

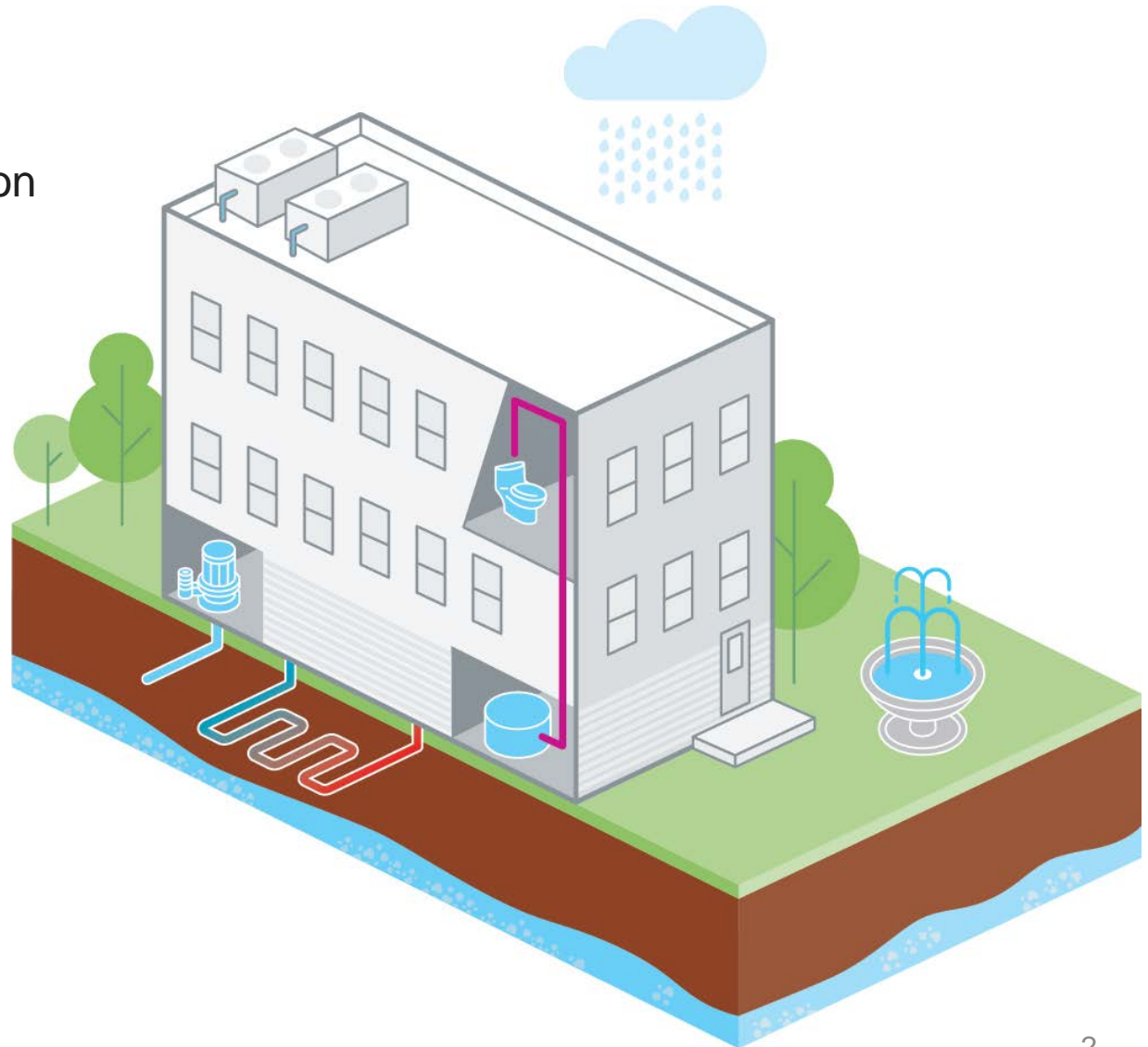


Water Use in Buildings: Enhanced Public Safety, Efficiency & Long-Term Resiliency Measures

