



# GOVERNMENT SERVICES COMMITTEE

MONDAY, APRIL 15, 2013

5:30 P.M.

COUNCIL CHAMBERS, CITY HALL

410 ESPLANADE

*Mandate – To advise Council on a broad spectrum of issues related to departmental matters*

Page

COUNCILLOR GORD HORTH, CHAIR

## CALL TO ORDER

### 1. AGENDA APPROVAL

### 2. MINUTES

2.1. Minutes of the Government Services Committee Meeting held March 18, 2013 3-5

### 3. DELEGATION

3.1. Cara Light, Ruth Dougan– Hayes, Stewart, Little (Town Auditors)  
Presentation of Town of Ladysmith 2012 Audited Financial Statements

### 4. REPORTS

4.1. City Manager's Report 6-8

4.2. Telus Proposal – Monopole at 11 Roberts Street 9-37

4.3. Memorial Initiatives for Jaedyn Amann-Hicks 38-39

4.4. Building Inspector's Report – March 2013 40

4.5. Trolley Report – March 2013 41

4.6. Fire Chief's Report – March 2013 42

4.7. Coastal Animal Control Services – March 2013 Pound Report 43-45

4.8. Ladysmith Chamber of Commerce Visitor Centre Report – March 2013 46-47

### 5. COUNCIL SUBMISSIONS

**6. CORRESPONDENCE****6.1. Norm and Linda Watts  
Backyard Hens**

48

For the Committee's information, the Town's Animal and Poultry Control Bylaw 1136 does not permit poultry on any Town property smaller than two acres.

Council considered a staff report on amending the Animal and Poultry Control bylaw to permit hens in back yards in 2010, and the matter was raised with the public at Council's Town Hall meeting in July 2011. After consideration of priorities, Council has not included this initiative in its work plan for 2012 or 2013.

Staff Recommendation

That the Committee recommend that Council advise Norm and Linda Watts, in response to their correspondence received April 3, 2013, that Council has considered this matter previously, and amending Bylaw 1136 to permit hens in backyards in the Town of Ladysmith is not on Council's current work plan.

**7. NEW BUSINESS****8. UNFINISHED BUSINESS****ADJOURNMENT**



**TOWN OF LADYSMITH**  
**MINUTES OF A REGULAR SESSION OF**  
**THE GOVERNMENT SERVICES COMMITTEE**  
**MONDAY, MARCH 18, 2013**  
**5:00 P.M.**

**COUNCIL MEMBERS PRESENT:**

Councillor Gord Horth (Chair)  
Councillor Jillian Dashwood  
Councillor Glenda Patterson

Councillor Steve Arnett  
Mayor Rob Hutchins

Councillor Bill Drysdale  
Councillor Duck Paterson

**STAFF PRESENT:**

Ruth Malli  
Sandy Bowden

Felicity Adams  
John Manson

Erin Anderson  
Joanna Winter

**CALL TO ORDER**

Councillor Horth called the Government Services Committee meeting to order at 5:00 p.m.

**AGENDA APPROVAL**

- GS 2013-30** It was moved, seconded and carried that the agenda for the Government Services Committee meeting of February 18, 2013 be adopted with the following additions:
- 4.7.1 Discover Vancouver Island Magazine
  - 6.1 Directional Signage
  - 6.2 Zoning – Rooming Houses
  - 6.3 Pool Fees
  - 6.4 Alleys
  - 7.1 Dunsmuir Railway Car

**MINUTES**

- GS 2013-31** It was moved, seconded and carried that the minutes of the Government Services Committee meeting held February 18, 2013 be adopted as circulated.

**DELEGATIONS**

**Cliff Fisher, Cathleen McMahon, Ladysmith Maritime Society  
Ladysmith Maritime Festivals for 2013**

C. Fisher and C. McMahon provided details of three separate, one-day maritime festivals planned for 2013 to replace the three-day Ladysmith Maritime Festival. The Ladysmith Seafood Festival will take place on May 19, 2013; the Ladysmith Kids' Pirate Day will be June 1, and the Ladysmith Maritime Heritage Day will take place on June 8, 2013.

C. Fisher and C. McMahon requested consideration of grants-in-aid

applications to support the festivals, as well as use of any available space at the Machine Shop during event preparations.

Council expressed strong support for the proposed festivals and thanked the Ladysmith Maritime Society for its ongoing commitment to celebrating our marine heritage and bringing visitors to the community.

## REPORTS

### City Manager's Report

The City Manager responded to questions about her report and provided additional information to Council on a proposed update to the waterfront area plan and the new electric vehicle charging station on First Avenue.

**GS 2013-32** **Amendments to the Purchasing Policy**  
It was moved, seconded and carried that the Committee recommend to Council that the Purchasing Policy be amended as presented.

**GS 2013-33** **Building Inspector's Report - February 2013**  
It was moved, seconded and carried that the Building Inspector's Report for February 2013 be received.

**GS 2013-34** **Trolley Report - February 2013**  
It was moved, seconded and carried that the Trolley Report for February 2013 be received.

**GS 2013-35** **Fire Chief's Report - February 2013**  
It was moved, seconded and carried that the Fire Chief's Report for February 2013 be received.

**GS 2013-36** **Coastal Animal Control Services - February Pound Report**  
It was moved, seconded and carried that the Coastal Animal Control Services Pound Report for February 2013 be received.

**GS 2013-37** **Ladysmith Chamber of Commerce Visitor Centre Report**  
It was moved, seconded and carried that the report from the Ladysmith Visitor Centre for February 2013 be received.

It was suggested that a correction be submitted to Discover Vancouver island magazine pointing out that the photo captioned 'Cowichan waterfront' is actually a photo of Transfer Beach

## NEW BUSINESS

### Directional Signage

Councillor Horth was requested to ensure that the Ladysmith Downtown Business Association include other organizations such

as the Chamber of Commerce and the Ladysmith Heritage Revitalization Advisory Commission, as well as staff, in discussions about signage, and that such discussions include consideration of directional signage as well as sandwich boards.

#### **Zoning – Rooming Houses**

Councillor Dashwood was advised that the zoning of small residential businesses targeted at seniors has been noted during the current zoning bylaw review. .

#### **Pool Fees**

Staff were requested to determine the feasibility of offering annual family passes for the Frank Jameson Community Centre facilities.

#### **Alleys**

Staff were requested to address the potholes in Town alleys, particularly behind the Eagles Hall and in the vicinity of Telfords Mortuary.

### **UNFINISHED BUSINESS**

#### **Dunsmuir's Railway Car**

Councillor Arnett was advised that staff have been working with the proponents of bringing the Dunsmuir Parlor Car to Ladysmith and that recommendations will be coming forward to Council in the near future.

GS 2013-38

It was moved, seconded and carried that the Committee recommend that Council write a letter to the Port Alberni Industrial Heritage Society expressing Council's support for acquiring the Dunsmuir Parlor Car and its commitment to endeavouring to find an appropriate home for it.

### **ADJOURNMENT**

GS 2013-39

It was moved, seconded and carried that this meeting of the Government Services Committee be adjourned at 6:21 p.m.

**CERTIFIED CORRECT**

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Chair (Councillor G. Horth)

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Corporate Officer (S. Bowden)



# City Manager's Report

April 2013

This monthly report is from the City Manager to the Government Services Committee. The report highlights the prior month's activities and provides information on the progress of Council objectives for the year. A written report and public discussion supports the goal of transparent communication with our citizens.

Council has provided staff with direction on their top priorities for 2013. There are operational and additional priorities in addition to this list. Again, this report provides highlights, not a complete list of activities. Committee members are encouraged to ask questions or suggest information that they wish to be included in the report.

Respectfully submitted, Ruth Malli, City Manager

## **Highlights for the month of March 2013:**

### **Funding application completed:**

- Completed the Carbon Action Grant report and received \$10,163

### **Other completed activities:**

- Completed the 2012 Financial Statements. Currently under audit review.
- Underwent an HST audit
- Preparation for the transition back to PST
- Executed the lease agreement on the new Rescue Apparatus (Fire Truck)
- Hired two temporary seasonal employees in Parks Department; Manager of Operations; and Director of Parks, Recreation and Culture
- Community 2 Community Workshop
- Dynamic Downtowns Community Workshop
- Naut' sa mawt Steering Committee meeting
- Received two Revitalization applications

### **Highlights of projects in progress this month:**

- Financial Plan 2013-2017 (4-5% tax increase target)
- Stz'uminus First Nation - draft agreement for servicing
- Lease -Senior Centre Society
- Information Technology Report-draft completed
- Liquid Waste Management Report sent to Minister
- BC Transit transition to new service
- Database updates
- Emergency Services personal preparedness
- District Energy investigation
- Relocation of soil at Sewage Treatment Plant Site
- Prepare RFP for Water Upgrades at Pub. Works.
- Electric Charging Station operational
- Aggie Hall upgrades (grant program)
- 7 Council and committee meetings
- Zoning Bylaw project
- Christie Road rezoning process
- Council to Council meeting with SFN
- Year-end-auditors arrived in March
- Stage III Sewage Treatment Pre-Design
- Chlorination Upgrade Design
- Transition to PST from HST on April 1<sup>st</sup>.
- RCMP contract changes (special meeting March 11)
- Community Sustainability Implementation Plan
- Review of telephone plans
- Service Extension Policy draft

### **COMING UP NEXT MONTH!**

Presentation of the audited Financial Statement  
Financial Plan discussions and decisions

## City Manager Report-April 2013

### Active, Researching and Emerging Projects

Council has identified “Community Resiliency” as the primary focus for 2013 and has chosen a specific list of top priorities for the year. This approach represents a shift in the organization – the way to achieve this objective within the existing budget is to ensure that the Town’s resources (staff and funding) are directly aligned with the new priorities.

Council will support maintaining the focus (by directing what must be done and what can be put aside for now). Council has also directed that they have a medium level of risk tolerance, indicating support for creative approaches and an expectation of good value and common sense rather than perfection.

This requires strong organizational focus – staff must be clear on what is expected of them; projects/processes that do not support the top priorities will need to be stopped, delayed or deferred;

In order to ensure strong alignment, each of the new priorities must be integrated within the Financial Plan, identified as a top priority in departmental work plans, and sufficiently resourced. The Financial Plan process is a focus of the next couple of months.

