Living Green on Cortes

Building Your Home

15 Environmental Tips
Healthy Living Spaces
Cost-Effective Construction

Living Green on Cortes *is about creating an island lifestyle that is environmentally sustainable. A big part of that lifestyle includes the homes we live in. The environmental impact of building and maintaining a home can be enormous. Natural resource use, material manufacturing and construction waste plus the day-to-day operations of heating, cooling, lighting, supplying and removing fresh and waste water all contribute to the demise of the natural environment.*

The green building and green homes approach to housing *reduces environmental impacts, reduces long-term building operations and maintenance costs, increases marketability and building value, and results in healthier indoor environments. The design and construction process can use less energy, consume less water, produce less waste and manage fresh and waste water on-site with no or minimal increases in capital costs. Perhaps the most important aspect of building a green home is that it is not an "all or nothing" process. When carefully selected and implemented, even modest measures can result in significant conservation of resources. Green homes are also uniquely local as climates, customs, availability of materials and preferences vary so much throughout Canada.*

Living Green on Cortes; Building Your Home is a quick reference guide to inspire you to explore a variety of strategies. It doesn't cover every aspect of house building but it touches on important considerations when designing, constructing, and/or modifying your home.

House site

1. Living closer to amenities means greener transportation options. Rural living and lack of public transportation means increased car dependency. When choosing your property, consider access to work and amenities. Bicycle paths and walking distances to basic services can make a big difference to your gas bill.

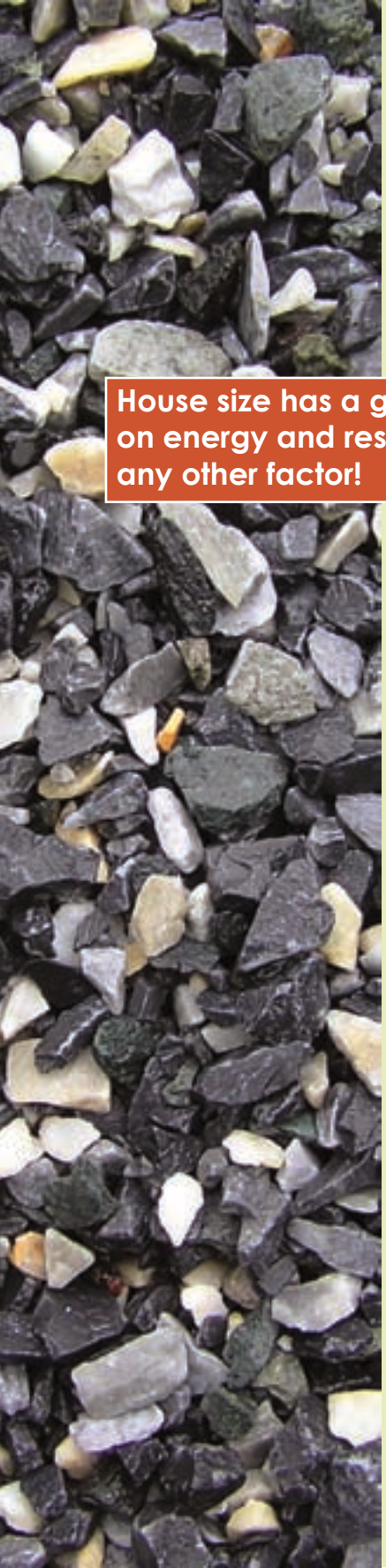
2. Choose building sites that make eco-logical sense. Why build on the most beautiful spot? The most attractive place on your property, a bluff area, ocean or creek bank, is often the most ecologically sensitive. And most of your time at home is spent inside your house. Consider building on a location nearby which preserves that favorite area, gives you a view of it and minimizes impacts on the natural landscape and wildlife corridors.

Another general rule is to site a building to optimize solar orientation and access to prevailing summer breezes. On Cortes, the more exposed your house is, the more light and solar energy it will gain, but it will also be hotter in the summer and colder, wetter, and windier in the winter. Careful site planning, including well-placed trees and shrubbery, can really help.