December 5, 2018

Report Summary

1. Toilet efficiency
2. Groundwater protection
3. Safer water systems in buildings



Vancouver Building By-law

National Building Code

BC Building Code

Vancouver Charter

Unique Vancouver
requirements

**Vancouver
Building
By-law**

Strategic Goals:

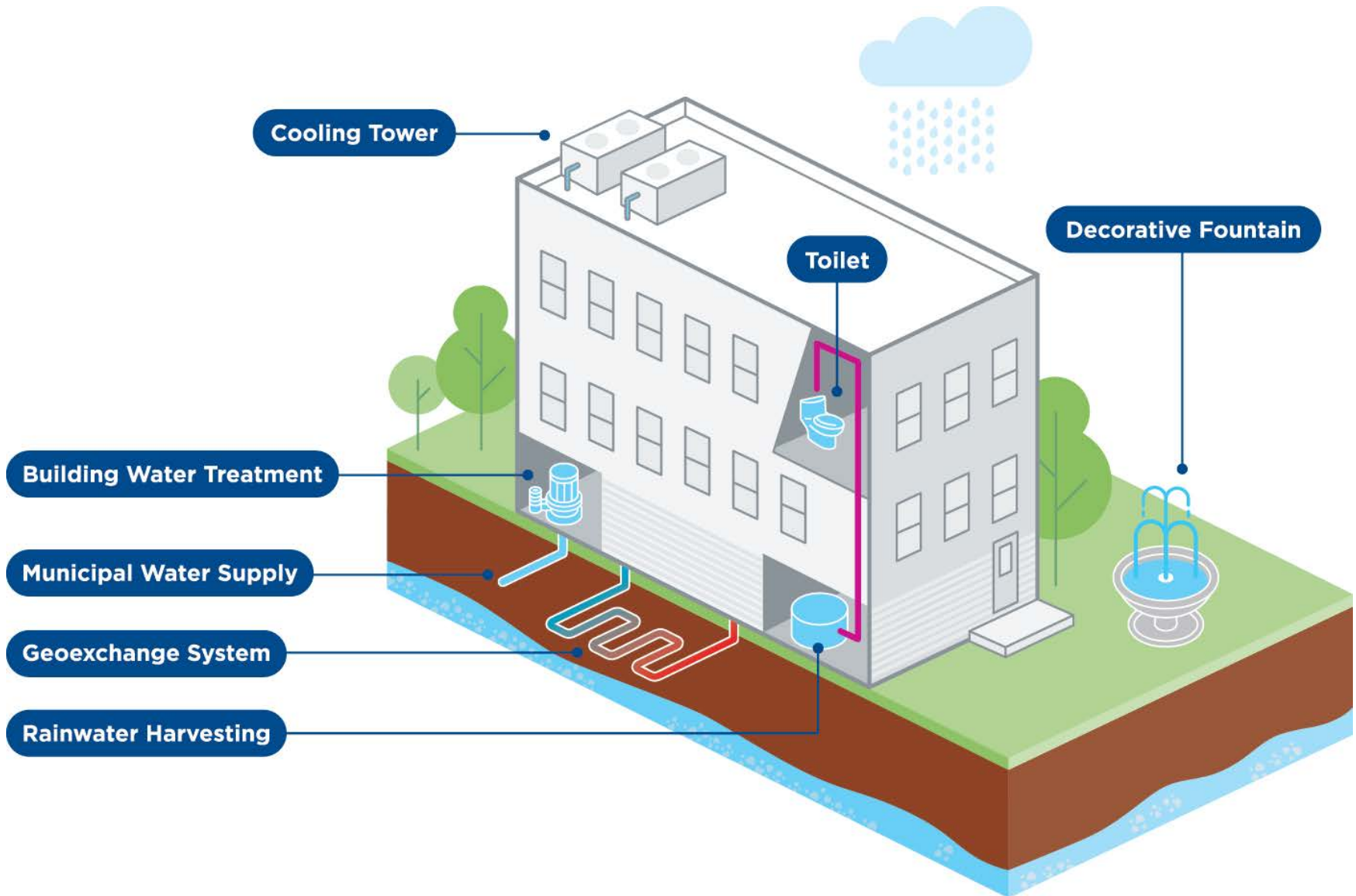
- Proactive & outcome based
- Holistic: planning to occupancy
- Affordable, livable, sustainable & inclusive city
- Partnerships



