

# GREENEST CITY ACTION PLAN

Implementation Update // July 9, 2014





# OBJECTIVE

To become the greenest city  
in the world by 2020

- Greenest City 2020 Action Plan adopted in 2011
- Overview of third year of implementation
- Positive, measureable results in nearly all goal areas

# TEN GOAL AREAS

<b>ZERO CARBON</b> 	Climate Leadership	Lighter Footprint	Green Economy
	Green Transportation		
	Green Building		
<b>ZERO WASTE</b> 	Zero Waste		
<b>HEALTHY ECOSYSTEMS</b> 	Access to Nature		
	Clean Water		
	Local Food		
	Clean Air		



# GREEN ECONOMY

Secure Vancouver's international reputation  
as a mecca of green enterprise

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

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



# RESULTS TO DATE

<i>INDICATOR</i>	<i>BASELINE</i>	<i>2013</i>	<i>CHANGE</i>	<i>2020 TARGET</i>
total number of green and local food jobs	16,700 (2010)	19,900	19%	33,400
per cent of businesses engaged in greening their operations	5% (2011)	TBD New survey to be conducted early 2015	TBD	10%





# 2013-2014 ACHIEVEMENTS

- **Strong green jobs growth**  
up 19% (3,200 jobs) from baseline
- **Strong sectoral growth**  
green building jobs up 50%  
local food jobs up 21%  
green transport jobs up 19%

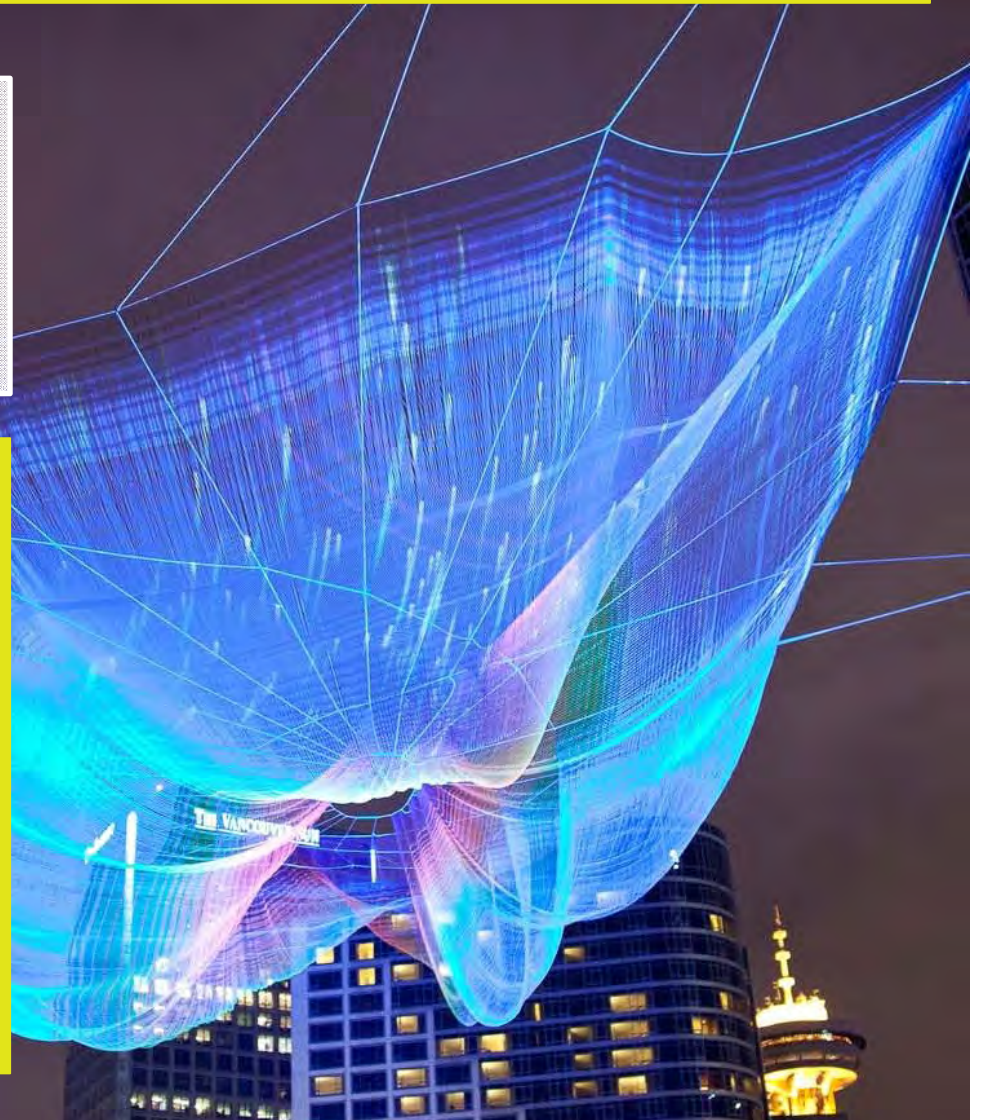


# 2013-2014 ACHIEVEMENTS

- Showcasing green business  
“Grizzly Den” local cleantech showcase and business-pitch session at GLOBE

“In Vancouver, we found a special combination of things we didn’t find anywhere else and it got us really excited. There is a feeling of looking forward, a commitment to excellence, of innovation and sustainability.”

