

PIONEERED BY THE  
ROCKEFELLER FOUNDATION

100



CITIES

# Resilience + ICT4S

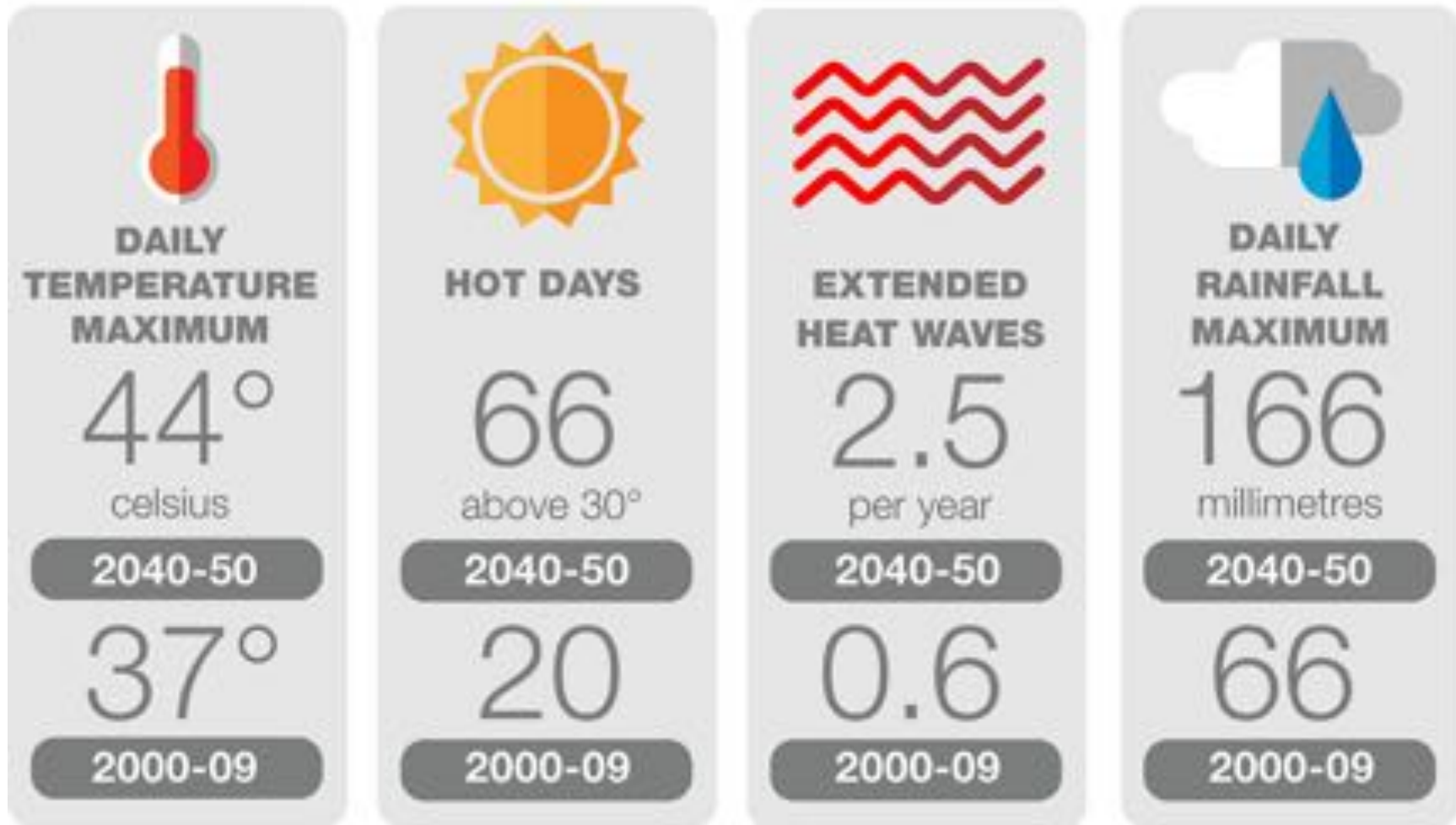
Opportunities and Challenges

# What is Resilience?

**Resilience is about making safe and livable cities for everyone.