LEARNINGS FROM BC's SOCIAL MOBILIZATION RESEARCH

Evaluating the Citizens Coolkit & other neighbourhood-based climate action initiatives

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Ontario Climate Consortium – Social Mobilization Workshop, Toronto

12 October 2018

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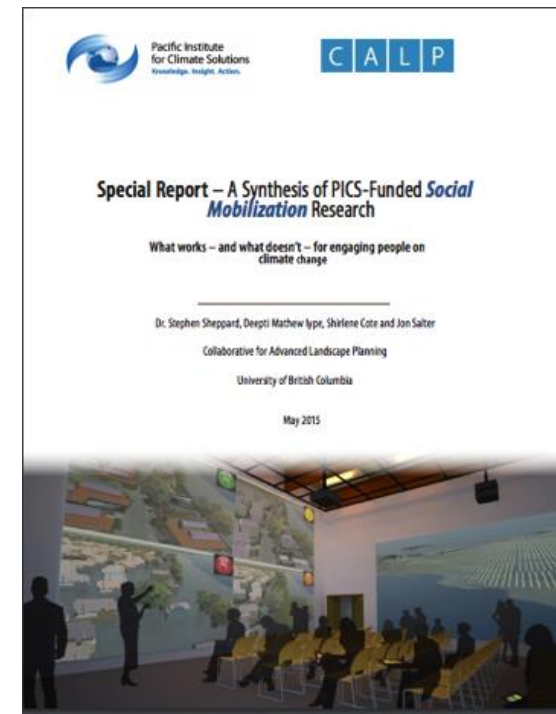

Ladner - Dike View   Build Up Scenario (hypothetical year 2100)   1.2 metres sea level rise

PICS Social Mobilization Synthesis Study

- **Special Report** reviews 7 evaluation projects across BC

- **Focus of research theme:**
  - Action research at community level
  - Reaching silent majority
  - Overcoming social barriers to clean energy
  - Role of digital media
  - Evaluation of outcomes

Special Report – A Synthesis of PICS-Funded *Social Mobilization* Research

What works – and what doesn't – for engaging people on climate change

Dr. Stephen Sheppard, Deepti Mathew Iype, Shirlene Cote and Jon Salter

Collaborative for Advanced Landscape Planning

University of British Columbia

May 2015

https://pics.uvic.ca/sites/default/files/Soc.%20Mob.%20Report%20_0.pdf

Classification of PICS Social Mobilization research projects

CATEGORIES		Good Life Green Life	Do it in the Dark	MC3		Greenest City (GCCP)		Revelstoke Urban Form Workshops	Solar Colwood	Community Energy Explorer
				Eagle Island Retrofits	**T'Sou-ke Solar Community**	**Transport Facebook**	**Energy Workshops**			
Independent of formal process		✓	✓	✓	✓					✓
Relates to formal process						✓	✓	✓	✓	✓
Type of intervenor	Grassroots/ community			✓	✓					
	3rd party[1]	✓	✓			✓	✓	✓		✓
	Government					✓	✓		✓	✓
Focus of study	Building Energy		✓	✓	✓		✓	✓	✓	✓
	Broader sustainability /GHG issues	✓		✓	✓	✓	✓	✓		
Number of people engaged (approx.)[2]		Approx. 3,000 to date; (Research: 6 households / 9 people)	646 students (registering on MEE Facebook tool)	26 house-holds	96 house-holds	750 Vancouver residents (Research: 537 registered on Facebook)	70 approx. Vancouver residents	44	1600 homeowners	50+ users to date
Geographic scale		Metro Vancouver	6 university campuses	Small neighbor-hood	Small neighbor-hood	City of Vancouver	30 block neighbor-hoods approx.	3-6 block neighbor-hoods	Municipality of Colwood	Metro Vancouver
Tools/digital media used		Video, website, social media, workshops & film screenings	Video, social media (especially Facebook), energy dashboard	Thermal imaging, email	Unknown	Social media, especially Facebook	Graphics, mapping, 3D visualization, physical collage /game	Graphics, mapping, 3D visualization, touch-table	General public information (e.g. website, emails, etc.)	Graphics, mapping, 3D visualization, interactive web interface.

