

# The Sustainable City???



- Retrofitting Our Pattern of Community for a Soft Landing.....on an Empty Tank



# Strategic & Sustainable?

- Culture Shock for the Comfortable Society.

Vancouver City Planning Commission  
Strategic Sustainable Planning Committee  
New SSP Policy Directions. 2005

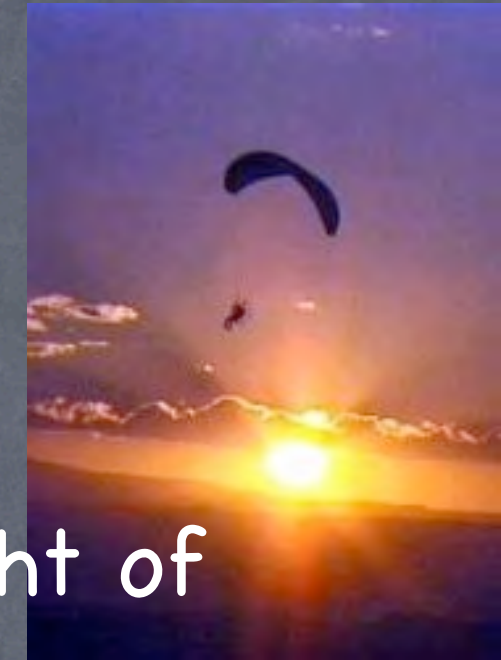


# Questioning Planning Focus: The Pattern of Community

- Present pattern is unsustainable:
- Dispersed housing, still not in check,
- Centralized now scattered business
- Industry shifted offshore
- Means of production changed character
- How does the pattern adapt to changes again?



# Transportation



- 100 years of cheap gas with no thought of alternatives: they pushed it now we are addicted; who is going to rehabilitate us?
- when the city linkages fail, how fast can we retrofit: house, jobs, school, industry,
- Where are the alternatives for mobility?
- How fast can we redo our housing stock, less house in the right place?



# The Temporal Suburb

- Wrong place for housing, lack of urban options
- Forced from the city by costs & Nimby pressures
- Dependent on car, cheap energy, dual drivers
- Forces loss of farmland, loss of ecology.
- Over-consumption of product, lifetime of mortgage
- Who is most affected? The young. Who are trying to ignore the issues? The older citizens. Who should be making the decisions to correct this?



# Dream City: Tall Towers, Short Life

- High exposure of surface, costly to heat/cool
- Elevators needed, but cost of future energy?
- Surface treatment does not reflect solar aspect, climate, seasonal changes.
- How to re-use when too costly to use?
- Why are we building like this when we know this cannot be sustained within a few short years?



