

## CASE STUDY

# Minnesota State Hazard Mitigation Plan



### IDENTIFYING HAZARDS:

[The Minnesota State Hazard Resilience Plan](#) (2019) is updated every five years by state law by the Division of Homeland Security and Emergency Management of the Minnesota Department of Public Safety. It focuses on identifying a variety of hazards, outlining plans for their mitigation, and providing specific climate change adaptation strategies by county, sector, and hazard type to promote climate resilience at the state as well as local level. The plan evaluates 22 hazards, 14 of which are climate-related, and **ranks them based on probability (including the likelihood of occurrence and a qualitative assessment of vulnerability and exposure) and potential for mitigation** to prioritize efforts and funding. Probability is determined by the historical frequency of event occurrences, how widespread it is, and future predictions. Potential for mitigation includes assessments of technical viability, potential hazard mitigation methods, Minnesota's experience with these methods, and cost-effectiveness. From this, the state has ranked hazards to prioritize responses and **identified floods, tornadoes, windstorms, and wildfires as those hazards with the highest probability and highest potential for mitigation.**

### POLICY APPROACHES TO INCREASE RESILIENCE:

The identification of flood hazards as high probability and high potential for mitigation encouraged the state to work with local governments on flood mitigation and preparedness strategies including **on projects to retrofit existing drainage systems** across the state to effectively handle the anticipated increase in flooding expected from climate change.

One such project facilitated by the state's work with local governments is the [Central City Parallel Storm Tunnel](#) planned for Minneapolis. This project began in 2020 and is expected to be completed in 2024. Currently in the planning stages, it is expected to begin construction in 2021. With the current stormwater drainage tunnel close to capacity and over pressurization degrading existing tunnel infrastructure, an assessment of the flooding hazard for the Mississippi River and surrounding areas catalyzed a decision to construct a supplementary drainage tunnel to ensure the resilience of the system itself as well as the economic activity of Minneapolis that would be impacted by frequent flooding. The priority the state has placed on assessing flooding hazards, coupled with the state administration's work with municipalities to include flood management in their Comprehensive Municipal Plans, has **encouraged many cities across the state to increase investment in infrastructure that is resilient to this hazard**, including this public works project in Minneapolis.

Minnesota



## PRIORITIZE RESILIENCE EFFORTS:

Flooding risk and the need to upgrade water infrastructure encouraged Minnesota to develop the [Infrastructure Stress Transparency Tool](#) (born out of the University of Minnesota's 2015 Smart Cities and Infrastructure Convergence Colloquium), which provides access to infrastructure financials, age, and productivity levels to **help all levels of government in their long-term planning strategies around civil infrastructure**. Based on climate projections, flooding hazards are further evaluated for vulnerability, including an assessment of value at risk for residential, commercial, industrial, and other real estate and associated economic activity.

**Interested in learning more about this work or Climate Finance Advisors, contact us here: [info@climate-fa.com](mailto:info@climate-fa.com)**