

Clyde and Loch Lomond Local Plan District (LPD 11)

Draft Flood Risk Management Strategy 2021-2027

Every day SEPA works to protect and enhance Scotland's environment, helping communities and businesses thrive within the resources of our planet.



We call this **One Planet Prosperity**

For information on accessing this document in an alternative format or language please either contact SEPA by telephone on 03000 99 66 99 or by email to equalities@sepa.org.uk

If you are a user of British Sign Language (BSL) the Contact Scotland BSL service gives you access to an online interpreter enabling you to communicate with us using sign language.

<http://contactscotland-bsl.org/>

www.sepa.org.uk

03000 99 66 99

Strathallan House, Castle Business Park, Stirling, FK9 4TZ

Clyde and Loch Lomond Local Plan District (LPD 11)

Draft Flood Risk Management Strategy 2021-2027



The Clyde & Loch Lomond Local Plan District covers an area of around 4,800km² and has a population of approximately 1.9 million. It extends from Loch Lomond in the north to the Lowther Hills in the south and includes part of Loch Lomond and the Trossachs National Park. The coastline is around 500km long, from Ardlamont Point to Largs, encompassing the Firth of Clyde including the Isle of Bute. It includes the urban areas of Glasgow City, Dumbarton, East Kilbride, Motherwell, Paisley, Hamilton, Bishopbriggs and Greenock.

The area contains the River Clyde and its many tributaries and is heavily urbanised. However outside of the urbanised areas the main land covers are agricultural grazing lands, coniferous and broadleaved woodland. There are many lochs and reservoirs in the area including Loch Lomond, Loch Eck, Loch Arklet and Daer Reservoir.

There is river, surface water and coastal flood risk in the Local Plan District, with the main risk coming from surface water flooding. There have been several large floods, notably from intense rainfall and river flooding in December 2015 as a result of Storm Desmond and Storm Frank. In November 2018 Storm Diana caused coastal and river flooding, affecting many areas. More recently, Storm Ciara followed swiftly by Storm Dennis in February 2020 caused coastal, river and surface water flooding across the Local Plan District.

Currently it is estimated there are around 170,000 people and 98,000 homes and businesses at risk from flooding. This may increase to 220,000 people and 130,000 homes and businesses by the 2080s due to climate change. The expected annual cost of flooding is around £70 million. Note however that flooding from wave overtopping is not fully represented in the assessment of flood risk and the impact of coastal flooding may be underestimated.

SEPA lead development of the Flood Risk Management Strategies for Scotland and delivery of flood warning services. Local flood risk management planning is led by Glasgow

City Council, who is the lead authority. Other responsible authorities include 9 more local authorities, Scottish Water, Loch Lomond and the Trossachs National Park. They are supported by Scottish Government agencies including Forestry and Land Scotland, Scottish Forestry and Transport Scotland.

Within this Local Plan District, actions are regularly carried out by SEPA and responsible authorities to help prepare communities for potential flooding and reduce the impact of any flooding that does occur. More information on these actions will be added to this section for 22 March 2021.

Potentially Vulnerable Areas (PVA) were designated in 2018 based on the potential current or future risk from all sources of flooding. This designation was informed by the National Flood Risk Assessment ([link](#)). As part of continued analysis of flood risk, the National Flood Risk Assessment and PVAs will be reviewed every six years to take on board any new information. There are 23 PVAs in this Local Plan District. Following sections provide more information on these areas.