**

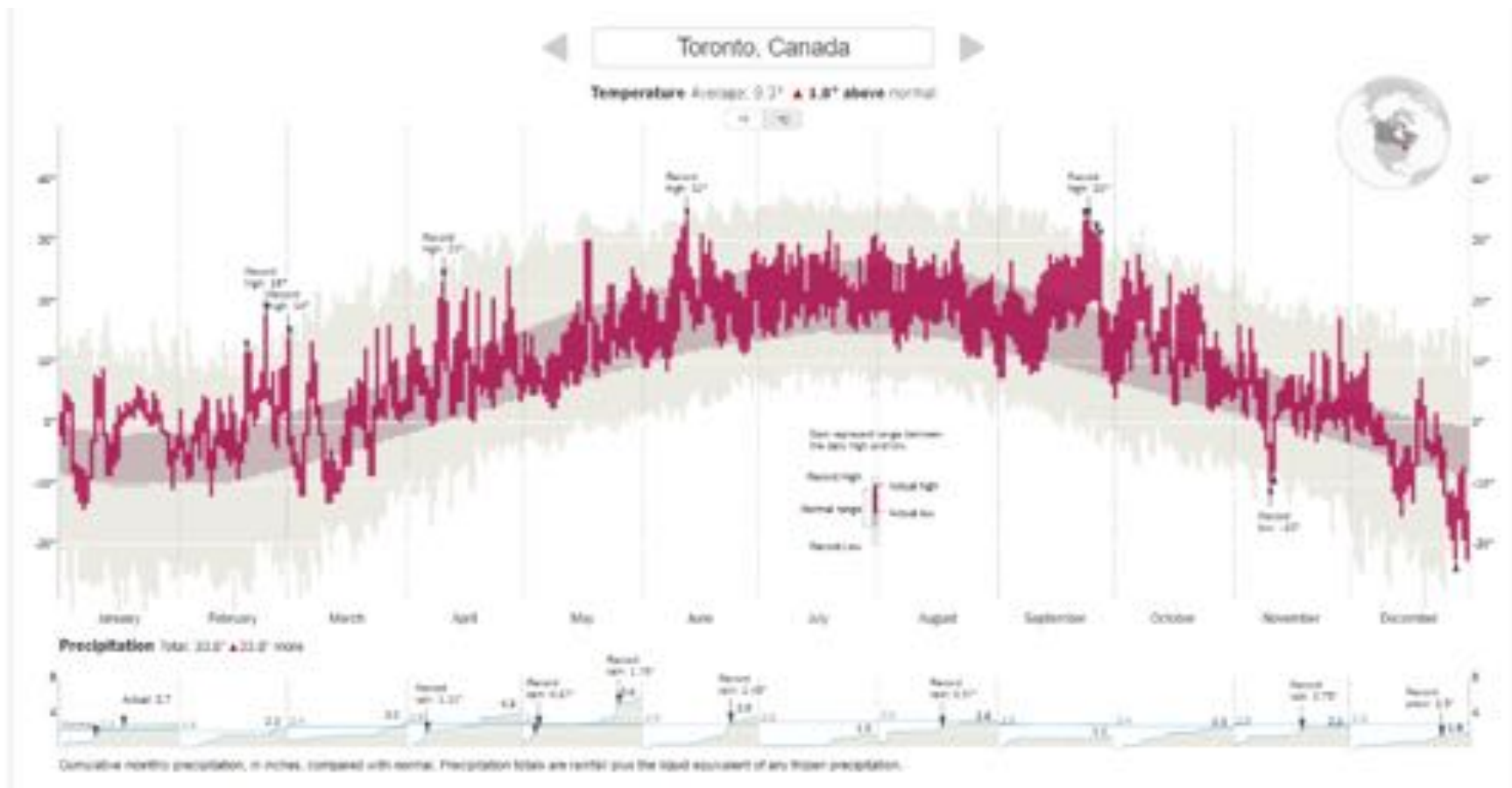


# Hotter, Wetter, Wilder

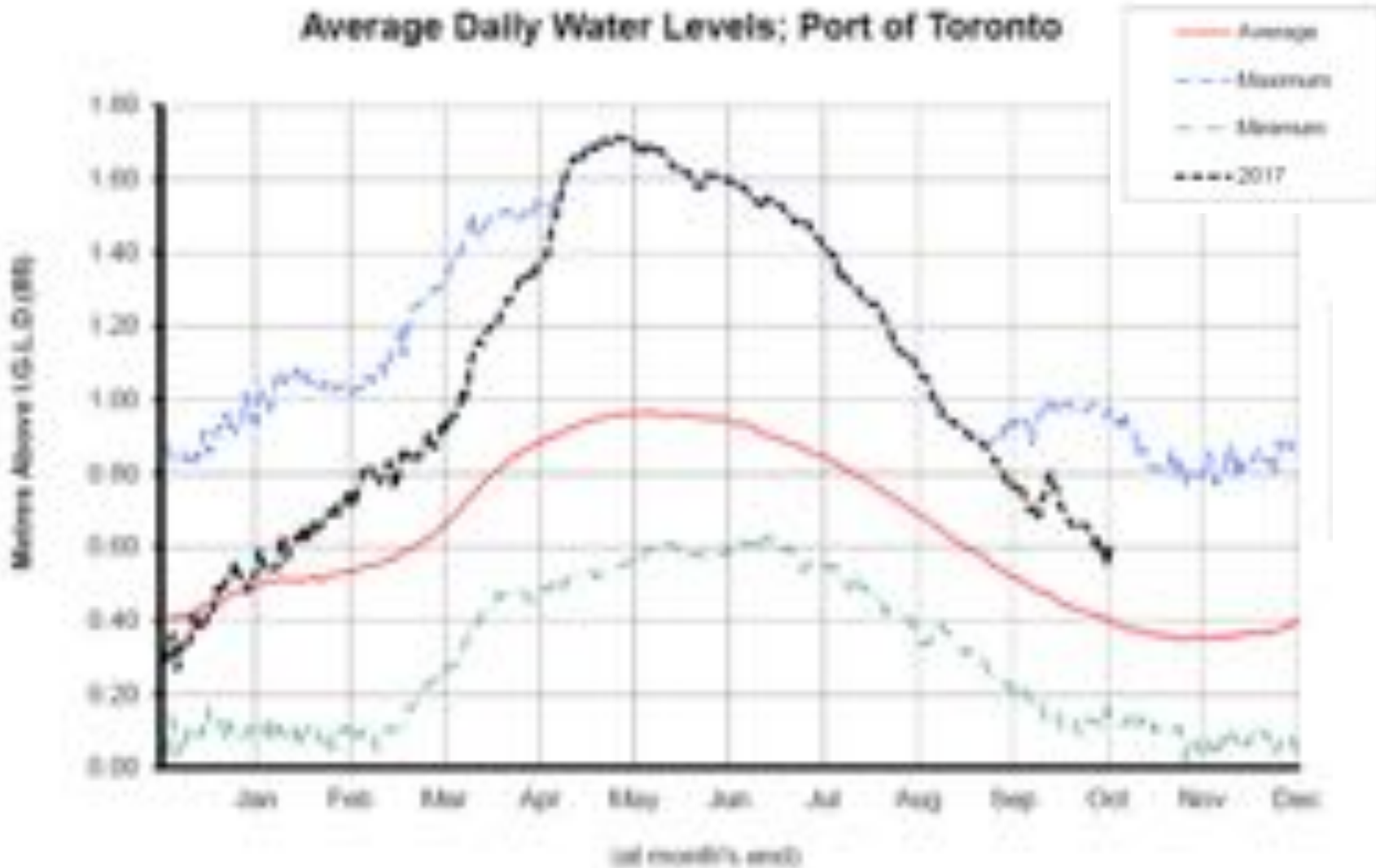


# A Hotter, Wetter, Wilder 2017

+1.8c above normal; 5% of days breaking heat, cold, or precipitation

