

Sustainable Living at Sea to Sky Retreat Centre

Sea to Sky Retreat Centre (SSRC) provides a quiet environment for contemplation in a rugged and picturesque mountain forest setting. Located just south of the hustle and bustle of the Whistler resort community, SSRC is entirely off-the-grid. Therefore the facilities and infrastructure of Sea to Sky Retreat Centre can only function interdependently with the natural resources that sustain it. Sustainability at Sea to Sky Retreat Centre is a practical necessity. Like the 2020 Sustainability Plan of the Resort Municipality of Whistler, this plan sets goals for the not-too-distant future, when non-renewable resources become scarce, or when their use must be legally limited by the reality of climate change.

Background and History



The above picture was taken in Tibet at a place called "Mind Fell in the Lake," by Amelia Chow of Vancouver. Referring to this lake located near his monastery, Dzongsar Khyentse Rinpoche said that he would start a retreat centre in Canada if a place could be found that looked similar.

At the same time, a local developer was planning the construction of a for-profit vacation resort community on the east side of Daisy Lake. With little possibility of any municipal service hookups, it was an incredible challenge. Before building, it was necessary to develop systems for power generation, water collection and

Sustainable Living at Sea to Sky Retreat Centre

treatment, sewage processing, and heating. The 2.5 km access road itself was a huge investment. The road cuts through a rockfall area above Daisy Lake. To add to the escalating development expense, there was a mishap one day in which a landslide destroyed some heavy earth-moving equipment that had been left parked in the rock-fall area.

Model of unsuccessful resort development on east side of Daisy Lake



The developer abandoned this project when it became evident that the cost of completing the project would exceed any probable economic gain. Amelia discovered that the property had been put up for sale and recognized that the land was perfect for a retreat centre. The land was then purchased and the development of the Sea To Sky Retreat Centre began.

Rinpoche's contemplative community known as Siddhartha's Intent (meaning 'intention of enlightenment') purchased the land by means of generous donations and loans from members of the worldwide Siddhartha's Intent community. For our community, the land was also a challenge. With the support of sponsors, many volunteers and a great deal of creativity, there was a gradual development of appropriate power, water, sewage, and heating systems at Sea to Sky Retreat Centre (SSRC).

Rinpoche asked us to consider the number of people that could be supported by the land on a long-term basis and then limit built accommodation to that number. On that basis we developed a Master Plan. Except for a library which will be built in the future, we have now completed the development described in the SSRC Master Plan. The current facility is in balance with the resources offered by the land.

SSRC is operated by Siddhartha's Intent Society, a registered Canadian charity, to promote the traditional practices of Tibetan Buddhism. Practicing an ancient and esoteric Tibetan Buddhist method for restoring environmental harmony and establishing peace, SSRC volunteers co-ordinate the placement of Peace Vases in

Sustainable Living at Sea to Sky Retreat Centre

carefully selected locales across Canada. Retreats at SSRC for members of the Siddhartha's Intent community are conducted according to the Khyentse lineage tradition of SSRC's founder, Dzongsar Khyentse Rinpoche. However, SSRC also provides a contemplative environment for practitioners in a multiplicity of traditions who aspire to nonviolence and seek inner balance. While having its own distinct path of meditation, study, and action, the Khyentse lineage is famous in Tibet for the diligence of its lineage holders in helping to sustain the integrity of many different traditions. In keeping with such non-sectarian activity, SSRC hosts a number of programs encompassing many spiritual paths. Each different group retreat is conducted according to its own unique way.



SSRC's Main Lodge overlooking Daisy Lake with Cloudburst Mountain on the horizon

SSRC's guests come to work on their minds and their bodies and are participants in SSRC's sustainable life style. By their experiences at SSRC, many have discovered that it is quite possible to enjoy good food, comfortable accommodation, and pleasant companionship in the context of habitations that operate in balance with the sustaining resources. By inviting the guests of SSRC into a life of moderation, demands on the environment are lessened and the cost for guests is minimized.