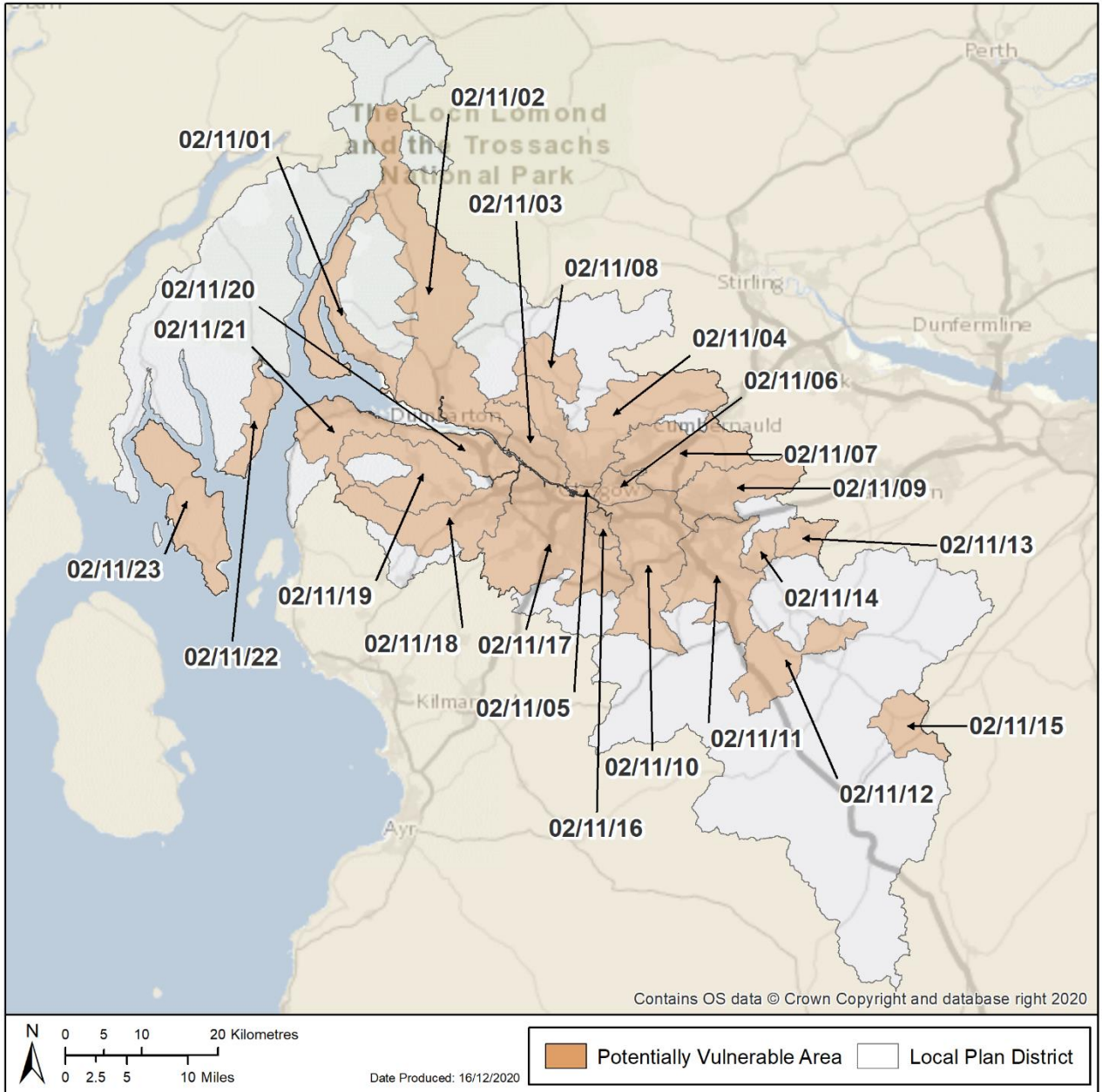


Figure 1. Potentially Vulnerable Areas in Clyde and Loch Lomond Local Plan District

LPD 11 Clyde and Loch Lomond - table of contents

Click the [blue text](#) to select your area of interest

PVA Ref	PVA NAME	Local Authority
02/11/01	Helensburgh to Loch Long	Argyll & Bute
02/11/02	Loch Lomond and Vale of Leven	Argyll & Bute, West Dunbartonshire
02/11/03	Yoker catchment - Clydebank to Partick	Glasgow City, West Dunbartonshire
02/11/04	River Kelvin	East Dunbartonshire, Glasgow City, North Lanarkshire
02/11/05	Glasgow City Centre	Glasgow City
02/11/06	Glasgow City North	Glasgow City
02/11/07	Luggie Water catchment	East Dunbartonshire, North Lanarkshire
02/11/08	Strathblane	Stirling
02/11/09	Coatbridge and Airdrie	North Lanarkshire
02/11/10	East of Glasgow to Strathaven	Glasgow City, South Lanarkshire
02/11/11	Clyde catchment - Motherwell to Larkhall	North Lanarkshire, South Lanarkshire
02/11/12	Clyde catchment - Lanark to Lesmahagow	South Lanarkshire
02/11/13	Shotts	North Lanarkshire
02/11/14	North of Wishaw	North Lanarkshire
02/11/15	Symington and Coulter	South Lanarkshire
02/11/16	Rutherglen	Glasgow City, South Lanarkshire
02/11/17	White Cart Water catchment	East Renfrewshire, Glasgow City, Renfrewshire, South Lanarkshire
02/11/18	Black Cart Water catchment - Lochwinnoch to Johnstone	Renfrewshire

