SSP Canada

The End of Linear Planning

Global Impacts & Correcting the Errors of the Oil Age.

Presentation Part 3: National Impacts
and revisiting the Mid Canada Development Corridor of 1969.

SSP5 Winnipeg 2008 CIP/ICU Conference

Canada 7 SSP Zones

- Pacific Coast & Rockies
- Prairies
- Ontario/The Canadian Shield
- Quebec/ St. Lawrence
- Maritime Changes
- Yukon & the Taiga
- Nunavut & Our Arctic Archepeligo

In a world of rapidly triggered tipping points: 2007-20014

Climate Change

- Overall warming
- Erratic, violent weather
- Growth of deserts
- Loss of Forests
- Rising Oceans
- Dryer rivers & lakes
- loss of ancient aquifers
- Acid rain from China Coal plants growth in effluent.

Nationally: Impacts & Policy

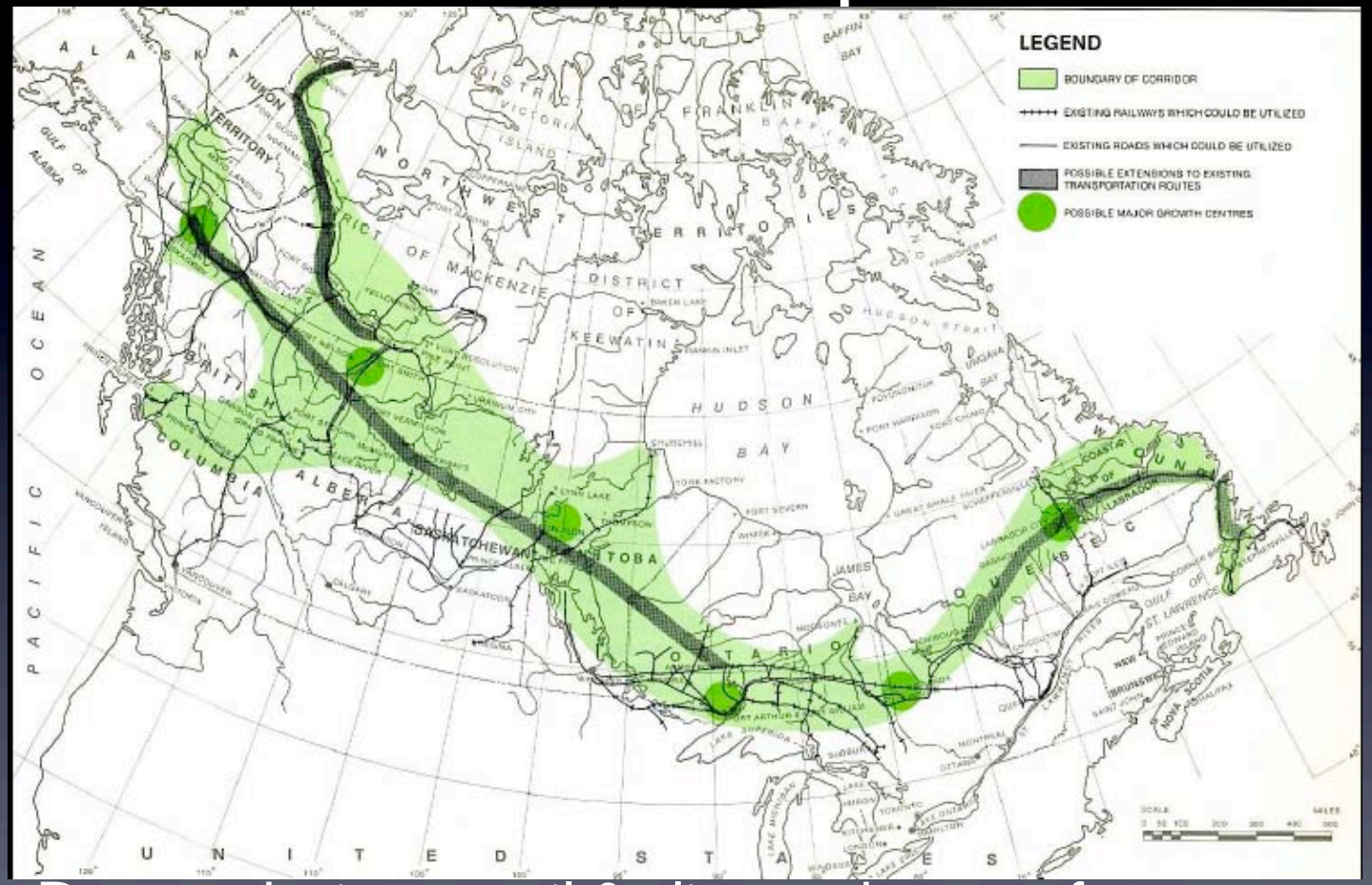
- At least 7 regions of well defined differences in geography and climate, affecting how planning policy needs to adapt to strategic sustainable planning.
- Climate change & loss of rainfall or new erratic surplus of water dramatically affects alternate futures planning.
- The large city size is not sustainable: the need to provide for the Mid Canada Belt now seems a prudent option: the Labrador City/Churchill/Prince Rupert line.

Acres 1969 Report

The Mid Canada Development Corridor
-revisited in light of peak oil, climate change mass migration
- do we slam the door shut? .... and why not?

- An atlas of inventory of our great bounty
- the limitations of the soils
- new opportunity for soils creations, new agriculture, consuming less, a whole new dynamic over now.
- A chance to show up last mistakes and create whole new sustainable communities.

The Mid Canada Development Corridor

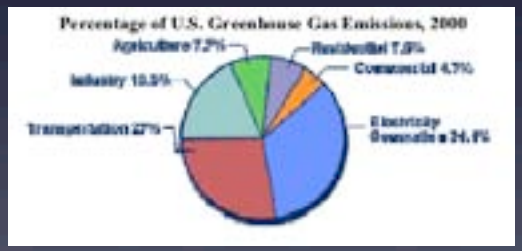


Do we take in post oil & climate change refugees, or not?

Peak Oil Impacts

What policy for post oil, climate, migration?