Vancouver Building By-law



Report Details



1) Toilet Efficiency

Flushometer



Single Flush

4.8 L



Dual Flush

4.8 L

Tank



Single Flush

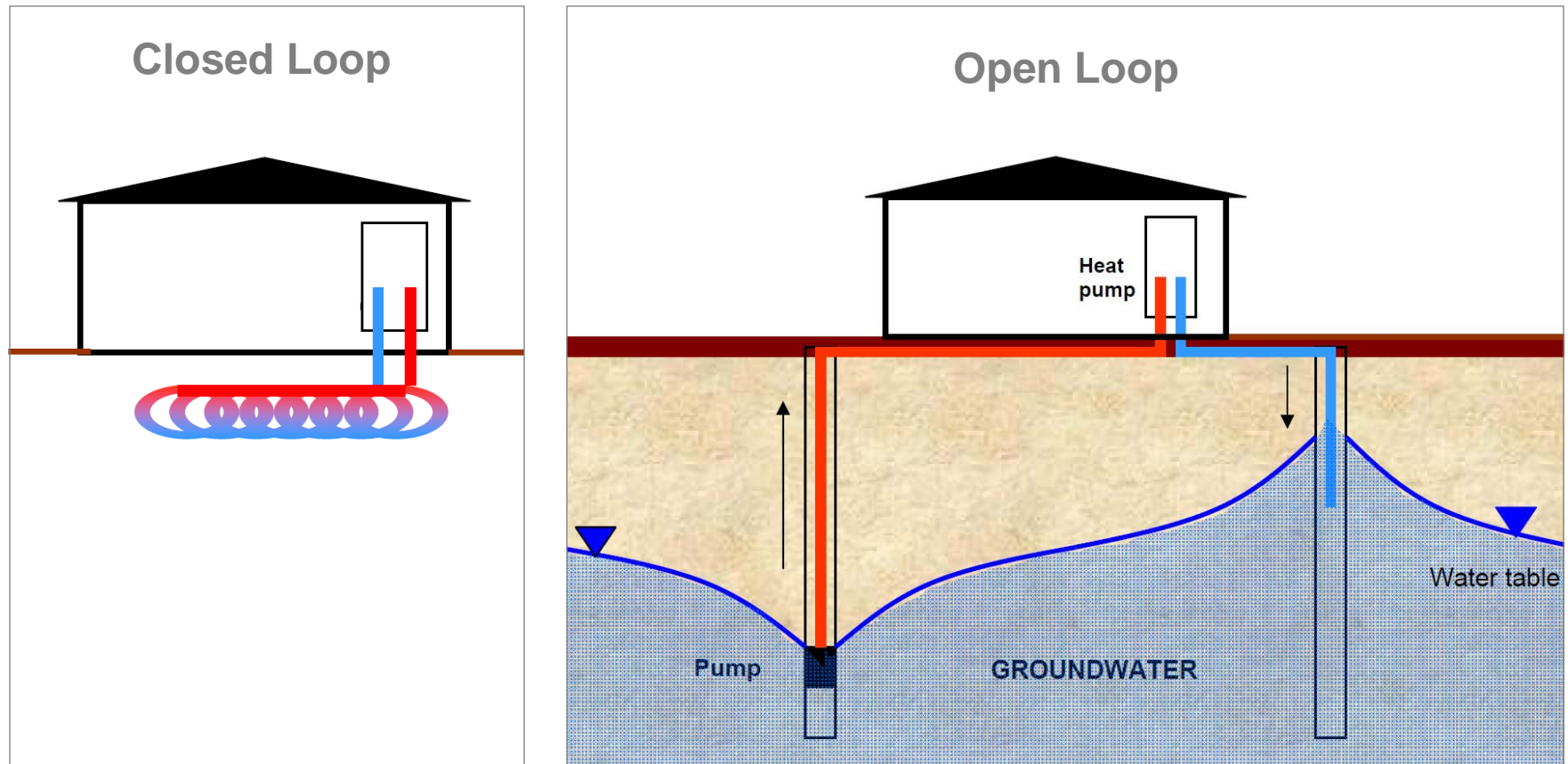
4.8 L



