this area. This includes identifying where taking account of the impact of waves on flooding from the sea may be required. SEPA will collect the required coastal defence asset and other information necessary to progress with improved flood modelling and mapping in the highest priority areas taking account of wave overtopping where required. SEPA will look for opportunities to progress future modelling work in a way that best supports improvements to

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

Action	Status	Description	Delivery Lead	FINAL REPORT	Revised dates and planned actions to complete / address delay
		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.		For updates see LPD wide actions.	SEPA's Coastal Flood Warning Schemes. Expected to progress to the next stage around the middle of cycle 2 and complete early in the following cycle subject to funding.  River: SEPA began working on river mapping updates in this area but upon review of the available information it is not appropriate to complete the update at this time. A review of how modelling and mapping updates are undertaken is being conducted to develop a more effective method of regional and national updates.
Strategic Mapping and Modelling	G	Scottish Water will carry out an assessment of flood risk within the highest risk sewer catchments to	Scottish Water	Works completed Lincluden 2017; Dalscone 2018 and Dumfries 2019.	

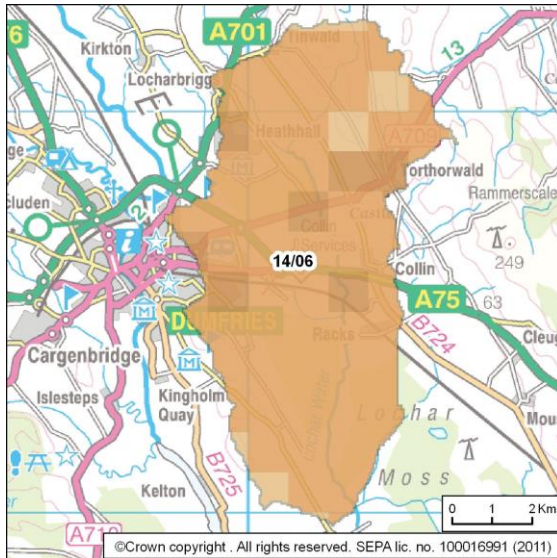
## Solway Local Plan District Local Flood Risk Management Plan 2016-2022: FINAL REPORT

Action	Status	Description	Delivery Lead	FINAL REPORT	Revised dates and planned actions to complete / address delay
		improve knowledge and understanding of surface water flood risk.			
Awareness Raising	G	For details see "Progress with LPD-wide Actions".			
Emergency Plans / Response	G				
Flood Forecasting	G				
Self Help	G				
Maintenance	G				
Planning Policies	G				

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

**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:**

- The council and other responsible authorities continue to progress relevant LPD-wide actions for this area as detailed in Table 3.
- Draft Shoreline Management Plan was put to public consultation between June and September 2022. Updated Plan to be publish in summer 2023.

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

## 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	FINAL REPORT	Revised dates and planned actions to complete / address delay
Surface Water Plan / Study	R	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	Surface water plan will not be delivered in the cycle framework.	Competing demands and budgets required the council to prioritise actions that were felt to deliver greatest benefits. There is a lower confidence in surface water flood risks therefore other actions were completed prior to these works. The council intend



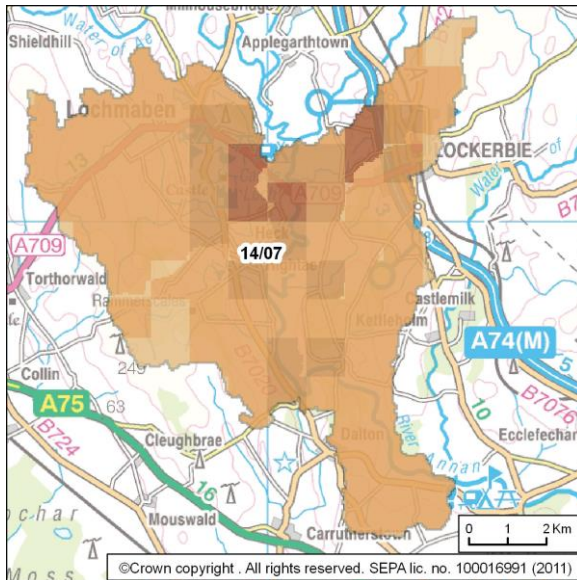
## Solway Local Plan District Local Flood Risk Management Plan 2016-2022: FINAL REPORT

Action	Status	Description	Delivery Lead	FINAL REPORT	Revised dates and planned actions to complete / address delay
					to address surface water issues in Cycle2 plan.
Strategic Mapping and Modelling	G	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 2019	
Awareness Raising	G	For details see "Progress with LPD-wide Actions".			
Emergency Plans / Response	G				
Flood Forecasting	G				
Self Help	G				
Maintenance	G				
Planning Policies	G				

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

**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:**

- The council and other responsible authorities continue to progress relevant LPD-wide actions for this area as detailed in Table 3.

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

## 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	FINAL REPORT	Revised dates and planned actions to complete / address delay
Strategic Mapping and Modelling	A	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	SEPA	Update on surface water mapping is provided in LPD wide actions.	Update on planned actions for surface water mapping is provided in LPD wide actions.

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

Action	Status	Description	Delivery Lead	FINAL REPORT	Revised dates and planned actions to complete / address delay
		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	G	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 Lochmaben 2017 and Lockerbie 2019	
Awareness Raising	G	For details see "Progress with LPD-wide Actions".			
Emergency Plans / Response	G				
Flood Forecasting	G				
Self Help	G				

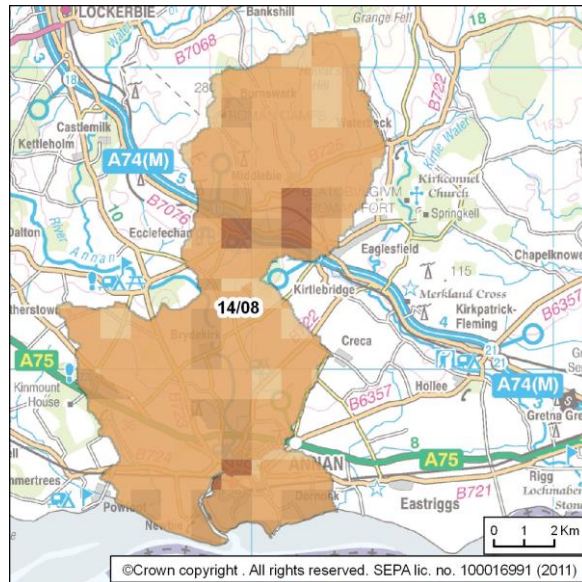
## Solway Local Plan District Local Flood Risk Management Plan 2016-2022: FINAL REPORT

Action	Status	Description	Delivery Lead	FINAL REPORT	Revised dates and planned actions to complete / address delay
Maintenance	G				
Planning Policies	G				

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

**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:**

- The council and other responsible authorities continue to progress relevant LPD-wide actions for this area as detailed in Table 3.
- Draft Shoreline Management Plan was put to public consultation between June and September 2022. Updated Plan to be publish in summer 2023.
- Flood Study completed on Surface water issues at Eaglesfield.

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

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

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
Ecclefechan - Annan (14/08)							✓		✓	✓	✓	✓		✓	✓	✓	✓	✓

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

Action	Status	Description	Delivery Lead	FINAL REPORT	Revised dates and planned actions to complete / address delay
Flood Protection Study	A	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	DGC	Shoreline Management Plan will not be delivered in the cycle timeframe.	Updated Shoreline Management Plan to be published in Summer 2023. It will include updated policy for management of coastal flood and erosion risks along DGC coastline over a 100-year planning horizon.