- Death of suburbia
- Triage in inner cities
- Need for local food
- Refugee in-migration
- new impact on lands
- no energy to rebuild

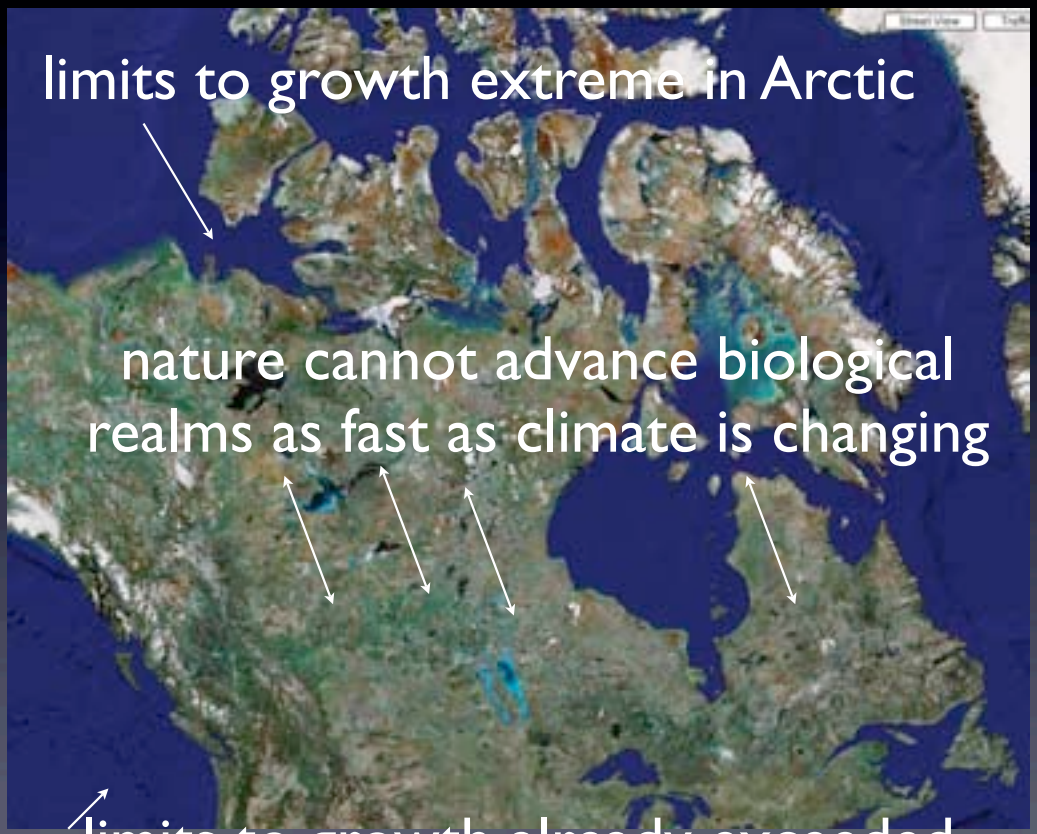


High Triage Risk cities.

Toronto
Vancouver
Montreal
Calgary

Mass Migration

- internal moves to warmer climate zones
- post oil refugees from south
- US migrants from heat & end of oil economy.
- Europe & Asia & US climate refugees looking for land
- re-population of Rust Belts of East Coast



Pacific Coast & Mountains

- More winter rains
- More summer drought/fire
- More spring flooding/soil loss
- More shift from forest to savanna & dessert
- Massin-migration as Canada still has the best options
- Acid rain from China Coal use escalation (a new plant per week)
- Shift from road to rail pattern required.

US already attempting to grab all hydro power even as BC plans for self sufficiency/impossible

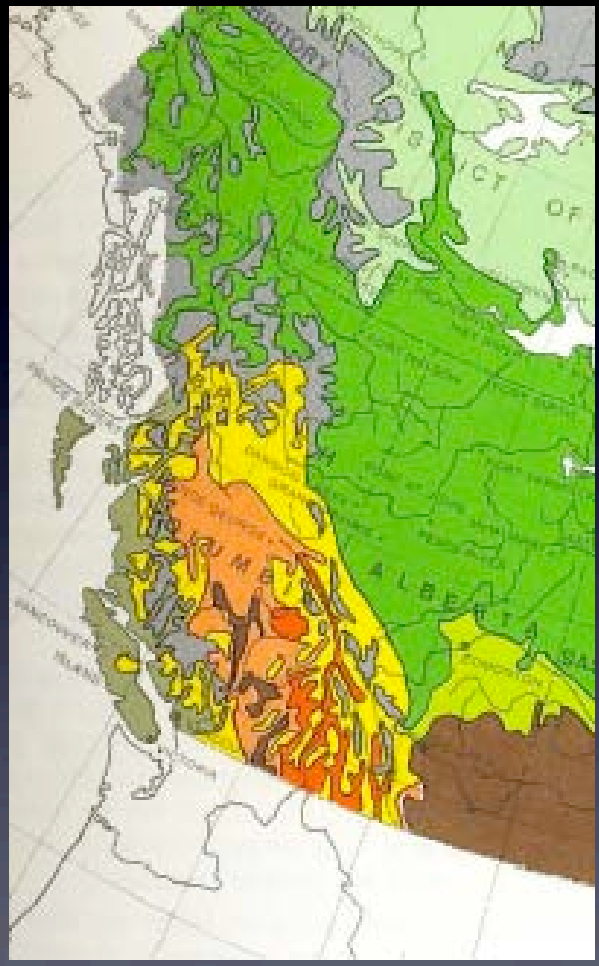
US calls tar sands 'american'

rising oceans sinking coast

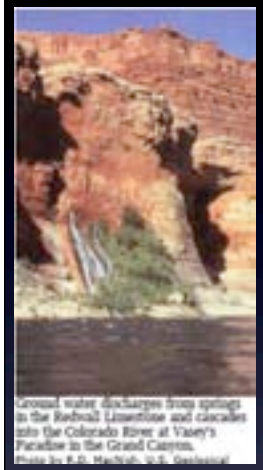
increase of tornados on west coast

BC Snapshots

- Ecological basins well defined.
- Break down of large scale grids means local self reliance & control is essential.
- Variation in the BC landscape is a fact: the solutions will be from adaption to the local conditions without cheap oil to allow for unsustainable solutions.
- The bounty of BC will therefore also attract many new migrants & cause social upheaval unless we plan for it.