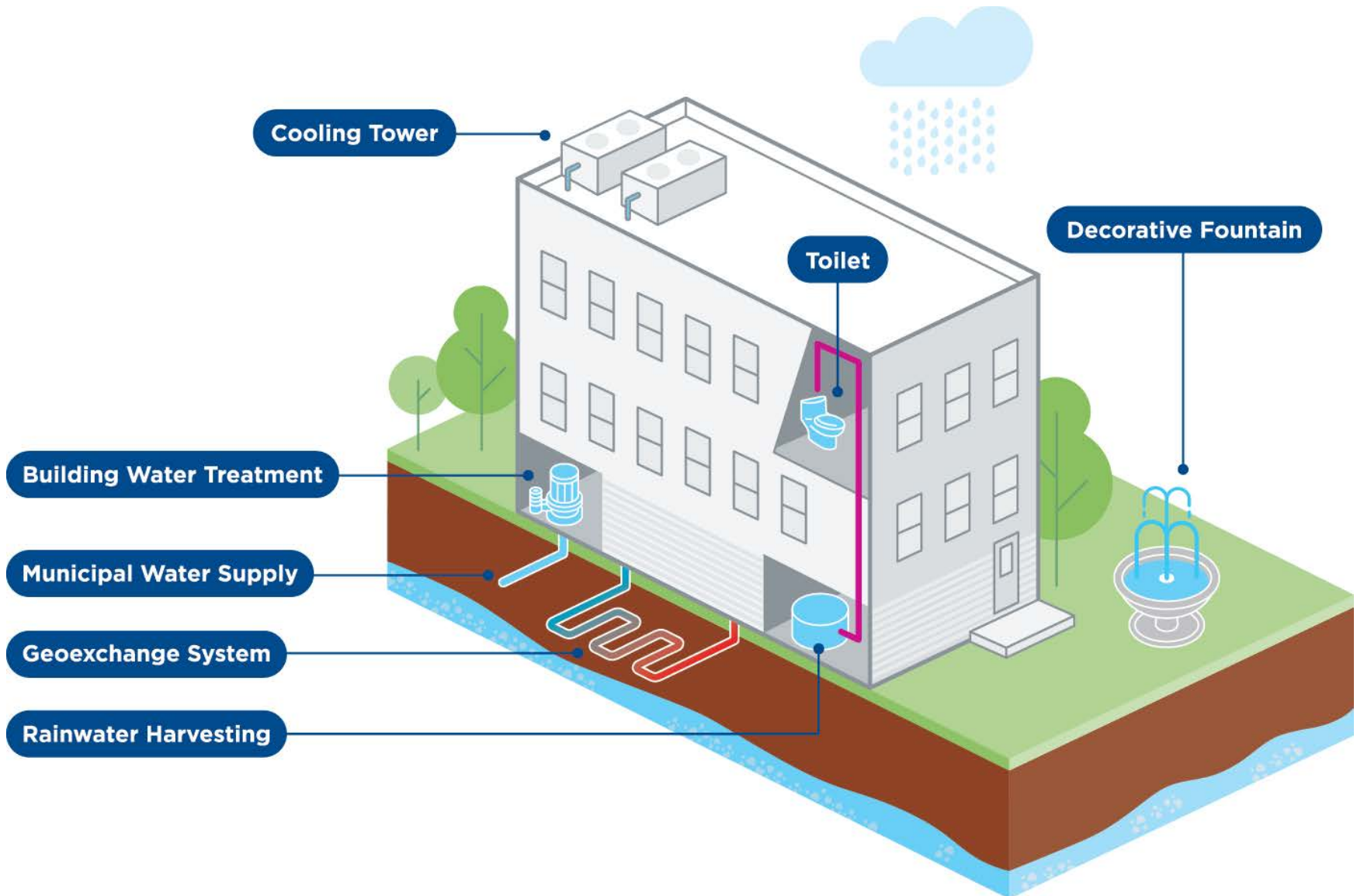
Dual Flush

6.0 L

2) Groundwater Protection



3) Safer Water Systems in Buildings



Rainwater Harvesting

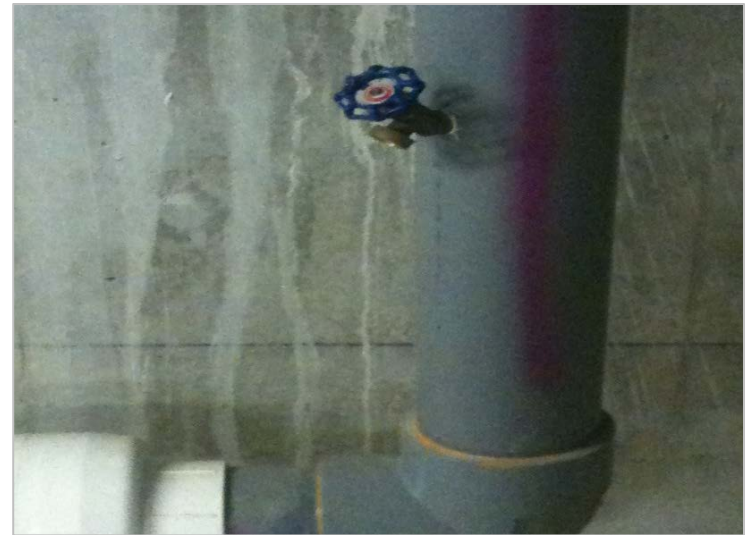


Image source: City of Vancouver

