



## THE MUNICIPALITY OF THE VILLAGE OF LIONS BAY

### REGULAR MEETING OF THE COUNCIL OF THE VILLAGE OF LIONS BAY HELD ON TUESDAY, NOVEMBER 19, 2019 at 7:00 PM COUNCIL CHAMBERS, 400 CENTRE ROAD, LIONS BAY

#### AGENDA

1. **Call to Order**
2. **Adoption of Agenda**
3. **Public Participation (2 minutes per person totalling 10 minutes maximum)**
4. **Public Delegation Requests Accepted by Agenda Deadline (10 minutes maximum)**
  - A. Mr. J. Stone – Communication Tower (Page 5)
5. **Review & Approval of Minutes of Prior Meetings**
  - A. Regular Council Meeting – November 5, 2019 (Page 57)  
THAT the Regular Council Meeting Minutes of November 5, 2019 be approved as circulated.
6. **Business Arising from the Minutes**
7. **Unfinished Business**
  - A. Follow-Up Action Items from Previous Meetings

#	Meeting Date	Description of Action Item	Action
104	September 17, 2019	G2: Letter from Minister of Public Safety re. Speeding on Sea to sky – CAO DeJong to contact the CAO's of Squamish, Whistler and Pemberton	In progress
113	October 1, 2019	R1: Roy Matthias – Proposed Unobstructed View Bylaw vs. Privacy – Acting Mayor Cunliffe to respond	In progress
114	October 1, 2019	R3: Julie and Rob Kemp – Proposed View Bylaw vs. Privacy – Acting Mayor Cunliffe to respond	In progress
115	October 15, 2019	Bill Srigley of 205 Panorama Place and Stewart Nimmo of 202 Panorama Place - Public Works Manager and CAO to follow up by November 19 <sup>th</sup>	In progress, to respond by next meeting

116	October 15, 2019	G3: Climate Leaders Institute – Councillor Cunliffe to respond	In progress
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## 8. Reports

### A. Staff

- i. CAO: Renewal of Listing Agreement for 35 Kelvin Grove Way (Page 67)
  - (1) THAT the Listing Agreement renewal contract with Kim Taylor, realtor, for the sale of the lands located at 35 Kelvin Grove Way be approved; and
  - (2) THAT the CAO be authorized to execute the Listing Agreement in substantially the form attached.
- ii. CAO: Commercial Filming Policy No. 1902 (Page 81)
  - (1) THAT the draft Commercial Filming Policy No. 1902 be amended in respect of the policy number in the title of this policy and in respect of the change to the definition of Daytime Filming Hours in section 2.1 per the tracked changes in the attached draft;
  - (2) THAT the draft Commercial Filming Policy No. 1902 be adopted by Council, as amended;
  - (3) THAT the draft Commercial Filming Policy No. 1902 be posted as adopted to the Municipal website with a notice included in the Village Update on November 22, 2019;
  - (4) THAT the Fees Bylaw No. 497, 2016 be amended to include the draft fee amendments to Schedule 7 as attached to this report and brought to the November 19, 2019 Council meeting for consideration of first and second reading, along with any other recommended amendments to Fees Bylaw No. 497, 2016; and
  - (5) THAT staff proceed with incorporating the necessary delegations of authority in the draft general delegation bylaw staff is presently working on, to be brought to Council before the end of the year.
- iii. CFO: 2020 Preliminary Budget (Page 103)
 

THAT the report “2020 Preliminary Budget” be received for information purposes.
- iv. EA: Consent to Metro Vancouver Regional Parks Service Amendment Bylaw No. 1290 (Page 109)

(1) THAT the Council of the Village of Lions Bay consent to the approval of the adoption of Metro Vancouver Regional District Regional Parks Service Amending Bylaw No. 1290, 2019 on behalf of the electors; and

(2) THAT staff be directed to notify the Metro Vancouver Regional District Board of Council's consent.

- v. CAO: Strategic Planning and Priority Setting for 2020 (Page 119)  
 THAT the Information Report, "Strategic Planning and Priority Setting for 2020" be received.

B. Mayor

- i. Verbal Report re: Metro Climate Action Committee Meeting

C. Council

- i. Councillor Cunliffe: Verbal Report Re: Howe Sound Community Forum

D. Committees

E. Emergency Services

- i. Monthly RCMP Report (Page 135)  
 THAT the monthly RCMP report be received for information.

**9. Resolutions**

**10. Bylaws**

- A. Fees Bylaw No. 497, 2016, Amendment Bylaw No. 567, 2019 (Page 137)  
 THAT Fees Bylaw No. 497, 2016, Amendment Bylaw No. 567, 2019 be introduced and read a 1<sup>st</sup> and 2<sup>nd</sup> time.

**11. Correspondence**

- A. List of Correspondence to November 14, 2019 (Page 163)  
 THAT the following actions be taken with respect to the correspondence:

**12. New Business**

**13. Public Questions & Comments (2 minutes on any topic discussed in this meeting)**

**14. Closed Council Meeting**

Proposed topics for discussion in the absence of the public:

- A. CAO: Draft Agenda for Closed Strategic Planning Sessions – November 25 & 26
- B. CFO: Personnel Matter

THAT the meeting be closed to the public on the basis of matters to be considered under the following sections of the *Community Charter*:

- 90 (1)** A part of a council meeting may be closed to the public if the subject matter being considered relates to or is one or more of the following:
- (a) personal information about an identifiable individual who holds or is being considered for a position as an officer, employee or agent of the municipality or another position appointed by the municipality;
  - (c) labour relations or other employee relations;
  - (d) the security of the property of the municipality;
  - (e) the acquisition, disposition or expropriation of land or improvements, if the council considers that disclosure could reasonably be expected to harm the interests of the municipality (which the Council does);
  - (f) law enforcement, if the council considers that disclosure could reasonably be expected to harm the conduct of an investigation under or enforcement of an enactment (which the Council does);
  - (g) litigation or potential litigation affecting the municipality;
  - (i) the receipt of advice that is subject to solicitor-client privilege, including communications necessary for that purpose;
  - (k) negotiations and related discussions respecting the proposed provision of a municipal service that are at their preliminary stages and that, in the view of the council, could reasonably be expected to harm the interests of the municipality if they were held in public (which the Council does);
  - (l) discussions with municipal officers and employees respecting municipal objectives, measures and progress reports for the purposes of preparing an annual report under section 98 [annual municipal report];
  - (m) a matter that, under another enactment, is such that the public may be excluded from the meeting;
  - (n) the consideration of whether a council meeting should be closed under a provision of this subsection or subsection (2);

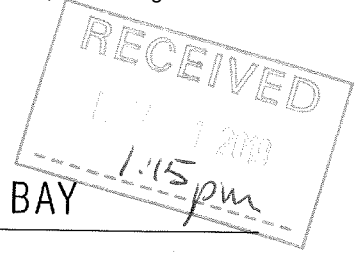
*Council does not anticipate reconvening the open meeting for any purpose other than to adjourn the meeting generally.*

*[OR]*

*Council anticipates reconvening the open meeting to discuss the following item(s):*

**15. Reporting Out from Closed Portion of Meeting**

**16. Adjournment**



# THE MUNICIPALITY OF THE VILLAGE OF LIONS BAY

## DELEGATION REQUEST FORM

Please forward your Delegation Request Form to the Village Office by 12:00 pm, the Thursday prior to the regular Council meeting. Delegations may speak for a maximum of 10 minutes total.

Today's Date: November 1, 2019 Council Meeting Date: As Available

**SUBJECT OF DELEGATION** I wish to speak before the Council regarding:

Communication Tower

**SUPPORTING MATERIAL** I will provide additional information in advance of the Council meeting: (by 12:00 pm the Thursday prior to the Council meeting so that the material can be included in Council package.)

Independent Reports on Cell radio wave dangers.

**ACTION.** The specific action I would like Council to take is:

Reject Tower project.  
Thank You.

**NAME AND ADDRESS OF SPEAKER FOR THE DELEGATION:**

Name: Mr. J. Stone

Signature: J Stone

Organization (if any): \_\_\_\_\_

Address: \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

Email: \_\_\_\_\_

Note: A telephone number (where a message can be left with a person or voicemail), fax number or email address is required so that we can contact you in a timely manner.



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Environmental Research  
Volume 164, July 2018, Pages 405-416

# Wi-Fi is an important threat to human health ☆

Martin L. Pall ✉

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<https://doi.org/10.1016/j.envres.2018.01.035>

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## Highlights

- 7 effects have each been repeatedly reported following Wi-Fi & other EMF exposures.
- Established Wi-Fi effects, include apoptosis, oxidat. stress &:
- testis/sperm dysfunct; Neuropsych; DNA impact; hormone change; Ca2+ rise.
- Wi-Fi is thought to act via voltage-gated calcium channel activation.
- One claim of no Wi-Fi effects was found to be deeply flawed.

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## Abstract

Repeated Wi-Fi studies show that Wi-Fi causes o  
 neuropsychiatric effects including EEG changes, apoptosis, oxidative DNA damage, chromosomal  
 changes, and calcium overload. Each of these effects are also caused by exposures to other  
 microwave frequency EMFs, with each such effect being documented in from 10 to 16 reviews.  
 Therefore, each of these seven EMF effects are established effects of Wi-Fi and of other

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microwave frequency EMFs. Each of these set the main action of such EMFs, voltage-gated calcium channels (VGCC) activation. While VGCC activation via EMF interaction with the VGCC voltage sensor seems to be the predominant mechanism of action of EMFs, other mechanisms appear to have minor roles. Minor roles include activation of other voltage-gated ion channels, calcium cyclotron resonance and the geomagnetic magnetoreception mechanism. Five properties of non-thermal EMF effects are discussed. These are that pulsed EMFs are, in most cases, more active than are non-pulsed EMFs; artificial EMFs are polarized and such polarized EMFs are much more active than non-polarized EMFs; dose-response curves are non-linear and non-monotone; EMF effects are often cumulative; and EMFs may impact young people more than adults. These general findings and data presented earlier on Wi-Fi effects were used to assess the Foster and Moulder (F&M) review of Wi-Fi. The F&M study claimed that there were seven important studies of Wi-Fi that each showed no effect. However, none of these were Wi-Fi studies, with each differing from genuine Wi-Fi in three distinct ways. F&M could, at most conclude that there was no statistically significant evidence of an effect. The tiny numbers studied in each of these seven F&M-linked studies show that each of them lack power to make any substantive conclusions. In conclusion, there are seven repeatedly found Wi-Fi effects which have also been shown to be caused by other similar EMF exposures. Each of the seven should be considered, therefore, as established effects of Wi-Fi.

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## Keywords

Electromagnetic field (EMF); Brain impact; Testis/sperm count and quality; Impact of pulsation and polarization; Activation of voltage-gated calcium channels; Wi-Fi or WiFi

## 1. Introduction

Wi-Fi (also known as WiFi or WLAN) is a wireless connected to the internet and a series of computers communicating wirelessly with the Wi-Fi antenna communication device can communicate wirelessly here were of Wi-Fi using the 2.4 GHz band, although possible Wi-Fi use.

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Telecommunications industry-linked individuals and groups have claimed that there are no and cannot possibly be any health impacts of Wi-Fi (Foster and Moulder, 2013; Berezow and Bloom,

2017). However with Wi-Fi exposures becoming more common, there is much concern about possible Wi-Fi health effects. This paper is not focused on anecdotal reports but rather on 23 controlled, scientific studies of such health-related effects in animals, cells including human cells in culture and in human beings (Table 1).




Table 1. Summary of health impacts of Wi-Fi EMF exposures.

Citation(s)	Health Effects
Atasoy et al. (2013); Özorak et al. (2013); Aynali et al. (2013); Çiftçi et al. (2015); Tök et al. (2014); Çiğ and Nazıroğlu (2015); Ghazizadeh and Nazıroğlu (2014); Yüksel et al. (2016); Othman et al., 2017a, Othman et al., 2017b; Topsakal et al. (2017)	Oxidative stress, in some studies effects lowered by antioxidants
Atasoy et al. (2013); Shokri et al. (2015); Dasdag et al. (2015); Avendaño et al. (2012); Yildiring et al. (2015); Özorak et al. (2013); Oni et al. (2011); Akdag et al. (2016)	Sperm/testicular damage, male infertility
Papageorgiou et al. (2011); Maganioti et al. (2010); Othman et al., 2017a, Othman et al., 2017b; Hassanshahi et al. (2017)	Neuropsychiatric changes including EEG; prenatal Wi-Fi leads to post-natal neural development, increased cholinesterase; decreased special learning; Wi-Fi led to greatly lowered ability to distinguish familiar from novel objects, changes in GABA and cholinergic transmission
Shokri et al. (2015); Dasdag et al. (2015); Çiğ and Nazıroğlu (2015); Topsakal et al. (2017)	Apoptosis (programmed cell death), elevated apoptotic markers
Avendaño et al. (2012); Atasoy et al. (2013); Akdag et al. (2016)	Cellular DNA damage
Saili et al. (2015); Yüksel et al. (2016); Topsakal et al. (2017)	En
Çiğ and Nazıroğlu (2015); Ghazizadeh and Nazıroğlu (2014)	Ca
Aynali et al. (2013)	Melatonin lowering; sleep disruption
Othman et al. (2017a)	MicroRNA expression (brain)

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Citation(s)	
Othman et al. (2017a)	 Download  Share  Export Abnormal postnatal development
Çiftçi et al. (2015)	Disrupts development of teeth
Saili et al. (2015)	Cardiac changes, blood pressure disruption; erythrocyte damage
Lee et al. (2014)	Growth stimulation of adipose stem cells (role in obesity?)

Each of the effects reported above in from 2 to 11 studies, have an extensive literature for their occurrence in response to various other non-thermal microwave frequency EMFs, discussed in detail below. These include (see Table 1) findings that Wi-Fi exposures produce impacts on the testis leading to lowered male fertility; oxidative stress; apoptosis (a process that has an important causal role in neurodegenerative disease); cellular DNA damage (a process causing cancer and germ line mutations); neuropsychiatric changes including EEG changes; hormonal changes.

The discussion here focuses on those Wi-Fi effects which have been found by multiple Wi-Fi studies and have been previously confirmed by non-thermal exposures to other microwave frequency EMFs. The 1971/72 U.S. Office of Naval Medical Research study (Glaser, 1971) reported the following changes related to testis or sperm: 1. Decreased testosterone leading to lowered testis size. 2. Histological changes in testicular epithelial structure. 3. Gross testicular histological changes. 4. Decreased spermatogenesis. Glaser (1971) also reported a total of 35 neurological/neuropsychiatric effects of non-thermal EMF exposures, including 9 central nervous system effects, 4 autonomic system effects, 17 psychological disorders, 4 behavioral changes and EEG changes. It also reported 7 types of chromosomal aberrations several of which are known to be caused by chromosomal double stranded DNA breaks, 8 types of endocrine changes, and cell death (what we now call apoptosis). Glaser (1971) also provided over 1000 different citations each reporting various types of non-thermal microwave frequency EMF effects. Consequently, the existence of 5 types of Wi-Fi effects, each supported by multiple Wi-Fi studies were already well-supported *as general non-thermal EMF effects* back in 1971, 47 years ago: effects on the testis and sperm production, neurological/neuropsychiatric effects, endocrine effects, attacks on cellular DNA and increased apoptosis/cell death.

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The 146 page review published by Tolgskaya and histological changes in rodents, the three most s microwave EMFs were the nervous system (inclu the testis. They also reported changes in neuroer multiple tissues. Thus those pre-1973 rodent studies already showed that other EMFs caused 4 of the repeated, recently documented Wi-Fi effects: changes in testis structure/function,

neurological effects, increased cell death (po

from our longer list of EMF reviews of non-thermal effects are summarized in Table 2.

Table 2. Reviews of Non-thermal Effects of Microwave Frequency EMFs Similar to Those Found in Multiple Wi-Fi Studies.

Non-thermal effects	Citations
<b>Cellular DNA damage</b>	Glaser (1971); Yakymenko et al. (1999); Aitken and De Iuliis (2007); Hardell and Sage (2008); Hazout et al. (2008); Phillips et al. (2009); Ruediger (2009); Makker et al. (2009); Yakymenko and Sidorik (2010); Batista Napotnik et al. (2010); Yakymenko et al. (2011); Pall, 2013, Pall, 2015b; Asghari et al. (2016); Pall (2018)
<b>Changes in testis structure, lowered sperm count/quality</b>	Glaser (1971); Tolgskaya and Gordon (1973); Aitken and De Iuliis (2007); Hazout et al. (2008); Desai et al. (2009); Gye and Park (2012); Nazıroğlu et al. (2013); Carpenter (2013); Adams et al. (2014); Liu et al. (2014); Houston et al. (2016); La Vignera et al. (2012); Makker et al. (2009)
<b>Neurological/neuropsychiatric effects</b>	Glaser (1971); Tolgskaya and Gordon (1973); Raines (1981); Lai (1994); Grigor'ev (1996); Hardell and Sage (2008); Makker et al. (2009); Khurana et al. (2010); Levitt and Lai (2010); Consales et al. (2012); Carpenter (2013); Pall (2016b); Belyaev et al. (2016); Kaplan et al., 2016, Sangün et al., 2016
<b>Apoptosis/cell death</b>	Glaser (1971); Tolgskaya and Gordon (1973); Raines (1981); Yakymenko et al. (1999); Batista Napotnik et al. (2010); Yakymenko and Sidorik (2010); Pall, 2013, Pall, 2016b; Asghari et al. (2016); Sangün et al. (2016)
<b>Calcium overload</b>	Adey, 1981, Adey, 1988; Walleczek (1992); Yakymenko et al. (1999); Gye and Park (2012); Pall, 2013, Pall, 2015a, Pall, 2015b, Pall, 2016a, Pall, 2016b); Asghari et al. (2016)
<b>Endocrine effects</b>	Glaser (1971); Tolgskaya (2008); Gye and Park (2015b); Sangün et al. (
<b>Oxidative stress, free radical damage</b>	Raines (1981); Houston (2008); Desai et al. (2011); Consales et al. (Yakymenko et al. (2015); Pall, 2013, Pall, 2018; Dasdag and Akdag (2016); Wang and Zhang (2017)

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Each of the 7 Wi-Fi effects found in 2–11 studies, along with other microwave frequency EMFs, in a much larger literature (Table 2). From 10 to 16 reviews extensively document each of these seven effects as general microwave frequency effects (Table 2). These are, therefore, general effects produced by such EMFs. Each of these 7 repeatedly found Wi-Fi effects should, therefore, be considered established Wi-Fi effects. The author is not aware of any genuine Wi-Fi studies on these 7 effects that reported no statistically significant evidence of effect.

Each of these 7 is very serious: Oxidative stress has causal roles in most chronic human diseases; cellular DNA damage can cause cancer, thus producing a partial explanation for EMF cancer causation; because such DNA damage occurs in sperm cells (Atasoy et al., 2013, Avendaño et al., 2012, Akdag et al., 2016, Liu et al., 2014, Asghari et al., 2016), such damage is highly likely to produce mutations that impact future generations; calcium overload is highly likely to be the cause of each of these various other effects, as discussed below; apoptosis has central roles in neurodegenerative diseases; the neuropsychiatric effects are almost certainly caused by the impact of EMFs on brain structure which is extensively documented and, in my opinion, produces many impacts (Pall, 2016b). A recent meta-analysis shows major lowering of sperm counts and sperm quality in many countries around the world, with declines of over 50% in all advanced technology countries (Levine et al., 2017). The senior author of this study suggested that this effect alone may lead to human extinction (No authors listed, 2017). Given the major impact of EMF exposures on sperm count and quality in human and in animal studies, the pattern of evidence on male fertility is very worrying.

One thing needs to be clarified, here, however. In the two studies on calcium overload following Wi-Fi exposure, such overload was measured a substantial time period following exposure. Overload was shown to be caused, to a substantial effect, by increased TRPV1 receptor activity (Çiğ and Nazıroğlu, 2015, Ghazizadeh and Nazıroğlu, 2014). The TRPV1 receptor is known to be activated by oxidative stress. It is my view, discussed in detail below, that there is a central mechanism that acts to produce excessive intracellular calcium immediately following EMF exposure and that the oxidative stress/TRPV1 activation is secondary.

We have then, major impacts of non-thermal EMF exposures on both of the most important intercellular regulatory systems in the body, the calcium regulatory system. And we also have non-thermal EMF exposures putting our biological inheritance at great risk. A major impact is on the most important functions that go to the heart of our health.

Despite all of these clear and important, non-thermal effects, and the fact that there was substantial evidence for many of them already known before 1973, our current U.S. and international safety guidelines are still based on considering only thermal effects.

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## 2. Wi-Fi and other wireless commu

larger biological impacts; These EMFs are also polarized, also producing larger effects; Dose response curves are often both non-linear and non-monotone

There are three patterns of EMF action, each of which is very important and each of which is almost universally ignored by the telecommunications industry and industry-linked organizations. The most extensively reviewed of these is that pulsed EMFs are usually much more biologically active than are non-pulsed (also known as continuous wave) EMFs of identical frequency and similar average intensity (Osipov, 1965, Pollack and Healer, 1967, Creighton et al., 1987, Grigor'ev, 1996, Belyaev, 2005, Belyaev, 2015, Markov, 2007, Van Boxem et al., 2014, Pall, 2015b, Panagopoulos et al., 2015b). This pattern of action is particularly important because all wireless communication devices, including Wi-Fi (Panagopoulos et al., 2015b, Maret, 2015) communicate via pulsations and are likely to be particularly dangerous as consequence of this. Panagopoulos et al., 2015b have argued that the more pulsed they are, the more damaging EMFs will be and while this may still be questioned, it may well be a roughly applicable generalization.

It is also true that artificial EMFs are polarized and this makes artificial EMFs particularly dangerous (Belyaev, 2005, Belyaev, 2015, Panagopoulos et al., 2015a). Polarized EMFs put much larger forces of electrically charged chemical groups than do non-polarized EMFs (Panagopoulos et al., 2015a), an observation that is relevant to the main mechanism of EMF action in living cells discussed below.

It has often been found that there are windows of exposure where specific intensity ranges produce maximum biological effects, which drop off going to both lower or higher intensities (Belyaev, 2005, Belyaev, 2015, Pall, 2015b). It can be seen from this that dose-response curves are often both non-linear and non-monotone whereas industry linked groups often assume a linear and therefore monotone dose-response curve.