Since the root cause of many environmental problems can be traced to problematic human behaviour, programs that evoke mindfulness, awareness, and inner balance can help tremendously. Sustainability, we believe, is in happy synchronicity with working to meet our charitable purpose of supporting contemplative practices.

The guests visiting SSRC are served by SSRC staff members who practice karma yoga as an aspect of their spiritual path. Following is an excerpt from the daily sadhana which creates an aspiration to act for the benefit of others:

Sustainable Living at Sea to Sky Retreat Centre

“May I be a guard for those who are protectorless,
A guide for those who journey on the road.
For those who wish to go across the water
May I be a boat, a raft, a bridge.”

The Land

SSRC sits on the eastern side of Daisy Lake in the Cheakamus River Valley. Prior to the damming of the Cheakamus River, the natural Daisy Lake was much smaller, vaguely circular, and located slightly to the south of the prayer flags on the current lake. The characteristic light greenish-blue color of the lake is caused by the suspended, fine-grained sediments carried by the glacial melt water feeding the lake. Black Tusk peak, directly above SSRC, is considered to be the remnant of a former volcano, and part of a chain of volcanoes known as the Garibaldi Volcanic Belt. A Guide to the Local Geology is available at SSRC for those interested.

SSRC is situated within a coastal rainforest ecosystem which consists of more than 95% coniferous species (Hemlock, Cedar, and Douglas Fir). Specifically the ecosystem that includes SSRC is classified as Coastal Western Hemlock Dry Sub-maritime, an ecosystem type unique within the Sea to Sky region. Obviously "Dry" is a relative term, but it refers to the dry summers that generally occur in the Daisy Lake region.

To enhance appreciation of the ecosystem within which SSRC resides, an interpretative trail has been developed. The natural ecosystem is a wonderful tapestry of inter-dependence that is vividly on display in a wilderness. Nonetheless, this subtle reality can be easily missed when clouded by artificial notions that the environment is something separate from human life. Ironically, even "environmentalists" can begin to view the natural environment as if it is a big city park. To help SSRC's visitors to try on a different perspective, the Nature Trail Guide has highlighted traditional First Nation uses of the trees and plants along the interpretative trail. It is hoped that a walk in the wilderness with some traditional knowledge could offer glimpses of being naturally human within the natural environment.

SSRC is a participant in the Cheakamus Community Forest (CCF) process. The CCF is a local initiative for community management of the forest of the Whistler area. All of the logging licenses to private companies in the CCF area have been withdrawn and re-issued to the CCF Board, a community group with

Sustainable Living at Sea to Sky Retreat Centre

representatives of the Whistler municipality, Squamish nation, and Lil'wat nation. As well as logging the forest resource for revenue, one aspect of the CCF mandate is to act with respect for community values regarding the forest. The Sustainability Plan that you are now reading has been accepted by the CCF Board as a statement of SSRC's community values in relation to the surrounding forest. In November 2011, SSRC and CCF agreed and signed a letter of understanding regarding the management of the community forest adjacent to SSRC. In 2015, the forest surrounding SSRC was recommended by the CCF Board for designation as an Old Growth Management Area (OGMA) to be protected from logging "in perpetuity". The BC Ministry of Forests has setup up the OGMA process to protect old growth forest outside of Park boundaries. BC had now approved the OGMA reserve on the east side of Daisy Lake that can be seen on the map to the right.



Good Now and in the Future

Wood is a renewable resource that is available for heating, and is presently being used to heat two structures at SSRC. However, it is not necessary to cut down trees for firewood at SSRC. SSRC's firewood needs are provided by trees that either fall in the winter or in storms, or are required to be cut for safety reasons. Also, our main firewood source is a treasure trove of drift logs in Daisy Lake. There is a considerable supply that has been seasoned for numerous years without rot. We do recognize that wood burning does cause air pollution. However, one of the best ways to reduce the pollution emitted by wood-burning stoves is to use well-seasoned firewood. The Daisy Lake drift logs serve this purpose well; it is premium firewood.