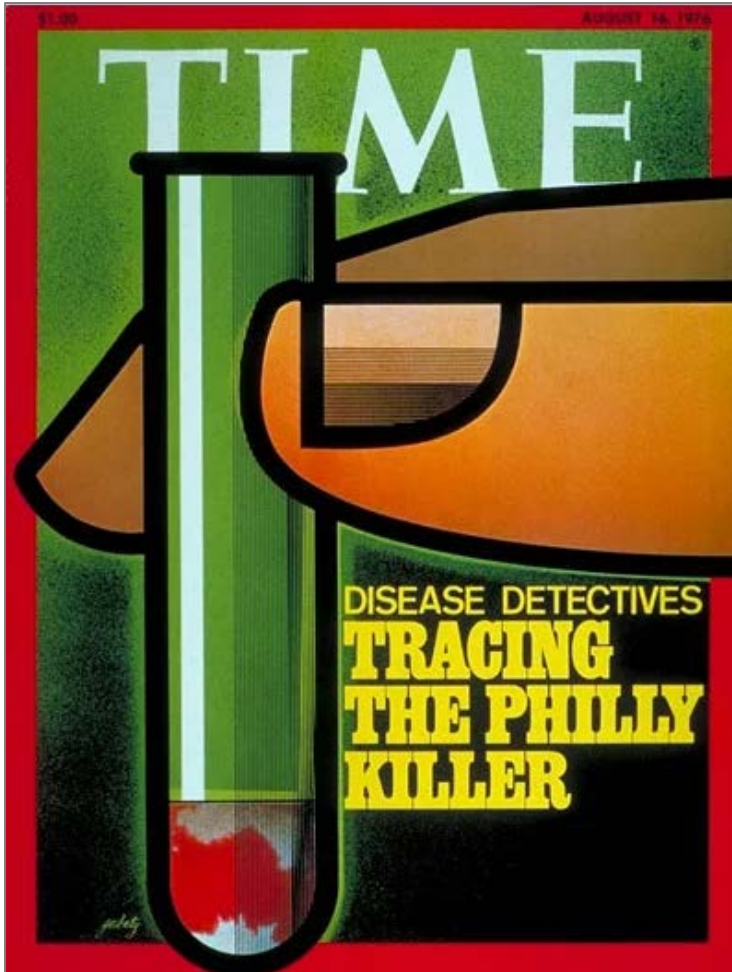
Building Water Treatment Systems



- Implementation:
 - January 1, 2019: Toilets, geoexchange systems, rainwater harvesting
 - June 3, 2019: Building water treatment systems