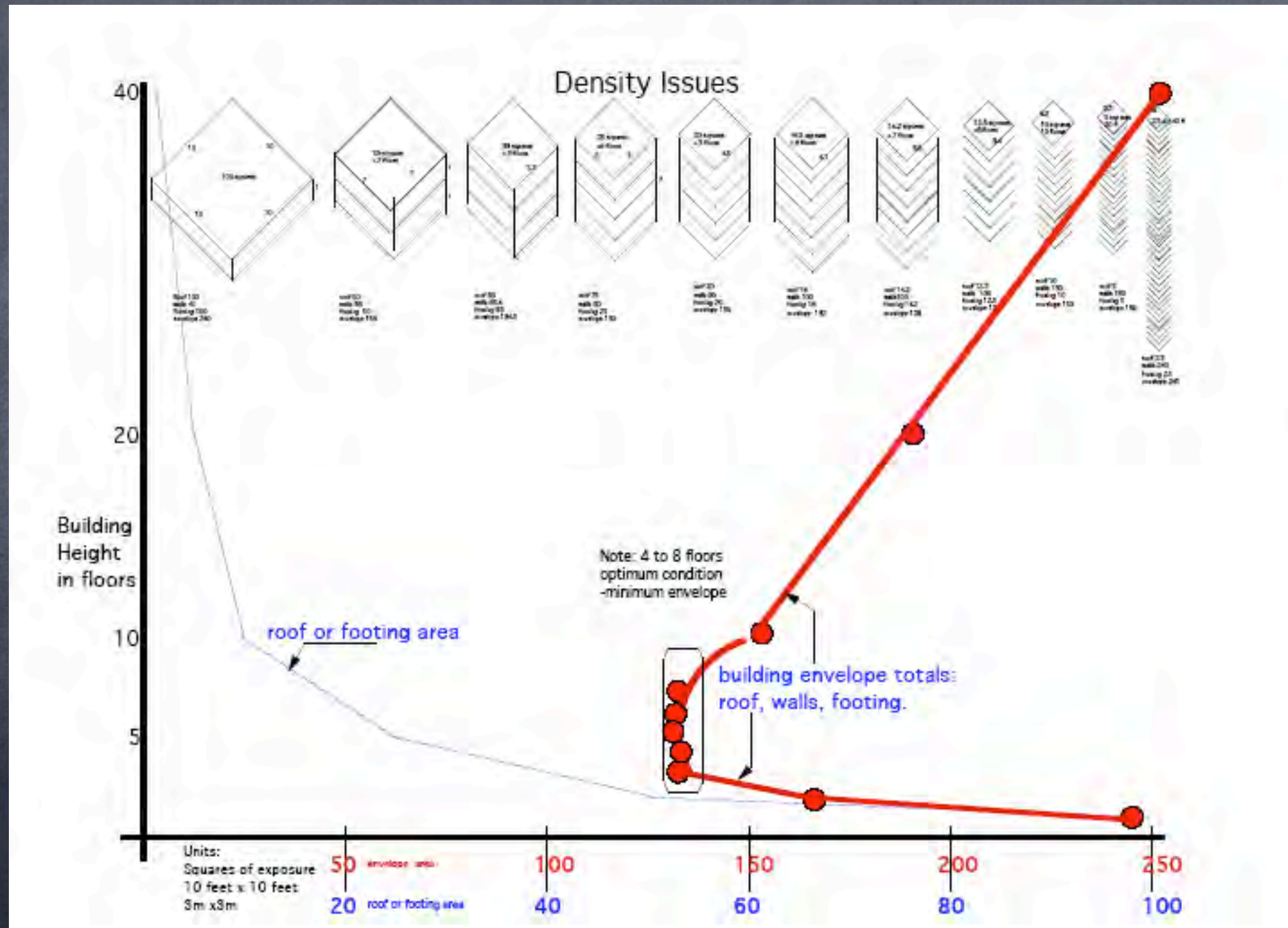
# Icons In Question



X -Not Sustainable



# Why mid rise buildings are more sustainable.



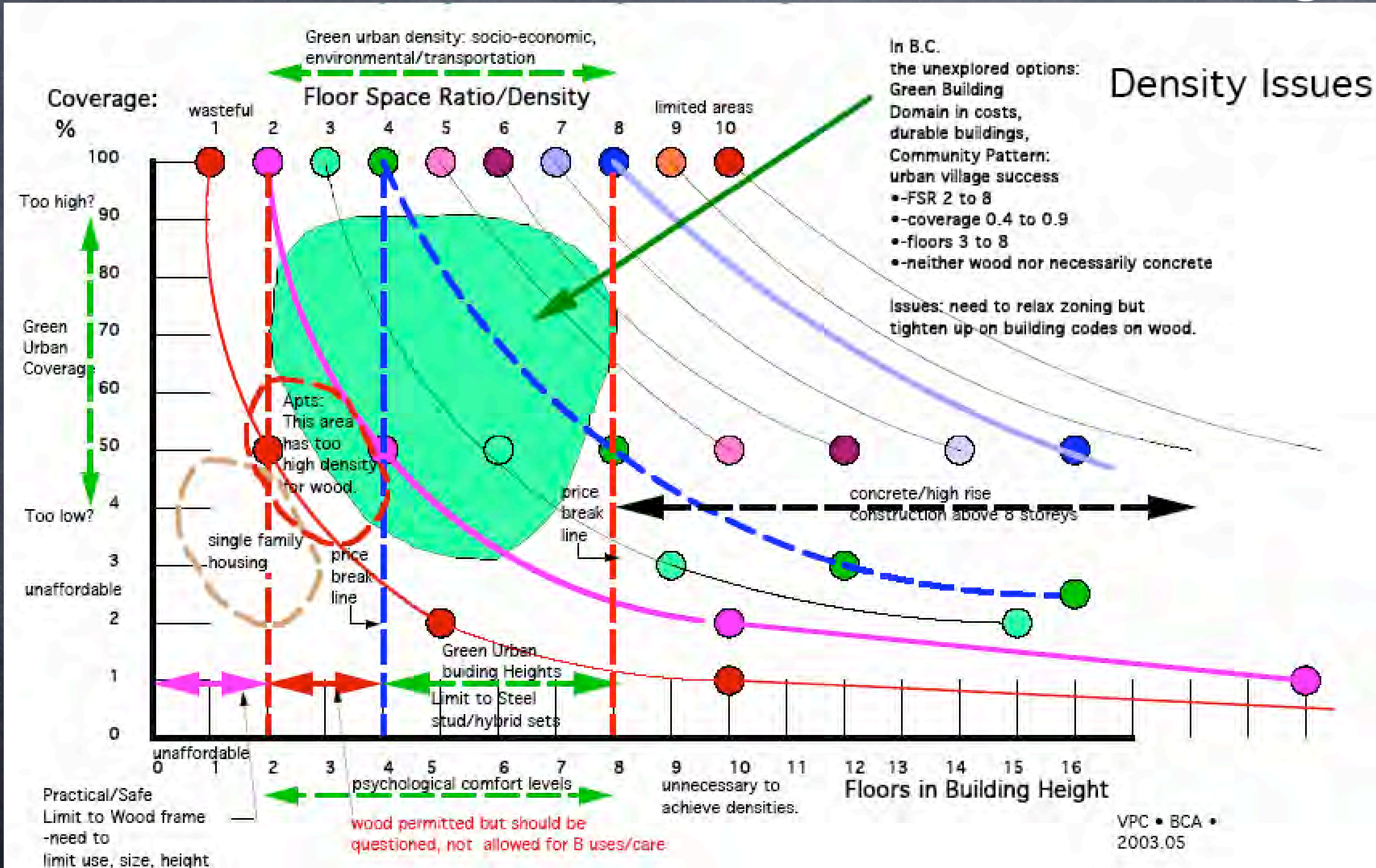


# Throw Away Buildings

- Our frontier culture inherited fast local products but our cities have outgrown their sustainable application.
- Impermanent materials, subject to decay, costly to replace time after time.
- Time to move to sustainable buildings, a permanence of usage, maturation of community