#### Example of some of the current projects:

Active (in progress, resources assigned)	Researching (resources pending)	Emerging (not resourced)
Infrastructure Upgrades (WWTP & Water)	Infrastructure upgrades-city hall, fire hall	Asset management and pavement management system
Land Sales-immediate	Land sales-other	Land acquisition and disposition-other
Zoning Bylaw	Waterfront Area Plan	Holland Creek Area Plan
Liquid Waste Management Plan	Partnership with CVRD-composting	District Energy System
Sustainability Implementation Plan	Implement Plan, such as DCC’s low water use and other incentives	Implement Energy Plan
Information Services Strategic Plan	Implement new IT systems	Technology upgrades (hardware)
Organizational Review	Lean systems	Risk analysis and business case
Payroll Systems Streamline	Succession Plan	Staff surveys and 360 reviews
Financial Plan	Equipment reserve fund review	25 year financial plan
Naut’sa mawt Steering Committee and draft servicing agreement	SFN servicing connection	Servicing to IR 13
Boundary expansion	Boundary expansion land and servicing plans	Boundary expansion processing and servicing
Waterfront (DL 2016, Environmental Report)	DL 651 clean up-partnerships	Marine Park and small craft launch
Connector bike routes	Downtown parking	Downtown safety issues
Heritage Brochure/Tourism maps	Blue Highway signage	Heritage Façade-painting program
EOC Training-corporate	Community EOC training	Community emergency exercise
Commissions and committees; Mayors open Door	Citizen surveys	Enhance citizen engagement-electronic and other
Parks-Wickham and dog park	Gourlay Janes Park	Ball fields at Lot 108

*It is not enough to have good ideas, results come from the implementation of good ideas and that requires focus and resource allocation.*

## City Manager Report-April 2013

### TOP PRIORITIES OF COUNCIL-STATUS

Priority	Funded in Financial Plan?	In current workplans?	Resourced with staff?	Comments
Sewer Capital	Yes	Yes	Partially	Largest project in Towns' history
Water Capital	Yes	Yes	Partially	Project includes energy generation potential
Economic Development	Partially	No (new work to be defined)	No	Meetings with key stakeholders to define scope of work
Waterfront Area Plan	Grant potential	No	Partially	Zoning bylaw is underway; grant funding will likely be required to complete the waterfront plan. The process will likely commence in the late fall.
Boundary Expansion	No	Yes	Partially	Staff working with applicant
Stz'uminus First Nation-partnerships & servicing	Yes	Yes	Partially	Significant progress made on agreements; implementation will create much additional work. Grant funding announced.
Organizational Streamlining	Yes	Yes	No	Subject to budget approval
Business Case / Risk Analysis Protocols	No	Yes	No	Will be undertaken when back to full staff levels
Inventory all plans-Zoning underway	Yes	Yes	Yes	Funding for Zoning Bylaw in 2012-funding not in place for subsequent bylaws
Succession Plan	Partially	Yes	Partially	Currently included in operational duties of HR Manager –on hold until back to full staff levels
Technology Upgrade	Partially	Yes	Partially	Strategic Plan is funded, implementation is not funded or resourced
Citizen/Staff Surveys	No	No	No	Project cancelled during budget deliberations
Reporting System	Yes	Yes	Partially	Subject to budget approval





Town of Ladysmith  
**STAFF REPORT**

To: Ruth Malli, City Manager  
From: Felicity Adams, Director of Development Services  
Date: April 3, 2013  
File No: 6675-20

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Re: TELUS PROPOSAL - 11 ROBERTS STREET (BC2627)

RECOMMENDATION(S):

That the Government Services Committee recommend that Council:

- a) consider whether it concurs with the installation of a 14.9 metre tall telecommunications facility at the TELUS central office located at 11 Roberts Street, at siting option C (monopole located on the east side and partially screened by the TELUS building and the equipment contained in the existing garage).
- b) ratify the Government Services Committee recommendation [(a) above] at tonight's regular Council meeting.

PURPOSE:

This report is a follow-up report as requested by Council.

INTRODUCTION/BACKGROUND:

At its meeting held March 4, 2013, Council provided the following direction.

*That the installation of a 14.9 metre tall telecommunications facility at the TELUS central office located at 11 Roberts Street be referred to staff to explore alternative locations and report back to the Committee at the earliest opportunity.*

SCOPE OF WORK:

The following information was provided by TELUS as requested by Council.

*The RF (Radio Frequency) Engineer at TELUS reviewed the sites that were suggested, in light of their objectives for improving capacity within the downtown core, and provided the following comments:*

*Aggie Park - too far north and would not work  
Public Works - too far south and would not work  
Fire Department - too far south and would not work*

*Little League Ball Field – could potentially work but it is closer to residential areas and may not be favored by community since it is used for children’s recreation purposes.*

*In our opinion, the TELUS CO site is a better location from a land-use perspective since it has historically been used for telecommunication purposes and is in an area with less residential density.*

Attached to this report is an RF Coverage Plot provided by TELUS showing how the current proposal (BC2627) will improve coverage within the downtown core. As well, TELUS has provided a coverage plot for BC0511 which is an existing site located within the BC Hydro R/W that would provide coverage to those areas identified for future growth (close to the Fire Department and Public Works Yard).

In addition, staff has recently received an information package regarding a proposed Rogers Telecommunications Facility at 4300 Thicke Road. While TELUS would be co-locating with Rogers on this proposed new facility, at the request of staff, Rogers has confirmed that this location would improve TELUS service along the Island Highway but will not improve TELUS service to the downtown area.

ALTERNATIVES:

That Council provide any further input for the consideration of TELUS.

FINANCIAL IMPLICATIONS: None.

LEGAL IMPLICATIONS:

Telecommunications facilities are federally regulated. The Town has limited influence on the siting of these facilities. The identification of community sensitive locations for the telecommunication industry provides the opportunity to mitigate the impact from the siting of facilities before they are established.

CITIZEN/PUBLIC RELATIONS IMPLICATIONS:

At its meeting held January 10, 2013, the Heritage Revitalization Advisory Commission (HRAC) received a presentation about the proposal. Three siting options were provided for the tower and ancillary equipment cabinets, including alternatives with reduced visibility from the street, retention of the existing garage, and retention of the mature tree on the site. HRAC members reviewed the siting options and sample visual impact photos.

The Heritage Revitalization Advisory Commission provided the following recommendations to Council for the proposed TELUS Monopole Tower at 11 Roberts Street:

1. That the tower be located at Siting Option C;
2. That the tower be painted dark green to reduce visual impact; and,
3. That TELUS also consult with the surrounding neighbours.



TELUS has provided a courtesy consultation notice to residents within 45 metres of the proposed facility (the distance required by Industry Canada) and also to the Ladysmith Chamber of Commerce and to the Ladysmith Downtown Business Association. At the time of writing this report the TELUS consultant had not received any questions or responses from the Notification.

For Council's information, one letter from a Ladysmith resident was received by email regarding health impacts (attached). TELUS advises that all carries are required to follow the guidelines established by Health Canada's Safety Code 6. Attached is a brochure that Health Canada has produced, as well as statement from Vancouver's Chief Medical Officer.

INTERDEPARTMENTAL INVOLVEMENT/IMPLICATIONS: None.

RESOURCE IMPLICATIONS: None.

ALIGNMENT WITH SUSTAINABILITY VISIONING REPORT:

A "local diverse economy" is a strategy 5 of the Sustainability Strategy.

ALIGNMENT WITH STRATEGIC PRIORITIES:

The Guidelines support the strategic direction of *Effective Land Use Planning & Community Design* and the addition of new telecommunications facilities supports the strategic direction of *Dynamic Economic Development*.

SUMMARY:

TELUS is proposing to site a 14.9 metre monopole style telecommunications facility at its site on 11 Roberts Street. Industry Canada is the approval authority.

I concur with the recommendation.

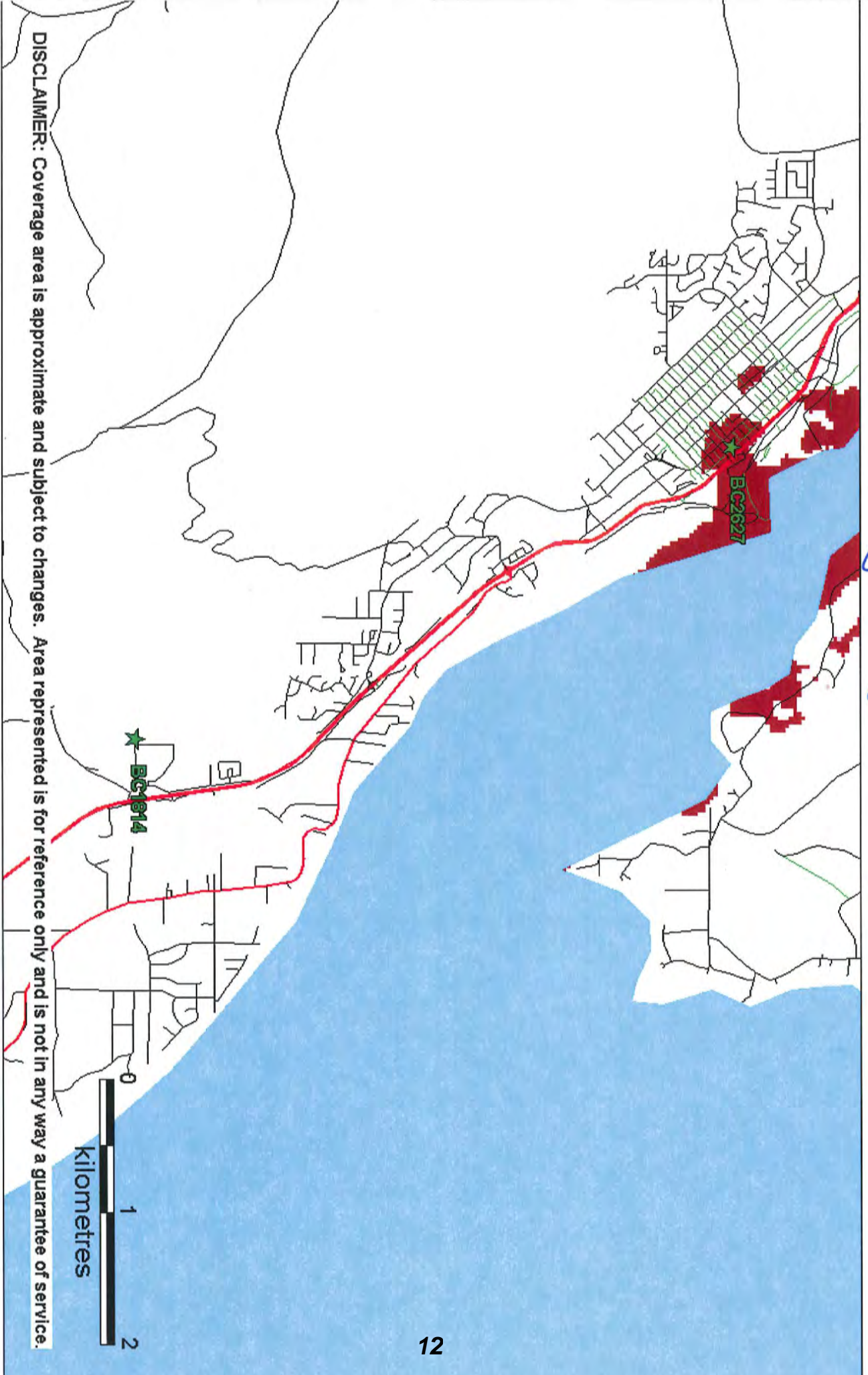


Ruth Malli, City Manager

ATTACHMENTS:

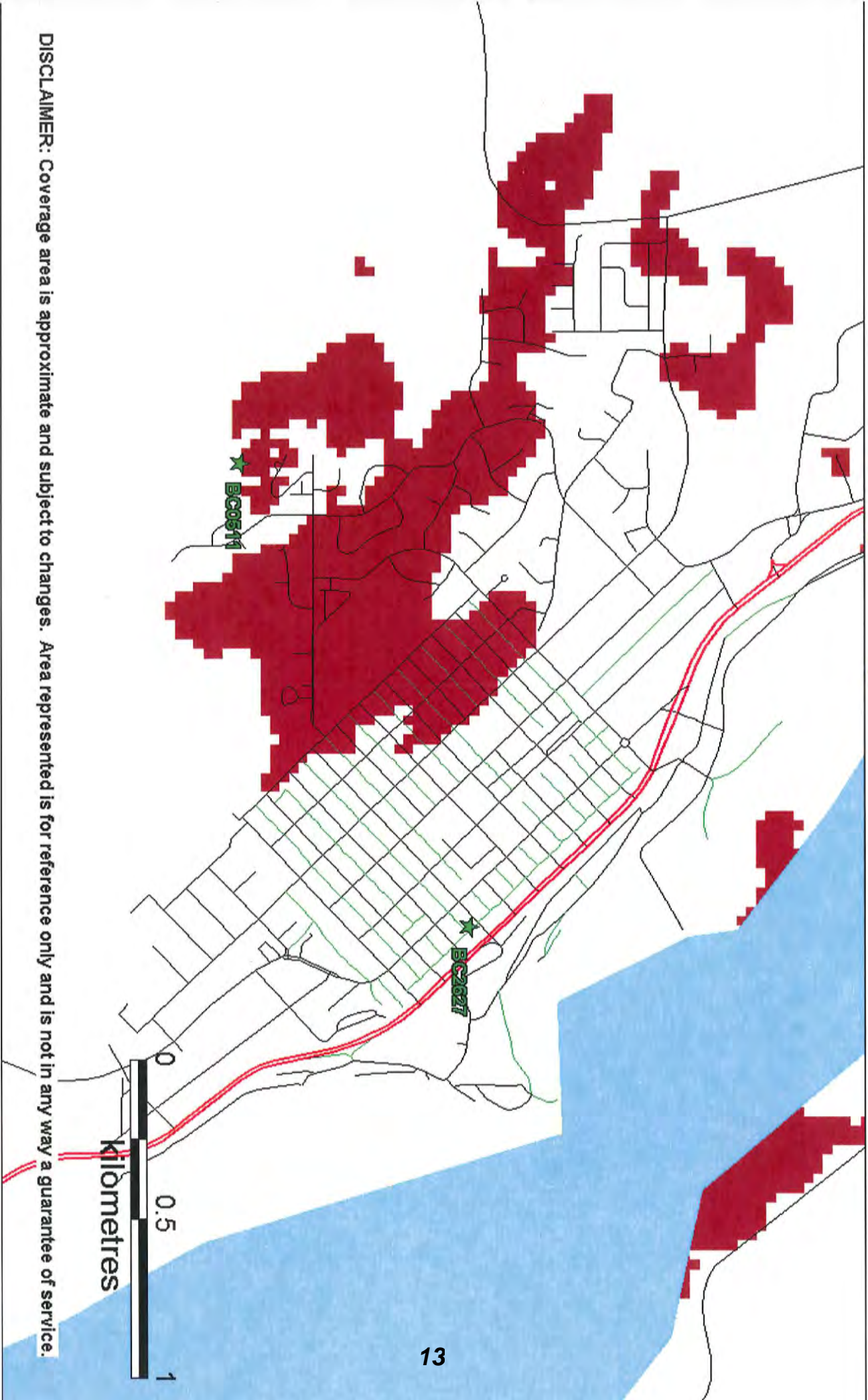
RF Coverage Plot (2)  
Letter from Dr. Henny Vogelzang  
Health Canada Safety Code 6 brochure  
Statement of the Chief Medical Health Officer

*Radiofrequency Coverage Plot - Proposed Site.*



DISCLAIMER: Coverage area is approximate and subject to changes. Area represented is for reference only and is not in any way a guarantee of service.

Radio Frequency Coverage Plot - Existing Site in Hydro Right-of-Way



DISCLAIMER: Coverage area is approximate and subject to changes. Area represented is for reference only and is not in any way a guarantee of service.

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**Dr. Henny Vogelzang**  
**PO Box 490**  
**209 Rigby Place**  
**Ladysmith BC Canada**  
**V9G 1A4**  
**(250)245-3831**  
**[drhenny@gmail.com](mailto:drhenny@gmail.com)**

March 4, 2013

Dear Ladysmith Town Council and local citizens of Ladysmith,

Re: Cell phone tower in Ladysmith

I was surprised to see that there have been discussions on where to put a cell tower in Ladysmith, when really the only answer is "on the mountains", and away from people. In fact I was very surprised that "health" issues were not brought up in the Chronicle article.

So I started several discussions (on this topic) around town with various people and I find that on the whole, most people think wireless technology is safe for us. This made me think that perhaps the information is not readily available and possibly not in any language used by most of us. It seems that I was right, the information is available, but on scholar sites on the internet, and usually written in what I call "science talk".

So I downloaded 583 pages of abstracts on the effects of wireless technology from cell phones to smart meters and including cell phone towers. Now to be fair, that is a very diverse set of parameters to lump into one group, but most of us will be affected by all of them shortly, and in tandem. The studies are most frequently done for one of those parameters and usually not on people. It is hard to do a scientific study on humans for a long term, we simply live too varied lifestyles.

I have diligently read well over 1200 research abstracts, with highlighter and pen, indicating "good", "bad" or "unremarkable" in the columns. I will continue until I am through. However, I find scientific research quite dull and likely I won't finish all the downloaded abstracts before that cell tower issue is decided, so I have to throw myself into the discussion even though I am probably not ready to be "an expert" on the topic. I doubt I ever will be.

This is what I can do, from my reading. I can bring these science abstracts down to real people language so regular people who really do not have the time or inclination to read so much information can sit back and just "get the concept" anyway.

In my readings it appears that ELF (extremely low frequency) radiation and LF (low frequency) radiation and MW (microwaves) will cause a change in the calcium transport of human cell membranes. This will affect how your nervous system works (pain and fatigue, depression and/or anxiety).

Microwaves will also cause a thing called lipid per-oxidation. Not helpful, right? Okay, when the body is radiated with microwave radiation, it is put under stress and has a physical reaction to it, which is measured by scientific means. (protein damage etc). That damage is reversible if exposed for a short time (72 hours), providing the animal or human takes "antioxidants" (such as Vitamin C and E etc.). Healthy bodies will suffer much less consequence than sick people. Here is the catch, **people under "oxidative stress" will have their problems worsen significantly. Microwave radiation acts like an amplifier for conditions of oxidative stress.** People under oxidative stress would be anyone with an illness, arthritis, Alzheimer's, multiple sclerosis, fibromyalgia, autism, depression, anxiety, cancer, chronic fatigue, psoriasis, pneumonia, liver disease, celiac disease, colitis, migraines, eczema and just plain ageing.....well you get my point. Oxidative stress is any condition where the body is stressed. So, all conditions will be worsened by amplification via microwave radiation. Study after study showed this, with snails, rats, mice, guinea pigs and people. **This seems to be an undisputed fact.** However, so far NOBODY has figured out why but all the science proves it happens.

Microwave radiation breaks DNA strands. **This is undisputed.** They don't know how yet, but it happens. The main idea is it is caused by "oxidative stress". (ah...that term again). When DNA strands break, a cell will do things it was not originally intended to do. An example of this might be cancer, but it might also be diabetes, or altered liver function. DNA is the blueprint of a cell and when the blueprint alters, you get different results. Do we want our DNA altered bit by bit? What if it is an important cell, like that of a pregnant mother with a developing fetus inside her? Studies showed that less than an hour of exposure can cause DNA breakdown.

The other thing that showed up in the research is that the young and the elderly are more sensitive to microwave radiation. Well the elderly would be obvious (oxidative stress) but the young are apparently more affected because their brains are still developing and it seems to affect their blood brain barrier (lipid per-oxidation) and the mitochondria (battery pack in each cell). This makes them vulnerable to environmental toxins. Certain areas of the brain are more vulnerable (hippocampus, hypothalamus, pituitary etc.), and I could throw all sorts of anatomical terms out, but really, isn't our whole brain important to us? Behavioural problems are noted in young animals exposed to microwaves. That was snails, rats, mice, guinea pigs and yes, human children. Schools with cell towers on them have noted increases of behavioural issues and when the cell towers were removed, the behaviours improved to a significant level.

Now I could go on, and on, but it seems to me that those three issues alone would be very good reasons NOT to put a cell tower directly across from our Transfer beach playground and where so many people go to remove stress. Moving it to 3<sup>rd</sup> Ave would be equally crazy because there is an intermediate school there and our children are our community's future. Putting it on 6<sup>th</sup> Avenue is even worse, because we have an elementary school, a high school and a community center there, which will actually affect even more people. I don't want a cell tower near me. I am sure nobody wants that thing near them, knowing it will amplify any illness they might have. Imagine amplifying a cancer growth that you don't even know you have yet. Nobody wants that.

With all good conscience, you should not allow a cell tower in any populated area of Ladysmith. Cell towers need to be away from people, in mountains, where they do no major harm.

I know Telus (and Rogers) will say "there is no proof, because the studies are non-specific to their level of radiation or frequencies. If we had to do exact studies for exact microwaves, for large numbers of people in double blind studies, it would take 200 years to complete those studies to the satisfaction of the industry.

