

# 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 Sustainability Plan of the Resort Municipality of Whistler, this plan also 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 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

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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 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-

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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.

In the context of a spiritual tradition, such practices can enhance the recognition of the problems facing the world and the realization that solutions begin with oneself. Ultimately the aim of many spiritual traditions is to benefit the world by transcending self-centered concerns. On the path to transcendence, the Buddhist and other spiritual paths invoke a life of moderation which by itself can be a powerful means of solving many worldly problems. As people are inspired to abandon extreme views, relax their own personal agendas, demand less and be satisfied with basic comforts, and develop the willingness to share, there is progress on the spiritual path and also, coincidentally, worldly problems are reduced. This phenomenon of spiritual practice is explored in several treatises including a book entitled "*Inspiring Progress: Religion's Contributions to Sustainable Development*" (by Gary Gardner)

The guests visiting SSRC are served by SSRC staff members who regard their work and everyday activity as an aspect of their spiritual path. In the Hindu tradition, taking one's daily work as practice is called karma yoga; in the Buddhist tradition it is viewed as one of the 3 Supreme Methods of accumulating spiritual merit. Following is an

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excerpt from the daily sadhana which creates an aspiration to act for the benefit of others:

“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.

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 enhance appreciation of the ecosystem within which SSRC resides, an interpretative nature trail has been developed. To help SSRC's visitors to try on a different perspective, the [Nature Trail Guide](#) has highlighted traditional indigenous 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.

The SSRC land is on the boundary between the traditional territories of two Canadian indigenous peoples. To both First Nations, this location has been regarded as a spiritual place. Rising above SSRC is Black Tusk peak which is known to First Nations people as Landing Place of the Thunderbird.

Nearby to SSRC, just to the south of Daisy Lake, is the site of an ancient village. For many generations, “members of the seafaring Squamish Nation and the interior-based

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Lil'wat Nation lived together in a shared village. It was called *Spo7ez*, in the heart of the present-day Sea to Sky corridor, located where Rubble Creek and the Cheakamus River meet and flow together. For a long time, the villagers lived in harmony— working together, trading, sharing—until one day, discord among the people began to grow. The Thunderbird, whose home is at Black Tusk, began to take note, watching from high above. The discord grew and grew until the Thunderbird decided to take action, flapping his wings and sending a message to the people in the form of a devastating rockslide that covered the village ... For those that survived to tell the tale, the Thunderbird had a message: go back to your families—the Squamish people to the south and the ocean, the Lil'wat people north to 'where the rivers meet' ... That could have been the end of the story. But the people took heed of its message [to get along with one another and abandon feuding to have a mutually healthy future]...It's this partnership between the Squamish and Lil'wat Nations, forged in the ancient village of *Spo7ez*, that is flourishing once again, stronger than ever, particularly over the course of this past decade. “ (Report of First Nations oral history by Alison Taylor in the 18-June-2020 issue of the Pique Newsmagazine)

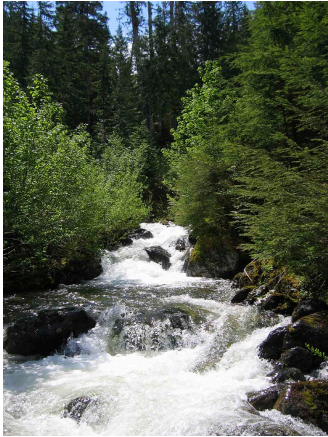
It would be truly wonderful if the discord within other societies in the world could be so fruitfully resolved. These two First Nations are now not only partners in the magnificent Squamish Lil'wat Cultural Centre located on shared traditional territory in Whistler, they are also partners in the Cheakamus Community Forest (CCF) process.

SSRC is also a participant in the CCF which allows SSRC volunteers to work together with the Squamish and Lil'wat nations as well as the Whistler municipality to provide stewardship of the region's forest. As well as ecosystem-based management of the forest resources, the CCF mandate includes consideration of 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.

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## Good Now and in the Future



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 .

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 micro-hydro system together with ongoing energy conservation practices have provided the retreat centre with adequate power over the course of many years. Since the development of our Marble Creek intake and pipeline in 2006, we could reliably count on the power production of our micro-hydro generators. By that means it has been possible to minimize the sound and air pollution caused by SSRC's diesel-powered electrical generator

We thought we had enough water to provide us with all the renewable power we needed. In 2022 we were forced to rethink the SSRC power system as the result of an unseasonably long summer and a strangely dry autumn. The volume of water supporting our micro-hydro system struggled to supply us with the power we needed to maintain group programs. The 2022 drought put a real strain on our ability to remain open and we were forced to regularly run our diesel generator.

