

**MINUTES OF THE LASQUETI ISLAND LOCAL TRUST COMMITTEE
COMMUNITY INFORMATION MEETING ON CLIMATE CHANGE
HELD AT 6:00 PM ON THURSDAY, DECEMBER 3, 2009
AT THE LASQUETI ISLAND COMMUNITY HALL
MAIN ROAD, LASQUETI ISLAND, BC**

<u>PRESENT:</u>	Peter Luckham	Chair
	Jen Gobby	Local Trustee
	Susan Morrison	Local Trustee
	Pamela Shaw	Contract Planner and Recorder

After a 30 minute Open House the meeting began at 6:30 pm.

There were 23 members of the public in attendance.

Trustee Gobby opened the meeting.

Joseph Fall of the Advisory Planning Commission (APC) first presented on a proposed addition to the Official Community Plan which spoke to what Lasqueti Island will look like in 2029 (see Attachment #1).

Joseph then presented on the APC's Emissions Survey. This survey (see Attachment #2) asked residents to consider their use of fossil fuels and actions already being taken or supportable for reducing greenhouse gas emissions.

There was much positive discussion on the survey. To date, the survey has had about a 30% response rate, and copies are still coming in. Residential properties were targeted in the initial mail-out, but future survey work will include the businesses on the island. Joseph noted that keeping an accurate inventory can be difficult – he and his partner put serious effort into figuring out their fuel use by memory, but when they checked it against written records their recollections underestimated fuel use by about half.

There was positive discussion on initiatives that could be used to track greenhouse gas emissions. One suggestion was a log book that could be given out at no charge. A second was to use the annually-available Lasqueti calendar (this year titled "Men at Work") and have an area to the side or at the bottom of each page to record fuel consumption and several other relevant indicators.

Joseph noted that the overall "carrot" for reducing greenhouse gas emissions is financial. Decreasing your carbon footprint will save you money. There was general discussion on the amount of fuel used at False Bay School, with the current use at 90 litres per day. The Telus tower and other buildings in the area are large power users, and it may make sense to focus on these users first. A resident suggested looking back

to older technologies, including Sterling engines, and not only focusing on emerging technologies.

Salona presented on the Lasqueti Eco Transportation Society (LETS). Salona indicated that the purpose of the Society is to address transportation issues on and off the island. They are working on a number of initiatives, including the purchase of fleet vehicles that could be available to borrow for people on the island, as well as investigating the possibility of running shuttles around the island to pick up people and freight to transport to and from the ferry. The idea of community vehicles has been successfully implemented elsewhere, including Nelson and Vancouver, and there are some car share organizations that allow you to borrow cars in other cities when you are travelling. However, even before this is organized, islanders could certainly coordinate rides or even car shares among their neighbours.

One key idea is to develop a ride share on the ferry. Salona noted that people sometimes feel awkward in asking others for a ride. A website (or as someone later suggested, a simple chalkboard at the ferry) would be a way to connect drivers and passengers heading in the same direction.

Susan Wheeler noted that there were car shares on the island 30 years ago. Five families shared a truck, but the car share dissolved as people started to have different needs and needed to get to different places.

There was general discussion about insurance implications, and whether it is possible to get “no name driver” insurance that can apply to any legal driver.

Carson announced that he would be hosting a meeting on Tuesday, December 8th at the A-Frame in conjunction with the LETS meeting. He will be presenting on a plan to have a sailboat ferry between Lasqueti and Vancouver Island, beginning on days when the ferry does not run, and perhaps expanding with user demands. This would be a zero greenhouse gas emission project! Carson indicated that it would run as a non-profit and pay would be by donation. As for insurance and Coast Guard regulations, Carson indicated that it could at first be registered as a pleasure craft. Other residents suggested Carson speak to the Coast Guard, as they have been friendly in the past and willing to work with the community. A resident noted that there was a similar service in 2001.

