Climate Change
Adaptation
Refresh

Sustainability Breakfast
Dec. 12, 2018
City of Vancouver

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OUTLINE

- Background
- Achievements and Learnings
- New Action Plan
Impacts and risks for selected natural, managed and human systems

Global mean surface temperature change relative to pre-industrial levels (°C)

- Warm-water corals
- Mangroves
- Small-scale low-latitude fisheries
- Arctic region
- Terrestrial ecosystems
- Coastal flooding
- Fluvial flooding
- Crop yields
- Tourism
- Heat-related morbidity and mortality

Confidence level for transition: L=Low, M=Medium, H=High and VH=Very high

adapted from source: “Climate Change 2014 Synthesis Report Fifth Assessment Report”, IPCC
adapted from source: “The Economic Impacts of the Weather Effects of Climate Change on Communities”, Green Analytics Corp. and OCCIA
The Impact of Climate Change on Mental Health and Lost Time From Work

Extreme weather in Canada is on the rise and getting worse.

The average cost of a flooded basement in Canada is $43,000.

Source: "After the Flood - The Impact of Climate Change on Mental Health and Lost Time from Work", Intact Centre on Climate Adaptation and the University of Waterloo

Growing Impacts

Three years after their home was flooded, almost half (48%) of survey respondents were still worried every time it rains.

Compared to 3% of respondents who never experienced a flood.

7 days off work
average per working flooded households.

10x Ontario average.

In the first month after experiencing a flood, 47% of people experienced worry and stress compared to only 11% of people whose homes had never been flooded.

"When it rains, it makes you anxious."
VANCOUVER

2012

CLIMATE CHANGE
ADAPTATION STRATEGY
STRATEGY PROCESS

1. BEST SCIENCE
2. IDENTIFY IMPACTS
3. PRIORITIZE IMPACTS
4. DEVELOP ACTIONS
ACHIEVEMENTS

URBAN FOREST STRATEGY

INTEGRATED RAINWATER MANAGEMENT

HEAT, CANOPY, VULNERABILITY MAPPING

SEA LEVEL PRIMER: VANCOUVER’S CHANGING SHORELINE
EQUITY AND INTEGRATION

NOT ALL GROUPS AFFECTED EQUALLY
reduce risk and enhance resilience for marginalized communities

INTEGRATING ADAPTATION
leads to co-benefits and opportunities
INTEGRATION

MV CLIMATE ADAPTATION

ADAPTATION STRATEGY

100RC

UBC, SFU

UGC, CDC

RCS

H.C

UFS

GI

UR+

BCH

VCH
ACTION PLAN

ENABLING ACTIONS

- Strong Leadership, Partnership, Governance
- Mainstream Effectively
- Improve Data and Information
- Build Capacity and Knowledge
ACTION PLAN

CORE ACTIONS

1. Climate Projections and Impacts
2. Vulnerability and Risk Assessment
3. Actions Development and Evaluation
4. Co-benefits, Integration, Equity
5. Implementation
6. Monitoring

Strong Leadership, Partnership, Governance

Improve Data and Information

Build Capacity and Knowledge

Mainstream Effectively
CLIMATE ROBUST INFRASTRUCTURE

ROBUST ACROSS
CLIMATE PROJECTIONS

REDUNDANCY
AND DIVERSITY
CLIMATE RESILIENT BUILDINGS

NEW BUILDING DESIGN
building policy and bylaws informed by new normals

OPPORTUNITIES DURING RENOVATIONS
enhance resilience through deep retrofits
HEALTHY, VIGOROUS NATURAL AREAS AND GREEN SPACE

RETAIN NATURAL ASSETS
as critical adaptation infrastructure

DESIGN AND MAINTENANCE
to new normals
COASTLINE PREPAREDNESS

BYLAW AMENDMENTS AND GUIDELINES
Zoning and Development

SHORELINE DESIGN GUIDANCE

SEA LEVEL RISE DESIGN COMPETITION
city-wide engagement
SUMMARY

ALREADY SEEING IMPACTS

ENABLING ACTIONS NEEDED

EQUITY, CO-BENEFITS INTEGRATION

ACT NOW AND CONTINUOUS IMPROVEMENT
QUESTIONS