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

Action	Status	Description	Delivery Lead	FINAL REPORT	Revised dates and planned actions to complete / address delay
		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.			
Maintain Flood Warning	G	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.	N/A



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

Action	Status	Description	Delivery Lead	FINAL REPORT	Revised dates and planned actions to complete / address delay
		flood warning service is timely and accurate.			
Surface Water Plan / Study	R	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	The study has not started, however works undertaken by Scottish Water have largely addressed the known surface water flooding in Annan.	Competing demands and budgets required the council to prioritise actions that were felt to deliver greatest benefits. There is a lower confidence in surface water flood risks therefore other actions were completed prior to these works. The council intend to address surface water issues in Cycle2 plan.
Strategic Mapping and Modelling	A	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	SEPA	Surface water: Update on surface water mapping is provided in LPD wide actions  Coastal: Work completed to date includes the production of key data sets including extreme water levels and offshore wave and wind conditions to support	Surface water: Update on planned actions for surface water mapping is provided in LPD wide actions  Coastal: SEPA will complete a review of coastal flood hazard mapping in south west Scotland including in this area. This

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

Action	Status	Description	Delivery Lead	FINAL REPORT	Revised dates and planned actions to complete / address delay
		<p>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>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>future coastal modelling work. Although this work has not been completed to the timescale described in the plan, the work that will be progressed will deliver a more comprehensive update of the coastal flood hazard maps across the whole area.</p>	<p>includes identifying where taking account of the impact of waves on flooding from the sea may be required. SEPA will collect the required coastal defence asset and other information necessary to progress with improved flood modelling and mapping in the highest priority areas taking account of wave overtopping where required. SEPA will look for opportunities to progress future modelling work in a way that best supports improvements to SEPA's Coastal Flood Warning Schemes. Expected to progress to the next stage around the middle of cycle 2 and complete early in the following cycle subject to funding.</p>

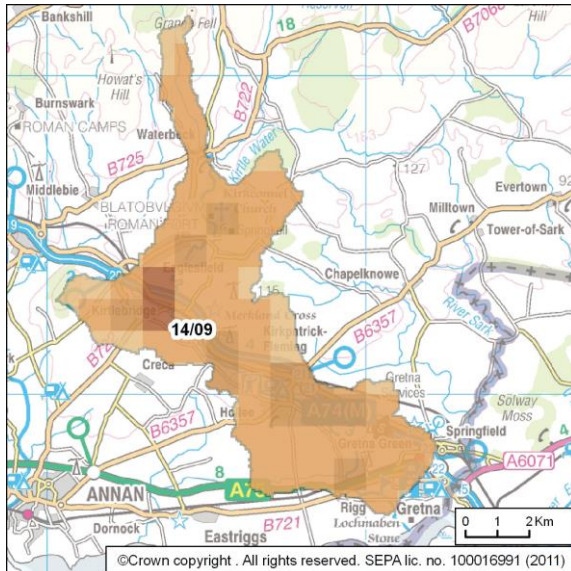
## Solway Local Plan District Local Flood Risk Management Plan 2016-2022: FINAL REPORT

Action	Status	Description	Delivery Lead	FINAL REPORT	Revised dates and planned actions to complete / address delay
Strategic Mapping and Modelling	G	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 2019.	
Awareness Raising	G	For details see "Progress with LPD-wide Actions".			
Emergency Plans / Response	G				
Flood Forecasting	G				
Self Help	G				
Maintenance	G				
Planning Policies	G				

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

**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:**

- The council and other responsible authorities continue to progress relevant LPD-wide actions for this area as detailed in Table 3.

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

## 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	FINAL REPORT	Revised dates and planned actions to complete / address delay
Maintain Flood Warning	G	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	SEPA has continued to operate the flood warning service.	N/A

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

Action	Status	Description	Delivery Lead	FINAL REPORT	Revised dates and planned actions to complete / address delay
		SEPA will use feedback and post-event data to ensure that our flood warning service is timely and accurate			
Strategic Mapping and Modelling	A	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	For final progress on surface water mapping, see progress with Local Plan District wide actions.	For final progress on surface water mapping, see progress with Local Plan District wide actions.

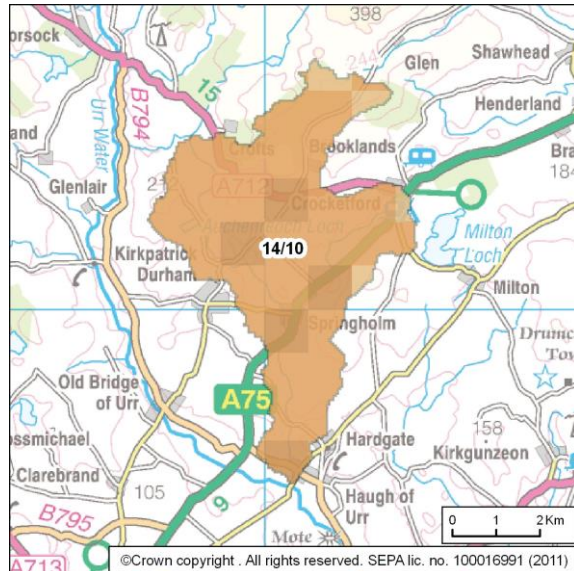
## Solway Local Plan District Local Flood Risk Management Plan 2016-2022: FINAL REPORT

Action	Status	Description	Delivery Lead	FINAL REPORT	Revised dates and planned actions to complete / address delay
Strategic Mapping and Modelling	G	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 2019.	
Awareness Raising	G	For details see "Progress with LPD-wide Actions".			
Emergency Plans / Response	G				
Flood Forecasting	G				
Self Help	G				
Maintenance	G				
Planning Policies	G				

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

**Springholm (Potentially Vulnerable Area 14/10)**

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



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**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:**

- The council and other responsible authorities continue to progress relevant LPD-wide actions for this area as detailed in Table 3.



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

## 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	FINAL REPORT	Revised dates and planned actions to complete / address delay
Maintain Flood Protection Scheme	G	Continue to maintain the existing Springholm flood defenses. 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.	Scheme maintenance is a recurring statutory process.

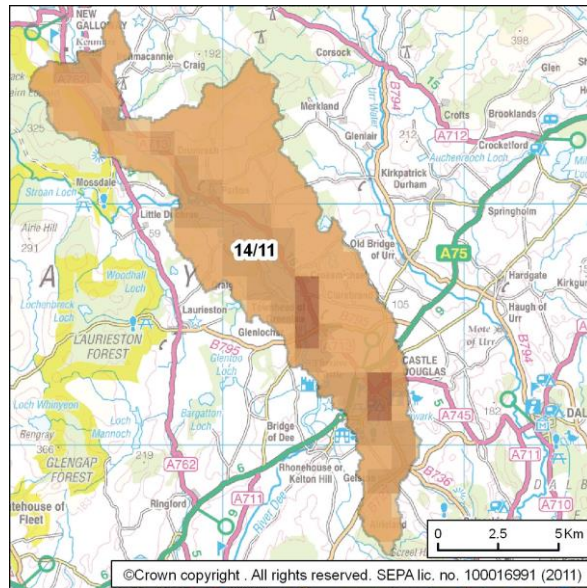
## Solway Local Plan District Local Flood Risk Management Plan 2016-2022: FINAL REPORT

Awareness Raising	G	For details see "Progress with LPD-wide Actions".
Emergency Plans / Response	G	
Flood Forecasting	G	
Self Help	G	
Maintenance	G	
Planning Policies	G	

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

**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:**

- The council and other responsible authorities continue to progress relevant LPD-wide actions for this area as detailed in Table 3.
- The Galloway Glens landscape partnership undertook a Natural Flood Management Study.

