

# **Agricultural Urbanism**

Rethinking our Relationship to Land, Food, and  
the Community

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**Common Ground:** Why food and agriculture matter

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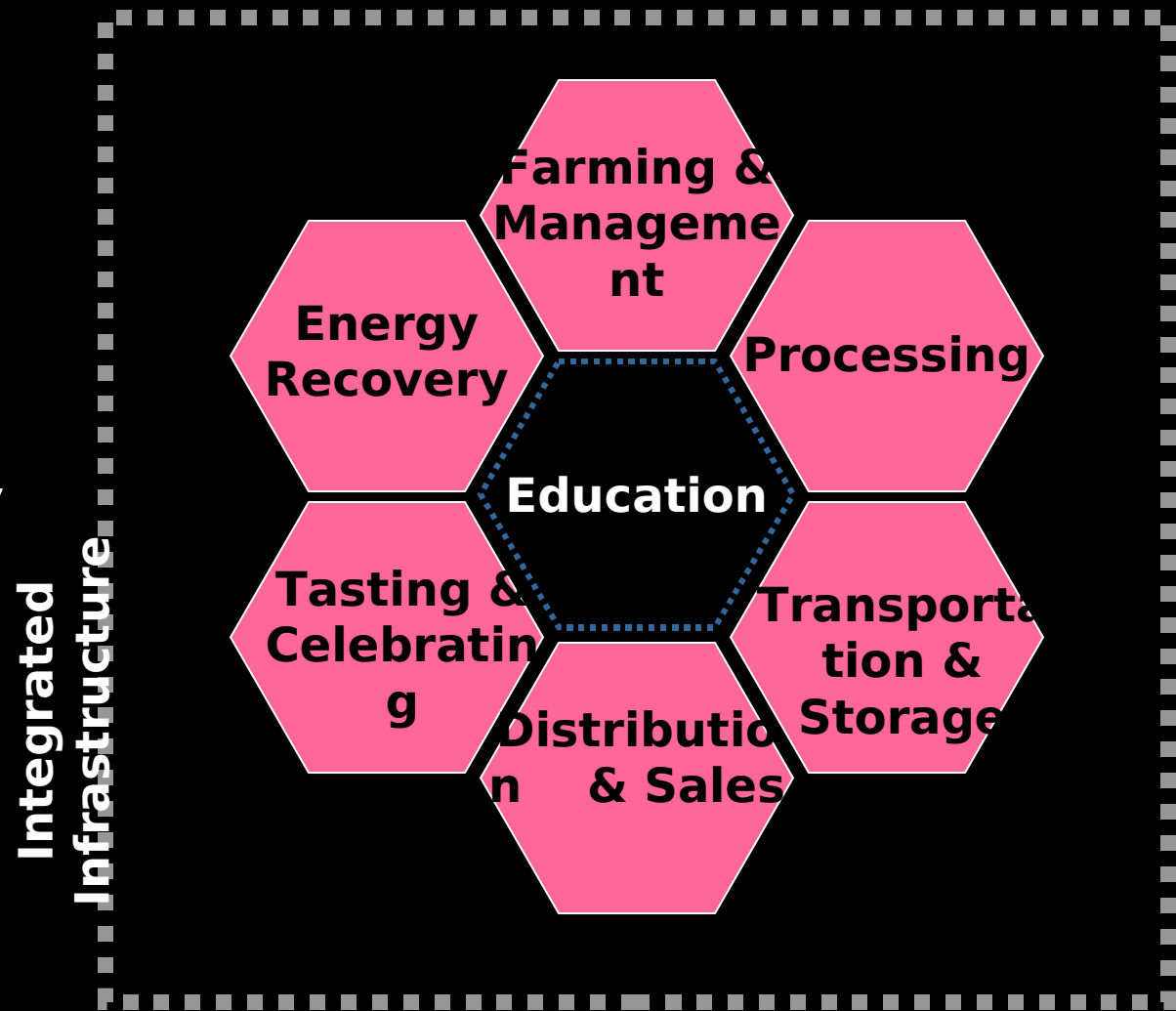
**Our dilemma:** The food system challenges we face

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**Agricultural Urbanism:** One idea for the future

**Common Ground**

Sustainable  
Community  
Food Systems  
(SCFS) require  
a sustainability  
strategy that  
looks at all  
aspects of the  
food system



**Economic  
Development**

**Human Health  
& Happiness**

**Ecological  
Health &  
Biodiversity**

**Sustainable  
Land Use**

**Reducing  
Emissions**

**Food**

A diagram on a black background. On the left, five white text blocks are stacked vertically. From each block, a red dotted arrow points towards the right, converging on a large, bold, red text block labeled 'Food'. The arrows originate from the right side of each text block and point towards the left side of the 'Food' text.

