

**CREATING THE RESILIENT HOME**

BASIC NEED	POTENTIAL CHALLENGES			RESILIENT RESPONSES
	PEAK OIL	CLIMATE CHANGE	ECONOMIC UNCERTAINTY OR COLLAPSE	
<b>SHELTER</b>	Many materials may be unavailable, especially those that come from far away and/or rely on complex industrial processes	Extreme weather events, drought and floods all can impact the integrity of a structure.	A serious downturn in the economy will cause many people to have difficulty making mortgage payments. Large disruptions in industrial output or global trade will create challenges accessing replacement materials.	Build a home no larger than is necessary. Pay off the mortgage as soon as possible. Construct or renovate to be as durable as possible by using highest quality materials and finishes, good windows, flashings, and ensuring good foundation drainage. Build with good overhangs. Create a maintenance plan and stick to it.
<b>ENERGY</b>	Energy costs will inevitably rise. Some forms of energy will become difficult to get or unavailable.	Reduced snowpacks and irregular stream flows can lead to less reliable hydro power generation and higher prices.	Energy distribution networks could be compromised due to unrest and lack of maintenance	Install efficient and durable lighting fixtures, pumps etc. The home design should make rooms functional without needing artificial light. Glass interior doors can be used to bring light into the core of the home. Cooking can be solar powered, or use wood or methane from an on-site digester. Install a clothesline and interior drying racks. Solar thermal and PhotoVoltaics should be designed into the home, along with provision for energy storage.
<b>HEAT</b>	There may be disruptions in the supply of oil and natural gas.	Climate variability could mean more extreme weather events - both hot and cold.	The delivery of all forms of distributed energy electricity, oil, natural gas - could be intermittent or disrupted, depending on the severity of the downturn.	The home should be well-insulated, if possible to PassiveHouse standards, to enable thermal comfort even without a conventional heat source. Design the windows and layout to take advantage of passive solar gain and natural ventilation. Add thermal mass to store heat and even out temperature fluctuations. A wood stove can serve as a backup for cold periods. Wood storage and easy conveying of wood into the home are important. Solar thermal-powered radiant heating can be built in or retrofitted.
<b>FOOD</b>	Current industrial food production is fossil-fuel dependent at every step. Peak oil will certainly mean rising prices and, unless growing methods change, global food shortages and the real prospect of famine.	Crop failure and drought in traditional breadbaskets may reduce current abundance and make many staples unavailable locally.	Supply chains that rely on long-distance transport (particularly air and truck) will be very vulnerable to disruption, especially if there are shortages in the countries of origin.	Be prepared to convert the majority of the property to food growing, including conventional and raised beds, permaculture, aquaculture, fruit and nut trees, beekeeping, chickens for meat and eggs, viticulture. Build a root cellar or insulated and vented cold room. Have a pantry. Build a greenhouse, possibly heated by waste heat from washing and showers. Create an effective compost system. Create systems for drying, processing and preserving food and saving seeds.
<b>WATER</b>	Water shows every sign of becoming a new commodity focus for global capitalism. Many jurisdictions have already ceded control and ownership of their community water systems to corporations.	Extended summer droughts are predicted and are already occurring. Water shortages during summer will be exacerbated by high temps which will intensify competing demands. Water tables may fall and streams and wells may dry up.	Public utilities are aging and could be compromised by lack of maintenance	Capture, filter and store rainwater in a cistern large enough for household needs. Use low-flush or composting toilets and low-flow faucets. Capture and reuse greywater for toilets or irrigation. Treat liquid sewage biologically and use treated effluent for irrigation.
<b>COMFORT</b>	The consumer cornucopia we now enjoy will likely end. Shopping will become more about needs than wants.	Water and energy conservation in the home will become a higher priority than many comforts.	Home renovation as a hobby will become less appealing and more expensive.	Invest in "classics" - styles with proven enduring appeal - and durable hardware and surfaces. Buy high quality furnishings and avoid particle board!
<b>WASTE DISPOSAL</b>	The end of the throw-away society.		Garbage removal will become increasingly expensive or unavailable.	Waste = food. Everything is re-used until it wears out, or is repurposed, composted, or burned as fuel. Water and energy are extracted from the waste stream and re-used.
<b>TRANSPORTATION</b>	Single-occupant vehicular commutes, annual tropical vacations and Sunday joyrides will become more expensive and less common.	Putting a price on carbon is seen by many as the best hope for slowing climate change, leading to higher fuel costs.	The quality of roads and public transit may erode. Cars and fuel may become more expensive.	Living in a walkable neighbourhood close to work, or working at home, becomes more important.
<b>INCOME</b>	Inexpensive energy is the essential foundation of our whole culture and way of life. Rising energy prices and/or supply crises will have a profound effect on our economic well-being.		Much of our current economy is based on consumption and services and is fueled by ever-increasing debt. A global default leading to an economic meltdown could erase many categories of employment and leave millions unemployed.	Instead of the home being a bastion of consumerism, the home will become the locus of production. Many of the things we now buy can be made or repaired at home. It's a matter of having the essential tools and the skills to use them. Invest in tools or build a shared capacity with neighbours.
<b>SECURITY</b>	Changing settlement patterns may make knowing your neighbour more important and more likely.	The prospect of climate refugees fleeing hunger, war and chaos is a very real possibility, and one that could affect our communities.	Hard times create desperation, as well as lots of people on the move, looking for resources to help them survive.	No dwelling is unassailable. The best security will be part of a community, to know your neighbours and to look out for each other. Live in a walkable neighbourhood that facilitates social interaction. Live in ways and settings that allow for sharing more resources with neighbours, such as co-housing