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

## 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	FINAL REPORT	Revised dates and planned actions to complete / address delay
Natural Flood Management Study	G	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	DGC	Galloway Glens Partnership Natural Flood Management Scoping Study published December 2016.  The report highlighted potential opportunities for NFM measures but these are subject to a number of complex considerations such as suitability in landscape terms,	Recommendations of the Scoping Study have not yet been implemented due to limited budget, however progress has been made in that allocated NFM funding has been diverted into native tree planting actions in the

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

Action	Status	Description	Delivery Lead	FINAL REPORT	Revised dates and planned actions to complete / address delay
		settlements in the Dee catchment and provide other ecological and habitat benefits.		landowner approval and require a scale of operation not immediately possible through the Galloway Glens Landscape Partnership Scheme.	region. The South of Scotland Tree Planting Grant Scheme was launched in April 2021. In the first year (April 2021 - March 2022), 123 applications have been approved and 20,523 individual trees have been planted, covering an area of 24.81ha.
Strategic Mapping and Modelling	A	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	Action not complete.	SEPA began working on river mapping updates in this area but upon review of the available information it is not appropriate to complete the update at this time. A review of how modelling and mapping updates are undertaken is being conducted to develop a more

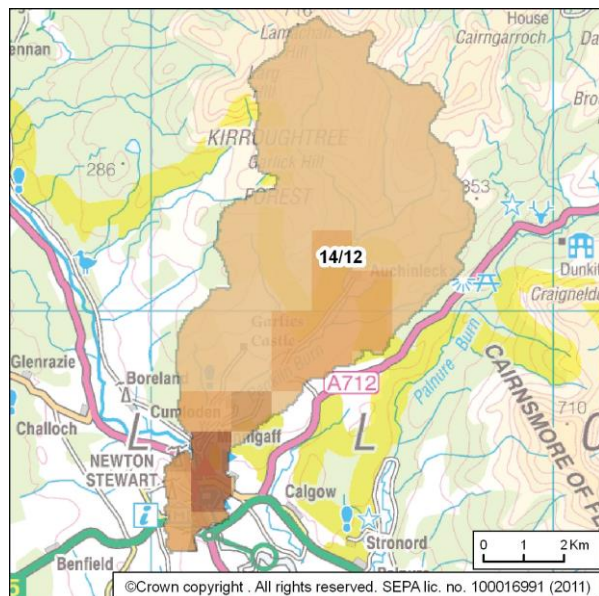
## Solway Local Plan District Local Flood Risk Management Plan 2016-2022: FINAL REPORT

Action	Status	Description	Delivery Lead	FINAL REPORT	Revised dates and planned actions to complete / address delay
					effective method of regional and national updates.
Strategic Mapping and Modelling	G	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 2017	
Awareness Raising	G	For details see "Progress with LPD-wide Actions".			
Emergency Plans / Response	G				
Flood Forecasting	G				
Self Help	G				
Maintenance	G				
Planning Policies	G				

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

**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:**

- The council and other responsible authorities continue to progress relevant LPD-wide actions for this area as detailed in Table 3.
- A new flood warning service for the River Cree was completed, with flood warning areas provided for Challock and Newton Stewart.
- Development of Flood Protection Scheme to preferred option, numerous successful public engagement events held in 2021.
- Scheme development continuing to progress with publication early 2023.
- Sparling Bridge installed in November 2019 as advanced works.

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

## 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	FINAL REPORT	Revised dates and planned actions to complete / address delay
Flood Protection Scheme / Works	A	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 defenses along the River Cree	DGC	Replacement of the Sparling Bridge (undertaken as advanced works but part of the overall flood protection scheme) was completed in 2019.  Work on the Scheme's outline design has been substantially	Timescales and prioritisation of Schemes is currently being considered by DGC to ensure delivery.  If Newton Stewart is given a commitment to proceed then it is likely publication would take place in early 2023, with



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

Action	Status	Description	Delivery Lead	FINAL REPORT	Revised dates and planned actions to complete / address delay
		<p>and Penkiln 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 defenses.</p> <p>Other actions may also be considered to select the most sustainable combination of actions.</p>		<p>completed with additional engagement and survey work ongoing to finalise the publication documentation.</p> <p>Delays have been experienced as a result of COVID-19 (which adversely affected on-site engagement, surveys, and resourcing), the aforementioned objection which resulted in further engagement with the Community, and the Scottish Government/COSLA review which had meant some decisions on progressing the project have been put on hold until the outcome of the review is known.</p>	construction expected to start in 2025/26.

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

Action	Status	Description	Delivery Lead	FINAL REPORT	Revised dates and planned actions to complete / address delay
New Flood Warning	G	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	A new flood warning service for the River Cree was completed, with flood warning areas provided for Challoch and Newton Stewart. SEPA has continued to operate the flood warning service since it was completed.	N/A
Community Flood Action Groups	G	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.	N/A
Strategic Mapping and Modelling	G	Scottish Water will carry out an assessment of flood risk within the highest risk sewer catchments to improve knowledge and	Scottish Water	Works completed 2019.	

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

Action	Status	Description	Delivery Lead	FINAL REPORT	Revised dates and planned actions to complete / address delay
		understanding of surface water flood risk.			
Awareness Raising	G	For details see "Progress with LPD-wide Actions".			
Emergency Plans / Response	G				
Flood Forecasting	G				
Self Help	G				
Maintenance	G				
Planning Policies	G				

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

**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:**

- The council and other responsible authorities continue to progress relevant LPD-wide actions for this area as detailed in Table 3.

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

## 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	FINAL REPORT	Revised dates and planned actions to complete / address delay
Maintain Flood Protection Scheme	G	Continue to maintain the existing Kirkcolm flood defenses. The Kirkcolm Flood Protection Scheme was constructed on behalf of Dumfries and Galloway Council in 1981 and involved channel improvements and culvert upgrades. Installation of a new headwall and trash screen	DGC	Ongoing assessment of scheme to be undertaken as part of the Councils duties in accordance with Section 18.	Scheme maintenance is a recurring statutory process.

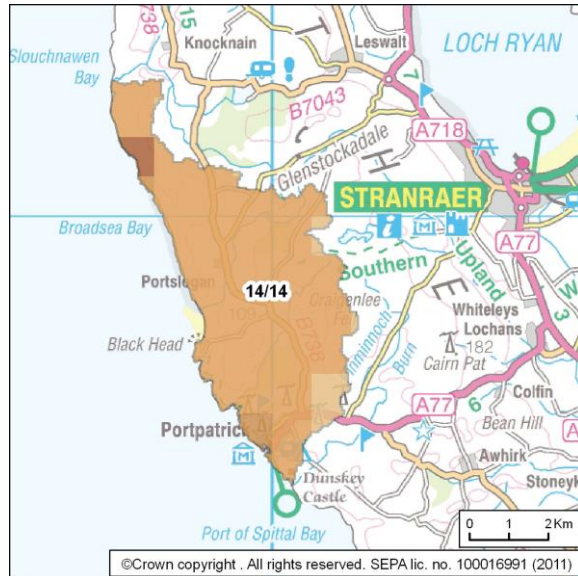
## Solway Local Plan District Local Flood Risk Management Plan 2016-2022: FINAL REPORT

		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 defenses including seawalls at Kirkcolm.			
Awareness Raising	G	For details see "Progress with LPD-wide Actions"			
Emergency Plans / Response	G				
Flood Forecasting	G				
Self Help	G				
Maintenance	G				
Planning Policies	G				

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

**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 to prevent a built up of debris at burn outlet.
- The council and other responsible authorities continue to progress relevant LPD-wide actions for this area as detailed in Table 3.

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

## Overview of actions to manage flooding in Portpatrick

	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 Portpatrick (14/14)									✓	✓		✓	✓	✓	✓	✓	✓	✓

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

Action	Status	Description	Delivery Lead	FINAL REPORT	Revised dates and planned actions to complete / address delay
Maintain Flood Warning	G	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-	SEPA	SEPA has continued to operate the flood warning service.	N/A



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

Action	Status	Description	Delivery Lead	FINAL REPORT	Revised dates and planned actions to complete / address delay
		event data to ensure that our flood warning service is timely and accurate.			
Maintain Flood Protection Scheme	G	Continue to maintain the existing Portpatrick flood defenses. 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	Ongoing assessment of scheme to be undertaken as part of the Councils duties in accordance with Section 18.Drain covers were replaced at a number of locations early 2018 following storm damage inspections.	Scheme maintenance is a recurring statutory process.
Strategic Mapping and Modelling	A	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	Work completed to date includes the production of key data sets including extreme water levels and offshore wave and wind conditions to support future coastal modelling work. Although this work has not been	SEPA will complete a review of coastal flood hazard mapping in south west Scotland including in this area. This includes identifying where taking account of the impact of waves on flooding from the sea may be required.