Estimated **9430** individuals contacted or more deeply engaged through these interventions
Estimated **3000** actually engaged in the PICS-funded research evaluations

Examples of BC Social Mobilization Projects

1. UBC 'Do it in the Dark' student housing campaign

   UBC (M. Senbel)

2. Meeting the Climate Change Challenge (MC3)

   RRU/SFU/UBC (A. Dale)

   - **Eagle Island Neighbourhood retrofit**

   - T'Sou-ke Solar Community

3. Greenest City Conversations Project (GCCP)

   UBC/SFU (J. Robinson)

   - Facebook conversations on Transportation Plan

   - **Neighbourhood energy workshops**

4. Solar Colwood   RRU (C. Ling)

![UBC logo]

Pacific Institute
for Climate Solutions
Knowledge. Insight. Action.

'Do it in the Dark' Campaign
Digital media as catalysts for climate action

Social media, multi-media and face-to-face engagement (**fun**) in a 3-week competition among campus residents led to 15% reductions & significant year long energy savings
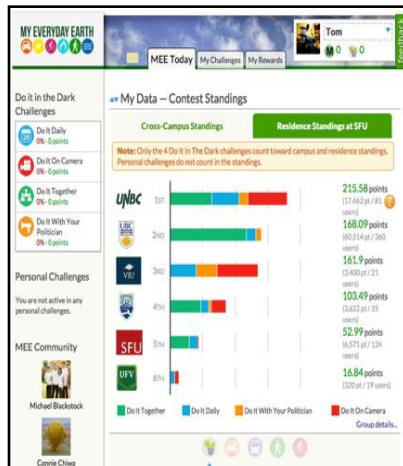
Competition Interface (My Everyday Earth Facebook app)
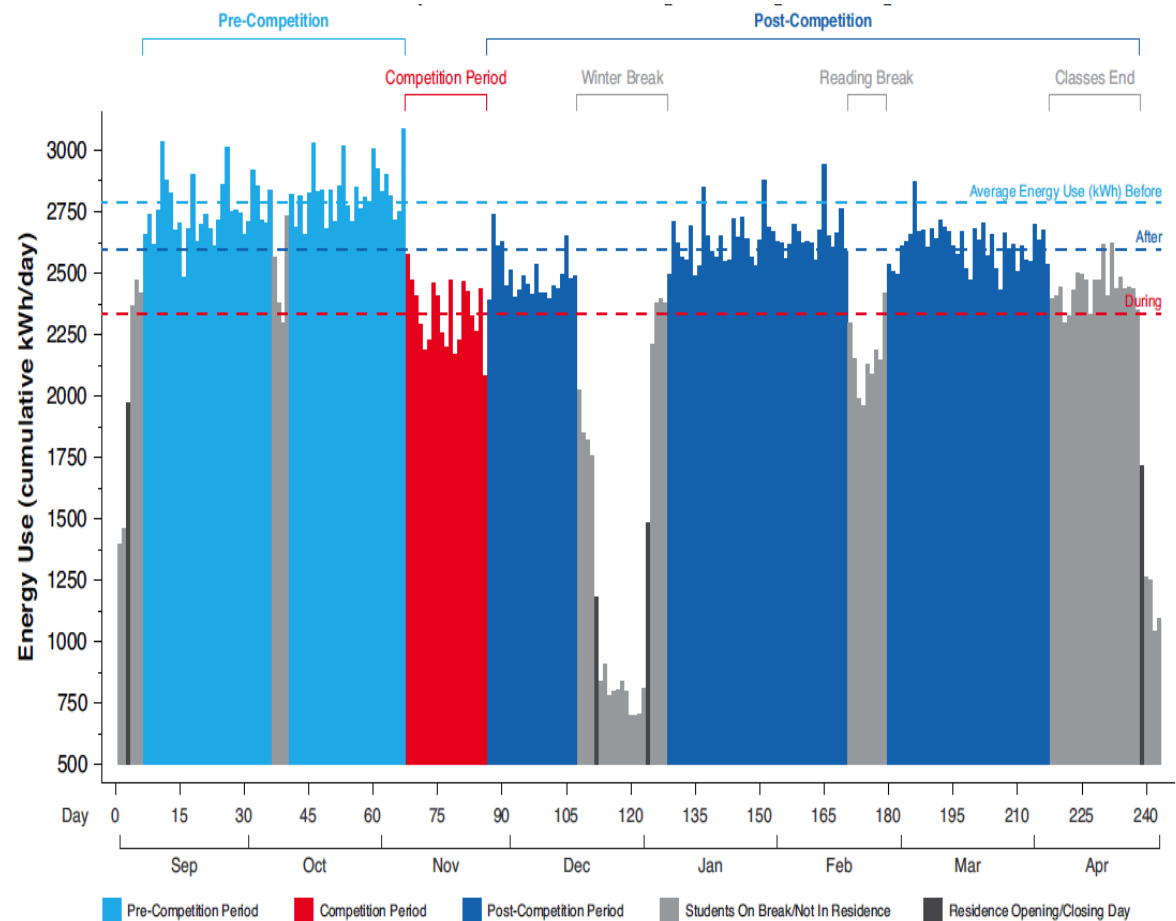
Totem Park daily energy use from Sep 2011 – Apr 2012, showing clear decline during competition.

