

City of Toronto Action to Address Climate Change – Planning and Action

Wednesday, 26 April, 2017



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Environment & Energy Division



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Overview

1. A history
2. Cross-corporate climate resilience and adaptation approach
3. The High Level Risk Assessment approach
4. Current & future work



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History

- Climate Change Action Plan (2007)
- Power to Live Green (2008)
- Ahead of the Storm (2009)
- Climate Change Risk Tool (2010)
- Climate Drivers Study (2011)
- Resilient City – Preparing for Extreme Weather (2013)
- Resilient City – Preparing for Climate Change (2014)
- Resilient City – Preparing for Climate Change, Update and Next Steps (2016)
- TransformTO (2017)



Toronto Climate Change Risk Assessment Tool

- Decision making tool to help prioritize actions in a consistent and robust manner across divisions.

Transportation Services

- Entire Division
- 90 classes of assets & services

Shelter, Support & Housing Administration

- High-rise apartment buildings
- Women's shelter
- Streets to home

Licensed to

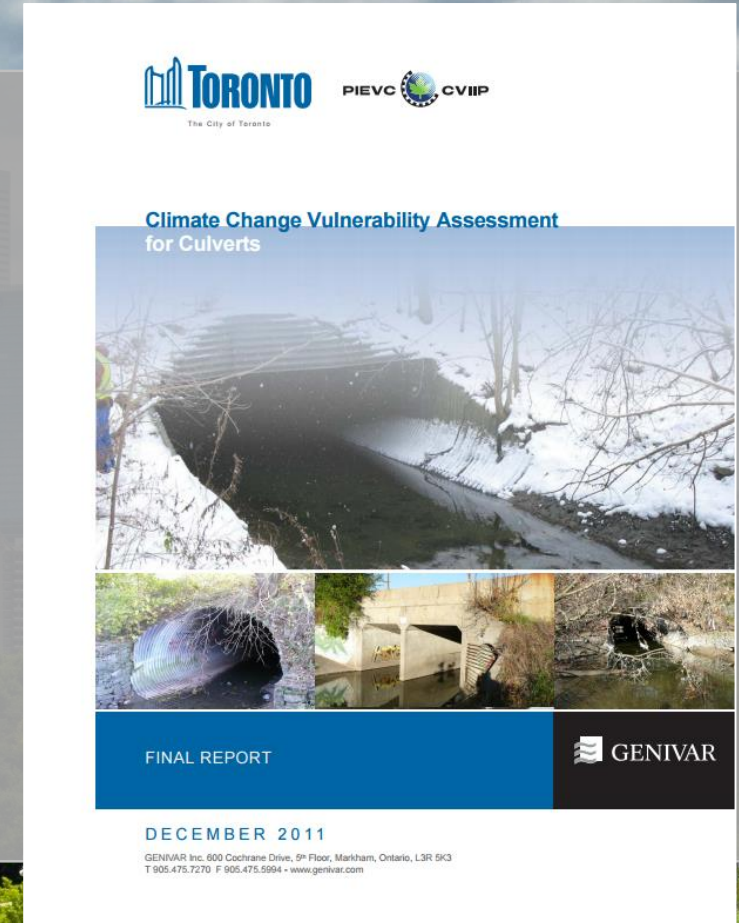
- TRCA
- York Region
- Aurora
- Vaughn
- Mississauga

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Public Infrastructure Engineering Vulnerability Committee (PIEVC) Protocol

Since 2010 – 6 PIEVC Assessments have been completed in Toronto:

- Toronto Hydro (Distribution)
- City of Toronto (Culverts)
- TRCA (Dams)
- Toronto Community Housing
- Pearson International Airport
- Metrolinx (6 assets)