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

Action	Status	Description	Delivery Lead	FINAL 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.		completed to the timescale described in the plan, the work that will be progressed will deliver a more comprehensive update of the coastal flood hazard maps across the whole area.	SEPA will collect the required coastal defence asset and other information necessary to progress with improved flood modelling and mapping in the highest priority areas taking account of wave overtopping where required. SEPA will look for opportunities to progress future modelling work in a way that best supports improvements to SEPA's Coastal Flood Warning Schemes. Expected to progress to the next stage around the middle of cycle 2 and complete early in the following cycle subject to funding.
Maintenance	G				
Awareness Raising	G				

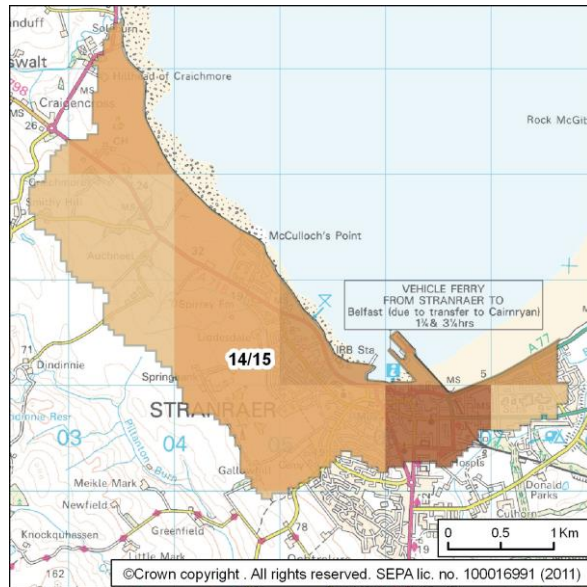
## Solway Local Plan District Local Flood Risk Management Plan 2016-2022: FINAL REPORT

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

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

**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:

- The council and other responsible authorities continue to progress relevant LPD-wide actions for this area as detailed in Table 3.
- Remaining work items of Stranraer Flood protection scheme to be completed by summer 2023.
- Draft Shoreline Management Plan was put to public consultation between June and September 2022. Updated Plan to be publish in summer 2023.

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

## 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	FINAL REPORT	Revised dates and planned actions to complete / address delay
Flood Protection Scheme / Works	A	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	DGC	Works substantially complete.	Outstanding final phase of works due to complete early 2023.

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

Action	Status	Description	Delivery Lead	FINAL REPORT	Revised dates and planned actions to complete / address delay
		different items with two outstanding items of work. The first will help to alleviate flooding to properties in the Ochtreure 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.			
Flood Protection Scheme / Works	G	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: FINAL REPORT

Action	Status	Description	Delivery Lead	FINAL REPORT	Revised dates and planned actions to complete / address delay
		sections of the rail network within this Potentially Vulnerable Area.			
Flood Protection Study	A	<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>	DGC	Shoreline Management Plan will not be delivered in the cycle timeframe.	Updated Shoreline Management Plan to be published in Summer 2023. It will include updated policy for management of coastal flood and erosion risks along DGC coastline over a 100-year planning horizon.

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

Action	Status	Description	Delivery Lead	FINAL REPORT	Revised dates and planned actions to complete / address delay
		The study will help to develop an understanding of coastal issues and identify where further work may be required to mitigate against flooding.			
Maintain Flood Warning System	G	<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, SEPA will seek to verify and validate the warning service.</p> <p>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.	N/A



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

Action	Status	Description	Delivery Lead	FINAL REPORT	Revised dates and planned actions to complete / address delay
Maintain Flood Protection Scheme	G	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	Ongoing assessment of scheme to be undertaken as part of the Councils duties in accordance with Section 18.	Scheme maintenance is a recurring statutory process.
Strategic Mapping and Modelling	G	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 2019.	

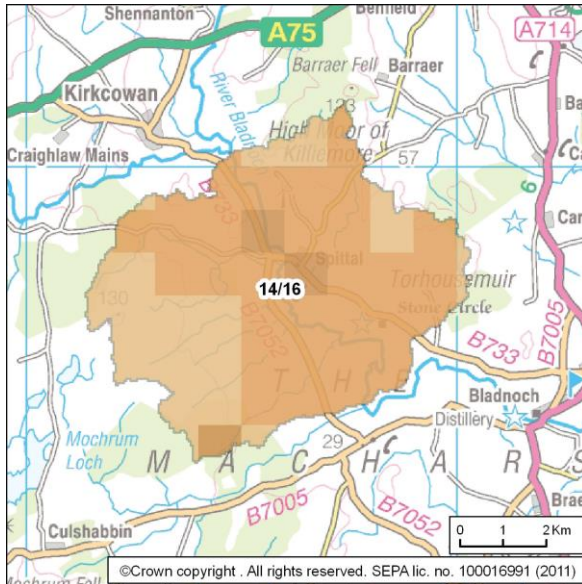
## Solway Local Plan District Local Flood Risk Management Plan 2016-2022: FINAL REPORT

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

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

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

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



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**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:**

- The council and other responsible authorities continue to progress relevant LPD-wide actions for this area as detailed in Table 3.

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

## 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)										✓		✓			✓	✓	✓	✓

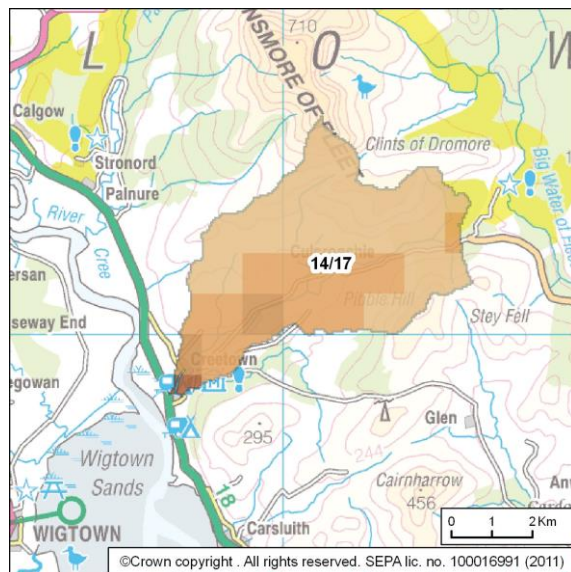
## Summary of progress of actions to manage flood risk in Spittal (PVA 14/16)

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

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

**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:**

- The council and other responsible authorities continue to progress relevant LPD-wide actions for this area as detailed in Table 3.
- Draft Shoreline Management Plan was put to public consultation between June and September 2022. Updated Plan to be publish in summer 2023.

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

## Overview of actions to manage flooding in Creetown

	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 Creetown (14/17)							✓		✓	✓		✓	✓	✓	✓	✓	✓	✓

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

Action	Status	Description	Delivery Lead	FINAL REPORT	Revised dates and planned actions to complete / address delay
Flood Protection Study	A	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	DGC	Shoreline Management Plan will not be delivered in the cycle timeframe.	Updated Shoreline Management Plan to be published in Summer 2023. It will include updated policy for management of coastal flood and erosion risks along DGC coastline over a 100-year planning horizon.

