

IMPACT OF CLIMATE CHANGE AND URBAN DEVELOPMENT SCENARIOS ON WASTE WATER OVERFLOWS FROM THE COMBINED SEWAGE IN NANTES, FRANCE

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ABSTRACT

Water supply for drinking water in Nantes-Metropole (France) is caught into the Loire. In case of pollution of this main river, an emergency water intake has been settled in a neighbouring affluent, the Erdre. Important overflowing from the combined sewer network toward the Erdre is regularly recorded in winter and during long or intense rain events. These waste water overflows contribute to the pollution of the water resource close to the emergency pumping station. In case of too important overflows, the water quality of the Erdre might exceed the drinking water requirements of the pumping station for drinking water. Climate change and urban evolution could contribute to increase this vulnerability of water supply. The present paper aims to assess the impact of climate change and of different urban development scenarios on the overflowing volumes of the sanitary sewer network in the natural environment...

PALAVRA-CHAVE: waste water, overflow, conceptual model, sanitary sewer, sustainable urban development, climate change