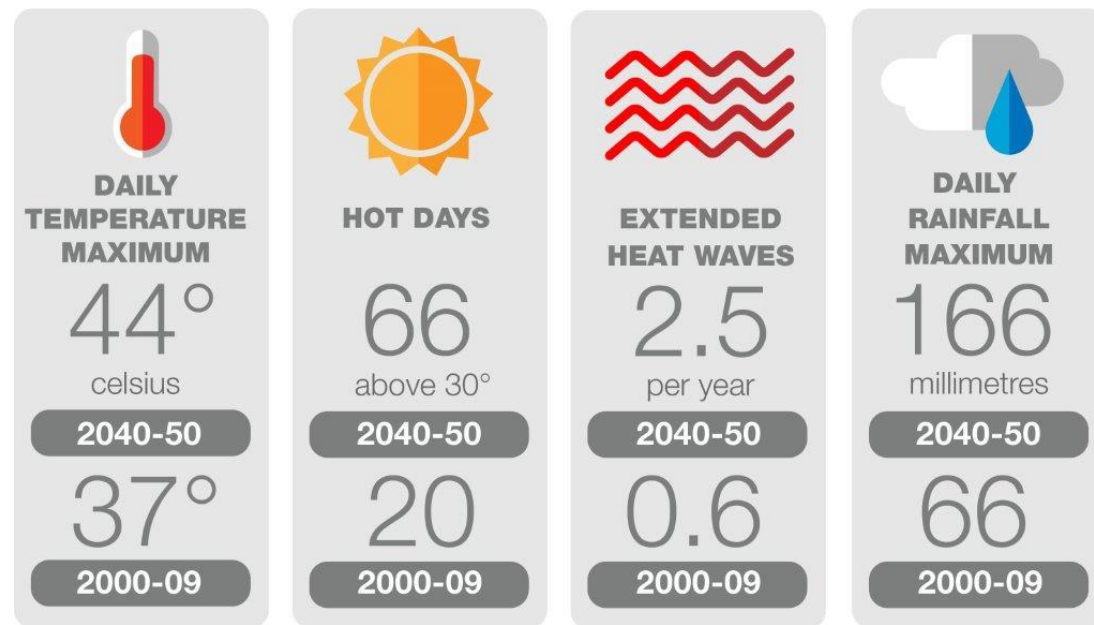


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Resilient City & the Climate Change Risk Management Policy

- Climate Change Risk Management Policy, adopted by City Council in July 2014.
- Established a process to systematically prioritize the identification, assessment, reduction, monitoring & reporting of climate change risks.
- Defined governance structure (roles & responsibilities) for climate change risk management within the City of Toronto.

Toronto's **Future Weather***



Credit: [synestheticstrings](#)

Adoption of the Climate Change Risk Management Policy (Agencies, Boards & Corporations)