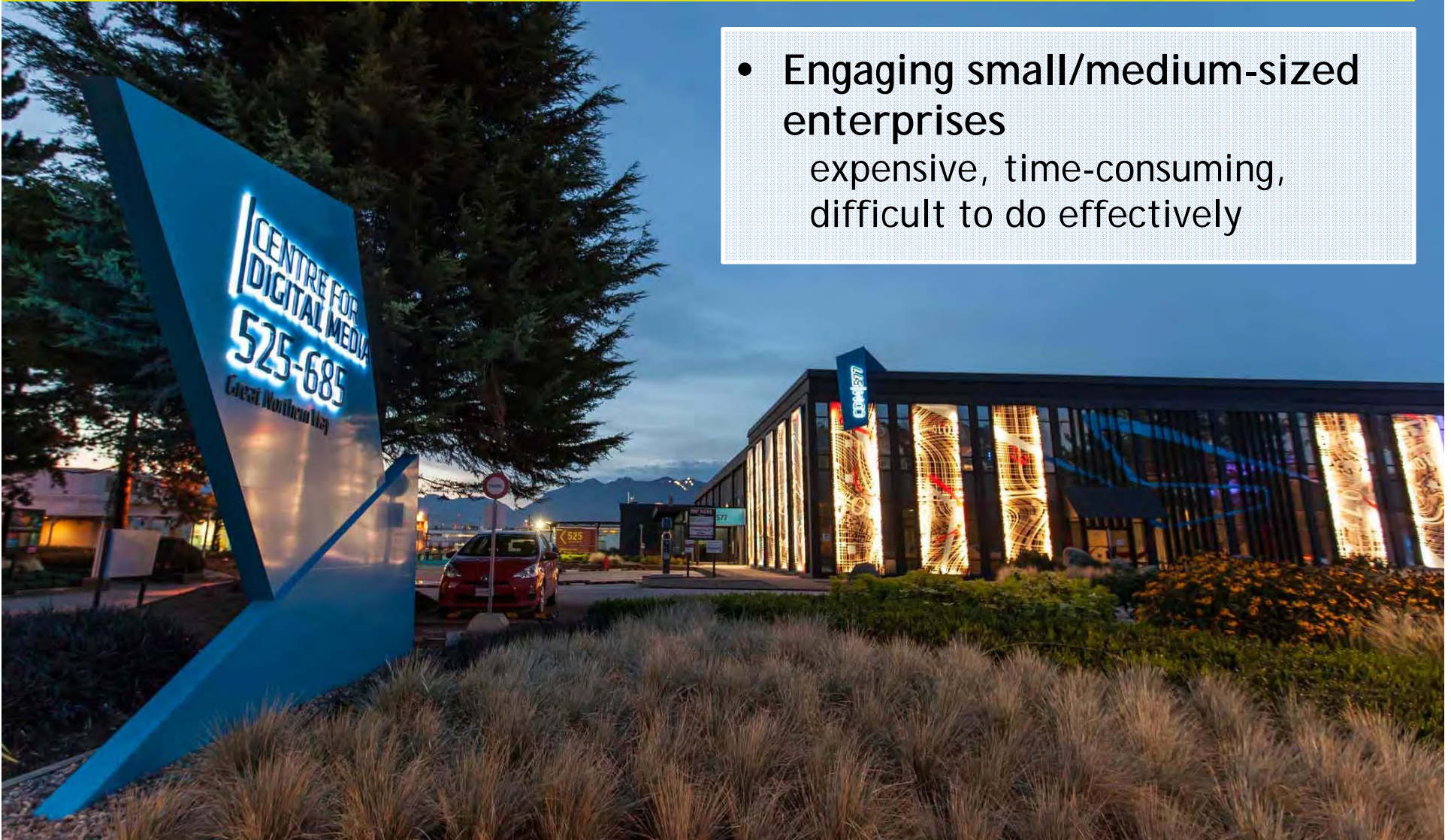
*Chris Anderson, TED Curator*





# CHALLENGES TO IMPLEMENTATION

- Engaging small/medium-sized enterprises  
expensive, time-consuming,  
difficult to do effectively





# CLIMATE LEADERSHIP

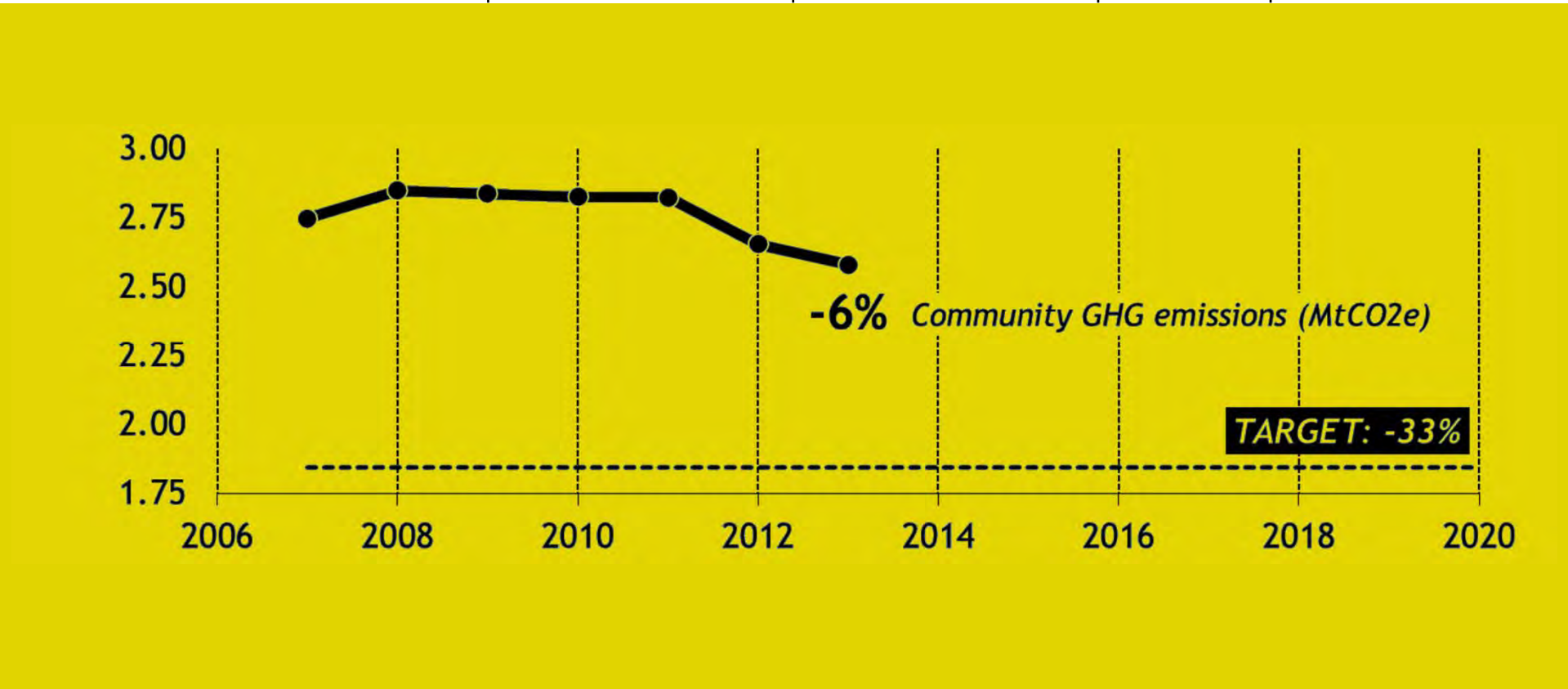
Eliminate Vancouver's dependence on fossil fuels

Reduce community-based  
greenhouse gas emissions 33  
per cent from 2007 levels



# RESULTS TO DATE

<i>INDICATOR</i>	<i>BASELINE</i>	<i>2013</i>	<i>CHANGE</i>	<i>2020 TARGET</i>
total tonnes of community CO2e emissions (tCO2e)	2,750,000 (2007)	2,585,000	-6%	1,846,000





# 2013-2014 ACHIEVEMENTS

- **Coastal Flood Risk Assessment** completed Phase 1: the first of its kind at a city level in Canada
- **Landfill gas capture** equivalent to taking 104,000 cars off the road



