

GOING PUBLIC WITH SEA LEVEL RISE

September 24, 2019

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A background image showing a park scene where people are being snowed out of a park. In the foreground, a person in a dark jacket and hat stands with their back to the camera, arms outstretched. In the background, another person is visible, and a large cloud of snow is being blown towards them. The scene is set in a park with trees and a body of water in the distance.

OUTLINE

- Background
- Public engagement leads to action
- Anxiety
- Outcomes
- Summary & next steps

CLIMATE EMERGENCY RESPONSE: SIX BIG MOVES



WALKABLE COMPLETE
COMMUNITIES



SAFE & CONVENIENT ACTIVE
TRANSPORTATION AND TRANSIT



POLLUTION-FREE
CARS, TRUCKS AND BUSES



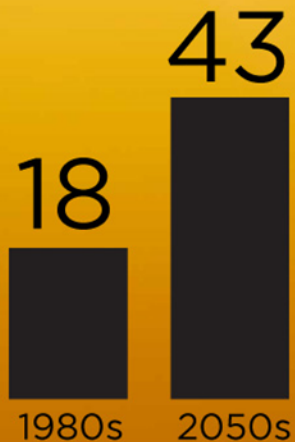
ZERO EMISSIONS SPACE
AND WATER HEATING



LOWER CARBON
CONSTRUCTION



RESTORED FORESTS
AND COAST



twice as
many
days
above
25°C



58%
decrease in
snowpack



20%
increase
in April
showers

21%
more rain
on the
wettest days



FLOOD HAZARD

PHASE 1

Flood hazard today and in 2100. Understand what is at risk and potential losses

2014

PHASE 2

High-level options, costing and tradeoffs for the 11 flood hazard zones

2016

PHASE 3

Timeline road map for sea level rise planning and infrastructure across the city & risk assessment tool

2018

COMMUNITY CONVERSATIONS ABOUT FLOOD HAZARD

- Build relationships and understanding about the topics of climate change, sea level rise and flood hazard
- Partner with Musqueam First Nation
- Learn what matters to public, businesses and lifeline infrastructure owners
- Build support for pursuing adaptation approaches along the shoreline
- Replicating past methods will not produce the results we want

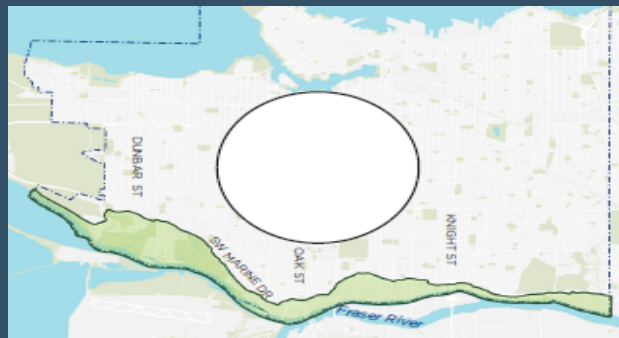
ANXIETY

- Common reaction
- Fear of the unknown, e.g. impact to real estate
- Concerns that we don't have all the solutions or the funding



2019 Climate Strike

2018 VISUALS



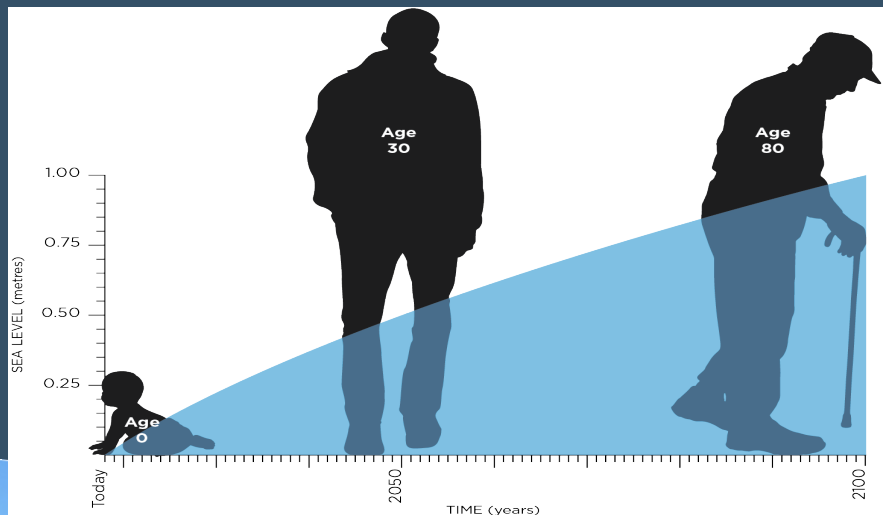
JOIN US AT ONE OF THREE COMMUNITY SESSIONS

Learn about the Fraser River flood risk, how you could be impacted and what we can do about it.