Toronto
Parking
Authority



toronto
ZOO



**BUILD
TORONTO**

Toronto
Community
Housing

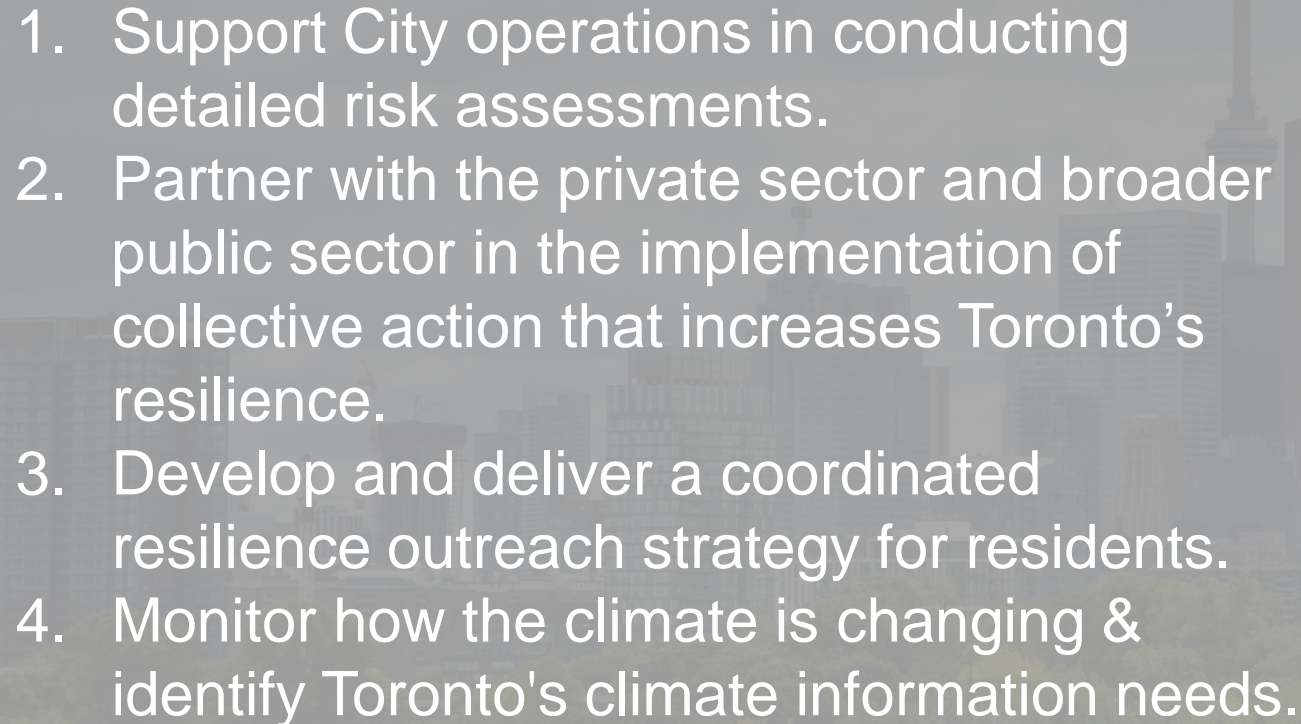


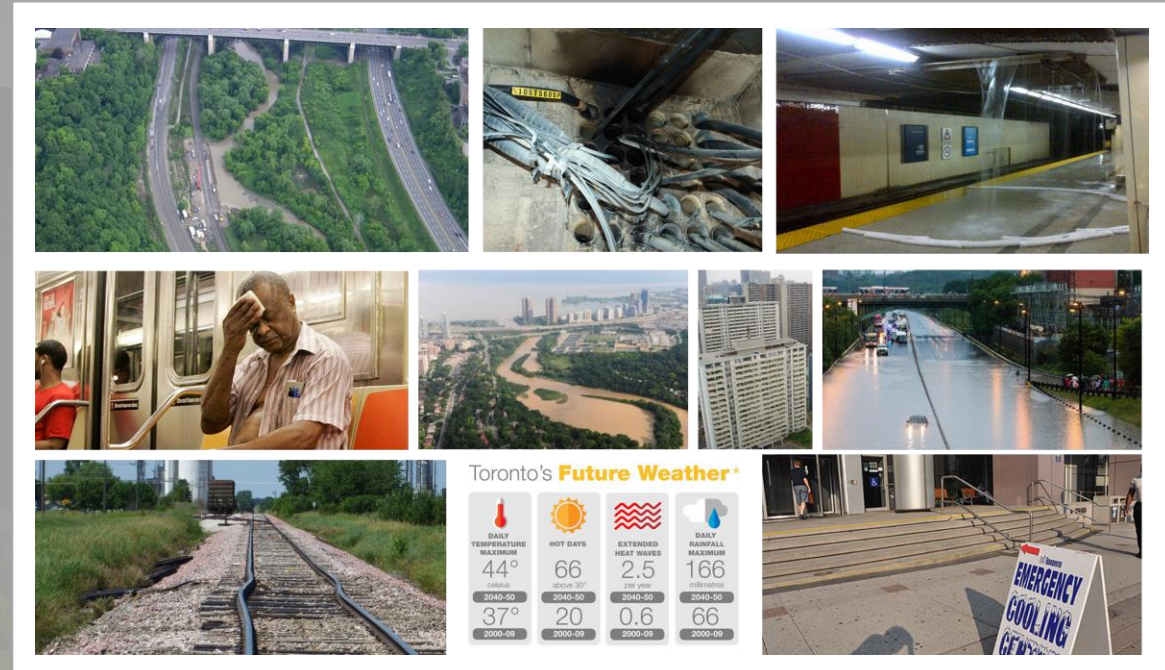
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Environment and Energy