PVA Ref	PVA NAME	Local Authority
02/11/19	Gryfe catchment	Inverclyde, Renfrewshire
02/11/20	Clyde South and Bishopton	Inverclyde, Renfrewshire
02/11/21	Greenock and Gourock	Inverclyde
02/11/22	Dunoon	Argyll & Bute
02/11/23	Isle of Bute	Argyll & Bute

02/11/01 (Helensburgh to Loch Long)

This area is designated as a potentially vulnerable area due to flood risk to Garelochhead, Helensburgh and Kilcreggan. There is flooding from coastal, river and surface water. Recent flooding occurred in December 2019 due to coastal and surface water flooding.

There are 3 areas in this PVA, which have been the focus of further assessment, these are listed below. Further information on the proposed objectives and actions to manage flood risk within this area will be provided in Phase 2 of the consultation (launching on 22nd March 2021).

List of target areas

Helensburgh	(Target Area 26)
Kilcreggan	(Target Area 67)
Garelochhead	(Target Area 111)

02/11/02 (Loch Lomond and Vale of Leven)

This area is designated as a Potentially Vulnerable Area due to flood risk to a number of communities. Some of these include Balloch, Bowling, Cardross, Dunbarton, Old Kilpatrick and communities within the Vale of Leven. There is flooding from river, coastal and surface water. There is a flood protection scheme on the Knowle Burn in Dunbarton. There is a long history of flooding, with recent floods being caused by coastal, river and surface water.

There are 5 areas in this PVA, which have been the focus of further assessment, these are listed below. Further information on the proposed objectives and actions to manage flood risk within this area will be provided in Phase 2 of the consultation (launching on 22nd March 2021).

List of target areas

Vale of Leven	(Target Area 2)
Bowling	(Target Area 7)
Old Kilpatrick	(Target Area 53)
Dunbarton	(Target Area 61)
Cardross	(Target Area 105)

02/11/03 (Yoker catchment - Clydebank to Partick)

This area is designated as a Potentially Vulnerable Area due to the flood risk to a number of communities. Some of these include Clydebank, Glasgow West End, Yoker and Drumchapel districts of Glasgow. There is flooding from river, coastal and surface water. Recent floods have been caused by surface water flooding.

There are 5 areas in this PVA, which have been the focus of further assessment, these are listed below. Further information on the proposed objectives and actions to manage flood risk within this area will be provided in Phase 2 of the consultation (launching on 22nd March 2021).

List of target areas

Glasgow West End	(Target Area 50)
Yoker	(Target Area 51)
Drumchapel	(Target Area 52)
Clydebank	(Target Area 54)
Duntocher and Hardgate	(Target Area 62)

02/11/04 (River Kelvin)

This area is designated as a Potentially Vulnerable Area due to flood risk to a number of communities. Some of these include Bearsden, Bishopbriggs, Milngavie, Torrance and Balmore. The main sources of flooding are from river and surface water. There is a long history of flooding in the area, with recent floods being caused by surface water and by river flooding.

There are 12 areas in this PVA, which have been the focus of further assessment, these are listed below. Further information on the proposed objectives and actions to manage flood risk within this area will be provided in Phase 2 of the consultation (launching on 22nd March 2021).

List of target areas

Bishopbriggs West	(Target Area 4)
Kelvinside	(Target Area 46)
Kilsyth	(Target Area 79)
Milngavie	(Target Area 84)
Queenzieburn	(Target Area 91)
Lennoxton	(Target Area 98)
Bearsden	(Target Area 103)
Kirkintilloch North	(Target Area 157)
Possil Park	(Target Area 158)
Milton	(Target Area 159)
Summerston	(Target Area 160)
Torrance and Balmore	(Target Area 81001)

02/11/05 (Glasgow City Centre)

This area is designated as a Potentially Vulnerable Area due to the flood risk in Glasgow City Centre. The main source of flooding is from surface water. Recent floods have occurred in the area from surface water.