MC3 Case Study
Eagle Island community-led neighbourhood retrofit

- Fuelled by dinners, wine, and fun!

- 28/31 homes have done energy audits and thermal imaging

- Most have done energy upgrades, reduced carbon emissions by 66%

- Key support role of local government

Sources:

- PICS White Paper (draft) on thermal imaging and community-led action *(Cote, Sheppard, Burch, & Pahl, 2015);*

- UK research*: Goodhew et al., 2014)*

- http://mc-3.ca/eagle-island

Photos: S. Sheppard
Thermography: Steve Goodhew

Greenest City Conversations (GCCP)
Engagement of Vancouver communities through multiple channels

Greenest City Conversations research model. (*Credit: Salter, 2011*)

Neighbourhood Energy Workshop Channel

Downtown

Grandview Woodland

'The Sandbox'

GCCP/CALP, UBC

Neighbourhood co-design with board game scenarios

Lessons from the GCCP

- Different channels
    - reach different demographics
    - provide different affordances
- Persuasive communication vs. emergent dialogue
- Potential to engage politically significant number of people
- Difficulties of combining research, engagement and policy

Solar Colwood

Evaluating uptake of a Federal/ municipal grant incentive program;

aim of 1000 solar homes, not met

Key Findings

- Only reaching the 'converted'

- Incentives with marginal economic value did not make converts

- Social diffusion takes longer than program allowed

- 'Top down' can fail if not embedded

Research evaluation against a range of possible outcomes

OUTCOMES & CONTRIBUTING FACTORS		Good Life Green Life	Do it in the Dark	Meeting the Climate Change Challenge (MC3)		Greenest City Conversations (GCCP)		Revel-stoke Urban Form Workshop
				Eagle Island Retrofit	T'Sou-ke Solar Community	Transport Facebook	Energy Workshop	
MEASURABLE RESULTS	Actual GHG reduction/energy saving		✔✔	✔✔	✔✔			
	Progress toward achieving GHG targets		?					
	Per capita GHG reductions	?	?	✔✔	?			
	Reduced vulnerability to impacts			✔	✔			
	Co-benefits realized	✔✔	✔✔	✔✔	✔✔			
REAL ACTIONS TAKEN	Social behaviour change (positive)/ collective action	✔	✔✔	✔✔	✔✔			
	Mitigation actions taken, e.g. facilities, technology	?		✔✔	✔✔			
	Adaptation actions implemented							
POLICIES ENACTED	Sustainable development pathway adopted				✔✔		?	
	Mitigation policies adopted				✔	?	?	
	Adaptation policies adopted				✔			
	Mitig/Adapt. policy support increase	?	?	?	?	✔	?	×
COMMUNITY ATTITUDES/CAPACITY IMPROVED	Broader cultural shift or ripple effect on values / perceptions / norms		✔	?	?			
	Increased community capacity			✔✔	✔✔		✔	✔
	Increased motivation/concern/ caring about climate change/energy	✔	✔✔	✔✔	✔	?	?	?
	Shifted/increased awareness/ understanding of climate change etc.	✔	✔✔	✔✔	✔	?	✔✔	✔
	Increased/improved community dialogue on climate change/energy	✔	✔✔	✔✔	✔✔	✔✔	✔	✔✔
PROCESS EFFECTIVENESS/ ACHIEVEMENTS	Integrated decision making and design/ development					?	?	✔
	Community-led planning			✔	✔✔			
	Social movement ongoing/ripple effect	✔	?	✔✔	✔✔			
	Effective community engagement - reaching beyond the usual suspects	✔✔	✔✔	✔✔	✔✔	✔✔	✔	✔✔
	Effective community engagement - engaging/rewarding experience	✔✔	✔✔	✔✔	?	✔✔	✔✔	✔✔
	Effective partnering		✔	✔✔	✔			
	Peer-to-peer learning (among practitioners)							
	Neighbour to neighbour interaction		✔✔	✔✔	✔✔		✔	✔✔
	Action campaign event(s)		✔✔					
	Preparatory social learning	✔		✔	✔		✔	✔