## 3. EMF effects are often cumulative and irreversible

One question that has been raised about the effects of these low-intensity EMFs producing biological effects is are they cumulative? I am aw  
cumulative effects. Three of the human occupati  
in Raines (1981), showed that effects increased su  
particular type and intensity of EMF.

The impacts of such EMFs on animal brains wer  
discussed in Pall (2016b). Initially exposures over  
modest changes in structure of the brain and the neurons and when exposures ceased, most of the structural changes disappeared – that is the changes were largely reversible. However more




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months of exposure produced much more s

these were irreversible (Tolgskaya and Gordon, 1973, Pallab, 2007).  Download  Share  Export

Magras and Xenos (1997) put pairs of young mice into cages on the ground at two locations each with somewhat different exposures within an antenna park. The exposure levels at both sites were well within safety guidelines, so if the safety guidelines have any biological relevance, there should have been no apparent effects. It takes about 30 days for mice to go through gestation. At the higher level exposure, the pairs produced one litter of lower than normal size, and a second litter with lowered numbers of progeny; after that they were completely sterile or had extremely low fertility (Magras and Xenos, 1997). At the other site, the mating pairs produced four litters, with decreasing numbers of progeny over time followed by complete sterility. In both groups, the mating and possible subsequent gestation for the fifth possible litter were performed under conditions of no EMF exposure, but the fertility effects were not reversed; therefore fertility effects may become irreversible, suggesting a similar pattern to the brain related effects of EMFs. It should be noted that Özorak et al (2013) showed that Wi-Fi exposure impacted animal reproduction and that (Atasoy et al., 2013, Shokri et al., 2015, Dasdag et al., 2015, Avendaño et al., 2012, Yildiring et al., 2015, Oni et al., 2011, Akdag et al., 2016) suggest this as well from the Wi-Fi impacts on testis structure and sperm production.

Mutation accumulation produced by cellular DNA damage is likely to be both cumulative and irreversible, as well, because later mutations are highly unlikely to reverse previously occurring mutations.

We have therefore reason to think that such effects as brain damage to animal brains, neuropsychiatric effects in humans, reproductive dysfunction in mice and mutational effects, are each cumulative. Those same effects may be completely or largely irreversible. One thing that this should tell us is that the short-term Wi-Fi studies shown in Table 1 may *greatly underestimate* the damage Wi-Fi may do over much longer time periods. Given the fact that Wi-Fi has been placed in most schools, hotels, restaurants, coffee shops, commercial aircraft and airports as well as in many homes and that Wi-Fi hot spots are becoming increasingly common in cities around the world, we should expect massive cumulative Wi-Fi effects in many people. A second tentative inference is that false assurances of safety on the part of industry are likely to lead to much more severe effects on people exposed to Wi-Fi or other themselves or their children by avoiding exposure. A third inference is that these effects may attribute to EMF exposure. We are much more at risk if we do not take months or years before they become readily

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#### 4. Wi-Fi and other EMFs may be particularly damaging to young people

Most arguments that have been made that are damaging to young children have centered on the thinning of skulls and skull thickness in young children, increasing the exposure of their brains to EMFs (Gandhi and Kang, 2001, Gandhi et al., 2012). However there are other arguments to be made. EMFs have been shown to be particularly active in producing effects on embryonic stem cells (Lee et al., 2014, Belyaev et al., 2009, Markovà et al., 2010, Czyz et al., 2004, Xu et al., 2016, Bhargav et al., 2015, Odaci et al., 2008, Uchugonova et al., 2008, Wang et al., 2015, Teven et al., 2012). Because such stem cells occur at much higher cell densities in children, with stem cell densities the highest in the fetus and decreasing with increasing age (Belyaev et al., 2009, Markovà et al., 2010), impacts on young children are likely to be much higher than in adults. The decreased DNA repair and increased DNA damage following EMF exposure strongly suggest that young children may be increasingly susceptible to cancer following such exposures (Belyaev et al., 2009, Markovà et al., 2010, Czyz et al., 2004). EMF action on stem cells may also cause young children to be particularly susceptible to disruption of brain development (Xu et al., 2016, Bhargav et al., 2015), something that may be relevant to autism causation. These are all very problematic issues and we cannot rule out the possibility that there are other problematic issues as well. Redmayne and Johansson (2015) reviewed the literature showing that there are age-related effects, such that young people are more sensitive to EMF effects. It follows from these various findings that the placement of Wi-Fi into schools around the country may well be a high level threat to the health of our children as well being a threat to teachers and any very sensitive fetuses teachers may be carrying, as well.

## 5. How do EMF exposures lead to non-thermal health impacts?

The author found the answer to this question in the already published scientific literature (Pall, 2013). That study showed that in 24 different studies [there are now a total of 26 Pall (2015b)], effects of low-intensity EMFs, including microwave frequency and also extremely low frequency EMFs, static electrical fields and static magnetic fields could be blocked by calcium channel blockers, drugs that are specific for blocking voltage-gated calcium channels (VGCCs). There were 5 different types of calcium channel blockers used in these studies, each thought to be highly specific, each structurally distinct and each binding to a different site on the VGCCs. In studies where multiple effects were studied, all studied effects were blocked or greatly lowered by calcium channel blockers. These studies show that EMFs activate VGCCs in mammalian cells and animal cells. In plant cells, EMFs activate so-called plant VGCCs, which have somewhat similar effects on oxidative stress, cell growth, and other processes (Pall, 2016a). Furthermore, many different effects show up following EMF exposures, including the effects discussed above, such as VGCC activation, via increased  $[Ca^{2+}]_i$ , as discussed in detail below.

Before leaving this issue, it is important to discuss why the VGCCs are so sensitive to activation by these low-intensity EMFs. The VGCCs each have a voltage sensor which is made up of 4 alpha

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helixes in the plasma membrane, with each :

of 20 positive charges (Pall, 2015b). These voltage sensor helixes are each called S4 helixes because each is the fourth helix in a distinct multi-helix domain. Each of these voltage sensor charges is within the lipid bilayer part of the plasma membrane. The electrical forces on the voltage sensor are very high for three distinct reasons (Pall, 2015b, Pall, 2015a, Pall, 2016a). 1. The 20 charges on the voltage sensor make the forces on voltage sensor 20 times higher than the forces on a single charge. 2. Because these charges are within the lipid bilayer section of the membrane where the dielectric constant is about 1/120th of the dielectric constant of the aqueous parts of the cell, the law of physics called Coulomb's law, predicts that the forces on those charges will be approximately 120 times higher than the forces on charges in the aqueous parts of the cell. 3. Because the plasma membrane has a high electrical resistance whereas the aqueous parts of the cell are highly conductive, the electrical gradient across the plasma membrane is estimated to be concentrated about 3000-fold. The combination of these effects means that comparing the forces on the voltage sensor with the forces on singly charged groups in the aqueous parts of the cell, the forces on the voltage sensor are approximately  $20 \times 120 \times 3000 = 7.2$  million times higher (Pall, 2015b). The physics predicts, therefore, extraordinarily strong forces activating the VGCCs via the voltage sensor. It follows that the biology tells us that the VGCCs are the main target of the EMFs and the physics tells us why they are the main target. Thus the physics and biology are pointing in the same direction.

There are also additional findings pointing to the voltage sensor as the direct target of the EMFs. In addition to the VGCCs, there are also voltage-gated sodium, potassium and chloride channels, with each of these having a voltage sensor similar to those found in the VGCCs. Lu et al. (2015) reported that voltage gated sodium channels, in addition to the VGCCs were activated by EMFs. Tabor et al. (2014) found that Mauthner cells, specialized neurons with special roles in triggering rapid escape mechanisms in fish, were almost instantaneously activated by electrical pulses, which acted via voltage-gated sodium channel activation to subsequently produce large  $[Ca^{2+}]_i$  increases. Zhang et al. (2016) reported that in addition to the VGCCs, potassium and chloride channels were each activated by EMFs, although these other voltage-gated ion channels had relatively modest roles compared with the VGCCs in producing biological effects. Each of these three studies, the Lu et al. (2015) study, the Tabor et al. (2014) study and the Zhang et al. (2016) study used specific blockers for these other voltage-gated ion channels. The Tabor et al. (2014) study also used genetic probes for voltage-gated sodium channels. Lu et al. (2015) also used whole-cell patch clamp recordings to show a rapid influx of both sodium and calcium into the cell during EMF exposure. Sodium influx, particularly in electroporation studies, is known to depolarize the plasma membrane, leading to activation of voltage-gated sodium channels.

Sodium channels may act primarily via indirect activation of the VGCCs. In summary then, we have evidence that in animal including human cells, seven distinct classes of voltage-gated ion channels are each activated by EMF exposures: From the Pall (2013) review, four classes of voltage-gated ion channels were shown from calcium channel blocker studies, to be activated by EMFs, L-

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type, T-type, N-type and P/Q –type VGCCs. I

channels are also activated, voltage-gated sodium channels, voltage-gated potassium channels and voltage-gated chloride channels. Furthermore the plant studies strongly suggest that the so called TPC channels, which contain a similar voltage sensor, are activated in plants allowing calcium influx into plants to produce similar EMF-induced responses (Pall, 2016a). One can put those observations together with the powerful findings from the physics, that the electrical forces on the voltage-sensor are stunningly strong, something like 7.2 million times stronger than the forces on the singly charged groups in the aqueous phases of the cell. Now you have a stunningly powerful argument that the voltage sensor is the predominant direct target of the EMFs.

There is one additional finding that should be discussed here. In a study published by Pilla (2012), it was found that pulsed EMFs produced an “instantaneous” increase in calcium/calmodulin-dependent nitric oxide synthesis in cells in culture. What Pilla (2012) showed was that following EMF exposure, the cells in culture, must have produced a large increase in  $[Ca^{2+}]_i$ , this in turn produced a large increase in nitric oxide synthesis, the nitric oxide diffused out of the cells and out of the aqueous medium above the cells into the gas phase, where the nitric oxide was detected by a nitric oxide electrode. This entire sequence occurred in less than 5 s. This eliminates almost any conceivable indirect effect, except possibly via plasma membrane depolarization. Therefore that the pulsed EMFs are acting directly on the voltage sensors of the VGCCs and possibly the voltage-gated sodium channels, to produce the  $[Ca^{2+}]_i$  increase.

Why is it that the VGCCs, acting via calcium influx, seem to be much more important in producing EMF effects than are the other voltage-gated ion channels? Probably for three reasons: 1.  $Ca^{2+}$  ions under resting conditions in cells have about a 10,000-fold concentration gradient driving them into the cell, and over a million-fold electrochemical gradient also driving them into the cell. Because of this, one can have huge calcium influxes upon channel activation. 2.  $[Ca^{2+}]_i$  produces many important regulatory effects, such that over activation of those effects can have very large pathophysiological consequences. 3. Sustained elevation of  $[Ca^{2+}]_i$  produces major cell damage.

## 6. How can the Wi-Fi effects be produced?

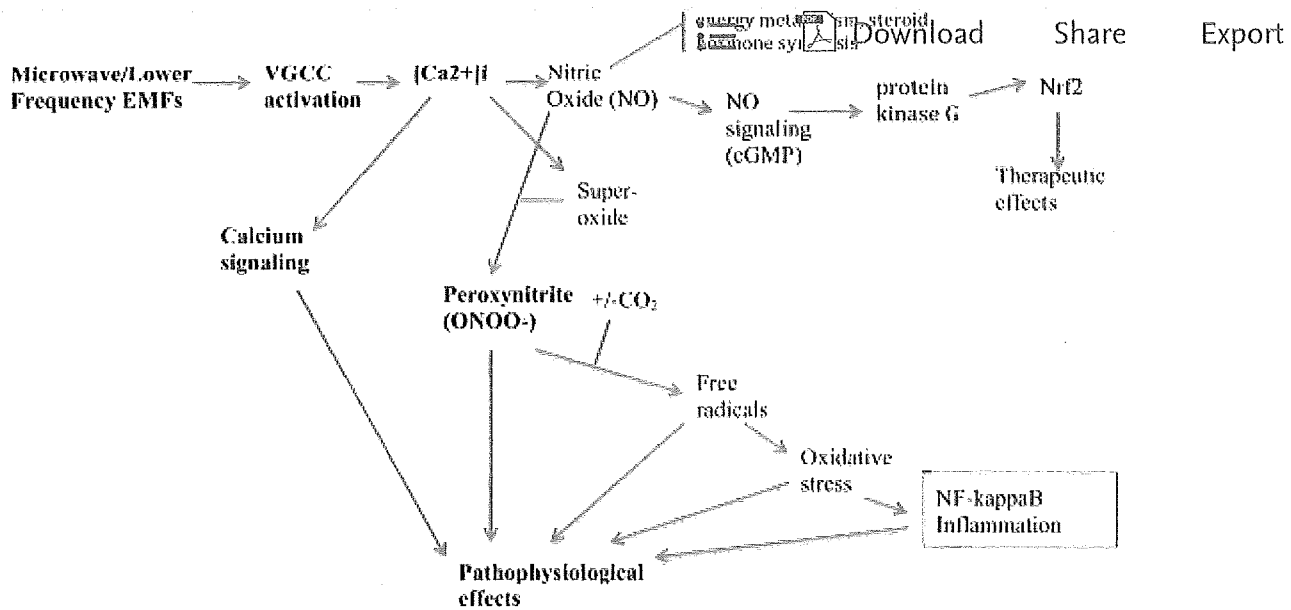
Can the various effects produced by Wi-Fi and by the downstream effects of VGCC activation? Is it the various downstream effects of VGCC activation to produce each of the effects of Wi-Fi and other

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Fig. 1. Various pathways of action by which EMF VGCC activation can produce effects produced by EMF exposure (modified, with permission from Pall, 2015b).

As shown in the top left section of Fig. 1, microwave and lower frequency EMFs act via VGCC activation to produce increases in intracellular calcium  $[Ca^{2+}]_i$ . All of the downstream effects of VGCC activation considered in Fig. 1 are produced by elevated (often excessive)  $[Ca^{2+}]_i$ .

Just to the right of  $[Ca^{2+}]_i$  in Fig. 1, you will see that elevated  $[Ca^{2+}]_i$  produced increases in nitric oxide (NO) synthesis. This is because two of the three types of enzymes producing NO are calcium-dependent. There is an NO signaling pathway that goes through increased cGMP and increased protein kinase G activity. Protein kinase G can act by raising the activity of the transcriptional regulatory factor, Nrf2, to produce the therapeutic effects produced by EMF exposures (Pilla, 2013, Pall, 2014, Pall and Levine, 2015).

High levels of NO can bind to heme groups on cytochrome oxidase, the terminal oxidase, inhibiting cytochrome oxidase, the terminal oxidase synthesis. NO can also inhibit cytochrome P450s levels of estrogen, progesterone and testosterone

The main pathophysiological effects of EMF exposure are calcium signaling (lower left) and the peroxynitrite pathway (lower right). Peroxynitrite levels are elevated because both NO and superoxide are elevated by increased  $[Ca^{2+}]_i$  with NO and superoxide reacting with each other to form peroxynitrite. Peroxynitrite and its  $CO_2$  adduct, can break down

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to produce reactive free radicals, hydroxyl radicals, and other oxidants that produce oxidative stress. These various oxidants act to produce greatly elevated NF-kappaB activity, leading to inflammation. All of this biochemistry and physiology is well-accepted and widely known with a single exception: The role of protein kinase G in raising Nrf2 has only recently been reviewed (Pall and Levine, 2015).

The ways in which these mechanisms can produce each of the seven effects produced by Wi-Fi, as well as other microwave frequency EMFs, are described in Table 3.

Table 3. How Eight Established Effects of Wi-Fi and Other EMFs Can Be Produced by VGCC Activation.

EMF effect	Probable mechanism(s)
<b>Oxidative stress</b>	Produced by elevated levels of peroxynitrite and the free radical breakdown products of peroxynitrite and its CO <sub>2</sub> adduct. Four studies of EMF exposure, cited in Pall (2013) showed that oxidative stress following exposure was associated with major elevation of 3-nitrotyrosine, a marker of peroxynitrite, thus confirming this interpretation. Two other studies each found 3-nitrotyrosine elevation, both following 35 GHz exposures (Sypniewska et al. (2010); Kalns et al., 2000).
<b>Lowered male/female fertility, elevated spontaneous abortion, lowered libido</b>	Both the lowered male fertility and lowered female fertility are associated with and presumably caused by the oxidative stress in the male and female reproductive organs. Spontaneous abortion is often caused by chromosomal mutations, so the germ line mutations may have a causal role. Lowered libido may be caused by lowered estrogen, progesterone and testosterone levels. It seems likely that these explanations may be greatly oversimplified. One mechanism that may be important in lowered fertility is that VGCC activation and consequent high [Ca <sup>2+</sup> ] <sub>i</sub> levels is known to have a key role in avoiding polyspermy. Consequently, if this is triggered before any fertilization of an egg has occurred, it may prevent any sperm from fertilizing and egg.
<b>Neurological/neuropsychiatric effects</b>	Of all cells in the body, the neurons VGCC role and [Ca <sup>2+</sup> ] <sub>i</sub> role in the re Calcium signaling regulates synaptic to be involved here. Oxidative stress roles. Lowered sleep and increased melatonin and increased nocturnal

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<u>EMF effect</u>	<u>Probable mechanism(s)</u>
<b>Apoptosis</b>	Apoptosis can be produced by excessive Ca <sup>2+</sup> levels in the mitochondria and by double strand breaks in cellular DNA; it seems likely that both are involved following EMF exposure. A third mechanism for triggering apoptosis, endoplasmic reticulum stress (see bottom row in this Table), may also be involved.
<b>Cellular DNA damage</b>	Cellular DNA damage is produced by the free radical breakdown products of peroxyntirite directly attacking the DNA [see Pall (2018) for discussion].
<b>Changes in non-steroid hormone levels</b>	The release of non-steroid hormones is produced by VGCC activation and [Ca <sup>2+</sup> ] <sub>i</sub> elevation. The immediate effects of EMF exposures is to increase hormone release and to raise, therefore, hormone levels. However many hormone systems become “exhausted” as a consequence of chronic EMF exposures. The mechanism of exhaustion is still uncertain, but it may involve oxidative stress and inflammation.
<b>Lowered steroid hormone</b>	Steroid hormones are synthesized through the action of cytochrome P450 enzymes; activity of these hormones is inhibited by binding of high levels of nitric oxide (NO) leading to lowered hormone synthesis.
<b>Calcium overload</b>	Produced by excessive activity of the VGCCs; secondary calcium overload is produced by oxidative stress activation of TRPV1, TRPM2 and possibly some other TRP receptors, opening the calcium channel of these receptors.
<b>Heat shock protein induction</b>	There is a large literature showing that excessive [Ca <sup>2+</sup> ] <sub>i</sub> induces very large increases in heat shock proteins. This is thought to be produced by complex calcium signaling changes involving the endoplasmic reticulum, mitochondria and the cytosol and also involving excessive [Ca <sup>2+</sup> ] <sub>i</sub> producing increasing protein misfolding (Garbuz, 2017; Park et al., 2014; Krebs et al., 2011). It should be noted that some calcium is essential for proper protein folding in the endoplasmic reticulum such that only excessive calcium leads to misfolding and consequent endoplasmic reticulum stress.

It can be seen from Table 3, that there are plausible mechanisms by which each of those seven effects can be produced by VGCC activation via known pathways. Given the complexities of biology, the mechanisms described in Table 3 m:

There is one other finding, not related to the Wi question that was raised in review of the paper w following EMF exposure in many studies, could from Table 3, it can be.

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## 7. Other proposed biophysical mechanisms

One question that can be asked is how the V biophysical models of non-thermal EMF effects. Belyaev (2015) has discussed a number of what he describes as biophysical models which are, therefore considered here. These models are basically theoretical models of how the weak electrical forces of the EMFs can interact with biologically plausible structures to produce non-thermal effects.

The first of these Belyaev considers is Fröhlich's theory. This is where there are "coherent longitudinal vibrations of electrically polar structures." The mechanism of Fröhlich's theory will not be considered here (the reader is referred to Belyaev, 2015). The author considers this to be a plausible mechanism for possible production of some non-thermal EMF effects. However, there are no specific testable predictions made by the theory that suggest how it could be tested, given the fact that there may be multiple possible targets of the EMFs according to Fröhlich's theory.

A second possible mechanism involves the spin state of radical pairs. When radical pairs are generated from the breakdown of a non-radical molecule, these radical pairs often react back with each other to form another non-radical molecule, not necessarily identical to the original non-radical. What is postulated by this theory is that EMFs can interact with one or both radicals, changing their spin state and greatly lowering their ability to react back with each other, thus generating increased free radicals and therefore increased oxidative stress. The potential strong point of this theory is that it provides an explanation for the oxidative stress found following EMF exposure. However, as noted under oxidative stress in Table 3, there are 6 studies where oxidative stress following EMF exposure was associated with very high levels of 3-nitrotyrosine, a specific marker of peroxynitrite elevation. These studies argue, therefore, that oxidative stress following EMF exposure is produced by peroxynitrite elevation and is not primarily produced by this radical pair mechanism. It follows from this that the proposed radical pair mechanism cannot even explain the properties of oxidative stress production, let alone the various consequences of non-thermal EMF exposure that do not involve oxidative stress. Does that mean that the radical pair mechanism has no possible role in producing non-thermal EMF effects? No, but it does argue there is no evidence for any such role.

A third mechanism discussed in Belyaev (2015) is the electrosoliton theory proposed by Brizhik and colleagues, involving a "self reinforcing solitary wave packet." Brizhik and her colleagues discussed this in the context of reaching a threshold state to another. This concept shows substantial activation of the voltage sensor, that is discussed designated an S4 helix and with each S4 helix has together making up the voltage sensor. Most of them are apart from each other, such that the closest charged residues stick out from the helix pretty much on the same side of the helix. Three of those positive charges are electrostatically attracted to negative residues on other helices thought to be in fixed positions. What is thought to happen in

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activation is that there a ratcheting of the S4

such that the negative charges are now bound to a positive charge 3 residues away from the one that was previously bound. The ratcheting also produces some turning of the S4 helix. This needs to occur several times on each of the four S4 helices to open the channel and allow calcium ions to flow. While I don't completely understand the Brizhik electrosoliton model, it may well be relevant to our understanding the VGCC activation, because the mechanism of the voltage sensor is similar to what Brizhik and her colleagues propose to occur in the electrosoliton model. Both the electrosoliton model and the voltage sensor activation mechanism involve both charge movements and ratcheting. In order to test these biophysical models one needs to have a specific mechanism where it may apply and where such tests can be done. In the case of the voltage sensor of the VGCCs, these tests have already been done.