3. Cluster buildings and share services. Clustering buildings closer to each other reduces the amount of land used and encourages sharing of driveways, parking areas, water, waste and power lines. This means house, shop, studio for residential/rural lots and larger subdivisions with either detached or attached (duplexes, triplexes, townhouses) housing. Locating closer to existing road and hydro supplies also provides similar benefits. The resulting larger, undeveloped property area helps protect local ecosystems and biodiversity. Think also about sharing shop/studio spaces, a communal kitchen, bathhouse or laundry facilities, there are many examples of these on Cortes. Just ask around!

4. Minimize driveways and paved, compacted areas. Minimizing the driveway reduces compacted surfaces and storm water erosion, helps preserve open space, and reduces resource consumption. Keep roads and driveways narrow, and look for ways to reduce parking area requirements. Consider using permeable surfacing such as gravel and, if you really need to pave, use concrete or even paving stones instead of asphalt. Remember to also preserve wetlands and the natural drainage of your property. If you must disturb them, be aware that their natural function of slowing storm water flow,

Choose building sites that make eco-logical sense. Why build on the most beautiful spot?



House size has a greater impact on energy and resource use than any other factor!

capturing silt, maintaining surrounding soil moisture and providing important bird and amphibian habitat may need to be restored or relocated.

5. Protect the natural landscape. It may cost a little more to protect existing trees on a site, but that cost can easily be recouped by spending less on landscaping. Large trees around a new house, that don't endanger your buildings or vehicle, may also significantly boost your property value. Indigenous landscaping supports wildlife and biodiversity far better than conventional turf and does not require irrigation and chemical treatments. Traditional grass lawns are an expensive fashion hangover from Louis the 16th. Their intensive water requirements through our months of summer drought and their shallow root systems waste precious resources and often contribute to creek bank and oceanfront erosion.

6. Respect and create community. Development patterns can either inhibit or contribute to our strong community and neighborhoods on Cortes Island. Your land comes with a long history and may have traditional uses or be located next to a public access or recreational site. Respect for, and understanding of, community tradition will work in your favour. Take some time to learn about Cortes history and culture. You'll build local connections and experience the benefits of community and of preserving community common areas and resources.

Construction

7. Integrated building design equals construction and operating cost savings. Integrated design includes the general contractor in early discussions with the architect, engineer, and other agencies. The team process interchange of ideas produces innovative solutions and identifies ways to streamline the construction process. On another note, non-resident and urban architects may know very little about the Cortes landscape and local resources. Hire Cortesian and take advantage of local knowledge and local skills! Check out the Cortes Island Woodworkers Directory for a listing of designers, builders and suppliers.

8. Design for a smaller, more compact house. Sufficient is efficient! The size of your home has a greater impact on energy and resource use than any other factor. Building small makes so much sense; less cost, less materials, plus less housework! The trick is to build the house that you truly need, that

is comfortable and feels good. If you spend less on extraneous space, you'll have more to spend on architectural details and materials that are high quality, energy-efficient, and environmentally sound. You could also consider investing some of the time and money you will save into community organizations and projects such as the local health centre, community and fire halls, youth and environmental organizations, etc.

9. Use green building materials. In a well thought-out building design, substituting conventional products with green products can make the difference between a good building and a great one. Green products include salvaged materials such as metal roofing, framing lumber, wood flooring, plumbing fixtures, cabinets and hardware; new products made from recycled materials; low-embodied energy products; and locally made products, especially Cortes value-added wood products. Try to avoid imported products, those made from non-recyclable and often poor performing materials such as plastics and chipboards, and those that you suspect may be made in sweatshops with low environmental standards.

10. Optimize building material use by using standard dimensions. Design your home to work with standard sized materials: for example, 4x8 sheets of plywood, OSB, drywall. Also consider "advanced framing", a design technique that reduces or eliminates structurally unnecessary framing elements in wood framed buildings. Anytime you reduce cut-off waste or use less material because of optimized building dimensions and design, you buy less material, reduce on-site labour (for measuring and cutting), and pay less for solid waste disposal.

11. Reduce, reuse, recycle and resell waste materials. Carry out a comprehensive job-site waste-recycling program. Some construction waste materials can be sold; others can be donated to a community building project. Landfill waste on Cortes has to be shipped off island. By sending less non-recyclable waste to our depot, you are participating in the Cortes Recycling Centre's waste reduction goals.