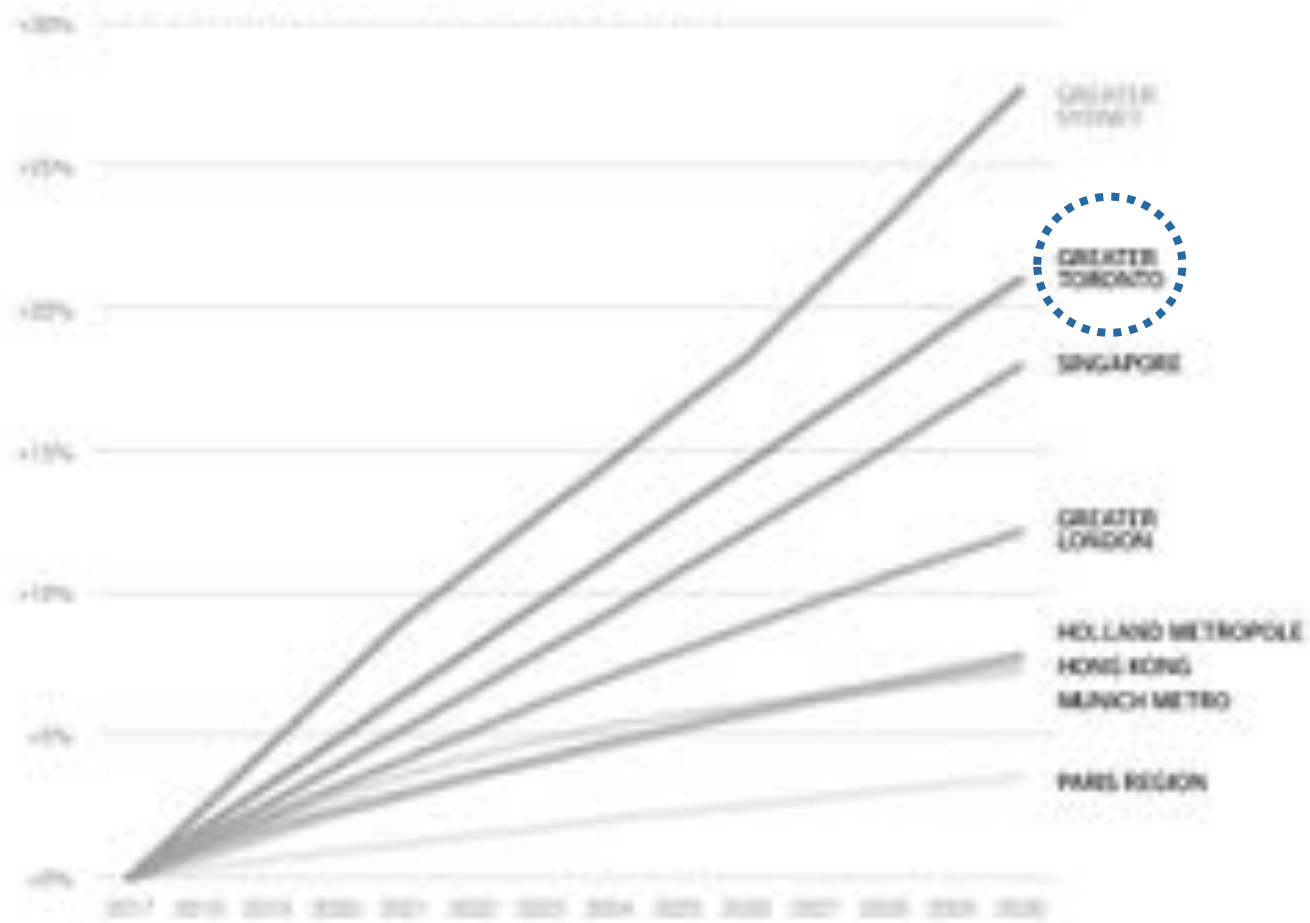


# Lake Level Rise 2017





# Growth and prosperity



Forecast Population Growth (%) 2017-2030

# But... prosperity is not shared by all

## Average Individual Income City of Toronto, 2015



NEIGHBOURHOOD  
CHANGE  
[www.NeighbourhoodChange.ca](http://www.NeighbourhoodChange.ca)

Low Income



Middle Income: 20% above  
or below the Toronto CMA  
average for the stated year.

