

# THE NATURAL SOLUTIONS INITIATIVE

ACT - Action on Climate Team, Simon Fraser University  
*Nature-Based Solutions for Water Management in Canada*  
October 29, 2024



Photo: Samee Anderson

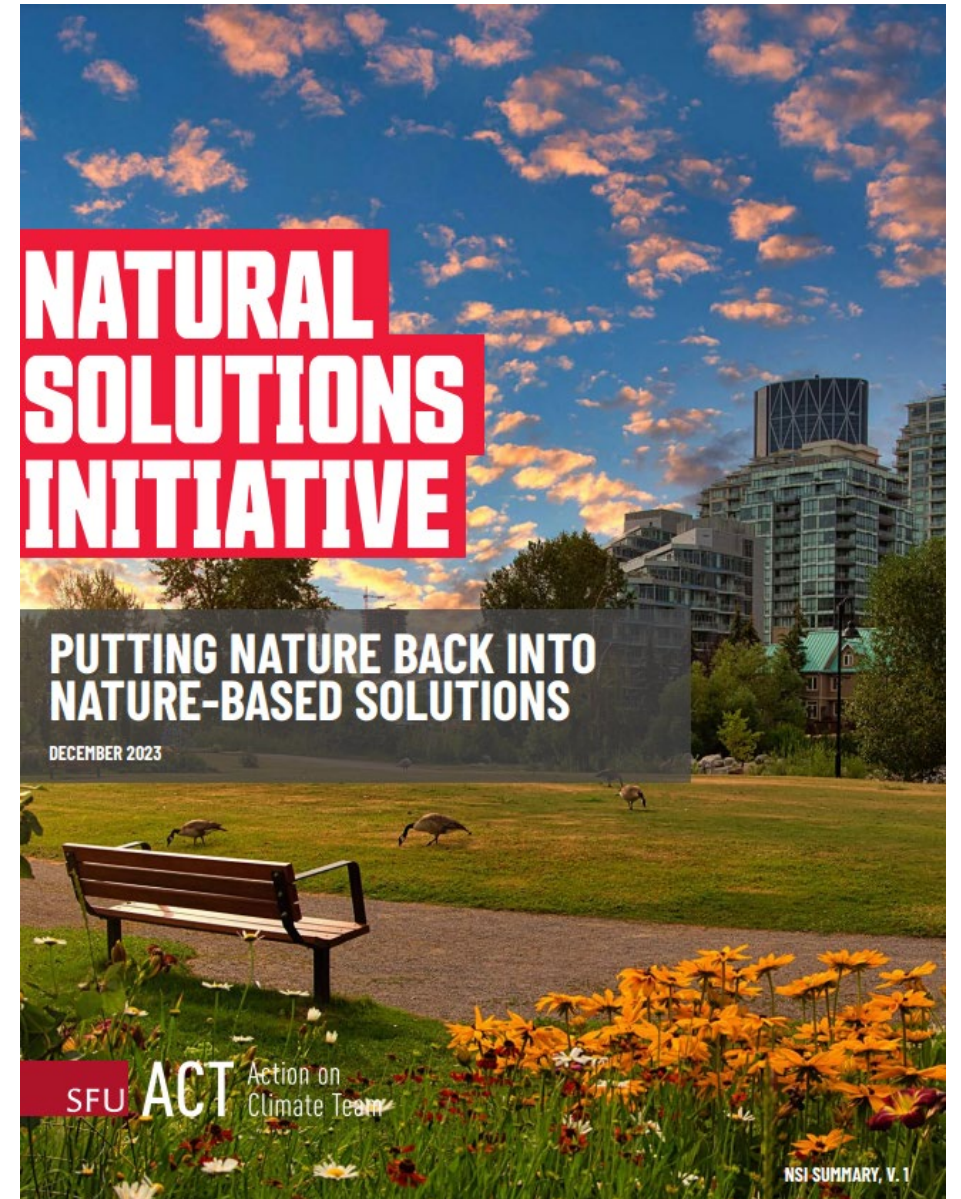
# About ACT

- Founded in 2006
- Partners with local governments and First Nations to accelerate climate action.
- ACT is the first and only university-based think tank initiative in North America dedicated to low-carbon resilience and nature-based solutions.