Substituting conventional products with green products can make the difference between a good building and a great one.

Operation and maintenance

12. Design to reduce energy consumption. Green buildings use less than half, and sometimes as little as a quarter, of the energy as their conventional counterparts. Much of this is the result of an improved building envelope with better windows, draft sealing, more insulation, and energy-efficient appliances, but doing nothing more than simply creating smaller houses can save tremendous amounts of energy. Do design for solar gain through siting and window placement and consider solar water heaters, even off-grid solar and wind electricity systems. These aren't so exotic any more and we have alternative energy expertise on Cortes.

13. Design your house to consume less water. Many resource experts are more worried about freshwater supply than energy supply over the coming decades. Through a combination of indoor and outdoor water conservation strategies such as low use appliances, low flow fixtures, alternative/dry toilet systems, and grey and storm water recycling, many green buildings are using less than a quarter as much water as conventional buildings. With our dry summers and power outages in the winter, consider incorporating rainwater collection and storage into your house and outbuilding designs. If you have large irrigation needs, consider using springs, lakewater or a pond storage system instead of deep well water. It's better for your garden too! In the past 30 years Cortesians have come to rely almost completely on drilled wells. We think nothing of drilling a well for every home, yet we have no idea what effects we may be having on deep aquifers, or how reliable this water source may be over time. Treat deep well water as if it was precious. It is!

14. Build to last a long time. A very important, yet often overlooked, feature of green buildings is durability. Well-designed and properly built green buildings should not experience moisture problems, a major concern in our coastal climate. Proper footings and appropriate roof overhangs will help keep your home dry and rot free. Rodent proofing is a must on Cortes. Durable building materials, heating equipment and appliances may cost more up front, but their life-cycle costs are often lower than conventional products because they last longer and require fewer repairs.

A healthy indoors

15. Reduce indoor air pollution. The average Canadian spends approximately 90% of their time indoors. Many products such as vinyl flooring or

particleboard contain chemicals that “off-gas” for weeks, months, even years after installation. Other products such as carpeting readily trap dust and odors and release them over time. House dust is now recognized as a major source of toxics ingestion for children. Building materials such as particleboard or drywall can also support growth of molds and bacteria, particularly if they become damp, potentially causing allergic reactions, respiratory problems and persistent odors - symptoms of “sickbuilding syndrome”. When planning your home, carefully examine the options for less harmful materials such as stone, tile, concrete, wood, or natural linoleum flooring, and water-based, zero or low VOC paints and finishes, and design for a continual source of fresh air.

Getting Down to the Details

Affordable housing:

This is all relative to your income level, the size of your family, and the cost of property and housing. Of the young families that moved to Cortes a decade or more ago, most now find that their grown children cannot afford housing. Consider incorporating an in-law suite or designing the plumbing and electrical layout of your home to allow for a future suite or “duplexing”.

Alternate energy:

Alternative energy includes passive and active solar, microhydro, wind power geothermal heat exchangers, and other relatively benign and renewable energy sources. These options are advancing rapidly in technology, and in affordability, and are well worth exploring. (See “net metering”)

Alternative building:

Construction methods other than wood/stick frame (2x4, 2x6) such as straw bale, stackwall, cob, rammed earth, styrocrete, papercrete, etc. These methods focus on natural and recycled materials, are labour intensive, and generally result in thicker, more free-form walls. You will find many examples of alternative building styles on Cortes. Before you fall in love with the “close to nature” look of these homes please do your research carefully; some building methods and materials simply don’t suit our coastal climate.

Chipper/shredder:

A machine that turns small branches and brush into very useful mulch that you can use for landscaping and gardening. There is at least one chipper/shredder (owner-operated) available for rent on Cortes and it is a much better alternative to burning.

Chip any brush clearing waste and compost it.