There is 1 area in this PVA, which has been the focus of further assessment, this is identified below. Further information on the proposed objectives and actions to manage flood risk within this area will be provided in Phase 2 of the consultation (launching on 22nd March 2021).

List of target areas

Glasgow Centre West	(Target Area 45001)
Glasgow Centre East	(Target Area 45002)

02/11/06 (Glasgow City North)

This area is designated as a Potentially Vulnerable Area due to flood risk to a number of communities. Some of these include Carntyne, Glasgow East End, and Springburn. The main sources of flooding are from river and surface water. Recent flooding has occurred in these communities.

There are 5 areas in this PVA, which have been the focus of further assessment, these are listed below. Further information on the proposed objectives and actions to manage flood risk within this area will be provided in Phase 2 of the consultation (launching on 22nd March 2021).

List of target areas

Glasgow East End	(Target Area 47)
Carntyne	(Target Area 49)
Springburn	(Target Area 167)
Barlanark	(Target Area 466)
Garthamlock	(Target Area 16800)

02/11/07 (Luggie Water catchment)

This area is designated as a Potentially Vulnerable Area due to the flood risk to a number of communities. Some of these include Kirkintilloch, Lenzie and Cumbernauld. The main source of flooding is from surface water, however there is also river flooding from the River Kelvin and the Luggie Water. Recent flooding has occurred due to river and surface water flooding.

There are 4 areas in this PVA, which have been the focus of further assessment, these are listed below. Further information on the proposed objectives and actions to manage flood risk within this area will be provided in Phase 2 of the consultation (launching on 22nd March 2021).

List of target areas

Bishopbriggs East	(Target Area 5)
Cumbernauld West	(Target Area 60)
Kirkintilloch South and Lenzie	(Target Area 81)
Balornock	(Target Area 16702)

02/11/08 (Strathblane)

This area is designated as a Potentially Vulnerable Area due to flood risk in Strathblane. The main source of flooding is from surface water. Recent flooding has occurred in the area.

There is 1 area in this PVA, which has been the focus of further assessment, this is identified below. Further information on the proposed objectives and actions to manage flood risk within this area will be provided in Phase 2 of the consultation (launching on 22nd March 2021).

List of target areas

Strathblane	(Target Area 152)
-------------	-------------------

02/11/09 (Coatbridge and Airdrie)

This area is designated as a Potentially Vulnerable Area due to the flood risk to Airdrie, Chapelhall, Coatbridge and Plains. The main source of flooding is from surface water, with some risk from river and groundwater in Plains. Recent flooding has been caused by surface water flooding.

There are 4 areas in this PVA, which have been the focus of further assessment, these are listed below. Further information on the proposed objectives and actions to manage flood risk within this area will be provided in Phase 2 of the consultation (launching on 22nd March 2021).

List of target areas

Airdrie	(Target Area 102)
Coatbridge	(Target Area 106)
Chapelhall	(Target Area 161)
Plains	(Target Area 10300)

02/11/10 (East of Glasgow to Strathaven)

This area is designated as a Potentially Vulnerable Area due to flood risk to a number of communities. Some of these include Cambuslang, Hamilton, Shettleston, Uddingston and East Kilbride. The main source of flooding is from surface water, however there is also some river flooding. Recent river flooding has occurred in the area.

There are 10 areas in this PVA, which have been the focus of further assessment, these are listed below. Further information on the proposed objectives and actions to manage flood risk within this area will be provided in Phase 2 of the consultation (launching on 22nd March 2021).

List of target areas

Hamilton West	(Target Area 1)
Uddingston	(Target Area 93)
Strathaven	(Target Area 101)
East Kilbride East	(Target Area 108)
Easterhouse	(Target Area 156)
Dalmarnock	(Target Area 48001)
Tollcross	(Target Area 48002)
Carmyle	(Target Area 80001)
Cambuslang West	(Target Area 80002)
Cambuslang East	(Target Area 80003)

02/11/11 (Clyde catchment - Motherwell to Larkhall)

This area is designated as a Potentially Vulnerable Area due to flood risk to a number of communities. Some of these include Hamilton, Holytown, Larkhall and Motherwell. The main sources of flooding are from surface water and river flooding from the River Clyde and tributaries. There have been widespread reports of flooding in the area, with the most of them caused by surface water.