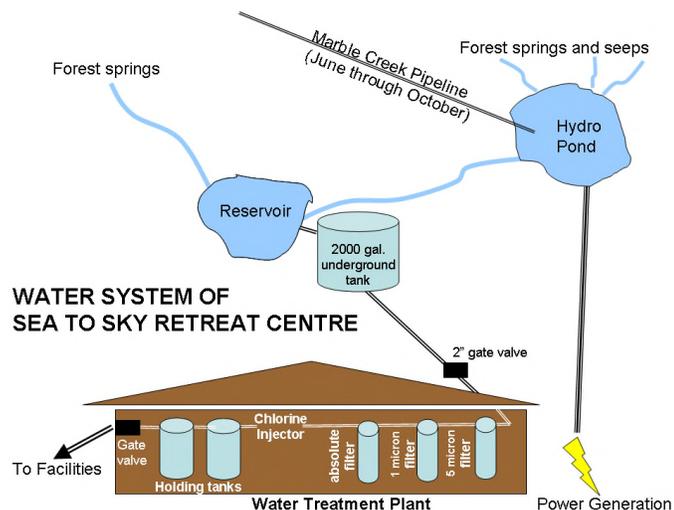
A micro-hydro system provides clean, quiet power that is usually sufficient to power the whole facility. Micro-hydro does not damage the environment and in fact the water channels and small pond-dams actually mitigate erosion. Pictured to the left is Marble Creek which is above SSRC. A 1.8 km pipeline brings Marble Creek water to SSRC during the dry summer season. During the winter, there is sufficient water from springs and seeps in the forest immediately adjacent to SSRC .

Sustainable Living at Sea to Sky Retreat Centre

Those who reside at SSRC easily become attuned to the seasonal and even daily fluctuations of the water supply. For example as water volume decreases, power availability also decreases. Having a strong sense of the limitations of our water resources and thereby power, there is a respect for the resource and willingness to practice personal conservation measures. Staff members adapt to the reality that resources are limited. While one average household in Vancouver uses over 10,000 kWh per year of electrical power, 12 structures at SSRC are quite comfortably electrified with about the same amount of electrical power. The primary difference is a mindset geared towards energy conservation. At SSRC no-one is expected to sacrifice comfort, but it is necessary to accept a life without instant conveniences. The SSRC staff has learned a number of strategies for carrying on when micro-hydro power is at low ebb.

As the result of improvements of the SSRC micro-hydro system together with the ongoing energy conservation practices, it has been possible to minimize the sound and air pollution caused by SSRC's diesel-powered electrical generator. During periods when less water is available for power generation, energy conservation measures play a significant role in minimizing the need to turn on the diesel generator. While staying focused on the need to work within available power, there are also ongoing efforts to improve water collection efficiency as the basis of increased micro-hydro power output. Various refinements have successfully increased the volume of water during seasonal transition periods in which the water supply has previously been temporarily lessened. Since 2010 the diesel generator has been used only to support occasional peak loads and for emergency backup purposes. We expect to continue to maintain this minimal level of need for diesel-generated electricity.

In addition to providing a power source, SSRC's water system serves several other purposes. The overflow of the micro-hydro pond flows into the drinking water reservoir. The overflows of both also flow into a pond at the foot of a small waterfall near SSRC's main facilities. The water in this pond is available as a fire-fighting reserve in the event of a fire emergency.



Sustainable Living at Sea to Sky Retreat Centre

Sewage is processed at SSRC by septic fields serving the Main Lodge and Staff Quarters and by a biofilter that serves the Retreat House and Retreat Cabins. There are also outhouses at two locations not served by septic fields or by the biofilter. In our experience, a properly-functioning, well-sited outhouse is an excellent, ecological, and low-maintenance septic option.