# 2013-2014 ACHIEVEMENTS

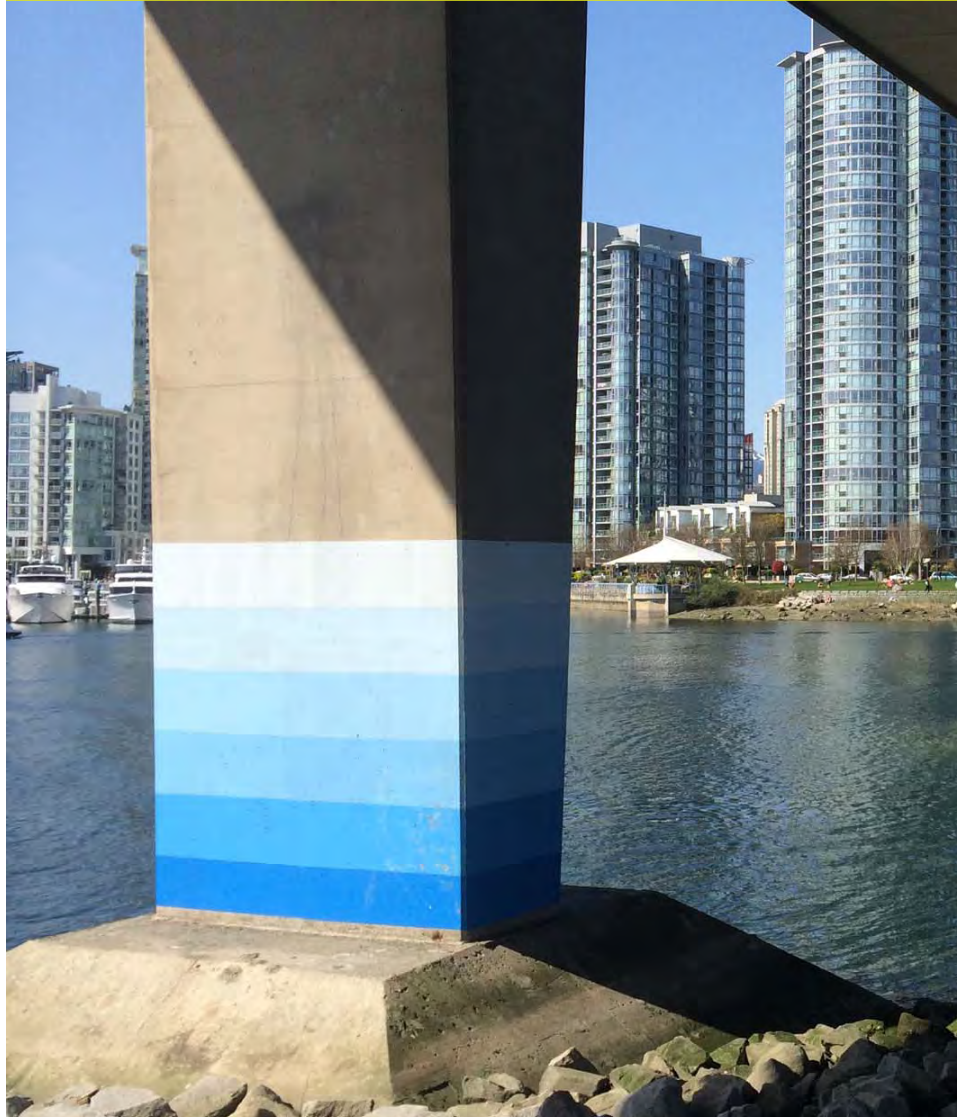
- **Southeast False Creek NEU**  
neighbourhood energy utility  
service area up 30% in 2013;  
future systems in development
- **Carbon neutrality**  
City operations carbon neutral  
under Provincial framework

**Winner:**  
*World Wildlife Fund 2013  
Global Earth Hour Capital* for  
climate protection leadership

*FCM 2014 Green Champion  
Award* for climate leadership



# CHALLENGES TO IMPLEMENTATION



- **Pipeline expansions**
  - increased GHG from oil sands expansion
  - failure to meet national climate commitments
  - exacerbated damage from future coastal flooding
- **Reductions outside of City's control**
  - 40% of projected greenhouse gas reductions were to come from Provincial actions



# GREEN BUILDINGS

Lead the world in green building design and construction

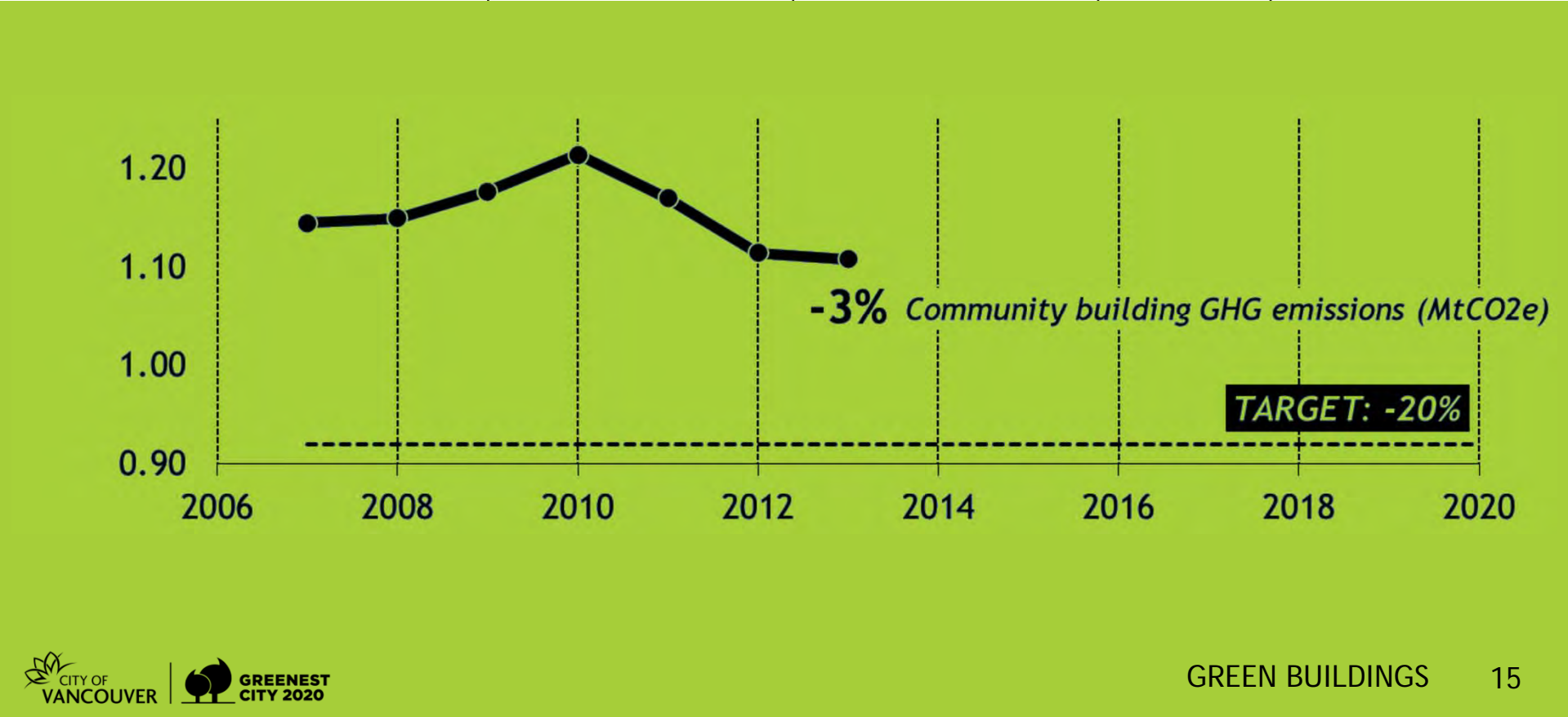
Require all buildings constructed from 2020 to be carbon neutral in operations