These models are basically theoretical models of how the weak electrical forces of the EMFs can interact with biologically plausible structures to produce non-thermal effects. Their theoretical support is their strong point. They are weak, however, in providing any compelling evidence that they have causal roles in producing non-thermal changes in cells in culture or in whole animal (or human) studies. They are also weak because they do not provide stated explanations for the range of EMF effects that have been documented.

Belyaev (2015) discusses microwave hearing in this context. He discusses the findings showing that people can hear microwave fields that are pulsed, including pulsed low intensity EMFs. While there is no doubt that these are very interesting observations on what are clearly non-thermal effects, they do not provide a biophysical model explaining how microwave hearing may occur. It is important, therefore to ask whether such microwave hearing could be caused by VGCC activation. It has been shown that hearing involves the activation of the VGCCs (Joiner and Lee, 2015). Furthermore, various otolaryngological conditions, including tinnitus, involve excessive VGCC activity, such that the calcium channel blocker, nimodipine is useful in their treatment (Monzani et al., 2015). These findings tells us that microwave hearing may be produced by VGCC activation. Consequently, microwave hearing may be interpreted as providing further support for the VGCC mechanism.

Following microwave hearing, Dr. Belyaev (2015) discusses plasma membrane and ion models. Here the VGCC mechanisms fit into the scheme the plant TPC channels, all discussed above as be EMF exposures.

Finally, Dr. Belyaev (2015) discusses possible dire changes in chromatin structure and/or nuclear s aqueous solutions of DNA absorb microwave EMFs much more efficiently than do identical solutions not containing DNA. This clearly shows that DNA has a high absorbance of the EMFs, Furthermore, there are studies showing such dissolved DNA, when it absorbs such EMFs, undergoes structural changes as measured by biophysical techniques. All of this suggests that

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DNA is a plausible potential target for the EMF such changes in DNA structure in living cells and organisms. Dr. Belyaev spends almost a page and a half in his paper discussing various possible models of interactions of DNA or of chromatin with EMFs. But again, how do we test any of these in living cells to demonstrate a role of such DNA or chromatin changes in producing any specific or general biological effects? Given the extraordinary complexity of living cells and organisms, there are only two powerful ways of demonstrating causal roles in such living cells and organisms. These are to use genetics or to use specific pharmacological agents. The extraordinary power of each of these approaches comes from the fact that these approaches allow researchers to vary one variable at a time out of the thousands of interacting variables in a living cell, allowing us to ask does that specific variable have a causal role in determining a specific response. But these two approaches can be used when specific proteins have specific roles, not when you are looking at the role of DNA structural changes, Fröhlich's theory, radical pair mechanisms or electrosoliton models. Fortunately the VGCC mechanism does allow this approach by studying various classes of calcium channel blockers, so here we do have hard data on widespread causal roles of VGCC activation in producing EMF effects.

## 8. Two other models for producing non-thermal effects

With the possible exception of the electrosoliton model, the author does not find any of the models discussed by Dr. Belyaev (2015) to have substantial evidence for roles in producing EMF effects. There are two other models which may be more compelling, each of which either produces increased  $[Ca^{2+}]_i$ .

Six studies have supported the view that calcium cyclotron resonance, has a role in producing biological effects produced by *certain specific frequencies* which can interact with  $Ca^{2+}$  ions to produce a cyclotron-like resonance (Foletti et al., 2010; Gaetani et al., 2009; De Carlo et al., 2012; Lisi et al., 2008; Pazur and Rassadina, 2009; Pazur et al., 2006). In each case, the effects involved a very specific frequency which produces the calcium cyclotron resonance and in three studies, these frequencies were shown to produce increases in  $[Ca^{2+}]_i$  levels. In the De Carlo et al. (2012) study, the calcium channel blocker nifedipine was shown to greatly lower the apparent calcium cyclotron resonance effect. This finding strongly suggests that the calcium cyclotron resonance can feed  $Ca^{2+}$  ions into the VGCCs, thus increasing the cell following EMF exposure. The frequencies close to 7 Hz and the other was close to 50 Hz, and consequently are not relevant to microwave frequency calcium cyclotron resonance frequencies production mechanism.

It is now well established that there is a magnetoreception mechanism found in many animals that can detect and respond to the very low intensity geomagnetic field. This has been most

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studied in bees and in birds, both of whom

involve tiny particles of magnetite which occur in bacteria, animal and plant cells, including human cells. Kirschvink (1992) first proposed a model of how such a mechanism might act. He proposed that magnetite particles may be tethered through a microtubule and/or microfilament or perhaps other fibers to a mechanosensitive channel, such that tiny magnetic forces could open the mechanosensitive channels, allowing cation flow into the cells. It is still uncertain what mechanosensitive channel or channels might be involved, but most of the candidates are channels that allow both sodium and calcium to flow into cells. Hsu et al. (2007) suggested that such magnetite particles were linked in honeybees to an undefined calcium channel, such that magnetic field exposure produces increases in  $[Ca^{2+}]_i$ . The worm *Caenorhabditis elegans* had been shown to have a geomagnetic orientation system. Vidal-Gadea et al. (2015) found that certain specific neurons in *C. elegans* which may be geomagnetic sensory neurons, very low intensity geomagnetic fields could produce increases in  $[Ca^{2+}]_i$  in those specific neurons, even when they had no synaptic inputs, suggesting that these neurons themselves acted as geomagnetic sensors.

Cadiou and McNaughton (2010) reviewed the literature on a magnetite-based magnetoreception system in birds and its role in avian migration. They also reviewed findings on neurons found in the trigeminal nerve of birds, where magnetic fields as low as 200 nT can activate specific neurons. Trains of action potentials are produced by magnetic fields, plateauing in the region of 20–100 mT. Latency in a study presented by Cadiou and McNaughton (2010) was about 4 s, but other studies have reported latencies of about 2.5 s. Therefore these are rapid effects. Cadiou and McNaughton (2010) also discuss possible roles mechanosensitive channels, including a model similar to that proposed by Kirschvink (1992) and also three other models, each involving different ways of coupling forces on magnetite to opening of a channel. Magnetoreception has also been reported to occur in a mammal, the mole-rat (Wegner et al., 2006). There are also studies of magnetic compass orientation in salmonids, newts, sea turtles and other rodents. There is evidence in *Drosophila*, that a magnetic structure attached to cryptochrome is involved in magnetoreception, as opposed to magnetite.

The two mechanisms described in this section have minor roles, only acting, as far as we can tell, in very specific situations. The calcium cyclotron resonance mechanism only acts with a few specific frequencies in the extremely low frequency range. The magnetoreception mechanism only acts, as far as one can tell, on detecting the  $\gamma$  one can tell, in certain specific neurons. It is possible the magnetoreception mechanism but what is clear is that it is more important than either of these mechanisms, acting in response to a very wide frequency range and even static fields. Because static magnetic fields only place a puzzle on how they can activate the VGCCs. Pall (2013) suggested that the solution to that puzzle is that the plasma membrane of animal cells is often moving, such that the charges in the voltage sensor are also moving and can, therefore, have forces placed on them by the static magnetic

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fields. These static magnetic fields, activating probably must be much higher intensity than the extraordinarily weak geomagnetic fields. The reader is referred to Lu et al. (2015) for empirical information from an important static magnetic field study, where those static magnetic fields activate both VGCCs and voltage-gated sodium channels.

## 9. Foster and Moulder on Wi-Fi

The Foster and Moulder (2013) paper argues that there are no and cannot be any health effects of Wi-Fi. The first 7½ pages of the paper are, however, largely irrelevant to that issue. These pages discuss such issues as predicted peak power output, incident power density and the FCC and international safety guidelines. They also discuss specific absorption rate (SAR) values, a measure of heating. Because it is now established, as discussed above that thermal effects are not the relevant mechanism of non-thermal effects and that VGCC activation is the main mechanism of such effects, this whole section is irrelevant. Foster and Moulder (2013) discuss the issue of biological effects, praising 7 studies listed in table 4 of their paper as having “well-characterized exposure systems” of well defined SARS values, reporting that there were no effects in the rats or mice in those 7 studies. Those 7 studies are Laudisi et al. (2012), Sambucci et al. (2010), Aït-Aïssa et al., 2010, Aït-Aïssa et al., 2012, Aït-Aïssa et al., 2013 Poulletier de Gannes et al., 2012, Poulletier de Gannes et al., 2013. The first two studies come from one research group and the other five from another, albeit with some shared personnel.

Six or those seven studies (Sambucci et al., 2010, Aït-Aïssa et al., 2010, Aït-Aïssa et al., 2012, Aït-Aïssa et al., 2013, Poulletier de Gannes et al., 2012, Poulletier de Gannes et al., 2013) used an exposure system described by Wu et al. (2009) that is important here and that was claimed to produce a near uniform exposure. Laudisi et al. (2012) used a somewhat similar exposure system of Ardoino et al. (2005), albeit another one that is also claimed to produce near uniform exposures. The important features here of the Wu et al. (2009) exposure system need to be examined in the light of the fact that, as discussed above, artificial EMFs are polarized with the polarization producing much larger biological effects than natural non-polarized EMFs (Belyaev, 2005, Belyaev, 2015, Panagopoulos et al., 2015a). The probable important feature of these polarized EMFs is that they put much larger forces on electrically charged groups (Panagopoulos et al., 2015a); since such forces are central to VGCC activation, above, they are likely to be central to the product of the Wu et al. (2009) with that issue in mind. It uses a large mesh wire mesh to provide reflections of the EM field (on a platform at its center, is also surrounded by horizontal directions) such that each antenna is shielded (by 180°) by another broadcasting with the 180° opposite polarization, as well as by four other antennae, broadcasting with 90° different polarization in each of the four possible directions. This produces a field that is more like a non-polarized EMF rather than the usual polarized

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artificial EMF. This move toward non-polarized reverberation system whose reflections will generate vast numbers of reflections of different polarity, like a non-polarized EMF. The consequences of this is that the structure of this exposure system is clearly very different from that seen in Wi-Fi or any other artificially produced EMF that we may be exposed to, with biological effects produced via electrical forces being vastly less. Consequently this exposure system is not only inherently different from genuine Wi-Fi, it is predicted to be inherently less active than genuine Wi-Fi, regardless of what EMFs are being fed into the 6 antennae.

There is a second type of consequence of using such reverberation exposure systems. Because of the many reverberations occurring, the path lengths of different photons reaching a specific point in the exposed tissue, will often be quite different from each other, such that the phase of the EMFs produced will also be quite different from each other. This leads to the possibility of destructive interference and thus a second mechanism which is predicted to lead to substantial decreases in the intensity of the exposures. Because exposures are usually predicted by groups using such exposure chambers without considering such destructive interference, rather than being measured, the actual exposures may be substantially lower than are the predicted exposures. Both the polarization effect and the possible difference between predicted exposure and actual exposure were considered in an earlier study.

Vian et al. (2006), using a different reverberation exposure chamber, discussed in Fig. 1 of that paper, how the various reverberations lead to the initial polarized EMF being converted to a non-polarized or at least, less polarized EMF. They also on p. 69 of that paper compared the predicted with the measured amplitude and found that the measured amplitude was only 78% of the predicted amplitude. These findings suggest that both of the lowered polarization and destructive interference discussed in the previous two paragraphs can have substantial roles in lowering biological responses produced when using such reverberation exposure chambers.

Laudisi et al. (2012) used a different exposure system, that of Ardoino et al. (2005) where the vast majority of the exposure is produced from reflections off a long cylindrical surface in a TEM cell, where the curvature of the cylinder will also produce a largely non-polarized EMF and different reverberation paths and consequent destructive interference, may both be expected to occur.

Consequently the predicted low biological activity system may be expected to also occur from this. It is not possible to study biological effects of EMFs from exposures using such exposure systems because the original polarized EMFs and because of destructive

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Let's now shift to the issue of the important role of pulsations in producing biological effects and ask whether the EMFs fed into the antennae have pulsation patterns similar or different from genuine Wi-Fi. Poullétier de Gannes et al. (2012) used a non-pulsed (continuous wave) as did Wu et al. (2009), an EMF which will have, therefore, much lower biological effects than genuine Wi-Fi

with its myriad of pulsations (Maret, 2015).<sup>7</sup>

al., 2010, Ait-Aïssa et al., 2010, Ait-Aïssa et al., 2013, Poullé et al., 2013, Poullé et al., 2013) used computers with Wi-Fi cards. Such Wi-Fi cards are designed to communicate with genuine Wi-Fi antennae, but are used here to communicate with each other, using two such computers to generate “Wi-Fi”. How the EMFs so generated compare with the pulsations of genuine Wi-Fi is a complete mystery and none of these papers provide any information to allow the reader to make such a comparison. It follows that these studies (Laudisi et al., 2012, Sambucci et al., 2010, Ait-Aïssa et al., 2010, Ait-Aïssa et al., 2013, Poullé et al., 2013) are not studying genuine Wi-Fi, even before the effects of the reverberation chamber and the reader is left with no evidence to compare these original EMFs with genuine Wi-Fi. In summary, then none of the EMFs used in these studies are genuine Wi-Fi, with them differing from genuine Wi-Fi in three different ways: the antenna locations produce a substantial difference from genuine Wi-Fi regarding EMF polarization and this is further exacerbated by the effects of the aluminum mesh reverberation producing further lowering of any polarization; differences in path lengths of different photons produce substantial destructive interference; the initial EMF fed into the antennae differs substantially from genuine Wi-Fi, with the main concern here being due to the issue of pulsation patterns and biological effects.

Let's shift now to the claim made by Foster and Moulder (2013) that there were no effects found in any of these 7 studies. Rothman et al., *Modern Epidemiology*, 3rd Edition is a highly respected source of information, cited over 18,500 times according to the Google Scholar database. It states (p. 151, bottom) that: “A common misinterpretation of significance tests is that there no difference between two observed groups because the null test is not statistically significant, in that P is greater than the cutoff for declaring statistical significance (again, usually .05). This interpretation confuses a descriptive issue (whether two observed groups differ) with an inference about the superpopulation. The significance test refers only to the superpopulation, not the observed groups. To say that the difference is not statistically significant means only that one cannot reject the null hypothesis that the superpopulation groups are the same; it does not imply that the two groups are the same.” It follows that the claim of “no effect” that Foster and Moulder (2013) make about each of these 7 studies in Table 4 of their paper is false because one can never legitimately make such a claim; one can at most claim that there were no statistically significant differences.

However there are other reasons to reject those of these 7 studies. Each of these 7 studies fails to provide problematic, given the other flaws that follow. **1).** cell populations are statistically significantly different from controls: DP and CD4SP cells are significantly affected at birth; CD4SP cells are affected in female mice at 5 weeks after birth ( $P < .02$  in each case). Furthermore in each of the measurements in Laudisi et al. (2012), only 11 or 12 mice were studied, tiny numbers. It follows that claims in Foster and Moulder (2013) that there were no

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effects are false or misleading for 3 distinct

large studies; there were 3 comparisons each of which should have shown statistically significant effects; this study was done with tiny numbers of animals being compared and thus had extremely low statistical power. 2). Sambucci et al. (2010) also had a tiny numbers, with 11 or 12 per group studied in Table 2, from 6 to 35 studied in Table 3 and 6 to 12 studied in Table 4. The claims of no statistically significant effects in Figs. 2, 3, 4 and 5 are based on the tiny numbers in Table 3, are therefore, based on studies with very low statistical power. 3). The first part of the Aït-Aïssa et al. (2010) paper focused on GFAP values, a measure of gliosis, which is a risk factor for glioma formation. The groups studied in Fig. 4 of Aït-Aïssa et al. (2010) range from 3 to 10, so again we have tiny numbers and the authors report that none of the exposures, SAR=.08, =.4. or =4 W/Kg produced statistically significant changes according to their statistical calculations. As in the other studies, no raw data are provided but Fig. 4 provides bar graph information which includes median values for each of the 10 different regions of the brain in these rats, control rats and also rats exposed either pre-natally or both pre-natally and post-natally. For 5 of those brain regions, M4, CA1, CA2, CA3 and DG, the median values are high enough that one can see which are higher and which are lower from the graph. It appears to this author that the median values go up from the sham exposures to the lowest intensity (= .08), that they drop going to the next intensity (= .4) and that they go up going to the highest intensity studies (=4). You may recall (see above) that there are certain windows of exposure that give the highest biological response but with both lower and higher intensities giving lower responses. It follows that the complex apparent dose-response curve of Aït-Aïssa et al. (2010), can be explained by these window effects. The question is whether any such apparent changes are statistically significant? I did, therefore a Chi-square analysis of these data, to determine statistical significance, using both the only prenatal and both prenatal and postnatal exposures (see Fig. 4 in Aït-Aïssa et al., 2010). Those data show that in 10 out of 10 cases, the median value increased going from sham to .08 ( $P < .002$ ). Similarly, in 10 out of 10 cases, the median value drops going from .08 to .4 ( $P < .002$ ). However in 8 out of 10 cases, the median value increases going from .4 to 4 ( $P < .07$ ), falling just short of statistical significance. The median values increased with exposure, comparing the sham values with the values at 4 ( $P < .02$ ). It follows from this, that three of the comparisons show statistically significant changes, and the fourth falls just short of statistical significance. Does this mean that that we should conclude that Wi-Fi can cause gliosis and thus possibly gliomas? No, but only because they did not study Wi-Fi. It should be noted, however that prenatal exposures may be relevant to autism causation.

4). Poullietier de Gannes et al. (2012) also suffered from tiny numbers of animals being compared; it used 9 to 12 pregnant female rats in each group to attempt to assess EMFs impact of reproduction; it used 9 to 12 juvenile rats to determine if EMFs act to change antibody production; it used 9 to 12 young rats to determine whether EMFs impact growth over time. These tiny numbers mean that failure to find statistical significant changes has

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very low power to support any inferences. 6).

numbers, 6 to 12 in Fig. 5, 5 to 11 in Fig. 8 and 6 to 12 in Fig. 9. 7). Poulletier de Gannes et al. (2013) also suffers from tiny numbers. Fig. 1 groups each had 12 males or females and there were also groups of 12 studied in Table 1, Fig. 2 and Table 2. Regarding, the authors give no information regarding statistical significance or lack thereof; rather they only state that the values of these groups were "similar", without providing a definition of "similar". However in comparing the values of testis weight and epididymis weight at 4W/Kg exposure vs sham control, they provided values for the mean and standard error of the mean (SEM). It is usually the case that when the mean values differ by more than 2.4 times the SEM, the difference is statistically significant. Here the testis weight, comparing sham with 4W/Kg, values differed by 3.18 times the SEM and the epididymis weight differed by 3.40 times the SEM, each arguing strongly for statistical significance. This raises the question of why the authors failed to provide their P values?

An additional flaw of these 7 supposed Wi-Fi studies is that they each studied exposures of 2 h per day, 5 days per week except for one that only studied one hour per week, 5 days per day. Given that many people are exposed to Wi-Fi fields for 5, 6, 8 or more hours per day, this is another factor which argues that these studies may have been set up to minimize any effects seen.

To sum up the other flaws:

1. The 6 antennae of the reverberation chamber used in 6 out of 7 studies, minimized probable effects produced through the arrangement of the antennae in such a way as to greatly lower the polarization of the EMFs.
2. The use of 1 mm aluminum wires to produce the reverberation reflections, further decreases such polarization, again lowering probable effects. These structures are clearly very different from those found in genuine Wi-Fi, emphasizing the point that these are not genuine Wi-Fi studies, because of 1 and 2 here.
3. Differences in path lengths for different photons, produced by reverberation produce substantial destructive interference.
4. Furthermore the EMFs fed into the antennae are not genuine Wi-Fi either. It follows from this that claims that these are studies of genuine individual studies and by Foster and Moulder:
5. The claims made by Foster and Moulder (201) false; the most that may be legitimately concluded evidence of effects.
6. Each of the 7 studies used only tiny numbers of animals in each group studied, such that lack of statistical significance, because of the low power of these studies, drastically limits the drawing of inferences.

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7. Finally, 3 out of 7 had evidence of statisti  
ignored by Foster and Moulder.



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Recommended articles

Citing articles (16)

## References

Adams et al., 2014 J.A. Adams, T.S. Galloway, D. Mondal, S.C. Esteves

**Effect of mobile telephones on sperm quality: a systematic review and meta-analysis**

Environ. Int., 70 (2014), pp. 106-112, 10.1016/j.envint.2014.04.015

Article Download PDF View Record in Scopus Google Scholar

Adey, 1981 W.R. Adey

**Tissue interactions with nonionizing electromagnetic fields**

Physiol. Rev., 61 (1981), pp. 435-514

CrossRef View Record in Scopus Google Scholar

Adey, 1988 W.R. Adey

**Cell membranes: the electromagnetic environment and cancer promotion**

Neurochem. Res., 13 (1988), pp. 671-677

View Record in Scopus Google Scholar

Aït-Aïssa et al., 2010 S. Aït-Aïssa, B. Billaudel, F. Poullétier De Gannes, A. Hurtier, E. Haro, M.

Taxile, G. Ruffie, A. Athane, B. Veyret, I. Lagroye

**In situ detection of gliosis and apoptosis in the brains of young rats exposed in utero to a Wi-Fi signal**

C. R. Phys., 11 (2010), pp. 592-601, 10.1016/j.crhy.2010.10.005

Article Download PDF View Record in Scopus Google Scholar

Aït-Aïssa et al., 2012 S. Aït-Aïssa, B. Billaudel, F.

Hurtier, E. Haro, M. Taxile, A. Athané, M.

Lagroye

**In utero and early-life exposure of rats to sera and gestational outcome**

Bioelectromagnetics, 33 (2012), pp. 410-420, 10.1002/bem.21699

CrossRef View Record in Scopus Google Scholar

**Start tracking your Reading History**

Sign in and never lose track of an article again.