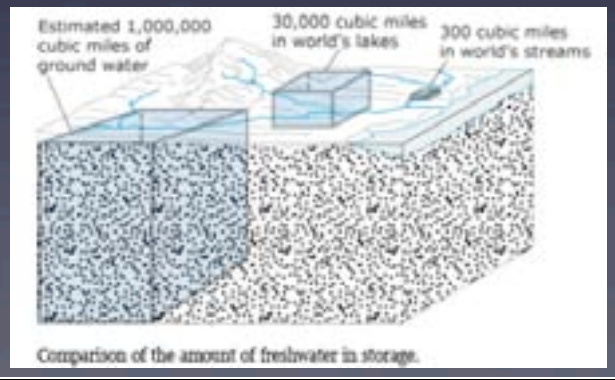


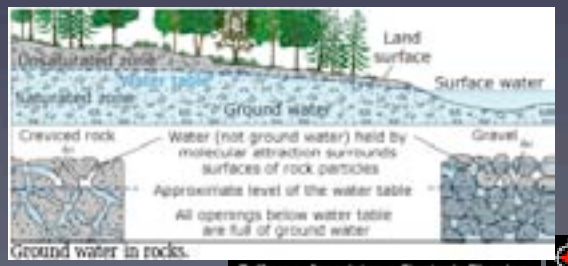
Ancient Aquifers Dying



Many aquifers cross international boundaries, making control & protection impossible as each we begger our neighbour to consume the resource first.

World Losses

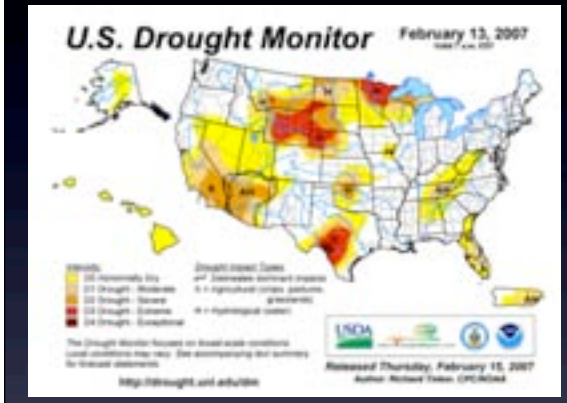




Water Resources

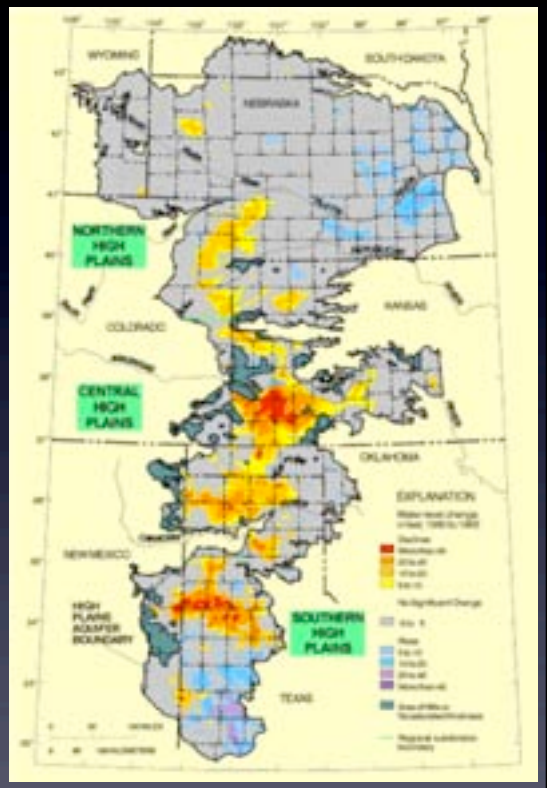
oh boy are we in trouble....

Huston... we have a problem here, ... who is next door?

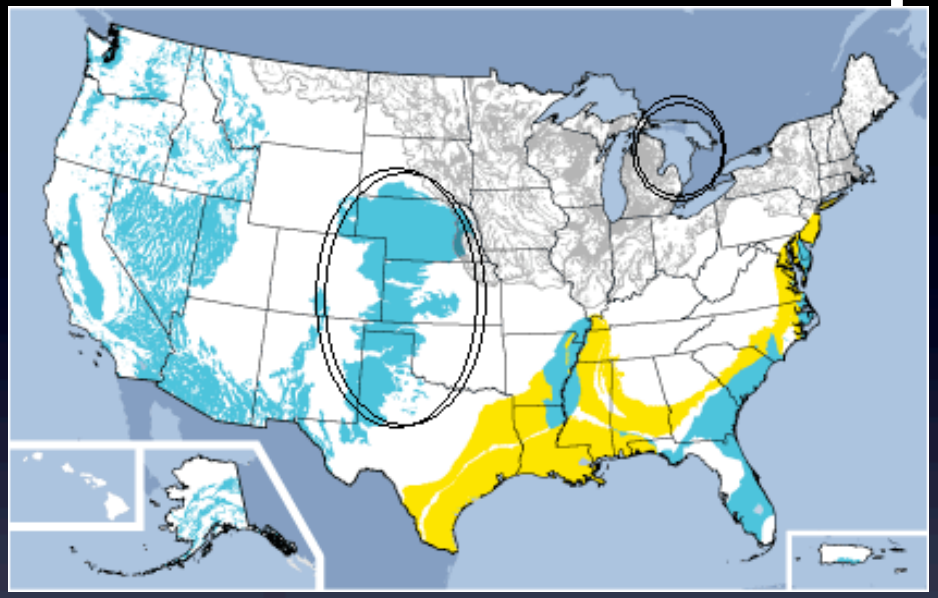


Community Survival & Resilience- may not be possible in BC if private power is allowed to alienate our rivers.

- Relocalization of farming & industry means new reliance on local water sources and hydro power.
- BC is most blessed in this regard but others covet the power & seek to harvest it & move it beyond our local control.
- County level governance & true democracy is needed to locally manage the ecological basin, hold growth to sustainable levels & manage hydro power, water & forests under local, not corporate control.