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



# RESULTS TO DATE

<i>INDICATOR</i>	<i>BASELINE</i>	<i>2013</i>	<i>CHANGE</i>	<i>2020 TARGET</i>
tonnes CO2e from residential and commercial buildings (tCO2e)	1,145,000 (2007)	1,110,000	-3%	916,000





# 2013-2014 ACHIEVEMENTS

- 2014 VBBL
  - new homes will emit half the GHGs vs. Provincial code
  - large office and commercial buildings 15% more energy efficient
  - first Canadian jurisdiction to require energy efficiency upgrades during renovations



# 2013-2014 ACHIEVEMENTS



- **Green Landlords Pilot**  
City support led to rental building owners commitments to energy upgrades that will:
  - reduce GHGs by 14%
  - pay for themselves in 2.4 years

**Winner:**  
**World Green Building Council**  
*2013 Best Green Building Policy*



# CHALLENGES TO IMPLEMENTATION



- Engaging condominiums  
high turnover of suite owners,  
complex strata relationships  
and decision-making processes



# GREEN TRANSPORTATION

Make walking, cycling, and public transit preferred options



B8010

Majority (>50%) trips by foot, bicycle and public transit

Reduce average distance driven per resident by 20% from 2007 levels



# RESULTS TO DATE

INDICATOR	BASELINE	2012	CHANGE	2020 TARGET
per cent mode share by foot, bike and transit	40% (2008)	44%	+10%	50%
total vehicle km driven per person	--	TBD	TBD	-20%

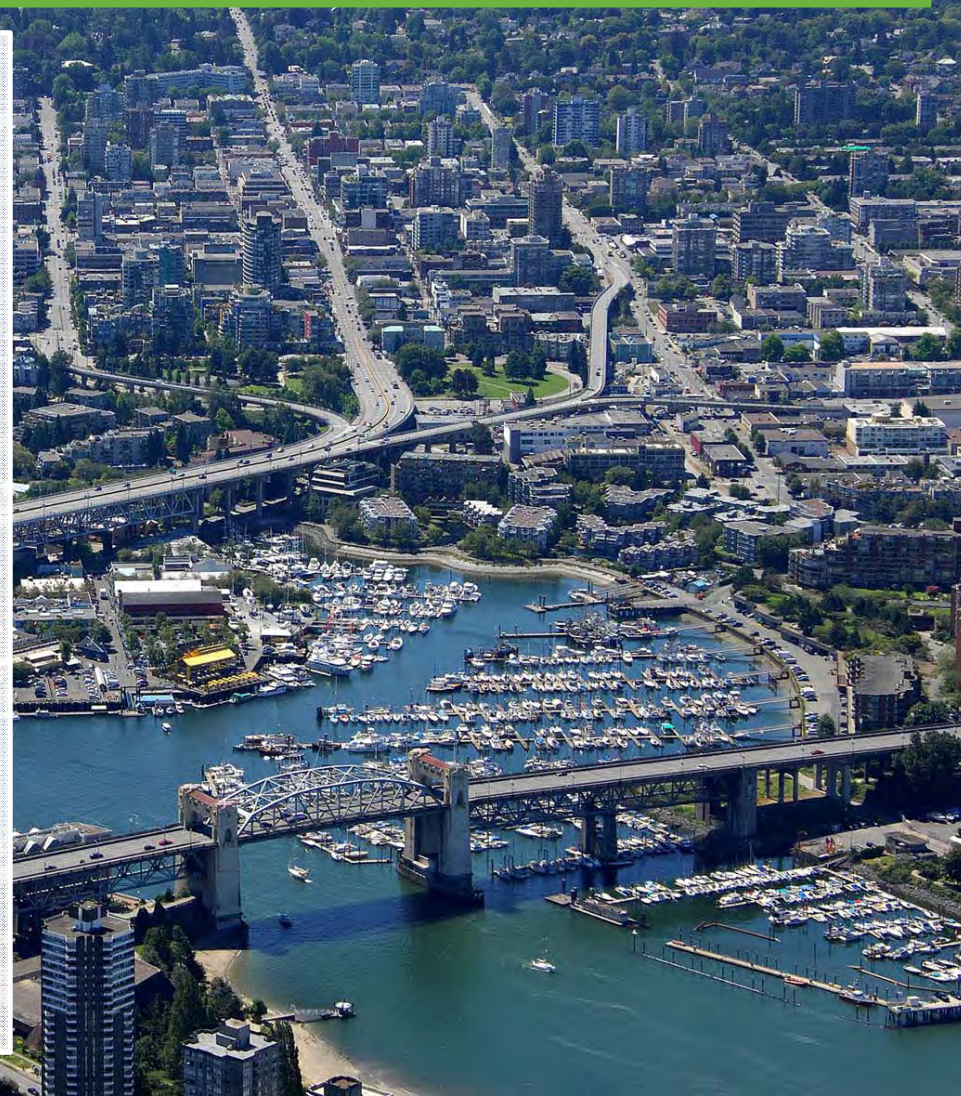
*New survey to be conducted late 2014*





# 2013-2014 ACHIEVEMENTS

- **Seaside Greenway completed** last leg of 28km continuous walking/cycling route; also improved Comox-Helmcken & Union Street routes
- **Burrard Street Bridge improvements** simplification of south intersection improves safety for all users
- **Powell Street Overpass completed** this core section of the Portside Greenway





# 2013-2014 ACHIEVEMENTS

- Separated bike lanes increases female ridership
  - Hornby: up from 28% to 37% from 2010 to 2012
  - 41% city-wide average

19% of Vancouver's 265 kilometre bike network is designated "All Ages and Abilities": high-quality low-stress routes suitable for novice riders, families with children, and the elderly.