PICS Social Mobilization research review: What have we learned?

- Grassroots & 3rd party initiatives can produce substantial reductions in carbon footprints over 1 month to 3 year periods

- Power of 'bottom-up' social collaboration/peer pressure in a small geographical area with distinct identity, eg. T'Sou-Ke First Nation Solar Community

Source: https://www.aadnc-aandc.gc.ca)

OUTCOMES & CONTRIBUTING FACTORS		Go Green Life	Do it in the Dark	Meeting the Climate Challenge (MC3)		Greenest City Conversations (GCCP)		Revd-stoke Urban Form Workshop	Solar Colwood	Community Energy Explorer
				Eagle Island Retrofit	T'Sou-ke Solar Community	Transport Handbook	Energy Workshops			
MEASURABLE RESULTS	Actual GHG reduction/energy saving		✓✓	✓✓	✓✓				✓	
	Progress toward achieving GHG targets		?						?	
	Per capita GHG reductions	?	?	✓✓	?				?	
	Reduced vulnerability to impacts/ improved resilience			✓	✓					
	Co-benefits realized	✓✓	✓✓	✓✓	✓✓				✓✓	
REAL ACTIONS TAKEN	Social behaviour change (positive)/ collective action	✓	✓✓	✓✓	✓✓				X	
	Mitigation actions taken, e.g. facilities built, technology installed			✓✓	✓✓				✓X	
	Adaptation actions implemented									
POLICIES ENACTED	Sustainable development pathway adopted				✓✓		?		✓	
	Mitigation policies adopted				✓	?	?			
	Adaptation policies adopted				✓					
COMMUNITY ATTITUDES/CAP & CITY IMPROVED	Mitig/Adapt. policy support increase	?	?	?	?	✓	?	X	?	?
	Broader cultural shift or ripple effect on values/perceptions/ norms		✓	?	?				X	
	Increased community capacity			✓✓	✓✓		✓	✓	?	?
	Increased motivation/concern/ caring about climate change/energy	✓	✓✓	✓✓	✓	?	?	?	?	?
	Shifted/increased awareness/ understanding of climate change etc.	✓	✓✓	✓✓	✓	?	✓✓	✓	✓	?
	Increased/improved community dialogue on climate change/energy	✓	✓✓	✓✓	✓✓	✓✓	✓	✓✓	✓	?
PROCESS EFFECTIVENESS/ ACHIEVEMENTS	Integrated decision making or design development					?	?	✓		
	Community-led planning			✓	✓✓					
	Social movement ongoing/ripple effect	✓	?	✓✓	✓✓				?	
	Effective community engagement - reaching beyond the usual suspects	✓✓	✓✓	✓✓	✓✓	✓✓	✓	✓✓	✓X	?
	Effective community engagement - engaging/rewarding experience	✓✓	✓✓	✓✓	?	✓✓	✓✓	✓✓	?	?
	Effective partnering		✓	✓✓	✓✓				✓	
	Peer-to-peer learning (among practitioners)[2]								✓	
	Neighbour to neighbour interaction		✓✓	✓✓	✓✓		✓	✓✓		
	Action campaign event(s)		✓✓							
	Preparatory social learning	✓		✓	✓		✓	✓	X	?
CONTRIBUTING / ENABLING FACTORS	Financial incentives applied/ available to users			Yes	Yes				Yes	
	Government support of intervenor			Yes	Yes				Yes	Yes
	Compelling visual media used	Yes	Yes	Yes	?		Yes	Yes		Yes
	Active social media used	Yes	Yes	Yes	?	Yes			?	TBD
	Fun activities	Yes	Yes	Yes	?		Yes	Yes		TBD
	Emergent dialogue/co-creation	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
	Spiritual values engaged	Yes			Yes					