Chlorofluorocarbons (CFCs):
These chemicals were used as coolant in mechanical equipment (refrigeration, air conditioning, packaging, insulation, or as solvents and aerosol propellants) and are now phased out due to their damaging effects. CFCs should be reclaimed whenever servicing or disposing of old equipment. Building materials that use CFCs or HCFCs should be avoided (as they off-gas over the life of the material. (See HCFCs)

Clean indoor air strategies:

◆ Install hard surface flooring (wood, cork, concrete, tile, linoleum) as much as possible. They are durable, easy to clean and won't harbor mold, dust, dust mites, and other allergens.
◆ Minimize carpeting (holds allergens and off-gasses) and vinyl products (off-gasses).
◆ Pay particular attention to adhesives and sealants, paints and coatings, and composite wood. Use low or no-VOC interior paints and finishes (under 150 grams/liter).
◆ Exhaust odors and humidity with fans in the bathrooms and kitchen.
- Keep fresh air coming into your home with opening windows that provide good cross ventilation, a whole house fan, or a mechanical ventilation system.
◆ On Cortes wood burning is the traditional way to heat homes. The resulting smoke compromises indoor and outdoor air quality and can be mitigated by using well seasoned, dry wood and newer, efficient wood stoves. Always make sure that you have a fresh air source into your home when your stove is operating.

Embodied Energy:
Embodied energy is the total amount of energy used to produce a finished product and includes energy used at each stage of extraction, refinement, fabrication, and delivery. The units of measurement in metric are typically megajoules per kilogram MJ/kg. For example, approximately 50 megajoules of energy is required to produce one kilogram of copper (50MJ/kg). This is the same amount of energy required to drive a typical car 25 kilometres. It is

Wood heating on Cortes is traditional. Use well seasoned, dry wood, an efficient stove and a fresh air source.

interesting to note that a CMHC study determined that over the lifespan of a typical family home, carpets represented one of the largest embodied energy components.

Energy conservation in appliances and fixtures:

◆ Washing machine: Front loaders use way less energy, water and soap than top loaders.
◆ Air-conditioner: On Cortes, air conditioners are generally unnecessary. Simply providing opening windows for natural, cross ventilation and ceiling (paddle) fans to increase airflow is enough. Roofs and other surfaces such as playgrounds, courtyards and paths can be designed to stay cool in summer through the use of a light-coloured surfaces or vegetation.
◆ Dryer: Try an old fashioned solar-power clothes line or an indoor clothes rack.
◆ Lighting: Replace lights that are left on for long periods with compact fluorescent bulbs and explore the new LED technology. Check the Energy Star ratings and colour tone for either type of bulb. Minimize outdoor lighting and consider using ground level lighting and motion sensors. Address safety concerns by designing outdoor spaces and landscaping with night safety in mind.
◆ Hot water heater: Demand heaters may work much better than conventional tanks.
◆ Fridge and dishwasher: For any new appliance, look for Energy Star or Energuide labels, and let dishes air dry.
◆ Stereo systems and electronics, including computers: Attach these to a power bar so that when you turn them off, they really are off.

Green buildings use 1/2 to 1/4 of the energy that their conventional counterparts use.

Geothermal heat exchange:

A technology that uses electricity to exchange heat with the ground. In colder seasons, it uses heat from below the ground to heat buildings. In warmer weather, heat is extracted from the building and put into the ground.

Green building materials

(GVRD Best Practices Guide suggestions)

1. Select materials that will not adversely affect human health. Examples include zero or low VOC interior paints and flooring. Carpets generally have

a high VOC and harbour dust and other allergens

2. Select materials that contribute to operating energy efficiency. Building envelope materials such as insulation, air barriers, and glazing (window) assemblies that contribute to efficient home heating and lighting etc.

3. Select durable lifelong materials requiring little or no additional finishes and minimal maintenance. Examples include exterior siding that doesn't require paint, flooring materials such as wood and ceramics instead of sheet plastics, or structural materials such as concrete floor slabs that omit the need for conventional flooring. Roofing examples include clad sheet metal and 35-year asphalt shingles instead of wood shingles and low quality asphalt roofing.

Focus on compact houses designed to fit standard-dimension materials.

4. Consider omitting unnecessary materials, reduce quantities of all materials. Focus on compact, smaller houses designed to fit standard-dimension materials.