# CHALLENGES TO IMPLEMENTATION

- Securing transit funding for the Broadway Corridor Skytrain extension
- Bike-share  
System provider's prime supplier bankruptcy led to delays





# ZERO WASTE

Create zero waste



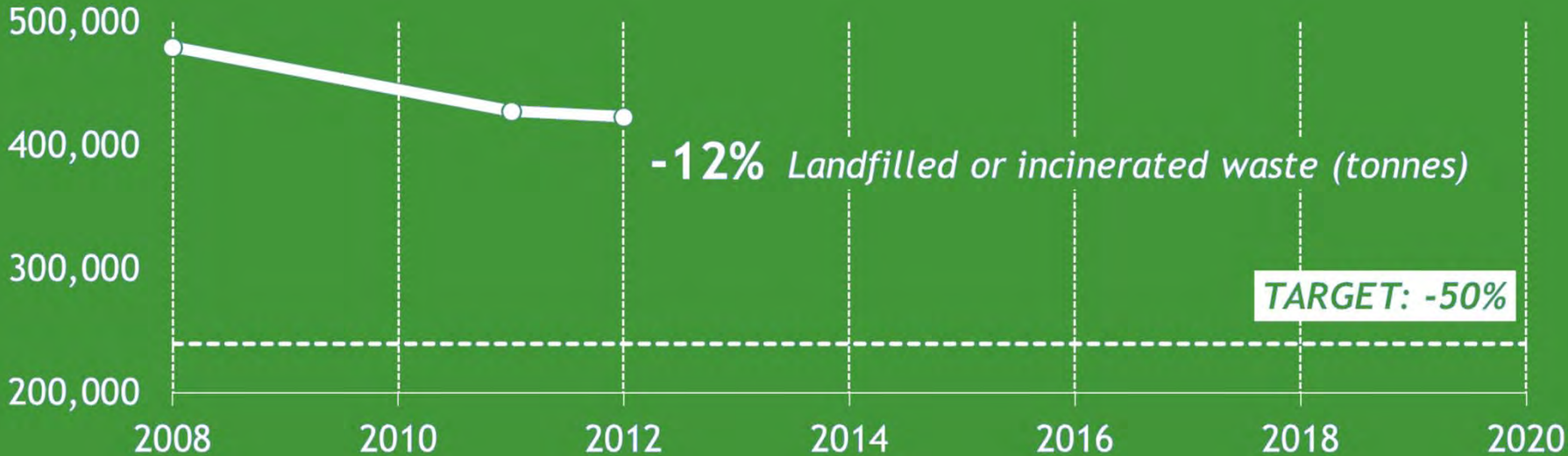
Reduce total solid waste going to landfill or incinerator by 50% from 2008 levels



# RESULTS TO DATE

INDICATOR	BASELINE	2012	CHANGE	2020 TARGET
annual solid waste disposed to landfill or incinerator (tonnes)	480,000 (2008)	424,000	-12%	240,000

*Metric relies on Metro Vancouver data and is always one year in arrears*





# 2013-2014 ACHIEVEMENTS



- **Weekly food scraps pickup**  
green bin collection up ~60% by weight; 39,000 tonnes diverted to compost
- **Binner-accessible receptacle pilot**  
redesign in partnership with Encorp reduced recyclables in trash by 94%



# 2013-2014 ACHIEVEMENTS

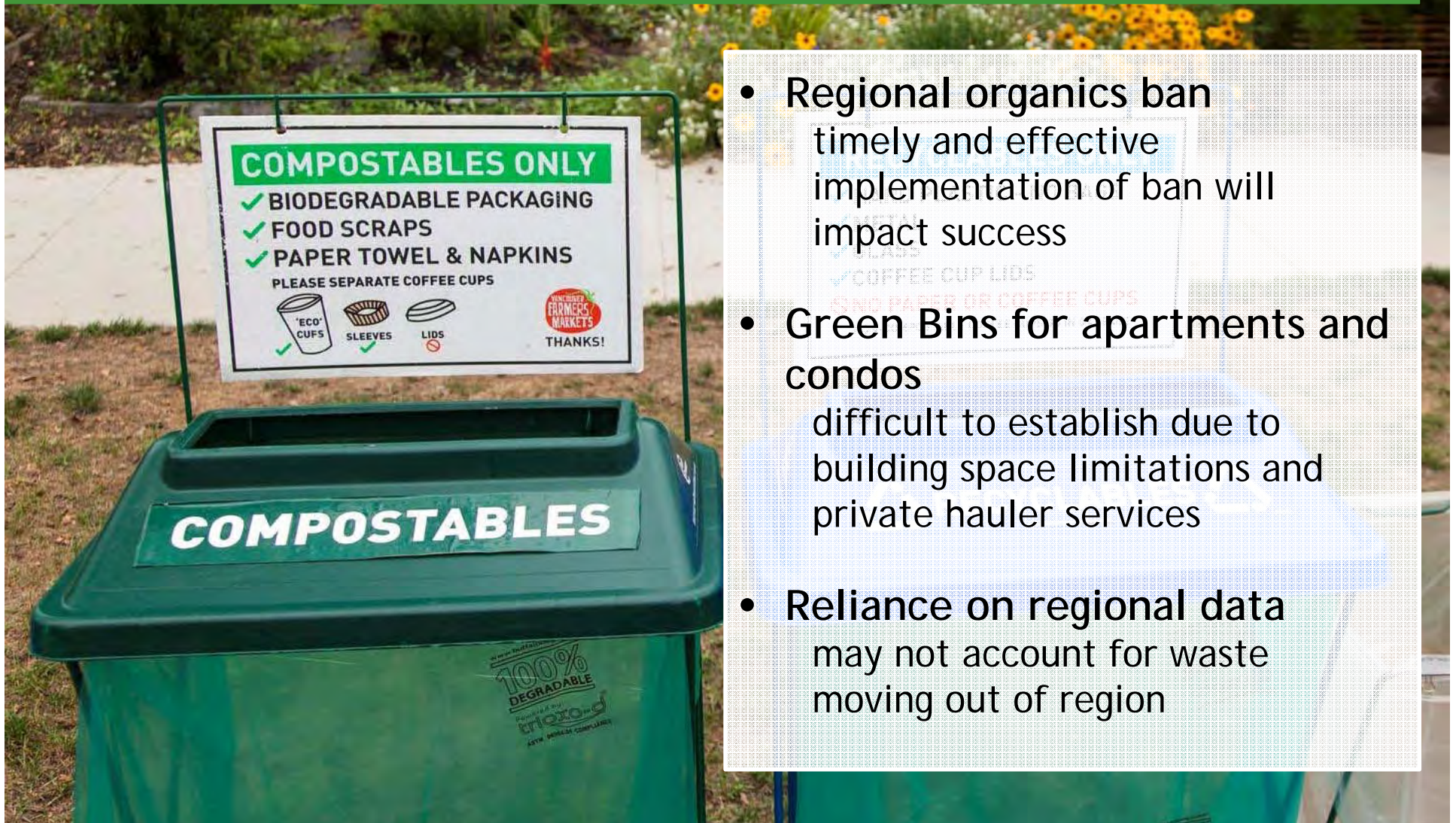
- **Heritage Action Plan recycling requirement**

Council approved recycling and reuse requirements for older homes in order to help preserve architectural character and reduce waste

Since the Green Bin program began for single family and duplex homes, approximately 40% more of their total waste is being diverted from landfill



# CHALLENGES TO IMPLEMENTATION



- **Regional organics ban**  
timely and effective implementation of ban will impact success
- **Green Bins for apartments and condos**  
difficult to establish due to building space limitations and private hauler services
- **Reliance on regional data**  
may not account for waste moving out of region