SOCIAL MOBILIZATION OUTCOMES OF PICS STUDIES

Key:					
	Intended outcome	✓✓	Strong positive result overall	✓	Weak positive result overall
X	No positive result overall (for intended outcome)	?	Outcome unknown or uncertain (lack of available data)		

Table 1 - Key findings of PICS research & outcomes of selected Social Mobilization interventions

So, what works?

- Fun! (social interaction, parties, vlogs, competitions, games, etc)
- Multiple channels for ~~s~~ stakeholder or commu~~nity~~
- Digital (social) media ~~community engageme~~ of social media
- Powerful visual media ~~generated or more au~~
- Collective problem so~~lving~~ with 'grass roots' grou~~ps~~
- Coordinated top-down ~~with~~ multiple partners

Future Delta 2.0 high-school videogame
Act 1: North Delta (street view) with the User Interface

- 3rd party intervenors (NGOs, researchers, etc.) who build trust and introduce new tools, processes and best practices for uptake by communities and government

Citizens Coolkit

- Simple, 'do-it-yourself' visual tools to engage citizens on climate change and urban forestry in their own neighbourhoods

CITIZEN'S COOLKIT
ON CLIMATE CHANGE & URBAN FORESTRY

THE MOST VISUAL AND FUN "DO-IT-YOURSELF"
TOOLKIT FOR ENGAGING NEIGHBOURS
ON YOUR BLOCK
(DRAFT)
Feb. 8th 2017

CONVERSATIONS · MAPPING · RATING · VISIONING · ACTING

www.forestry.ubc.ca   www.calp.forestry.ubc.ca   UBC CALP

Envisioned Alleyway   27

Features:
- Volleyball Court
- Permeable Asphalt
- Rain Barrel
- Vertical Gardens
- Green Roof
- High Albedo Roofs
- Communal Bike Racks
- Solar Panels

MAP YOUR BLOCK
URBAN FOREST QUEST

🕐 30 minutes

DO YOU KNOW...
How much squirrel habitat is on your block?
How many trees there are on your block?
Why trees are important to us and squirrels?

Your name/team name
_____
_____

1) COUNT THE TREES
Street trees are trees alongside the curb in the public right-of-way. Count the number of street trees on your block.
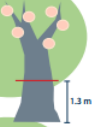
Total # of street trees: _____

Total # of trees in gardens: _____

2) MEASURE TRUNK SIZE
Measure the circumference (girth) of the biggest and smallest trees. At around 1.3 metres (or 4.5 ft) up from the ground, measure around the tree's stem.

Girth of biggest tree: _____ cm

Girth of smallest tree: _____ cm

1.3 m

3) THE LEAPING SQUIRREL TEST
Check out your block's street tree canopy by using the distance a squirrel leaps. Squirrels live up in the trees and are safer there than on the ground. Assume squirrels can leap about 2 metres (6 ft or a person's height) between branches:

can a squirrel make it from one end of the block to the other and cross the street at least twice, without coming down to the ground?