Resilient City & the Climate Change Risk Management Policy

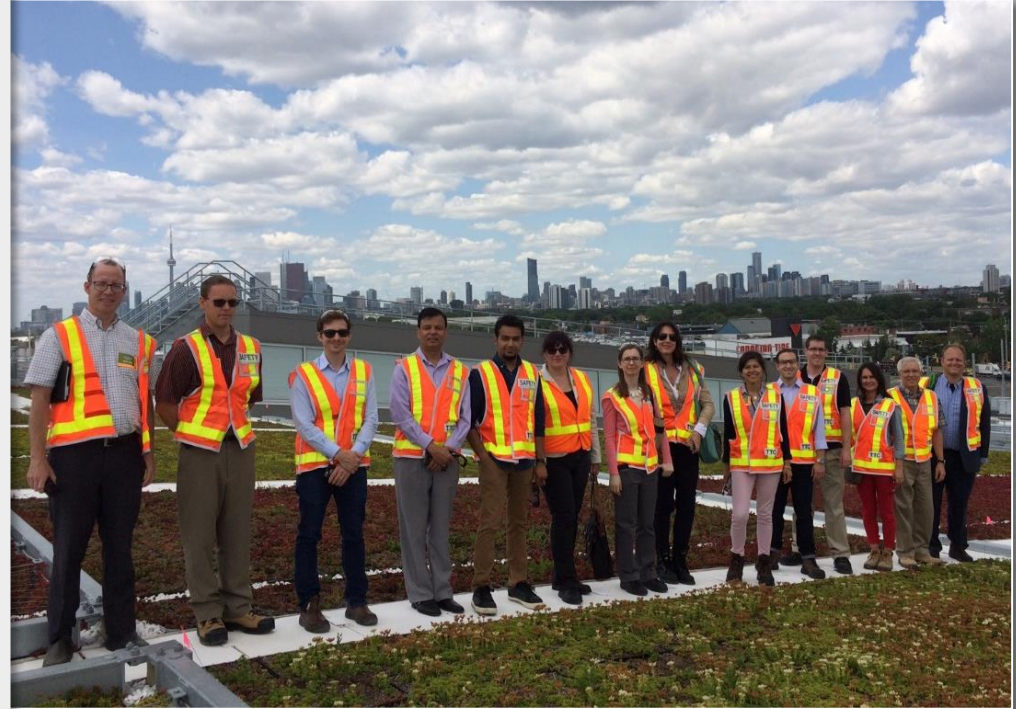
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1. Support City operations in conducting detailed risk assessments.
 2. Partner with the private sector and broader public sector in the implementation of collective action that increases Toronto's resilience.
 3. Develop and deliver a coordinated resilience outreach strategy for residents.
 4. Monitor how the climate is changing & identify Toronto's climate information needs.



Credit: [synestheticstrings](#)