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Ait-Aïssa et al., 2013 S. Ait-Aïssa, F.P. de Gar

Ruffié, A. Athané, B. Veyret, I. Lagroye



Download

Share

Export

**In situ expression of heat-shock proteins and 3-nitrotyrosine in brains of young rats exposed to a WiFi signal in utero and in early life**

Radiat. Res., 179 (2013), pp. 707-716, 10.1667/RR2995.1

View Record in Scopus Google Scholar

Aitken and De Iuliis, 2007 R.J. Aitken, G.N. De Iuliis

**Origins and consequences of DNA damage in male germ cells**

Reprod. Biomed. Online, 14 (2007), pp. 727-733

Article Download PDF View Record in Scopus Google Scholar

Akdag et al., 2016 M.Z. Akdag, S. Dasdag, F. Canturk, D. Karabulut, Y. Caner, N. Adalier

**Does prolonged radiofrequency radiation emitted from Wi-Fi devices induce DNA damage in various tissues of rats?**

J. Chem. Neuroanat., 75 (Pt B) (2016), pp. 116-122, 10.1016/j.jchemneu.2016.01.003

Article Download PDF View Record in Scopus Google Scholar

Ardoino et al., 2005 L. Ardoino, V. Lopresto, S. Mancini, C. Marino, R. Pinto, G.A. Lovisolo

**A radio-frequency system for in vivo pilot experiments aimed at the studies on biological effects of electromagnetic fields**

Phys. Med. Biol., 50 (2005), pp. 3643-3654

CrossRef View Record in Scopus Google Scholar

Asghari et al., 2016 A. Asghari, A.A. Khaki, A. Rajabzadeh, A. Khaki

**A review on electromagnetic fields (EMFs) and the reproductive system**

Electron. Physician, 8 (2016), pp. 2655-2662, 10.19082/2655

CrossRef View Record in Scopus Google Scholar

Atasoy et al., 2013 H. Atasoy, M.Y. Gunal, P. Atasoy, S. Elgund, G. Bugdayci

**Immunopathologic demonstration of deleterious effects on growing rat testes of radiofrequency waves emitted from conventional Wi-Fi devices**

J. Pediatr. Urol., 9 (2013), pp. 223-229, 10.1016/j.jpurol.2012.02.015

Article Download PDF View Record in Scopus Google Scholar

**Start tracking your Reading History**

Sign in and never lose track of an article again.

Avendaño et al., 2012 C. Avendaño, A. Mata, C.A.

**Use of laptop computers connected to the motility and increases sperm DNA fragm**

Fertil. Steril., 97 (2012), pp. 39-45, 10.1016/j.fertster.2012.02.015

View Record in Scopus Google Scholar

Register for free >

Aynali et al., 2013 G. Aynali, M. Nazıroğlu, Ö. Çelik, M. Doğan, M. Yarıktaş, H. Yasan

**Modulation of wireless (2.45 GHz)-in  
rat by melatonin**



Download

Share

Export

Eur. Arch. Otorhinolaryngol., 270 (2013), pp. 1695-1700, 10.1007/s00405-013-2425-0

CrossRef View Record in Scopus Google Scholar

Batista Napotnik et al., 2010 T. Batista Napotnik, M. Reberšek, P.T. Vernier, B. Mali, D. Miklavčič

**Effects of high voltage nanosecond electric pulses on eukaryotic cells (in vitro): a  
systematic review**

Bioelectrochemistry, 110 (2010), pp. 1-12, 10.1016/j.bioelechem.2016.02.011

Google Scholar

Belyaev, 2005 I. Belyaev

**Non-thermal biological effects of microwaves**

Microw. Rev., 11 (2005), pp. 13-29

View Record in Scopus Google Scholar

Belyaev, 2015 I. Belyaev

**Biophysical mechanisms for nonthermal microwave effects**

M.S. Markov (Ed.), Electromagnetic Fields in Biology and Medicine, CRC Press, New York  
(2015), pp. 49-67

View Record in Scopus Google Scholar

Belyaev et al., 2009 I.Y. Belyaev, E. Markovà, L. Hillert, L.O. Malmgren, B.R. Persson

**Microwaves from UMTS/GSM mobile phones induce long-lasting inhibition of  
53BP1/gamma-H2AX DNA repair foci in human lymphocytes**

Bioelectromagnetics, 30 (2009), pp. 129-141, 10.1002/bem.20445

CrossRef View Record in Scopus Google Scholar

Belyaev et al., 2016 I. Belyaev, A. Dean, H. Eger, G. Hubmann, R. Jandrisovits, M. Kern, M. Kundi,

H. Moshhammer, P. Lercher, K. Müller, G. Oberfeld, P. Ohnsorge, P. Pelzmann, C.

Scheingraber, R. Thill

**EUROPAEM EMF Guideline 2016 for the prevention, diagnosis and treatment of EMF-  
related health problems and illnesses**

Rev. Environ. Health (2016), 10.1515/reveh

Google Scholar

Start tracking your Reading History <sup>x</sup>

Sign in and never lose track of an article again.

Berezow and Bloom, 2017 Berezow, A., Bloom, A

Wi-Fi based on 'junk science'. Baltimore S

<<http://www.baltimoresun.com/news/opi-story.html>> (accessed 10 October 2017).

Google Scholar

Register for free >




Bhargav et al., 2015 H. Bhargav, T.M. Srinivasan, S. Varambally, B.N. Gangadhar, P. Koka

**Effect of mobile phone-induced elect  
stem cell functioning: Possible mechanistic link to cancer risk and early diagnostic value  
of electronphotonic imaging**

J. Stem Cells, 10 (2015), pp. 287-294

(doi: jsc.2015.10.4.287)

Google Scholar

 Download  Share  Export

Cadiou and McNaughton, 2010 H. Cadiou, P.A. McNaughton

**Avian magnetite-based magnetoreception: a physiologist's perspective**

J. R. Soc. Interface, 7 (2010), pp. S193-S205, 10.1098/rsif.2009.0423.focus

View Record in Scopus Google Scholar

Carpenter, 2013 D.O. Carpenter

**Human disease resulting from exposure to electromagnetic fields**

Rev. Environ. Health, 28 (2013), pp. 159-172, 10.1515/reveh-2013-0016

View Record in Scopus Google Scholar

Çiftçi et al., 2015 Z.Z. Çiftçi, Z. Kırzioğlu, M. Nazıroğlu, Ö. Özmen

**Effects of prenatal and postnatal exposure of Wi-Fi on development of teeth and changes in teeth element concentration in rats. [corrected]**


Biol. Trace Elem. Res., 163 (2015), pp. 193-201, 10.1007/s12011-014-0175-5

CrossRef View Record in Scopus Google Scholar

Çiğ and Nazıroğlu, 2015 B. Çiğ, M. Nazıroğlu

**Investigation of the effects of distance from sources on apoptosis, oxidative stress and cytosolic calcium accumulation via TRPV1 channels induced by mobile phones and Wi-Fi in breast cancer cells**

Biochim. Biophys. Acta, 1848 (10 Pt B) (2015), pp. 2756-2765, 10.1016/j.bbamem.2015.02.013

Article  Download PDF Google Scholar

Consales et al., 2012 C. Consales, C. Merla, C. Marino, B. Benassi

**Electromagnetic fields, oxidative stress, and neurodegeneration**

Int. J. Cell Biol., 2012 (2012), p. 683897, 10.1155/2012/683897

View Record in Scopus Google Scholar


**Start tracking your Reading History** 

Creighton et al., 1987 M.O. Creighton, L.E. Larsen

J.C. Baskerville, H.E. Bassen, D.O. Brown,

**In vitro studies of microwave-induced cat  
continuous wave and pulsed microwaves**

Exp. Eye Res., 45 (1987), pp. 357-373

Article  Download PDF View Record in Scopus Google Scholar

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Czyz et al., 2004

J. Czyz, K. Guan, Q. Zeng, T. Nikolova

A.M. Wobus



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**High frequency electromagnetic fields (GSM signals) affect gene expression levels in tumor suppressor p53-deficient embryonic stem cells**

Bioelectromagnetics, 25 (2004), pp. 296-307, 10.1002/bem.10199

View Record in Scopus Google Scholar

Dasdag et al., 2015 S. Dasdag, M. Tas, M.Z. Akdag, K. Yegin

**Effect of long-term exposure of 2.4 GHz radiofrequency radiation emitted from Wi-Fi equipment on testes functions**

Electromagn. Biol. Med., 34 (2015), pp. 37-42, 10.3109/15368378.2013.869752

CrossRef View Record in Scopus Google Scholar

Dasdag and Akdag, 2016 S. Dasdag, M.Z. Akdag

**The link between radiofrequencies emitted from wireless technologies and oxidative stress**

J. Chem. Neuroanat., 75 (Pt B) (2016), pp. 85-93, 10.1016/j.jchemneu.2015.09.001

Article Download PDF View Record in Scopus Google Scholar

De Carlo et al., 2012 F. De Carlo, M. Ledda, D. Pozzi, P. Pierimarchi, M. Zonfrillo, L. Giuliani, E. D'Emilia, A. Foletti, R. Scorretti, S. Grimaldi, A. Lisi

**Nonionizing radiation as a noninvasive strategy in regenerative medicine: the effect of Ca(2+)-ICR on mouse skeletal muscle cell growth and differentiation**

Tissue Eng. Part A, 18 (21-22) (2012), pp. 2248-2258, 10.1089/ten.TEA.2012.0113

Epub 2012 Jul 23

CrossRef View Record in Scopus Google Scholar

Desai et al., 2009 N.R. Desai, K.K. Kesari, A. Agarwal

**Pathophysiology of cell phone radiation: oxidative stress and carcinogenesis with focus on the male reproductive system**

Reprod. Biol. Endocrinol., 7 (2009), p. 114, 10.1186/1477-7827-7-114

CrossRef View Record in Scopus Google Scholar

Foletti et al., 2010 A. Foletti, M. Ledda, F. De Car

**Calcium ion cyclotron resonance (ICR), 7, initiates differentiation of pituitary cortic**

Electromagn. Biol. Med., 29 (3) (2010), pp.

CrossRef View Record in Scopus Goog

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Foster and Moulder, 2013 K.R. Foster, J.E. Moulder

**Wi-Fi and health: review of current status of research**

Health Phys., 105 (2013), pp. 561-565, 10.1097/HP.0b013e31829b49bb

View Record in Scopus Google Scholar



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Gaetani et al., 2009 R. Gaetani, M. Ledda, L. Barile, I. Chimenti, F. De Carlo, E. Forte, V. Ionta, L. Giuliani, E. D'Emilia, G. Frati, F. Miraldi, D. Pozzi, E. Messina, S. Grimaldi, A. Giacomello, A. Lisi

**Differentiation of human adult cardiac stem cells exposed to extremely low-frequency electromagnetic fields**

Cardiovasc. Res., 82 (3) (2009), pp. 411-420, 10.1093/cvr/cvp067

Epub 2009 Feb 19

CrossRef View Record in Scopus Google Scholar

Gandhi and Kang, 2001 O.P. Gandhi, G. Kang

**Calculation of induced current densities for humans by magnetic fields from electronic article surveillance devices**

Phys. Med. Biol., 46 (2001), pp. 2759-2771

View Record in Scopus Google Scholar

Gandhi et al., 2012 O.P. Gandhi, L.L. Morgan, A.A. de Salles, Y.Y. Han, R.B. Herberman, D.L. Davis

**Exposure Limits: the underestimation of absorbed cell phone radiation, especially in children**

Electromagn. Biol. Med., 31 (2012), pp. 34-51, 10.3109/15368378.2011.622827

CrossRef View Record in Scopus Google Scholar

Garbuz, 2017 D.G. Garbuz

**Regulation of heat shock gene expression in response to stress**

Mol. Biol., 51 (2017), pp. 352-367, 10.1134/S0026893317020108

View Record in Scopus Google Scholar

Ghazizadeh and Nazırođlu, 2014 V. Ghazizadeh, M. Nazırođlu

**Electromagnetic radiation (Wi-Fi) and epilepsy induce calcium entry and apoptosis through activation of TRPV1 channel in hippocampus and dorsal root ganglion of rats**

Metab. Brain Dis., 29 (2014), pp. 787-799, 10.1007/s11011-014-9549-9

CrossRef View Record in Scopus Google Scholar

Glaser, 1971 Glaser, Z.R., PhD., 1971. Naval Med: 1971. Bibliography of Reported Biological Manifestations Attributed to Microwave a Revised. <[https://scholar.google.com/schfrequency+1972&btnG=&hl=en&as\\_sdt=0](https://scholar.google.com/schfrequency+1972&btnG=&hl=en&as_sdt=0)

Google Scholar

**Start tracking your Reading History** x

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Grigor'ev, 1996 Iu.G. Grigor'ev

**Role of modulation in biological effects of electromagnetic radiation**

Radiat. Biol. Radioecol., 36 (1996), pp.

[View Record in Scopus](#)

[Google Scholar](#)



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[Export](#)

Gye and Park, 2012 M.C. Gye, C.J. Park

**Effect of electromagnetic field exposure on the reproductive system**

Clin. Exp. Reprod. Med., 39 (2012), pp. 1-9, 10.5653/cerm.2012.39.1.1

[CrossRef](#)

[View Record in Scopus](#)

[Google Scholar](#)

Hardell and Sage, 2008 L. Hardell, C. Sage

**Biological effects from electromagnetic field exposure and public exposure standards**

Biomed. Pharmacother., 62 (2008), pp. 104-109, 10.1016/j.biopha.2007.12.004

Article



[Download PDF](#)

[View Record in Scopus](#)

[Google Scholar](#)

Hassanshahi et al., 2017 A. Hassanshahi, S.A. Shafeie, I. Fatemi, E. Hassanshahi, M. Allahtavakoli, M. Shabani, A. Roohbakhsh, A. Shamsizadeh

**The effect of Wi-Fi electromagnetic waves in unimodal and multimodal object recognition tasks in male rats**

Neurol. Sci., 38 (2017), pp. 1069-1076, 10.1007/s10072-017-2920-y

[CrossRef](#)

[View Record in Scopus](#)

[Google Scholar](#)

Hazout et al., 2008 A. Hazout, Y. Menezo, P. Madelenat, C. Yazbeck, J. Selva, P. Cohen-Bacrie

**Causes and clinical implications of sperm DNA damages**

Gynecol. Obstet. Fertil., 36 (2008), pp. 1109-1117, 10.1016/j.gyobfe.2008.07.017

Article



[Download PDF](#)

[View Record in Scopus](#)

[Google Scholar](#)

Houston et al., 2016 B.J. Houston, B. Nixon, B.V. King, G.N. De Iulijis, R.J. Aitken

**The effects of radiofrequency electromagnetic radiation on sperm function**

Reproduction, 152 (2016), pp. R263-R276, 10.1530/REP-16-0126

[CrossRef](#)

[View Record in Scopus](#)

[Google Scholar](#)

Hsu et al., 2007 C.Y. Hsu, F.Y. Ko, C.W. Li, K. Fann, J.T. Lue

**Magnetoreception system in honeybees (*Apis mellifera*)**

PLoS One, 2 (4) (2007), p. e395, 10.1371/journal.pone.0000395

[CrossRef](#)

[Google Scholar](#)

Joiner and Lee, 2015 M.L. Joiner, A. Lee

**Voltage-gated Cav1 channels in disorders**

Curr. Mol. Pharmacol., 8 (2015), pp. 143-1

[CrossRef](#)

[View Record in Scopus](#)

[Goog](#)

**Start tracking your Reading History** ✕

Sign in and never lose track of an article again.

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Kalns et al., 2000 J. Kalns, K.L. Ryan, P.A. Mason, J.G. Bruno, R. Gooden, J.L. Kiel

**Oxidative stress precedes circulatory failure induced by 35-GHz microwave heating**

Shock, 13 (2000), pp. 52-59

[CrossRef](#) [View Record in Scopus](#)



Download

Share

Export

Kaplan et al., 2016 S. Kaplan, O.G. Deniz, M.E. Önger, A.P. Türkmen, K.K. Yurt, I. Aydın, B.Z. Altunkaynak, D. Davis

**Electromagnetic field and brain development**

J. Chem. Neuroanat., 75 (Pt B) (2016), pp. 52-61, 10.1016/j.jchemneu.2015.11.005

Article [Download PDF](#) [View Record in Scopus](#) [Google Scholar](#)

Khurana et al., 2010 V.G. Khurana, L. Hardell, J. Everaert, A. Bortkiewicz, M. Carlberg, M. Ahonen  
**Epidemiological evidence for a health risk from mobile phone base stations**

Int. J. Occup. Environ. Health, 16 (2010), pp. 263-267, 10.1179/107735210799160192

[View Record in Scopus](#) [Google Scholar](#)

Kirschvink, 1992 J.L. Kirschvink

**Comment on "constraints on biological effects of weak extremely-low-frequency electromagnetic fields."**

Phys. Rev. A, 46 (1992), pp. 2178-2183

[View Record in Scopus](#) [Google Scholar](#)

Krebs et al., 2011 J. Krebs, J. Groenendyk, M. Michalek

**Ca<sup>2+</sup>-signaling, alternative splicing and endoplasmic reticulum stress responses**

Neurochem. Res., 36 (2011), pp. 1198-1211, 10.1007/s11064-011-0431-4

[CrossRef](#) [View Record in Scopus](#) [Google Scholar](#)

Lai, 1994 H. Lai

**Neurological effects of radiofrequency electromagnetic radiation**

J.C. Lin (Ed.), Advances in Electromagnetic Fields in Living Systems, Vol. 1, Plenum Press, New York (1994), pp. 27-88

[CrossRef](#) [View Record in Scopus](#) [Google Scholar](#)

La Vignera et al., 2012 S. La Vignera, R.A. Condorelli, E. Vicari, R. D'Agata, A.E. Calogero

**Effects of the exposure to mobile phones on male reproduction: a review of the literature**

J. Androl., 33 (2012), pp. 350-356, 10.2164/jandrol.111.014373

[CrossRef](#) [View Record in Scopus](#) [Google Scholar](#)

**Start tracking your Reading History** ✕

Laudisi et al., 2012 F. Laudisi, M. Sambucci, F. N. Lovisolò, C. Marino, C. Pioli

**Prenatal exposure to radiofrequencies: effects on peripheral T cell compartment in an**

Bioelectromagnetics, 33 (2012), pp. 652-664, 10.1002/bem.21155




[CrossRef](#) [View Record in Scopus](#) [Google Scholar](#)

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[Register for free >](#)

Lee et al., 2014 S.S. Lee, H.R. Kim, M.S. Kim, S.H. Park, D.W. Kim

**Influence of smart phone Wi-Fi sign:**

J. Cranofac. Surg., 25 (2014), pp. 1902-1907, 10.1097/CS.0000000000000199    Export  
View Record in Scopus Google Scholar

Levine et al., 2017 H. Levine, N. Jorgensen, A. Martino-Andrade, J. Mendiola, D. Weksler-Derri, I. Mindlis, R. Pinotti, S.H. Swan

**Temporal trends in sperm count: a systematic review and meta-analysis**

Hum. Reprod. Update (2017), 10.1093/humupd/dmx022

Google Scholar

Levitt and Lai, 2010 B.B. Levitt, H. Lai

**Biological effects from exposure to electromagnetic radiation emitted by cell tower base stations and other antenna arrays**

Environ. Rev., 18 (2010), pp. 369-395, 10.1139/A10-018

View Record in Scopus Google Scholar

Lisi et al., 2008 A. Lisi, M. Ledda, F. De Carlo, A. Foletti, L. Giuliani, E. D'Emilia, S. Grimaldi

**Calcium ion cyclotron resonance (ICR) transfers information to living systems: effects on human epithelial cell differentiation**

Electromagn. Biol. Med., 27 (3) (2008), pp. 230-240, 10.1080/15368370802269135

CrossRef View Record in Scopus Google Scholar

Liu et al., 2014 K. Liu, Y. Li, G. Zhang, J. Liu, J. Cao, L. Ao, S. Zhang

**Association between mobile phone use and semen quality: a systematic review and meta-analysis**

Andrology, 2 (2014), pp. 491-501, 10.1111/j.2047-2927.2014.00205.x

CrossRef View Record in Scopus Google Scholar

Lu et al., 2015 X.W. Lu, L. Du, L. Kou, N. Song, Y.J. Zhang, M.K. Wu, J.F. Shen

**Effects of moderate static magnetic fields on the voltage-gated sodium and calcium channels currents in trigeminal ganglion neurons**

Electromagn. Biol. Med., 34 (2015), pp. 285-292, 10.3109/15368378.2014.906448

CrossRef View Record in Scopus Google Scholar

Maganioti et al., 2010 Maganioti, A.E., Papageorgiou, A.,  
Rabavilas, A.D., Papademitriou, G.N., Caporaso, R.  
gender related alterations on EEG. 6th Int  
Electromagnetic Fields.

<<https://www.researchgate.net/profile/Maganioti-A-E/publication/265693ced8e9c/links/550ab8670cf265693ced8e9c.pdf>> (accessed 7 September 2017).

Google Scholar

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Magras and Xenos, 1997 I.N. Magras, T.D. X

**RF radiation-induced changes in the prenatal development of mice** Share Export  
 Bioelectromagnetics, 18 (1997), pp. 455-461  
 View Record in Scopus Google Scholar

Makker et al., 2009 K. Makker, A. Varghese, N.R. Desai, R. Mouradi, A. Agarwal

**Cell phones: modern man's nemesis?**  
 Reprod. Biomed. Online, 18 (2009), pp. 148-157  
 Article Download PDF View Record in Scopus Google Scholar

Maret, 2015 Maret, K., 2015. Expert Forum on Cell Phone and Wireless Risks, June 22, 2015.