5. Select salvaged and reusable building materials. Examples include lumber, flooring, cabinets, certain plumbing fixtures and hardware. Make sure these materials are safe (test for lead paint and asbestos), and don't sacrifice energy efficiency or water efficiency by reusing old windows or toilets.

6. Select materials manufactured from renewable resources and harvested in a sustainable manner. Use lumber from independently certified well-managed forests. Avoid lumber products produced from old growth timber unless they are certified.

7. Select materials that have recycled content and are recyclable. Building products bought new but made from recycled materials reduce solid waste problems, cut energy consumption in manufacturing, and slow down natural resource extraction and consumption. There are several main categories. Some products are labeled as having post-consumer content: material that has been used as a consumer item and then recycled. Pre-consumer recycled content (also called postindustrial and secondary material) is material that has been part of an industrial process and is then recycled. Standard examples include: drywall, steel framing, insulation (cellulose, polystyrene, fiberglass, and mineral wool insulation are all available with recycled content), ceiling tiles, concrete aggregate, carpet and underlay, floor tile, paint, glass cullet, playground surfacing, and roofing (shingle, tile, and metal roofing are all available with recycled content).

8. Select materials that require minimal manufacturing and processing, and have low embodied energy. Heavily processed or manufactured products and materials require more energy to produce. As long as durability and performance will not be sacrificed, choose low-embodied-energy materials. Although off-gassing occurs in both materials, traditional linoleum has a service life of 30 to 40 years and embodied energy of 17MJ/kg as compared to vinyl flooring with a lifespan of 8 to 15 years and embodied energy of 98 MJ/kg.

9. Select locally manufactured materials. Cortesian grown and harvested wood is preferable to tropical varieties. Our pine, alder, maple, and other local species produce beautiful cabinets, floors, trim and furniture. Locally harvested and milled fir, cedar, and hemlock also provide structural components.

10. Select materials that can be disposed of safely. For example, metal roofing has manufacturing impacts but can be recycled into newly manufactured steel products; cedar siding can be composted and/or used for kindling. On the other hand, sheathing, decking and foundation materials made from CCA (chromated copper arsenate) pressure treated wood, leaches toxic metals into the ground and water (and the air if incinerated).

Hydrochlorofluorocarbons (HCFCs):

HCFCs deplete ozone slower than CFCs but still off-gas and pose an environmental problem. A total ban on HCFCs is to be effective 2030. Building materials that use CFCs or HCFCs (some types of insulation and carpet underlay) should be avoided.

Infill:

Infill development "fills in" empty lots of land (or empty portions of already partly used lots) within an urban area, helping to reduce urban sprawl. Although Cortes is clearly not urban, we do have village areas that can avoid rural sprawl with mixed-use and infill strategies.

Insulation:

Insulating your building envelope (including the foundation) really well will improve energy efficiency and air quality. Cellulose is still the best environ-

Select locally manufactured products, and materials that can be disposed of safely.

mental bet. If choosing fibreglass batts, look for recycled material content with formaldehyde-free binders. All foamed or rigid plastic insulations are made with petrochemicals and, other than Icynene, use HCFCs as expanding agents. Foamed plastics also undergo thermal aging where air gradually displaces the original gas in the cells reducing the R-value.

LEED™:
The LEED (Leadership in Energy and Environmental Design) Green Building Rating System® is a voluntary, consensus-based national standard for developing high-performance, sustainable buildings. LEED BC is an adaptation of the rating system to serve the British Columbia construction industry. For more information on LEED certification, check out the Canada Green Building Council website listed under Online Resources.

Microhydro:
A small-scale, site-specific, renewable resource of electricity using small-scale hydro generators. These can be used in small streams but you must check into water license regulations and fish habitat issues.

Mixed-use:
Development that combines many uses, like institutional and residential with retail or commercial. As our village areas slowly develop it is a great idea to incorporate affordable housing options such as apartments built over shops and restaurants.