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

Action	Status	Description	Delivery Lead	FINAL REPORT	Revised dates and planned actions to complete / address delay
		<p>coastal protection offered. 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>			
Maintain Flood Warning	G	<p>Continue to maintain the Inner Wigtown Bay 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, SEPA will seek to verify and validate the warning service.</p> <p>SEPA will use feedback and post-event data to ensure that our</p>	SEPA	SEPA has continued to operate the flood warning service.	N/A

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

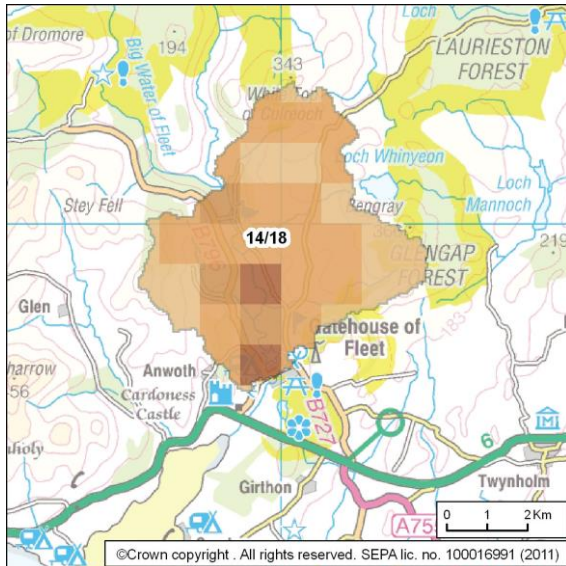
Action	Status	Description	Delivery Lead	FINAL REPORT	Revised dates and planned actions to complete / address delay
		flood warning service is timely and accurate.			
Strategic Mapping and Modelling	G	Scottish Water will carry out an assessment of flood risk within the highest risk sewer catchments to improve knowledge and understanding of surface water flood risk.	Scottish Water	Works completed 2019	
Awareness Raising	G	For details see "Progress with LPD-wide Actions".			
Emergency Plans / Response	G				
Flood Forecasting	G				
Self Help	G				
Maintenance	G				
Planning Policies	G				



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

**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:**

- The council and other responsible authorities continue to progress relevant LPD-wide actions for this area as detailed in Table 3.

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

## 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	FINAL REPORT	Revised dates and planned actions to complete / address delay
Maintain Flood Warning	G	<p>Continue to maintain the Fleet Bay 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, SEPA will seek to verify and validate the warning service.</p> <p>SEPA will use feedback and post-</p>	SEPA	SEPA has continued to operate the flood warning service.	N/A

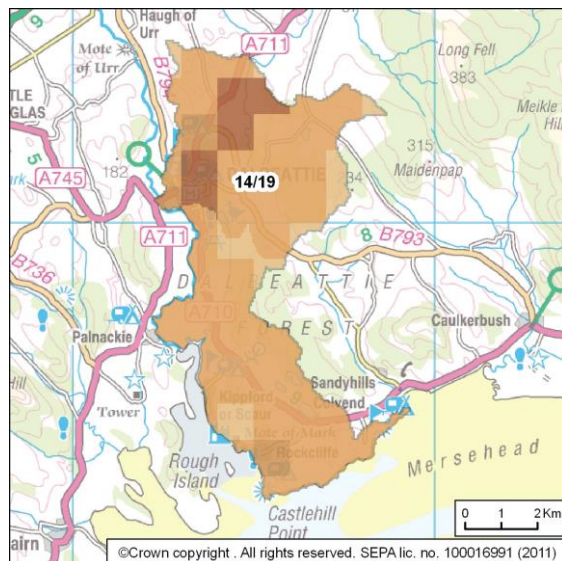
## Solway Local Plan District Local Flood Risk Management Plan 2016-2022: FINAL REPORT

Action	Status	Description	Delivery Lead	FINAL REPORT	Revised dates and planned actions to complete / address delay
		event data to ensure that our flood warning service is timely and accurate.			
Strategic Mapping and Modelling	G	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 2016.	
Awareness Raising	G	For details see "Progress with LPD-wide Actions".			
Emergency Plans / Response	G				
Flood Forecasting	G				
Self Help	G				
Maintenance	G				
Planning Policies	G				

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

**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:**

- The council and other responsible authorities continue to progress relevant LPD-wide actions for this area as detailed in Table 3.
- Dalbeattie Flood Study updated August 2016.
- 41 no of flap valves fitted within the existing flood protection scheme in 2016/17.
- Numerous small projects undertaken 2022 installing new trash screens and manholes to reduce local flood risk.

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

## 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	FINAL REPORT	Revised dates and planned actions to complete / address delay
Flood Protection Study	A	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	DGC	Shoreline Management Plan will not be delivered in the cycle timeframe.	Updated Shoreline Management Plan to be published in Summer 2023. It will include updated policy for management of coastal flood and erosion risks along DGC coastline over a 100-year planning horizon.

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

Action	Status	Description	Delivery Lead	FINAL REPORT	Revised dates and planned actions to complete / address delay
		<p>coastal protection offered. 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>			
Flood Protection Study	G	<p>A study is recommended to further investigate the standard of protection of the current defenses 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</p>	DGC	Report finalised August 2016	

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

Action	Status	Description	Delivery Lead	FINAL 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 defenses 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	G	Continue to maintain the Rough Firth and Southerness Point flood warning areas which are part of the Solway coastal flood warning scheme.	SEPA	SEPA has continued to operate the flood warning service.	N/A

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

Action	Status	Description	Delivery Lead	FINAL REPORT	Revised dates and planned actions to complete / address delay
		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.			
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 defenses may decrease due to the impact of climate change.	DGC	Ongoing assessment of scheme to be undertaken as part of the Councils duties in accordance with Section 18.41 Non Return Flap Valves purchased and installed in 2016/17.  Maintenance work progressed 2022 to reseal expansion joints and remove vegetation to prevent deterioration of the scheme.	Scheme maintenance is a recurring statutory process.



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

Action	Status	Description	Delivery Lead	FINAL REPORT	Revised dates and planned actions to complete / address delay
Strategic Mapping and Modelling	A	<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 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</p>	SEPA	<p>Coastal: Work completed to date includes the production of key data sets including extreme water levels and offshore wave and wind conditions to support future coastal modelling work. Although this work has not been completed to the timescale described in the plan, the work that will be progressed will deliver a more comprehensive update of the coastal flood hazard maps across the whole area.</p> <p>Surface Water: For final progress on surface water mapping, see final progress with LPD wide actions.</p>	SEPA will complete a review of coastal flood hazard mapping in south west Scotland including in this area. This includes identifying where taking account of the impact of waves on flooding from the sea may be required. SEPA will collect the required coastal defence asset and other information necessary to progress with improved flood modelling and mapping in the highest priority areas taking account of wave overtopping where required. SEPA will look for opportunities to progress future modelling work in a way that best supports improvements to SEPA's Coastal Flood Warning Schemes. Expected to progress to the next stage around the

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

Action	Status	Description	Delivery Lead	FINAL REPORT	Revised dates and planned actions to complete / address delay
		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.			middle of cycle 2 and complete early in the following cycle subject to funding.  Surface Water: For planned actions on surface water mapping, see progress with Local Plan District wide actions.
Strategic Mapping and Modelling	G	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 2017.	
Awareness Raising	G	For details see "Progress with LPD-wide Actions".			
Emergency Plans / Response	G				
Flood Forecasting	G				

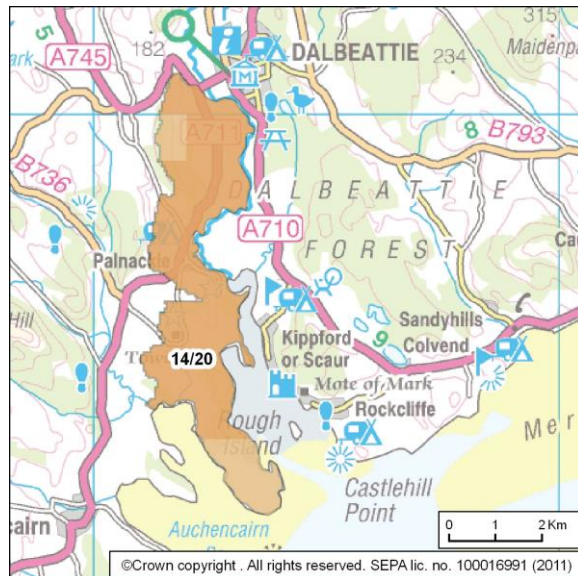
## Solway Local Plan District Local Flood Risk Management Plan 2016-2022: FINAL REPORT

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

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

## 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:

- The council and other responsible authorities continue to progress relevant LPD-wide actions for this area as detailed in Table 3.