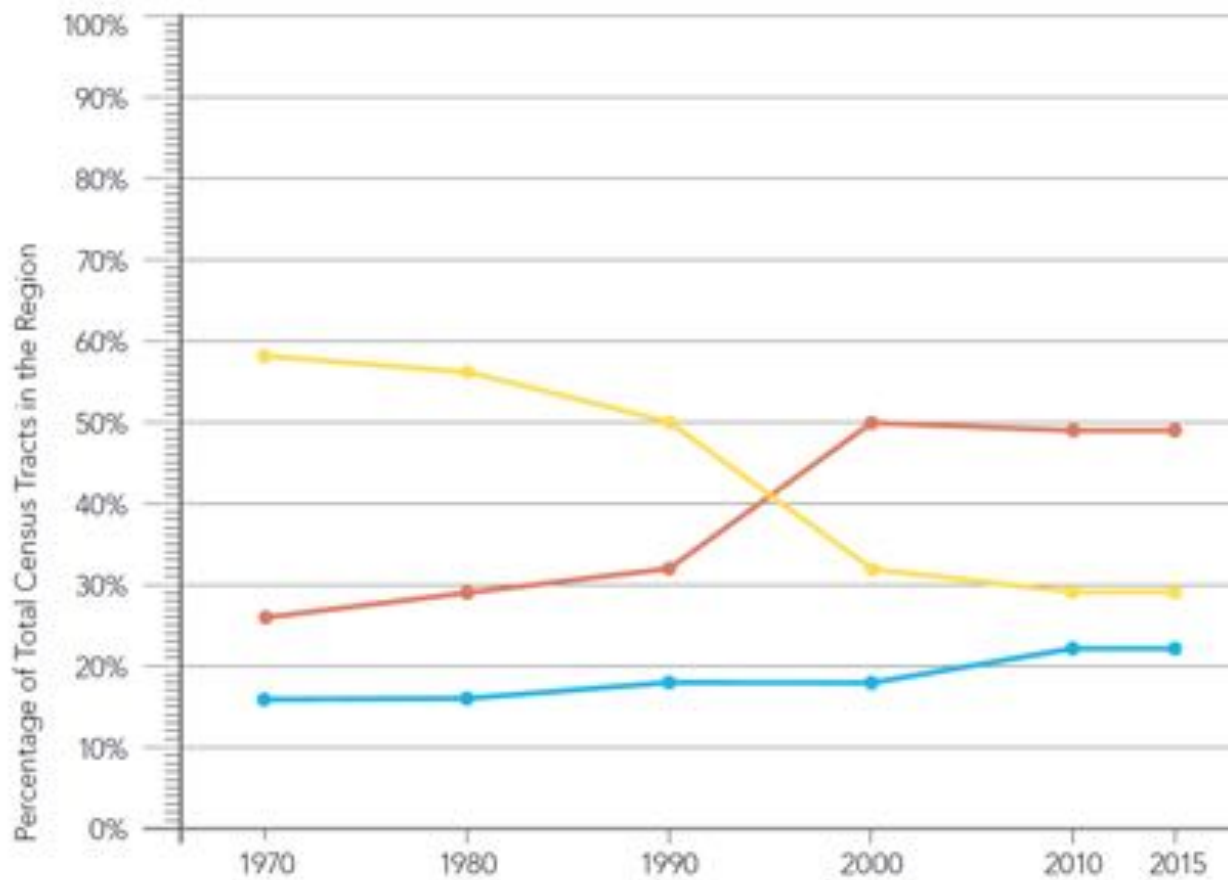


High Income

# A Tale of Two Cities

Point Change in Share of Census Tracts

Low & Very Low Income 22%    Middle Income -29%    High & Very High Income 7%





# The Original Resilience Strategy?

# Hurricane Hazel



1946

Conservation  
Authorities created by  
Ontario

1951

CA's propose a flood  
protection measures  
(which are rejected)