Water Waste Impacts



Failure of the Great Ogallala Aquifer

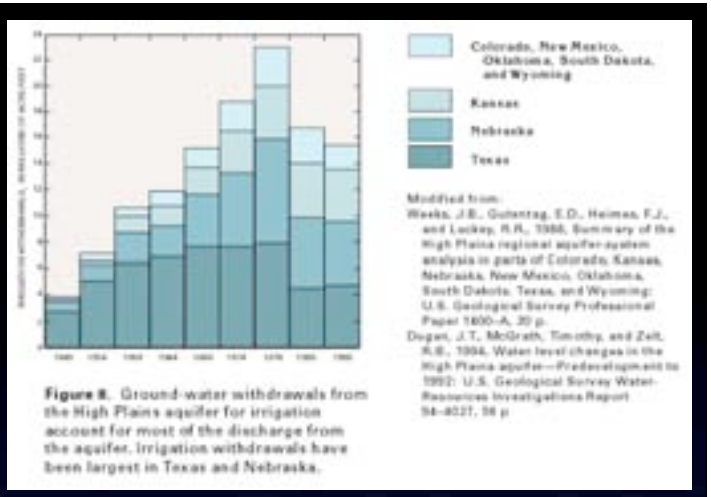
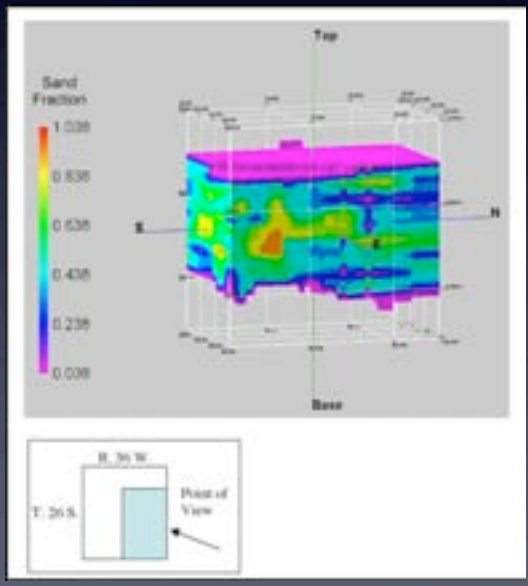


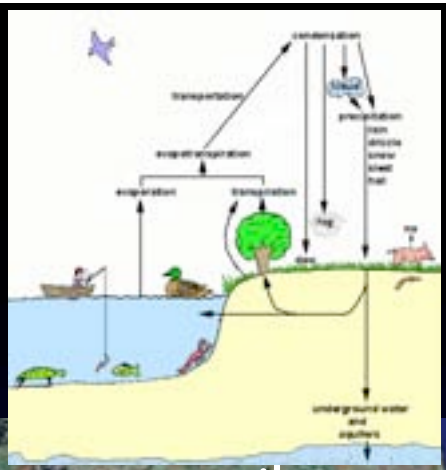
Figure 8. Ground-water withdrawals from the High Plains aquifer for irrigation account for most of the discharge from the aquifer. Irrigation withdrawals have been largest in Texas and Nebraska.

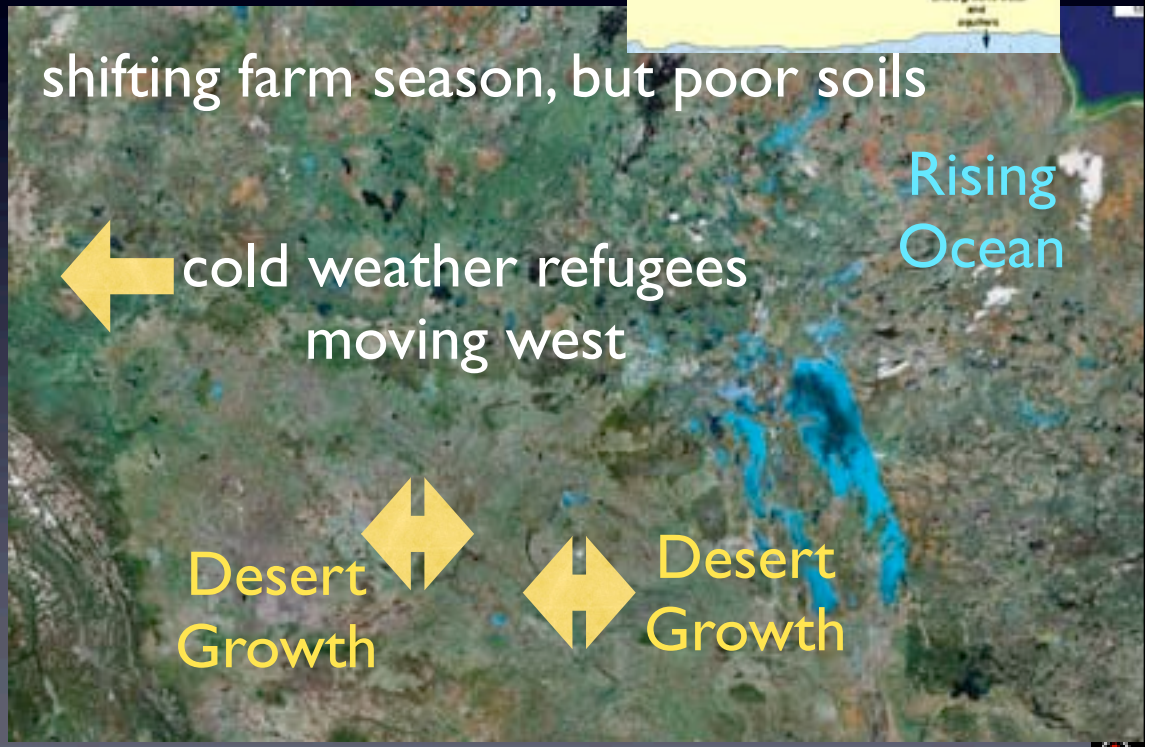


The American Empire not only needs cheap oil, now gone, but also water due to the pattern of massive misuse.
The largest ancient aquifers are failing: the soil will soon be baking, the appearance of water abundance on the map of Canada creates a myth; the flow through is small.
What silly actions will still flow from the lack of water, before conservation is used?