# Food is a planning issue

<b>Planning Topic</b>	<b>Solutions for Food Systems</b>
<b>Land use</b>	Protecting agriculture land for agriculture, planning compact, complete communities
<b>Growth Management</b>	Concentrate growth in existing urban areas
<b>Transportation</b>	Access to food sources as a pedestrian, cyclist, or transit user
<b>Housing</b>	Infill and intensification of existing neighbourhoods, form and character to support growing food
<b>Parks and open space</b>	Public realm to support growing food.
<b>Infrastructure</b>	Water conservation for irrigation of ag land, systems for diverting organic waste

# An Unhealthy Food System

- Disconnected
- Loss of taste & nutrition
- Risk
- Degraded farmland & ecosystems
- Diet related disease
- Addition to fossil fuels
- Loss of culture and connection around food
- Obesity & starvation



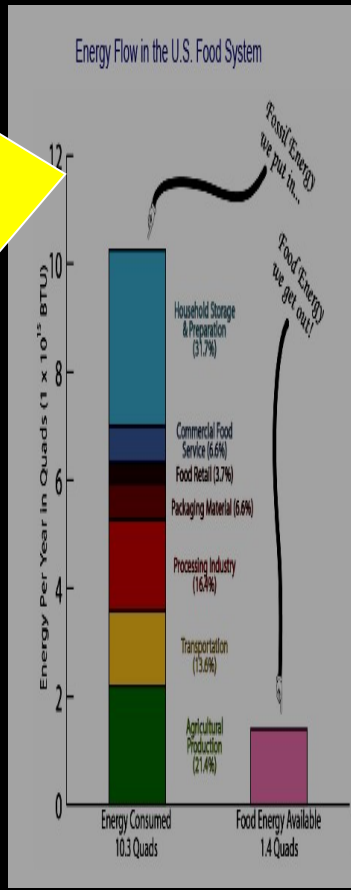
# Our food systems do not make sense



- Mismatch between what we grow and what we eat
- We use agricultural practices that undermine the lands ability to be productive overtime.

Energy per year in Quads ( $1 \times 10^{15}$  BTU)

# Energy in



- Household storage and preparation (31.7%)
- Commercial food service (3.7%)
- Packaging Material (6.6%)
- Processing Industry (16.4%)
- Transportation (13.6%)
- Agricultural production (21.4%)

# Energy out

Energy Consumed Available  
10.3 Quads

Food Energy  
Quads 1.4 Quads

**57 Years** (Age of Canadian farmers)

+ No succession planning

+ No attraction for new farmers

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**= Collapse of Canadian farm system in 15 years**

# **World food crisis hits Canada**

In 2008 the price of fruits and  
vegetables in Canada has increased

**26.9%**

So, how are we going to deal with all of this??

There are two major dimensions of our agri-food system:

1. Large-scale export driven agri-food system
2. Local (urban/rural/regional) dimensions of the food system.



Focus here to  
make change



Local agri-food systems require **organic waste recycling.**

In a two year pilot project in Vancouver **250 metric tonnes** of food waste was diverted from the waste stream to produce **50 tonnes of** compost used in the community garden



Local agri-food systems require **education** and skill around growing, preparing and preserving food

Local agri-food systems require **infrastructure** such as abattoirs and processing facilities