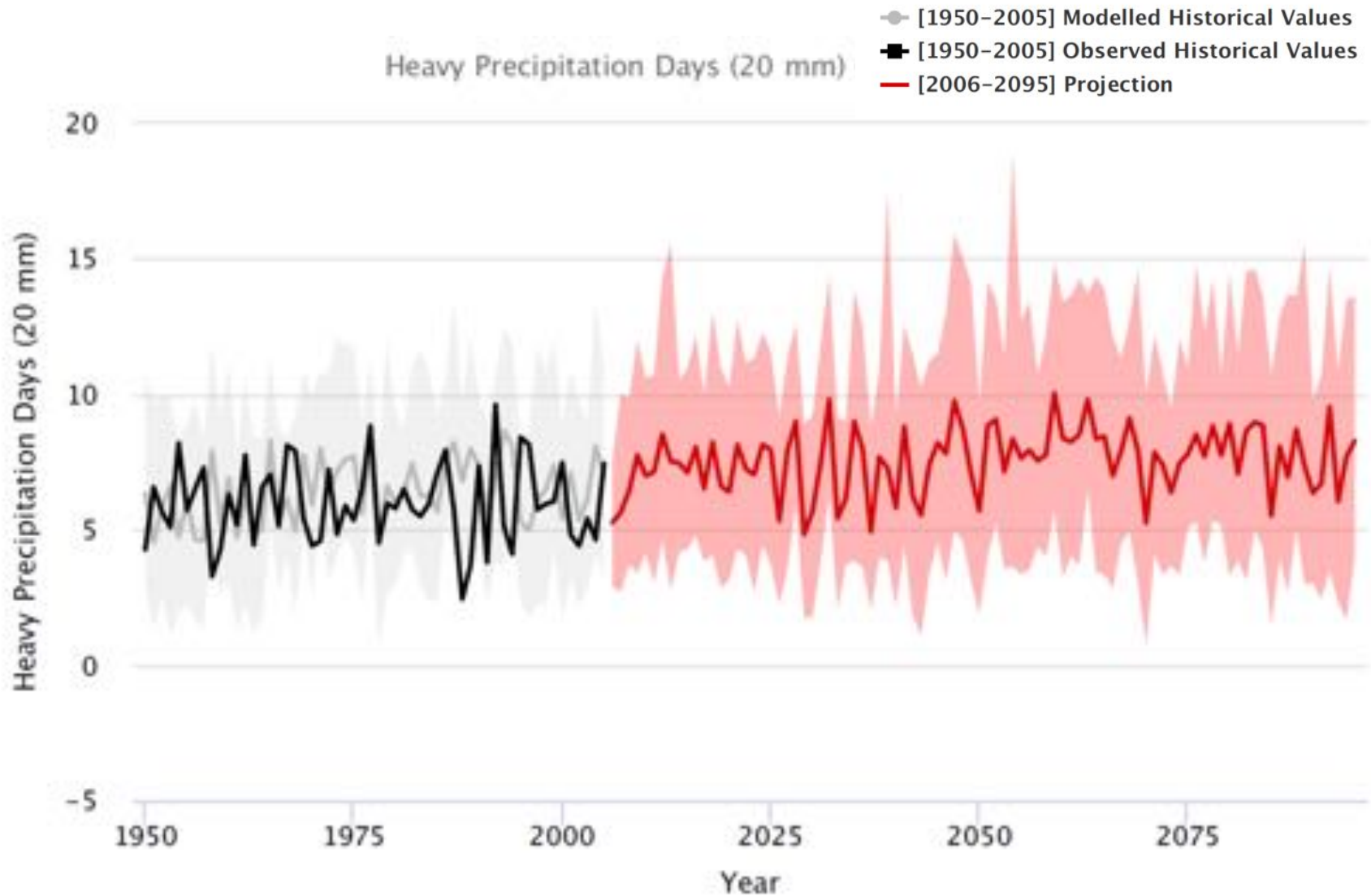
1954

Hurricane Hazel

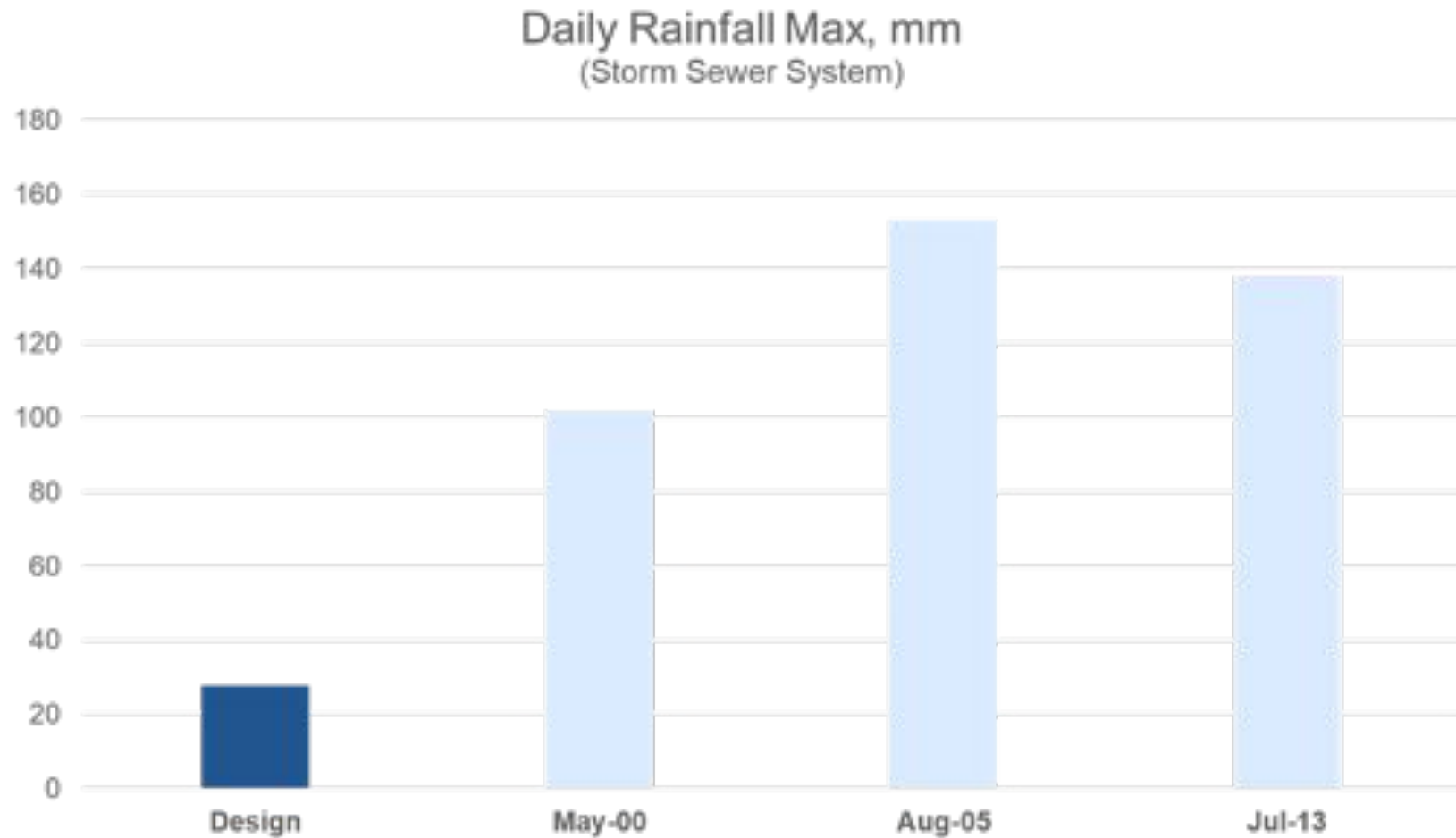
1957

TRCA expropriates  
land, changes  
planning approvals

# Public-Private Climate Modelling?



# What are we building to?



# Resilience + Towers

# What Towers?

**Pre-1985**

**>500,000 Residents**

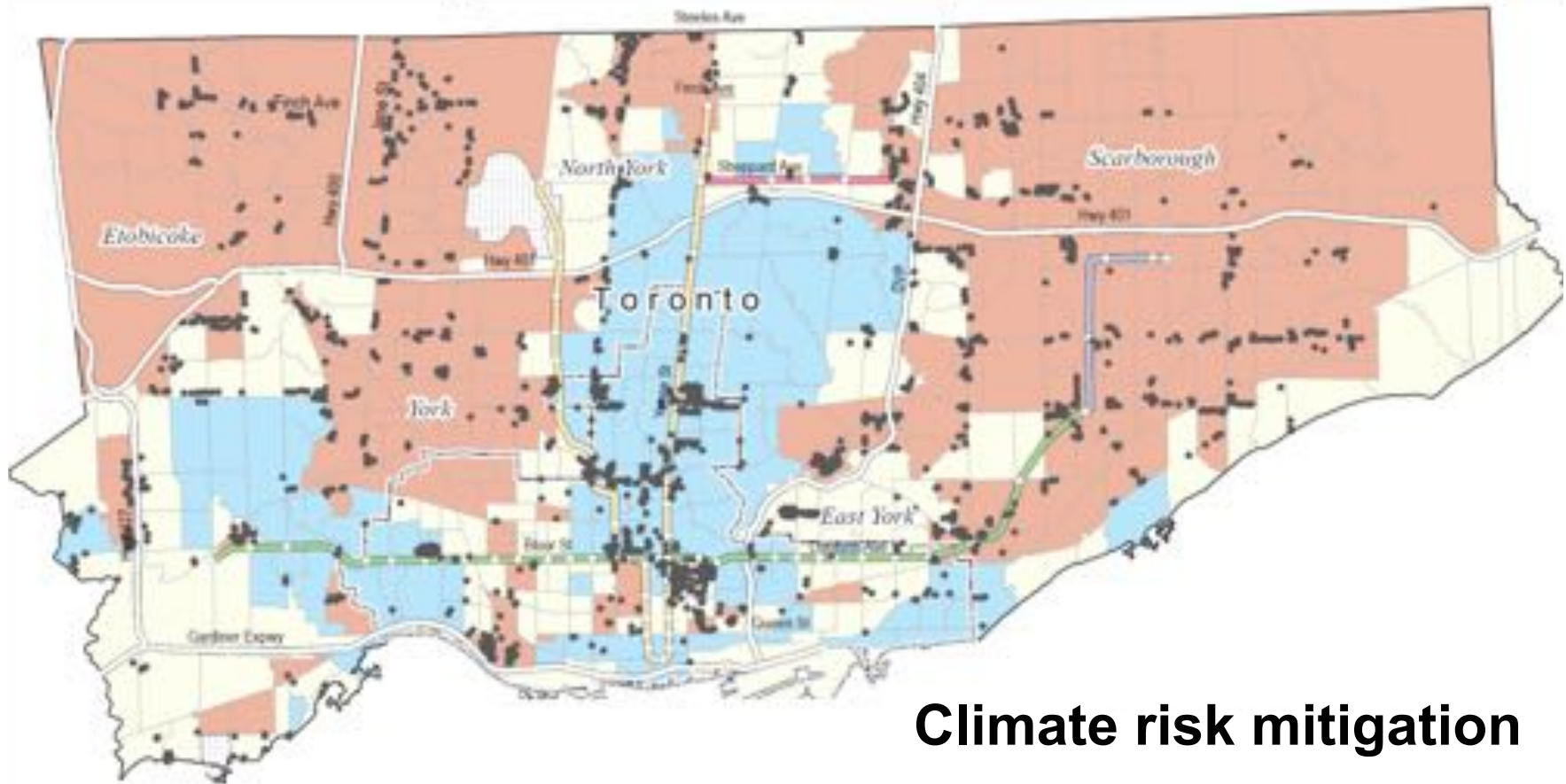
**1189 Towers**

**45% of Rental**





# Tower Renewal Opportunity



**Climate risk mitigation**

40-80% Energy Savings

25-30% SWM + Water Savings

**Housing quality and affordability**

# Smart Cities Challenge

## THE DIGITAL DIVIDE

Over 47,000 children are living below the poverty line in these high-rise towers

Rising internet cost forces low-income households to forego other necessities such as food and rent

27 % of Toronto Public Library users do not have internet access at home

Low income residents are forced to choose between cellular data or internet access at home due to cost

"Lack of access to the Internet excludes low-income Canadians from equal opportunities to education, employment, government services and modern civic participation."

- ACORN Canada

**Data is an Enabler...  
not a Solution**

# In Toronto, you need to build consensus

## MARCH HIGHLIGHTS

### TRANSIT RELIABILITY



**85%**

of streetcars arriving within 4 minutes westbound during the morning commute.

### TRANSIT TRAVEL TIMES

The reliability of streetcar travel times has continued to improve.