Health Canada has in the past allowed smoking, asbestos, fluoride, mercury in childhood vaccines, broad use of antibiotics on farms, and I could go on and on. Only when these issues are forced on the 'human guinea pig', do

the real results come out and then Health Canada will take a stand to reverse the damage. Health Canada rarely takes a preventative stand so we should not take their guidance on this issue.

I was speaking to several of the medical doctors and health practitioners in Ladysmith about this. They also were amazed that you would even consider putting such a tower in a populated area. I am prepared to start a petition for signatures of the health practitioners of Ladysmith suggesting you place this tower much further out of town, if you require this.

I ask you, do we want to experiment on our children? I surely do not. Let us be strong and keep the cell towers out of Ladysmith.

Yours truly,

Dr. Henny Vogelzang.

CC Ladysmith Chronicle- editor

I am sharing this letter with several interested citizens and give anyone the right to copy it and share it with citizens who might be concerned about this cell tower being in town.

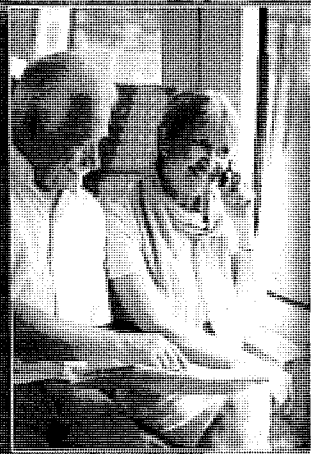
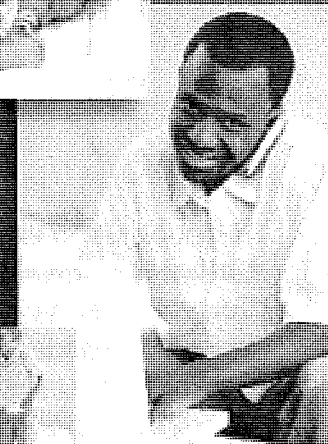




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of Canada

Gouvernement  
du Canada

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# Wireless Communication and Health

An Overview

Canada

This publication is available upon request in accessible formats. Contact:

**Multimedia Services Section**

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This publication is also available online in HTML at

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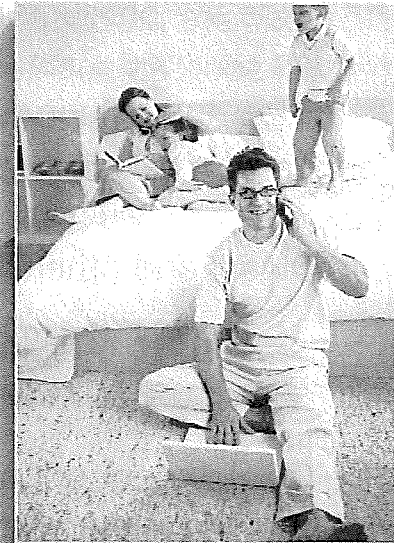
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60628

Aussi offert en français sous le titre

Les communications sans fil et la santé **18** Un aperçu.

# A quick summary



## ■ What is the purpose of this handbook?

Wireless communications play an integral role in Canadian society. Millions of Canadians now use cellphones in their daily lives and nearly all Canadians use some sort of wireless device daily. For Canadian society to benefit from wireless technologies, including television and radio that entertain and inform us, all Canadians experience low levels of exposure to radiofrequency (RF) fields. This handbook describes what is known about the potential health risks from these fields. It also describes how the Government of Canada protects Canadians from excessive RF exposure.

## ■ What are radiofrequency fields and what do they have to do with cellphones?

When you, a friend or family member use a cellphone or any other wireless communications device, the information (voice, video, pictures, text message, email etc.) is carried through the air using RF fields from its antenna. A nearby outdoor antenna receives the information and responds in the very same way.

RF fields are produced by a variety of sources. In fact, even natural sources such as the sun and the earth emit low-level RF fields. In addition to cellphones, RF fields are used by baby monitors, cordless phones and various other consumer items in your home. As well, certain non-wireless devices, including computers and other digital devices, also emit RF fields.

### **How does the Government of Canada control public exposure to radiofrequency fields?**

The Government of Canada has determined that there is no clear evidence that the use of wireless communications devices, including cellphones and their networks, is dangerous for human health provided its RF exposure guidelines are respected. The government has set exposure limits based on its knowledge of the effects of RF fields.

### **What are the health effects of radiofrequency fields?**

Scientists have been studying the potential health effects of RF fields for decades. RF fields, no matter the source, can cause heating which can be harmful if uncontrolled. However, heating can also be very useful when used in devices that are properly designed: microwave ovens, for example, safely heat your food using RF. Scientists also know how much heat the human body can safely handle when exposed to the sun, RF or any other source. Based on this information, the Government of Canada has established RF field exposure guidelines.

## Are there other effects?

Physical changes that do not involve heating are called non-thermal effects. The Government of Canada keeps current with research on these effects and asked an independent expert group (the Royal Society of Canada) to evaluate the scientific evidence on non-thermal effects of RF fields. The consensus of experts both in Canada and around the world is that there is no clear evidence of harm to human health from any of the known non-thermal effects of RF fields.

The word "radiate" is sometimes used to describe RF fields leaving an antenna, but it should not be misinterpreted for the word "radioactivity." Radioactive material can be harmful. The radiating RF field is not a form of radioactivity so it does not present a health concern if exposure limits are met.

The Government of Canada continuously monitors the scientific literature on both thermal and non-thermal effects. This ensures that RF exposure limits are consistent with the current scientific consensus so that known potential health effects are prevented.

## How will this handbook help me?

This handbook starts by explaining the basic nature of the RF fields that are used in wireless communications. It uses light as an example to explain a few important points about RF. Next, it describes ways in which the human body can be affected by RF fields. It then discusses how the Government of Canada sets limits to protect the public and how it ensures that those limits are respected. Finally, helpful suggestions are offered if you prefer to limit your RF exposure from your cellphone handset.



# Understanding radiofrequency fields

## ■ What are radiofrequency fields and how are they used in wireless communications?

RF fields come from various sources and humans have always been exposed to them. In fact, the light that allows you to read this handbook is similar to RF fields.

Light travels from a source (the sun or a lamp) to the handbook and then reflects into your eyes. The light carries information in this handbook to your eyes through the specific pattern of light reflected by this handbook. Wireless communications work in a very similar way.

An outdoor antenna sends RF fields out into the local environment, much like a street lamp shines light on the surrounding area. A cellphone can detect the signal from the outdoor antenna and then understand the specific patterns of energy within the RF field. Simply put, the cellphone “sees” the RF fields and can “read” the information contained in them, similar to how your eye and brain can receive and process information sent in the form of visible light. This exchange of RF back and forth from the outdoor antenna to your cellphone allows you to talk with your friends, surf the web, and send and receive text messages and other information.

For a cellphone network to work properly, areas are divided into "cells." Within the cell is a cell site, usually near the centre. Each cell site contains an antenna installation, usually on top of a tower, building or other tall structure, and your call automatically goes to the nearest one as you move about.

In an area where there are many cellphone users, more cell sites are required. The antenna installation is carefully designed and installed so that the established Canadian RF exposure standards are respected at all times. A cell site's design, including its antenna height and emitted RF, ensures good coverage within the area while not interfering with neighbouring cells. The cell network then allows the greatest number of people to connect with the highest quality of service.

### Does the location of the antenna and my distance from it affect my exposure?

An RF field diminishes very quickly as you move further away from its source. Think of a street lamp near your home. The street lamp needs to light a large area. If you were sitting in your home, trying to read this handbook, the street lamp would not provide enough light for reading.

While a street lamp lights up a wide area below, cell antennas are more like lighthouses. A lighthouse will cast a horizontal beam to communicate with ships that are far from it. Similarly, most cell tower antennas will cast a horizontal beam to communicate with cellphones that are around the tower.

The bottom line is that exposure to RF fields from antennas is very low: usually hundreds to thousands of times below the established limit.



# Effects of radiofrequency fields

## ■ What are some of the ways that radiofrequency fields could affect me?

It is important to keep in mind that although some things in life can affect you, their impact is not necessarily harmful. A number of scientific studies have looked into whether RF fields can cause adverse health effects. We can separate the effects of RF fields into two categories: thermal and non-thermal effects.

## ■ What are thermal effects?

Thermal effects are increases in body temperature that may be caused by the absorption of RF fields. Since the body has many ways to cope with slight increases in temperature, a certain amount of heating can be tolerated easily. Wireless communications equipment is designed and installed in order to ensure that the amount of heating that the public may experience is well below the level that might cause health problems.

It is important to note that although you may feel warmth while using your cellphone, you are likely only feeling the effect of your hand holding the phone at the side of your head and not due to RF exposure.



## ■ What are non-thermal effects?

Non-thermal effects are effects that may occur from RF exposure at levels that are low enough such that there is no noticeable rise in temperature. These effects can include various subtle biological and chemical changes within the cells that make up human tissue. It is important to remember that biological effects do not necessarily lead to adverse health outcomes. The current scientific consensus is that there is no clear evidence that cellphones and their cell sites cause non-thermal effects that are harmful to human health.

## ■ Are all Canadians protected?

Canadian safety guidelines for exposure to RF fields specifically include protection limits for the general public. These guidelines recognize that public exposure can be unavoidable. Because of this, an additional safety factor is included in these limits to provide for all possible conditions. General public exposure limits are set to ensure the protection of all Canadians, including pregnant women, the aged, children and the chronically ill.

## ■ How much do scientists know about thermal effects and non-thermal effects?

Thermal effects are well known to medical scientists and are relatively easy to measure and predict. Your body also has a variety of mechanisms for coping with changes in temperature. For example, the circulation of blood in your body is constantly transferring heat from warmer spots to cooler spots, regardless of the source of the warmth.

Some may wonder why scientists have not concluded that non-thermal RF exposure is absolutely safe. As with all scientific research, it is very difficult to prove that something has no harmful effect. An example of this is the inability to test for every interaction between every potential use of RF fields and every potential biological effect.

Cellphones have been in use for a relatively short period of time so scientific research on their effects is still ongoing. While some biological effects are known to occur, there is no evidence that these effects are harmful to health. The inability of science to identify adverse health effects cannot be taken as absolute proof that adverse health effects are impossible. However, there is within the scientific community, a high degree of confidence that RF exposure from wireless communications devices, including cellphones and cell sites, is safe.