<https://vimeo.com/132039697> .  
 Google Scholar

Markov, 2007 M.S. Markov

**Pulsed electromagnetic field therapy: history, state of the art and future**  
 Environmentalist, 27 (2007), pp. 465-475  
 CrossRef View Record in Scopus Google Scholar

Markovà et al., 2010 E. Markovà, L.O. Malmgren, I.Y. Belyaev

**Microwaves from mobile phones inhibit 53BP1 focus formation in human stem cells more strongly than in differentiated cells: possible mechanistic link to cancer risk**  
 Environ. Health Perspect., 118 (2010), pp. 394-399, 10.1289/ehp.0900781  
 Google Scholar

Monzani et al., 2015 D. Monzani, E. Genovese, L.A. Pini, F. Di Bernardino, M. Alicandri Ciufelli, G.M. Galeazzi, L. Presutti

**Nimodipine in otolaryngology: from past evidence to clinical perspectives**  
 Acta Otorhinolaryngol. Ital., 35 (2015), pp. 135-145  
 View Record in Scopus Google Scholar

Nazıroğlu et al., 2013 M. Nazıroğlu, M. Yükselm, S.A. Kösem, M.O. Özkaya

**Recent reports of Wi-Fi and mobile phone-induced radiation on oxidative stress and reproductive signaling pathways in femal**

J. Membr. Biol., 246 (2013), pp. 869-875, 10.1007/s00726-013-0900-0  
 CrossRef View Record in Scopus Google Scholar

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No authors listed, 2017 No authors listed, 2017.

lead to human extinction. Geobase article

<https://www.aol.com/article/news/2017/07/20/scientists-sound-the-alarm-about-declining-sperm-counts/23049397/0> (accessed 7 September 2017).




Google Scholar

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Odaci et al., 2008 E. Odaci, O. Bas, S. Kaplar

**Effects of prenatal exposure to a 900 MHz electromagnetic field on the dentate gyrus of rats: a stereological and histopathological study**

Brain Res., 1238 (2008), pp. 224-229, 10.1016/j.brainres.2008.08.013

Article  Download PDF  View Record in Scopus  Google Scholar

Oni et al., 2011 O.M. Oni, D.B. Amuda, C.E. Gilbert

**Effects of radiofrequency radiation from WiFi devices on human ejaculated sperm**

Int. J. Res. Rev. Appl. Sci., 9 (2011)

(Article 13)

[Google Scholar](#)

Osipov, 1965 Yu.A. Osipov

**Labor Hygiene and the Effect of Radiofrequency Electromagnetic Fields on Workers**

Leningrad Meditsina Publishing House (1965)




(220 pp.)

[Google Scholar](#)

Othman et al., 2017a H. Othman, M. Ammari, K. Rtibi, N. Bensaid, M. Sakly, H. Abdelmelek

**Postnatal development and behavior effects of in-utero exposure of rats to radiofrequency waves emitted from conventional WiFi devices**

Environ. Toxicol. Pharmacol., 52 (2017), pp. 239-247, 10.1016/j.etap.2017.04.016

Article  Download PDF  View Record in Scopus  Google Scholar

Othman et al., 2017b H. Othman, M. Ammari, M. Sakly, H. Abdelmelek

**Effects of repeated restraint stress and WiFi signal exposure on behavior and oxidative stress in rats**

Metab. Brain Dis. (2017), 10.1007/s11011-017-0016-2



[Google Scholar](#)

Özorak et al., 2013 A. Özorak, M. Nazıroğlu, Ö. Çelik, I.M. Yüksek, D. Özçelik, M.O. Özkaya, H.

Çetin, M.C. Kahya, S.A. Kose

**Wi-Fi (2.45 GHz)- and mobile phone (900 and 1800 MHz)-induced risks on oxidative stress and elements in kidney and testis of offspring**

Biol. Trace Elem. Res., 156 (2013), pp. 221-

CrossRef  View Record in Scopus  Goog

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Pall, 2013 M.L. Pall

**Electromagnetic fields act via activation of voltage-gated calcium channels to produce beneficial or adverse effects**

J. Cell. Mol. Med., 17 (2013), pp. 958-965, 10.1111/jcmm.12088

[CrossRef](#) [View Record in Scopus](#)



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Pall, 2014 M.L. Pall

**Electromagnetic field activation of voltage-gated calcium channels: role in therapeutic effects**

Electromagn. Biol. Med. (2014), 10.3109/15368378.2014.906447

[Google Scholar](#)

Pall, 2015a M.L. Pall

**How to approach the challenge of minimizing non-thermal health effects of microwave radiation from electrical devices**

Int. J. Innov. Res Eng. Manag (IJIREM), 2 (5) (2015), pp. 71-76

[View Record in Scopus](#) [Google Scholar](#)

Pall, 2015b M.L. Pall

**Scientific evidence contradicts findings and assumptions of Canadian Safety Panel 6: microwaves act through voltage-gated calcium channel activation to induce biological impacts at non-thermal levels, supporting a paradigm shift for microwave/lower frequency electromagnetic field action**

Rev. Environ. Health, 3 (2015), pp. 99-116, 10.1515/reveh-2015-0001

[View Record in Scopus](#) [Google Scholar](#)

Pall, 2016a M.L. Pall

**Electromagnetic fields act similarly in plants as in animals: Probable activation of calcium channels via their voltage sensor**


Curr. Chem. Biol., 10 (2016), pp. 74-82

[View Record in Scopus](#) [Google Scholar](#)

Pall, 2016b M.L. Pall

**Microwave frequency electromagnetic fields (EMFs) produce widespread neuropsychiatric effects including depression**

J. Chem. Neuroanat., 75 (Pt B) (2016), pp. 43-51, 10.1016/j.jchemneu.2015.08.001

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Pall, 2018 M.L. Pall

**How cancer can be caused by microwave exposures: EMF activation of voltage-gated calcium channels including tumor promotion, tissue invasion**

M.S. Markov (Ed.), Mobile Communication Technology and Health (2018)

(in press)

[Google Scholar](#)

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Pall and Levine, 2015 M.L. Pall, S. Levine

**Nrf2, a master regulator of detoxification and also antioxidant, anti-inflammatory and other cytoprotective mechanisms, is raised by health promoting factors**

Acta Physiol. Sin., 67 (2015), pp. 1-18

View Record in Scopus Google Scholar

Panagopoulos et al., 2015a D.J. Panagopoulos, O. Johansson, G.L. Carlo

**Polarization: a key difference between man-made and natural electromagnetic fields, in regard to biological activity**

Sci. Rep., 5 (2015), p. 14914, 10.1038/srep14914

Google Scholar

Panagopoulos et al., 2015b D.J. Panagopoulos, O. Johansson, G.L. Carlo

**Real versus simulated mobile phone exposures in experimental studies**

(article ID 607053, 8 pages)

BioMed. Res. Int. (2015), 10.1155/2015/607053

Google Scholar

Papageorgiou et al., 2011 C.C. Papageorgiou, C.D. Hountala, A.E. Maganioti, M.A. Kiprianou, A.S.D. Rabavilas, G.N. Papademitriou, C.N. Capalis

**Effects of Wi-Fi signals on the P300 component or event-related potentials during an auditory hayling task**

J. Integr. Neurosci., 10 (2011), pp. 189-202, 10.1142/S0219635211002695

CrossRef View Record in Scopus Google Scholar

Park et al., 2014 H.K. Park, J.E. Lee, J.F. Lim, B.H. Kang

**Mitochondrial Hsp90s suppress calcium-mediated stress signals propagating from the mitochondria to the ER in cancer cells**

(Article Number: 148)

Mol. Cancer, 13 (2014), 10.1186/1476-4598-13-148

Google Scholar

Pazur and Rassadina, 2009 A. Pazur, V. Rassadina

**Transient effect of weak electromagnetic Arabidopsis thaliana**

BMC Plant Biol., 9 (2009), p. 47

CrossRef Google Scholar

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Pazur et al., 2006 A. Pazur, V. Rassadina, J. Dand.

**Growth of etiolated barley plants in weak static and 50 Hz electromagnetic fields tuned to calcium ion cyclotron resonance**

Biomagn. Res. Technol., 4 (2006), p. 1

CrossRef View Record in Scopus



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Phillips et al., 2009 J.L. Phillips, N.P. Singh, H. Lai

**Electromagnetic fields and DNA damage**

Pathophysiology, 16 (2009), pp. 79-88, 10.1016/j.pathophys.2008.11.005

Article Download PDF View Record in Scopus Google Scholar

Pilla, 2012 A.A. Pilla

**Electromagnetic fields instantaneously modulate nitric oxide signaling in challenged biological systems**

Biochem. Biophys. Res. Commun., 28 (426) (2012), pp. 330-333, 10.1016/j.bbrc.2012.08.078

Article Download PDF View Record in Scopus Google Scholar

Pilla, 2013 A.A. Pilla

**Nonthermal electromagnetic fields: from first messenger to therapeutic applications**

Electromagn. Biol. Med., 32 (2013), pp. 123-136, 10.3109/15368378.2013.776335

CrossRef View Record in Scopus Google Scholar

Pollack and Healer, 1967 Pollack, H., Healer, J., 1967. Review of Information on Hazards to Personnel from High-Frequency Electromagnetic Radiation. Institute for Defense Analyses; Research and Engineering Support Division. IDA/HQ 67-6211, Series B, May 1967.

Google Scholar

Poullietier de Gannes et al., 2012 F. Poullietier de Gannes, E. Haro, A. Hurtier, M. Taxile, A. Athane, S. Ait-Aissa, H. Masuda, Y. Percherencie, G. Ruffié, B. Billaudel, P. Dufour, B. Veyret, I. Lagroye

**Effect of in utero wi-fi exposure on the pre- and postnatal development of rats**

Birth Defects Res. B Dev. Reprod. Toxicol., 95 (2012), pp. 130-136, 10.1002/bdrb.20346

CrossRef View Record in Scopus Google Scholar

Poullietier de Gannes et al., 2013 F. Poullietier de Gannes, B. Billaudel, E. Haro, M. Taxile, L. Le Montagner, A. Hurtier, S. Ait-Aissa, H. Masuda, Y. Percherancier, G. Ruffié, P. Dufour, B. Veyret, I. Lagroye

**Rat fertility and embryo fetal development**

Reprod. Toxicol., 36 (2013), pp. 1-5, 10.1016/j.reprotox.2013.05.005

Article Download PDF View Record in Scopus Google Scholar

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Raines, 1981 J.K. Raines


**Electromagnetic Field Interactions with the human body: Observed effects and mechanisms**


National Aeronautics and Space Administration, Greenbelt, Maryland (1981)

(116 p)

Google Scholar

Redmayne and Johansson, 2015 M. Redmay  
**Radiofrequency exposure in young and old: different sensitivities in the light of age-relevant natural differences**  
 Rev. Environ. Health, 30 (2015), pp. 323-335, 10.1515/reveh-2015-0030  
 View Record in Scopus Google Scholar

Ruediger, 2009 H.W. Ruediger  
**Genotoxic effects of radiofrequency electromagnetic fields**  
 Pathophysiology, 16 (2009), pp. 89-102, 10.1016/j.pathophys.2008.11.004  
 Article  Download PDF View Record in Scopus Google Scholar

Saili et al., 2015 L. Saili, A. Hanini, C. Smirani, I. Azzouz, A. Azzouz, M. Sakly, H. Abdelmelek, Z. Bouslama  
**Effects of acute WiFi signals (2.45 GHz) on heart variability and blood pressure in albino rabbits**  
 Environ. Toxicol. Pharmacol., 40 (2015), pp. 600-605, 10.1016/j.etap.2015.08.015  
 Article  Download PDF View Record in Scopus Google Scholar

Sambucci et al., 2010 M. Sambucci, F. Laudisi, F. Nasta, R. Pinto, R. Lodato, P. Altavista, G.A. Lovisolò, C. Marino, C. Pioli  
**Prenatal exposure to non-ionizing radiation: effects of WiFi signals on pregnancy outcome, peripheral B-cell compartment and antibody production**  
 Radiat. Res., 174 (2010), pp. 732-740, 10.1667/RR2255.1  
 CrossRef View Record in Scopus Google Scholar

Sangün et al., 2016 Ö. Sangün, B. DüNDAR, S. Çömlekçi, A. Büyükgebiz  
**The effects of electromagnetic fields on the endocrine system in children and adolescents**  
 Pediatr. Endocrinol. Rev., 13 (2016), pp. 531-545  
 Google Scholar

Shokri et al., 2015 S. Shokri, A. Soltani, M. Kazemi, D. Sardari, F.B. Mofrad  
**Effects of Wi-Fi (2.45 GHz) exposure on apoptosis, sperm parameters and testicular histomorphology in rats: a time course study**  
 Cell J., 17 (2015), pp. 322-331, 10.22074/cel  
 View Record in Scopus Google Scholar



Sypniewska et al., 2010 R.K. Sypniewska, N.J. Mi P.A. Mason, F.A. Witzmann  
**Protein changes in macrophages induced millimeter waves**  
 Bioelectromagnetics, 3 (2010), pp. 656-663  
 (doi: 0.1002/bem.20598)

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Tabor et al., 2014 K.M. Tabor, S.A. Bergeron, E.J. Horstick, D.C. Jordan, V. Aho, T. Porkka-Heiskanen, G. Haspel, H.A. Burgess

**Direct activation of the Mauthner cell by electric field pulses drives ultrarapid escape responses**

J. Neurophysiol., 112 (2014), pp. 834-844, 10.1152/jn.00228.2014

CrossRef View Record in Scopus Google Scholar

Teven et al., 2012 C.M. Teven, M. Greives, R.B. Natale, Y. Su, Q. Luo, B.C. He, D. Shenaq, T.C. He, R.R. Reid

**Differentiation of osteoprogenitor cells is induced by high-frequency pulsed electromagnetic fields**

J. Craniofac. Surg., 23 (2012), pp. 586-593, 10.1097/SCS.0b013e31824cd6de

CrossRef View Record in Scopus Google Scholar

Tök et al., 2014 L. Tök, M. Nazıroğlu, S. Doğan, M.C. Kahya, O. Tök

**Effects of melatonin on Wi-Fi-induced oxidative stress in lens of rats**

Indian J. Ophthalmol., 62 (2014), pp. 12-15, 10.4103/0301-4738.126166

View Record in Scopus Google Scholar

Tolgsakaya and Gordon, 1973 M.S. Tolgsakaya, Z.V. Gordon

**Pathological Effects of Radio Waves, Translated from Russian by B Haigh**

Consultants Bureau, New York/London (1973)


(146 pp)

Google Scholar

Topsakal et al., 2017 S. Topsakal, O. Ozmen, E. Cicek, S. Conlecekci

**The ameliorative effect of gallic acid on pancreas lesions induced by 2.45 GHz electromagnetic radiation (Wi-Fi) in young rats**

J. Rad. Res. Appl. Sci., 10 (2017), pp. 233-240, 10.1016/j.jrras.2017.04.009

Article  Download PDF CrossRef View Record in Scopus Google Scholar

Uchugonova et al., 2008 A. Uchugonova, A. Isem

Watanabe, K. König

**Optical knock out of stem cells with extr**

J. Biophotonics, 1 (2008), pp. 463-469, 10.1

CrossRef View Record in Scopus Goog

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Van Boxem et al., 2014 K. Van Boxem, M. Huntoon, J. van Zundert, J. Raju, M. van Nieu, E.A. Joosten

**Pulsed radiofrequency: a review of the basic science as applied to the pathophysiology of radicular pain: a call for clinical translation**

Reg. Anesth. Pain. Med., 39 (2014), pp

[View Record in Scopus](#) [Google Scholar](#)[Download](#)[Share](#)[Export](#)

Vian et al., 2006 A. Vian, D. Roux, S. Girard, P. Bonnet, E. Paladian, E. Davies, G. Ledoigt

**Microwave irradiation affects gene expression in plants**

Plant Signal. Behav., 1 (2006), pp. 67-70, 10.4161/psb.1.2.2434

[CrossRef](#) [View Record in Scopus](#) [Google Scholar](#)

Vidal-Gadea et al., 2015 A. Vidal-Gadea, K. Ward, C. Beron, N. Ghorashian, S. Gokce, J. Russell, N.

Truong, A. Parikh, O. Gadea, A. Ben-Yakar, J. Pierce-Shimomura

**Magnetosensitive neurons mediate geomagnetic orientation in *Caenorhabditis elegans***

Neuroscience, 4 (2015), p. e07493, 10.7554/eLife.07493

[Google Scholar](#)

Walleczek, 1992 J. Walleczek

**Electromagnetic field effects on cells of the immune system: the role of calcium signaling**

FASEB J., 6 (1992), pp. 3177-3185

[View Record in Scopus](#) [Google Scholar](#)

Wang et al., 2015 C. Wang, X. Wang, H. Zhou, G. Dong, X. Guan, L. Wang, X. Xu, S. Wang, P.

Chen, R. Peng, X. Hu

**Effects of pulsed 2.856 GHz microwave exposure on BM-MSCs isolated from C57BL/6 mice**

PLoS One, 10 (2) (2015), p. e0117550, 10.1371/journal.pone.0117550

(eCollection 2015)

[CrossRef](#) [Google Scholar](#)

Wang and Zhang, 2017 H. Wang, X. Zhang

**Magnetic fields and reactive oxygen species**

Int. J. Mol. Sci., 18 (10) (2017), p. E2175, 10.3390/ijms18102175

[Google Scholar](#)

Wegner et al., 2006 R.E. Wegner, S. Begall, H. Burda

**Magnetic compass in the cornea: local an**

J. Exp. Biol., 209 (2006), pp. 4747-4750, 10.

[CrossRef](#) [View Record in Scopus](#) [Goog](#)**Start tracking your Reading History** <sup>x</sup>

Sign in and never lose track of an article again.

Wu et al., 2009 G.W. Wu, X.X. Liu, M.X. Wu, J.Y. ?

**Experimental study of millimeter wave-ir  
mesenchymal stem cells into chondrocytes**

Int. J. Mol. Med., 23 (2009), pp. 461-467

[View Record in Scopus](#) [Google Scholar](#)[Register for free >](#)

Xu et al., 2016 F. Xu, Q. Bai, K. Zhou, L. Ma,

**Age-dependent acute interference with stem and progenitor cell proliferation in the hippocampus after exposure to 1800 MHz electromagnetic radiation**

Electromagn. Biol. Med., 3 (2016), pp. 1-9, 10.1080/15368378.2016

View Record in Scopus Google Scholar

Yakymenko et al., 1999 I.L. Yakymenko, E.P. Sidorik, A.S. Tsybulin

**Metabolic changes in cells under electromagnetic radiation of mobile communication systems**

Ukr. Biokhim Zh. (1999) (1999), pp. 20-28

(2011 Mar-Apr)

View Record in Scopus Google Scholar

Yakymenko and Sidorik, 2010 I. Yakymenko, E. Sidorik

**Risks of carcinogenesis from electromagnetic radiation and mobile telephony devices**

Exp. Oncol., 32 (2010), pp. 729-736

Google Scholar

Yakymenko et al., 2011 I. Yakymenko, E. Sidorik, S. Kyrylenko, V. Chekhun

**Long-term exposure to microwave radiation provokes cancer growth: evidences from radars and mobile communication systems**

Exp. Oncol., 33 (2011), pp. 62-70

View Record in Scopus Google Scholar

Yakymenko et al., 2015 I. Yakymenko, O. Tsybulin, E. Sidorik, D. Henshel, O. Kyrylenko, S. Kyrylenko

**Oxidative mechanisms of biological activity of low-intensity radiofrequency radiation**

Electromagnetic. Biol. Med. (2015), 10.3109/15368378.2015.1043557

(Early Online 1-16. ISSN: 1536-8378)

Google Scholar

Yildiring et al., 2015 M.E. Yildiring, M. Kaynar, H. Badem, M. Cavis, O.F. Karatus, E. Cimentepe

**What is harmful for male fertility: cell phone or wireless internet?**

Kaosung J. Med. Sci., 31 (2015), pp. 480-487

Google Scholar

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Yüksel et al., 2016 M. Yüksel, M. Nazıroğlu, M.O.

**Long-term exposure to electromagnetic radiation decreases plasma prolactin, progesterone,**

**oxidative stress in pregnant rats and their offspring**

Endocrine, 52 (2016), pp. 352-362, 10.1007/s12020-015-0795-3




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Zhang et al., 2016 J. Zhang, M. Li, E.T. Kang

**Electrical stimulation of adipose-derived mesenchymal stem cells in conductive scaffolds and the roles of voltage-gated ion channels**

Acta Biomater., 32 (2016), pp. 46-56, 10.1016/j.actbio.2015.12.024

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

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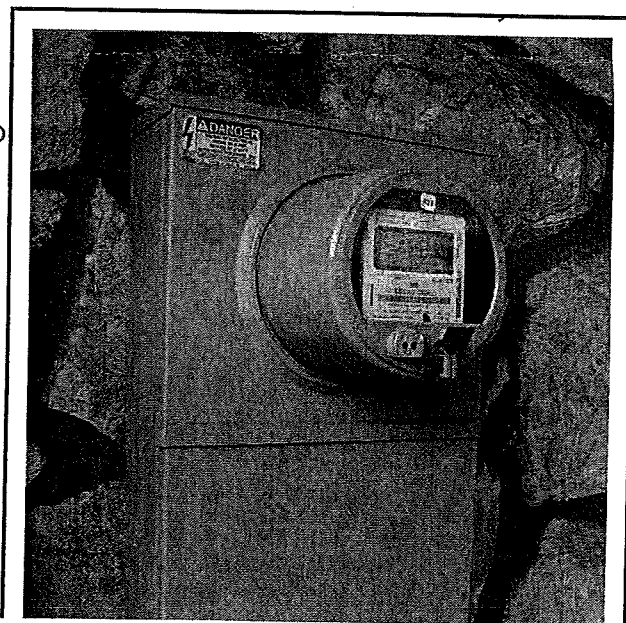
## Harvard Medical Doctor Warns Against Smart Meters

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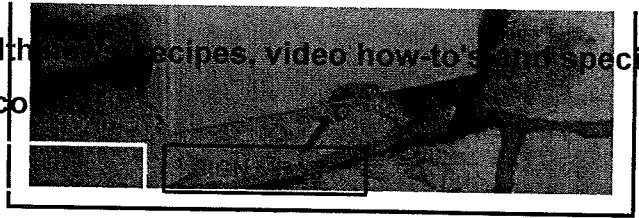
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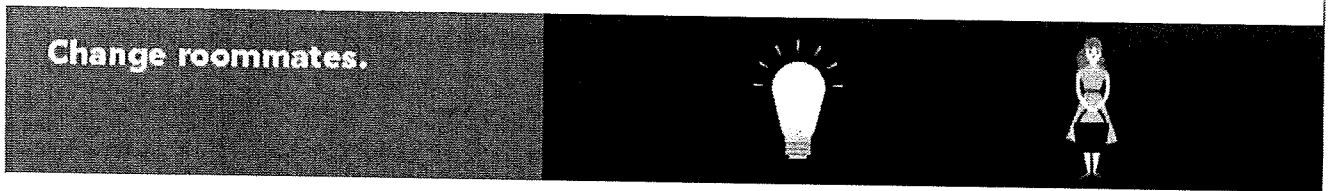
Dr. David Carpenter MD, a graduate of Harvard Medical School and a physician who has worked in the area of electromagnetic fields (EMFs) and public health for over 18 years, has a few choice words for power companies that are forcing **smart meters** down the throats of their customers all over the United States.