It was noted that there is a good opportunity to compensate the Advisory Planning Commission for the survey work or perhaps to complete future inventory work, as Lasqueti will not be included in the provincial survey data. Contract Planner Shaw will follow up on this.

Discussion followed under six topics:

1. Land Use

A resident suggested that this could be a way to protect land from development, and perhaps transfer density to lands where growth would better fit with the community.

Chair Luckham addressed the issue of density transfers and land trusts, and mentioned a project on Hornby Island.

A resident noted that the idea of density transfers could be expanded to energy transfers, and perhaps putting micro hydro projects on lands that could be used to provide community energy.

Bonnie noted that there was land available next to the Teapot (26 acres for \$1.6 million), and it would be great if there was money to acquire the lands.

2. Transportation

A resident mentioned that it would be useful to have a service that delivered groceries or freight, so the great cost of transporting goods could be spread over a number of users.

The shuttle bus idea was discussed extensively. Contract Planner Shaw mentioned the “phantom bus” idea that originated on Salt Spring Island, and suggested that taking a long-time horizon to achieve a goal should be an issue that stood in the way of working toward a community vision.

The separation of trails for walkers and cyclists was widely supported. A resident noted that if a property comes up for development, a hard-surfaced trail should be a requirement or amenity. The trail could run to the north and south ends of the island, and might have to be touching on the road in places. Overall, however, the preference would be for a separate trail. A resident noted that there are the beginnings of a useful trail from Teapot Corner to the lake.

The idea of golf carts was raised, but it was noted that these may be greenhouse gas emitters if gas engines are used, and electric engines tend to be fairly weak.

An anti-idling bylaw (or even a sign) was supported.

A fee for log dumping (in a prohibitive amount, say, \$10,000) was suggested, to ensure that log dumping would no longer occur near the island.

3. **Building Design**

One resident suggested “don’t build a sieve”, and ensure that houses are airtight with high R ratings.

There was general agreement that the Official Community Plan should support a statement that looked at placing houses on sites to take advantage of passive solar.

Solar water heating was noted as a project that could be fairly easily implemented, although it was noted that the payoff often was not seen until many years down the road.

It was noted that there is no way to enforce policies or actions around building design, but education is likely the most powerful tool.

There was general discussion on setting a maximum size for a dwelling unit. Chair Luckham noted that a 4000 square foot house could have a higher R rating than a 500 square foot cottage, depending on building techniques and materials.

In general, it was suggested that residents look for ways to tighten up existing buildings. Other discussion focused on whether regulations could require people to live in their houses for specified lengths of time (as is required in Whistler). One idea (in jest) was to import squatters to live in houses; a second was to have housing swaps.

It was suggested that the Official Community Plan amendment support the development of a brochure or educational materials that would have an eco-checklist that the home builder could work through. The brochure could also contain links to eco-grants currently available, or other useful websites.

There was general agreement that “monster homes” were not in keeping with development on the island. The use of local materials is supported.

A resident suggested that there could be a local building supply store or a place to recycle building materials.

4. **Energy**

There was general discussion that this topic area, more than any other, requires education. For example, not everyone who is new to the islands knows how to properly burn firewood to minimize greenhouse gas emissions.

There was a good discussion on seasoning firewood and staying a year ahead of wood for fuel needs. This allows ample time for the wood to dry – there is a huge

opportunity here to educate people on burning. At the outset, everyone should be encouraged to double their dry wood storage area, and to use windfall for burning instead of cutting down trees.

5. Food

There is currently a community potato cooperative on the island, and there is a lot of arable and cleared land that is not being used for anything. The area around the Community Hall is one such site. Community gardens could be supported for people who do not live on lots with agricultural potential.

A resident noted that the Official Community Plan should discourage inappropriate uses on Agricultural Land Reserve lands.

The concept of a land trust for food was also discussed. A covenant could be used to protect farmland for farming. Although it might be difficult to achieve, creative ideas such as tax exemptions for garden plots should be investigated.