- Annual operating permits:
(rainwater harvesting & building water treatment systems)
 - No fee
 - 2019: Fee review
 - 2020: Cost-recovery basis (estimate: \$250)
(elevator comparison: \$246 to \$527)

3) Safer Water Systems in Buildings





Orpheum Theatre
Image source: City of Vancouver

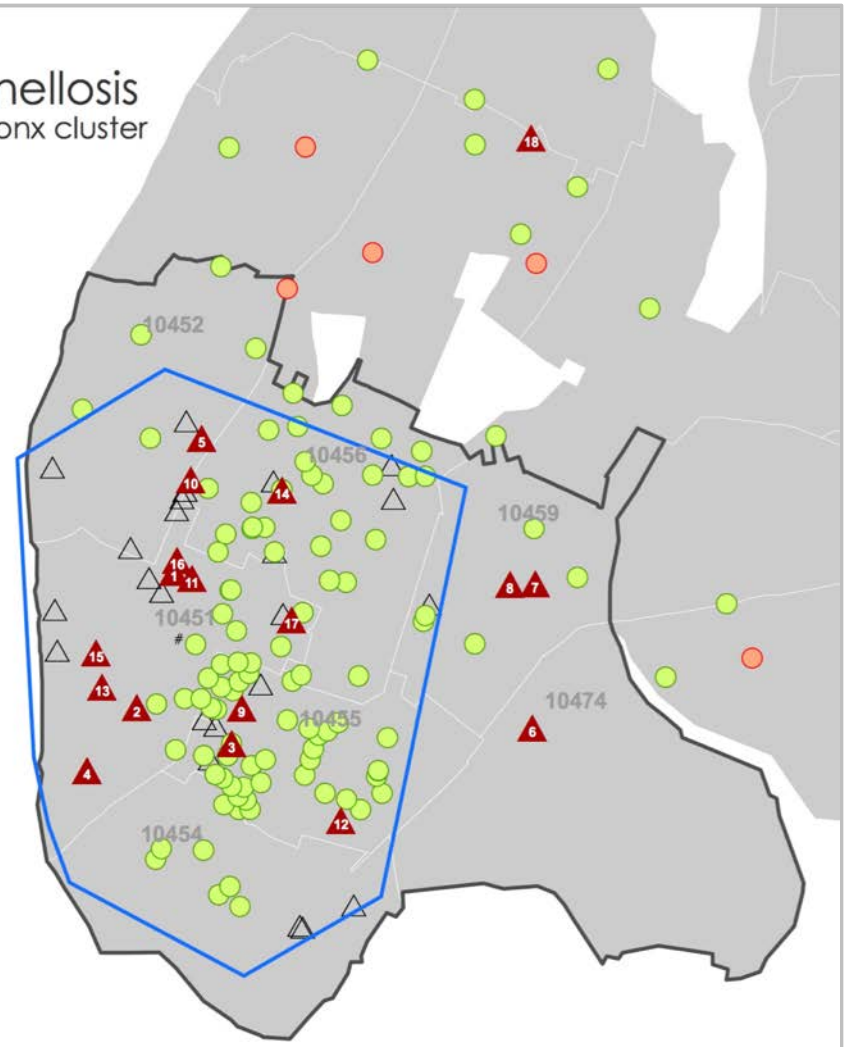
Cooling Towers

Cooling towers and legionellosis case-patient residences near South Bronx cluster