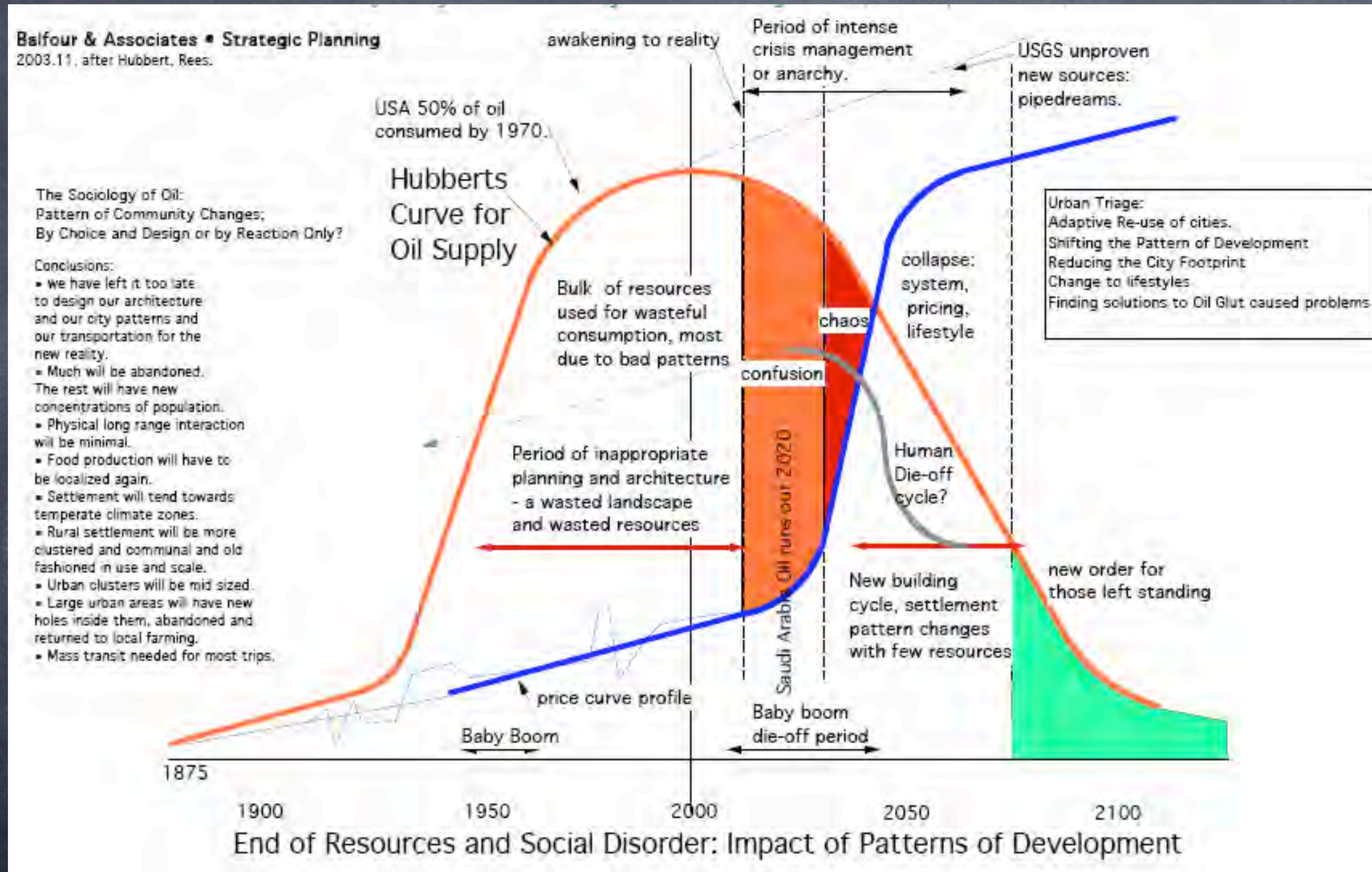


# Durability/ Livability? Zoning





# The Oil Shock: NOW



Price shock & community disruption kicks in long before the vital product runs out.