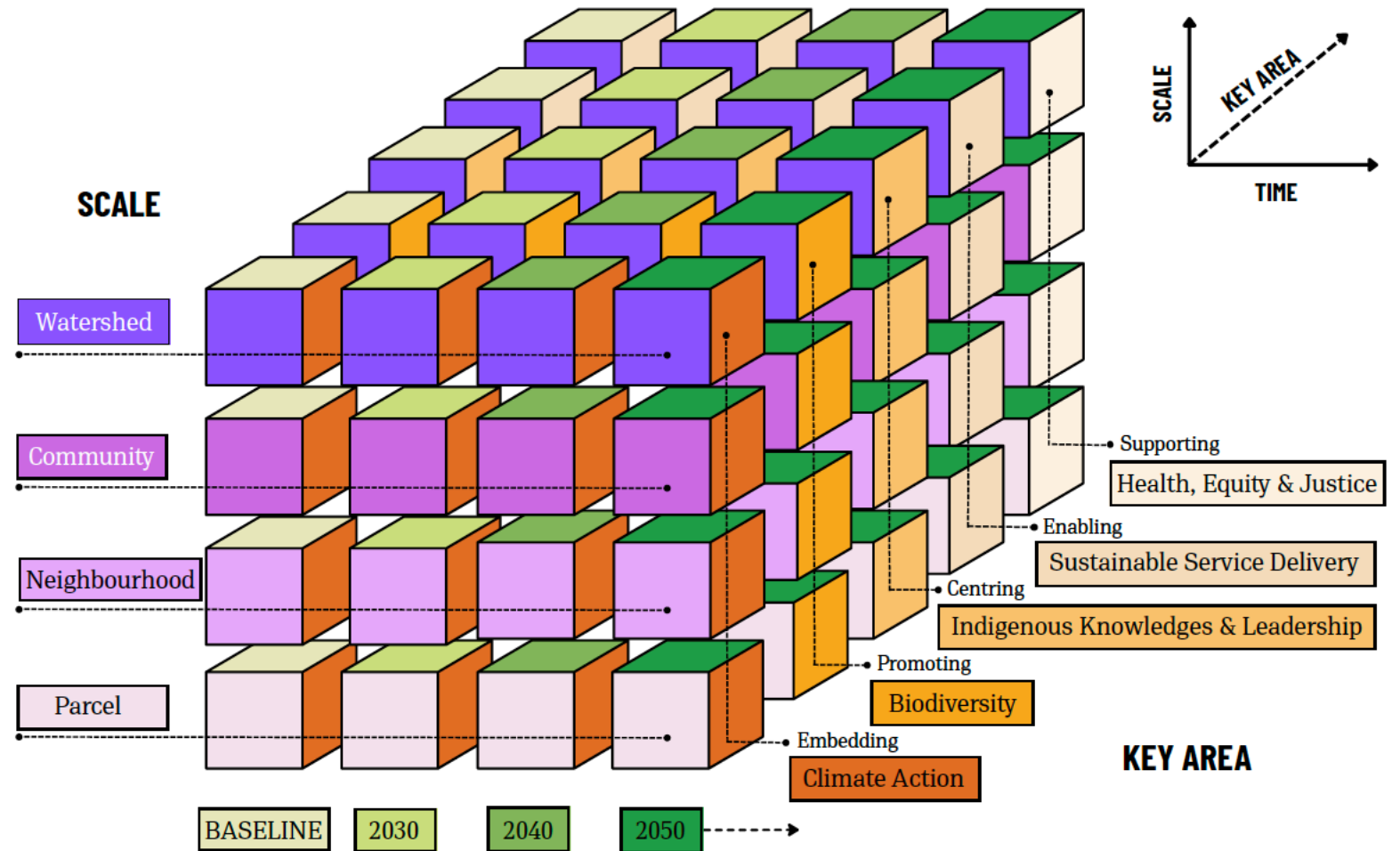
# ACT's Natural Solutions Initiative

The Natural Solutions Initiative aims to optimize and mobilize nature-based solutions as crucial opportunities in the transition toward just, low carbon resilient, and sustainable communities and regions.



