



Energy and Climate Finance and Policy Division

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Impacts of Climate Change on Municipal Stormwater Systems

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- **MCSC is about 130 of the cities in Minnesota that have MS4 stormwater permits from the MPCA**
- **We are directly affiliated with the League of Minnesota Cities**



Impacts of Climate Change on Stormwater

- We are getting more rain, on an annual basis
- More of our rain is coming in intense storms
- This is creating significant challenges for our stormwater systems



Impacts of Climate Change on Stormwater

More rain and more intense storms means:

- Water **quantity** challenges - flooding
- Water **quality** challenges – pollutants associated with mobilized sediment (TSS, phosphorus, bacteria) and failures of stream banks and ravines



Common Design Practices

- We design catch basin and pipe systems to handle the 10-year storm
- We use the 100-year storm as the design basis for our buildings and infrastructure – with an additional factor of safety
- We work to safely handle the Maximum Probable Storm



Addressing the Challenges

- This is one more thing that cities have to address on behalf of our residents
- We do this with relatively little assistance from the Federal or State governments
- Cities have traditionally done an excellent job to protect our residents and their property from flooding
- In the last 20 years and under the MS4 program, cities have been putting more resources into addressing water quality in stormwater



How can the State help?

- Rebalance the State's approach
 - The State currently focuses almost entirely on water **quality** – permitting, CWF, LCCMR, etc.
 - Recognize and provide assistance with water **quantity** challenges
- Support urban stormwater research
- We have some very specific, actionable, and productive ideas we would like to discuss with the State – **Please work with us**