Stretching along 16 km of Vancouver's southern border from Burnaby to UBC, the area is the most at risk from coastal flooding and sea-level rise today.

Register here:
vancouver.ca/somelinkhere

WHEN: Thursday, May 24th 11:30am – 1:30pm
WHERE: Marpole Oakridge Community Centre
990 W 59th Avenue

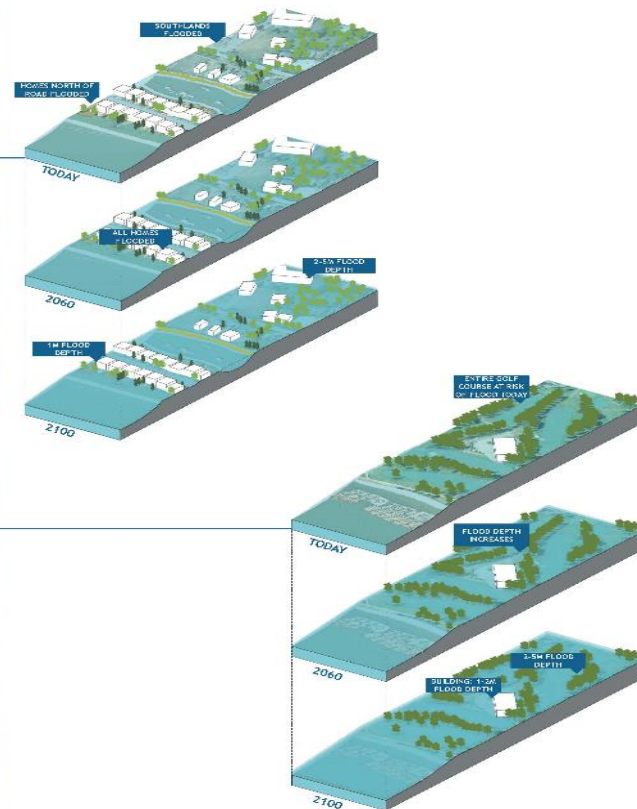


FRASER RIVER WEST FLOOD HAZARD AREAS

FLOOD HAZARD AREAS EXTENT OF ALL FLOODING



Flood hazard estimates were generated by the Municipality of North Vancouver (100 year return period) and the City of Vancouver (200 year return period) and the Fraser River Board (250 year return period).



**COASTAL
ADAPTATION
PLAN**

FRASER RIVER FLOODING

CITY OF
VANCOUVER

WHAT MATTERS

- Communities and People
- Environment
- Recreation
- Infrastructure and Transportation
- Local and Regional Economy
- Culture and Heritage
- Health and Safety



ADAPTATION APPROACHES



Design for adaptability



Design for safety and public health



Design for safe-to-fail infrastructure systems



Design for nature



Design for access



Design for co-benefits



VALIDATION OF THE PROCESS

- 2017 CEPF funding for the Fraser River Foreshore Engagement Project
- 2019 PIBC Gold Award in the category of Research & New Directions in Planning for the Fraser River Foreshore Engagement Project
- 2019 NDMP funding to replicate work in False Creek and revisit Fraser River
- Musqueam adopted a flood construction level that incorporates sea level rise

SEA2CITY: COASTAL DESIGN CHALLENGE

An innovative engagement and design program that will:

- Focus on False Creek and the Fraser River foreshore;
- Engage and educate about climate change, sea level rise and flood risk;
- Co-develop shoreline flood protection approaches and typologies that are holistic, cost-effective, and implementable.
- Attract diverse local and international thinkers and designers;

KEY MESSAGES

- Make climate hazard data public
- Have public conversations about climate risk
- Work with partners to create solutions
- Invest in adaptation approaches that include a range of benefits