In a multi-building facility with several vehicles and a variety of machines, there are many varieties of items to recycle. In addition to the common recyclable such as plastic, paper, metal, and glass, SSRC maintains repositories for recycle of materials such as old engine oil, stale gasoline, batteries, ink cartridges, scrap building materials, electronics, and so on. Squamish and Whistler both support a sophisticated variety of depots to handle just about any type of recyclable item. SSRC shoppers are trained in the location of the various depots and the methods of handling different recyclables.

In the area of house-cleaning, there has been an effort at SSRC to use environmentally friendly cleaning supplies. Paper products made from recycled paper, when available in local markets, are the product of choice for SSRC. Rather than manage a clutter of bottles of different specialty cleaning products, most cleaning is accomplished with liquid soap in various combinations with vinegar or baking soda. Reusable spray bottles are used for different mixtures of these simple cleaning agents applicable to different cleaning tasks. The old hippie standby, Dr Bronner's Magic Soap, does a great job on its own in the rug shampooer. Rather than consume paper towels, the housekeeper, maintains a set of lint-free, somewhat abrasive cloth rags which are washable, and effective on all surfaces including glass. Other than disinfectant bleach water for particular cleaning needs, no heavy duty chemical cleaning agents are used. It is an off-the-grid necessity that toxic chemical agents do NOT go down the drain as the septic system requires vigorous bacterial action for proper functioning.

Garbage at SSRC is carefully handled and is always stored indoors. We all realize that carelessness with garbage or any food stuff outdoors could become a bear attractant. When bears become habituated to seeking food in areas inhabited by humans, they are termed “problem bears”. However, such circumstances always seem to end up badly for the bear. Sometimes conservation officers decide that there is no choice except to shoot a “problem bear.” By careful handling of bear attractants, SSRC community members try to avoid falling into situations in which humans and animals come into conflict.

Sustainable Living at Sea to Sky Retreat Centre

SSRC has had to avoid composting its vegetable waste in order to avoid attracting bears. However, composting facilities in Squamish and Whistler have made it possible to store compostables in biodegradable plastic bags. The bagged compostables are dropped off weekly along with recyclables and garbage.

The meals served to the guests of SSRC are vegetarian. For some guests and staff of SSRC there is a religious inspiration for vegetarianism, for others there are health reasons, and for still others, it is a new experience. For those on a vegetarian adventure at SSRC, it is hoped that there will be a discovery of alternatives to meat dishes that are not only nutritious but also attractive and tasty. By following a vegetarian diet, there is significant environmental benefit according to such classic agribusiness analyses as “Diet for A Small Planet”.

The use of processed food is minimized at SSRC. During group retreats, three people work together in the SSRC kitchen for each meal to support making whole-food-meals. When time and care are taken in the preparation of food, diners can feel that in the food; they can taste it, and it is that much more nourishing and satisfying as a result. From our experience, we have learned that it is not so much about the price of our ingredients but how they are cooked. People in many parts of the world don't have a big budget for food, yet you can see that in small developing countries, in their villages and in their communities and families, they are happy to eat simply and with appreciation. SSRC is dedicated to the tradition of whole foods cooked with the best of intentions. The cooks at SSRC are encouraged to take inspiration from the instructions by the great Zen Buddhist master, Dogen, to the “kitchen master”.

Viability factors

The viability of Sea to Sky Retreat Centre is directly related to its charitable operation as an undertaking of Siddhartha's Intent. There are no paid administrators within Siddhartha's Intent. It is a non-profit volunteer organization from the top down. All offerings of money and effort are applied 100% towards the actual charitable purposes of Siddhartha's Intent.

The basic operation of SSRC requires an ongoing effort to support all key activities including bookings and correspondence with potential clients, meal preparation, routine maintenance of the facilities, housecleaning, project planning, accounting, shopping, meal cleanup, and the implementation of some small projects. Special facility improvement projects & unplanned repairs require additional effort allocations.