# Setting limits to protect the public



## ■ Why is the public being exposed to radiofrequency fields?

Wireless communications is strongly desired by the vast majority of Canadians. This is clear from the widespread and increasing use of wireless technology throughout Canadian society. You, your friends and family can benefit from wireless communications by being able to communicate and, more importantly, communicate in an emergency. In Canada, approximately 50 percent of 911 calls are initiated by someone using a cellphone. Even if you do not use a cellphone, you or your family may, at some point, benefit from someone who does. Cellphones also improve personal security, which is most often appreciated when we feel physically vulnerable.

The use of RF fields for wireless communications is similar to many other societal decisions about new technologies. In many cases, our society accepts the risks and benefits provided the technology is properly controlled. Access to wireless communications essentially requires that everyone in our communities experience exposure to RF fields. Most Canadians have chosen to use wireless technology in one way or another — it is usually just a matter of degree.

## ■ How does the Government of Canada protect me?

The Government of Canada takes various steps to protect Canadians from RF exposure that exceeds established limits.

Health Canada is the federal agency that has broad responsibility for the protection of the health of Canadians. Health Canada's RF exposure guidelines are written and maintained with the purpose of protecting Canadians from unsafe levels of RF exposure. These guidelines detail the maximum allowable exposure limits to RF fields, taking into account evidence of both thermal and non-thermal effects.

Industry Canada is the federal agency responsible for regulating wireless communications equipment in Canada. All of this equipment, including cellphones and cell sites, must comply with Industry Canada's RF exposure requirements.

## ■ How does the Government of Canada ensure these limits are respected?

The Government of Canada requires that all cellphones and wireless device models be certified as meeting the Canadian RF exposure standards. Additionally, the government operates a post-market surveillance program, which tests a random sample of products available for sale to Canadians against these standards. As a result, manufacturers design and test their products to respect Canadian RF exposure requirements. Wireless carriers must also design and locate their antennas to ensure that public exposure to RF fields from their wireless installations respect Canadian limits at all times.

# What do independent experts have to say?



A number of independent expert groups have conducted detailed reviews of the potential health risks associated with RF field exposure. These groups include expert panels convened by the Royal Society of Canada (RSC), the World Health Organization, the American Cancer Society and the British Medical Association. All of the credible scientific reviews completed recently conclude that there is no clear evidence

“The balance of evidence to date suggests that exposures to RF radiation below [safety] guidelines do not cause adverse health effects to the general population.”

National Radiological  
Protection Board

of adverse health effects associated with low-level RF fields, like those from cell-phones or cell sites. The RSC, in particular, periodically publishes updates to its conclusions based on recent scientific evidence and findings.

Studies continue in order to improve scientific knowledge. Findings to date demonstrate no clear evidence of adverse health effects associated with exposure to low-level RF fields.

"All of the authoritative reviews completed within the last two years have concluded that there is no clear evidence of adverse health effects associated with RF fields."

The Royal Society of  
Canada's Expert Panel  
on Radiofrequency Fields

The Government of Canada has determined that the use of cellphones and cell sites is safe for individuals and society alike provided that Canadian guidelines and standards are met.

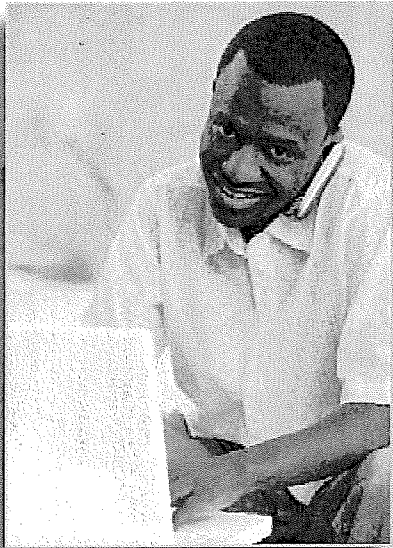
# Can I reduce my exposure to radiofrequency fields?



Experts do not believe that changes are required to protect your health, but here are some things that you could choose to do to reduce your RF exposure from cellphones:

- Limit the time spent on cellphone calls.
- Alternate between ears periodically to reduce the duration of RF exposure.
- Keep the phone away from your body when it is turned on. For example, you could avoid carrying it in your pocket or very close to your body.
- Avoid making calls in areas where the coverage is poor because it requires the phone to use more power to communicate with the nearest cell site.
- Use a "hands-free" mode or a wired headset to increase the distance between your head and the cellphone. Appropriate use of these products may reduce your RF exposure.

As well, when you are not using your cellphone (during a call or surfing the web, for example) it goes into "sleep" mode and only periodically emits any RF fields.



# Where can I find out more?

The following resources are publicly available and may provide additional information on the potential health risks associated with RF exposure.

## **Industry Canada**

Antenna Structures

<http://www.ic.gc.ca/antenna>

## **Health Canada**

<http://www.hc-sc.gc.ca>

## **Health Protection Agency (UK)**

<http://www.hpa.org.uk>

## **Federal Communications Commission (U.S.A.)**

<http://www.fcc.gov>

## **Food and Drug Administration (U.S.A.)**

<http://www.fda.gov>

## **World Health Organization**

<http://www.who.int/en>

## **Royal Society of Canada**

<http://www.rsc.ca>

## **National Cancer Institute (U.S.A.)**

<http://www.cancer.gov>

## **Sense About Science (UK)**

<http://www.senseaboutscience.org.uk>

## **The Institution of Engineering and Technology**

<http://www.theiet.org>



## Health Concerns About Cellular Phone Transmission Antennae and Base Stations

In 2005, in response to community concerns and after reviewing the evidence, the Vancouver Coastal Health Chief Medical Health Officer concluded that the installation of cellular antennae in the community did not create health risks for the public, and that Health Canada's Safety Code 6 provided an appropriate level of protection. At that time, the Chief Medical Health Officer also committed to undertake periodic reviews of the evidence and to provide public updates as necessary. The Chief Medical Health Officer provides the following updated evidence review and associated conclusions:

### Background on Cellular Transmission Technology

The original cellular (analog) technology uses the radiofrequency part of the electromagnetic spectrum between 800-900 MHz (near the FM/TV, AM Radio bands and cordless telephone frequencies). The newer digital technology uses the frequency bands of 800-900 MHz and 1800-2200 MHz and relies on antennae of significantly less power than the analog system, emitting significantly lower radiofrequency (RF) radiation. Cellular communication operates through a network of base stations that transmits and receives signals. The area covered by a base station is called a cell – giving rise to the name cell phone. The number of base stations (cells) in an area varies, depending on the concentration of cell phone users. For example, compared to smaller communities, the number of base stations is greater in populated urban centres, with many cell phone users. Each base station consists of signal processing equipment, power supply, and one or more antennae. The antennae are the most visible parts of base stations. However, a network of many lower powered based stations may result in lower levels of RF radiation exposure to the public compared to a network that uses a few higher powered base stations covering the same area. This is because the power required to communicate between a cell phone and base station increases as the distance between the cell phone and the base station increases.

To meet the demand for service, increasing numbers of cellular base stations have been installed across the country. However, it is not easy for the public to access information on the number, types, and locations of cellular base stations in their community. This difficulty has contributed to public concerns regarding potential harm from these installations.

### Health Risks

The study of RF radiation and its possible effect on health is growing steadily. Since the last report in 2005, reviews from recognized scientific organizations include the International Commission on Non-Ionizing Radiation Protection (ICNIRP) 2009 Review, the European Commission Scientific Committee on Emerging and Newly Identified Health Risks (SCENIHR) 2009 Review, the Swedish Radiation Safety Authority, SSM, Independent Expert Group on Electromagnetic Fields 2009 Report, and the Health Canada Safety Code 6 revised in 2009. The scientific consensus remains unchanged: radiation from cellular base stations is far too low to cause adverse health effects in the community. The current Canadian (Safety Code 6 revised 2009) and international standards such as ICNIRP provide significant safety margins for public exposure to RF.

### Conclusions At A Glance

1. The international scientific consensus remains unchanged: radiation from cellular base stations is far too low to cause adverse health effects in the community.
2. There is no public health benefit from prudent avoidance regarding base stations.
3. Telecommunication regulators and the industry need to be explicitly transparent in engaging communities and providing access to monitoring data to show compliance with expected standards.

In Safety Code 6 (2009), Health Canada states:

*"The scientific literature with respect to possible biological effects of RF energy has been monitored by Health Canada scientists on an ongoing basis since the last version of Safety Code 6 was published in 1999. During this time, a significant number of new studies have evaluated the potential for acute and chronic RF energy exposures to elicit possible effects on a wide range of biological endpoints including: human cancers (epidemiology); rodent lifetime mortality; tumor initiation, promotion and co-promotion; mutagenicity and DNA damage; EEG activity; memory, behaviour and cognitive functions; gene and protein expression; cardiovascular function; immune response; reproductive outcomes; and perceived electromagnetic hypersensitivity (EHS) among others. Numerous authoritative reviews have summarized this literature.*

*Despite the advent of thousands of additional research studies on RF energy and health, the predominant adverse health effects associated with RF energy exposures in the frequency range from 3 kHz to 300 GHz still relate to the occurrence of tissue heating and excitable tissue stimulation from short-term (acute) exposures. At present, there is no scientific basis for the premise of chronic and/or cumulative health risks from RF energy at levels below the limits outlined in Safety Code 6. Proposed effects from RF energy exposures in the frequency range between 100 kHz and 300 GHz, at levels below the threshold to produce thermal effects, have been reviewed. At present, these effects have not been scientifically established, nor are their implications for human health sufficiently well understood. Additionally, a lack of evidence of causality, biological plausibility and reproducibility greatly weaken the support for the hypothesis for such effects. Thus, these proposed outcomes do not provide a credible foundation for making science-based recommendations for limiting human exposures to low-intensity RF energy."*

Critics of Safety Code 6 have challenged the adequacy of the Canadian standard to protect the public from effects other than those resulting from the thermal heating of cells in the body. However, when scientifically sound methods are used to assess the evidence, Health Canada's conclusions are consistent with the conclusions reached by other credible scientific bodies. In its review of evidence in 2009, the ICNIRP states:

*"It is the opinion of ICNIRP that the scientific literature published since the 1998 guidelines has provided no evidence of any adverse effects below the basic restrictions and does not necessitate an immediate revision of its guidance on limiting exposure to high frequency electromagnetic fields. The biological basis of such guidance remains the avoidance of adverse effects such as "work stoppage" caused by mild wholebody heat stress and/or tissue damage caused by excessive localized heating (D'Andrea et al. 2007). With regard to non-thermal interactions, it is in principle impossible to disprove their possible existence but the plausibility of the various non-thermal mechanisms that have been proposed is very low. In addition, the recent in vitro and animal genotoxicity and carcinogenicity studies are rather consistent overall and indicate that such effects are unlikely at low levels of exposure. Therefore, ICNIRP reconfirms the 1998 basic restrictions in the frequency range 100 kHz–300 GHz until further notice."*

Similarly, SCENIHR of the European Commission in its 2009 review states:

*"It is concluded from three independent lines of evidence (epidemiological, animal and in vitro studies) that exposure to RF fields is unlikely to lead to an increase in cancer in humans. However, as the widespread duration of exposure of humans to RF fields from mobile phones is shorter than the induction time of some cancers, further studies are required to identify whether considerably longer-term (well beyond ten years) human exposure to such phones might pose some cancer risk.*

Regarding non-carcinogenic outcomes, several studies were performed on subjects reporting subjective symptoms. In the previous opinion, it was concluded that scientific studies had failed to provide support for a relationship between RF exposure and self reported symptoms. Although an association between RF exposure and single symptoms was indicated in some new studies, taken together, there is a lack of consistency in the findings. Therefore, the conclusion that scientific studies have failed to provide support for an effect of RF fields on self-reported symptoms still holds. Scientific studies have indicated that a placebo effect (an adverse non-specific effect that is caused by expectation or belief that something is harmful) may play a role in symptom formation. As in the previous opinion, there is no evidence supporting that individuals, including those attributing symptoms to RF exposure, are able to detect RF fields. There is some evidence that RF fields can influence EEG patterns and sleep in humans. However, the health relevance is uncertain and mechanistic explanation is lacking. Further investigation of these effects is needed. Other studies on functions/aspects of the nervous system, such as cognitive functions, sensory functions, structural stability, and cellular responses show no or no consistent effects. Recent studies have not shown effects from RF fields on human or animal reproduction and development. No new data have appeared that indicate any other effects on human health."

In its 2009 Report, the Independent Expert Group of the Swedish Radiation Safety Authority SSM concludes regarding cancer and transmitters:

*"The majority of studies on cancer among people who are exposed to RF from radio- or TV-transmitters or from mobile phone base stations have relied on too crude proxies for exposure to provide meaningful results. Indeed, only two studies, both on childhood leukaemia, have used models to assess individual exposure and both of those provide evidence against an association. One cannot conclusively exclude the possibility of an increased cancer risk in people exposed to RF from transmitters based on these results. However, these results in combination with the negative animal data and very low exposure from transmitters make it highly unlikely that living in the vicinity of a transmitter implicates an increased risk of cancer."*

Regarding electromagnetic hypersensitivity, the SSM expert group writes:

*"While the symptoms experienced by patients with perceived electromagnetic hypersensitivity are very real and some subjects suffer severely, there is no evidence that RF exposure is a causal factor. In a number of experimental provocation studies, persons who consider themselves electrically hypersensitive and healthy volunteers have been exposed to either sham or real RF fields; but symptoms have not been more prevalent during RF exposure than during sham in any of the experimental groups. Several studies have indicated a placebo effect, i.e. an adverse effect caused by an expectation that something is harmful. Associations have been found between self-reported exposure and the outcomes, whereas no associations were seen with measured RF exposure."*

## Canadian Exposure Assessments

In 1997, Health Canada conducted a survey of radiofrequency radiation from cellular base stations in and around 5 schools in Vancouver, in response to the concerns raised by nearby residents earlier that year. The measurements revealed that:

- The highest level of electromagnetic radiation from a PCS antenna (across the street) was more than 6,000 times below the Safety Code 6 levels.
- In three of the schools the levels of radiation from all PCS digital antenna were actually lower than the normal AM and FM radio signals that have been in the area for decades.

In 2003, Health Canada released the results of comprehensive ground level RF measurements representative of human exposures near base stations within the Regional Municipality of Ottawa. The highest power density measured was 3000 times below Safety Code 6. Health Canada considers these measurements as likely representative of levels in other Canadian urban areas.

In 2010, the Public Health Department of the Health and Social Services Agency of Montreal was asked to assess two cell phone base station sites located near schools in Outremont, an urban residential neighbourhood. One location has 12 antennae (130 m to 145 m away respectively from two primary schools) and the other has three (50 m from a high school). The investigation team estimated that the level of exposure to students would be over 5000 times below Safety Code 6 inside the school and over 1000 times below Safety Code 6 on school playgrounds and adjacent streets. The team also reviewed the scientific literature on the subject and concluded that:

*"The results of numerous scientific studies conducted to date do not argue in favour for a causal relation between RF exposure and health impact at exposure commonly encountered, whether cancer or more general symptoms. Moreover, no mechanism of action of RF on cells or human and animal tissues has been shown. However, due to uncertainties still present in this area of research, health agencies recommend further studies in some promising avenues (e.g. for cell phone users). As for cellular antennae, given the very low exposure levels and research results to date, most experts believe it is unlikely that this exposure, well below the limits allowed, can cause effects on the health of the population."*

In May 2011, the International Agency for Research on Cancer (IARC) placed radio frequency electromagnetic fields in its group 2B classification – possibly carcinogenic to humans. IARC defines group 2B as a category used

*"for agents for which there is limited evidence of carcinogenicity in humans and less than sufficient evidence of carcinogenicity in experimental animals. It may also be used when there is inadequate evidence of carcinogenicity in humans but there is sufficient evidence of carcinogenicity in experimental animals. In some instances, an agent for which there is inadequate evidence of carcinogenicity in humans and less than sufficient evidence of carcinogenicity in experimental animals together with supporting evidence from mechanistic and other relevant data may be placed in this group. An agent may be classified in this category solely on the basis of strong evidence from mechanistic and other relevant data."*

Agents in Group 2B are not proven carcinogens. Details of the IARC review is expected to be published in July 2011. In the meantime, the IARC does make it clear that the primary reason for the Group 2B classification relates to uncertainty regarding long term heavy cell phone use and certain rare brain cancer. The type of radio frequency exposure of concern is associated with using the cell phone close to the ear. As stated above, the energy of radio frequency field from cell phone base stations experienced by the general public is thousands of times lower than from a cell phone near the head. The IARC conclusion therefore does not alter the assessment for radio frequency exposure due to cell phone base stations.

### **"Prudent Avoidance"**

The practice of "prudent avoidance" has been advocated by some in their opposition to specific location of cellular base stations in the vicinity of schools, child care centres or residential buildings. "Prudent avoidance" in these situations does not result in any increased level of protection. It would be difficult, if not impossible, to "prudently avoid" some level of exposure to RF fields in an urban setting, whether it be from AM, FM, TV or cellular phones. The Medical Health Officer concludes that scientific evidence provides no basis for recommending prudent avoidance with respect to cellular base stations. There is no public health benefit. In fact, prudent avoidance ignores the reality that the area immediately below an antenna has the lowest RF levels.

### **Community Consultation and Public Access to Information**

Despite reassuring evidence, some members of the public remain concerned about the presence of cell phone antennae and base stations. Telecommunications regulators and industry can do a better job in providing information (particularly about base station types and locations), as well as providing meaningful opportunities for public consultation when planning base stations. Industry Canada in 2009 established public and local government consultation guidelines for permit applications for mobile phone base stations. The requirement for consultation unfortunately applies only to antennae 15 metres or higher. There are a number of practices the telecommunications regulators and industry can implement to mitigate public concerns. These include:

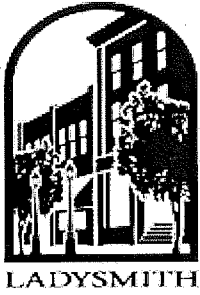
- Meaningful discussion with communities.
- Clear and publicly accessible supporting documents when deploying base stations.
- Greater consideration for site sharing, where possible.
- Greater consideration for sensitive location and design.
- Improved public access to information on network compliance with Safety Code 6.
- Prompt response to community enquiries about base stations.
- Periodic but systematic and comprehensive measurements of population level exposure to RF to monitor trends.

### **Conclusion**

As has Health Canada, the Chief Medical Health Officer concludes that, in light of the current scientific understanding of the risks of RF exposures to the public, the installation of base stations and cellular antennae in the community do not pose an adverse health risk and Safety Code 6 provides an appropriate level of protection. However, public engagement by telecommunication regulators and industry concerning the installation of base stations and antennae needs improvement.

The Chief Medical Health Officer will continue to monitor new scientific knowledge in this area and will provide updates when necessary.

Chief Medical Health Officer



## Town of Ladysmith

### **STAFF REPORT**

To: Ruth Malli, City Manager  
From: Sandy Bowden, Director of Corporate Services  
Date: April 9, 2013  
File No:

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Re: MEMORIAL INITIATIVES FOR JAEDYN AMANN HICKS

#### **RECOMMENDATION(S):**

That the Committee recommends that Council direct staff to:

- a) plant a memorial tree at Forrest Field in memory of Jaedyn Amann Hicks;
- b) send letters to the Federal and British Columbia governments requesting that “Jaedyn’s Law” banning the use of free-standing soccer nets in public soccer fields across Canada be enacted as soon as possible;
- c) draft a comprehensive “Playing Fields” Policy which includes regulations pertaining to soccer nets located on Town-owned playing fields; and
- d) request School District No. 68 to comply with the regulations contained in the Playing Fields Policy pertaining to the use of soccer nets on School District property.

#### **PURPOSE:**

The purpose of this staff report is to provide an update on a proposed course of action for a memorial for Jaedyn Amann Hicks, a young Ladysmith resident who died tragically on July 4, 2012 when a movable soccer net toppled on top of her in Watson Lake, Yukon Territory.

#### **INTRODUCTION/BACKGROUND:**

Council will recall that at the meeting held on October 2, 2012 Council heard a presentation from a relative of Jaedyn Amann Hicks regarding this tragic accident. Council directed staff to review the matter and provide a recommended course of action, and include reference to the request for support for “Jaedyn’s Law”.

The Yukon government has tabled new legislation on the safe use of movable soccer goals at public recreational facilities in the territory. The Movable Soccer Goal Safety Act has been tabled in the legislature and is expected to be effective sometime in May 2013. The act makes it illegal to use a movable soccer net at any public recreational facility without written permission of the public body that operates the facility.

The Town has already taken measures to ensure a similar incident does not occur in Ladysmith. Once the Town became aware of the tragedy in Watson Lake, we immediately secured the soccer nets and also added a clause to the field user contracts stipulating that the user must ensure the nets are kept that way at all times. It is recommended that a formal policy be established to ensure this practice continues.