There are 7 areas in this PVA, which have been the focus of further assessment, these are listed below. Further information on the proposed objectives and actions to manage flood risk within this area will be provided in Phase 2 of the consultation (launching on 22nd March 2021).

List of target areas

Holytown and New Stevenston	(Target Area 10)
Larkhall	(Target Area 82)
Motherwell	(Target Area 86)
Newarthill	(Target Area 87)
Wishaw South	(Target Area 94)
Bellshill	(Target Area 104)
Hamilton East	(Target Area 112)

02/11/12 (Clyde catchment - Lanark to Lesmahagow)

This area is designated as a Potentially Vulnerable Area due to the flood risk in Crossford (South Lanarkshire), Lesmahagow and Kirkfieldbank. The main source of flooding is from the River Clyde and its tributaries. There is the potential for an increased flood risk due to climate change in Lesmahagow. Recent flooding has occurred in the area.

There are 3 areas in this PVA, which have been the focus of further assessment, these are listed below. Further information on the proposed objectives and actions to manage flood risk within this area will be provided in Phase 2 of the consultation (launching on 22nd March 2021).

List of target areas

Crossford (South Lanarkshire)	(Target Area 29)
Kirkfieldbank	(Target Area 30)
Lesmahagow	(Target Area 151)

02/11/13 (Shotts)

This area is designated as a Potentially Vulnerable Area due to flood risk in Allanton. The main source of flooding is groundwater. There is a known drainage problem in Allanton due to the cessation of mining activities, with the groundwater table close to or above ground level. Historically there has been flooding in the area, with recent flooding being caused by surface water.

There is 1 area in this PVA, which has been the focus of further assessment, this is identified below. Further information on the proposed objectives and actions to manage flood risk within this area will be provided in Phase 2 of the consultation (launching on 22nd March 2021).

List of target areas

Allanton (Target Area 169)

02/11/14 (North of Wishaw)

This area is designated as a Potentially Vulnerable Area due to flood risk in Wishaw. The main source of flooding is from surface water. Historically there has been flooding in this area, with recent flooding being caused by surface water flooding.

There is 1 area in this PVA, which has been the focus of further assessment, this is identified below. Further information on the proposed objectives and actions to manage flood risk within this area will be provided in Phase 2 of the consultation (launching on 22nd March 2021).

List of target areas

Wishaw North (Target Area 94001)

02/11/15 (Symington and Coulter)

This area is designated as a Potentially Vulnerable Area due to flood risk in Symington and Coulter. The main source of flooding is from the River Clyde, however there is also some surface water flooding. Recent floods have occurred due to river flooding and surface water flooding.

There are 2 areas in this PVA, which have been the focus of further assessment, these are listed below. Further information on the proposed objectives and actions to manage flood risk within this area will be provided in Phase 2 of the consultation (launching on 22nd March 2021).

List of target areas

Symington (Target Area 114)
Coulter (Target Area 115)

02/11/16 (Rutherglen)

This area is designated as a Potentially Vulnerable Area due to flood risk in Rutherglen, Castlemilk, Mount Florida and Polmadie. The main sources of flooding are river and surface water. Recent floods have occurred within this area.

There are 4 areas in this PVA, which have been the focus of further assessment, these are listed below. Further information on the proposed objectives and actions to manage flood risk within this area will be provided in Phase 2 of the consultation (launching on 22nd March 2021).

List of target areas

Rutherglen	(Target Area 43001)
Polmadie	(Target Area 43002)
Mount Florida	(Target Area 43003)
Castlemilk East	(Target Area 43004)

02/11/17 (White Cart Water catchment)

This area is designated as a Potentially Vulnerable Area due to flood risk to a number of communities. Some of these include Barrhead, East Kilbride, Newtown Mearns, Paisley and Pollokshields. The main sources of flooding are from river and surface water. There is a flood protection scheme on the White Cart Water which protects several communities in the south side of Glasgow. There is a long history of flooding with recent floods being caused by river and surface water.

There are 14 areas in this PVA, which have been the focus of further assessment, these are listed below. Further information on the proposed objectives and actions to manage flood risk within this area will be provided in Phase 2 of the consultation (launching on 22nd March 2021).

