



Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Bundesamt für Umwelt BAFU
Office fédéral de l'environnement OFEV
Ufficio federale dell'ambiente UFAM
Uffizi federal d'ambient UFAM

ASA | SVV

Schweizerischer Versicherungsverband
Association Suisse d'Assurances
Associazione Svizzera d'Assicurazioni
Swiss Insurance Association



VKG Vereinigung Kantonalen
Gebäudeversicherungen
AECA Association des établissements
cantonaux d'assurance

Factsheet

Tuesday, 3 July 2018

Embargo: 3 July 2018, 14:00

Surface runoff risk map

The new map shows where danger from surface runoff exists. It covers the whole of Switzerland, both populated and unpopulated areas, and is available free of cost online at www.map.geo.admin.ch. The map was produced jointly by the Federal Office for the Environment FOEN, the Swiss Insurance Association SIA and the Cantonal Building Insurers Association VKG.

What is surface runoff?

Surface runoff is rainwater which does not seep into the ground, particularly when precipitation is heavy, and runs over open ground where it can cause damage. The term flooding, in contrast, is used when rivers and lakes burst their banks. Surface runoff causes up to 50% of the flood damage and its occurrence has increased over recent years (recent examples: Zofingen (Aargau) 8.7.2017, Frauenfeld (Thurgau) 9.6.2018, Lausanne (Vaud) 11.6.2018). As the climate becomes warmer, more frequent and intense precipitation occurs and therefore more surface runoff can be expected. The risk map helps adaptation to climate change and these phenomena.

What does the Swiss surface runoff risk map show?

The map shows which regions of Switzerland are at risk from surface runoff and how deep they may be under water. Different shades indicate how high the water may rise: pale lilac: < 0.1 m, lilac: 0.1 m – 0.25 m, dark lilac: ≥0.25 m. The map also shows the anticipated flow paths of the water. It covers the whole of Switzerland, both populated and unpopulated areas.

What is its practical use?

Around two thirds of the buildings in Switzerland are potentially affected by surface runoff. The new map therefore has great practical value. Firstly, for professionals such as architects, developers, planners, authorities and emergency response services.

They can obtain a rapid overview of potential risks and implement suitable protection measures in good time. Secondly the map is also useful for the general public, for raising awareness, assessing the risk situation and planning possible protection measures. It helps to prevent damage. Because the map covers unpopulated areas, it can also help farmers to adopt soil protection measures. The surface runoff map has no legal force. It is informative in nature and supplements the existing risk maps of the cantons.

How was the map produced?

Computer modelling was used to produce the map. Data was incorporated on soil cover (e.g. impermeable surfaces due to construction), terrain models and precipitation, plus information on soils and geology and runoff characteristics of the water. The Swiss surface runoff risk map is designed for an event with a return period of more than 100 years.

Why did the public and private sectors work jointly on the map?

Challenges such as natural hazards can only be overcome by different stakeholders working together: federal government, cantonal and municipal authorities and insurers. Public authorities and the insurance industry worked together on this private public partnership project and found a rapid, high quality solution in the map. A group consisting of cantonal natural hazards departments, insurance industry representatives, the Federal Offices for Roads, Agriculture and Civil Protection, Swiss Railways, the Swiss Water Association and the Swiss Society of Engineers and Architects supported the work.

Section of surface runoff risk map, area of Nottwil (Lucerne):