Dr. Carpenter adamantly insists that there is no evidence whatsoever that smart meters are in any way safe for human beings. He goes on to say that there is, in fact, ample evidence that demonstrates "convincingly and consistently" that exposure to radiofrequency radiation (RFR) at elevated levels for long periods of time increases the risk of cancer, damages the nervous system, and adversely affects the reproductive organs.



\* Dr. Carpenter says that an informed person should demand that they be allowed to keep their analog meter.



The two minute video interview with Dr. Carpenter below is well worth watching.

If you are having smart meters forced upon you where you live, know that California power customers have recently won the battle to keep their analog meters. There is both an annual and monthly charge for this "inconvenience" to the power utilities, but at least **customers now have a choice to opt out** where they did not before.

This precedent for opting out in California should make it easier for others with smart meters who don't want them in other areas of the United States to be able to get their analog meters back as well.

While smart meters reduce workload and increase profitability for the power companies, they do so at the expense of the health of their customers. Opting out is the only "smart" way to deal with this corporate incursion.

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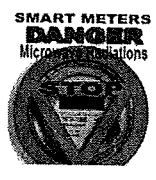
## Smart Meter Dangers: The Health Hazards of Wireless Electromagnetic Radiation Exposure

The Latest from Dr. David O. Carpenter

By [Dr. Ilya Sandra Perlingieri](#)  
 Global Research, June 28, 2014  
 Global Research 13 July 2012

Region: Canada, USA  
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This article by the late Dr. Ilya Sandra Perlingieri was first published on Global Research on July 13, 2012.

Over the past two years, there has been mounting medical and scientific evidence of the grave biological dangers to humans from so-called "Smart" Meters exposure that are being installed by the hundreds of thousands all over North America and Europe. Scientists have been documenting the EMF/RF exposure effects for decades. However, it is only in the last two years, with the constant wireless electromagnetic radiation exposure to these new meters, that other medical evidence (down to the cellular level) has been reported. In the US, there has never been a mandate to force these utility meters on millions of unsuspecting people. There has been no Precautionary Principle used, while corporate greed has abounded. Various utility companies have not told their customers of the dangers. What they told their customers about these new meters was that it would update the grid and help them control individual usage. Customers have not been told about the serious health problems that these RF pulsing meters cause. We have been given no informed consent to this dangerous but invisible exposure.

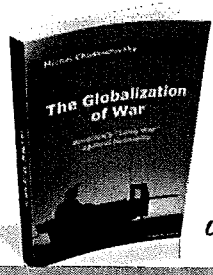
With broken and unethical global social mores, this is considered standard business practice: to deceive customers, while gaining enormous profits. As long as a "revolving-door" policy remains between corporations and [no longer] public agencies, citizens will not have their medically validated concerns ever addressed. The corporate bottom line, profit, is what counts –not our well-being and safety. Further, the synergistic effects of various wireless technologies combined with other environmental toxins to which we all are exposed daily have not been tested.

Over the past year, I have already personally seen the damage these dangerous meters have done to numerous people and several animals I know –all across the US. Although not generally reported by mainstream media, the serious impacts on peoples' health are already evident. A short list includes: neurological impairment, ear pain and hearing problems, breathing dysfunctions, chest pains and heart ailments, burning skin, sleep disturbances, headaches, depression, vision troubles, blood pressure changes, sterility, autism, and neurodegenerative diseases. There are numerous reports of people who are completely incapacitated from EMF exposure. Several people I know are almost constantly debilitated and housebound, due to city-wide exposure to cell towers and Wi-Fi that has become ubiquitous. Most allopathic physicians are not trained in environmental medicine, and so often symptoms are mis-diagnosed.

On July 8, Global Research published Prof. Tracy's important Smart Meter update, "Looming Health Crisis: Wireless Technology and the Toxification of America":  
[www.globalresearch.ca/index.php?context=va&aid=31816](http://www.globalresearch.ca/index.php?context=va&aid=31816)

Although Dr. David O. Carpenter notes below that the "evidence of the link between long-term cell phone use and brain cancer comes primarily from Northern Europe", I know personally of two people who have died from glioma cancer. The glioma cancer originated behind the ear where the cell phone was held. This used to be a rare form of malignant brain cancer. It is now thought to be epidemic, but not reported by the media, as more than 6-billion cell phones are in use globally. Senator Ted Kennedy died of glioma cancer.

Emf detecto  
 meter  
 RF & EMF Analyzer  
 Germany Show Fre  
 Power and Limits

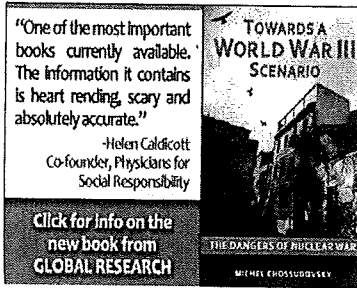


Symptoms

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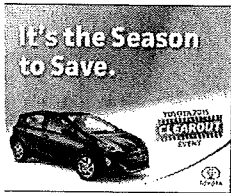


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There is a very long history of "expendable" customers [we're no longer called citizens or people], while multi-national corporations continue to make tremendous profits on dangerous drugs and technologies: toxic shock syndrome; Vioxx; thalidomide, HPV vaccines. This list is very long and well documented. For example, in September 2011, the Los Angeles Time reported "that [prescription] drug deaths now outnumber traffic fatalities in US." See: <http://articles.latimes.com/2011/sep/17/local/la-me-drugs-epidemic-20110918>

What is now termed Electro-Hypersensitivity (EHS), and is recognized in Sweden as a documented debilitating illness, can actually be called poisoning, as humans and all other living organisms are being damaged by these meters' moment-to-moment RF pulsing rates. For more than 30 years, distinguished professor Olle Johansson, of the Karolinska Institute, Sweden, has been a highly visible and ardent advocate for those who have been harmed by this technology. His scientific research is ground-breaking. In Sweden, more than 248,000 people are ill from EHS. Most laws are completely outdated to address this crisis. In the US and Canada, many poisoned customers cannot opt-out. Or, if this is available to them, customers are charged high opt-out fees as well as monthly fees. It is a win-win situation financially for the various utility companies, while customers are being harmed daily. The corporate bottom line takes precedence over health and safety.

In a Canadian magazine, *La maison du 21e siècle* [the house of the 21st century], Dr. David O. Carpenter, a distinguished physician and former founding dean of the School of Public Health, State University, Albany (New York), has just published a letter called "Smart Meters: Correcting the Gross Misinformation."(\*\*) It is here reproduced in its entirety:

"We, the undersigned are a group of scientists and health professionals who together have coauthored hundreds of peer-reviewed studies.

We wish to correct some of the gross misinformation found in the letter regarding wireless "smart" meters that was published in the Montreal daily *Le Devoir* on May 24. Submitted by a group Quebec engineers, physicists and chemists, the letter in question reflects an obvious lack of understanding of the science behind the health impacts of the radiofrequency (RF)/microwave EMFs emitted by these meters. The statement that "Thousands of studies, both epidemiological and experimental in humans, show no increase in cancer cases as a result of exposure to radio waves of low intensity..." is false(1).

In fact, only a few such studies — two dozen case-control studies of mobile phone use, certainly not thousands, have reported no elevations of cancer, and most were funded by the wireless industry. In addition, these reassuring studies contained significant experimental design flaws, mainly the fact that the populations followed were too small and were followed for a too short period of time.

Non industry-funded studies have clearly demonstrated a significant increase in cancer cases among individuals who have suffered from prolonged exposure to low-level microwaves, transmitted notably by radio antennas. The effects were best documented in meta-analyses that have been published and that include grouped results from several different studies: these analyses consistently showed an increased risk of brain cancer among regular users of a cell phone who have been exposed to microwaves for at least ten years.

#### Brain Cancer Rates

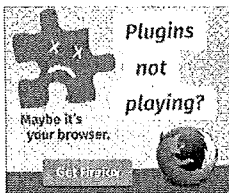
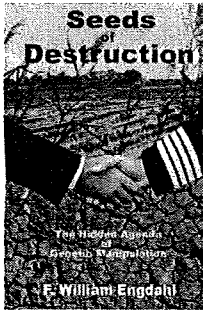
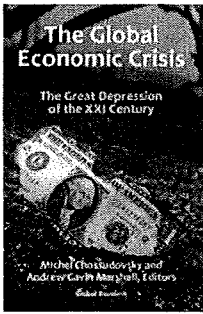
Furthermore, the argument that brain cancer rates do not indicate an overall increase in incidence is not evidence that cell phones are safe: the latency for brain cancer in adults after environmental exposure can be long, up to 20-30 years. Most North Americans haven't used cell phones extensively for that long. The evidence of the link between long-term cell phone use and brain cancer comes primarily from Northern Europe, where cell phones have been commonly used since the 1990s.

Children are especially at risk. In May 2012, the U.K.'s Office of National Statistics reported a 50 percent increase in incidence of frontal and temporal lobe tumors in children between 1999 and 2009. This statistic is especially disturbing since in May 2011, after reviewing the published scientific literature regarding cancers affecting cell phone users, the International Agency for Research on Cancer (IARC) classified radiofrequency radiation as a 2B, possible human carcinogen. Despite the absence of scientific consensus, the evidence is sufficiently compelling for any cautious parent to want to reduce their loved one's exposure to RF/microwave emissions as much as possible, as recommended by various countries such as Austria, Belgium, Germany, Russia and the United Kingdom.

#### Electrosensitivity

Public fears about wireless smart meters are well-founded. They are backed by various medical authorities such as the Public Health Departments of Santa Cruz County (California) and of Salzburg State (Austria). These authorities are worried about the growing number of citizens who say they have developed electrohypersensitivity (EHS), especially since for many of them, the symptoms developed after the installation of such meters (it takes some time for most people to link the two events).

Since the turn of the millennium, people are increasingly affected by ambient microwaves due to the growing popularity of wireless devices such as cell phones and Wi-Fi Internet. Therefore, the mass deployment of smart grids could expose large chunks of the general population to alarming risk scenarios without their consent. According to seven surveys done in six European countries between 2002 and 2004, about 10% of Europeans have become electrosensitive, and experts fear that percentage could reach 50% by 2017. The



most famous person to publicly reveal her electrosensitivity is Gro Harlem Brundtland, formerly Prime Minister of Norway and retired Director of the World Health Organization (WHO).

While there is no consensus on the origins and mechanisms of EHS, many physicians and other specialists around the world have become aware that EHS symptoms (neurological dermatological, acoustical, etc.) seem to be triggered by exposure to EMF levels well below current international exposure limits, which are established solely on short-term thermal effects.(2) Organizations such as the Austrian Medical Association and the American Academy of Environmental Medicine have recognized that the ideal way to treat of EHS is to reduce EMF exposure.

Therefore, caution is warranted because the growing variety of RF/microwave emissions produced by many wireless devices such as smart meters have never been tested for their potential biological effects.

**Well-known bioeffects**

While the specific pathways to cancer are not fully understood, it is scientifically unacceptable to deny the weight of the evidence regarding the increase in cancer cases in humans that are exposed to high levels of RF/microwave radiation.

The statement that "there is no established mechanism by which a radio wave could induce an adverse effect on human tissue other than by heating" is incorrect, and reflects a lack of awareness and understanding of the scientific literature on the subject. In fact, more than a thousand studies done on low intensity, high frequency, non-ionizing radiation, going back at least fifty years, show that some biological mechanisms of effect do not involve heat. This radiation sends signals to living tissue that stimulate biochemical changes, which can generate various symptoms and may lead to diseases such as cancer.

Even though RF/microwaves don't have the energy to directly break chemical bonds, unlike ionizing radiation such as X-rays, there is scientific evidence that this energy can cause DNA damage indirectly leading to cancer by a combination of biological effects. Recent publications have documented the generation of free radicals, increased permeability of the blood brain barrier allowing potentially toxic chemicals to enter the brain, induction of genes, as well as altered electrical and metabolic activity in human brains upon application of cell phone RF/microwaves similar to those produced by smart meters.

These effects are cumulative and depend on many factors including RF/microwave levels, frequency, waveform, exposure time, bio-variability between individuals and combination with other toxic agents. Clear evidence that these microwaves are indeed bioactive has been shown by the fact that low-intensity EMFs have proven clinically useful in some circumstances. Pulsed EMFs have long been used to successfully treat bone fractures that are resistant to other forms of therapy. More recently, frequency-specific, amplitude-modulated EMFs have been found useful to treat advanced carcinoma and chronic pain.

High frequency EMFs such as the microwaves used in cell phones, smart meters, Wi-Fi and cordless "DECT" phones, appear to be the most damaging when used commonly. Most of their biological effects, including symptoms of electrohypersensitivity, can be seen in the damage done to cellular membranes by the loss of structurally-important calcium ions. Prolonged exposure to these high frequencies may eventually lead to cellular malfunction and death.

Furthermore, malfunction of the parathyroid gland, located in the neck just inches from where one holds a cell phone, may actually cause electrohypersensitivity in some people by reducing the background level of calcium ions in the blood. RF/microwave radiation is also known to decrease the production of melatonin, which protects against cancer, and to promote the growth of existing cancer cells.

**Early warning scientists attacked**

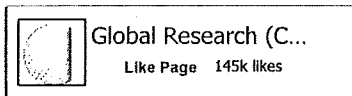
In recommending that the Precautionary Principle be applied in EMF matters, the European Environment Agency's Director Jacqueline McGlade wrote in 2009: "We have noted from previous health hazard histories such as that of lead in petrol, and methyl mercury, that 'early warning' scientists frequently suffer from discrimination, from loss of research funds, and from unduly personal attacks on their scientific integrity. It would be surprising if this is not already a feature of the present EMF controversy..." Such unfortunate consequences have indeed occurred.

The statement in the Le Devoir letter that "if we consider that a debate should take place, it should focus exclusively on the effects of cell phones on health" is basically an acknowledgement that there is at least some reason to be concerned about cell phones. However, while the immediate exposure from a cell phone is of much greater intensity than the exposure from smart meters, cell phone use is temporary.

**Smart meters**

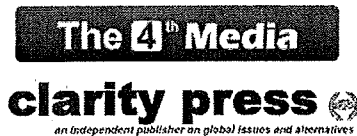
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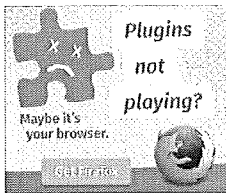
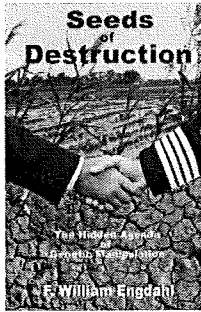
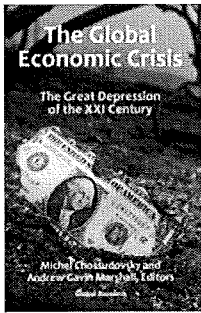
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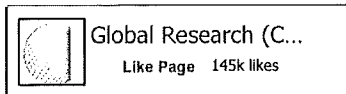
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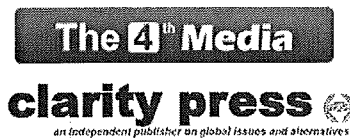


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The World Health Organization (WHO) classifies wireless radiation as a 2B carcinogen, based on studies linking cell phone radiation to brain tumors!

## List of symptoms:

- Sleep problems (insomnia, difficulty falling asleep, night waking, nightmares)
- Stress, agitation, anxiety, irritability
- Headaches, sharp pain or pressure in the head
- ringing in the ears, ear pain, high pitched ringing
- Concentration, memory or learning problems
- Fatigue, muscle or physical weakness
- Disorientation, dizziness, or balance problems
- Eye problems, including eye pain, pressure in the eyes,
- Cardiac symptoms, heart palpitations, heart arrhythmias, chest pain
- Leg cramps, or neuropathy
- Arthritis, body pain, sharp, stabbing pains
- Nausea, flu-like symptoms
- Sinus problems, nose bleeds
- Respiratory problems, cough, asthma
- Skin rashes, facial flushing
- Urinary problems
- Endocrine disorders, thyroid problems, diabetes
- High blood pressure
- Changes in menstrual cycle
- Hyperactivity or changes in children's behavior
- Seizures
- Recurrence of cancer
- Taken from EMF Safety Network Survey 2011
- Symptoms after Exposure to Smart Meter Radiation By Dr. Ron Powell

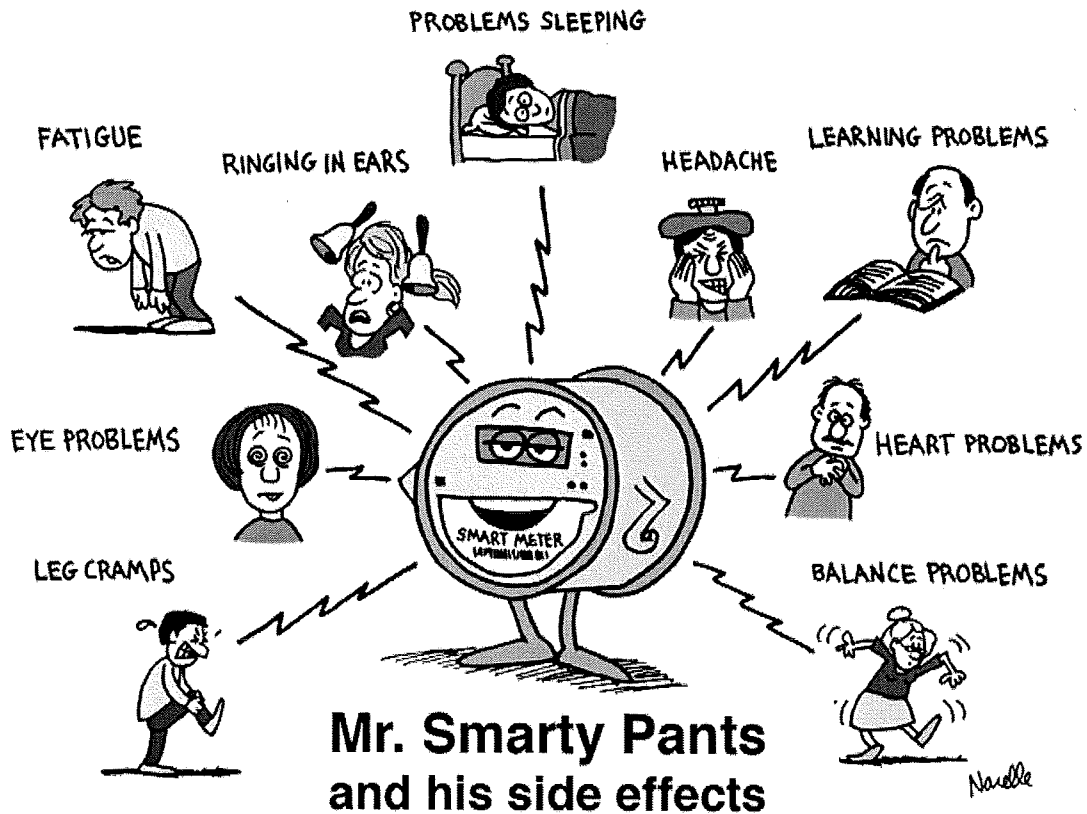
## Complaints:

## EMF Safety Network

Reduce EMF and RF (wireless) to protect children, communities, and nature

## Smart Meter Health Complaints

All around the world people are reporting wireless radiation is affecting their



health. We've collected many smart meter health complaints and posted them here. Utilities claim smart meters are safe, and compare them to cell phones. However cell phones, cell towers, wi-fi and other wireless devices can also affect your health! Reducing your EMF exposure can benefit your overall health and wellness. Learn more about how to reduce EMF's, and sign up for monthly email updates to stay informed!

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## THE MUNICIPALITY OF THE VILLAGE OF LIONS BAY

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### **REGULAR MEETING OF THE COUNCIL OF THE VILLAGE OF LIONS BAY HELD ON TUESDAY, NOVEMBER 5, 2019 at 7:00 PM COUNCIL CHAMBERS, 400 CENTRE ROAD, LIONS BAY**

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#### **MINUTES**

In Attendance:

Council: Mayor Ron McLaughlin  
Councillor Neville Abbott  
Councillor Fred Bain  
Councillor Norm Barmeier

Regrets: Councillor Jaime Cunliffe

Staff: Chief Administrative Officer Peter DeJong  
Chief Financial Officer Pamela Rooke  
Public Works Manager Nai Jaffer  
Executive Assistant Nicole Dumas (Recorder)

Delegations: 0

Public: 3

**1. Call to Order**

Mayor McLaughlin called the meeting to order at 7:00 p.m.

**2. Adoption of Agenda**

Moved/Seconded

THAT Item 8Cii – Councillor Barmeier: Infrastructure Committee - EV Charging Station be added;

THAT Item 8Ciii – Councillor Abbott: Climate Action be added;

THAT Item 8Civ – Councillor Abbott: Cell Tower be added;

THAT Item 8Av- CAO Verbal Report re: Lady Death Survey of Residents be added and considered prior to Item 8Ai;

THAT Item 8Avi - CAO Verbal Report re: SBA Tower Consultation Launch be added;

THAT Item 8Avii PWM Harvey Tank Update be added;

THAT Item 8Ci - Councillor Cunliffe: Howe Sound Community Forum report be moved to unfinished business;

THAT an additional topic: Sale of 35 Kelvin Grove, be added to the reasons for closing the meeting; and

THAT the agenda be adopted, as amended.