# ACCESS TO NATURE

Vancouver residents enjoy incomparable access to green spaces

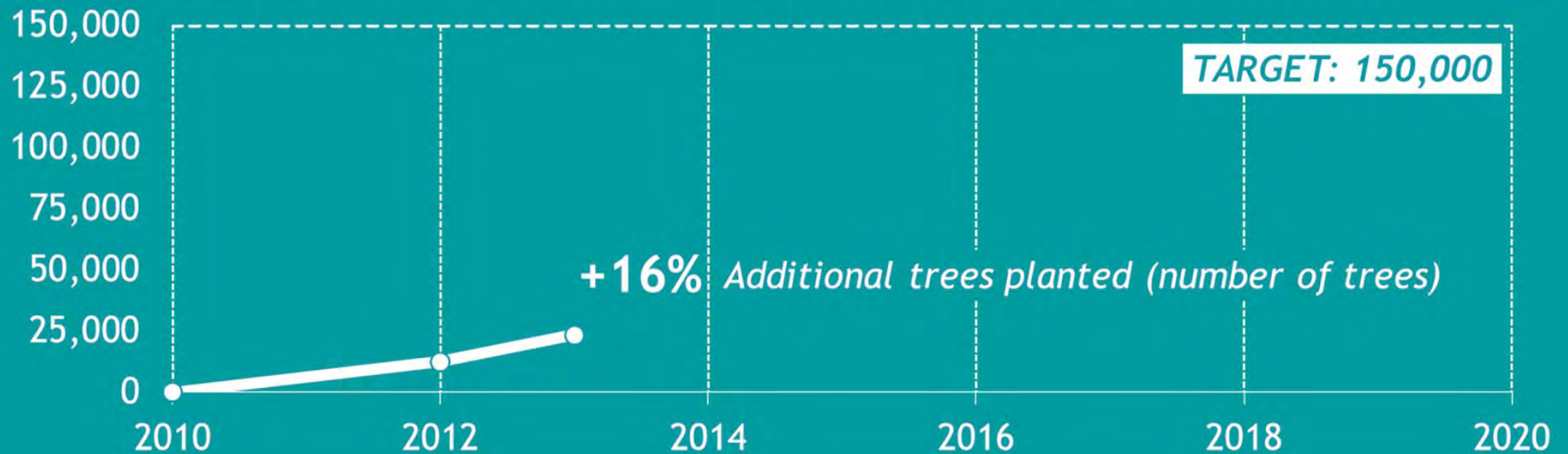
Ensure every Vancouver resident lives within a five-minute walk of a park, beach, greenway or other natural space

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



# RESULTS TO DATE

<i>INDICATOR</i>	<i>BASELINE</i>	<i>2013</i>	<i>CHANGE</i>	<i>2020 TARGET</i>
total number of additional trees planted	0 (2010)	23,400	16%	150,000
per cent of city's land base within 5-min walk to a green space	92.6% (2010)	92.7%	0.1%	95%





# 2013-2014 ACHIEVEMENTS

- **Urban Forest Strategy**  
included by-law amendment to ban healthy-tree removal
- **11,000 trees planted in 2013**  
nearly the same number that were planted in the previous two years combined



# 2013-2014 ACHIEVEMENTS

- **Creekway Park**  
daylighted stream; increased aquatic and streambed habitat in the heart of urban landscape

In Oak Meadows Park, 300 new trees and a pollinator garden were planted in 2013 to create songbird and bee habitat.



# CHALLENGES TO IMPLEMENTATION

- **Acquiring land for new parks**  
limited funding and increasing land values
- **Access to nature**  
need to increase natural spaces and habitats in city parks, waterways, and shorelines



# LIGHTER FOOTPRINT

Achieve a one-planet ecological footprint

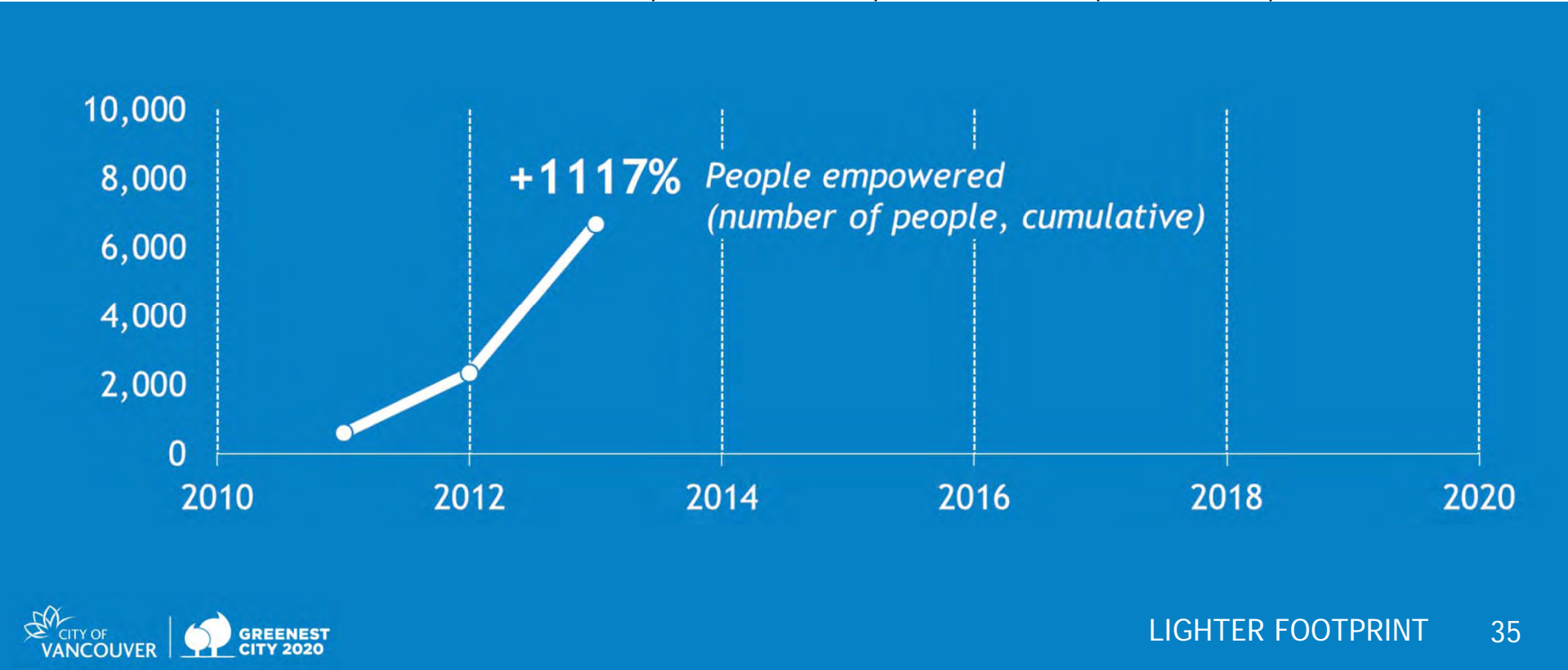
A photograph of two young women in a forest. The woman on the left is wearing glasses, a black polka-dot scarf, and a plaid shirt, smiling broadly. The woman on the right is also wearing glasses and a dark jacket, holding a wooden staff with a dark grip, and has a wide, joyful expression. In the background, another person is visible, and the forest is misty.