# Choices: hard or soft landing

## A summary of Strategic Planning Options as per Richard Heinberg:



1. Last One Standing: the path of competition for remaining resources.

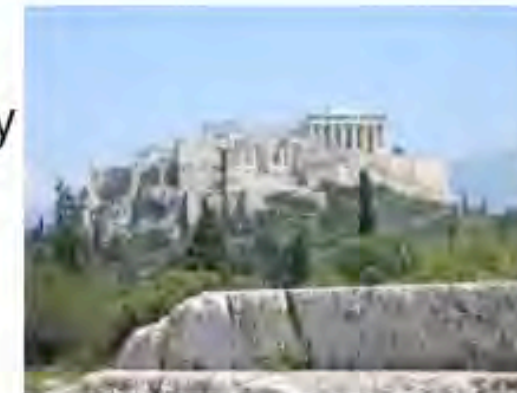


2. Powerdown: the path of cooperation, conservation and sharing



3. Waiting for the Magic Elixir: wishful thinking, false hopes, and denial.

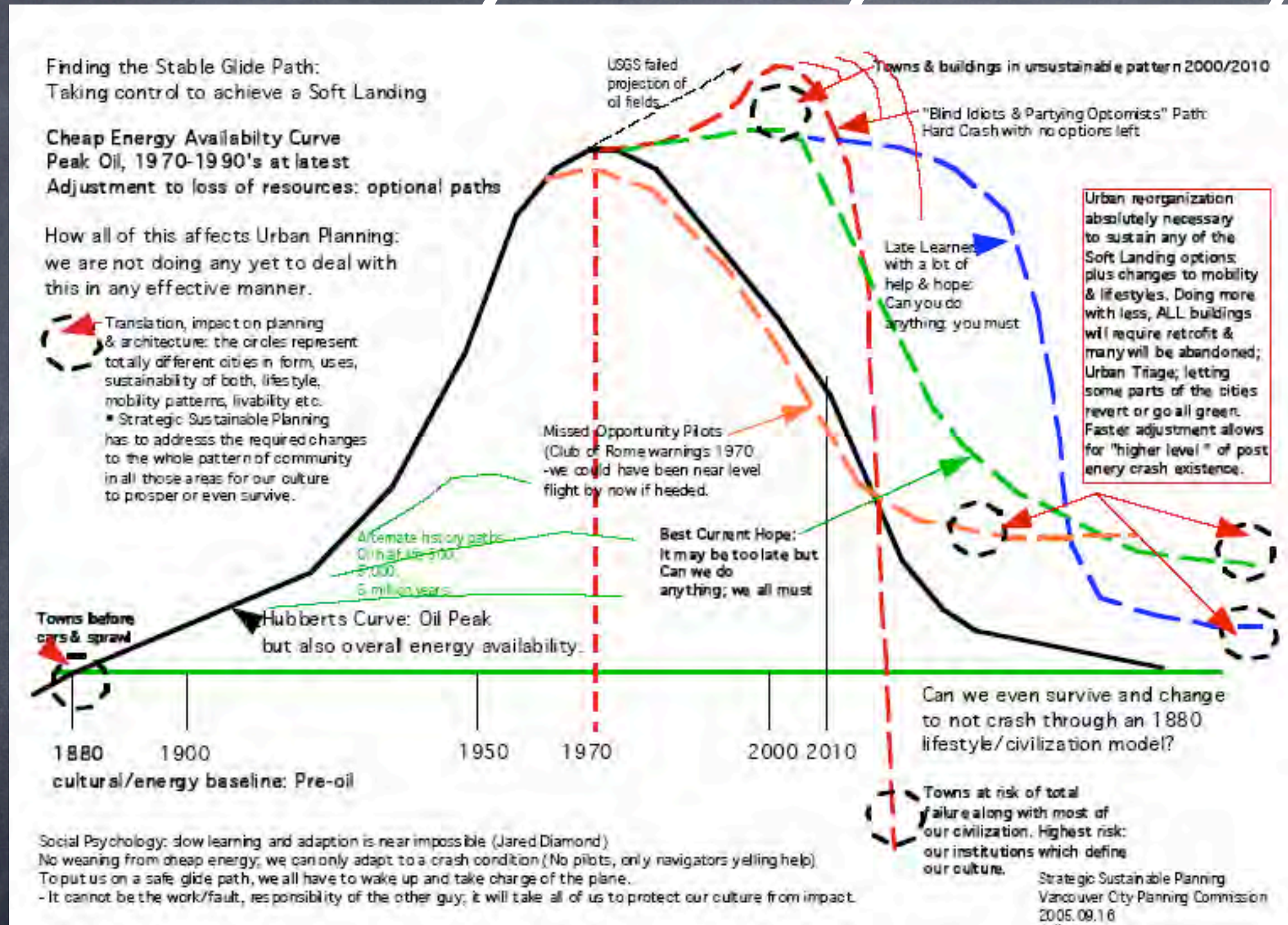
4. Building Lifeboats; the path of community solidarity and preservation.



- ① Finding a soft landing spot may be easier if we think of how it might have been: alternate histories, a way to find a better glide path to long range sustainability



# Inevitability: delay= decay



- Ignoring the need to change reduces our choices, our options to survive as a culture



# Reality Check: City \$s.

- Buildings consume 30–40% of GDP
- Transportation consumes an equal amount
- A pattern change in community can cut both to a third;
- Such a tripling of resources only buys a generation of adaptation time when consumption is so high
- Not everything can change at once...but:
- To not try at all only accelerates a crash landing



# Recovery to Glide Slope:

- Attempting a change to pattern of community means making smart use of every resource,
- Trying to replace buildings & activity in a time of declining resources makes all costs higher
- The sacrifice factor for all is increased but unavoidable.
- We knew this was coming a generation ago but did not plan to avoid this crisis.
- This generation must now act on the evidence.