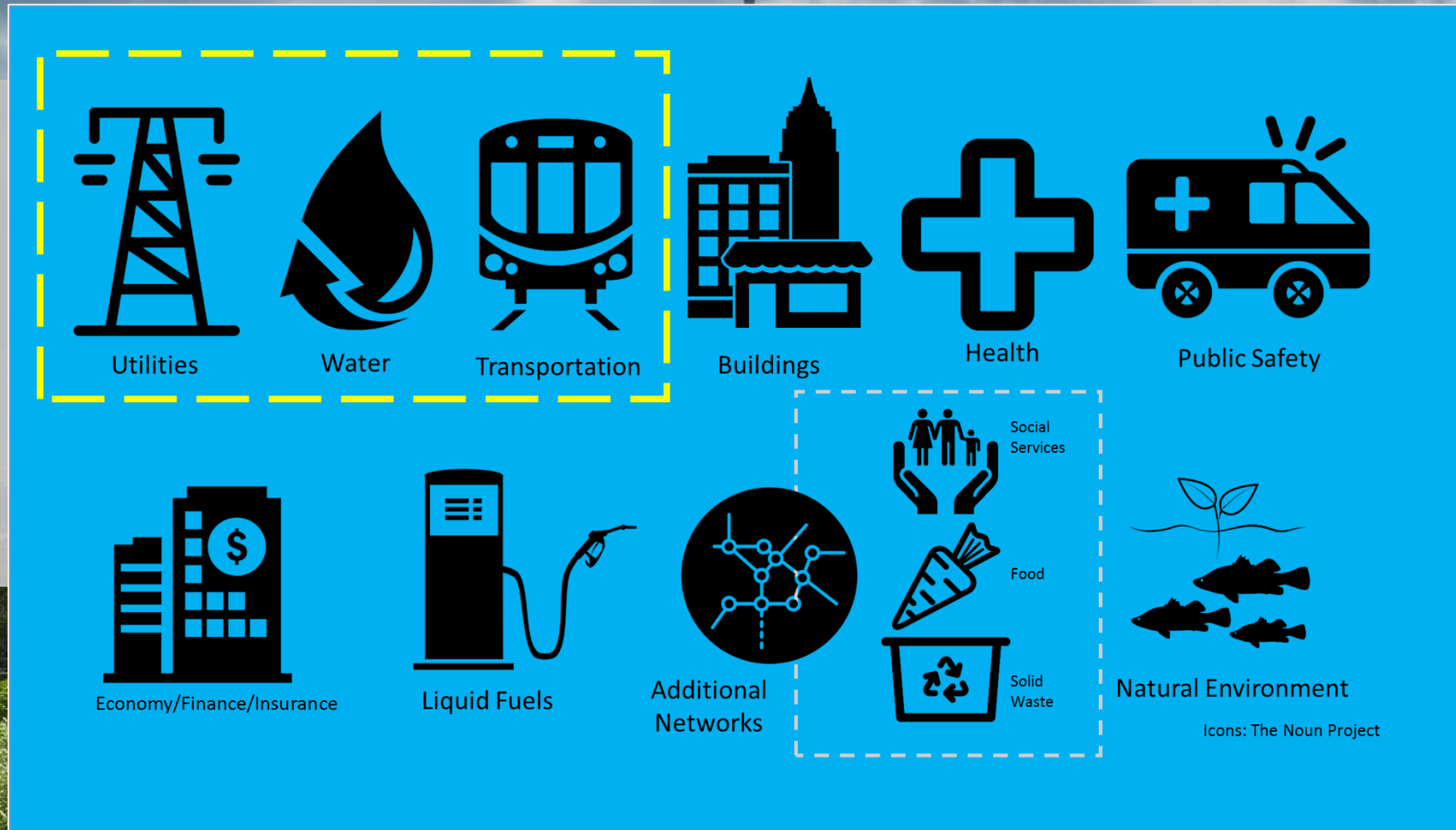
Resilient City Working Group

- City Planning
- Corporate Finance, Insurance and Risk Management
- Engineering & Construction Services
- Facilities Management
- Office of Emergency Management
- Parks, Forestry & Recreation
- Purchasing & Materials Management
- Shelter, Support & Housing Administration
- Social Development, Finance & Administration
- Toronto & Region Conservation Authority
- Toronto Building
- Toronto Hydro
- Toronto Public Health
- Toronto Transit Commission
- Toronto Water
- Transportation Services
- Metrolinx
- Hydro One



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High Level Risk Assessment (HLRA) Process

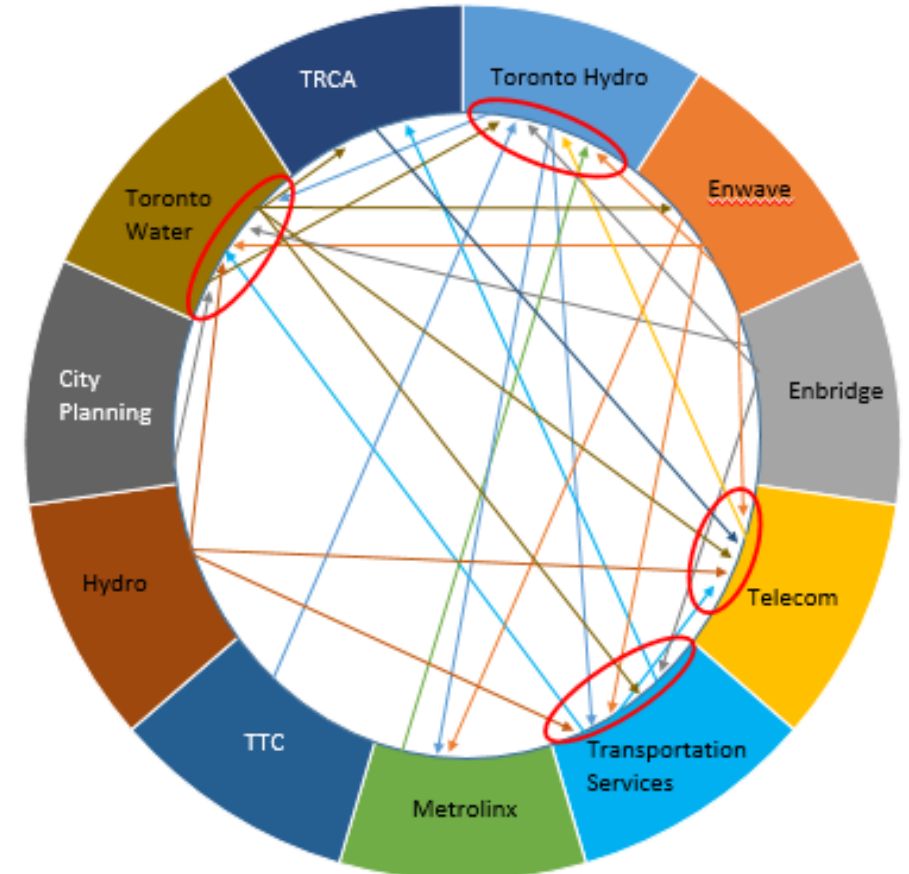


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Key Findings & Lessons Learned from HLRA Process



