? UNDERLYING QUESTION

What measures should be put in place to reduce the vulnerability of water infrastructure and the resulting loss of associated functions following a weather event?

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After identifying and understanding the risks to which it is exposed, a municipality can put in place practices to improve alertness to weather events that could put a huge strain on its system. Adjustments can also be made to the system to make it more resilient during a heavy precipitation event, for example.

POTENTIAL SOLUTIONS

A Infrastructure configuration and condition to address risks

In order to improve the resilience of assets, solutions related to their configuration can be implemented. These involve both design elements to address greater (increased volumes, flows) and more frequent precipitation. This category includes, for example, optimal stormwater management practices.

B Hazard and asset monitoring

In addition to a design better adapted to hazards, it is relevant to have a system to monitor and predict them in order to improve a municipality's preparedness for weather events. The same is true for assets. Monitoring their status allows for intervention at the right time.

C Prevention program and regulations

Solutions in line with the regulations in place to reduce the amount of rainwater being returned to the system.

REFERENCES

ROBVQ | Outils pour l'introduction à la gestion des eaux pluviales (2022) [in French only]	**A**	**B**	**C**

A catalogue of different types of tools offering municipal officials (elected representatives and technical managers) both structural solutions, such as technical guides for the design of optimal stormwater management works, as well as non-structural solutions, related to adjustments in regulations to help reduce runoff or the volume of water sent into the system.

ROBVQ | Le rôle des infrastructures naturelles pour la gestion des eaux de ruissellement et des crues dans un contexte d'adaptation aux changements climatiques (2019) [in French only]	**A**	**B**	**C**

A literature review on adapting to climate change through the use of natural infrastructure, with a focus on run-off water management. Several examples of best management practices are presented. These were selected based on their cost effectiveness, resilience and ability to fit into a sustainable development approach.

Ministère de la Sécurité publique | Mesures permettant d'augmenter la résilience de la municipalité à la distribution de l'eau en cas de pénurie ou de contamination de l'eau potable (2018) [in French only]	**A**	**B**	**C**

For a municipality, the drinking water supply is essential. Planning actions to increase resilience is therefore also essential. Such planning helps you to respond quickly to problems associated with water quantity or quality. It is recommended to draw up a list of potential problems (e.g., shortages, breakdowns) in advance, based on your specific situation.

ROBVQ | Outils de priorisation pour la gestion du ruissellement urbain (2022) [in French only]	**A**	**B**	**C**

A description of structural and non-structural solutions, and technical design guides for surface rainwater capture infrastructure.