6. Natural Areas

Chair Luckham outlined the Natural Area Protection Tax Exemption Program (NAPTEP) requirements and spoke to the projects evolving on other islands.

A resident suggested there should be a ban on burning garbage, and slash should be used to build fish habitat instead of burning it.

There was general discussion on the conversion of engines to run on wood chips. Tractors and buses have done so in the past, and could use wood chips again.

Discussions on a Target

It was noted that the target ultimately depends on what we decide to measure. Specific targets seem to make more sense for the island, such as reducing the number of fossil fuel-burning generators.

The school was noted as a good place to start. The target could be to reduce consumption from 90 litres a day to 45 by 20___. It was agreed that the school needs a specific identifiable target.

Following that, all community buildings should be addressed first.

Ideas flowed on micro loans, bulk purchasing of solar equipment to reduce costs, adding more users to the pub's generator system (an offer was made to run a cable from the pub to the Arts Centre, and widely supported by residents in attendance).

Arranging for one barge per week (or other suggested time period) for building materials and supplies could be cheaper than everyone managing their own.

As to the number of ferries, for much of the year the ferry does not run at capacity. There was discussion that the ferries could be reduced to two per day, or perhaps a smaller vehicle could be used if it were more energy-efficient.

It was noted that BC Ferries must keep accurate records on fuel consumption and passenger trips. It would follow, then, that greenhouse gas emissions could be calculated easily. The ferry itself is a form of public transit, so any reductions could be counted in Lasqueti's favour.

Specific targets were noted as follows:

- 50% in five years for the school and hall
- 50% in five years for all generators
- X% increase in the use of solar panels by 20__
- bulk purchase of batteries resulting in x% increase in solar use

There was additional discussion on the survey and how it equates to targets. It was noted that 40% of the houses have single pane glass. This could be reduced to 20% over five years if a low-cost supply could be found.

Transportation remains an important area (probably the largest) for reducing emissions. Carpooling, a ride share stop, a sign at the mailbox saying "I need a ride to...", and the chalkboard at the ferry were all ideas discussed.

The loonie or toonie for a ride was noted. This is already in place, but most of the time the driver will not accept the money.

There is a gas station and two fuel barges. It would be useful to get information on the amount of fuel brought to the island.

There was general discussion on keeping the survey going and creating a logbook or other means of recording greenhouse gas emissions. It was suggested that a sticker could work for 2010, given that the calendar is already printed.

We need to teach each other what we know – how to improve energy production, use batteries efficiently, best utilize solar.

Overall, the approach should focus on taking actions that will make it easier and cheaper to live your life, as well as decrease your greenhouse gas footprint. Actions are

more important than the inventory. Take the approach. We are saving you time and money!

The community will want to see quantifiable goals and measures that fit with this island.

There is a lot of room for education.

Recorder

Attachment #1

Joseph Fall (of the Advisory Planning Commission) speech on incorporating greenhouse gas reduction into the Official Community Plan.

Tonight I'm going to read you an article from the Dec. 2009 edition of Our Isle and Times.

Dec. 2009 Our Isle and Times Congratulations Lasqueti – BC's first carbon-neutral postal code!

As oil climbed above the \$1000 / barrel this past year, and conflicts continue to flare up over the last precious reserves of that most fantastic energy resource, we can be very proud of our little community for weaning ourselves from dependence on fossil fuels. Of course, in making this achievement, we had a pretty big head start over other communities in the province. But hasn't it been amazing to see so many other communities modeling their own transitions on the small-scale, self-reliant sustainable energy, transportation, and local food production systems we created for ourselves right here on our beloved little island

There were many small steps that brought us to this point, starting with Lasqueti's unique geography which imposes a measure of self-reliance, and the people who settled here, who have been consistently clear about the benefits of self-reliance, and the hidden social costs associated with a car ferry, centralized electricity grid, and other infrastructure that create dependence.