Yes / No

If "No", how many gaps (greater than 2 metres) between canopies did you see?
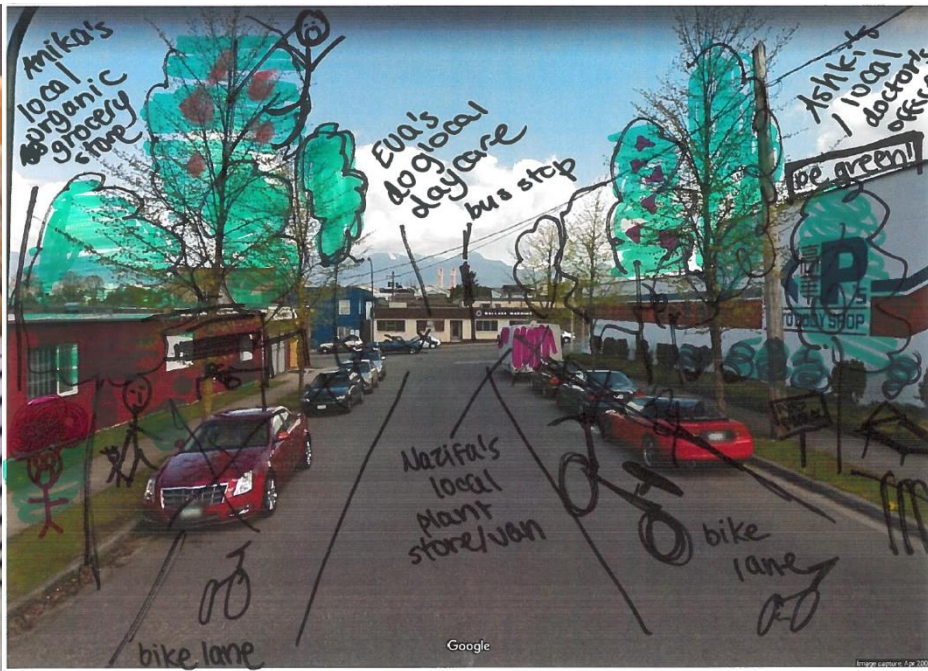
_____

Important because...
Larger trees have bigger canopies and so more benefits. Smaller trees are also important since they will replace existing big trees one day.