**SCOPE OF WORK:**

Staff time will be required to arrange for planting the memorial tree, preparation of a letter to the federal and provincial governments and the drafting of a policy.

**ALTERNATIVES:**

The Committee could recommend ratification of all three recommendations or could select to implement any one or more of the recommendations.

**FINANCIAL IMPLICATIONS:**

Staff estimates that this initiative will cost approximately \$1,000 for the tree plus staff time for all associated tasks.

**LEGAL IMPLICATIONS:**

N/A

**CITIZEN/PUBLIC RELATIONS IMPLICATIONS:**

The horrific death of Jaedyn Amann Hicks has had a significant impact on the Ladysmith community. It is anticipated that the proposed actions by the Town will be positively received by the community at large.

**INTERDEPARTMENTAL INVOLVEMENT/IMPLICATIONS:**

This initiative will involve the Corporate Services, Infrastructure Services and Parks, Recreation and Culture Departments.

**RESOURCE IMPLICATIONS:**

No additional resources are required to complete this project.

**ALIGNMENT WITH SUSTAINABILITY VISIONING REPORT:**

This initiative aligns with Sustainability Goal No. 8 – Create Healthy Communities and Individuals and the 7<sup>th</sup> Pillar of Sustainability – Healthy Community.

**ALIGNMENT WITH STRATEGIC PRIORITIES:**

This initiative aligns with Strategic Direction F – A Safe and Healthy Community.

**SUMMARY:**

In October 2012 Council heard an emotional appeal from a relative of Jaedyn Amann Hicks requesting that the Town undertake initiatives to honour Jaedyn's memory and to help prevent such tragic accidents from occurring in the future. Staff's recommendations regarding this matter are presented for the Committee's consideration.

I concur with the recommendation.



Ruth Malli, City Manager





**TOWN OF LADYSMITH**  
 Building Permit Summary - March 2013

MAR	Commercial		Industrial		Institutional		Residential (NEW)		Residential Adds, Renos, Other		Dwelling Units	Total Permits	Bldg & Plog Permit Fees This Month	Permit Values This Month	Permit Values Year to Date 2013
	No. of Permits	Values	No. of Permits	Values	No. of Permits	Values	No. of Permits (new res)	Values	No. of Permits	Values					
0	\$0	\$0	0	\$0	0	\$0	3	\$351,480	2	\$34,109	5	6	3337	\$385,589	\$1,124,134

**Year to Date**

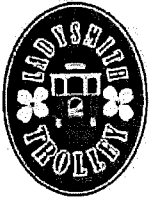
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
No. of Permits	0	0	0	0	0	0	0	0	0	0	0	0	0
Values	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
No. of Permits (new res)	1	2	3										6
Values	\$192,510	\$348,079	\$351,480										\$892,069
No. of Permits	1	4	2										7
Values	\$1,440	\$196,516	\$34,109										\$232,065
Dwelling Units	2	1	5										8
Total Permits	2	7	6										15
Bldg & Plog Permit Fees This Month	\$1,553	\$3,133	\$3,337										\$8,023
Permit Values This Month	\$193,950	\$544,595	\$385,589										\$1,124,134
Permit Values Year to Date 2013	\$193,950	\$738,545	\$1,124,134										

Demos Mth	#DU	Value	#BP	Value
0	0	\$0	1	\$0

Comparison	#DU	Value	#BP	Value
YTD 2013	8	\$892,069	15	\$1,124,134
YTD 2012	14	\$2,072,473	20	\$2,765,835
YTD 2011	10	\$1,468,066	38	\$1,947,206

*Tom Skarvig*  
 Tom Skarvig, Building Inspector





Town of Ladysmith  
**Trolley Summary Report**  
 March 2013

Stats	March			Dec-Jan-Feb (Previous 3 Months)			YTD (Jan-December)		
	2013	2012	2011	2012	2011	2010	2013	2012	2011
Ridership Count	1100	1327	1933	3202	4888	6232	2998	3612	5708
Days in Operation	25	27	27	75	73	74	74	78	75
Avg. Daily Ridership	44	49	72	43	67	84	41	46	76
Wheel Chairs	0	7	5	4	12	9	0	11	15
Service Dogs	14	2	23	21	37	14	39	6	58
Bikes	33	9	23	33	70	59	58	24	87

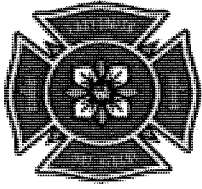
**Fares\***

Single Fares	\$588	\$904	\$0	\$1,726	\$577	*	\$1,889	\$2,147	*
Monthly Passes	\$78	\$100	\$0	\$561	\$64	*	\$377	\$557	*
Rentals**	\$0	**	**	\$150	\$0	**	\$0	**	**
Donations	*	*	\$550	*	\$1,067	\$1,907	*	*	\$1,617
<b>Total</b>	<b>\$667</b>	<b>\$1,004</b>	<b>\$550</b>	<b>\$2,437</b>	<b>\$1,708</b>	<b>\$1,907</b>	<b>\$2,266</b>	<b>\$2,704</b>	<b>\$1,617</b>

\* From launch to September, 2011 trolley riders made donations in lieu of fares; as of October, 2011 to date, fares have been collected on board the trolley in the form of single rides, and pre-purchased monthly passes.

\*\* There were no rentals in 2010 or 2011

  
 John Manson



# Ladysmith Fire / Rescue

P.O. Box 760 Ladysmith, B.C. V9G 1A5  
 Phone: 250-245-6436 · Fax: 250-245-0917



## FIRE CHIEF'S REPORT

MONTH: **March 2013**

TYPE OF CALL OUT	J	F	M	A	M	J	J	A	S	O	N	D	YTD TOTALS
Alarms Activated: Pulled Station													0
By mistake	2												2
Electrical problem		1	2										3
Due to cooking		1											1
Assistance													0
Burning Complaint		1	3										4
Fire: Structure		1	1										2
Chimney			2										2
Interface / Bush													0
Vehicle	1	1											2
Other	1	1											2
Hazardous Materials		1											1
Hydro Lines: Down / Fire			1										1
Medical Aid	4	4	3										11
MVI	2	3	3										8
Rescue		1											1
Mutual Aid provided by Ladysmith to outside areas	3	0	1										4
<b>MONTH TOTALS (exc.. Practises)</b>	<b>13</b>	<b>15</b>	<b>16</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>44</b>
Practises (Totals for each Month)	5	4	4										13
Mutual Aid requested by Ladysmith from outside areas													0

### ALARMS ACTIVATED (Location/Owner)

1. 1085 Edgelow Rd. N. Faulty Sensor
2. 1085 Edgelow Rd. N. Faulty Sensor

### COMPARISONS:

Year to Date 2013      44 (exc. practises)

Year to Date 2012      41 (exc. practises)

Year to Date 2011      48 (exc. practises)

APPROVED:

*Ray Delcourt*  
 Fire Chief

**COASTAL ANIMAL CONTROL SERVICES OF BC LTD**

2202 Herd Rd. Duncan, BC. V9L 6A6

(250) 748-3395

**TOWN OF LADYSMITH POUND REPORT**

March 2013

<b>Disposition of Impounded Dogs</b>	<b>Current Month</b>	<b>2013 Totals</b>
Stray dogs impounded	1	3
Stray dogs claimed	1	2
Stray dogs put up for adoption	0	0
Stray dogs euthanized	0	0
Stray livestock / cats	0	0
Other	0	0
<b>Calls Received and Investigated</b>	<b>9</b>	<b>24</b>
Aggressive dogs	1	3
Dogs at large	0	4
Confined dog	2	4
Noise (barking) complaints	2	4
Other non specific dog related calls	4	9
Wildlife / livestock / cats	0	0
<b>After hour call outs</b>	<b>1</b>	<b>1</b>
<b>Monthly Pound and Board Fees Collected</b>	<b>\$185.00</b>	<b>\$355.00</b>
Impound fees	\$100.00	\$170.00
Daily board fees	\$85.00	\$185.00
<b>Tickets issued</b>	<b>0</b>	<b>4</b>
Over 3 dog limit	\$000.00	\$400.00
Unlicenced dog	\$000.00	\$00.00
Dog at large	\$00.00	\$00.00
Restricted dog not effectively confined	\$0.00	\$0.00
Habitually noisy	\$0.00	\$0.00
<b>Licencing Statistics</b>		
	Tags	3
	Revenue	\$100.00
		6
		\$180.00

**COASTAL ANIMAL CONTROL SERVICES OF BC LTD**

2202 Herd Rd. Duncan, BC. V9L 6A6

(250) 748-3395

**TOWN OF LADYSMITH POUND REPORT**

February 2013

<b>Disposition of Impounded Dogs</b>	<b>Current Month</b>	<b>2013 Totals</b>
Stray dogs impounded	1	2
Stray dogs claimed	0	1
Stray dogs put up for adoption	0	0
Stray dogs euthanized	0	0
Stray livestock / cats	0	0
Other	0	0
<b>Calls Received and Investigated</b>	<b>5</b>	<b>15</b>
Aggressive dogs	1	2
Dogs at large	4	4
Confined dog	1	2
Noise (barking) complaints	0	2
Other non specific dog related calls	3	5
Wildlife / livestock / cats	0	0
<b>After hour call outs</b>	<b>0</b>	<b>0</b>
<b>Monthly Pound and Board Fees Collected</b>	<b>\$100.00</b>	<b>\$170.00</b>
Impound fees	\$50.00	\$70.00
Daily board fees	\$50.00	\$100.00
<b>Tickets issued</b>	<b>0</b>	<b>4</b>
Over 3 dog limit	\$000.00	\$400.00
Unlicenced dog	\$000.00	\$00.00
Dog at large	\$00.00	\$00.00
Restricted dog not effectively confined	\$0.00	\$0.00
Habitually noisy	\$0.00	\$0.00
<b>Licencing Statistics</b>		
	Tags	1
	Revenue	\$30.00
		3
		\$80.00

*revised JB*

# CAS Summary of Service Calls, Ladysmith

9 calls in total

01-Mar-13 to 31-Mar-13

Issue	Call #	Received	Type	Completed
<b>Aggressive</b>		<b>1</b>		
	1068	22-Mar-13	Dog	
<b>Confined</b>		<b>2</b>		
	1067	21-Mar-13	Dog	25-Mar-13
	1065	16-Mar-13	Dog	20-Mar-13
<b>Noisy</b>		<b>2</b>		
	1064	13-Mar-13	Dog	15-Mar-13
	1063	11-Mar-13	Dog	11-Mar-13
<b>Other</b>		<b>4</b>		
	1069	28-Mar-13	Dog	28-Mar-13
	1066	20-Mar-13	Dog	
	1062	04-Mar-13	Dog	
	1061	04-Mar-13	Dog	