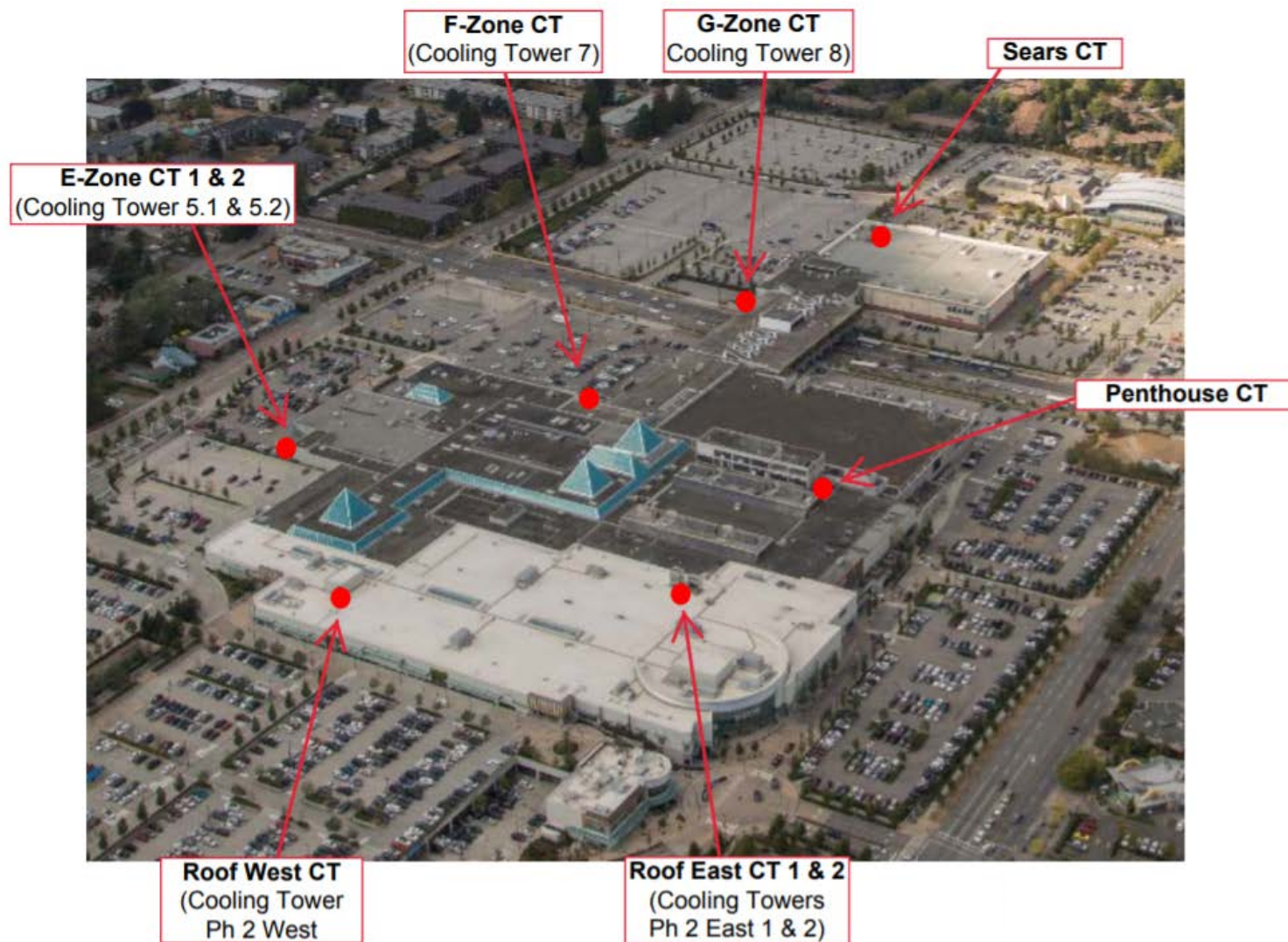
- Epi-linked
- Not Epi-linked
Event Dates 7/8/15-8/18/15