Thank you

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LOCAL IMPACTS OF FLOODING

- With 1 m of sea level rise and a major storm, almost 13 km² of City lands lie in the floodplain
- Today a major storm would result in 1700 displaced households and almost 500 damaged buildings
- The same flood event, with 1 m of sea level rise, would result in 4000 displaced households and more than 800 damaged buildings
- Major disruption to transportation routes and critical infrastructure as well as coastal squeeze

SEA2CITY: COASTAL DESIGN CHALLENGE

- Sea level rise presents new, complex challenges
- Require a process that convenes a mix of expertise to work together with communities to find innovative, new solutions
- Example model: Rebuild by Design and others
 - ✓ New York City, New Jersey & Connecticut (post Sandy 2012)
 - ✓ San Francisco (May 2018)
 - ✓ Miami (ongoing)

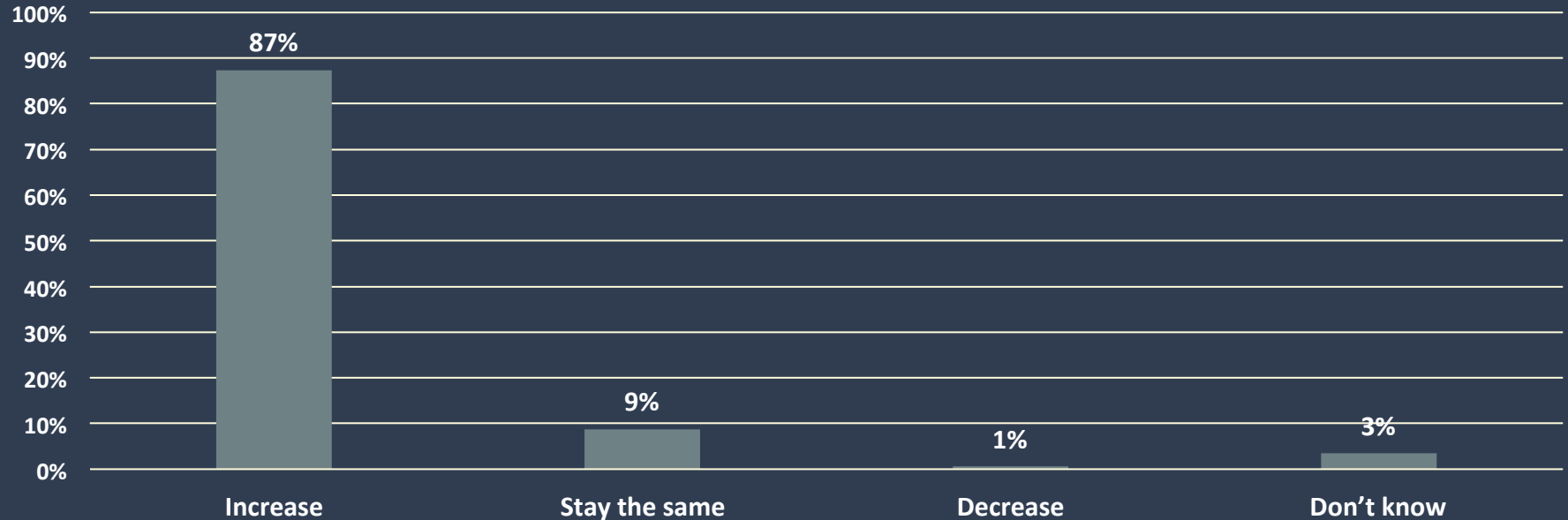
CLIMATE CHANGE & COASTAL FLOODS

- Coastal cities around the world are responding to sea level rise
- Major floods in the Lower Mainland are expected to increase in frequency (Fraser Basin Council report)
- Vancouver is exposed to sea level rise along the coast, Burrard Inlet and Fraser River