Sustainable Living at Sea to Sky Retreat Centre

With the optimal number of staff in residence to share the workload, the operation of SSRC is feasible. During periods in which the SSRC staff is not supporting group retreat programs, there are many opportunities to participate in projects that enhance SSRC as a contemplative centre. Work projects are usually paused during program time, but given precedence during non-program times. To provide staff the opportunity for a 3 month holiday each year, SSRC closes during the winter months. For those individuals who are happy to lead a life of moderation and who are committed to karma yoga, SSRC provides a lifestyle for residents that is attractive and fulfilling. Likewise, SSRC benefits from a staff dedicated to a contemplative, sustainable lifestyle.

Contemplative centres in the West tend to have difficulty in achieving economic viability. In countries where a monastic tradition is established, there is a general societal appreciation and economic support of institutions and individuals dedicated to a contemplative way of life. In the context of North America, Sea to Sky Retreat Centre has been required to chart its own economic course, but has been performing reasonably well. Over the period of the past 10 years, SSRC's cumulative income has been sufficient to meet its cumulative operating expense.

If there is a surplus in any of the revenue generating activities of Siddhartha's Intent (including SSRC), the surplus is contributed to a contingency fund to cover temporary shortfalls of SSRC operating expense and to provide SSRC self-insurance and building improvement funds.

For cost efficiency, SSRC places a strong emphasis on self-reliance for the repair and maintenance of the facility's infrastructure and equipment. The workshop contains a diverse array of tools and stocks key spare parts. In regard to enhancements of the physical facility, there is a commitment to careful research and planning. As may be required, investment is made in professional consultations. Risks of inappropriate expenditures are reduced by making such meticulous front-end effort prior to implementation. Well-wrought plans are regarded as a valuable asset.

Ultimately, the key to achieving economic viability for SSRC is the auspicious coincidence of a team of dedicated practitioners of karma yoga. With the continuous presence of such a team, SSRC's schedule can be confidently filled with retreat programs and with projects to improve SSRC's viability. While sustenance of SSRC is a delicate balancing act, there clearly is a way forward.

Sustainable Living at Sea to Sky Retreat Centre

In Progress

An ongoing project at SSRC is that of attending to the forest-building interface. Land Management at SSRC is guided by an advisor to the Board of Directors who is a Registered Professional Forester. A forest cleanup work-weekend in the spring that is led by a local arborist has become an annual event. Each participant receives a hand-out entitled Vision of Forest Clean-Up that describes the general purpose of forest clean-up as well as the specific tasks.

The goal of our activities on SSRC lands is to protect our facilities and to sustain and protect the forest ecosystem and the plant and animal community that is dependent upon it. SSRC is the only human habitation on the East Side of Daisy Lake, and as such, we potentially could act as an early warning system for forest fires in the local area. By virtue of SSRC's forest fire preparedness and vigilance, there is a better chance of effectively containing a small forest fire that otherwise could become a large fire. Our efforts in this regard potentially protect SSRC buildings as well as the forest itself.

SSRC staff members have received some training in fire fighting methods as well as instructions on fire preparedness and prevention measures. In the future, it is hoped that SSRC staff will receive more frequent fire contingency training. SSRC has equipment on site to fight forest and building fires, and is continually expanding its fire preparedness infrastructure.

SSRC land management also includes some gardening projects. Attempts are being made to grow organic herbs and select salad vegetables at SSRC. Nonetheless, mountain gardening is a challenge; it is difficult to find a sunny spot with sufficient water that has unrocky soil. Finally, cultivated plants need to be protected from squirrels, birds, rodents, and especially the relentless black slug. However, we have found that insects and animals do not seem to be attracted to herbs. We are now maintaining several small garden spots in which rosemary, thyme, oregano, mint, and sage are flourishing. Also, a cold frame has been constructed which has proven to be a protected environment for successful cultivation of kale and basil. Currently we have an organic farmer in residence who is assisting us to expand our organic gardening capability and to plan for the future (see Future Initiatives section).