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

## 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	FINAL REPORT	Revised dates and planned actions to complete / address delay
Maintain Flood Warning	G	<p>Continue to maintain the Rough Firth 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, SEPA will seek to verify and validate the warning service.</p> <p>SEPA will use feedback and post-</p>	SEPA	SEPA has continued to operate the flood warning service.	N/A

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

Action	Status	Description	Delivery Lead	FINAL REPORT	Revised dates and planned actions to complete / address delay
		event data to ensure that our flood warning service is timely and accurate.			
Maintain Flood Protection Scheme	G	Continue to maintain the existing Palnackie flood defenses. 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.	Scheme maintenance is a recurring statutory process.
Strategic Mapping and Modelling	A	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	Coastal: Work completed to date includes the production of key data sets including extreme water levels and offshore wave and wind conditions to support future coastal modelling work.  Surface Water: For final progress on surface water mapping, see	Coastal: SEPA will complete a review of coastal flood hazard mapping in south west Scotland including in this area. This includes identifying where taking account of the impact of waves on flooding from the sea may be required. WSEPA will collect the required coastal defence

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

Action	Status	Description	Delivery Lead	FINAL REPORT	Revised dates and planned actions to complete / address delay
		<p>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>progress with Local Plan District wide actions.</p>	<p>asset and other information necessary to progress with improved flood modelling and mapping in the highest priority areas taking account of wave overtopping where required. SEPA will look for opportunities to progress future modelling work in a way that best supports improvements to SEPA's Coastal Flood Warning Schemes. Expected to progress to the next stage around the middle of cycle 2 and complete early in the following cycle subject to funding.</p> <p>Surface Water: For planned actions on surface water mapping, see progress with Local Plan District wide actions.</p>

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

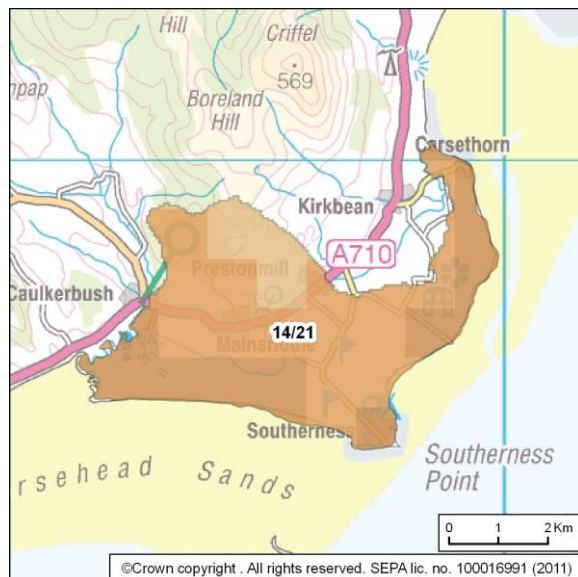
Action	Status	Description	Delivery Lead	FINAL REPORT	Revised dates and planned actions to complete / address delay
Awareness Raising	G	For details see "Progress with LPD-wide Actions"			
Emergency Plans / Response	G				
Flood Forecasting	G				
Self Help	G				
Maintenance	G				
Planning Policies	G				



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

**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:**

- Draft Shoreline Management Plan was put to public consultation between June and September 2022. Updated Plan to be publish in summer 2023.
- The council and other responsible authorities continue to progress relevant LPD-wide actions for this area as detailed in Table 3.

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

## 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	FINAL REPORT	Revised dates and planned actions to complete / address delay
Flood Protection Study	A	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	DGC	Shoreline Management Plan will not be delivered in the cycle timeframe.	Updated Shoreline Management Plan to be published in Summer 2023. It will include updated policy for management of coastal flood and erosion risks along DGC

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

Action	Status	Description	Delivery Lead	FINAL REPORT	Revised dates and planned actions to complete / address delay
		<p>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.</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>			coastline over a 100-year planning horizon.
Maintain Flood Warning	G	<p>Continue to maintain the Southernness Point 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, SEPA will seek to verify and validate the warning service.</p>	SEPA	SEPA has continued to operate the flood warning service.	N/A

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

Action	Status	Description	Delivery Lead	FINAL REPORT	Revised dates and planned actions to complete / address delay
		SEPA will use feedback and post-event data to ensure that our flood warning service is timely and accurate.			
Maintain Flood Protection Scheme	G	<p>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.</p> <p>Maintenance should be continued.</p> <p>Dumfries and Galloway Council also owns erosion defenses of rock armour protecting roads in Carsethorn. There are also privately owned coastal defenses in Carsethorn and Southernness</p>	DGC	Ongoing assessment of scheme to be undertaken as part of the Councils duties in accordance with Section 18.	Scheme maintenance is a recurring statutory process.

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

Action	Status	Description	Delivery Lead	FINAL REPORT	Revised dates and planned actions to complete / address delay
		including rock armour and stone walls.			
Strategic Mapping and Modelling	A	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	Work completed to date includes the production of key data sets including extreme water levels and offshore wave and wind conditions to support future coastal modelling work. Although this work has not been completed to the timescale described in the plan, the work that will be progressed will deliver a more comprehensive update of the coastal flood hazard maps across the whole area.	SEPA will complete a review of coastal flood hazard mapping in south west Scotland including in this area. This includes identifying where taking account of the impact of waves on flooding from the sea may be required. SEPA will collect the required coastal defence asset and other information necessary to progress with improved flood modelling and mapping in the highest priority areas taking account of wave overtopping where required. SEPA will look for opportunities to progress future modelling work in a way that best supports improvements to

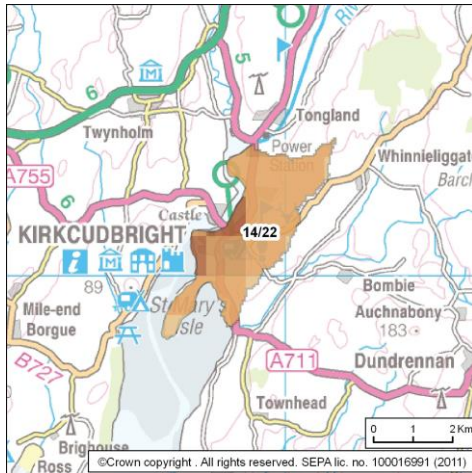
## Solway Local Plan District Local Flood Risk Management Plan 2016-2022: FINAL REPORT

Action	Status	Description	Delivery Lead	FINAL REPORT	Revised dates and planned actions to complete / address delay
					SEPA's Coastal Flood Warning Schemes. Expected to progress to the next stage around the middle of cycle 2 and complete early in the following cycle subject to funding.
Awareness Raising	G	For details see "Progress with LPD-wide Actions"			
Emergency Plans / Response	G				
Flood Forecasting	G				
Self Help	G				
Maintenance	G				
Planning Policies	G				

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

**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:

- The council and other responsible authorities continue to progress relevant LPD-wide actions for this area as detailed in Table 3.
- Draft Shoreline Management Plan was put to public consultation between June and September 2022. Updated Plan to be publish in summer 2023.

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

## 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	FINAL REPORT	Revised dates and planned actions to complete / address delay
Flood Protection Study	A	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	DGC	Shoreline Management Plan will not be delivered in the cycle timeframe.	Updated Shoreline Management Plan to be published in Summer 2023. It will include updated policy for management of coastal flood and erosion risks along DGC coastline over a 100-year planning horizon.