Reduce Vancouver's  
per capita footprint by 33%  
over 2006 levels



# RESULTS TO DATE

<i>INDICATOR</i>	<i>BASELINE</i>	<i>2013</i>	<i>CHANGE</i>	<i>2020 TARGET</i>
Number of people empowered by a City-led or City-supported project to take personal action in support of Greenest City or reduce levels of consumption	600 (2011)	6,700	1117%	--



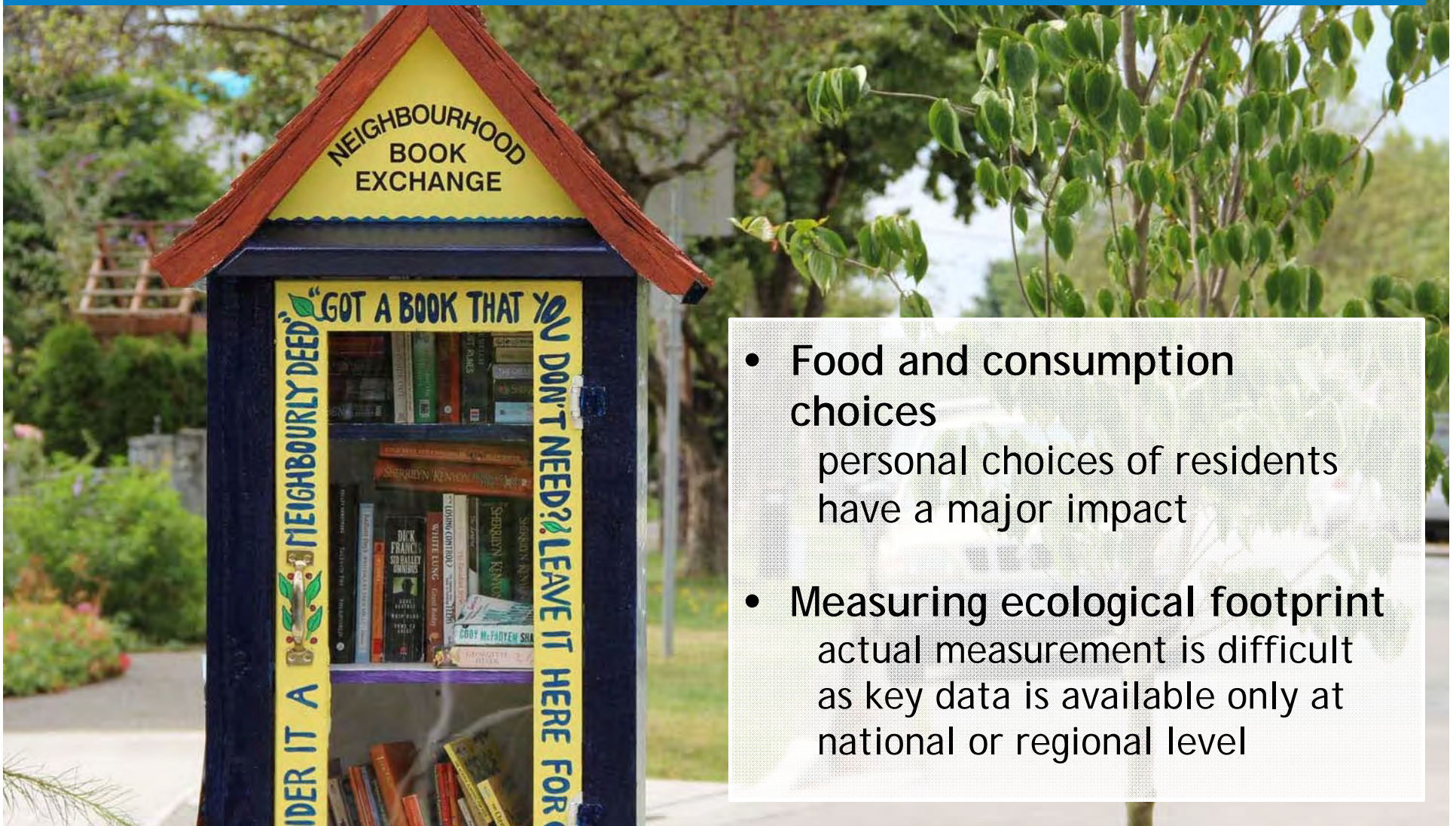


# 2013-2014 ACHIEVEMENTS

- **City Studio projects**
  - Britannia Food Share: youth recover unwanted food from local businesses, learn to prepare it, and feed themselves
  - free public pianos enliven public spaces making walking more rewarding
- **Green Events**  
resources to encourage sustainable practices at events (zero waste, cycling support)
- **Greenest City Scholars**  
Expanded program with UBC



# CHALLENGES TO IMPLEMENTATION




- Food and consumption choices  
personal choices of residents have a major impact
- Measuring ecological footprint  
actual measurement is difficult as key data is available only at national or regional level



# CLEAN WATER

Vancouver will have the best drinking water of any city.

A woman with dark hair, wearing a black jacket and a red scarf, is drinking from a blue water bottle. She is outdoors, with a waterfront and a railing in the background. Another person is visible in the distance, walking away. The scene is slightly blurred, emphasizing the woman in the foreground.

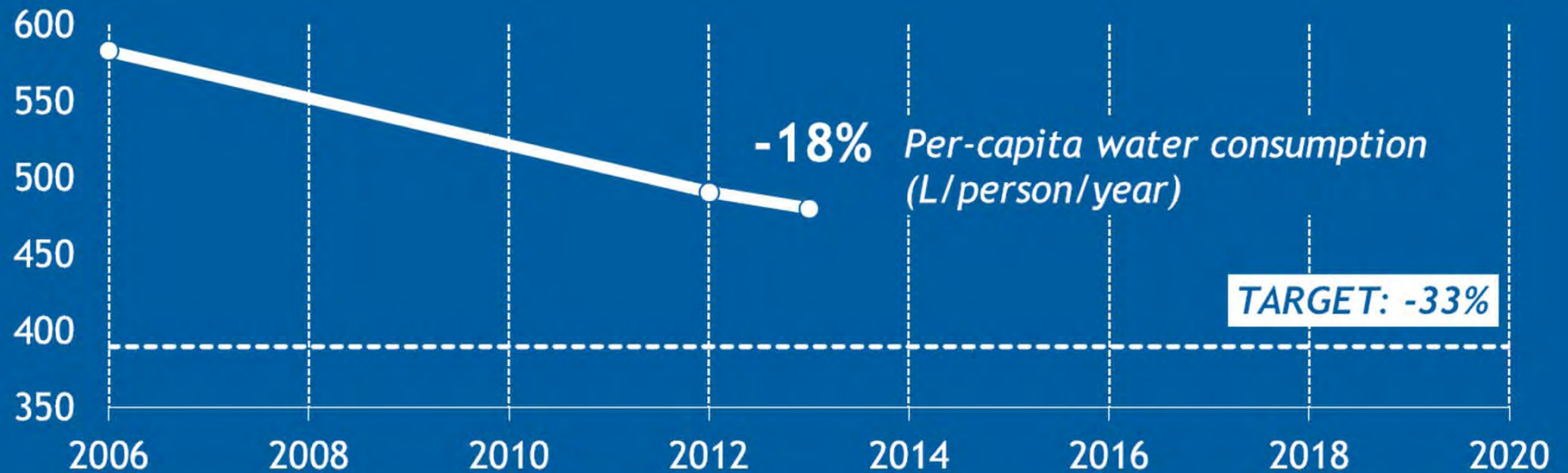
Meet or beat the strongest of  
BC, Canadian and international  
drinking water quality  
standards and guidelines

