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# GUIDANCE ON WATER SUPPLY AND SANITATION IN EXTREME WEATHER EVENTS



Edited by  
**L Sinisi** and  
**R Aertgeerts**

Extreme weather events, including floods and droughts, are increasing in frequency and intensity. They affect the operation of water-supply, drainage and sewerage infrastructure, and the functioning of wastewater treatment plants, thereby affecting the protection of public health. Parties to the Protocol on Water and Health reviewed experience and good practice in Europe through a broad consultative process, to devise the present guidance.

This publication describes how adaptation policies should consider the new risks from extreme weather events, how vulnerabilities can be identified and which management procedures can be applied to ensure sustained protection of health. It takes an integrated environment-and-health approach and addresses cross-cutting issues, such as the role of the health and environment sectors in extreme weather, the need for policy dialogue and multisectoral partnership to assess and control risks, and the challenges of different settings (such as urban and rural, small and centralized large-scale supplies).

The publication is aimed at a broad audience, including policy-makers; environment, health and water-resources professionals; and water service managers.

The following partners contributed to the preparation of the guidance.



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L Sinisi and R Aertgeerts

## Abstract

Extreme weather events, including floods and droughts, occur increasingly often. They affect the operational efficiency and sustainability of water supply, drainage and sewerage infrastructure, and wastewater treatment services, and threaten their protection of public health and the environment. The guidance in this publication summarizes how basic disaster preparedness and early warning procedures can be implemented in the water and wastewater sector, and identifies the specific challenges of extreme weather events to vulnerable areas. It provides advice on the implementation of water safety plans as a tool for risk assessment and management, giving specific attention to small-scale water supply and sanitation systems; and on multisector cooperation, including communication. Finally, based on a review of experience and good practice in the European Region, it summarizes proven adaptation measures for water utilities, drainage and sewerage, and wastewater treatment systems during extreme weather events.

## Keywords

WATER SUPPLY  
SANITATION  
CLIMATE – adverse effects  
EMERGENCIES  
DISASTER PLANNING  
DELIVERY OF HEALTH CARE – organization and administration  
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