The Prairies

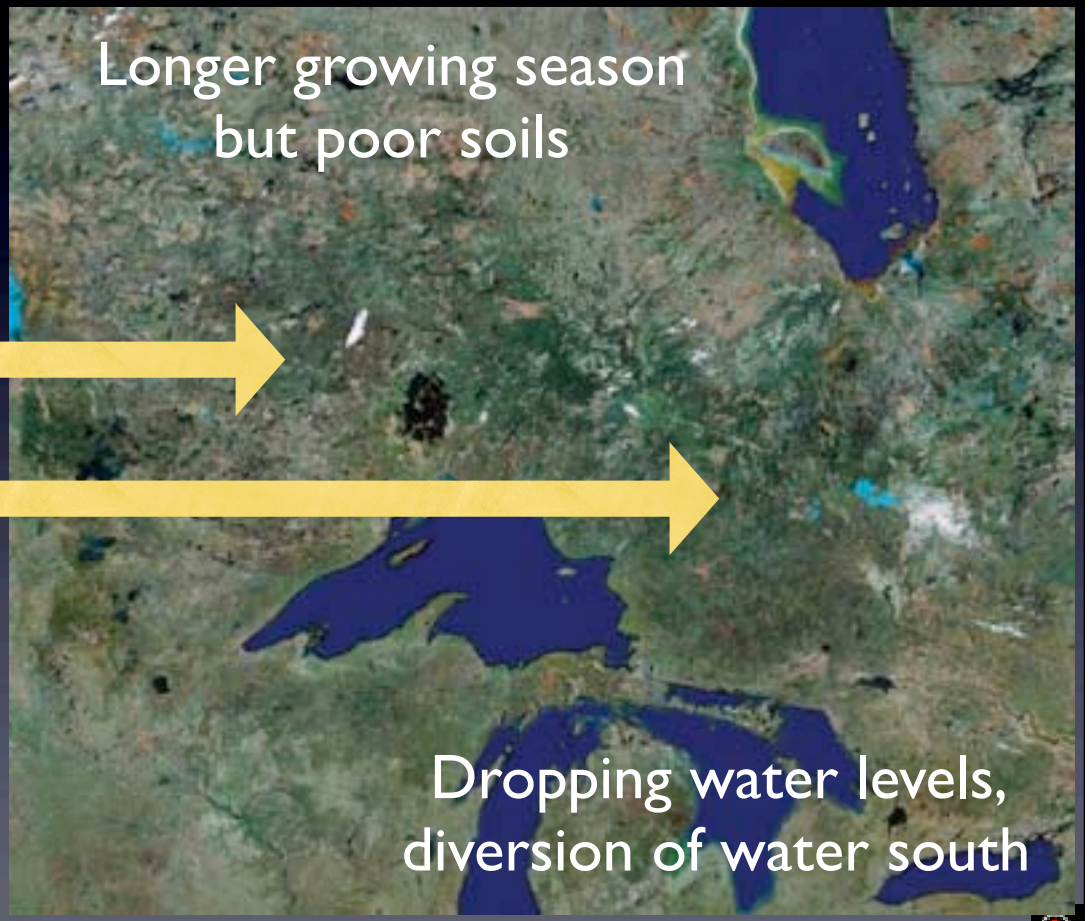
- Growth of deserts
- farmlands shift north
- dry/flood river cycles
- Rising tides: Hudson's Bay
- Decline of oil economy
- Fighting over arable land?
- Need for new railways





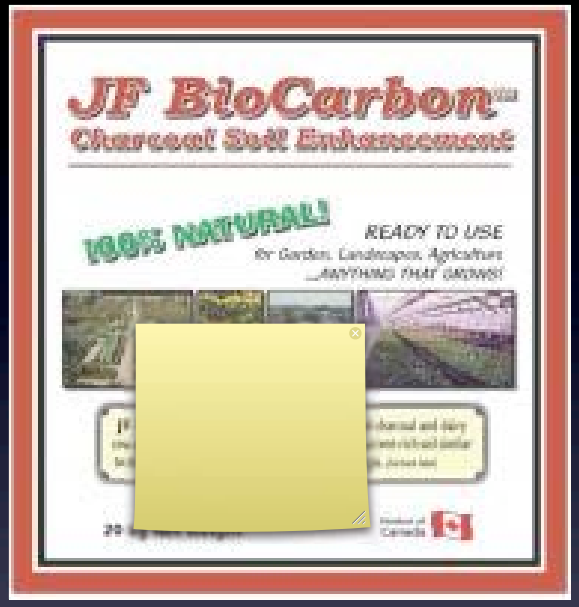
Ontario & The Shield

- Loss of Great Lakes?
- Re-industrializing locally?
- Death of suburbs- Toronto
- Attempts to farm Shield?
- Erratic flooding/rains vs summer drought & fires.
- Foreigners seeking land- from US, Europe, Asia.

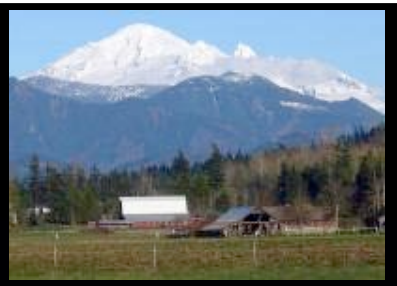


Boreal Edge: Little Soil

EPRIDA:
Charcoal from Municipal Solid Waste for new soils.

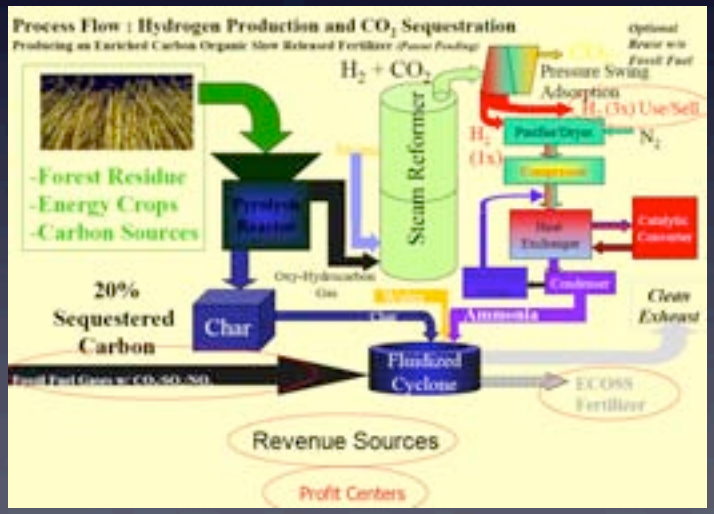


JF Biocarbon Charcoal Soil Amendment



- The science of soil remediation, even new soil creation has advanced in the last few decades, we can now create sustainable self sufficient communities on the Shield and edge of the Boreal Forest.