List of target areas

Barrhead	(Target Area 3)
Giffnock and Merrylee	(Target Area 9)
Paisley East	(Target Area 12)
Renfrew	(Target Area 13)
Cathcart & Shawlands	(Target Area 41)
Castlemilk West	(Target Area 42)
Hillington and Cardonald	(Target Area 55)
Pollok	(Target Area 56)
Thornliebank	(Target Area 57)
Newton Mearns	(Target Area 58)

List of target areas continued

Busby	(Target Area 59)
East Kilbride West	(Target Area 109)
Plantation	(Target Area 44001)
Pollokshields	(Target Area 44002)

02/11/18 (Black Cart Water catchment - Lochwinnoch to Johnstone)

This area is designated as a Potentially Vulnerable Area due to flood risk to Howwood, Kilbarchan and Paisley West. There is flooding from river, coastal and surface water. Recent flooding from surface and river water has occurred in the area.

There are 5 areas in this PVA, which have been the focus of further assessment, these are listed below. Further information on the proposed objectives and actions to manage flood risk within this area will be provided in Phase 2 of the consultation (launching on 22nd March 2021).

List of target areas

Johnstone and Linwood	(Target Area 11)
Kilbarchan	(Target Area 15)
Howwood	(Target Area 40)
Lochwinnoch	(Target Area 83)
Paisley West	(Target Area 165)

02/11/19 (Gryfe catchment)

This area is designated as a Potentially Vulnerable Area due to flood risk to Bridge of Weir, Houston and Crosslee, Kilmacolm and Quarrier's Village. The main sources of flooding are from surface water and from the River Gryfe and tributaries. Recent flooding has occurred in the area.

There are 4 areas in this PVA, which have been the focus of further assessment, these are listed below. Further information on the proposed objectives and actions to manage flood risk within this area will be provided in Phase 2 of the consultation (launching on 22nd March 2021).

List of target areas

Houston and Crosslee	(Target Area 65)
Quarrier's Village	(Target Area 99)
Kilmacolm	(Target Area 113)
Bridge of Weir	(Target Area 65001)

02/11/20 (Clyde South and Bishopton)

This area is designated as a Potentially Vulnerable Area due to flood risk to Bishopton, Erskine, Inchinnan and Port Glasgow East. The main sources of flooding are from river and surface water. Recent flooding has occurred in the area.

There are 4 areas in this PVA, which have been the focus of further assessment, these are listed below. Further information on the proposed objectives and actions to manage flood risk within this area will be provided in Phase 2 of the consultation (launching on 22nd March 2021).

List of target areas

Bishopton	(Target Area 6)
Inchinnan	(Target Area 66)
Port Glasgow East	(Target Area 89)
Erskine	(Target Area 110)

02/11/21 (Greenock and Gourock)

This area is designated as a Potentially Vulnerable Area due to flood risk to Gourock, Greenock, Inverkip and Port Glasgow West. There is flooding from coastal, river and surface water. Recent flooding has occurred as a result of surface water.

There are 4 areas in this PVA, which have been the focus of further assessment, these are listed below. Further information on the proposed objectives and actions to manage flood risk within this area will be provided in Phase 2 of the consultation (launching on 22nd March 2021).

List of target areas

Greenock	(Target Area 64)
Port Glasgow West	(Target Area 90)
Gourock	(Target Area 117)
Inverkip	(Target Area 146)

02/11/22 (Dunoon)

This area is designated as a Potentially Vulnerable Area principally due to flood risk to Dunoon and Sandbank. There is flooding from coastal, river and surface water. Coastal flood risk is likely to increase due to sea level rise caused by climate change. Recent coastal flooding has occurred in the area.

There are 2 areas in this PVA, which have been the focus of further assessment, these are listed below. Further information on the proposed objectives and actions to manage flood risk within this area will be provided in Phase 2 of the consultation (launching on 22nd March 2021).

List of target areas

Sandbank	(Target Area 100)
Dunoon	(Target Area 107)

02/11/23 (Isle of Bute)

This area is designated as a Potentially Vulnerable Area due to flood risk to Kilchattan Bay, Rothesay and Port Bannatyne. There is flooding from coastal, river and surface water. This area has a history of flooding, with recent floods being caused by both river and surface water flooding.

There are 2 areas in this PVA, which have been the focus of further assessment, these are listed below. Further information on the proposed objectives and actions to manage flood risk within this area will be provided in Phase 2 of the consultation (launching on 22nd March 2021).

List of target areas

Rothesay and Port Bannatyne	(Target Area 88)
Kilchattan Bay	(Target Area 116)