Buildings with Cooling Towers
Updated 8/18/15 9:00 AM

- ▲ Positive
- △ Negative
- ✕ Pending
- Impact Zone



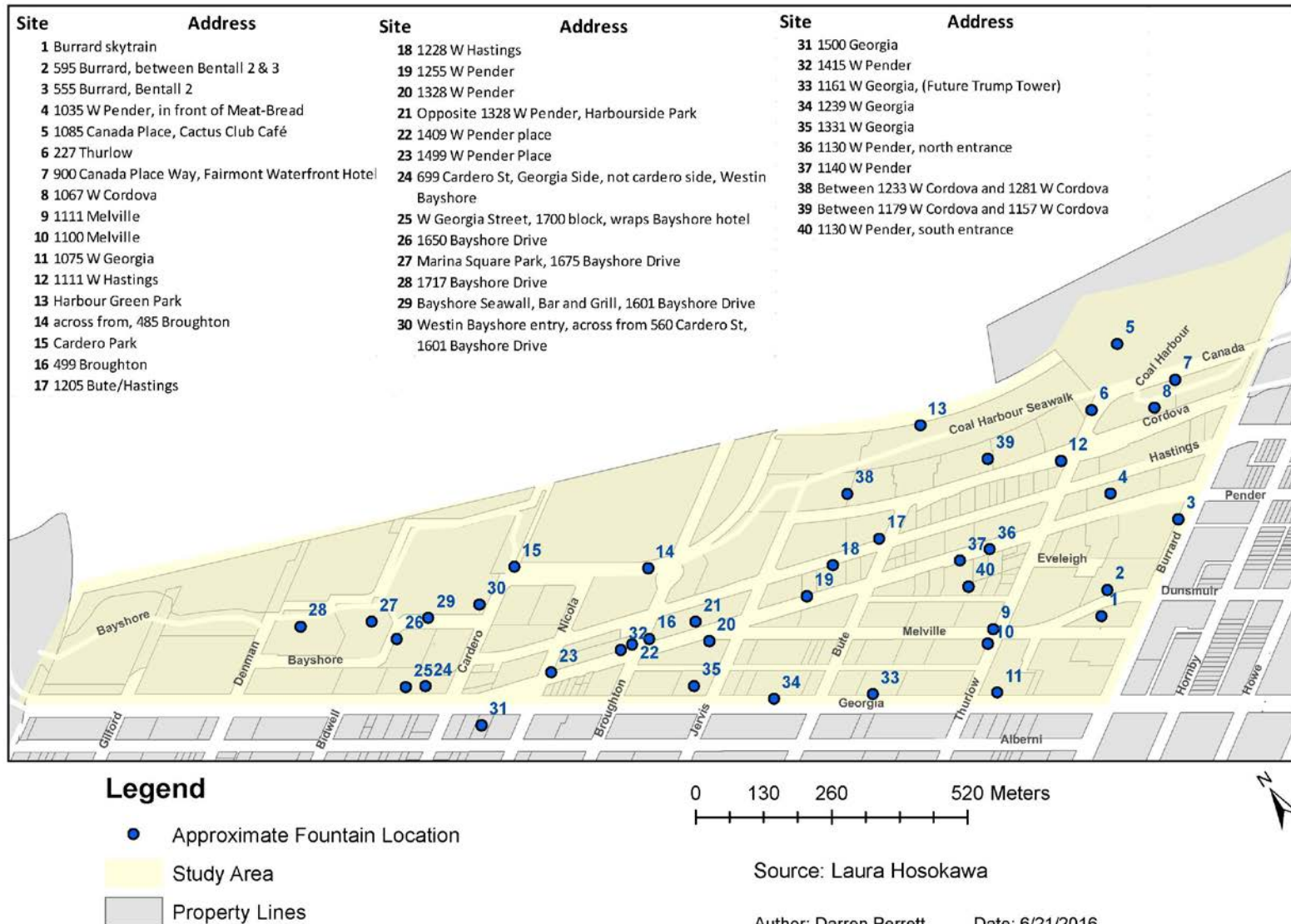
Cooling Towers



Surrey, BC

Image source: BC Centre for Disease Control and Fraser Health Authority

Decorative Fountains



- Implementation:
 - January 1, 2020: Cooling towers
 - July 1, 2020: Decorative fountains

- Annual operating permits:
(cooling towers & decorative fountains)
 - No fee
 - 2019-2020: Ongoing consultation

Acknowledgements

- Health Authorities:
 - Vancouver Coastal Health
 - BC Centre for Disease Control
 - Centers for Disease Control & Prevention (US)
 - New York City Department of Health & Mental Hygiene

- UBC & Vancouver Economic Commission
(Greenest City Scholar Program)

- Granting Agencies:
 - Federation of Canadian Municipalities (Green Municipal Fund)
 - Urban Sustainability Directors Network (Peer-Exchange Grant)

Questions?

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- Phillip White
Assistant Trades Manager
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Policy Analyst
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Thank you