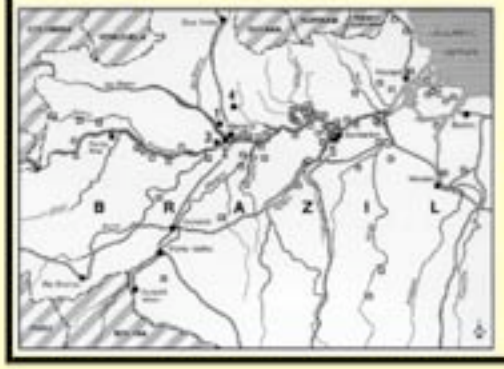
Our Future: Integrated Systems



A Valuable Co-Product

We began to investigate the use of the material as a soil amendment and nutrient carrier after employees mentioned that a mound of char, used for start-up operations was covered in vegetation and more specifically turnips. Someone had tossed some turnip seeds, on the two year old, chest high, char pile. It was only char with no soil, yet on plants completely covered the mound. The plants appeared healthy with roots that enveloped each char particle. The turnips, unfortunately could not be inspected as they already had been eaten, but it was reported they were "Good!".

The Terra Preta Soil Experiment, 2000 Years Old



Terra Preta refers to black high carbon (9%) earth-like anthropogenic soil with enhanced fertility due to high levels of soil organic matter (SOM) and nutrients such as nitrogen, phosphorus, potassium, and calcium. Terra Preta soils occur in small patches averaging 20 ha. These man made soils are found in the Brazilian Amazon basin, also in Western Africa and in the savannas of South Africa. C14 dating the sites back to between 800 BC and 500 AD. Terra Preta soils are very popular with the local farmers and are used especially to produce cash crops such as papaya and mango, which grow about three times as rapid as on surrounding infertile soils.

(Map reprinted by permission: Steiner, 2002)

- This solution allows agricultural and forestry to join in a mutually beneficial relationship with renewable hydrogen producers and fossil fuel users. This synergy supports the restoration of our soils and represents limitless carbon storage options.
- Hydrogen with carbon co-products allow "capture and utilize" technology to help reduce energy costs

Hydrogen from Biomass Pyrolysis: Integrated Co-Products and Services

Biorefining Videoconference
(June 17, 2004)

Danny Day, Ejvida

Quebec & St. Lawrence

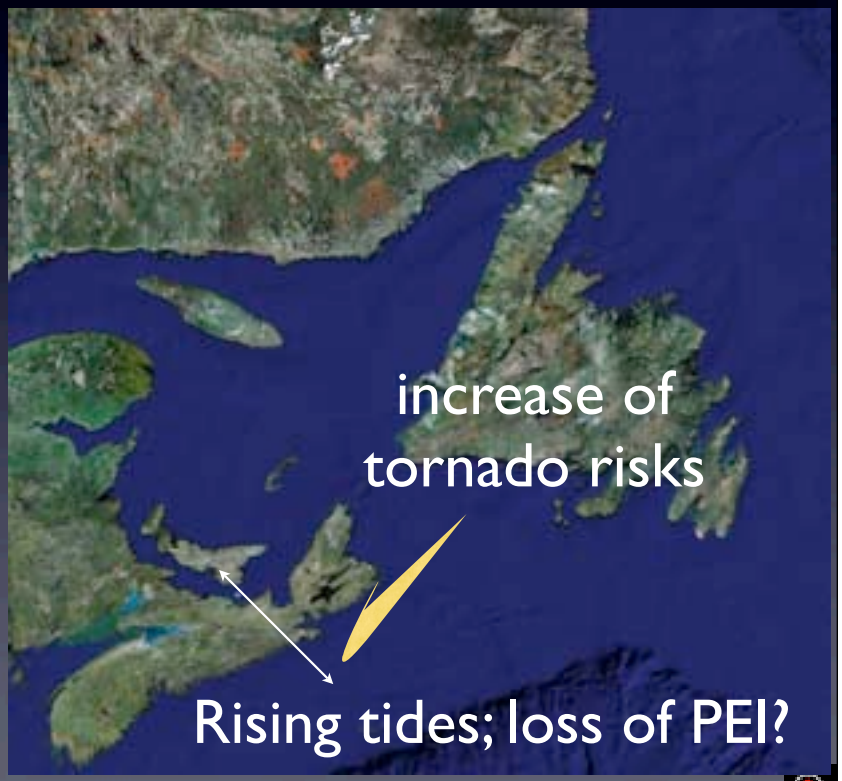
- Return of Montreal as "the port"
- Return to historical farm pattern
- Erratic rains/erratic hydro, issue of control of hydro as energy source
- Need to find expanded farmlands in all areas from growth
- European & US in-migration pressures from climate change.

Montreal et agricole?

Le Plan d'urbanisme de la Ville de Montréal.

Maritimes & Newfoundland

- Otherwise in-migration pressures from US & Europe
- Re-establishment of sailing for transport given few railway options.
- Risk of cold climate if mid Atlantic conveyor collapses.
- Offshore grabs of fisheries, oil, new illegal settlement?



Yukon & Tiaga

- Tree line moves north
- Growth of bogs
- Release of methanes
- Attempts at new settlement but for poor soils, muskeg, short summer.
- Artificial urbanism & rural villages best options
- Pressures from Alaska growth.

