Responding with Poll Everywhere

Web voting

Text voting
What are the most pressing issues you face in your work today?
Preparing for a changing climate

26 November 2019
8th Annual Public Sector Climate Leadership Symposium
Vancouver, BC
### Nutrition Facts

**Serving Size**: 1 presentation

<table>
<thead>
<tr>
<th>Amount Per Serving</th>
<th>Minutes 80</th>
</tr>
</thead>
<tbody>
<tr>
<td>Slides 60</td>
<td></td>
</tr>
<tr>
<td>Plots 15</td>
<td>250%</td>
</tr>
<tr>
<td>Polling questions 4</td>
<td>150%</td>
</tr>
<tr>
<td>Photos 10</td>
<td>20%</td>
</tr>
<tr>
<td>Cartoons 0</td>
<td>0%</td>
</tr>
<tr>
<td>Humour</td>
<td>5%?</td>
</tr>
</tbody>
</table>

% Daily Value*

* Percent Daily Values are based on a diet of one two-day symposium
Assessing risk based on future climate is necessary, and possible, and requires change.
Resource: climate change in BC

www.bcacarn.com/educationseries/module-1-using-future-climate-projections/
Future Warming in BC

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Emissions</th>
<th>2100 Global</th>
</tr>
</thead>
<tbody>
<tr>
<td>RCP8.5</td>
<td>Minor reductions</td>
<td>+3.5°C</td>
</tr>
<tr>
<td>RCP4.5</td>
<td>Paris commit</td>
<td>+2.0°C</td>
</tr>
<tr>
<td>RCP2.6</td>
<td>Paris goal</td>
<td>+1.5°C</td>
</tr>
</tbody>
</table>

Temperature Change (°C) vs Year

- Red line: RCP8.5 Minor reductions (3.5°C)
- Yellow line: RCP4.5 Paris commit (2.0°C)
- Blue line: RCP2.6 Paris goal (1.5°C)

Graph showing temperature change from 1950 to 2100.
What does this image tell us?
Climate Design Parameters

1. Past conditions not a good guide for future
2. Past conditions don’t even represent today
3. Building code values use past \( \rightarrow \) inadequate
4. Conditions keep changing with time in all but best case
5. Must accommodate wider range of conditions in all cases
6. 2050s cautious roughly equals 2070s optimistic
BC Building Code 2012

- “Climate is not static”
- “greenhouse gas emissions are expected to alter most climatic regimes in the future”
- “buildings will need to be designed, maintained, and operated to adequately withstand ever changing climate loads.”
- “The analysis generally assumes that the past climate will be representative of the future climate”
Thank you

More information
www.PacificClimate.org

Climate Insights 101
http://pics.uvic.ca/education/climate-insights-101#quicktabs-climate_insights_101=1

BC Agricultural Climate Adaptation Research Network
Now what?
Transformative Change

Start anywhere
Focus on what you know
Identify a team
Embed in processes
Expect surprises
Be shovel-ready
Try things out
Explore your own knowledge for insight
Use resilience principles
Collaborate
Plan action!
Revisit processes
Iterate
Learn
Facilitating & Documenting Pilot Project Decision Making Process

Location of Current Pilot Projects

- Vancouver
- North Shore
- Victoria
- Nelson
- Burnaby

Experience & Commitment
Peer Trainers
Given what you've heard so far, what did you learn about your role in adaptation?
Mindset shifts to plan for climate change

“Stationarity is dead”

Plan for Resilience

“Restrictions breed creativity”

- Mark Rosewater
Climate Design Parameters

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6. 2050s cautious roughly equals 2070s optimistic
Resilience to Summer Heating Events: New Low Rise Archetype

Draft Results
Weather Files Training and Engagement

www.pacificclimate.org/data/weather-files

• Engage with energy modellers & their colleagues
• Training workshops
• Feedback to inform design of web portal; what info, where?
• Coming spring 2020
Best Practices for Adaptation to Enable Resilience

• Start using future projections

• Expect future climate information to be imperfect or incomplete

• Talk to people with different roles

• Iterate: learn, rinse, repeat, learn, bump, turn, keep going, try again...
What is an action you can take to help the integrate future climate projections into your work?
Thank you

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www.PacificClimate.org

Questions?
Resource – BC climate projections reports

Metro Vancouver

Capital Regional District

Cowichan Valley Regional District

Vancouver Coastal Health

BC Agriculture & Food Climate Action Initiative
Resource: online tools

Resources to accompany BC Regional Adaptation Collaborative webinar 30 November 2016

Plan2Adapt http://pacificclimate.org/analysis-tools/plan2adapt

PICS short course http://pics.uvic.ca/education/climate-insights-101#quicktabs-climate_insights_101=1

ClimateBC
  - HectaresBC http://www.hectaresbc.org
  - ClimateWNA http://genetics.forestry.ubc.ca/cfgc/ClimateWNA/ClimateWNA.html
  - ClimateBC Online http://www.genetics.forestry.ubc.ca/cfgc/ClimateBC40/Default.aspx
  - BC Climate Explorer http://www.bc-climate-explorer.org/

PCIC Data Portals https://pacificclimate.org/data

Data Basin https://npilc.databasin.org/galleries/5a3a424b36ba4b63b10b8170ea0c915e#expand=105363%2C106698%2C106712%2C110010%2C105359%2C105364

Resource – guidance documents

BC Ministry of Transportation and Infrastructure Technical Circular

EGBC guidance document

National guidebook on climate scenarios
Resource: review

www.bcacarn.com/educationseries/module-1-using-future-climate-projections/
The ResiliencebyDesign Lab’s *Inpiring Climate Action (ICA)* project has just launched its website. This site will be a hub for connecting those interested in climate adaptation in BC and beyond.

www.royalroads.ca/current-students/news/inspiring-climate-action-project-website
Resource: What are Global Climate Models?

- Mathematical representations of the global climate system

- Used to understand and predict changes in the global climate system

- GCMs are the “...only credible tools currently available for simulating the physical processes that determine global climate...” [IPCC]

https://pics.uvic.ca/insights/module1_lesson4/player.html

Figure courtesy John Fyfe, CCCma
Resource:

PICS climate insights 101
Resource: general climate education

https://www.youtube.com/channel/UCi6RkdaEqgRVKi3AzidF4ow
Resource: what to do with all the climate feels

EcoAnxious.ca
twitter.com/EcoAnxiousCa
Resource: reducing emissions

globaloptimism.com/podcast
Resource: reducing emissions

Drawdown.org
Resource: myth busting

SkepticalScience.com
Resource: climate denial logical fallacies

CrankyUncle.com