OBJECTIVE

Update Council on:
Progress in implementing the Greenest City Action Plan in 2015/2016
GREENEST CITY FRAMEWORK

- **ZERO CARBON**
  - Green Buildings
  - Green Transportation

- **ZERO WASTE**
  - Zero Waste

- **HEALTHY ECOSYSTEMS**
  - Access to Nature
  - Clean Water
  - Local Food
  - Clean Air

3 high-level objectives

10 goal areas
## RESULTS TO DATE

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CLIMATE AND RENEWABLES

GOAL
Eliminate Vancouver’s dependence on fossil fuels

2020 TARGET
Reduce community-based greenhouse gas emissions 33% from 2007 levels
Community GHG emissions

2015: 2,410,000 tCO$_2$e

-15%

TARGET
-33%

2007 2015 2020
CHANGES IN COMMUNITY EMISSIONS

Between 2014-2015, decline in usage led to a decrease in emissions. Also, refinements in landfill calculation methods showed more accurate emissions reductions.
RENEWABLE CITY
derive 100% energy from renewable sources by 2050

COP21
Vancouver’s leadership on the world stage

LANDFILL GAS CAPTURE
71% captured in 2015
GREEN BUILDINGS

GOAL
Lead the world in green building design and construction

2020 TARGETS
Require all buildings constructed from 2020 to be carbon neutral in operations

Reduce energy use and greenhouse gas emissions in existing buildings by 20% over 2007 levels
Community building GHG emissions

2015: 1,295,000 tCO$_2$e

Target -20%
CHANGES IN BUILDING EMISSIONS

Between 2014-2015, decline in usage led to a decrease in emissions.
Carbon intensity of buildings:
GHG emissions of newly built floor area

2014: 14 kgCO₂e/m²

TARGET
CARBON NEUTRAL

-30%
HIGHLIGHTS

RETROFIT FUND
$1m leverages $8m for energy savings

PASSIVE HOUSE
first Certified house completed

EMPOWERME PROGRAM
multi-ethnic engagement
GREEN TRANSPORTATION

**GOAL**
Make walking, cycling, and public transit preferred options

**2020 TARGETS**
Majority (>50%) of trips by foot, bicycle and public transit

Reduce average distance driven per resident by 20% from 2007 levels
% mode share by walk, bike, and transit

2015: 50%

TARGET 50%

YEAR
2008
2015
2020

PERCENTAGE
0%
10%
20%
30%
40%
50%
60%
Annual vehicle kilometres driven per person (VKT)

2015: 4,319 km

-27% decrease from 2007

Target: -20% decrease by 2020
MOBI BIKESHARE
1,000 bicycles and 100 stations to start

ARBUTUS GREENWAY
future transportation greenway

INFRASTRUCTURE = RIDERSHIP
7% of trips, 10% of commutes by bike

GREEN TRANSPORTATION
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- Climate & Renewables
- Green Economy
- Lighter Footprint

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[City of Vancouver] [Greenest City]
ZERO WASTE

GOAL
Create zero waste

2020 TARGETS
Reduce total solid waste going to landfill and incinerator by 50% from 2008 levels
Solid waste disposed to landfill and incinerator

2014: 370,000 tonnes

-23% decrease from 2008 to 2014.

Target: -50% reduction by 2020.

Source: City of Vancouver
HIGHLIGHTS

CONSTRUCTION WASTE
Bylaw expanded: pre-1950s in 2017, all homes in 2018

ORGANIC WASTE
single-family collection up 75%; garbage down 45%

KEEP VANCOUVER SPECTACULAR
20th anniversary; 23,000 volunteers in 2015
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| Climate & Renewables | Green Economy | Lighter Footprint |
ACCESS TO NATURE

GOAL
Vancouver residents enjoy incomparable access to green spaces

2020 TARGETS
Ensure every Vancouver resident lives within a five-minute walk of a park, beach, greenway or other natural space

Plant 150,000 additional trees in the city between 2010 and 2020
Additional trees planted