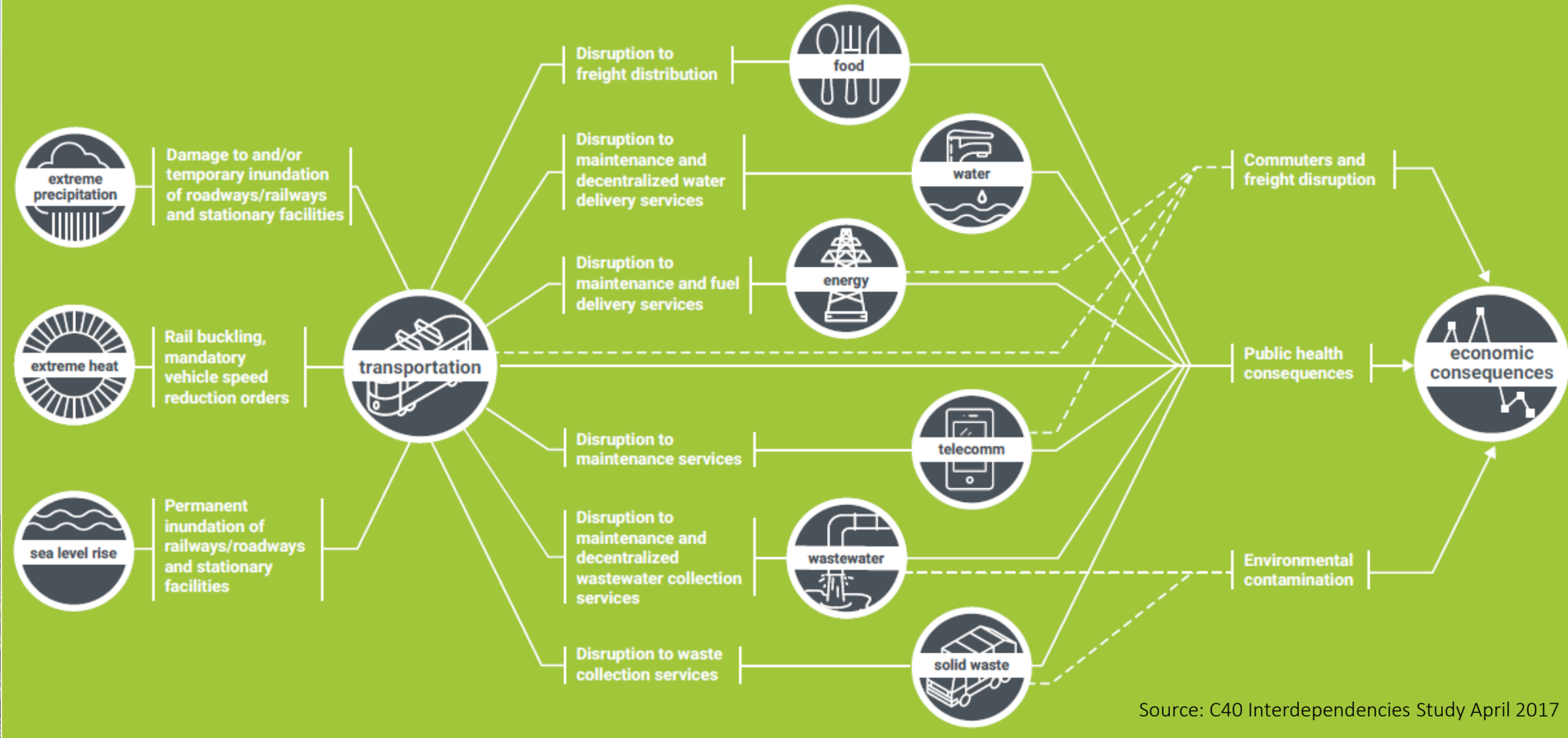
High Level Risk Assessment: Dependency Diagram



Credit: [syntheticstrings](#)