Net Metering:
A BC Hydro program that promotes small-scale, grid-connected power generation at home and business sites. It allows customers with alternative energy generation, e.g. solar, wind, and microhydro, to "bank" their excess generation, increasing the value they derive from their on-site generation. Under the simplest version of net metering, there is a single meter that runs backwards when the generator produces more electricity than the customer requires and runs forward when the generator produces less than the customer requires. Customers are only billed for their positive "net consumption", which is defined as their total consumption minus their total generation in a given billing cycle, as shown by a positive meter reading. The Net Metering program is

Alternative energy options are advancing rapidly in technology and in affordability.

available on Cortes Island. Look at the BC Hydro website listed under Online Resources for more information.

Off-gassing:
Any material that emits gaseous chemicals into the air. There is a long list of toxicants that can be released in the fumes. Formaldehyde, for example is found in plywood, OSB, cabinets, furniture, fabrics, and many other household items. It causes numerous health problems and has triggered a debilitating disease known as multiple chemical sensitivity (MCS) in some people. See VOCs.

Photovoltaic panels (PVs):
A technology that uses semiconductor material in photovoltaic (PV) solar panels to convert sunlight to electric power. Some of the newest innovations include PV Roofing, panels which collect solar energy and also act like normal roofing. (See net metering)

Recycling Centre:
Funded by the Regional District of Comox-Strathcona and run by our dump diva, Dova Wiltshire, this is a great resource for locally applicable and up-to-date information on recycling, access to used materials, and practical ways to lower, contain and transport your waste. Call Dova at 935-6768.

R-value:
The thermal resistance of a material. The higher the R number, the better the insulating qualities. R-value can also be affected by how a product is installed. Make sure your information and installation procedures are up-to date and come from a credible source.

Roofing materials:
Low slope membrane roofing options include asphalt-based “torch-on”, polymer-based “EPDM” or PVC. A new alternative on the market, which appears to have significantly less environmental impacts, is TPO (thermoplastic polyolefin). Sloped roofing most common to Cortes is either metal roofing (great for rainwater harvesting) or asphalt shingles. Cedar roofing can present a significant fire hazard with our dry summers/increased forest fire risk and sparks from wood stoves. Living roofs are a nice option and require strong support, a waterproof membrane, and good drainage. There are several examples of living roofs around Cortes.

A very important feature of green buildings is durability.

Sick Building Syndrome (SBS):
A condition that impacts on the health and comfort experienced by occupants of some buildings. Off-gassing and mold issues are main factors and can be mitigated through careful building design and material choices.

Space efficiency strategies:

◆ Share the use of each space. A home office and guest bedroom is a common combination. The hall or stairway can be a library or art gallery; a landing can be a reading nook.
◆ Build furniture into rooms. Cabinets, bookcases, benches and eating nooks can be recessed into inner walls. Large storage drawers can be installed under the stairs.
◆ Avoid showcase rooms and heat wasting vaulted entranceways and front rooms. Why have a formal living and dining room when most people gather in kitchens and family rooms.
◆ Provide ample storage. When people say they want a "bigger house" they may only need more storage.
◆ Plan for flexibility. House designs should allow for changes in lifestyle. A young couple may have children. Grown children will leave the nest. A business could be born in the kitchen and grow in the guest bedroom. Canada Mortgage and Housing Corp. has some great ideas on planning for change such as easily renovated plumbing, wiring and wall designs.

Volatile organic compounds (VOCs):
Carbon-containing chemicals that evaporate from material surfaces into indoor air at normal room temperatures. This process is described as off-gassing. Symptoms of VOC exposure include dizziness, eye irritation, respiratory irritation, nasal congestion and headaches.

Water conservation strategies:

◆ Purchase water-conserving appliances such as dishwashers, front-loading clothes washers, and on-demand water heaters.
◆ Install low flow showerheads, faucet aerators and low flush toilets. Consider dry fixtures such as composting toilets and waterless urinals.
◆ Use efficient irrigation systems (drip irrigation, soaker hoses and rain/moisture sensors) and use native plants that require very little watering.

Windows:
Locate more of the windows on the south side than other orientations and consider using window blankets on winter nights. Generally, low solar-heat-gain-coefficient (SHGC) glazings such as low-emissivity windows are designed to reflect heat, but admit light, and are used on east and west orientations. High SHGC glazings make sense on south orientations where windows can capture the lower angle of the winter sun for passive solar heating and day lighting. This keeps buildings warmer in winter and cooler in summer, saving energy. All this will depend on your house site and should be a major consideration in your design.