2015: 48,900 trees

TARGET
150,000

+48,900
Hectares of natural space restored or enhanced

2015: 14 hectares

NEW TARGET: BIODIVERSITY

TARGET 25

ACCESS TO NATURE 25
Land area covered by tree leaf canopies

2013: 18%

2050 TARGET:
TREE CANOPY

TARGET
22%
NEW TARGETS

- **+25** hectares by 2020
- **22%** canopy cover by 2050

**BIODIVERSITY STRATEGY**
adopted strategy and new metric

**NATIVE TREES**
4,100 planted in parks in 2015

**SALT MARSH**
NEW BRIGHTON
2ha restoration underway
CLEAN WATER

**GOAL**

Vancouver will have the best drinking water of any city in the world

**2020 TARGETS**

Meet or beat the strongest of BC, Canadian and international drinking water quality standards and guidelines

Reduce per capita water consumption by 33% over 2006 levels
Water consumption per person

2015: 493 L/person/year

-15%

TARGET
-33%
GREEN/NATURAL INFRASTRUCTURE

Integrated Rainwater Management Plan

STAGE 3 RESTRICTIONS

reversed rising water consumption

FULL LOADS = LESS WATER

Gathering Place laundry volunteers
LOCAL FOOD

GOAL
Vancouver will become a global leader in urban food systems

2020 TARGET
Increase city-wide and neighbourhood food assets by a minimum of 50% over 2010 levels
Neighbourhood food assets

2015: 4,612 food assets

+38%

TARGET
+50%

2010
2015
2020
HIGHLIGHTS

URBAN FARMING
Guidelines adopted

COMMUNITY KITCHENS
upgrades at Boys and Girls Clubs

FOOD RESCUE
Sustainable Food Systems Grants
GOAL
Breathe the cleanest air of any major city in the world

2020 TARGET
Meet or beat the most stringent air quality guidelines from Metro Vancouver, British Columbia, Canada, and the World Health Organization
Air quality exceedences

2015: 3 instances

-89% TARGET -100%

2008  2015  2020
HIGHLIGHTS

ZERO EMISSION VEHICLE ALLIANCE
BC: all new passenger vehicles ZEVs by 2050

RENEWED INCENTIVES
previous three-year funding ran out in 10 months
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[City of Vancouver Logos]
GREEN ECONOMY

GOAL
Secure Vancouver’s reputation as a mecca of green enterprise

2020 TARGETS
Double the number of green jobs over 2010 levels by 2020

Double the number of companies that are actively engaged in greening their operations over 2011 levels by 2020
Green jobs

2013: 19,900 jobs

+19%

TARGET
+100%

2010 2013 (2016) 2020
HIGHLIGHTS

GLOBE AND COP21
Vancouver businesses on world stage

CLIMATE PLEDGE
200 business signatories with 60,000 employees

GREEN & DIGITAL DEMONSTRATION PROGRAM
80 businesses applied
LIGHTER FOOTPRINT

**GOAL**
Achieve a one-planet ecological footprint

**2020 TARGET**
Reduce Vancouver’s per-capita footprint by 33% from 2006 levels
People empowered to support Greenest City

2015: 13,400 people

+12,800

2011 2015
HIGHLIGHTS

CITYSTUDIO PROJECTS
YIMBY, Summit The City

GREENEST CITY FUND
$2M over 4 years; Build-a-Bicyclist, Pollinators & People

BRIGHT GREEN SUMMER
13,000 people engaged
GREEN OPERATIONS

2020 TARGETS

50% reduction in GHGs from City operations from 2007 levels

70% waste diversion in public-facing City facilities; 90% in all other City-owned facilities

Reduce water use in City operations by 33% from 2006 levels
HIGHLIGHTS

GREEN OPERATIONS METRICS

- GHGs: -49%
- Water use: -19%
- Public-facing waste diversion: 67%
- Other City-owned: 84%

LIBRARY SQUARE WATER USE
- Steam condensate heat recovery

BUILDING ENERGY
- 31 largest facilities cut GHGs 10%, annual costs $500k

GREENEST CITY POLICE DEPT
- Rooftop bee hives; 529 Garage
VANDUSEN VISITOR CENTRE

Site  Indoor  Materials  Beauty +
Quality  

CERTIFIED
PETAL
2016

GREEN OPERATIONS 46
GREENEST CITY SUCCESSES

2020 targets achieved

50% mode share
-27% vehicle km driven per capita
-20% building GHGs
-15% GHGs
-23% waste to landfill and incinerator
+19% green jobs

C40 Cities Awards
Carbon Measurement and Planning 2015

Earth Hour City Challenge:
Canadian Capital 2015

Continuing areas of focus:
accelerating GHG reductions
reducing water consumption
greening businesses
QUESTIONS?