Understanding Interdependencies

Example of a sector that impacts multiple sectors: **Transportation**

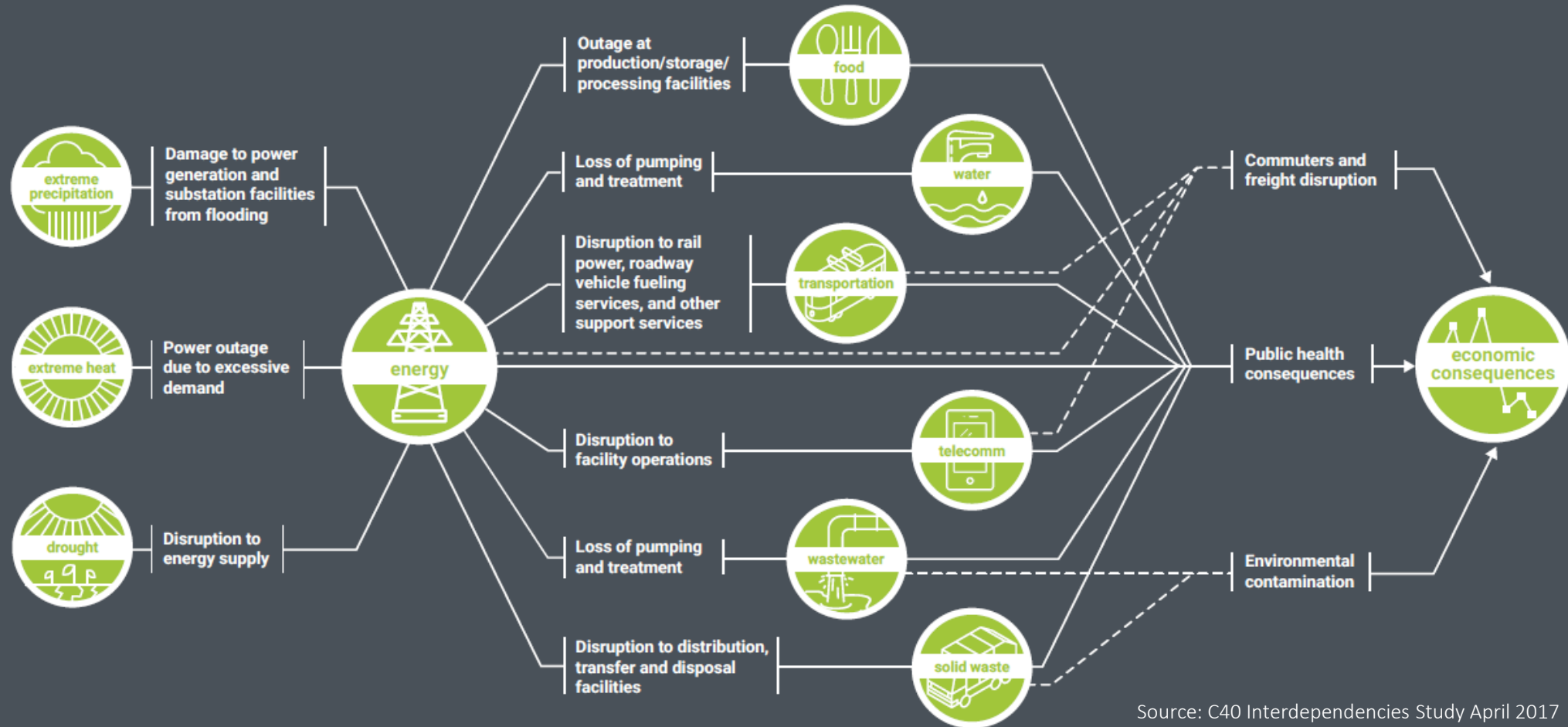


Source: C40 Interdependencies Study April 2017

Credit: [synestheticstrings](#)