But I want to look back 20 years to the Fall of 2009 when a couple of plucky young Island's Trust reps. began taking a serious look at how Lasqueti might transition from the Age of Oil. One of their first initiatives was to ask the APC to assess Lasqueti's carbon footprint. We launched a modest survey on household energy use that served as a foundation for many of the community initiatives that followed. I came across the preliminary survey results the other day, and thought it'd be interesting to look back at some of them:

- Of 150 surveys sent out, almost a third were returned as completed – a very high and encouraging response rate at the time.
- Of those who responded, an overwhelming majority expressed an interest in reducing their carbon footprint and / or learning more about ways we might transition to a post-carbon society.
- Over 95% of cabins and homes covered by the survey had at least some insulation in the ceilings and walls, but only 65% had thermal windows, and many were only partially insulated or had inefficient building envelopes.
- Every household reported wood as the primary heat source, with propane being used for heating in a small number of homes.

- Over 90% of households were also using wood to heat water, at least in winter, but surprisingly, only 40% had solar hot water systems for summer. While half were using propane to heat water.
- At that time, we burned an average of 3.5 cords of wood per household per year, with some using as much as 7 cords.
- For generating electricity, almost 80% of respondents were using a generator to meet at least part of their needs, and burning, on average, over 300 l of fuel annually. However, all but 1 respondent, nearly 100%, already had solar panels to supply at least a portion of their electrical needs. Half also used a micro-hydro water wheel and about 15% were harnessing wind energy. It's important to recall that these kinds of adoption rates for alternate energy systems were unprecedented in 2009 – while most of the world was still dreaming about harnessing renewable energy, we had been quietly and actively getting on with it for decades!
- You'll have to remember that this survey was taken before our fantastic plug-in electric hybrid bio-fuelled island shuttle service was running. At that time, over 80% of respondents owned at least one vehicle on island, and each was using an estimated average of about 400 l of fuel annually (although, the APC suspected that these and other fuel-use numbers were grossly underestimated at the time).
- Promisingly, over 65% of respondents used bicycles for at least a portion of their transportation needs, and over 85% indicated at least some interest in implementing some kind of public transportation or vehicle co-op on Lasqueti.
- Off-island was where the majority of travel-miles were used, with thousands of km racked up in personal vehicles, buses, trains, and planes. Adoption rates for public transport were generally low, but many longer-distance trips were taken on buses and trains.

One of the most interesting set of responses were related to the obstacles and impediments to reducing greenhouse gas emissions. The majority of people who responded to this question cited a lack of funds as the primary obstacle. Of course, those concerns represented a very real issue then, largely manifested by such low fuel costs at the time. But isn't it quaint from our current perspective to imagine 'saving money' by burning more fuel! Lasquetians did catalogue a host of other challenges that we've had to face over the ensuing decades, including elements of human nature and culture, like greed, selfishness, inertia, and lifestyle, along with some of our local challenges like the energy intensive grow-ops (remember when growing marijuana was illegal?!), our dependence on the ferry service, an out-of-touch government bureaucracy, and an economy dominated by big-industry and globalized corporations.

I found it amazing to look back at this humble starting point and see how it laid a foundation by beginning to identify where we could make reductions and engaging the entire community in thinking about how to make a transition to a lower-carbon lifestyle while maintaining our quality of life. In 2009 it was hard to imagine the local electric co-op that now runs the tidal plant at Johnson's Lagoon and the Finnerty wind farm, which now powers a good portion of the North end and provides community charging stations for our island shuttle service and our personal electric vehicles. And those small-scale

ultra-efficient wood burning heat/electric co-generation plants that keep many of us cozy in winter were virtually unheard of outside engineering circles.