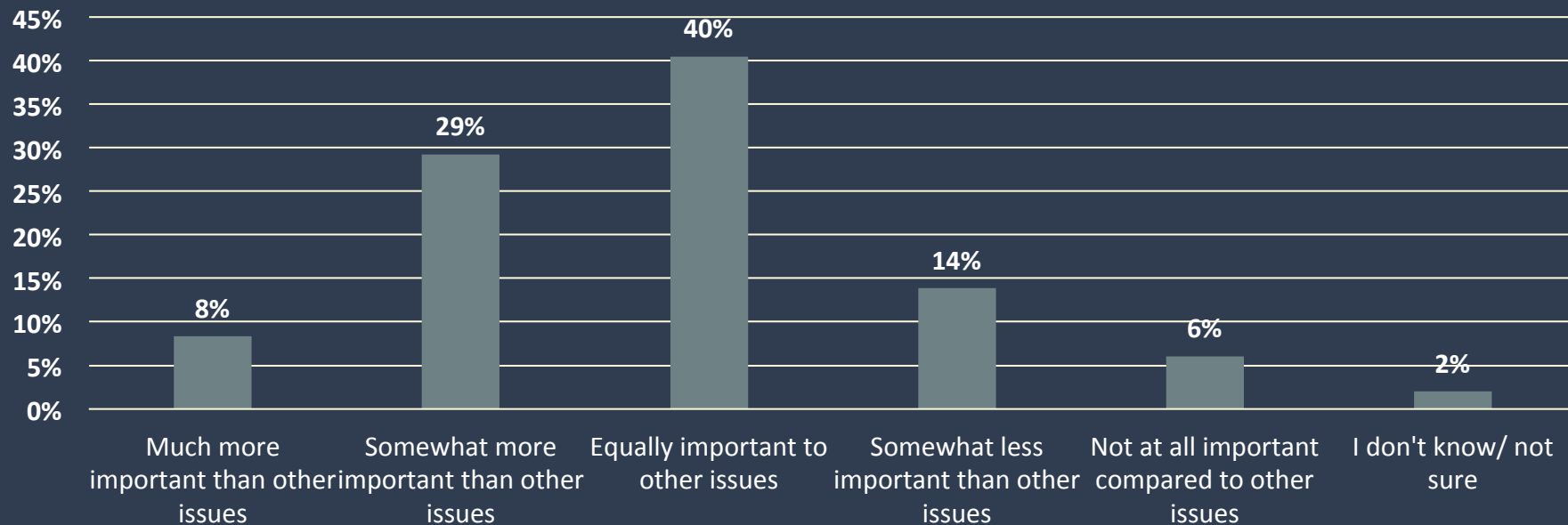
COASTAL ADAPTATION PLAN: FRASER RIVER FORESHORE

IDENTIFYING CONCERNS

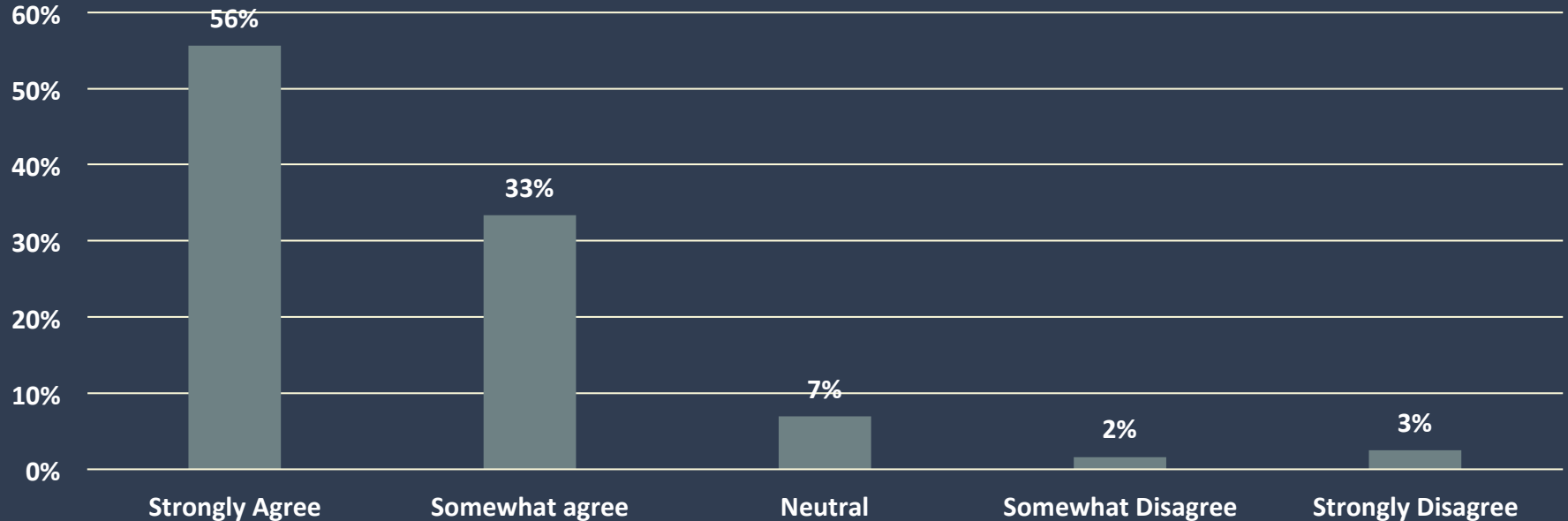
Do you believe that the risk of flooding in Vancouver will change over the next 30 years?