Important because...
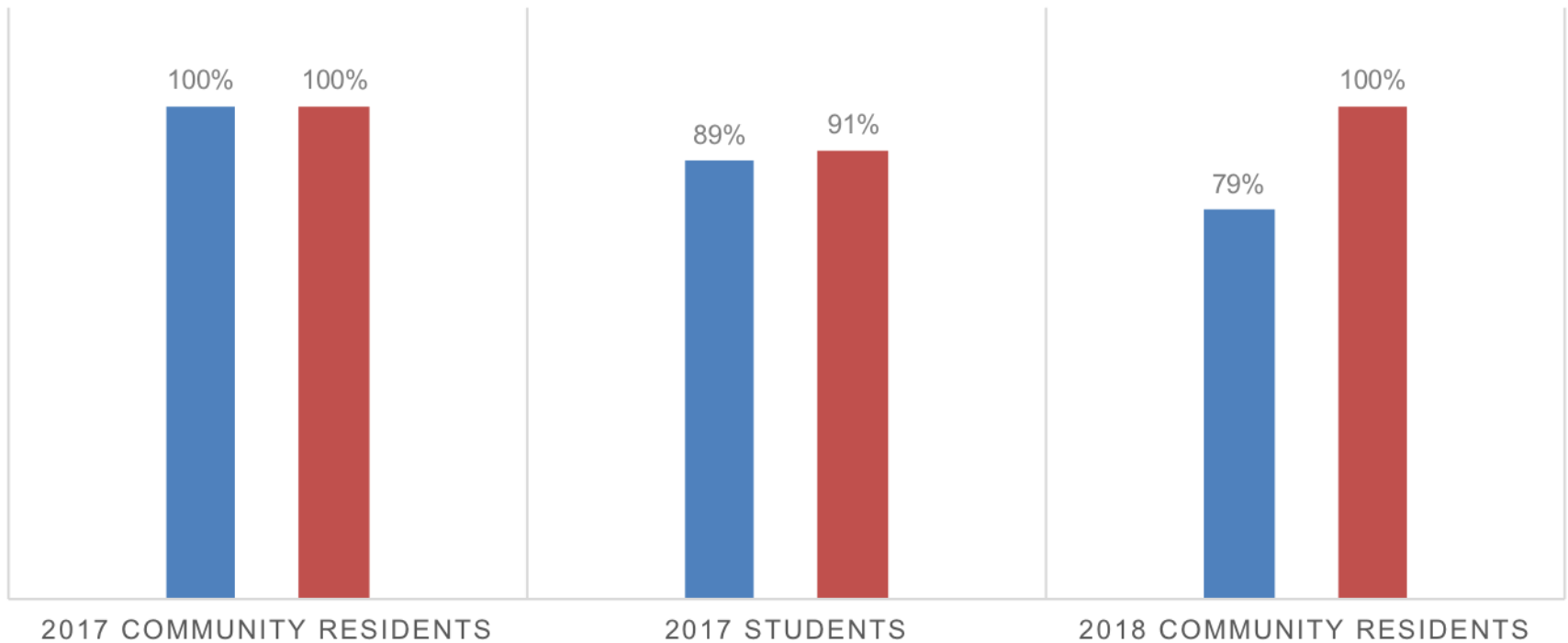*A continuous canopy has more shade during the summer for cooling and reduces stormwater flooding.*
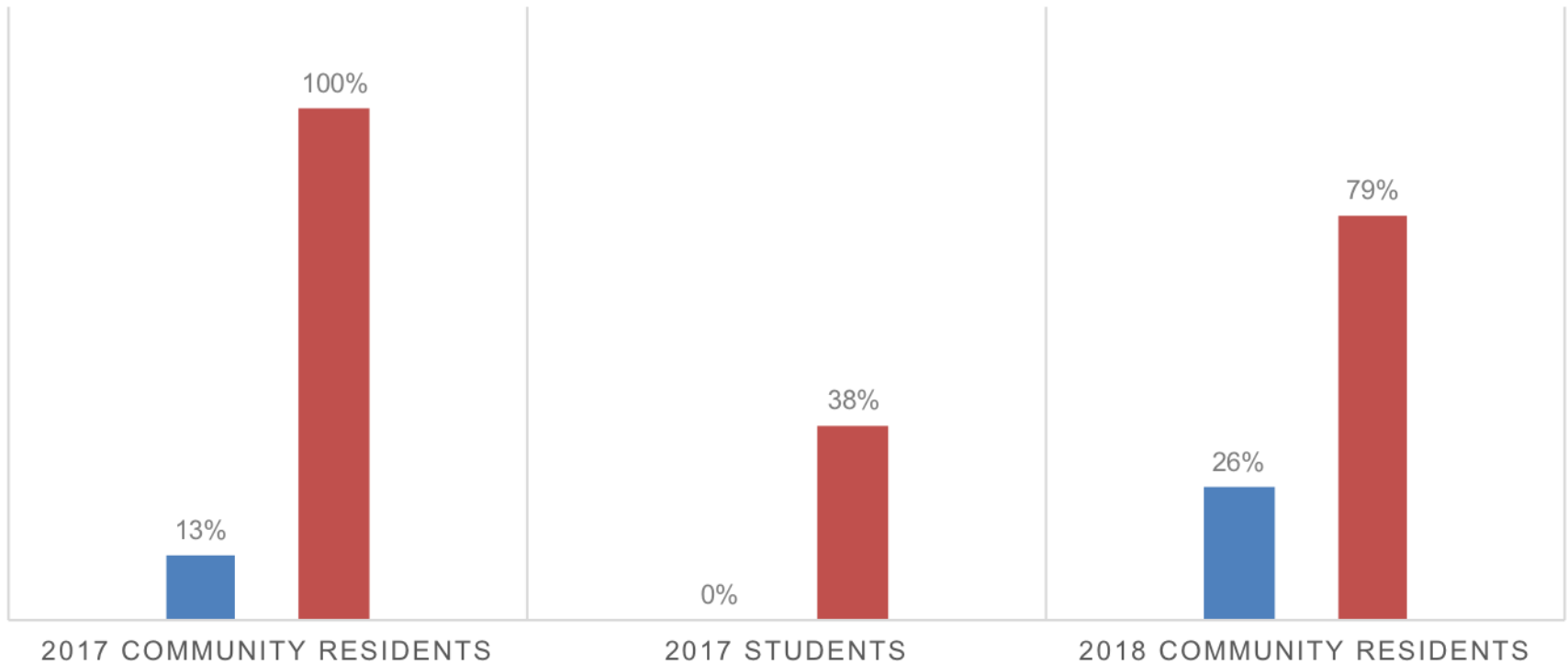*To read more: http://forestry.ohiodnr.gov/portals/forestry/urbantoolbox/articles/BigTrees_SEOhio.pdf*

FINISHED!