**CARRIED**

**3. Public Participation (2 minutes per person totalling 10 minutes maximum)**

None

**4. Public Delegation Requests Accepted by Agenda Deadline (10 minutes maximum)**

None

**5. Review & Approval of Minutes of Prior Meetings**

**A. Regular Council Meeting – October 15, 2019**

The minutes were amended as follows:

- Under “In Attendance”, Councillor Jaime Cunliffe be moved up to close the gap;
- Under “Regrets”, Councillor Norm Barmeier be listed;
- Under Item 3A, a bullet be added after the word “with”; and
- Under Item 8Av, third bullet, the word “perhaps” be removed.

Moved/Seconded

THAT the Regular Council Meeting Minutes of October 15, 2019 be approved as amended.

**CARRIED**

Moved/Seconded

THAT the Community Garden fees be waived for the 2020 growing season.

**CARRIED**

**6. Business Arising from the Minutes**

None

**7. Unfinished Business**

**A. Follow-Up Action Items from Previous Meetings**

#	Meeting Date	Description of Action Item	Action
104	September 17, 2019	G2: Letter from Minister of Public Safety re. Speeding on Sea to sky – CAO DeJong to contact the CAO’s of Squamish, Whistler and Pemberton	In progress
105	September 17, 2019	G6: Request for Garbage Fees to be Waived for Home Dialysis Treatment – PWM Jaffer to provide information in the Village Update	Completed

113	October 1, 2019	R1: Roy Matthias – Proposed Unobstructed View Bylaw vs. Privacy – Acting Mayor Cunliffe to respond	In progress
114	October 1, 2019	R3: Julie and Rob Kemp – Proposed View Bylaw vs. Privacy – Acting Mayor Cunliffe to respond	In progress
115	October 15, 2019	Bill Srigley of 205 Panorama Place and Stewart Nimmo of 202 Panorama Place - Public Works Manager and CAO to follow up by November 19 <sup>th</sup>	In progress, to respond by next meeting
116	October 15, 2019	G3: Climate Leaders Institute – Councillor Cunliffe to respond	In progress

## 8. Reports

### A. Staff: the CAO's Verbal Report re. Item 8Av was provided prior to consideration of Item 8Ai below.

#### i. CAO: Request for Decision – Commercial Filming Policy No. 1902

- Daytime hours proposed to be changed back to 7am – 10pm in line with other communities and a standard workday in the filming industry – sticking with 7 am-7 pm would likely result in almost all filming applications having to come to Council, even one day permits.
- Accommodating residents who don't want to be present during filming not believed to be an issue – can be revisited if it becomes an issue
- 15% threshold is conservative compared to suggestions in filming survey
- In Section 2.1, paragraph 5, move the comma from 10pm to after Saturday in daytime filming hours

Moved/Seconded

(1) THAT the draft Commercial Filming Policy No. 1902 be amended in respect of the policy number in the title of this policy and in respect of the change to the definition of Daytime Filming Hours in section 2.1 per the tracked changes in the attached draft;

(2) THAT the draft Commercial Filming Policy No. 1902 be adopted by Council, as amended;

(3) THAT the draft Commercial Filming Policy No. 1902 be posted as adopted to the Municipal website with a notice included in the Village Update on November 8, 2019;

(4) THAT the Fees Bylaw No. 497, 2016 be amended to include the draft fee amendments to Schedule 7 as attached to this report and brought to the November

19, 2019 Council meeting for consideration of first and second reading, along with any other recommended amendments to Fees Bylaw No. 497, 2016; and

(5) THAT staff proceed with incorporating the necessary delegations of authority in the draft general delegation bylaw staff is presently working on, to be brought to Council before the end of the year.

- It was noted that Councillor Cunliffe’s input on this matter would be helpful.

Moved/Seconded

THAT the above motion be deferred to the next meeting.

**CARRIED**

ii. CAO: Request for Decision – Surrey Fire Dispatch Service Contract Renewal

- Call volumes for Lion’s Bay trending downward
- 2019 projected to be similar to 2018, therefore, should be at Tier 1 of the rate table
- CAO to seek clarity on wording regarding inflation estimates

Moved/Seconded

(1) THAT the Surrey Fire Dispatch Service Contract be renewed for the term 2020-2024; and

(2) THAT the Mayor and Corporate Officer be authorized to execute it in substantially the form attached to this report.

**CARRIED**

*Audio: 00:44:30*

iii. CFO: Request for Direction - Borrowing for the CWWF Harvey Tank Project

- Recommend using borrowing bylaw to fund two CWWF PRVs + a third PRV
- On table item “Reserve Summary” was discussed
- All reserves can be used for capital with exception of Curly Stewart (Land Reserve Fund has additional conditions)
- On table item “Liability Servicing Limit” was discussed
- Existing issued debt is at 39.3%; unissued debt authorized to be borrowed brings our Total Liability Servicing Cost to 67.6% of our limit
- It was suggested by Councillor Abbott that we should be using money we have instead of using a loan
- Need to start looking at Infrastructure Master Plan and be prepared to pay those costs in full
- Grants are not guaranteed, and are highly competitive
- Certain things are not eligible for grants or borrowing so best to save Reserves for such things

- If emergency were to arise, we are not able to get a loan in a timely manner and need to keep Reserves available for such events
- Money should be reserved for projects that we know are coming in the future
- Technically, we can use the \$3M for anything listed in the Loan Authorization Bylaw

Moved/Seconded

THAT both the Bayview Road PRV and the Mountain Drive PRV be funded through the balance of the CWWF Grant and MFA borrowing; and

THAT the third PRV adjacent to the school be funded via MFA borrowing, subject to positive public feedback.

*Audio: 00:54:00*

*This motion was tabled to allow further discussion during the closed portion of the meeting. Upon returning from the closed portion of the meeting, the question was called.*

**CARRIED**  
**(Opposed: Cllr. Abbott)**

iv. CAO: Request for Decision – Transit Funding Allocation Opportunities

- 1000 hours allocated under TransLink Phase 2 Investment Plan
- Some negotiation to be had in terms of how they are allocated, but mostly to weekday evening service
- Have opportunity to pitch for more hours under Phase 3 – recommend additional 2500 hours
- If you miss your 262 transfer you wait over an hour coming back to Lions Bay
- Morning and afternoon peak service enhancements would increase frequency from every hour to every half hour, but need additional buses to address
- If we get allocation for Phase 3, we are sitting around 8500hrs. At that number of hours we could theoretically have an Express 262 to go Lions Bay, Horseshoe Bay and Park Royal
- TransLink offering to cooperate with us to serve us better
- A question was asked regarding transfer connections and staff will seek to have a conversation about holding the 262 until the connecting bus arrives at Horseshoe Bay from points East.
- Grant funding for transit related infrastructure – everyone gets allocated amount and the remainder is pooled – can also accumulate over 4 years
- Smaller communities have 75/25 split v 50/50 that used to be given
- If we don't have a project, we lose the allocation for the year
- Potential project – Lions Bay Avenue Connector - could receive year over year contribution towards it and then move forward later

- Can put forward placeholder application to identify project so that it will hold onto our allocation – TransLink has agreed to do that

Moved/Seconded

(1) THAT the additional 1000 Phase 2 service hours allocated to Lions Bay in 2020 be implemented in respect of weekday evening service;

(2) THAT the Municipality put forward a request for an additional 2500 hours under the Phase 3 service hour allocation process for the purpose of improving frequency of service during the morning and afternoon peak periods;

(3) THAT staff be directed to explore with Translink the potential for converting the Lions Bay transit service model to an express service between Lions Bay - Horseshoe Bay - Park Royal utilizing the combined current and additional Phase 2 and 3 service hours; and

(4) THAT staff be directed to secure the BICCS/WITT grant funding allocation for Lions Bay for 2020 through submission of a “placeholder” application in respect of the Lions Bay Avenue Connector Project.

**CARRIED**

*Audio: 01:27:25*

*The following Item was considered prior to Item 8Ai*

v. CAO: Verbal Report re. Lady Death Survey of Residents

- Received 4 responses to mail-out, 2 residents from Periwinkle, 1 Sweetwater, 1 Tidewater - all had no issues
- General feedback from responses was that information was good, people polite, filming activity seemed unobtrusive

vi. CAO: Verbal Report re. SBA Tower Consultation Launch

- Public consultation started on November 1, and is projected to end December 6
- If question asked at December 6<sup>th</sup> - 21 day period during which SBA must answer
- CAO reminded of notices given, mail drop and other forms of communication
- Consultation is the applicant’s process
- CAO will be amending text that appears on our website to make it clearer that public should be sending their questions and comments directly to SBA
- Municipality can be cc’d
- We need to provide more and better information regarding what it is about, what are pros and cons of project - October 1<sup>st</sup> report should be referred to
- We help facilitate the process, and we are requiring that they do much more than is federally required
- Councillor Abbott suggested we can go back out and gather more information regarding who will be on tower and how it will benefit the residents

- 2 or 3 out of the major carriers have expressed interest but whether or not carriers choose to rent space on tower may affect residents’ choice of carrier – if enough demand, can look at 2<sup>nd</sup> tower
- Municipal stance on matter is not neutral – previous Council deemed project worthwhile and beneficial – this Council has approved the agreement subject to comments from applicant’s consultation process

## B. Mayor

### i. Strategic Planning – Draft Agenda Input by Nov.8<sup>th</sup>

- Friday deadline for items and input – send to CAO DeJong

### ii. Tree Committee

- Met with Tree Committee Chair and CAO recently
- Suggestions made to streamline the application process
- Will return to Council table in the next 45 days

### iii. RCMP Meeting Oct.29<sup>th</sup>

- Passed on kudos re. speed enforcement over the summer season
- They were not responsible for the Friday rush hour winter tire check fiasco (was Integrated Metro Traffic Division) and will try to ensure doesn’t happen again
- Indicated no appetite for supplemental reserve officer
- New Community Policing Officer hired and will be here for Remembrance Day Ceremony November 11<sup>th</sup>
- Asked about position on ASOD

## C. Council

### i. Councillor Cunliffe: Verbal report re: Oct 25<sup>th</sup> Howe Sound Community Forum *Councillor Cunliffe not present – this Item to be carried forward to meeting of November 19, 2019 as Unfinished Business.*

### ii. Councillor Barmeier: Infrastructure Committee – EV Charging Station

- Decision on location of EV charging station next meeting
- Different designs available
- Can move transformer out of the way and keep clean, slick look
- Preliminary design by engineer a good idea
- A question was asked about the size of the kiosk and the need to keep transformers away from creeks - Will be small air-cooled transformer

### iii. Councillor Abbott: Climate Action Network - Wood Burning Appliances

- On Table summary of intended delegation presentation to Metro’s Climate Action Committee discussed

D. Committees

i. Trees, Views and Landscapes Committee: Tree Application #96 – 45 Periwinkle  
 Moved/Seconded

THAT as requested, the applicant is permitted to cut down the four (4) Cedars and seven (7) Firs mentioned in the application and must clean up and remove all associated debris. Topping is NOT permitted.

AND THAT the applicant ensure that the trees are cut as low as possible to the ground.

AND THAT the applicant is permitted to re-top the hedge on the edge of the easement and must clean up and remove all associated debris.

**CARRIED**

E. Emergency Services

None

**9. Resolutions**

A. CEPF Grant Application

- Geared towards fighting of structure fires, wild fires and training
- An itemized list of gear and equipment totalling about \$24,000 was read out by the CAO

Moved/Seconded

THAT an application be submitted for a grant under the Community Emergency Preparedness Fund: Volunteer & Composite Fire Departments Equipment & Training Funding Stream for the purpose of improving the resiliency of the Lions Bay volunteer fire department through the purchase of new or replacement equipment and to facilitate the delivery of training, with overall grant management to be provided by the Village of Lions Bay.

**CARRIED**

**10. Bylaws**

A. Title

None

**11. Correspondence**

A. List of Correspondence to October 31, 2019

Moved/Seconded

THAT the following actions be taken with respect to the correspondence:

- G1: Letter from Township of Langley re: Inter Municipal Ride-Hailing Business Licence – Received
- G2: Bruce Gibbons re: Protection of Groundwater - Received
- G3: Lower Mainland Newsletter #16 – October 2019 - Received

- G4: CivX 2019 – Civil Ideas for Less Civil Times Nov 28 - Received
- G5: Letter from the Honourable Katrine Conroy – Ministry of Children and Family Development - Received
- G6: MetroVan – Regional Odour Management - Received
- G7: MetroVan – Regulating Air Emissions from Cannabis Production - Received

**CARRIED**

**12. New Business**

None

**13. Public Questions & Comments (2 minutes on any topic discussed in this meeting)**

None

**14. Closed Council Meeting**

Proposed topics for discussion in the absence of the public:

- A. Borrowing for the CWWF Harvey Tank Project and Additional PRVs  
 Moved/Seconded

THAT Council considers that disclosure could reasonably be expected to harm the interests of the municipality [s. 90(1)(e)]

- B. Sale of Kelvin Grove

**CARRIED**

Moved/Seconded

THAT the meeting be closed to the public on the basis of matters to be considered under the following sections of the *Community Charter*:

**90** (1) A part of a council meeting may be closed to the public if the subject matter being considered relates to or is one or more of the following:

e) the acquisition, disposition or expropriation of land or improvements, if the council considers that disclosure could reasonably be expected to harm the interests of the municipality;

n) the consideration of whether a council meeting should be closed under a provision of this subsection or subsection (2);

**CARRIED**

*The meeting was closed to the public at 9:19 p.m. Council anticipates reconvening the open meeting to discuss Item 8Aiii – Borrowing for the CWWF Harvey Tank Project*

*The meeting was re-opened to the public at 9:50 p.m. and Council pulled Item 8Aiii from the table for further consideration.*

**15. Reporting Out From Closed Portion of Meeting**

None

**16. Adjournment**  
Moved/Seconded

THAT the meeting be adjourned.

**CARRIED**

*The meeting was adjourned at 9:50 p.m.*

\_\_\_\_\_  
Mayor

\_\_\_\_\_  
Corporate Officer

Date Approved by Council:	
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THE MUNICIPALITY OF THE VILLAGE OF LIONS BAY

<b>Type</b>	<b>Request for Decision</b>		
<b>Title</b>	<b>Renewal of Listing Agreement for 35 Kelvin Grove Way</b>		
<b>Author</b>	<b>Peter DeJong</b>	<b>Reviewed By:</b>	
<b>Date</b>	<b>November 14, 2019</b>	<b>Version</b>	
<b>Issued for</b>	<b>November 19, 2019 Council Meeting</b>		

**Recommendation:**

- (1) THAT the Listing Agreement renewal contract with Kim Taylor, realtor, for the sale of the lands located at 35 Kelvin Grove Way be approved; and
- (2) THAT the CAO be authorized to execute the Listing Agreement in substantially the form attached.

**Attachments:**

- (1) Listing Agreement renewal contract expiring May 20, 2020.

**Key Information:**

The original listing agreement with Kim Taylor, realtor, expires November 20, 2019. Council has agreed to renew the agreement for another 6 months. [REDACTED]

**Options:**

- (1) Approve the recommendation.
- (2) Amend the recommendation and then approve it.
- (3) Refer the matter back to staff with alternate directions.

**Preferred Option:** Option 1, approve the recommendation.

**Follow Up Action:** Staff to follow up with realtor.

**MULTIPLE LISTING CONTRACT**

**MULTIPLE LISTING SERVICE®**

MLS® OFFICE USE ONLY	
DATE	LISTING MLS® NO

BETWEEN: The Municipality of the Village of Lions Bay  
OWNER(S) ("SELLER")

AND: Royal LePage Sussex  
("LISTING BROKERAGE")

OWNER(S) ("SELLER")

2397 Marine Drive  
UNIT ADDRESS

400 Centre Road  
UNIT ADDRESS

West Vancouver BC V7V 1K9  
CITY PROV PC

Lions Bay V0N 2E0  
CITY PROV PC

(604) 925-2911  
TELEPHONE NUMBER CELL NUMBER

604-921-9333  
TELEPHONE NUMBER CELL NUMBER

**1. LISTING AUTHORITY AND TERM:**

A. The Seller hereby lists exclusively with the Listing Brokerage the property described in Clause 2 ("Property") from 2019 (Effective Date) until 11:59pm on May 20 2020 (Expiry Date) unless renewed in writing.  
MONTH DAY YEAR MONTH DAY YEAR

- B. The Seller hereby:
- (i) authorizes the Listing Brokerage to obtain information concerning the Property from any person, corporation or governmental authority, including any mortgagee and British Columbia Assessment, and to share this information with other parties, including members of any real estate board;
  - (ii) authorizes the Listing Brokerage to advertise the Property and to show it to prospective buyers during reasonable hours;
  - (iii) restricts the advertising of the Property to the Listing Brokerage only except where the advertising of the Property by other members of the real estate board of which the Listing Brokerage is a member (hereinafter referred to as the "Board") or any other real estate board has been permitted by the Listing Brokerage;
  - (iv) agrees to allow the Listing Brokerage to place "For Sale" and "Sold" signs upon the Property; and
  - (v) agrees to allow Cooperating Brokerages (as hereinafter defined) to show the Property to prospective buyers.

**2. PROPERTY:**

UNIT NO.	<u>35</u>	<u>Kelvin Grove</u>	<u>Way</u>	
	HOUSE NO.	STREET NAME	STREET TYPE	STREET DIRECTION
<u>Lions Bay, BC</u>			<u>V0N 2E0</u>	
	CITY/TOWN/MUNICIPALITY		POSTAL CODE	
<u>030-600-740</u>				
PID	OTHER PID(S)			

THAT PART OF DISTRICT LOT 1575 GROUP 1 NEW WESTMINSTER DISTRICT SHOWN ON PLAN EPP84147

LEGAL DESCRIPTION

**3. TERMS OF SALE:**



TERMS

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35 Kelvin Grove Way

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V0N 2E0

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**4. LISTING SERVICE AND COOPERATING BROKERAGES:** The Seller authorizes the Listing Brokerage:

- A. To list the Property with the Multiple Listing Service® of the Board and any other real estate board that the Listing Brokerage selects and has access to and to cooperate with other brokerages and their designated agents acting for a prospective buyer or, with the written consent of the Seller, as a sub-agent of the Listing Brokerage (“Cooperating Brokerages”);
- B. To publish in the Multiple Listing Service® of the Board, the Multiple Listing Service® of any other real estate board, Internet, or anywhere else that the Listing Brokerage selects and has access to, and to share with other parties, including British Columbia Assessment, the information contained in this Contract, the information contained in the Data Input Form and the Seller’s Property Disclosure Statement, if applicable, and the sale price of the Property once an unconditional accepted offer exists; and
- C. To make agency disclosures required of the Listing Brokerage.

**5. LISTING BROKERAGE’S REMUNERATION:**

- A. The Seller agrees pay the Listing Brokerage a gross commission equal to the amount set out in Clause 5D, in accordance with this Clause 5, if:
  - (i) a legally enforceable contract of sale between the Seller and a Buyer is entered into during the term of this Contract; or
  - (ii) a legally enforceable contract of sale between the Seller and a Buyer who is introduced to the Property or to the Seller, by the Listing Brokerage, the Designated Agent (as hereinafter defined) a Cooperating Brokerage or any other person including the Seller during the term of this Contract is entered into:
    - (a) within sixty (60) days after the expiration of the term of this Contract; or
    - (b) any time after the period described in (a) where the efforts of the Listing Brokerage, the Designated Agent (as hereinafter defined) or the Cooperating Brokerage were an effective cause;
 provided, however, that no such commission is payable if the Property is listed with another licensed brokerage after the expiration of the term of this Contract and sold during the term of that listing contract; or
  - (iii) an offer to purchase is obtained from a prospective buyer during the term of this Contract who is ready, willing and able to pay the Listing Price and agrees to the other terms of this Contract, even if the Seller refuses to sign the offer to purchase.
- B. The Seller will pay the remuneration due to the Listing Brokerage under this Clause 5 on the earlier of the date the sale is completed, or the completion date, or where no contract of sale has been entered into seven (7) days after written demand by the Listing Brokerage.
- C. The Seller agrees that, to assist in obtaining a buyer for the Property, the Listing Brokerage will offer to Cooperating Brokerages a portion of the Listing Brokerage’s commission.
- D. (i) Upon the occurrence of an event described in Clauses 5A(i), 5A(ii) or 5A(iii), the Seller will pay remuneration to the Listing Brokerage of an amount equal to:

7% on first \$100,000.00 + 2.5% on balance

of the sale price of the Property, plus applicable Goods and Services Tax and other applicable tax in respect of the commission (commission + tax = remuneration).

- (ii) If there is a Cooperating Brokerage, the Listing Brokerage will pay to the Cooperating Brokerage, from the remuneration paid to the Listing Brokerage by the Seller pursuant to Clause 5D(i), an amount equal to:

3.22% on first \$100,000.00 + 1.15% on balance

of the sale price of the Property, plus applicable Goods and Services Tax and other

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Lions Bay by Peter DeJong, CAO

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35 Kelvin Grove Way

Lions Bay, BC

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applicable tax in respect of the commission; and the Listing Brokerage will retain, from the remuneration paid to the Listing Brokerage by the Seller pursuant to Clause 5D(i), an amount equal to:

3.78% on first \$100,000.00 + 1.35% on balance

of the sale price of the Property, plus applicable Goods and Services Tax and other applicable tax in respect of the commission.

(iii) If there is no Cooperating Brokerage, the Listing Brokerage will retain the entire amount of the remuneration paid by the Seller pursuant to Clause 5D(i), being an amount equal to:

7% on first \$100,000.00 + 2.5% on balance

of the sale price of the Property, plus applicable Goods and Services Tax and other applicable tax in respect of the commission.

E. The Listing Brokerage and the Designated Agent will advise the Seller of any remuneration, other than described in this Clause 5, to be received by the Listing Brokerage in respect of the Property.