# Secondary Impacts of Inaction:

- Abandonment of unsustainable parts of home and community is inevitable; be on the leading edge,
- Economic collapse from market shake up possible,
- Severe dislocation of population by suburbs, by region, relocation by continental shift;
- Political upheaval due to institutional instability
- Susceptibility of Health risks/epidemics due to social & systemic collapse
- Loss of cultural assets a risk

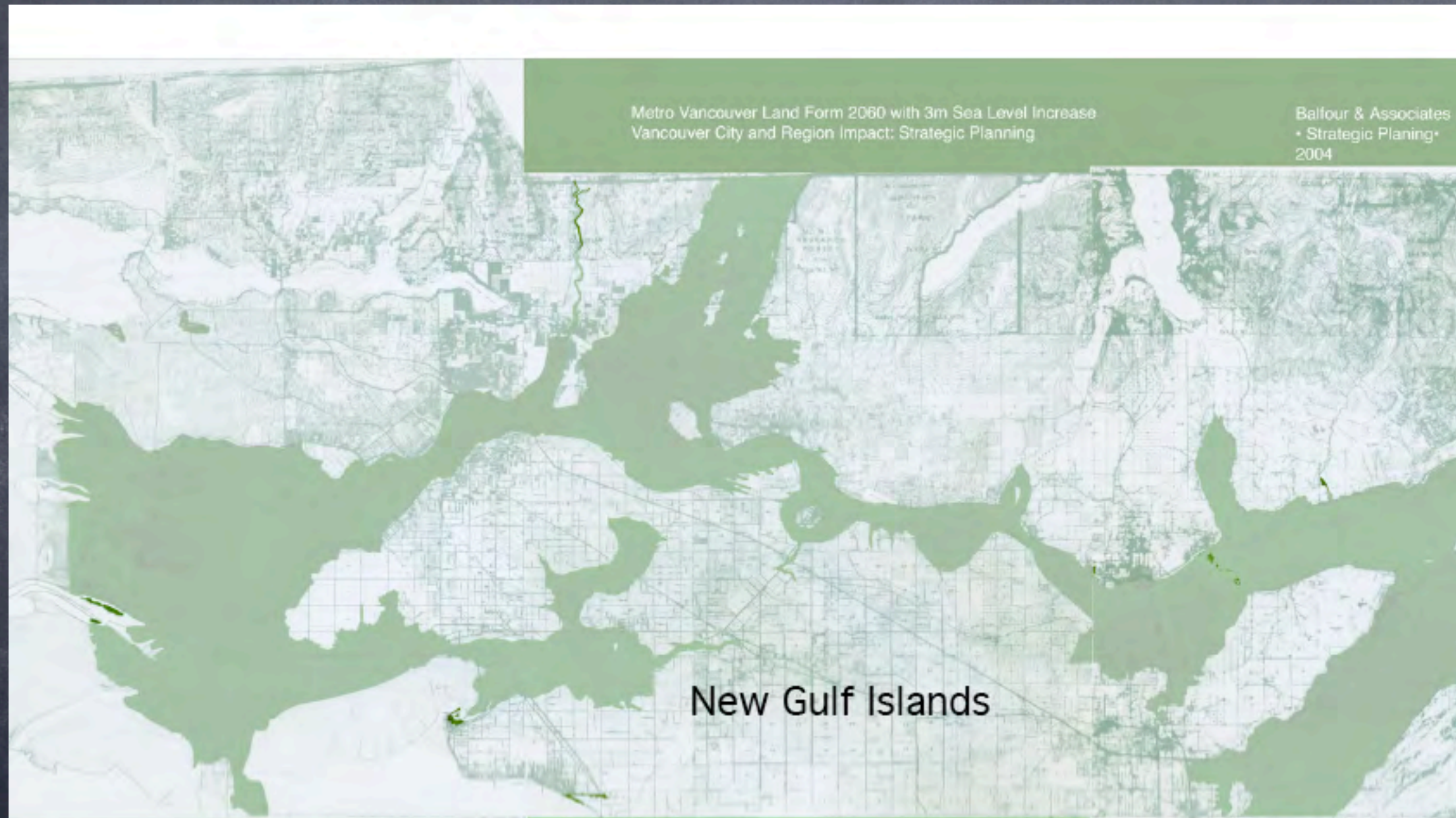


# Environment–Big Picture: New Risks & Old

- New human caused impacts are here; But also:
- Global warming/rising oceans/loss of farms
- Water shortage crisis
- Famine caused by water table depletion (US+)
- Weather severity: impacts living costs, food.
- Work to maintain crop & diet diversity locally