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Rather than being solely dependent on water as our only source of power, we decided that we needed to diversify and add some solar power to carry us through dry spells. Based on some generous donations we had the funds to proceed. There were some complexities in marrying micro-hydro with solar but we were guided by a local tradesman with long years of alternative energy experience. With some out of the box thinking, some rather confusing electrical language, and a zip-line we managed to install 12 solar panels down at the lake. What a difference they made. Instantly we more than doubled our energy generating capacity! Surprisingly, even when the sky is cloudy these panels produce a rather generous number of amps.

*Solar Panels on Daisy Lake*



*Marble Creek Intake Box*

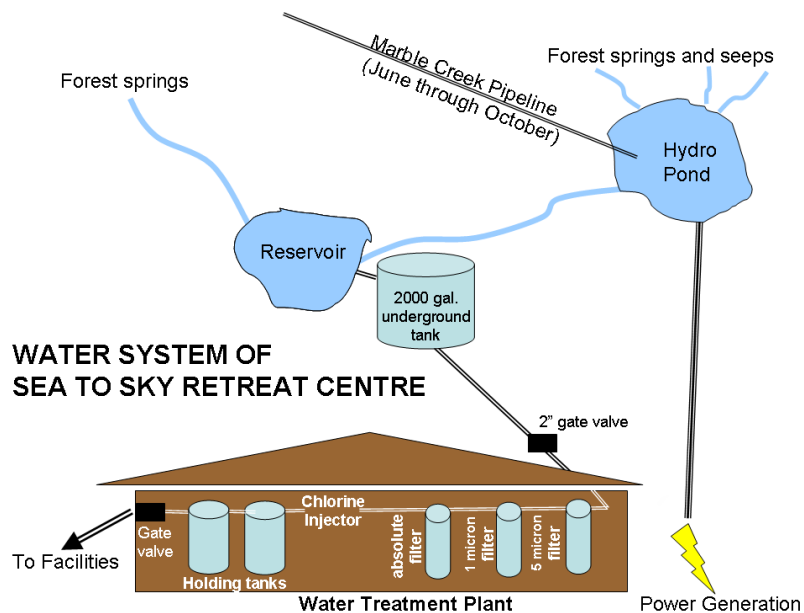


Now that we had solar power we had to give some much-needed TLC to our micro-hydro power system. After 16 years of service up at Marble Creek, the cedar intake box desperately needed replacing. We built a new box in our shop. Needless to say, a box that holds water calls for special materials, a unique design, and skilled carpentry. The box was built with a modular design so that it could be disassembled into components and then reassembled at site. Once built, we had to figure out how to transport 80 kg of tools and materials for two km up a rather twisty, dense forest trail! We toyed with the idea of using a helicopter – pricey, yikes! Electric wheelbarrow – hmmm, if it was a smooth road, sure, but nope. A donkey? In the end, good old human mules got it up there. Thank you, you wonderful human mules!

Solar panels are pumping out power on the lakefront and a newly improved, bigger intake box is now collecting water to power our micro-hydro generators. Rain or shine, we now have power at SSRC!

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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.



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 that are neither served by septic fields nor by the biofilter. In our experience, a properly-functioning, well-sited outhouse is an excellent, ecological, and low-maintenance septic option.

If the earth is able to percolate, septic fields are an effective, low impact and reliable way to process sewage for an off-grid-facility. Septic fields do however have a lifespan. The staff quarters and main lodge drainage fields have been in operation for almost 30 years. On top of that, they have also served more people in the facility than what they were originally designed for. As SSRC is built on very rocky soil, it was difficult to find the right location for a new field that could sustain our increased visitor numbers. In the summer of 2024 we were fortunate to come into contact with a septic engineer who was able to design for us a sophisticated plan for a new septic system. The first stage of the plan was the installation of a grease trap for the Main Lodge kitchen. This was installed in the winter 24/25 when we replaced our kitchen sinks and is now in operation! Time to get to work on building a new field to keep the flow moving!

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

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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.

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 spiritual 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 their meal; 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

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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, bookkeeping, shopping, meal cleanup, and the implementation of some small projects. Special facility improvement projects & unplanned repairs require additional effort allocations.

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 retreat revenue has been sufficient to meet its cumulative operating expense.

If there is a year-end surplus because SSRC retreat fees and donations exceeded SSRC expenses for a given year, a portion of the surplus is contributed to a fund which provides financial assistance for the travel, health, and educational needs of long-term volunteers. The remaining portion of any surplus goes into a Siddhartha's Intent

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Canada contingency fund which covers temporary shortfalls of SSRC operating expense, supports SSRC self-insurance, and provides investment in SSRC building & infrastructure improvements.

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, professionals are retained for 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 volunteers undertaking work as practice. 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.