Visitor Centre Network Statistics Program Year Over Year Report 2013

LADYSMITH

Start Date: 01/01/2012

End Date: 31/12/2013

Parties Per Hour	January	February	March	Q1 Total	April	May	June	Q2 Total	July	August	September	Q3 Total	October	November	December	Q4 Total	TOTAL	
2013	1.85	2.42	2.85	2.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.36
% change 2013 - 2012	2.8%	36.3%	49.3%	28.9%	-100.0%	-100.0%	-100.0%	-100.0%	-100.0%	-100.0%	-100.0%	-100.0%	-100.0%	-100.0%	-100.0%	-100.0%	-100.0%	-22.5%
2012	1.80	1.78	1.91	1.83	2.45	2.96	3.53	3.04	3.81	5.21	4.00	4.39	2.39	2.30	1.73	2.19	3.04	

Total Hours	January	February	March	Q1 Total	April	May	June	Q2 Total	July	August	September	Q3 Total	October	November	December	Q4 Total	TOTAL	
2013	140.50	123.50	130.00	394.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	394.00	
% change 2013 - 2012	-2.8%	-16.0%	-15.6%	-11.6%	-100.0%	-100.0%	-100.0%	-100.0%	-100.0%	-100.0%	-100.0%	-100.0%	-100.0%	-100.0%	-100.0%	-100.0%	-100.0%	-80.7%
2012	144.50	147.00	154.00	445.50	137.00	207.00	201.50	545.50	248.00	248.00	157.50	653.50	154.00	142.00	99.00	395.00	2,039.50	

Total Phone Calls	January	February	March	Q1 Total	April	May	June	Q2 Total	July	August	September	Q3 Total	October	November	December	Q4 Total	TOTAL	
2013	109	234	178	521	0	0	0	0	0	0	0	0	0	0	0	0	521	
% change 2013 - 2012	-14.8%	56.0%	6.0%	16.8%	-100.0%	-100.0%	-100.0%	-100.0%	-100.0%	-100.0%	-100.0%	-100.0%	-100.0%	-100.0%	-100.0%	-100.0%	-100.0%	-62.7%
2012	128	150	168	446	130	152	104	386	116	122	109	347	83	86	49	218	1,397	

Total Mails/Fax/Email Enquiries	January	February	March	Q1 Total	April	May	June	Q2 Total	July	August	September	Q3 Total	October	November	December	Q4 Total	TOTAL	
2013	91	260	208	559	0	0	0	0	0	0	0	0	0	0	0	0	559	
% change 2013 - 2012	167.6%	209.5%	181.1%	191.1%	-100.0%	-100.0%	-100.0%	-100.0%	-100.0%	-100.0%	-100.0%	-100.0%	-100.0%	-100.0%	-100.0%	-100.0%	-100.0%	-7.8%
2012	34	84	74	192	68	85	52	205	31	8	54	93	38	31	47	116	606	

Total Parties	January	February	March	Q1 Total	April	May	June	Q2 Total	July	August	September	Q3 Total	October	November	December	Q4 Total	TOTAL	
2013	260	299	370	929	0	0	0	0	0	0	0	0	0	0	0	0	929	
% change 2013 - 2012	0.0%	14.6%	25.9%	14.0%	-100.0%	-100.0%	-100.0%	-100.0%	-100.0%	-100.0%	-100.0%	-100.0%	-100.0%	-100.0%	-100.0%	-100.0%	-100.0%	-85.0%
2012	260	261	294	815	335	613	712	1,660	944	1,292	630	2,866	368	326	171	865	6,206	

Total Visitors	January	February	March	Q1 Total	April	May	June	Q2 Total	July	August	September	Q3 Total	October	November	December	Q4 Total	TOTAL	
2013	340	403	538	1,281	0	0	0	0	0	0	0	0	0	0	0	0	1,281	
% change 2013 - 2012	0.0%	12.3%	37.6%	17.5%	-100.0%	-100.0%	-100.0%	-100.0%	-100.0%	-100.0%	-100.0%	-100.0%	-100.0%	-100.0%	-100.0%	-100.0%	-100.0%	-86.8%
2012	340	359	391	1,090	449	980	1,222	2,651	1,647	2,184	994	4,825	526	398	203	1,127	9,693	

Total Buses	January	February	March	Q1 Total	April	May	June	Q2 Total	July	August	September	Q3 Total	October	November	December	Q4 Total	TOTAL	
2013	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
% change 2013 - 2012																		-100.0%
2012	0	0	0	0	0	0	1	1	0	2	0	2	2	0	0	2	5	

Visitor Centre Network Statistics Program 2013

LADYSMITH

Start Date: 01/01/2013

End Date: 31/12/2013

YEAR TO DATE TOTAL	January	February	March	Q1 Total	April	May	June	Q2 Total	July	August	September	Q3 Total	October	November	December	Q4 Total	TOTAL
<b>Administration Parties/Hour</b>	185	242	285	2.36													2.36
# of hours	140.50	123.50	130.00	394.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	394.00
# of phone calls	109	234	178	521	0	0	0	0	0	0	0	0	0	0	0	0	521
# of mail/fax/email enquiries	91	260	208	559	0	0	0	0	0	0	0	0	0	0	0	0	559
# of parties	260	299	370	929	0	0	0	0	0	0	0	0	0	0	0	0	929
# of visitors	340	403	538	1,281	0	0	0	0	0	0	0	0	0	0	0	0	1,281
# of buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Visitor Origin</b>	237	261	331	829	0	0	0	0	0	0	0	0	0	0	0	0	829
Local Resident	150	169	169	488	0	0	0	0	0	0	0	0	0	0	0	0	488
BC	70	64	112	246	0	0	0	0	0	0	0	0	0	0	0	0	246
Alberta	7	12	21	40	0	0	0	0	0	0	0	0	0	0	0	0	40
Other Canada	8	5	10	23	0	0	0	0	0	0	0	0	0	0	0	0	23
Washington	1	0	7	8	0	0	0	0	0	0	0	0	0	0	0	0	8
California	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	0	4
Other US/Mexico	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Europe	0	3	3	6	0	0	0	0	0	0	0	0	0	0	0	0	6
Asia/Australia	1	8	4	13	0	0	0	0	0	0	0	0	0	0	0	0	13
Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Nights in Community</b>	48	58	124	230	0	0	0	0	0	0	0	0	0	0	0	0	230
Same day	36	46	101	183	0	0	0	0	0	0	0	0	0	0	0	0	183
1	1	2	10	13	0	0	0	0	0	0	0	0	0	0	0	0	13
2	1	0	6	7	0	0	0	0	0	0	0	0	0	0	0	0	7
3	2	4	1	7	0	0	0	0	0	0	0	0	0	0	0	0	7
4-6 (1 week)	2	2	2	6	0	0	0	0	0	0	0	0	0	0	0	0	6
7-13 (2 weeks)	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
14+	4	4	4	12	0	0	0	0	0	0	0	0	0	0	0	0	12
<b>Information Requested</b>	194	285	394	873	0	0	0	0	0	0	0	0	0	0	0	0	873
Accommodation	2	6	15	23	0	0	0	0	0	0	0	0	0	0	0	0	23
Adventure Recreation	4	4	15	23	0	0	0	0	0	0	0	0	0	0	0	0	23
Attractions / Tours	7	16	34	57	0	0	0	0	0	0	0	0	0	0	0	0	57
Maps / Directions	41	56	68	165	0	0	0	0	0	0	0	0	0	0	0	0	165
Events / Conferences	8	23	18	49	0	0	0	0	0	0	0	0	0	0	0	0	49
Food / Beverage	9	17	31	57	0	0	0	0	0	0	0	0	0	0	0	0	57
Transportation	5	17	30	52	0	0	0	0	0	0	0	0	0	0	0	0	52
Shopping	4	7	15	26	0	0	0	0	0	0	0	0	0	0	0	0	26
Parks	16	25	23	64	0	0	0	0	0	0	0	0	0	0	0	0	64
First Nations	2	6	6	14	0	0	0	0	0	0	0	0	0	0	0	0	14
Community Services	10	14	11	35	0	0	0	0	0	0	0	0	0	0	0	0	35
Investment/Moving	14	8	10	32	0	0	0	0	0	0	0	0	0	0	0	0	32
Site Facilities (e.g. Washrooms)	49	79	105	233	0	0	0	0	0	0	0	0	0	0	0	0	233
Other	23	7	13	43	0	0	0	0	0	0	0	0	0	0	0	0	43
<b>Community Specific Info</b>	189	280	348	817	0	0	0	0	0	0	0	0	0	0	0	0	817
Events Information	25	63	42	130	0	0	0	0	0	0	0	0	0	0	0	0	130
Town Services/Inquiries	26	19	17	62	0	0	0	0	0	0	0	0	0	0	0	0	62
Relocation / Visitor Package	20	16	27	63	0	0	0	0	0	0	0	0	0	0	0	0	63
Local Business/Accommodation/Food etc	54	67	104	225	0	0	0	0	0	0	0	0	0	0	0	0	225
Maps: Trails/Artisans/Roads/Transportation	55	84	99	238	0	0	0	0	0	0	0	0	0	0	0	0	238
Marine Visitors	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Trolley	4	13	16	33	0	0	0	0	0	0	0	0	0	0	0	0	33
Cycling	2	3	4	9	0	0	0	0	0	0	0	0	0	0	0	0	9
Accommodations	2	1	4	5	0	0	0	0	0	0	0	0	0	0	0	0	5
Heritage	3	13	35	51	0	0	0	0	0	0	0	0	0	0	0	0	51

Received April 3, 2013.

To the Mayor and town leaders  
of Ladysmith,

We, are Ladysmith homeowners who wish to have a few chickens on our property. We are responsible animal loving people. We would like to be able to have chickens as a source of fresh eggs, garden fertilizer and a part of our overall way of life.

I can understand the town's concern over this issue. There is the problem of people not being responsible for the proper care of their chickens and respect for their neighbours. The town could require registration of chicken owners and a restriction of 4 or 5 chickens, no roosters.

Ladysmith is trying to be a leader in green gardening and self sufficiency. I believe this should be a good step. Please take this into serious consideration

Thank you

Norm and Linda Watts