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

Action	Status	Description	Delivery Lead	FINAL REPORT	Revised dates and planned actions to complete / address delay
		<p>coastal protection offered. 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>			
Natural Flood Management Study	G	<p>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</p>	DGC	<p>Galloway Glens Partnership Natural Flood Management Scoping Study published December 2016.</p> <p>The report highlighted potential opportunities for NFM measures but these are subject to a number of complex considerations such as suitability</p>	<p>Recommendations of the Scoping Study have not yet been implemented due to limited budget, however progress has been made in that allocated NFM funding has been diverted into native tree planting actions in the region. The South of Scotland Tree Planting Grant Scheme was</p>

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

Action	Status	Description	Delivery Lead	FINAL REPORT	Revised dates and planned actions to complete / address delay
		catchment and provide other ecological and habitat benefits.		in landscape terms, landowner approval and require a scale of operation not immediately possible through the Galloway Glens Landscape Partnership Scheme.	launched in April 2021. In the first year (April 2021 - March 2022), 123 applications have been approved and 20,523 individual trees have been planted, covering an area of 24.81ha.
Maintain Flood Warning	G	<p>Continue to maintain the Kirkcudbright Bay 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, SEPA will seek to verify and validate the warning service.</p> <p>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.	N/A

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

Action	Status	Description	Delivery Lead	FINAL REPORT	Revised dates and planned actions to complete / address delay
Strategic Mapping and Modelling	A	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	Work completed to date includes the production of key data sets including extreme water levels and offshore wave and wind conditions to support future coastal modelling work. Although this work has not been completed to the timescale described in the plan, the work that will be progressed will deliver a more comprehensive update of the coastal flood hazard maps across the whole area.	SEPA will complete a review of coastal flood hazard mapping in south west Scotland including in this area. This includes identifying where taking account of the impact of waves on flooding from the sea may be required. SEPA will collect the required coastal defence asset and other information necessary to progress with improved flood modelling and mapping in the highest priority areas taking account of wave overtopping where required. SEPA will look for opportunities to progress future modelling work in a way that best supports improvements to SEPA's Coastal Flood Warning Schemes. Expected to progress to the next stage around the

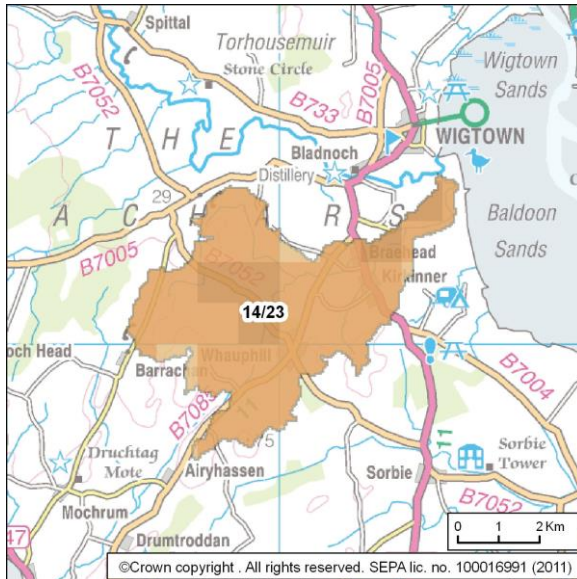
## Solway Local Plan District Local Flood Risk Management Plan 2016-2022: FINAL REPORT

Action	Status	Description	Delivery Lead	FINAL REPORT	Revised dates and planned actions to complete / address delay
					middle of cycle 2 and complete early in the following cycle subject to funding.
Strategic Mapping and Modelling	G	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 2017.	
Awareness Raising	G	For details see "Progress with LPD-wide Actions"			
Emergency Plans / Response	G				
Flood Forecasting	G				
Self Help	G				
Maintenance	G				
Planning Policies	G				

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

**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:**

- The council and other responsible authorities continue to progress relevant LPD-wide actions for this area as detailed in Table 3.

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

## Overview of actions to manage flooding in Breahead 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	FINAL REPORT	Revised dates and planned actions to complete / address delay
Maintain Flood Warning	G	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	SEPA	SEPA has continued to operate the flood warning service.	N/A

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

Action	Status	Description	Delivery Lead	FINAL REPORT	Revised dates and planned actions to complete / address delay
		validate the warning service. SEPA will use feedback and post-event data to ensure that our flood warning service is timely and accurate.			
Awareness Raising	G	For details see "Progress with LPD-wide Actions"			
Emergency Plans / Response	G				
Flood Forecasting	G				
Self Help	G				
Maintenance	G				
Planning Policies	G				

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

**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:**

- The council and other responsible authorities continue to progress relevant LPD-wide actions for this area as detailed in Table 3.



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

## 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	FINAL REPORT	Revised dates and planned actions to complete / address delay
Flood Protection Study	A	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	DGC	Shoreline Management Plan will not be delivered in the cycle timeframe.	Updated Shoreline Management Plan to be published in Summer 2023. It will include updated policy for management of coastal flood and erosion risks along DGC

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

Action	Status	Description	Delivery Lead	FINAL REPORT	Revised dates and planned actions to complete / address delay
		<p>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.</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>			coastline over a 100-year planning horizon.
Maintain Flood Warning	G	<p>Continue to maintain the Outer Wigtown Bay 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, SEPA will seek to verify and validate the warning service.</p>	SEPA	SEPA has continued to operate the flood warning service.	N/A

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

Action	Status	Description	Delivery Lead	FINAL REPORT	Revised dates and planned actions to complete / address delay
		SEPA will use feedback and post-event data to ensure that our flood warning service is timely and accurate.			
Maintain Flood Protection Scheme	G	<p>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.</p> <p>Maintenance should be continued.</p> <p>Dumfries and Galloway Council has a number of coastal defenses within this area including harbour walls and masonry/concrete walls at the Isle of Whithorn and Portyerrook. There are also</p>	DGC	Ongoing assessment of scheme to be undertaken as part of the Councils duties in accordance with Section 18.	Scheme maintenance is a recurring statutory process.

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

Action	Status	Description	Delivery Lead	FINAL REPORT	Revised dates and planned actions to complete / address delay
		privately owned seawalls in Isle of Whithorn and Rigg Bay			
Strategic Mapping and Modelling	A	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	Work completed to date includes the production of key data sets including extreme water levels and offshore wave and wind conditions to support future coastal modelling work. Although this work has not been completed to the timescale described in the plan, the work that will be progressed will deliver a more comprehensive update of the coastal flood hazard maps across the whole area.	SEPA will complete a review of coastal flood hazard mapping in south west Scotland including in this area. This includes identifying where taking account of the impact of waves on flooding from the sea may be required. SEPA will collect the required coastal defence asset and other information necessary to progress with improved flood modelling and mapping in the highest priority areas taking account of wave overtopping where required. SEPA will look for opportunities to progress future modelling work in a way that best supports improvements to

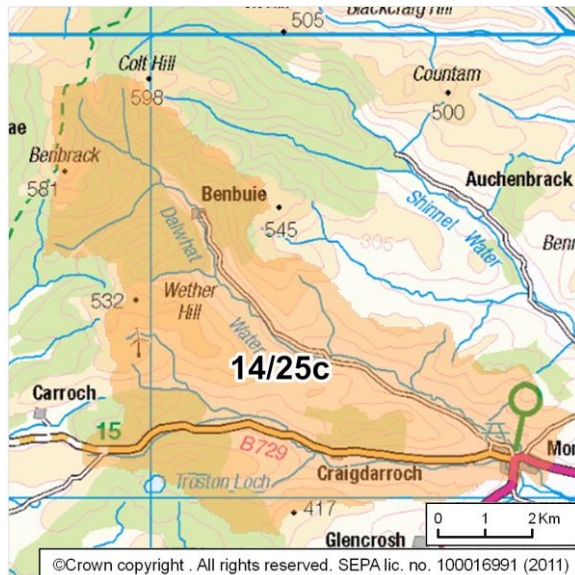
## Solway Local Plan District Local Flood Risk Management Plan 2016-2022: FINAL REPORT

Action	Status	Description	Delivery Lead	FINAL REPORT	Revised dates and planned actions to complete / address delay
					SEPA's Coastal Flood Warning Schemes. Expected to progress to the next stage around the middle of cycle 2 and complete early in the following cycle subject to funding.
Awareness Raising	G	For details see "Progress with LPD-wide Actions"			
Emergency Plans / Response	G				
Flood Forecasting	G				
Self Help	G				
Maintenance	G				
Planning Policies	G				

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

**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:**

- The council and other responsible authorities continue to progress relevant LPD-wide actions for this area as detailed in Table 3.
- Moniaive Flood Study updated August 2016.
- Moniaive RiverTrack Community flood alerting system pilot project launched Moniaive in February 2018. Scheme sponsored by SEPA, and lead by Scottish Flood Forum, with support from Dumfries and Galloway Council.

