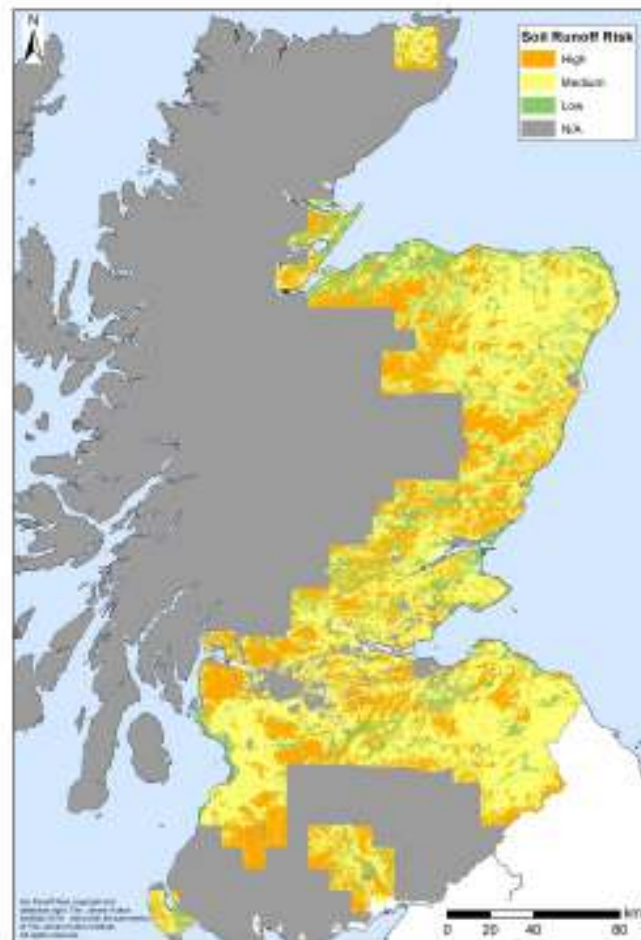


# Map of runoff risk (partial cover)

**Risk map – Map showing the risk of water flowing over land and carrying potential pollutants into water courses**

What do I see on my screen?

The map shows the risk of water flowing over land (runoff) carrying potential pollutants into water courses. It covers most of Scotland's cultivated agricultural land area.



## Map legend

The runoff risk is shown in 3 classes: High, Moderate or Low.

**High runoff risk** - Soils have a limited capacity to store rainfall or to allow water to infiltrate. The soil will quickly saturate, leading to rapid runoff.

**Moderate runoff risk**- Soils have a moderate capacity to store rainfall or to allow water to infiltrate. Soils will reach saturation under some circumstances, leading to runoff.

**Low runoff risk** - Soils can store large volumes of water or can allow water to quickly infiltrate and so surface runoff is limited.

## What is included in the digital dataset?

The digital dataset gives information on the likelihood of water running off the land, carrying potential pollutants with it. The runoff risk is given in 3 classes: High, Moderate or Low.

## How was the map & dataset created?

The risk of runoff depends on how easily water can drain away from the soil surface. It also depends on how much water the soil can store. These in turn depend on fundamental soil characteristics such as soil porosity and flow pathways through the soil.

Each of the soils in the Soil Map of Scotland (partial cover) dataset was first allocated to one of 29 Hydrology of Soil Type (HOST) classes and then the Standard Percentage Runoff for these classes was determined from [Boorman et al. \(1995\)](#). These runoff values were then allocated to one of 3 classes that reflected the likelihood of a soil becoming saturated leading to water flowing over the land. The three classes, High, Moderate or Low, equate to less than 20, 20 to 40 and more than 40 percent runoff. Where the soil map units were described as complexes (that is, more than one soil type if found in a soil map unit), the precautionary principle was applied and the soil at most risk of generating runoff was used to describe the whole map unit.

## How is it updated?

The map will be updated when new areas of digitised soil information become available.

**Be aware:** This map is produced at a fixed scale; zooming-in does not change the resolution of the map.

Please cite as: Lilly, A. and Baggaley N.J. 2018. Runoff risk map of Scotland (partial cover). James Hutton Institute, Aberdeen.

## Technical and reference material

SSDI Metadata file

Boorman, D.B., Hollis, J.M and Lilly, A. 1995. Hydrology of soil types: a hydrologically-based classification of the soils of the United Kingdom. Institute of Hydrology Report No.126. Institute of Hydrology, Wallingford.

Lilly, A & Baggaley, N.J. 2014. Developing simple indicators to assess the role of soils in determining risks to water quality, CREW project number CD2012\_42.