# The NSI Opportunity

**Mission:** To co-create and advance a cohesive and systemic NbS framework-for-action that optimizes benefits for both people and nature under a rapidly changing climate.



# Aligning for Coherence: Three Nested Approaches

## 1 *Monitoring and enhancing ecological processes through* **Ecosystem-based Management**

## 2 *Protecting and restoring* **Natural Assets**

## 3 *Enhancing and engineering* **Blue-Green Infrastructure**

### **NATURAL ASSETS**

- Forests
- Wetlands
- Shorelines
- Lakes, rivers, streams & creeks
- Marine environment

### **RESTORED ASSETS**

- Reforestation & afforestation
- Rewilded cultivated lands
- Restored wetlands & streams
- Renaturalized shorelines
- Restored coral/oyster/clam reefs

### **HYBRID ASSETS**

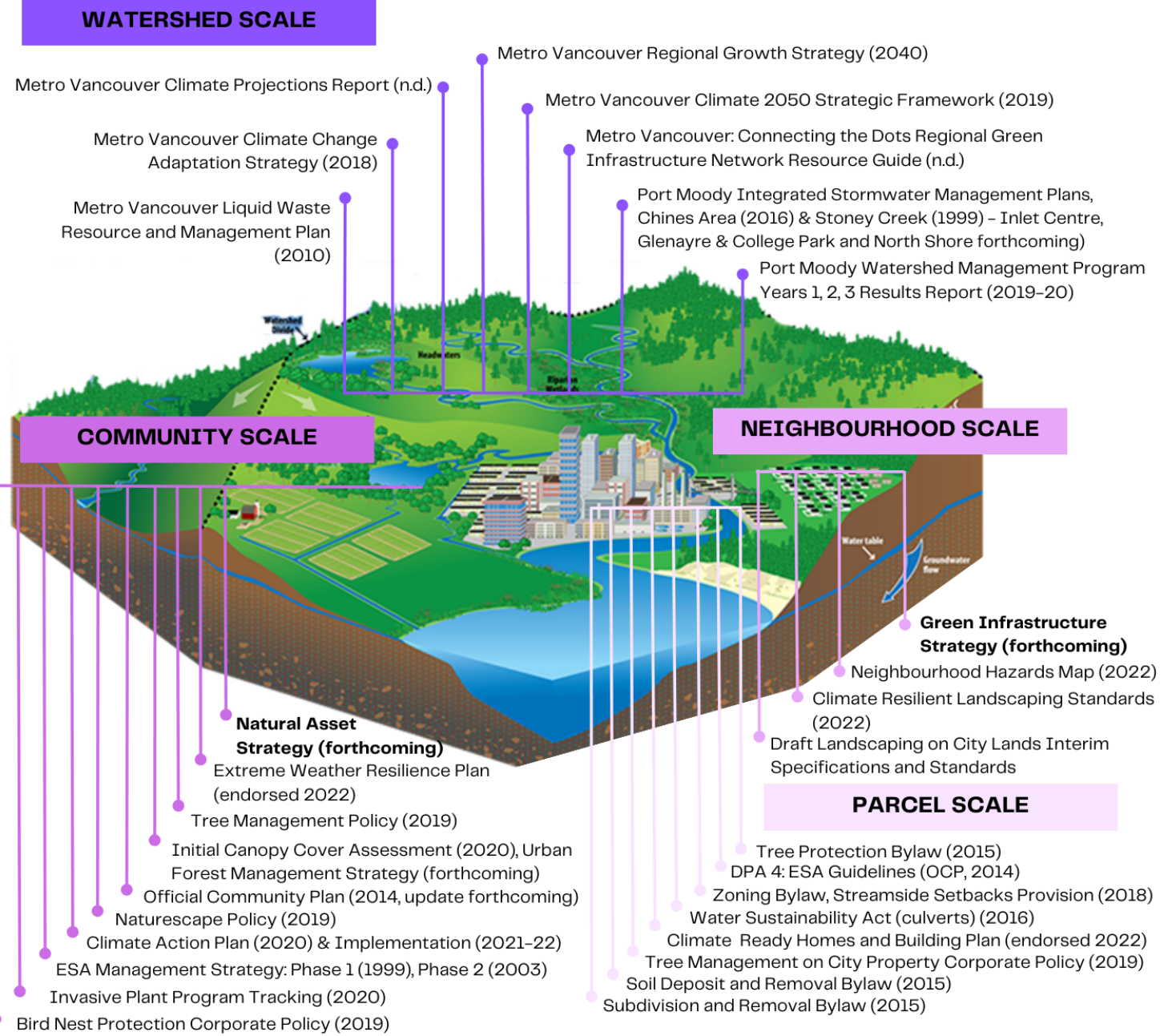
- Sustainably managed agriculture & aquaculture/ regenerative agriculture/ agroforestry
- Urban parks
- Stormwater ponds & reservoirs
- Bioswales, bio-retention systems & rain gardens
- Street trees
- Green roofs & walls
- Community gardens
- Pollinator gardens
- Xeriscaping