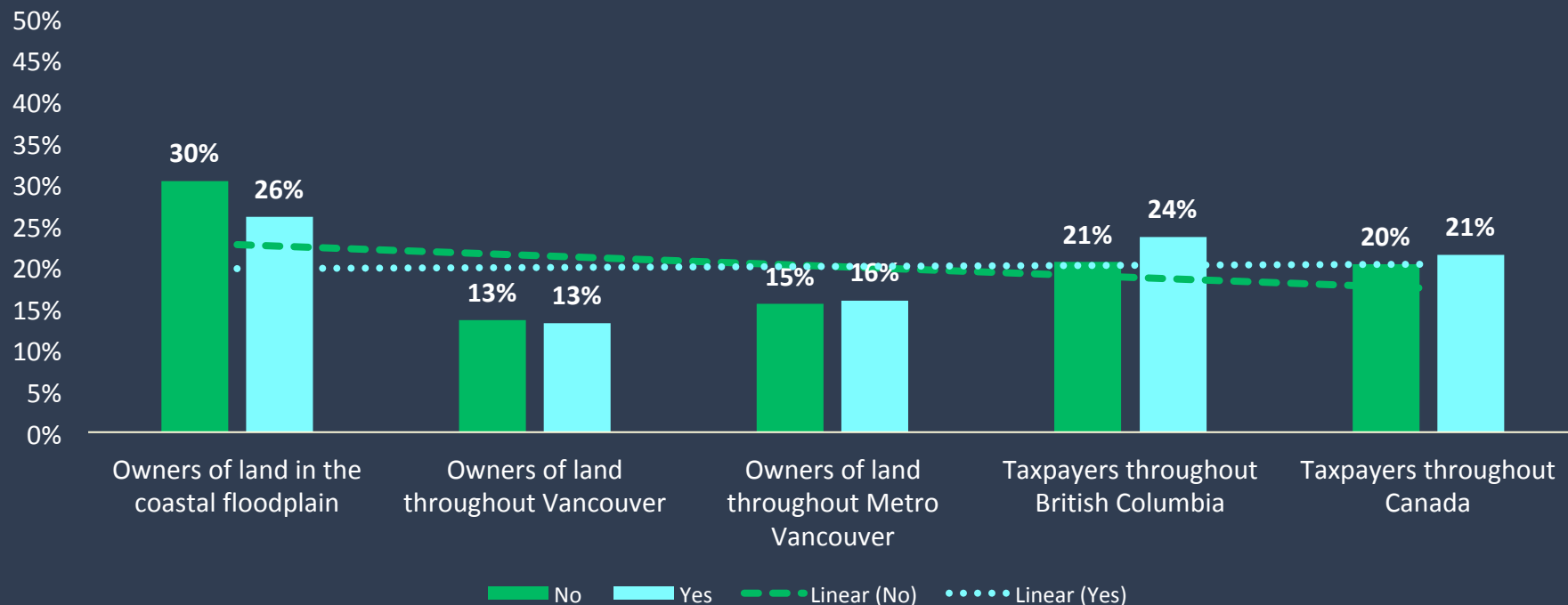
Compared to other issues the City is facing, how important is the issue of sea level rise and coastal flooding?



Do you agree or disagree with the design principles?



Who should bear the cost of adaptation?



Priority of concerns of values impacted

