sepa
Scottish Environment Protection Agency
Buidheann Dìon Àrainneachd na h-Alba

For the future of our environment

Flood Map Version 3.0 Release Notes

25 February 2025

SEPA Flood Map Version 3.0 Release Notes

1. Release Details

Release Date: 25 February 2025

Version 3.0 of the Flood Maps supersedes the previous version (v2.1) published in November 2023.

2. Changes Since v2.1

Since Flood Map v2.1 a number of changes have been made to the following datasets: River Flood Hazard Maps, Coastal Flood Hazard Maps. This release includes a new Surface Water & Small Watercourses Flood Hazard Maps for present day and future climate scenarios. Flood hazard extents also made available as *beta* GIS map services. The locations of these changes are shown below in Figure 1 and detailed further in Tables 1-3.

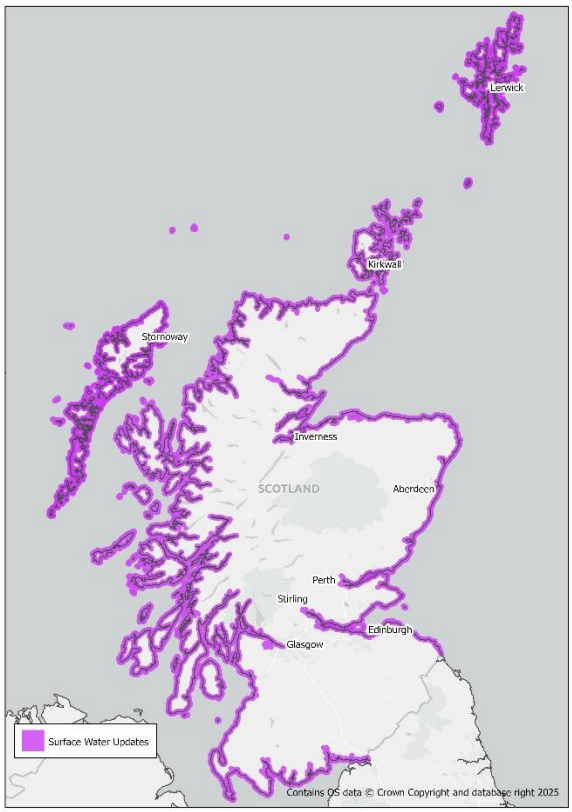

Figure 1: Flood Map Version 3.0 update locations

2.1 Principal Hazard Map Updates

The following updates to the SEPA Flood Maps introduced new data as part of our flood map improvement programme following work by SEPA with support from strategic partner organisations.

2.1.1 River Updates

No new data has been incorporated into the River Flood Map since v2.1. See Section 2.2.1 for corrective updates.

The river flood extents are made available as GIS (Geographic Information Service) map services in the following formats: ESRI REST Service and OGC WMS. Further details can be found on our Data Publication webpage, users should note that these are released as *beta* services.

2.1.2 Coastal Updates

No new data has been incorporated into the Coastal Flood Map since v2.1. See Section 2.2.2 for corrective updates.

The coastal flood extents are made available as GIS (Geographic Information Service) map services in the following formats: ESRI REST Service and OGC WMS. Further details can be found on our Data Publication webpage, users should note that these are released as *beta* services.

2.1.3 Surface Water & Small Watercourses Updates

Geographical Area	Update Description
National	Update to incorporate results from a national SEPA study (2024). This study comprises 2m resolution modelling for the whole of Scotland. A key improvement for this update compared to previous surface water flood maps (Version 1.0 - Version 2.1) is a nationally consistent approach to modelling. The small watercourses modelled are those with a catchment area of <10km^2. Hydrological inputs were taken from the FEH22 depth duration frequency (DDF) model for the summer season. Adjustments were made to the rainfall data to account for losses, infiltration in pervious areas and drainage losses in impervious areas. For pervious areas, the rural Revitalised Flood Hydrograph (ReFH) v2.3 loss model was used, whereas a modified ReFH 2.3 urban loss model was applied to impervious areas. A drainage rate of 15mm/hr was also applied to account for losses to the drainage system in impervious areas. New two-dimensional (2D) models were constructed for 1,153 catchment based domains covering Scotland. The models used the available topographic data at each location based on a 2m composite digital terrain model (DTM) comprised of LiDAR (2001 - 2021) and GetMapping photogrammetry (2005 - 2022). Buildings are explicitly represented in the DTM as flat 0.3m upstands from the natural ground level. Further information is available in the Surface Water Flooding Summary on our website: www.sepa.org.uk/environment/water/flooding/developing-our-knowledge/