What has struck me most were all those fears we shared about how the coming transition would reduce our quality of life. And while life is certainly different now, perhaps a little less 'convenient', it seems that we lost nothing irreplaceable, and some things have no doubt improved. With so few vehicles on the road, it is much more enjoyable to bike and walk, and I believe few of us miss those long-gone giant pot-holes and the choking dust. In fact, our road maintenance costs are so low now that the Regional District just gave us all yet another tax break last year. The expense of shipping has meant we eat more local - fresher, healthier, and mostly organic – food, and we support our friends and neighbors by buying locally produced goods and services. And who would want to go back to putting up a half dozen cords of firewood every year? Its remarkable to see how those energy efficiency retrofits we all did back then have so easily paid for themselves over the decades, not least in saved trips to out to the woodshed in the pouring rain!

I'll finish with a couple of quotes to give a small sample of the many interesting and thoughtful written responses we received:

"I am setting up a large gravity fed rain water catchments so we don't need gas powered pumps for water. Our alt. energy system is small and humble, but we haven't run a generator in over a year."

"Hitchhike regularly on island – thanks to everyone who gives me rides, it helps me, the planet, lessens the road dust and promotes community feeling. I let the sheep do most of my lawn mowing."

In these and the many other responses to the survey, it is easy to see the seeds of change that were sown all those years ago. And equally clear how Lasqueti made the transition so relatively painlessly - the ethic of self-reliance, frugality, and conservation, along with the open minds and creative energy were here all along.

Attachment #2

Lasqueti Green House Gas Emissions Survey

Climate change and peak oil are both looming issues with the potential for big impacts on Lasqueti. Recognizing that Lasquetians tend to have a strong conservation ethic and a generally frugal mindset, we would like to be proactive in dealing with some of the coming changes in our own uniquely Lasqueti way. If these issues are important to you and you care about what's happening locally, please take a few minutes here and make a small step toward being part of the solution.

Jen and Susan (our faithful LTC reps) have asked us (the Advisory Planning Commission) to try to assess how and to what extent Lasquetians are creating GHG emissions, and then to discuss ideas for ways to encourage emissions reduction. .

The major GHGs, ranked according to their contribution to climate change, are water vapor (36–72%), carbon dioxide (9–26%), methane (4–9%) and ozone (3–7%) (from http://en.wikipedia.org/wiki/Greenhouse_gas).

Carbon dioxide is the gas we can most easily limit. It is produced when we burn fuels, especially fossil fuels. Methane is produced from rotting biomass (much of it from landfills) and flatulence (much of it from livestock).

Our main personal contributors to GHG emissions are: Food production and Food Transport, Household Energy Consumption, Personal Transportation, and Waste. We have decided however, for the sake of length and comparability to other emission inventories in BC, to focus this survey on Household Energy and Transportation.

In addition to climate change, peak oil – the point at which production of oil and gas declines, their cost increases, and they become less available – is almost certainly upon us (from http://en.wikipedia.org/wiki/Peak_oil). Given Lasqueti's current level of dependence on fossil fuels, this is an issue of relevance and concern for us all.

Attached is a survey that will help us establish a set of baseline information about where our community is at. According to recent emissions inventories, the average B.C. resident currently emits 4.5 tons/year of CO₂ – the average Gulf Islander emits 9 tons/year!!! Ever wonder how Lasquetians fare?

The information we get from this survey will be useful in focusing community effort, and could lead to individual, neighbourhood and community energy efficiency, fossil fuel reductions, and possibly funding for infrastructure and improvement. It can also be used again in future years to measure our increase or decrease in emissions. We want your ideas about how we can position ourselves to best meet the challenges presented by reduced fossil fuel use, both for GHG reduction and in anticipation of peak oil.

Please complete one survey for each household, and return it to a mailbox or the post office by Friday November 6th. There is no need to put your name or other identifying information. Please be as complete as possible in your answers.