## In Progress

An ongoing project at SSRC is that of attending to the forest-building interface. Practical guidance for this purpose is provided by the SSRC Forest Management Plan, which was initiated by the late Doug Rickson who served on the Board of Siddhartha's Intent after a long career in forestry as a Registered Professional Forester; SSRC's forestry plan has continued to evolve to the current day in consultation with other forest professionals. A forest cleanup work-weekend that was begun by Doug in 2007 has become a regular annual spring event at SSRC. 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, 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 could 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. SSRC has equipment on site to fight forest and building fires, and is continually expanding its fire preparedness infrastructure.

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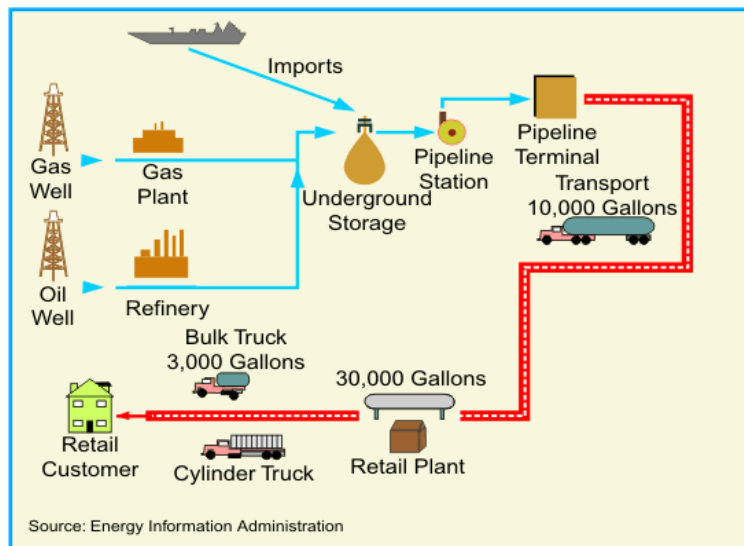
SSRC land management also includes some gardening projects. Attempts are being made to grow organic herbs and select salad vegetables at SSRC. Nonetheless, mountain gardening is a challenge; it is difficult to find a sunny spot with sufficient water that has unrocky soil. Finally, cultivated plants need to be protected from squirrels, birds, rodents, and especially the relentless black slug. In general we try to select plants to cultivate that are as resilient as our wild plants. As a result, there is no need ever to use pesticides. And we also benefit from a grand variety of wild edible plants. It is quite incredible the bounty in nature that is left untouched by the non-human inhabitants of the forest yet offers delight and nourishment to humans.

In regard to grocery shopping, there is an ongoing attempt to selectively include organically grown food items. Since it is not currently 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.

SSRC's wood frame buildings are naturally more comfortable with less environmental impact than steel and concrete habitations but do require ongoing maintenance. Over the years at SSRC, it has been necessary to continuously balance building maintenance with the development of facility enhancements. To prioritize maintenance vs. enhancement projects, the SSRC Facilities Coordinator consults with a team of handy volunteers with SSRC experience known as the SSRC Facilities Working Group.

As well as the hard facts of building maintenance, the SSRC team has from the time of its founding also focused on the soft skills necessary to foster good community relations. Fortunately, the SSRC volunteers over the years have avoided the mistakes made by some alternative, spiritually-inspired developments such as can be studied in documentaries such as [Wild, Wild Country](#). Rather, SSRC has remained open to the local community, always trying to act collaboratively and in accord with local regulations including land use. To provide positive guidance for the future, the SSRC volunteer team in 2025 developed a Community Development Plan for all to see that provides a panoply of options for the SSRC land to address a range of future contingencies.

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In regard to heating, progress is being made on several fronts towards a long-term goal of reducing SSRC's dependence on propane. Although propane burns cleanly, it requires an industrial process for extraction and then requires transport by truck to the end user. Rather than remain fully dependent on such a supply chain, SSRC aims to increasingly incorporate locally available, renewable resources for heating.

Wood is a renewable resource that is available for heating, and is presently being used to heat two structures at SSRC: the Main Lodge and the Staff Quarters. Without the need to cut down any trees to provide firewood, SSRC's needs are amply 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. While it is recognized that wood burning does cause more air pollution than heating with clean-burning propane, it seems a better option to continually improve the efficiency of wood-burning as a source of heat rather than to increase dependence on propane, a non-renewable resource. 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, premium firewood, serve this purpose well. A commodious shed for drying firewood is an important facility at SSRC. Proper planning of firewood collection is key to the objective of obtaining an adequate supply of well-seasoned firewood. As soon as the snow cover diminishes in the spring, it is time to begin stocking the firewood shed.