Local agri-food  
systems require  
farmer access to  
local markets



Local agri-food systems require farmland for farming

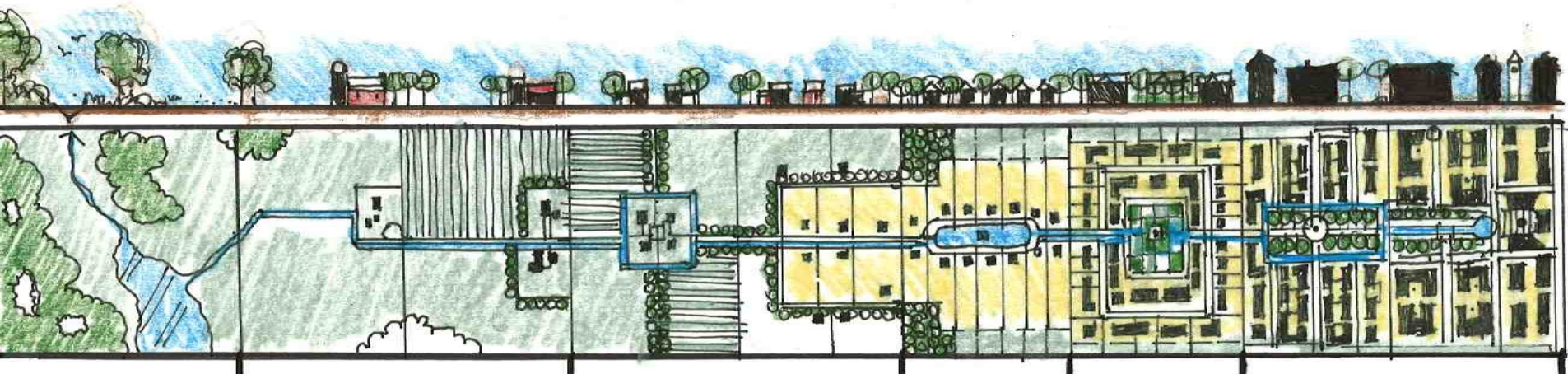


# Dimensions of SCFS

There are three dimensions to implementing SURFS-

- 1. Intra-urban** (infill, redevelopment, FS integrated into the city fabric PR, rooftop, farmers markets, community kitchen)
- 2. Peri-urban** (Compact, development, urban containment)
- 3. Rural** (Sustainable agriculture, land stewardship)





**Wild**

**Rural**

**Peri-urban**

**Urban**

# The Dilemma

- How we build cities does not consider food and agriculture
- The mechanisms we have for protecting agricultural land need to be updated.

- The ALR is being utilized for:
  - Urban containment
  - Habitat protection
- Protecting farmland does not necessarily lead to farming