On behalf of the Advisory Planning Commission,
Thank you for your help – it's a big problem and this is a small step.
From, Peter J, Pachel, Su K, Joseph, Wayne and Jack B

Survey

Household and Homesite:

What size is your house?	<input type="checkbox"/> under 500 sq. ft <input type="checkbox"/> 500 to 1500 sq ft <input type="checkbox"/> over 1500 sq ft
How many buildings, in addition to your house, do you heat and provide electricity for?	_____
How many people in your household?	_____ adults _____ children (under 16)
How well is your house insulated?	<input type="checkbox"/> Walls are insulated <input type="checkbox"/> Ceiling / Roof is insulated <input type="checkbox"/> Floors are insulated <input type="checkbox"/> Thermal / 2-pane windows

Household Energy Use:

What fuels do you use in your home and outbuildings? (Circle all that apply)	<u>Heat:</u> electric, wood, propane, other <u>Light:</u> electric, wood, propane, kerosene, candles, other <u>Hot Water:</u> electric, wood, propane, solar, other <u>Other:</u>
How much fuel do you use annually for heating your home and outbuildings? (Please try to estimate all fuel use numbers as accurately as possible.)	_____ litres gasoline _____ litres diesel _____ liters or pounds propane _____ cords of firewood _____ other
Do you ever run a generator?	<input type="checkbox"/> Yes <input type="checkbox"/> No
If Yes, how much fuel to you use annually in your generator?	_____ litres gasoline / diesel / propane (please circle fuel type)

<p>How much fuel do you use annually for all other household uses (e.g, cooking, gas-power tools, etc., but not including heat, generated electricity, or transportation)?</p>	<p>____ litres gasoline ____ litres diesel ____ liters or pounds propane ____ cords of firewood</p>
<p>Do you use alternate energy to meet some of your energy needs? (Please provide capacity for each system, if known, and the units, watts or volts and amps).</p>	<p>solar panels & battery bank _____ capacity (watts or volts & amps). _____ # of panels <input type="checkbox"/> inverter to provide AC _____ capacity (watts or volts & amps) <input type="checkbox"/> micro hydro/water wheel _____ capacity (watts or volts & amps) _____ months of operation per year <input type="checkbox"/> wind turbine/generator _____ capacity (watts or volts & amps) _____ months of operation per year</p>

On-Island Transportation: What vehicles do you have and use *on Lasqueti*?

Please indicate the number of vehicles	Please indicate the fuel types
<input type="checkbox"/> large truck or van	gasoline deisel propane other
<input type="checkbox"/> compact truck, van or car	gasoline deisel propane other
<input type="checkbox"/> motorcycle or scooter	gasoline diesel electric other
<input type="checkbox"/> boat	gasoline diesel electric sail
<input type="checkbox"/> bicycle	electric other
<input type="checkbox"/> other	

<p>How many litres of fuel do you use each year for your transportation on Lasqueti? (Please try to estimate as accurately as possible.)</p>	<p>____ litres gasoline ____ litres diesel ____ liters or pounds propane ____ other</p>
--	--

Do you haul your own fuel from the other side? How much?	_____ litres gasoline _____ litres diesel _____ liters or pounds propane _____ other
Would you be interested in / use some form of public transit or vehicle co-op or ride sharing on Lasqueti?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Maybe

Off Lasqueti transportation:

Do you use public transit?	<input type="checkbox"/> Regularly <input type="checkbox"/> Often <input type="checkbox"/> Occasionally <input type="checkbox"/> Never
Please estimate the number of kilometers you travel and / OR the number of litres of fuel you use for travel off-island each year. (Again – please try to provide an accurate estimate.)	_____ by Vehicle _____ by Boat _____ by Bus _____ by Train _____ by Airplane

General: (please use available space or a separate sheet of paper to answer these questions)

Are you interested in reducing your personal and household GHG emissions

What obstacles or impediments do you see to reducing GHG emissions?

Do you have any ideas or suggestions around the topics of climate change or peak oil?

Would you like more information?

Are you interested in attending workshops or otherwise learning more on energy efficiency, reduction or other related topics? What topics especially?

Do you have ideas for projects, etc. to reduce GHG emissions, or improve quality of life or energy efficiency?

How can we encourage or help you?

Do you have any questions about climate change or peak oil?

Please include any other information that you think will be important or useful. Thank you for your help and participation.