Geographical Area	Update Description
National	The SEPA National Study (2024) described above also extends the range of information available for surface water flooding to include a climate change scenario for the medium probability (1:200 year) flood event for the whole of Scotland. This dataset shows the potential changes to surface water and small watercourse flooding for a 2070 high emissions scenario, 50th percentile. Climate uplifts were calculated from the FUTURE-DRAINAGE project, which is based on analysis of the UK Climate Projections 2018 (UKCP18) high resolution (UKCP Local) projections for Representative Concentration Pathway 8.5 (RCP 8.5). Further information is available in the Future Flood Map Summary on our website: www.sepa.org.uk/environment/water/flooding/developing-our-knowledge/
National	The surface water & small watercourse flood extents are available as GIS map services in the following formats: ESRI REST Service and OGC WMS. Further details can be found on our Data Publication webpage, users should note that these are released as *beta services.*

Table 1: Principal Surface Water & Small Watercourses updates contained within Flood Maps Version 3.0

2.2 Corrective Hazard Map Updates

The following updates address identified issues within data released as part of previous releases of the SEPA flood maps following dataset development and user feedback.

2.2.1 River Updates

HA	Geographical Area	Update Description
All	National	Update to correct geometry issues within the data affecting spatial analyses undertaken in some GIS software packages. No methodological changes have been undertaken or updates made to source data.

Table 2: Corrective River updates contained within Flood Maps Version 3.0

2.2.2 Coastal Updates

Geographical Area	Update Description
National	Update to correct geometry issues within the data affecting spatial analyses undertaken in some GIS software packages. No methodological changes have been undertaken or updates made to source data.

Table 3: Corrective Coastal updates contained within Flood Maps Version 3.0

2.2.3 Surface Water & Small Watercourses Updates

There are no corrective updates contained within this release

2.3 Risk Map Updates

SEPA is currently undertaking a review of its flood risk datasets including the Flood Risk Maps. This review is seeking to consolidate a number of existing products in order to provide a consistent set of information, which is updated to a common framework; as such, the Flood Risk Maps have **not** been updated as part of this Flood Map release.

Should partner organisations have a specific requirement for flood risk information during this review period contact should be with SEPA via advice@sepa.org.uk to discuss data requirements and the availability (subject to licensing) of alternative flood risk information.

3. Other Datasets

The following datasets have **not** been updated: Flood Risk Maps, Groundwater Susceptibility Map, Natural Flood Management Maps, Natural Susceptibility to Coastal Erosion Maps. Reference should be made to the relevant Flood Map release shown in Table 4 for these datasets, as they are not provided within this data issue.

Dataset	Current Release	Release Date	Licensing
Flood Risk Maps	Version 1.3	April 2018	Available under licence to statutory partner organisations.
Groundwater Susceptibility Map	Version 1.0	January 2014	
Natural Flood Management Maps	Version 1.0	January 2014	
Natural Susceptibility to Coastal Erosion Maps	Version 1.2	December 2015	

Table 4: Maps not updated within Flood Map Version 3.0

4. Data Usage Precautionary Note

The SEPA Flood Maps have been developed to inform strategic level decision making at a community scale, they may not be appropriate for use at a more detailed scale, i.e. property level.

The data provided within the SEPA Flood Maps reflects the data that we hold within our databases. Whilst we aim to avoid quality problems and provide datasets without errors, they may still exist. If issues are experienced whilst using the flood maps, users are requested to report these to us so that they can be logged for consideration within a future version of the flood maps.

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