### **ENGINEERED ASSETS**

- Cisterns
- Rain barrels
- Infiltration trenches
- Permeable pavements
- Perforated pipes
- Downspout disconnections

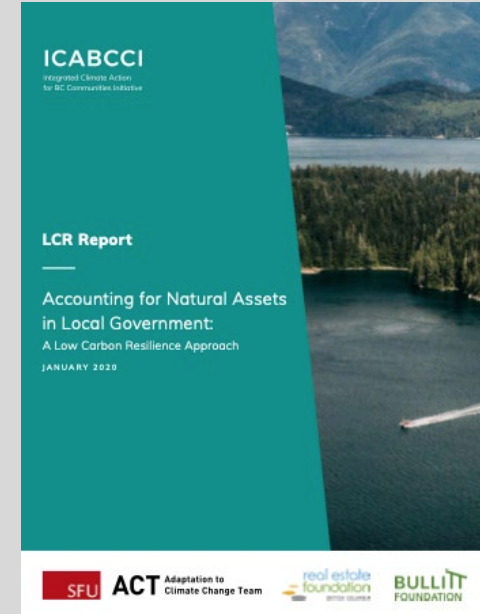
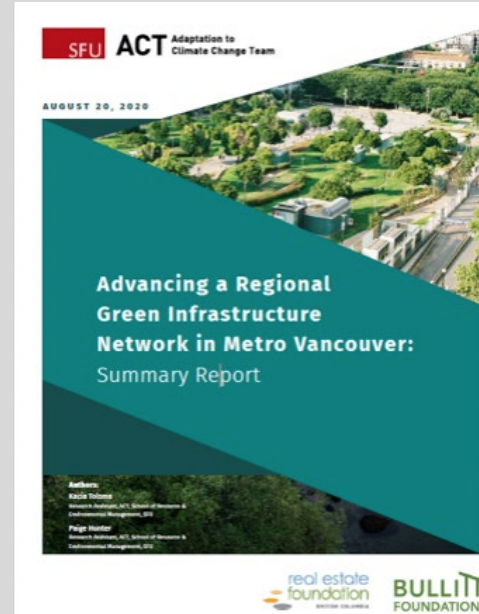
# Monitoring Watershed Health & Resilience: Ecosystem-based Management

# Natural Assets: Planning & Management



# Blue-Green Infrastructure: Strategies & Bylaws

# ACT - Action on Climate Team



For further information, please contact:

Find our resources at: <https://www.sfu.ca/act.html>



**Lauren Vincent, M.Sc., P.Eng.**  
Associate Director,  
ACT - Action on Climate Team  
Simon Fraser University, BC

**Alison Shaw, Ph.D. CPC**  
Executive Director,  
ACT - Action on Climate Team  
Simon Fraser University, BC

**Chaeri Kim, Ph.D.**  
Postdoctoral Fellow,  
ACT - Action on Climate Team  
Simon Fraser University, BC

**Michelle Sawka**  
Natural Solutions Initiative Manager,  
ACT - Action on Climate Team  
Simon Fraser University, BC

e. [lauren\\_vincent@sfu.ca](mailto:lauren_vincent@sfu.ca)

e. [alison\\_shaw@sfu.ca](mailto:alison_shaw@sfu.ca)

e. [chaerik@sfu.ca](mailto:chaerik@sfu.ca)

e. [michelle\\_sawka@sfu.ca](mailto:michelle_sawka@sfu.ca)