**Approx. 5 minute**

improvement in each direction during the PM commute for the slowest streetcar travel time.

### CAR TRAVEL TIMES & VOLUMES



Who-to travel times in March, especially during the afternoon rush hour, have generally improved when compared to before the pilot.



Drivers on King Street continue to access local businesses or residences, conduct loading and deliveries, and pick up/drop-off passengers. Traffic previously using King Street has generally shifted to alternative east and west routes.



The downtown traffic network has been largely able to absorb and respond to the changes in routing that drivers have made.

#### BASELINE

See collection dates.

TTC: September 17 to October 16, 2017 and October 30 to November 4, 2017. Community Transit: November 6 to 17, 2017. Community Transit: November 6 to 17, 2017.

Metrolinx: September 17 to October 16, 2017 and October 30 to November 4, 2017. Metrolinx: October 16 to 20, 2017. Metrolinx: November 6 to 17, 2017.

### PEDESTRIAN VOLUMES

Pedestrian volumes in March were generally similar to those from February.

Changes in the number of pedestrians from November to March show similar trends on both King Street and Queen Street.



On King Street...



MIDDAY



EARLY EVENING

Weekday all-day pedestrian volumes indicate that mid-day and evening volumes remain relatively high.

All King Street and Spadina Avenue, average volumes from 12 p.m. to 2 p.m. exceed those from the AM Peak between 7 a.m. and 10 a.m.

Average early evening volumes (7 p.m. to 10 p.m.) are comparable to those from the mid-afternoon (2 p.m. to 4 p.m.).

### CYCLING VOLUMES

Overall changes in the number of cyclists throughout the downtown are consistent with expected seasonal changes.

On King Street, cycling volumes initially increased after the pilot was installed, before returning to cycling volumes relatively consistent with before the pilot. In March, there was a moderate increase in the number of cyclists compared to the baseline.



#### MARCH

See collection dates.

TTC: March 20 to March 22, 2018. Community Transit: March 20 to 22, 2018. Metrolinx: March 20 to 22, 2018.

## PREVIOUS HIGHLIGHTS

### TRANSIT RIDERSHIP



**16%**

increase in all-day weekday ridership.



**25%**

increase in AM commute ridership (westbound at Spadina Ave.)



**27%**

increase in PM commute ridership (westbound at University Ave.)

### TRANSIT CAPACITY

To respond to this growth in ridership, the TTC has increased the capacity of streetcar service on routes that serve the pilot area.

Before Pilot



Peak of Pilot (Jan. 24/18)



### ECONOMIC POINT-OF-SALE DATA



**NO CHANGE**

Customer spending since the pilot began is in line with seasonal spending patterns over the past three years.

# Connect with #ResilientTO

@elcappell and @resilientto  
resilientto@toronto.ca