14

Squirrel Habitat — Worm habitat — Car Habitat — Pigeon Habitat

E 26th Ave — E 27th Ave — E 28th Ave

Amika's local organic grocery store

Eva's dog local daycare

bus stop

Ashk's local doctor's office

be green!

Nazifa's local plant store/van

bike lane

bike lane

DO YOU THINK THE CITIZEN'S COOLKIT HAS HELPED YOU UNDERSTAND CLIMATE CHANGE AND URBAN FORESTS BETTER?

■ Climate Change ■ Urban Forests

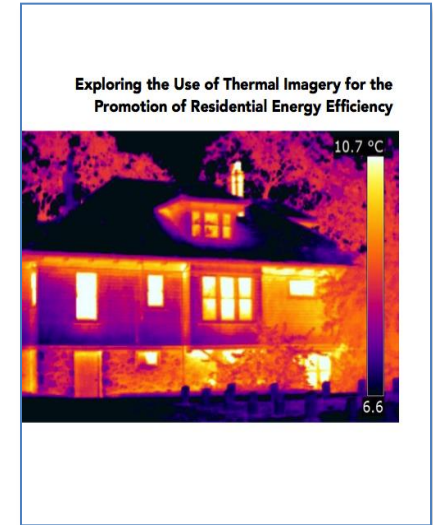|	2017 COMMUNITY RESIDENTS	2017 STUDENTS	2018 COMMUNITY RESIDENTS
Climate Change	100%	89%	79%
Urban Forests	100%	91%	100%

Recommendations and Resources

- We need more innovative, scaled-up, zoomed-in, fun, ethical, participatory visualization processes to mobilize citizens

- Various online guides & tools available

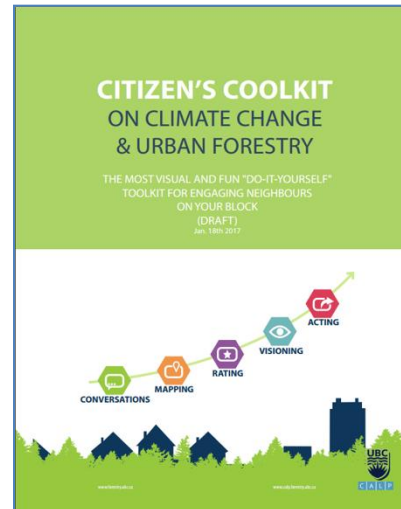- Sustainable Canada Dialogues evaluation framework
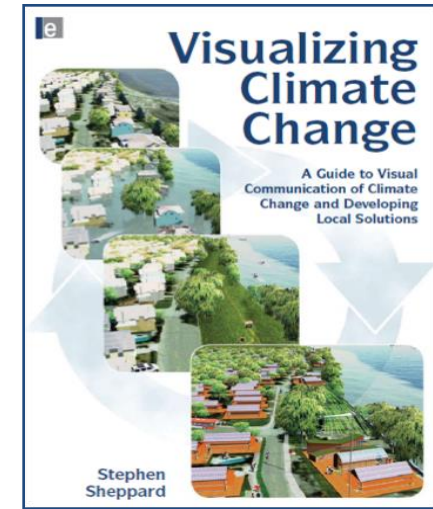
THANK YOU !

www.calp.forestry.ubc.ca
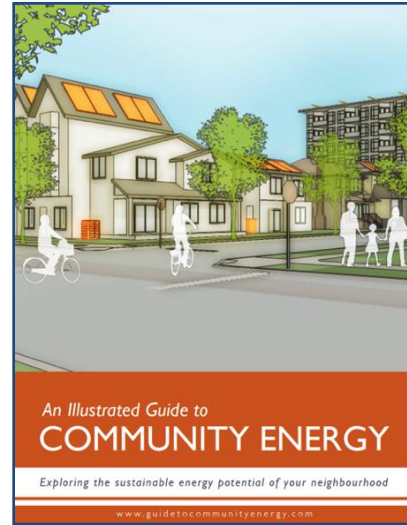
www.energyexplorer.ca

http://calp2016.sites.olt.ubc.ca/files/2016/05/Thermal-Imaging-Report.pdf

http://cooltools.sites.olt.ubc.ca/files/2017/05/Coolkit_CC_20170213-1.compressed.pdf

www.visualizingclimatechange.ca