Wood-burning pollution can further be minimized by investment in high-efficiency wood stoves; that means monitoring developments in wood stove design for new stoves that meet higher standards of emission control. It is not easy to compare the different options in the new generation of stoves. There is no single repository that provides all the information that a user might need to know to obtain a wood stove fitting to the home-owner's requirements. The vendors generally wish to promote the stoves that are already in their showroom, which may not offer the best fit to user needs. So it is necessary to be a proactive consumer and do rigorous product research; there is no turn-key solution. Externally the new stoves look essentially the same as the old stoves; however, the inner design is radically different.

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One important resource for making an informed wood stove decision is the US Environmental Protection Agency (EPA), which publishes results of EPA tests of nearly all commercially available wood stoves. Stoves sold in the US and Canada have an EPA certified tag installed on the back. To check and see that an old stove has an EPA tag should not be a cause for comfort about emission levels. An EPA-certified stove that is 25 years old does not meet the same standards as an EPA-certified stove today. Year by year, the EPA standards have become increasingly stringent for wood stove emissions.

In 2021, after months of research, a new high-efficiency wood stove was installed in the Staff Quarters. Although the old stove in the Staff Quarters was EPA certified, EPA test results for the newly installed stove model shows that it releases a mere 11% of the emissions of the old stove. The new stove contains baffle tubes that provides a secondary burn of the combustion gases as well as a catalytic convertor that literally burns the smoke. The effect of the new wood-burning technology is that less firewood produces more heat and fewer emissions. And this effect is dramatic! Based on the experience with the new wood stove in the Staff Quarters, the wood stove in the Main Lodge was also replaced with a high-efficiency, low emission wood stove in the winter of 2022.

In our guest buildings (other than the Main Lodge), thermostatically controlled heat is provided by propane heating appliances. From relentless research driven by the unique needs of an off-the-grid facility, we have learned that some conventional appliances are poorly engineered but there are high-quality alternatives to be found. A conventional appliance that failed to fit our needs in the Retreat House was a forced-air, propane-fired furnace which required an electric fan that demanded excessive amounts of electrical power. Also, the Retreat House furnace greedily consumed propane. For that reason, we recently replaced the Retreat House furnace with a baseboard hot water heating system that uses almost no electricity. Because of limited electric power draw, the new heating system can now provide heat over extended periods and thereby provide improved comfort for users of the Retreat House. The newly installed on-demand water heater in the Retreat House provides both domestic hot water and hot water heat. While the new system still does require propane, it is a much more efficient heating system than the previously installed always-on hot water heater and inefficient furnace.

## **Future Initiatives**

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

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for the hot water heating system now installed in the Retreat House (see above). According to our preliminary plan, the electric 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, propane consumption for heating could be significantly reduced.

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 renewable 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). It should be noted here that an environmentally-friendly micro-hydro system will never be able to support extreme technologies like all-electric cars. Such technologies consume massive electrical power that demand the support of eco-destructive developments such as hydro-electric dams. Also all-electric cars will increase societal dependence on the power grid and thereby increase consequences when the grid goes down. So, there are always trade-offs to consider

Ideal for SSRC would be reliable work vehicles with hybrid electric/fuel-driven engines. SSRC volunteers continue to monitor developments in vehicle technology for hybrid all-wheel-drive trucks and hybrid ATVs that might be effective replacements for some of SSRC's older vehicles. Also, there is ongoing interest in progress towards clean-burning, 100% renewable fuel options. Ideally, SSRC will have a fleet of vehicles that never need to be plugged in, and which use renewable fuels to charge batteries for extended periods of electric operation.

Both now and in the future, 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 coordinate multiple errands on each town trip. Also, we do our best in the lead-up to group retreats at SSRC to facilitate inter-communication between participants for the purpose of car-pooling.

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. An organic farmer previously in residence at SSRC 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. In

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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.

SSRC would benefit from the development of an old-fashioned produce cellar. For this purpose, analysis is underway of a large sub-floor concrete room that was built as a coincidence of construction of the Retreat House. As current access to this room is through a closet, we have nicknamed it Narnia. Development of this space would entail building stairs to *Narnia*, 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.

## 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.

While all compounded phenomena eventually meet change, the world will benefit by continuing to honour this land as a sacred place. From time immemorial, people have looked up from this place to see the landing place of the thunderbird. In contemporary time this eastern shore of Daisy Lake has been recognized as a unique ecosystem and is now protected from logging by the B.C. Government "in perpetuity" Through all of the succession of ownership and control, respect of this covenant by all future stewards of this land will sustain a quiet mountain sanctuary in which human habitation remains in balance with the forest, lake, streams, and wildlife. With the forces invoked by many ancient ceremonies, may this land covenant be enforced!

*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. A Chinese translation of this report was initiated by Yuning Chen and then edited by many native Chinese speakers to ensure the best possible wording to convey both the linguistic and technical meaning. Portuguese and Spanish translation of this plan were translated by our dear Uruguayan friend, Carlo. This version contains the updates made on Earth Day of 2026.*