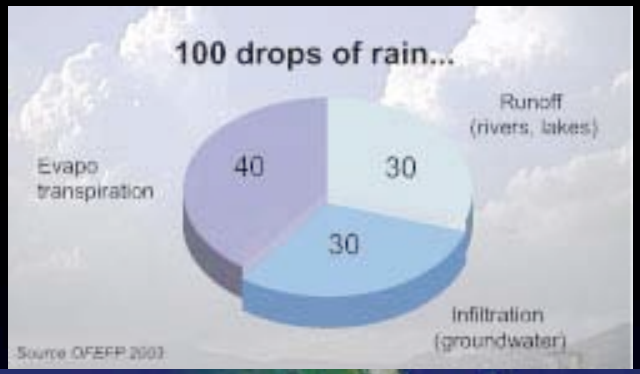
Nunavut & Our Arctic

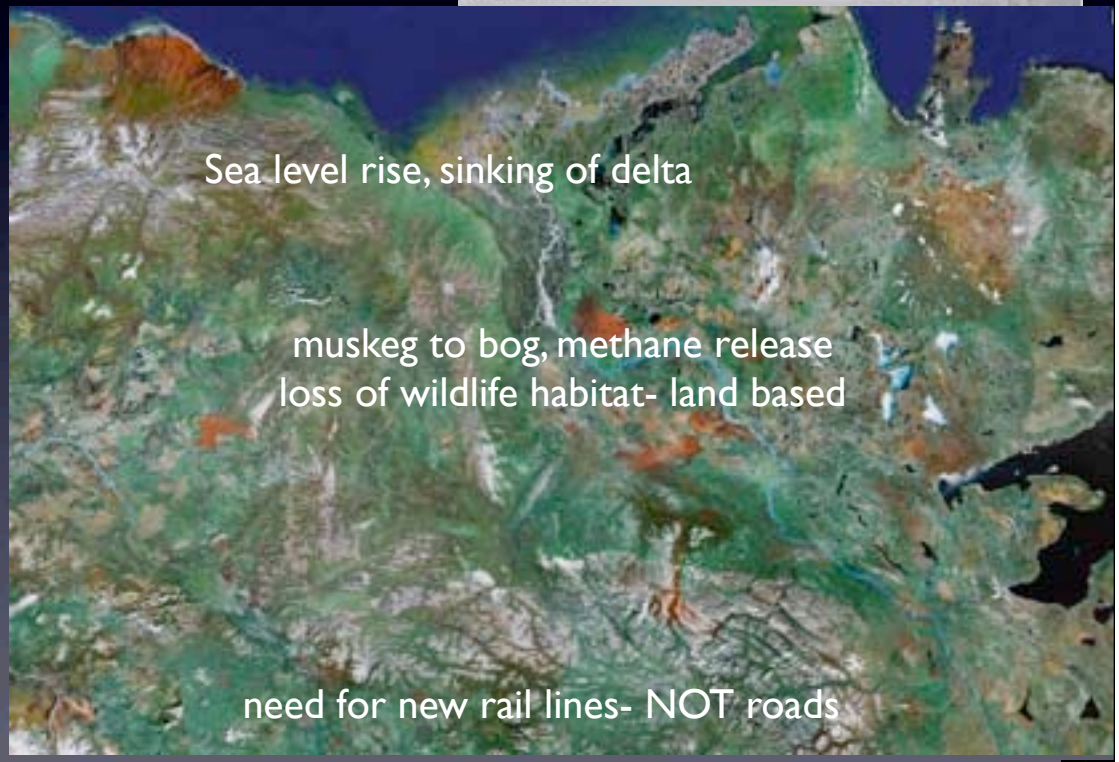
- Protection of islands, Mine the sea-lane.
- Fostering of island settlements with self contained habitats with farming capability (man made?)
- Environmental protection area on world scale (World Park?)

The Mackenzie Delta

FOCAL POINT

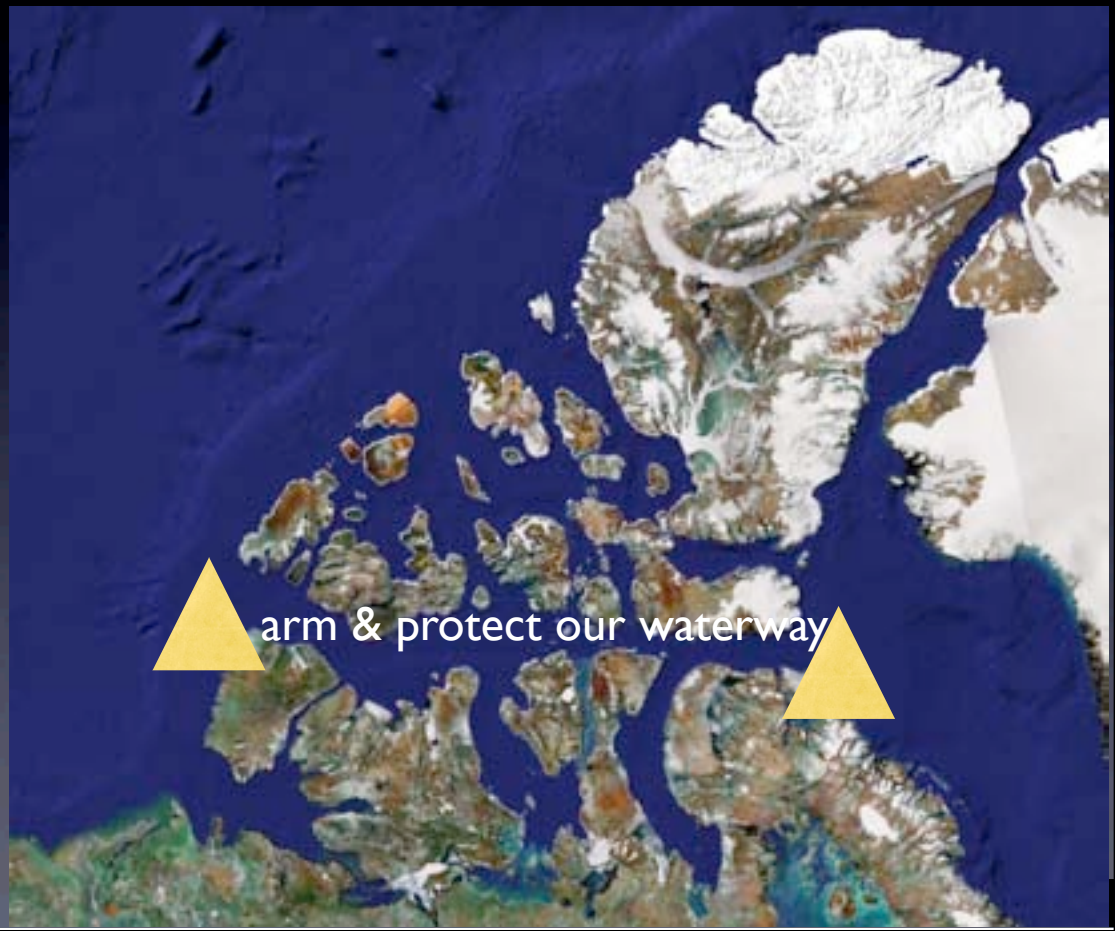
- A global warming microcosm: water, soil, energy, land, but fragile.
- Highly attractive area for new settlement?
- New communities will not have high physical contact
- Extremely high rate of geomorphology, new bilogogical realms





Habitat North

- Unsettled pristine environments need protection from humanity, not emergency settlement and exploitation.
- Fence it, mine the harbours, leave it to nature.