In regard to grocery shopping, there has been an attempt to selectively include organically grown food items in the SSRC meals. Since it is not currently

Sustainable Living at Sea to Sky Retreat Centre

economically feasible to buy 100% organic, SSRC shoppers are asked to make fruit and vegetable purchases with a balanced consideration of quality, cost, and availability. When good quality organic produce is available at a reasonable price, it is of course given preference. The shopper and the cook stay in touch via mobile phone on shopping day to ensure that optimal produce purchases are made.

Future Initiatives

From an energy saving perspective, we have learned that forced air furnaces, even if propane-fired, require electric fans that consume a nearly crippling amount of power. For that reason, we hope to replace the forced air furnace in our Retreat House with a baseboard hot water heating system that is expected to use less propane, almost no electricity, and provide improved comfort for users of the Retreat House

An additional related goal is to reduce SSRC's dependence on propane. Although propane burns cleanly and creates less pollution than wood burning, a long term goal on a larger scale would be to find means of heating with renewable resources that simultaneously minimize pollution. Eventually, we hope to complete the design of an expansion of the SSRC micro-hydro system. By rebuilding the Marble Creek intake and by insulation of the pipeline to SSRC's micro-hydro generators, there would be lots of water for micro-hydro power in the winter. With the added flow of winter water, an additional micro-hydro generator could be supported which would be dedicated to providing electrically pre-heated water for the hot water heating systems planned for the Retreat House (see above). According to our preliminary plan, the pre-heating would automatically adjust to the level of power produced by the new generator. In periods of more available water and thereby electrical power, the gas consumption would be minimized.

Currently, SSRC staff members use all kinds of machines that consume petroleum products. At some point in the future, the collective karma may change and by means of technology advances, it may be feasible to purchase non-polluting machines that run on sustainable fuels. When feasible, of course, SSRC will gradually plan to move towards the replacement of equipment with more environmentally friendly machines. Of course, motor vehicles are the biggest challenge from an environmental and global warming perspective (as well as an economic perspective). We recently needed to purchase a new passenger vehicle for SSRC that was reliable, safe on the highway, capable of navigating the SSRC access road in all seasons, and providing good mileage. By investing in a reliable vehicle with an expected usable life of at least 10 years, we hope to minimize the

Sustainable Living at Sea to Sky Retreat Centre

load on the junkyards. Maybe by the time that another vehicle needs to be purchased for SSRC, hybrid all-wheel-drives will be sufficiently economical to be a viable option. In the meantime, the most effective sustainable action is staff planning of vehicle use. By planning vehicle use, trips to town can be minimized. Emissions are reduced, SSRC funds are conserved, and safety is enhanced by the effort made to co-ordinate multiple errands on each town trip.

There is an increasing need at SSRC for an improved septic processing capability. Due to larger and more frequent programs, the Main Lodge kitchen is now more intensively used than when the septic system was originally installed. As a component of a greater septic improvement plan, it is planned that a grease trap will be installed under the Main Lodge kitchen sink to protect the effluent filter and the septic field from clogging. Also, it is planned that one of the existing conventional toilets will be replaced with a dual flush toilet. In the long-term, consideration is being given to augmenting the bio-filter modules to accept sewage from the Main Lodge and Staff Quarters toilets. At the time of such an implementation, options would be explored for a grey water system for the laundry, shower, and sink water of these buildings.