Understanding Interdependencies

Example of a sector that impacts multiple sectors: **Energy**

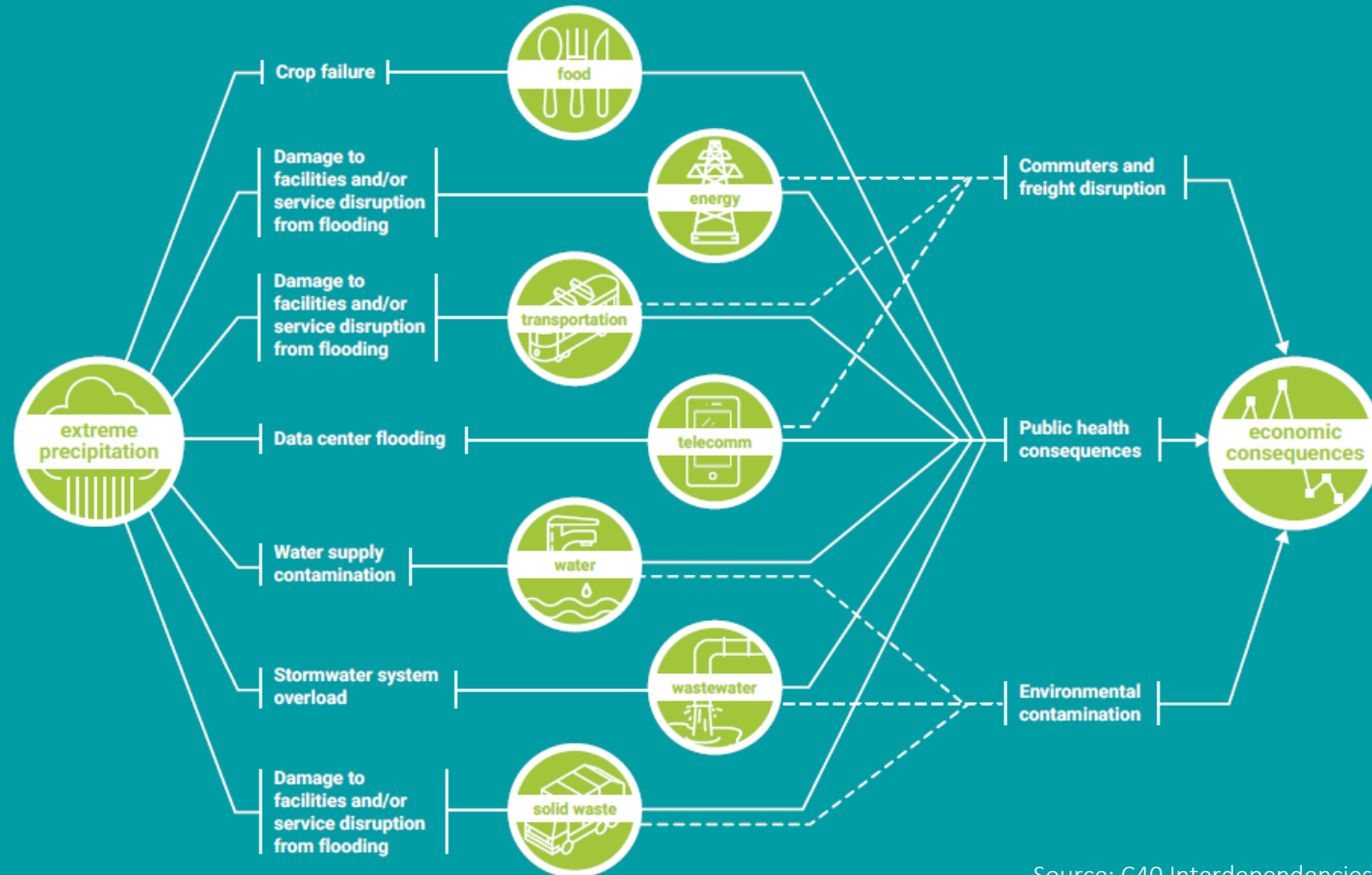


Source: C40 Interdependencies Study April 2017

Credit: [synestheticstrings](#)

Understanding Interdependencies

Example of a climate hazard that impacts multiple sectors: **Extreme precipitation**



Source: C40 Interdependencies Study April 2017

Credit: [synestheticstrings](#)

Current Work & Future Work

- Implementation of actions arising from High Level Risk Assessments & 2016 Report
 - Focus on understanding urban flooding
 - Exploring the use of GIS enabled decision support tools
 - Supporting Divisions + ABCs
 - Entering Year 1 of 2+ in partnership with 100 Resilient Cities
- Implementation of TransformTO Report 1 Strategies toward Toronto's long-term, low-carbon goals (80% reduction by 2050)



TransformTO

Credit: [synestheticstrings](#)

Long-Term Objectives



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Thank you.

For more information please contact:

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