Rural, Urban & Village Policies

CANADA

- pro-farm policies
- less taxation
- favour family/village scale
- decentralize farming
- lessen monocultures
- traditional modes/ energy

- aid in urban triage
- recover good soils lost
- favour family/village scale
- make urban farming
- aid marbelization/ green fingers
- traditional modes/ energy

- new village pattern support/ rail transport
- aid localization moves
- favour family/village scale
- traditional industry!
- maintain communications
- traditional transport

What new patterns for sustainability

- Loss of large unsustainable city centres
- Marbelization in the suburbs- reclaiming from mistakes
- new villages rail oriented and eco-basin managed
- new northern tier of towns/new rail systems
- new energy harvesting
- multiple pathways for maximizing food production
- new industries recycling, reusing, co-operative models.









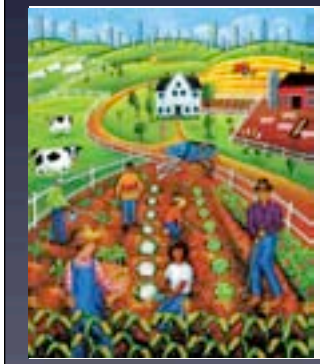
Federal/Provincial Policy Revolution:

Living with less. A Summary.

- Compaction of towns is essential, as is newtowns & greenbelts
- Relocalization of food & industry is inescapable- farmland is Essential, not an afterthought.
- Marbelization of human settlement is necessary, for local commons
- We Must Learn to adapt rather than fighting it or each other.
- Food and water are Priority One.
- Reversal of the Hundred Years Mistakes is part of the equation for successful adaptation for sustainability. If it takes too much energy, it is in the wrong place- move fast or perish.

For ordering copies of
SSP: A Civil Defense Manual for Cultural Survival,
Balfour & Keenan 2007
-contact Old City Foundation Press
Box 74625 Kitsilano RPO
Vancouver BC v6k 4p4
(604 731 0206) or
oldcityfoundation@telus.net

www.plancanada.com

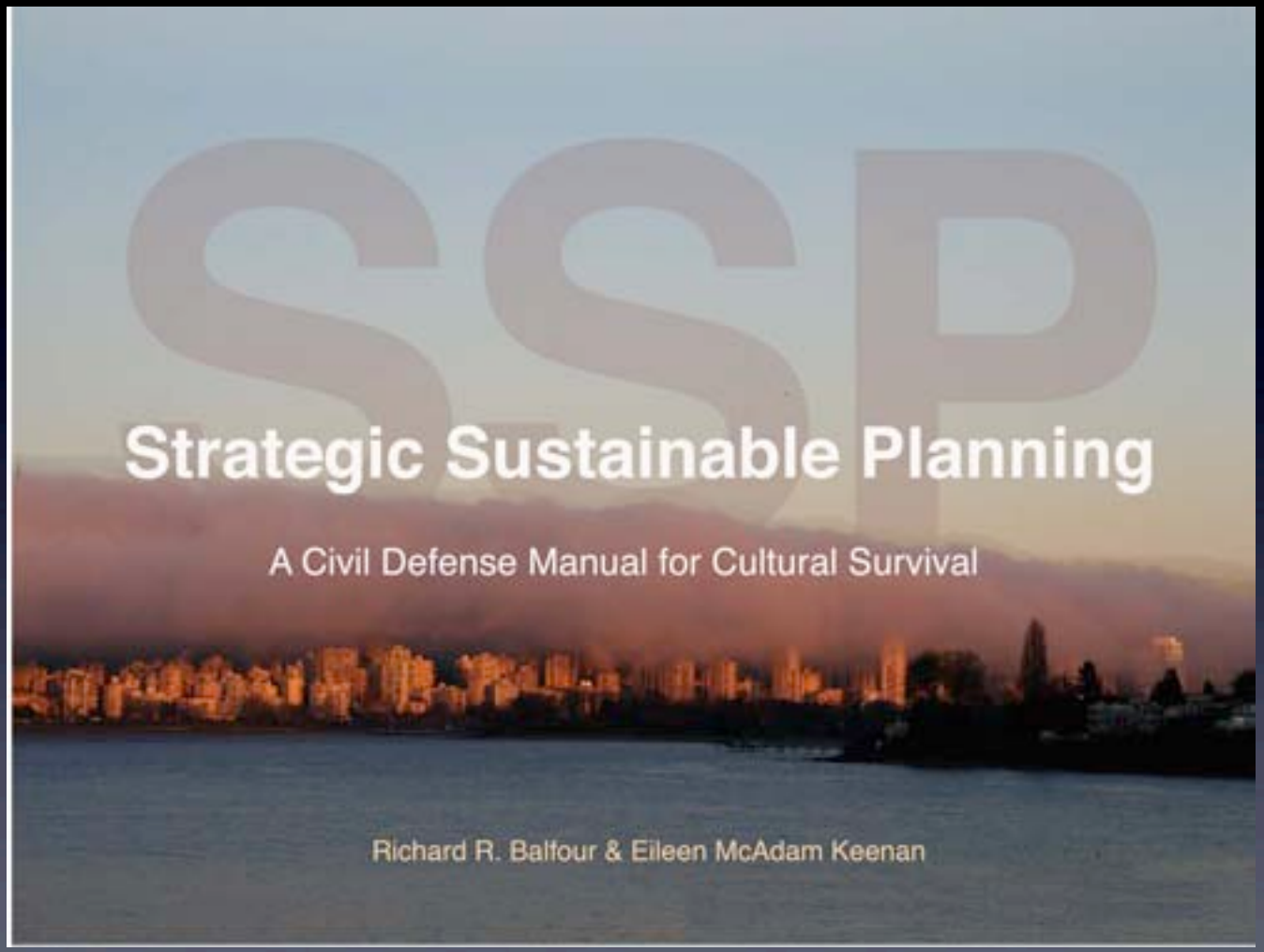


COMMUNITY FOOD
SECURITY COALITION
PO Box 209
Venice, CA 90294
Ph: (310) 822-5410
Fax: (310) 822-1440
www.foodsecurity.org

Some End Credits.

And in support of
Sierra Club Canada,
Farm Folk City Folk,
SPEC, ...

Some photos borrowed from Community Food Security Coalition



oldcityfoundation@telus.net/ www.plancanada.com