Reading Resources for the Inspired!

Falling in love with your home means intimate knowledge about the walls, roof and foundation that protect and nurture you. We really encourage you to take responsibility, do the research, and create a green home.

This list is a small sampling of all of the excellent resource materials that have been produced; many are available for loan at the FOCI Resource Centre located in the village of Manson's Landing, Cortes Island. You are most welcome to drop by, phone (250) 935-0087, or email <foci@island.net>

(Publisher codes: NSP - New Society Publishers, CGP - Chelsea Green Publishing Co)

House site

A Practical Guide to Sustainable Communities. Bang, Ecovillages. NSP, 2005
Creating a Life Together. Christian, NSP, 2003
It's a Sprawl World After All. Morris, NSP, 2005
Sprawl Kills, How Blandburbs Steal your time, health and money. Hirschhorn, S&R Publishers. 2005

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Best Practices Guide: Material Choices for Sustainable Design. GVRD (Greater Vancouver Regional District), 2001
Green Building Products, The GreenSpec guide to residential buildings. Wilson, NSP, 2005
Old to New design guide, salvaged building materials in new construction. Kernan, GVRD, 2002
Sustainable Building Design. GVRD, 2003
The New Ecological Home: Complete guide to Green Building Options. Chiras, CGP
The Natural House. Chiras, CGP
The Not so Big House. Susanka, The Taunton Press, 1998
The Whole House Book. Borer/Harris, Centre for Alternative Native Technology Publications

Operation and maintenance

Photovoltaics Design and Installation Manual. Solar Energy International. NSP, 2003
The Energy Saving House. Therry, Centre for Alternative Native Technology Publications
The Home Energy Diet. Scheckel, NSP, 2005
The Home Water Supply. Campbell, Story Communications
The New Independent Home-People & Houses that Harvest Sun,Wind. Potts, CGP, 1999
The Passive Solar House. Kachadorian, CGP
Wind Power Renewable Energy for Home, Farm and Business. Gipe, CGP

A healthy indoors

A Healthy House. Baker-LaPorte. NSP
Art of Natural Building. Kennedy, NSP, 2002
Homes that heal and those that don't. Thompson, NSP, 2004
Sick House Survival Guide. Hobbs, NSP, 2003

Overall

Cortes Island Woodworkers Director. Cortes Ecoforestry Society, Phone (250) 935-6888
Green Development: Integrating Ecology and Real Estate. Rocky Mountain Institute. John Wiley & Sons, Inc., 1998
Our Ecological Footprint, Reducing Human Impact on the Earth. Wackernagel/Rees, NSP, 1996
The Natural Step for Communities How Cities and Towns can Change to Sustainable Practices. James/Torbjorn, NSP, 2004

Online Resources

Archemy Consulting
www.archemyconsulting.com

BC Hydro Net Metering program
www.bchydro.com/netmetering

BC Sustainable Energy Association
www.bcsea.org

BuiltGreen. A Seattle site.
www.builtgreen.net/index

BuildSmart: Greater Vancouver's source for sustainable building information.
www.gvrd.bc.ca/buildsmart/index.htm

Canada Green Building Council. The Council is a broad-based inclusive coalition of representatives from different segments of the design and building industry. Among other things they offer information and training for the LEED Rating System.
www.cagbc.org

Canada Mortgage and Housing Corporation. This site offers a very large library with many downloadable documents on design, construction, sustainability, affordable housing, and so on. You can also order free booklets, technical studies, and much more.
www.cmhc-schl.gc.ca/en/inpr/

Canadian Wind Energy Association
www.smallwingenergy.ca/en/SmallWind.html

Environmental Building News
www.buildinggreen.com

Green Value Report 2005 (Royal Institute of Chartered Surveyors)
www.rics.org/Property/Green+value.htm

Green Buildings BC, Guide to Green Building Resources
www.greenbuildingsbc.com/new_buildings/resources_guide/

Sustainable Building Resource Directory
www.sbrd.org/index.html

FOCI Resource Centre Manson's Landing, Cortes Island

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BRITISH COLUMBIA

Renewal Land Company