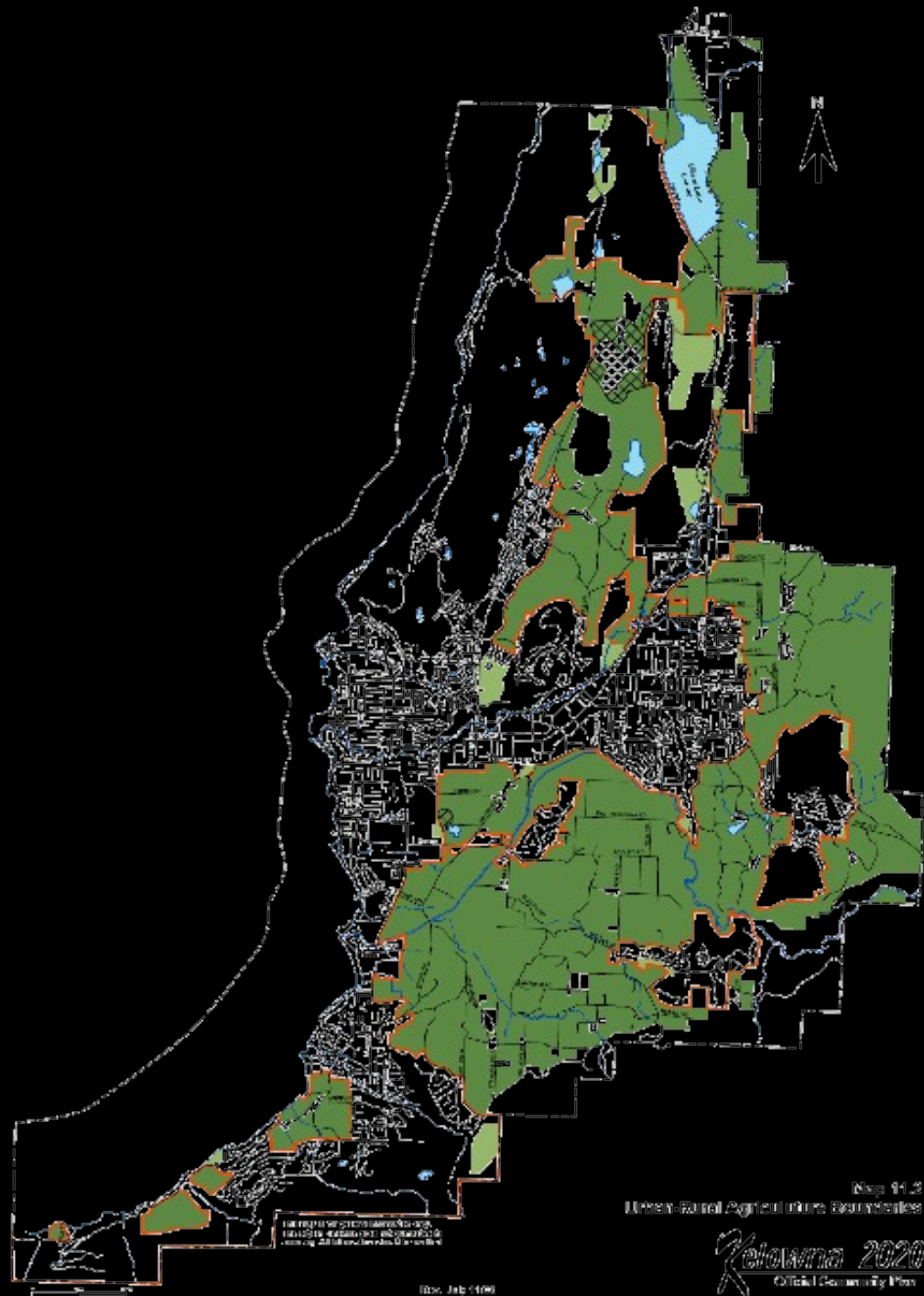


**There is incentive to build low density, car-oriented residential areas on the edges of towns and cities.**



**Consider:** By 2030 population of the Regional District of Central Okanagan will increase by approximately **71,000** people.

Consider: The ALR accounts for About 43% of the land area of the City of Kelowna



# We need a new approach

- When development does occur we have not developed a model for maintaining productive capacity OR hardening the edge after it does give way.
- Protecting farmland is not enough to build sustainable food systems
- Urban agriculture, as it is currently practiced, is not enough to provide food security.
- Major drivers of climate change and peak oil threaten to further undermine food systems





How can we integrate agri-food systems into our planning and development practices?

# Agricultural Urbanism



# Agricultural Urbanism

- AU is a design and development strategy to manage the impacts of growth pressure on the edge of urban development
- Transferable to other areas



The urban/rural interface is key to updating to our approaches to growth management.



# Managing the interface



- Integrate not separate
- Highly integrated sustainable agriculture
- Compact mixed-use communities

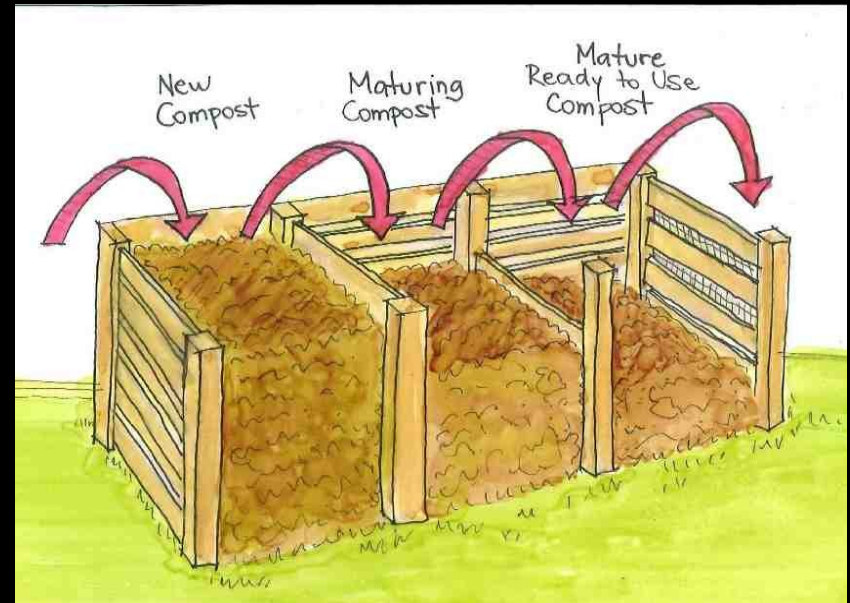
# What do we do when the edge fails?

- Repair and reclaim
- Activate farming on farmland
- Leverage development investment for sustainable food systems
- Harden the edge



# How it works

- Rule of 2/3<sup>rds</sup>
- Protect farmland in perpetuity (trusts and covenants)
- Support/control sustainable agriculture practices.
- Integrate agriculture into the on-site community as well as surrounding community.



# Outline of a Farm Plan



- Economic proforma of the farm(s)
- Ownership model  
(who owns the land)
- Governance structure  
(who holds the covenant or land it trust)
- Management systems  
(who runs the day-to-day operations of the farm)

# Implementation: Site Scale Design



- Agriculturally influenced form and character for built form and open space.
- Urban agriculture opportunities and edible landscaping (e.g. fruit trees, pollinator plants, fruit-bearing vines)
- Public realm: Market square, outdoor cooking spaces,
- Micro-processing, secondary processing

# This



**The Canal  
Plan:**  
Southlands,  
Tsawwassen BC



# Not This



# This



**Not this**



# People involved



- Local and regional governments
- Academic institutions
- Developers
- Planners, architects, landscape architects
- Non-profit organizations
- Community members & associations

# AU Charter- action Collective



- Outline the requirements for an AU project
- Developed collaboratively with farmers, local government, NGOs, and developers

**Thank-you!!**

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