# Metro High Tide Zone



2060 and Global Warming- Impact on Transportation, housing, industry and Farming



# Shifts in Economy:rural

- Food production; return to local production—we cannot afford to ship long distances
- Return to more people in agriculture— use of cheap oil and pesticides comes to a halt
- New means/all season food production/local
- this food production shift affects pattern of community.
- -Claw back of land for agriculture, abandonment of suburban areas, conservation of land and buildings for food



# Shifts in Economy: suburban

- Prepare to abandon unsustainable tracts
- Increase density at nodes, Old towns, places of resources or industry, transportation nodes
- Add commerce & industry to each community
- Add transit to new viable nodes
- Ramp up alternate vehicles and fuel uses.
- Reshuffle institutions for local service, decommission regional scale facilities
- Abandon strip commercial, build up nodes



# Shifts in Economy: urban

- Jobs that do not have value added quality will have to disappear; no resources to pay.
- Wasteful standards will be replaced by higher performance expectations.
- Dependency for social services will shift to local even if senior governments maintain service levels.
- The Role of Family, Friends & Community will become more important to social well being.
- The Role of the Village of every kind is restored.



# Self Reliance & Community

- Even if institutions can be maintained, personal & family self help will be necessary
- Much of what we take for granted will not be done for us, or off-shore
- We will have to accept lower standards, alternate ways of doing things, making goods last longer, & helping each other out.
- ....or we fail.



# Facing Urban Triage

- All factors combined, there will need to be rebuilding of the right things in the right places for a more expensive energy regime. A double edged sword; a greater need to do the right thing but less energy to accomplish it.
- Abandonment of a 100 years of mistakes will be necessary; Urban Triage is the new reality.
- Some large areas will depopulate (cold, lack of water, failure of crops, natural disasters.) Their job is easy.
- Vancouver is one area that will have "less triage" but more need of re-adaption due to climate & political migrations. This makes our job more challenging.



# Triage Priority Areas

- Move out of floodplains
- Reclaim farmlands lost to peripheral sprawl
- Reclaim farmlands in urban pockets
- Plan for de-servicing of pocket suburbs/  
return to farm and field and industry
- Reclaim airspace of rail, highways for urban  
3D land usage.
- Re-think urban utilities for closed loop usage



# Architectural Triage

- Move single family to double density or abandon areas to farm and field.
- Convert arterial land use to mid rise high density, mixed use, whole community functional areas.
- Move apartment districts up from 4 floors of wood frame & down from high rise to mid rise livable units.
- Move middle range density solutions to fee simple ownership & yet improve socialability.



# Commercial Triage

- Taxation: trend to equalize in urban areas so we do not lose services, street activity, and
- allow for replacement of lost industry to local areas.
- Increase densities so commerce is supported
- Prepare for abandonment of big box, decline of imports as cheap energy negates current/just past trends of growth.
- Prepare for local provision of services to negate need for regional travel of any kind except by outright choice, but infrequently.



# Industrial Re-planning

- Prepare for smaller scale, local production of goods and services- off shore industry has a limit
- Large scale sites near rail & road limited to strategic services/national interest.
- Prepare for shift back to rail from rubber, eventual decline in port & airport traffic
- Prepare for alternate modes of transportation as they evolve, assist them in development.