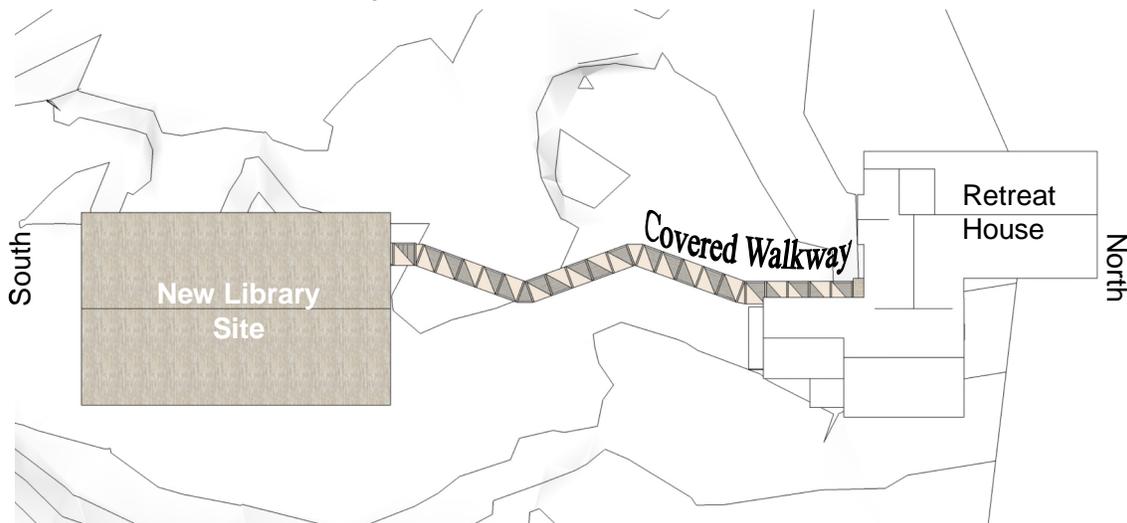
Expansion of organic gardening at SSRC is limited by the lack of sunny spots in a closed canopy forest, the dryness of the summer, and the voracious wildlife of all kinds. The organic farmer in residence has suggested a solution. The lakefront at SSRC gets continuous sunshine which is also a place with a year-round flow of water entering the lake from above. Also, the micro-hydro generators are on the lakefront and could provide power for an electric fence to protect succulent vegetables from deer and bears. Surprisingly electric fences draw very little power because they are very low-amperage. In the emerging garden design, elements of the traditional Mexican chinampa (floating garden) are coming together in a unique fusion with elements of the log-construction food cache of the Canadian North. With the convergence of the right set of inspired volunteers, a Canadian "chinampa" may manifest on the shores of Daisy Lake.

Like discovering Narnia, we have suddenly realized the significance of a certain trap door in a Retreat House closet. The trap-door opens into a large sub-floor concrete room that was built as a coincidence of construction of the Retreat House. Recently, in a local magazine, it was pointed out that most of the early settlers in our region maintained produce cellars as an alternative to refrigerators. The magazine pointed out that the early houses often had trap-doors cut in the floors with stairs going down under the house to a cool storage place for vegetables and fruit. After reading that article, it dawned on us that SSRC could have the benefits

Sustainable Living at Sea to Sky Retreat Centre

of a produce cellar simply by building stairs to the concrete room under the Retreat House floor, installing some sort of ventilation system, and setting up a temperature and humidity monitoring system. Then it should be possible to keep a stock of fruits and vegetables and reduce our need for frequent produce shopping.

In our original master plan there is one building that is yet to be built at SSRC: a library that incorporates an archive and a meditation hall. It is planned that it will be inter-connected with the Retreat House via a covered walkway. An architectural firm in Vancouver has now offered pro bono services to plan this structure for SSRC in a manner that fits the unique needs of our centre by maximizing environmental sustainability.



Conclusion

The purpose of this Sustainability Plan is **not** to present an ideology of environmentalism. Rather it is to provide a practical direction towards the goal of remaining in balance with resources that are finite. We recognize the need to accept some contradictions and to make some compromises in the process of living and working in the world as it is. By working with the interdependence of economics, human dynamics, and ecology, we are committed to moving forward with the sustainable operation of SSRC.

This status report and plan was first written down by Ron Stewart, a resident volunteer at Sea to Sky Retreat Centre (SSRC). Coincidentally, the first draft was completed on Earth Day, 22-Apr-2007. Since that time, SSRC staff members, guests, visiting volunteers, as well as Siddhartha's Intent (SI) Board members have extensively reviewed and commented this document. The SI Board resolved to re-status this plan annually on each Earth Day. This version contains the updates made on Earth Day of 2018.