

German Environment Agency

5. September 2019 Results of the UN/OECD Project on Natech Risk Management

1.6 Surface Runoff Risk Map (Switzerland)

OECD GP Activity	UN SF Activity	UN SD Goals / Targets
 Natural hazards identification and communication, NH (early) warning systems 	2. Strengthening disaster risk governance to manage disaster risk	13.1 Strengthen resilience and adaptive capacity to climate- related hazards and natural disasters in all countries

Classification according to OECD Guiding Principles, UN Sendai Framework Priorities/Activities, and UN SDGs and Targets

Figure 1: Swiss Surface Runoff Risk Map



Source: © swisstopo, FOEN

Short Facts:	Natural Hazard(s) Considered:
Governance approach: Hazard communication Source: Federal Office for the Environment (FOEN) Entry into force: July 2018 Targeted Stakeholders: The public Scope of applicability: National, regional	Heavy precipitation events Climate change: Not considered

Description

During heavy precipitation events, large amounts of rainwater accumulate,. In some cases, the water cannot seep into the ground and drain offs, causing inundation. These surface waters can cause significant damage to property and infrastructure (buildings, roads, electricity lines), and also put people at risk. In the course of climate change, heavy precipitation events are assumed to occur more often in the future.

To prevent this kind of risk, the Federal Office for the Environment in Switzerland (FOEN) has developed a national surface runoff risk map in cooperation with the Swiss Insurance Association SIA (Schweizerischer Versicherungsverband, SVV) and the Association of Cantonal Building Insurances (Vereinigung Kantonaler Gebäudeversicherung, VGK) as a public-private partnership project. The map illustrates which areas in Switzerland are at potential risk for surface runoff due to heavy precipitation events. It can be used by planning and architectural offices, builders and construction authorities, insurance companies, natural hazard specialist offices, the department for civil protection, private house owners, and others to identify areas of risk and eventually take measures for mitigation. The surface runoff risk map is freely accessible on the FOEN homepage (www.bafu.admin.ch/surfacerunoff).

The risk map has a search tool to let users check specific addresses in Switzerland. The web-site also includes a draw and measure tool to place symbols and text boxes as well as measure distances, areas, and topographic profiles. Additionally, the surface runoff risk map can be combined with other maps from FOEN, including natural hazard maps for avalanches, landslides, flooding, earthquakes, land use maps, hydrological maps, and more.

Link/Contact:

www.bafu.admin.ch/surfacerunoff

https://map.geo.admin.ch/?topic=bafu&lang=de&bgLayer=ch.swisstopo.pixelkartegrau&catalogNodes=825,851,1505&layers=ch.bafu.gefaehrdungskarteoberflaechenabfluss&E=2660000.00&N=1189875.00&zoom=1

Comments by the UN/OECD Natech-Steering Group:

This is an important example of a surface runoff model and source of information for hazards due to surface water that are not included in other natural hazard information systems.

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