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

## Overview of actions to manage flooding in Moniaive

	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 Moniaive (14/25c)							✓			✓		✓	✓		✓	✓	✓	✓

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

Action	Status	Description	Delivery Lead	FINAL REPORT	Revised dates and planned actions to complete / address delay
Flood Protection Study	G	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	DGC	Report finalised August 2016.	

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

Action	Status	Description	Delivery Lead	FINAL REPORT	Revised dates and planned actions to complete / address delay
		the level of risk in the area now or in the future, due to climate change.			
Maintain Flood Protection Scheme	G	A flood protection scheme was built in Moniavie 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.	Scheme maintenance is a recurring statutory process.
Awareness Raising	G	For details see "Progress with LPD-wide Actions"			
Emergency Plans / Response	G				



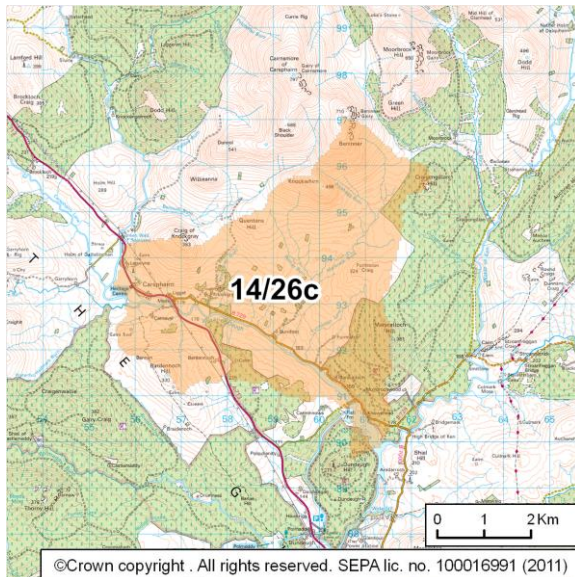
## Solway Local Plan District Local Flood Risk Management Plan 2016-2022: FINAL REPORT

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

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

**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:**

- The council and other responsible authorities continue to progress relevant LPD-wide actions for this area.
- New Cumnock Flood Prevention Scheme is due to complete construction in early 2023.

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

## 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	FINAL REPORT	Revised dates and planned actions to complete / address delay
Flood Protection Scheme / Works	A	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	EAC	Due to a number of issues out with EAC control, initial completion date November 2022 was not met.	Scheme completion date set at February 2023, works to complete outstanding items ongoing.

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

Action	Status	Description	Delivery Lead	FINAL REPORT	Revised dates and planned actions to complete / address delay
		would help mitigate the risk, including construction of flood defenses along the Afton Water and Connel Burn and sediment management along the Afton Water.			
Community Flood Action Group	G	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.

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

Action	Status	Description	Delivery Lead	FINAL REPORT	Revised dates and planned actions to complete / address delay
Property Level Protection Scheme	G	East Ayrshire Council have implemented a property level protection scheme in New 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.	EAC	All known issues addressed however ability to still request help through working party mentioned above.	Continue to offer PFR to any requiring it.
Maintain Flood Warning	G	East Ayrshire Council have a flood warning system for New Cumnock which monitors levels on the River Nith, Afton water and Connel Burn.	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	Continue as before.

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

Action	Status	Description	Delivery Lead	FINAL REPORT	Revised dates and planned actions to complete / address delay
		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.		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.	
Strategic Mapping and Modelling	A	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 collaboratively to ensure	SEPA	Action not complete.	SEPA began working on river mapping updates in this area but upon review of the available information it is not appropriate to complete the update at this time. A review of how modelling and mapping updates are undertaken is being conducted to develop a more effective method of regional and national updates.

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

Action	Status	Description	Delivery Lead	FINAL REPORT	Revised dates and planned actions to complete / address delay
		consistent modelling approaches are applied.			
Awareness Raising	G	For details see "Progress with LPD-wide Actions"			
Emergency Plans / Response	G				
Flood Forecasting	G				
Self Help	G				
Maintenance	G				
Planning Policies	G				

## 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.

Dumfries and Galloway Council have two particular areas of road flooding that have bespoke procedures in place:

- The first being the A716 – Kilstay Bay procedure. The road is subject to coastal flooding which inundates the road leaving a lot of gravel and rock debris behind after events. SEPA issue Flood Warnings for West Luce Bay which triggers a council procedural response initiating a road closure.
- DRAX manage the Galloway Glens hydro system and provide warnings to local landowners, the council and SEPA based on water levels in the Water of Deuch. The first stage of warning affects agricultural land and the warning provides landowners and land managers with time to move livestock. The second level of warning is issued to the council and SEPA when roads are expected to be impacted. A number of roads are impacted by flooding here and closures of the A762 at waterside point and lochside point, the A712 at Ken Bridge, B7000 High Bridge of Ken and the A713 at Parton Mill and Carsphairn.

Following three significant flood events in December 2013, January 2015 and December 2015, Dumfries and Galloway Council installed a series of temporary concrete barriers and ancillary works including earth embankment in 2016 to retain floodwater within the active floodplain thereby providing immediate protection to 31 properties - equating to over 70% of the village - within Carsphairn and reducing the threat of isolation during any future flood events.



## List of Acronyms and Abbreviations

FLS	Forestry and Land Scotland
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
D&G	Dumfries and Galloway
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 FINAL 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 Plans 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 38 of the Flood Risk Management (Scotland) Act 2009 (the "Act").

#### 38 Local flood risk management plans: FINAL REPORT

(1) Not earlier than 5 years and not later than 6 years after a local flood risk management plan is finalised, or by such other date as the Scottish Ministers may direct, the lead authority must publish a report on the plan containing —

- (a) an assessment of the progress made towards implementing the current measures,
- (b) a summary of the current measures which were not implemented, with reasons for their non-implementation, and
- (c) a description of any other measures implemented since the plan was finalised which the lead authority considers have contributed to the achievement of the objectives summarised in the supplementary part of the plan.

(2) The lead authority must make copies of the report available for public inspection.

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

The FINAL 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 FINAL 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 and Land Scotland
- Scottish Water.

## Publication

The published FINAL 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 "FINAL REPORT LFRMP".

Links to the published FINAL 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 FINAL REPORT for the Solway LPD LFRMP is also available for public inspection on weekdays between 9am and 5pm at the following location(s):

- Stranraer Library DG Customer Services, N Strand Street, Stranraer DG9 7LD
- Dumfries and Galloway Council, Ewart Library, Catherine Street, Dumfries, DG1 1JA.

Copies of the published FINAL 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 FINAL REPORT for Solway LPD LFRMP are in Appendix 2.

## APPENDIX 2: PUBLICATION DETAILS (SOLWAY LPD EXAMPLE)

### Flood Risk Management (Scotland) Act 2009

Publication of FINAL 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 FINAL REPORT available:

- Upon finalising the FINAL REPORT for the Solway Local FRM Plan, Sections 38(2), 53 and 54 of the Flood Act also specifically require Dumfries and Galloway Council, as the lead authority, to
  - Publish a FINAL REPORT on the Solway Local FRM Plan;
  - Make copies of the FINAL 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 FINAL REPORT for the Solway Local FRM Plan will be published in an online format and will be made available on the Council's website at <http://www.dumgal.gov.uk/flooding>
- A pdf version will be sent to SEPA and the Scottish Ministers.
- Each community council that falls within a PVA will be notified by email of the publication of the FINAL REPORT and how to access it electronically.
- Announcements will be posted on social media (the Dumfries and Galloway Council Facebook and Twitter pages).