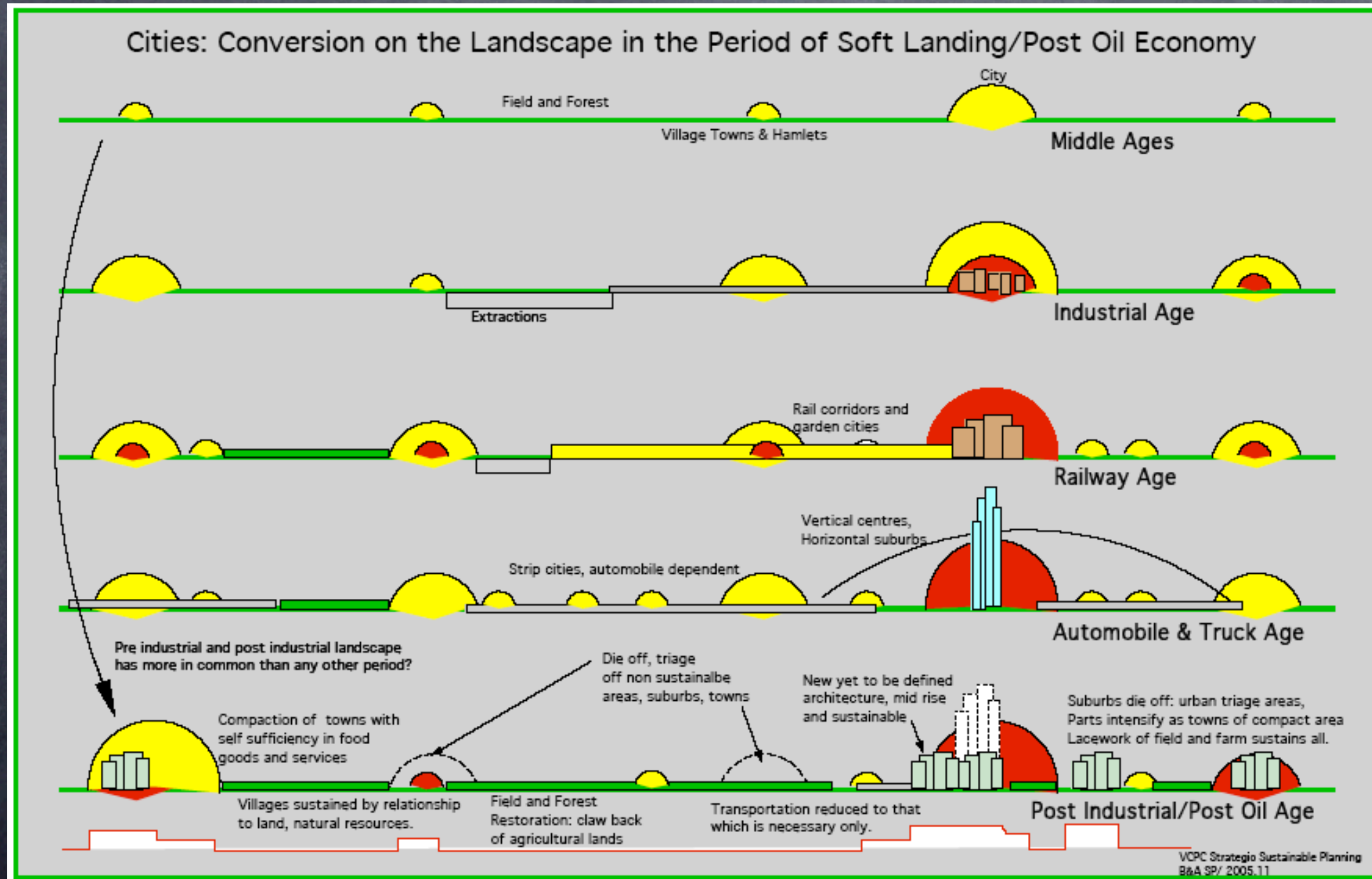


# Energy Re-planning

- Local production- encourage & promote as industry
- Reduction of transshipment/export (conservation).
- Conservation first: change buildings & land uses now.
- Monitor flux/ migrations based on wealth of local resources;
- Allow community penetration on our terms; as guests, not as an automatic right. This will increase as concern as shift in energy depletion/impacts spread.



# Planetary Restoration





# community involvement

## **Conclusion and Directions from August 13th 2005 Session:**

Some actions suggested and or taken by participants after the workshop:

- New professional based lobby group to form (contact Ron Boyes or Graham Murchie).
- UBC students to take more direct or community related, problem solving approach in their thesis work.
- Individuals to take more of a leadership role in further community debate.
- Small work group to follow up with a programme designed to take into the schools for aiding student awareness and planning for their futures.
- Retired planners will establish a group of like minded professionals to lobby regional planning to take a longer range and more immediate look at social and economic and environmental conclusions that came out of this think tank session.
- Follow up sessions to develop this more in the broader community needed.
- Better linkage between like minded groups dealing with the new reality needs to be created.
- VCPC needs to push this more but regional energy is even more critical to soft landing designs.