Reduce per capita water  
consumption by 33%  
over 2006 levels



# RESULTS TO DATE

<i>INDICATOR</i>	<i>BASELINE</i>	<i>2013</i>	<i>CHANGE</i>	<i>2020 TARGET</i>
total instances of not meeting drinking water quality standards	0	0	--	0
total water consumption per capita (L/person/day)	583 (2006)	480	-18%	390





# 2013-2014 ACHIEVEMENTS

- **Water-use reduction in businesses and apartment buildings**

Plans to reduce water use by over 20% were developed with pilot groups of businesses and landlords



# 2013-2014 ACHIEVEMENTS

- **Green Plumbers<sup>®</sup>**  
local plumbers/apprentices  
trained to identify savings for  
clients

>1,000 entries for the Ironclad Art Challenge design contest to highlight the important role of sewers in clean and healthy water systems.

*photo credit: Stacie Biehler*



# CHALLENGES TO IMPLEMENTATION

- **Water conservation in a “rainy” city**  
reliant on water stored during rainy season for long dry stretches in summertime



# CLEAN AIR

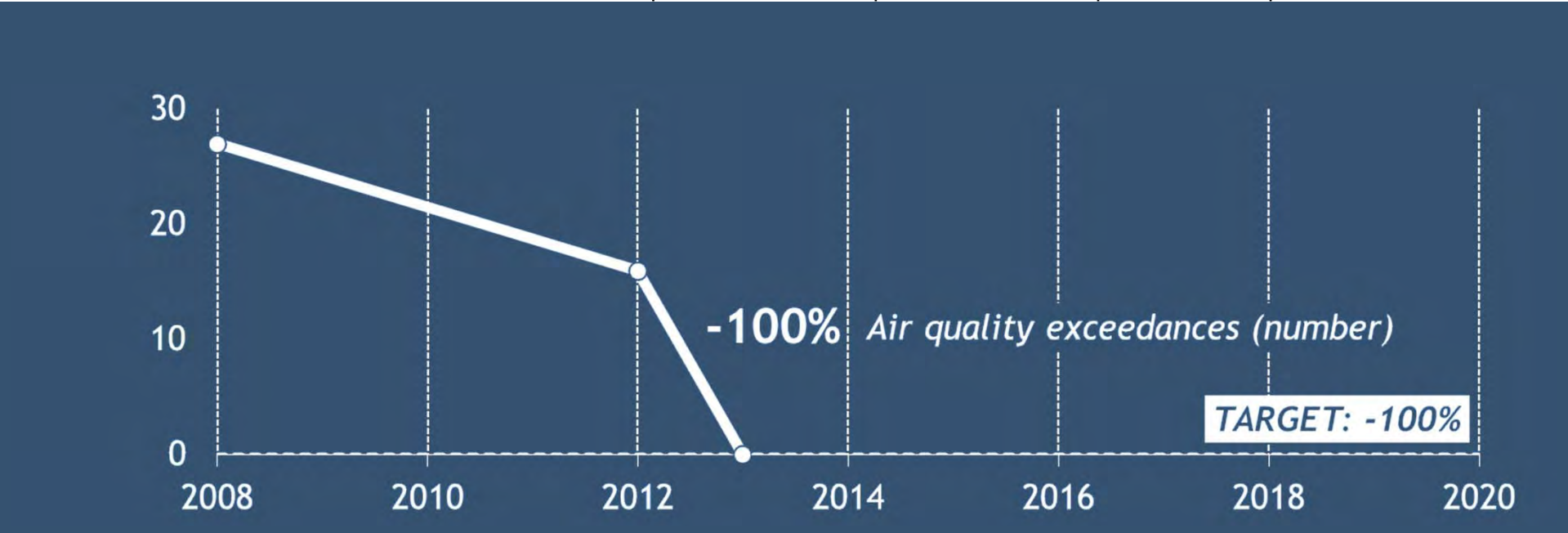
Breathe the cleanest air of any major city in the world

Meet or beat the most stringent of Metro Vancouver, BC, Canadian and international air quality guidelines



# RESULTS TO DATE

<i>INDICATOR</i>	<i>BASELINE</i>	<i>2013</i>	<i>CHANGE</i>	<i>2020 TARGET</i>
total number of instances of not meeting air quality standards for ozone, particulate matter, nitrogen dioxide, and sulfur dioxide	27 (2008)	0	-100%	0





# 2013-2014 ACHIEVEMENTS

- **Coal shipments banned** on industrial lands; dust has significant impact on local air quality
- **Wood-burning appliances**  
Vancouver Building By-Law incorporates strictest wood appliance emissions standard in North America



# 2013-2014 ACHIEVEMENTS

- **Electric Vehicle award**  
FCM Sustainable Communities Transportation Award for electric vehicle infrastructure program

The number of electric vehicle charging stations doubled in 2013.

Currently: 93 City-installed;  
57 BOMA-installed



# CHALLENGES TO IMPLEMENTATION

- **Marine shipping**  
increased oil tanker traffic from pipeline expansion would increase pollution
- **Air quality guidelines to be tightened**  
air quality must remain a priority
- **Provincial restriction on reselling electricity**  
discourages business investment in public electric vehicle charging stations



# LOCAL FOOD

Vancouver will become a global leader in urban food systems



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



# RESULTS TO DATE

<i>INDICATOR</i>	<i>BASELINE</i>	<i>2013</i>	<i>CHANGE</i>	<i>2020 TARGET</i>
total number of neighbourhood food assets in Vancouver	3,340 (2010)	4,332	30%	5,158





# 2013-2014 ACHIEVEMENTS



- **Vancouver Incubator Kitchen** skills training and commissary launched in collaboration with Vancouver Community College, Mark Brand Inc. and Vancity
- **Food assets in parks**  
Park Board Local Food Action Plan includes improved farmers market infrastructure and new community gardens



# 2013-2014 ACHIEVEMENTS



- Community food markets fresh healthy food access for residents with physical or economic barriers

Vancouver added 481 new community garden plots in 2013, for a total of 4,166 plots.



# CHALLENGES TO IMPLEMENTATION



- **Shortage of available land**  
innovative growing techniques needed (moveable planters, vertical growing and rooftop gardens)
- **Shortage of food business incubation resources**  
Such as leasable commercial kitchen, processing and refrigeration space



# GCAP 2013-2014 SUMMARY

- Positive, measurable results in nearly all goal areas
- Global recognition for green building policy, electric vehicle infrastructure, and climate protection leadership
- Continued City, business, and community action crucial to achieving 2020 targets

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