6. ASSIGNMENT OF REMUNERATION: The Seller hereby irrevocably:

- A. Assigns to the Listing Brokerage from the proceeds of sale of the Property, the amount of remuneration due to the Listing Brokerage and authorizes the Listing Brokerage to retain from the deposit monies the amount of the Listing Brokerage's remuneration;
- B. Acknowledges that the Listing Brokerage may assign to a Cooperating Brokerage all or part of the remuneration due to the Listing Brokerage; and
- C. Directs, or agrees to sign such documents as may be required by the Listing Brokerage irrevocably directing a Lawyer or Notary Public acting for the Seller or a buyer, to pay the remuneration due to the Listing Brokerage, or the net amount remaining after the deposit monies held in trust have been credited against the remuneration due to the Listing Brokerage, to the Listing Brokerage and a Cooperating Brokerage, where applicable, by separate cheques to the Listing Brokerage and the Cooperating Brokerage.

7. DESIGNATED AGENCY

- A. Subject to Clause 7C(iii) the Listing Brokerage designates Kim Taylor (the "Designated Agent") to act as the sole agent of the Seller in respect of the Property and will designate one or more licensees of the Listing Brokerage to act as the sole agents of all buyers and other sellers also represented by the Listing Brokerage. If for any reason the license of the Designated Agent (or where the Designated Agent is comprised of more than one licensee, the licenses of all of those licensees) is suspended, cancelled or becomes inoperative under the *Real Estate Services Act* or the Designated Agent (or where the Designated Agent is comprised of more than one licensee, all of those licensees) is temporarily unavailable or ceases to be engaged by the Listing Brokerage, the Listing Brokerage will designate another licensee of the Listing Brokerage to act as the sole agent of the Seller;
- B. The Designated Agent will not disclose to other licensees, including licensees of the Listing Brokerage who represent buyers or other sellers, any confidential information of the Seller obtained through the Designated Agent's agency relationship with the Seller unless authorized by the Seller or required by law.
- C. The Seller agrees that:
  - (i) subject to (iii) an agency relationship will exist only with the Designated Agent;
  - (ii) information obtained by the Designated Agent through the Designated Agent's agency relationship with the Seller will not be attributed to the Listing Brokerage or to other licensees of the Listing Brokerage who represent buyers or other sellers;
  - (iii) the Listing Brokerage's agency relationship is limited to listing the Property with the Multiple Listing Service® of the Board and any other real estate board that the Listing Brokerage selects and has access to; and

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(iv)for the purposes of Clauses 1B,and 4, the term Listing Brokerage shall include the Designated Agent.

**8. THE DESIGNATED AGENT WILL:**

- A. Act as the agent of only the Seller with respect to the Property;
- B. Provide information about the Property to Cooperating Brokerages;
- C. Subject to Clause 9A use reasonable commercial efforts to market the Property and to promote the interests of the Seller;
- D. At the earliest reasonable opportunity, advise any buyer interested in the Property that the Designated Agent is the agent of the Seller;
- E. Fulfill the duties set out in *Real Estate Services Act* Rule 3-3, except as modified or made inapplicable by agreement between the Listing Brokerage and the Seller, and *Real Estate Services Act* Rule 3-4;
- F. Obey all lawful instructions of the Seller that are consistent with the *Real Estate Services Act* and the Rules and the Bylaws and Code of Ethics of the Board; and
- G. Exercise reasonable care and skill in their performance under this Contract;

**9. THE LISTING BROKERAGE AGREES:**

- A. That the services set out in Schedule "A" will be provided. Where the Listing Brokerage and the Designated Agent have chosen or agreed not to provide services to the Seller other than submitting the listing for posting with the Multiple Listing Services® of the Board and any other real estate board that the Listing Brokerage selects and has access to, Schedule "A" may include modifications to Clauses 5A, 5B, 6A, 6B, 6C, 8B, 8C, 8D, 8E, 10A, 10B, 10D, 10E, 10G and 10H;
- B. To monitor and supervise the activities of the Designated Agent to ensure compliance by the Designated Agent with the provisions of this Contract and with the Listing Brokerage's policies and procedures governing designated agents; and
- C. Not to disclose confidential information of the Seller to any person unless authorized by the Seller or required by law;
- D. To treat the interests of the Seller and all buyers and other sellers also represented by the Listing Brokerage in an even handed, objective and impartial manner; and
- E. To hold all monies received by the Listing Brokerage in trust in accordance with the *Real Estate Services Act*.

**10. THE SELLER AGREES:**

- A. To promptly advise the Designated Agent of, and refer to the Designated Agent, all inquiries for the purchase of the Property, and to deliver to the Designated Agent all offers to purchase which may be received during the term of this exclusive Contract or arising by reason of it; and
- B. To accept an offer made during the term of this Contract by a person ready, willing and able to purchase on the terms set out in this Contract.
- C. That the Seller has the authority to sell the Property and to enter into this Contract;
- D. That the Seller will disclose to the Designated Agent all third party claims and interests in the Property known to the Seller;
- E. That the Seller will disclose to the Designated Agent all material latent defects affecting the Property known to the Seller and that the Designated Agent may provide that information to prospective buyers;
- F. That all information provided to the Listing Brokerage and the Designated Agent by the Seller is and will be accurate to the best of the Seller's knowledge;
- G. That the Seller will immediately advise the Designated Agent of any material changes in the physical condition or status of the Property or the information provided by the Seller;
- H. That the Seller will provide the Designated Agent with all information necessary for the listing and marketing of the Property;

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- I. That the Designated Agent is being retained solely to provide real estate services and not as a lawyer, tax advisor, lender, certified appraiser, surveyor, structural engineer, home inspector or other professional service provider; and
- J. That the Property is not currently the subject of any other exclusive listing contract.

**11. THE SELLER ACKNOWLEDGES AND AGREES THAT:**

- A. The information relating to the Property may be disclosed to persons interested in the Property including prospective buyers, agents of prospective buyers, appraisers, financial institutions, governments and governmental departments and agencies;
- B. The duties set out in *Real Estate Services Act* Rules 3-3 and 3-4 apply only to the Designated Agent and do not apply to any other licensees of the Listing Brokerage who represent buyers or other sellers and, subject to Clauses 9B, 9C and 9D, do not apply to the Listing Brokerage.
- C. The Listing Brokerage or the Designated Agent may provide trading services to, have agency relationships with or be engaged by other sellers, or have agency relationships with or be engaged by buyers, unless doing so would constitute a dual agency that is not permitted by Part 5 of the *Real Estate Services Act* Rules;
- D. In the case that the provision of trading services to the Seller contemplated hereby and the provision of trading services to a buyer or another seller constitutes or becomes a dual agency that is not permitted by Part 5 of the *Real Estate Services Act* Rules, the Seller acknowledges and agrees that the Listing Brokerage and the Designated Agent, as applicable, must comply with *Real Estate Services Act* Rule 5-18 and may be required to cease providing certain trading services to the Seller;
- E. Despite *Real Estate Services Act* Rule 3-3(f), the Listing Brokerage and the Designated Agent will not be required to disclose to the Seller confidential information obtained through any agency relationship;
- F. A Seller, who is a non-resident of Canada, must comply with the *Income Tax Act* of Canada before the sale of the Seller's property can be completed.

**12. CONFLICTS OF INTEREST:**

- A. If the Designated Agent's provision of trading services to the Seller in respect of the Property and a buyer with whom the Designated Agent has an agency relationship would constitute a dual agency that is not permitted by Part 5 of the *Real Estate Services Act* Rules, the Designated Agent may request consent from the Seller and such buyer to continue to represent either the Seller or such buyer in respect of the Property. In such case, the Designated Agent will present the Buyer and the Seller with a written agreement in compliance with section 5-18 of the *Real Estate Services Act* Rules (the "Consent Agreement"). Notwithstanding anything else in this Agreement, if the Seller and such buyer consent to the Designated Agent continuing to act for one of them in respect of the Property and they execute the Consent Agreement, the parties hereto agree as follows:
  - (i) if the Designated Agent ceases to act as agent of such buyer in respect of the Property, the Seller acknowledges and agrees that the Designated Agent may continue to act as agent for such buyer in respect of property other than the Property;
  - (ii) if the Designated Agent ceases to act as agent of the Seller in respect of the Property, subject to Part 5 of the *Real Estate Services Act* Rules, the Listing Brokerage may designate another licensee of the Listing Brokerage to act as the Designated Agent of the Seller hereunder or if the Listing Brokerage is unable to or does not designate another licensee of the Listing Brokerage, the Listing Brokerage may refer the Seller to another brokerage for representation in respect of the Property; provided that, the Seller will not be obligated to accept such referral; and
  - (iii) if the Designated Agent ceases to act as the agent of the Seller in respect of the Property, the Seller acknowledges and agrees that the Designated Agent's duties under this Agreement and in the *Real Estate Services Act* Rule 3-3(a) (to act in the best interests of

The Municipality of the Village of  
Lions Bay by Peter DeJong, CAO

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the Seller), *Real Estate Services Act* Rule 3-3(f) (to disclose all known material information to the Seller) and the *Real Estate Services Act* Rule 3-3(i) (to take reasonable steps to avoid any conflict of interest) are hereby modified, from and after the date that the Seller executed the Consent Agreement, to enable the Listing Brokerage and the Designated Agent to continue their representation of such buyer and the Seller further acknowledges and agrees that the continued representation of such buyer will not constitute any breach of duty to the Seller by either the Listing Brokerage or the Designated Agent under the *Real Estate Services Act* Rule 3-3 or otherwise, including, without limitation, any breach of fiduciary duty, or any breach of a common law agent's duty of loyalty or contractual or statutory duty.

**13. COLLECTION, USE AND DISCLOSURE OF PERSONAL INFORMATION:**

- A. The Seller hereby consents to the collection, use and disclosure by the Listing Brokerage and by the managing broker(s), associate broker(s) and representative(s) of the Listing Brokerage (collectively the "Licensee") noted below, the Board and any other real estate board, of personal information about the Seller:
  - (i) for all purposes consistent with the listing, marketing and selling of the Property;
  - (ii) for placement in the database of the Multiple Listing Service® of the Board and of any other real estate board that the Listing Brokerage selects and has access to;
  - (iii) for the purpose of the Board and other real estate boards marketing the Property in any medium including but not limited to posting the personal information on publicly accessible websites and distributing the personal information to any persons including the public, members of the Board, members of other real estate boards, governments and governmental departments and agencies, appraisers and others;
  - (iv) for compilation, retention and publication by the Board and other real estate boards of any statistics including historical Multiple Listing Service® data for use by persons authorized to use the Multiple Listing Service® of the Board and other real estate boards;
  - (v) for enforcing codes of professional conduct and ethics for members of the Board and other real estate boards;
  - (vi) for all other purposes authorized in this Contract including but not limited to those described in Clauses 1B, 4A, 4B, 7B and 9A; and
  - (vii) for the purposes (and to the recipients) described in the brochure published by the British Columbia Real Estate Association entitled *Privacy Notice and Consent*.
- B. The personal information provided by the Seller may be stored on databases outside Canada, in which case it would be subject to the laws of the jurisdiction in which it is located.

**14. TERMINATION:** The Listing Brokerage and the Seller agree that:

- A. Without prejudice to the acquired rights of the Seller or the Listing Brokerage, including without limitation the rights and obligations under Clause 5, this Contract will terminate:
  - (i) upon the expiration of the term of this Contract as specified in Clause 1A;
  - (ii) upon an earlier date than that specified in Clause 1A if mutually agreed to by the Seller and the Listing Brokerage in writing;
  - (iii) upon a completed sale of the Property prior to the expiration of the term of this Contract;
  - (iv) immediately if the Listing Brokerage's licence is suspended, cancelled or rendered inoperative under the *Real Estate Services Act*;
  - (v) upon the bankruptcy or insolvency of the Listing Brokerage or if it is in receivership; and
  - (vi) if the Listing Brokerage and the Designated Agent are unable to continue to provide trading services to the Seller as a result of Part 5 of the *Real Estate Services Act* Rules.
- B. Immediately upon the termination of this Contract the Listing Brokerage and the Designated Agent will:
  - (i) remove the Property as an active listing of the Multiple Listing Service® of the Board and any other real estate board that the Listing Brokerage has selected;
  - (ii) cease all marketing activities on behalf of the Seller;
  - (iii) remove all signs from the Property; and

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The Municipality of the Village of  
Lions Bay by Peter DeJong, CAO

INITIALS

35 Kelvin Grove Way  
ADDRESS

Lions Bay, BC

VON 2E0

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(iv) if requested by the Seller, return all documents and other materials provided by the Seller.

**15. MISCELLANEOUS PROVISIONS:**

- A. "Sale" includes an exchange and "sale price" includes the value of property exchanged.
- B. The "term" of this Contract includes the period of any written extension.
- C. Interpretation of this Contract and all matters concerning its enforcement by the parties shall be governed by the laws of the Province of British Columbia.
- D. The parties acknowledge that this Contract fully sets out the terms of the agreement between them.
- E. This Contract shall be binding upon and benefit not only the parties but also their respective heirs, executors, administrators, successors and assigns.
- F. "Property" may include a leasehold interest, a business and the goodwill and assets of it, an interest, partnership or share in a business or in the goodwill and assets of it, or a manufactured home, plus any other property designated by the Seller in the Data Input Form or addendum attached.
- G. In consideration of the Board or any other real estate board disseminating information about the Property, the Seller and Listing Brokerage each assign to the Board or other real estate board all their rights and interests in and to the information related to the Property contained in this Contract, including all copyright, rights ancillary to copyright and all other proprietary rights.

**16. ENTIRE AGREEMENT - THIS LISTING CONTRACT MEANS AND INCLUDES THIS AGREEMENT AND THE SELLER'S PROPERTY DISCLOSURE STATEMENT (WHEN ATTACHED AND SIGNED BY THE SELLER):** The Seller acknowledges having read and understood this Contract; that it accurately describes the agreement with the Listing Brokerage; and that a copy of it has been received by the Seller this date. Where the Seller is comprised of more than one party, the obligations under this Contract of each and every party comprising the Seller shall be joint and several.

SIGNED, SEALED AND DELIVERED THIS \_\_\_\_\_ OF \_\_\_\_\_, yr. \_\_\_\_\_.

The Seller declares their residency:

RESIDENT OF CANADA   INITIALS NON-RESIDENT OF CANADA   INITIALS as defined under the *Income Tax Act*.

The Municipality of the Village of  
Lions Bay by Peter DeJong, CAO

SELLER'S SIGNATURE



The Municipality of the Village of  
Lions Bay by Peter DeJong, CAO



Royal LePage Sussex  
LISTING BROKERAGE (PRINT)



SELLER'S SIGNATURE

Per: DESIGNATED AGENT'S SIGNATURE

WITNESS TO SELLER(S) SIGNATURE(S)

BROKERAGE APPROVAL  
FOR OFFICE USE ONLY

Kim Taylor  
DESIGNATED AGENT (PRINT)

\*PREC represents Personal Real Estate Corporation

Trademarks are owned or controlled by The Canadian Real Estate Association (CREA) and identify real estate professionals who are members of CREA (REALTOR®) and/or the quality of services they provide (MLS®).

**MULTIPLE LISTING CONTRACT SCHEDULE "A"**

35 Kelvin Grove Way

Lions Bay, BC

V0N 2E0

PAGE 8 of 8 PAGES

ADDRESS

SERVICES YOU WILL RECEIVE FROM YOUR REALTOR AS PART OF THIS LISTING CONTRACT :

1. COLLECT ALL DOCUMENTATION AS REQUIRED
2. REVIEW ALL DOCUMENTATION FOR ACCURACY
3. LIST ON MULTIPLE LISTING SERVICE OF THE REAL ESTATE BOARD OF GREATER VANCOUVER
4. ADVERTISE ON REALTOR & BROKERAGE WEBSITES
5. PROFESSIONAL PHOTOGRAPHY
6. FEATURE SHEETS
7. MARKET YOUR HOME THROUGH NETWORK OF BUYERS AND REALTORS
8. SHOW THE PROPERTY AT TIMES ACCEPTABLE TO BUYERS AND SELLERS
9. COOPERATE WITH REALTORS WORKING WITH BUYERS
10. RESPOND PROMPTLY TO ALL INQUIRIES FROM POTENTIAL BUYERS AND REALTORS
11. PRESENTATION OR REPRESENTATION AT THE PRESENTATION OF ALL OFFERS, AND NEGOTIATION FOR THE SELLER
12. ASSISTANCE IN REMOVAL OF ALL CONDITIONS, OFFER AND COMPLETION PROCESS
13. REGULAR COMMUNICATION AND ANY MARKET UPDATES

The Municipality of the Village of  
Lions Bay by Peter DeJong, CAO

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INITIALS

To help you sell, buy or lease real estate, REALTORS®, brokerages and real estate boards need to collect, use and disclose some of your personal information. This form provides you with information about, and obtains your consent to, such information handling practices.

**DEFINITIONS**

**Personal Information** means any identifiable information about you, including your name, address, phone number, financial information and may include information about your property (such as listing and selling price, lease rate, listing term, etc.).

A **REALTOR®** is a member of a real estate board, the British Columbia Real Estate Association (BCREA) and of The Canadian Real Estate Association (CREA). REALTORS® in BC are licensed under the *Real Estate Services Act*. **Brokerage** refers to the real estate company where your REALTOR® is licensed. The **boards** are British Columbia real estate boards that are members of BCREA. REALTORS® provide MLS® services, which are professional services to effect the purchase and sale of real estate as part of a co-operative selling system, otherwise known as an MLS® System. A **MLS® System** is a member-to-member cooperative selling system for the purchase, sale or lease of real estate that is owned or controlled by a board, includes an inventory of listings of participating REALTORS®, and ensures a certain level of accuracy of information, professionalism, and cooperation amongst REALTOR® members.

**How is my personal information collected?**

Most personal information will be collected directly from you through the contracts and other documents you fill out (e.g., Multiple Listing Contract, Contract of Purchase and Sale, Offer to Lease, seller's Property Disclosure Statement) and through discussions you have with the REALTOR® to whom you are giving this consent. Some information may be collected from other sources such as government departments and agencies (e.g., Land Title Offices, BC Assessment), financial institutions and mortgage brokers.

**To whom may my personal information be disclosed?**

Your information may be disclosed to (or may be accessible by) the boards and their staff and members, other REALTORS® and their clients, government departments and agencies, financial institutions, legal advisors, service providers, BCREA, the Real Estate Council of British Columbia (RECBC), CREA and members of the public, for the purposes described below.

Not all of your information will be accessible to each of the above-mentioned entities. For example, once the listing term has ended, the general public will not have access to your information, unless it is otherwise available through public registries or publications (e.g., Land Title Offices, BC Assessment, REALTOR.ca).

**Why is my personal information collected, used and disclosed?**

Your personal information may be collected, used and disclosed for some or all of the **primary uses** set out below.

- 1a) To list/market your property on the MLS® System in accordance with the terms and conditions of the MLS® System and the boards.
- 1b) To allow members of real estate boards (including REALTORS® and appraisers) to value your property.
- 1c) To market your property through any other media (both print and electronic).
- 1d) To help you locate a suitable property to buy or lease.
- 1e) To facilitate the purchase and sale or lease transaction both before and after the completion of your transaction or entering into of your lease (including by cooperating with financial institutions, legal advisors, government departments and agencies and third parties engaged in connection with the purchase and sale or lease transaction, such as photographers, appraisers and other service providers, and by communicating with you to coordinate any of the foregoing or to ensure your satisfaction with any of the foregoing and the real estate services provided to you in connection with the transaction).

- 1f) To allow the boards (including REALTORS®) to compile current and historical statistics on sales and property prices and lease rates, and to conduct comparative market analyses. Information about your property will be retained in the MLS® System and handled in accordance with its and the boards' terms and conditions, and published by the boards from time to time for these purposes after your property has sold or leased or your listing has expired (if you are a seller/landlord) and after you have purchased or leased your property (if you are a buyer/tenant).
- 1g) To enforce codes of professional conduct and ethics for REALTORS® (by cooperating with the boards, BCREA, RECBC, CREA and other regulatory bodies).
- 1h) To comply with legal requirements and to act pursuant to legal authorizations.

The above-mentioned primary uses are a necessary part of your relationship with the REALTOR® to whom you are giving this consent.

**Will my personal information be collected, used and disclosed for any other purposes?**

Your personal information may also be collected, used and disclosed for the **secondary uses** set out below. These secondary uses are optional. If you do not want your personal information used or disclosed for any of these secondary uses, you may opt out of granting consent to any of them by initialing the "Opt Out" box(es) to the right of the secondary use(s) to which you do not want to consent.

- 2a) The REALTOR® to whom you are giving this consent (or their brokerage) may communicate with you in the future to determine whether you require additional real estate services. Opt Out
- 2b) The REALTOR® to whom you are giving this consent (or their brokerage) may communicate with you to provide information about other products or services that may interest you.
- 2c) Other REALTORS® may communicate with you to determine if you require additional real estate services.
- 2d) The boards, and other REALTORS® or their brokerage (and survey firms on their behalf) may communicate with you to participate in surveys.   
(Initials)

You may withdraw your consent to any or all of the secondary uses in the future by contacting the REALTOR® to whom you are giving this consent or that REALTOR®'s board's privacy officer.

Contact information for all boards can be obtained from BCREA (website [www.bcrea.bc.ca](http://www.bcrea.bc.ca) or telephone 604.683.7702).

**ACKNOWLEDGEMENT**

I/We consent to the collection, use and disclosure of personal information as described in this Privacy Notice and Consent form.

The Municipality of the Village of Lions Bay  
 PRINT NAME

SIGNATURE The Municipality of the Village of Lions Bay by Peter DeJong, CAO

DATE \_\_\_\_\_

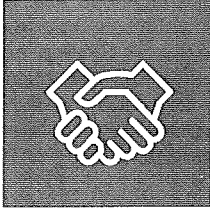
PRINT NAME \_\_\_\_\_

SIGNATURE \_\_\_\_\_

DATE \_\_\_\_\_

Kim Taylor  
 REALTOR®

Royal LePage Sussex  
 BROKERAGE



## Your Relationship with a Real Estate Professional

Real estate professionals have a regulatory requirement to present you with this consumer information before providing services to you.

This information explains the different relationships you can have with a real estate professional to buy, sell or lease property. Before you disclose confidential information to a real estate professional regarding a real estate transaction, you should understand what type of business relationship you have with that individual.

**The Real Estate Council of BC** is the legislated regulatory agency that works to ensure real estate professionals have the skills and knowledge to provide you with a high standard of service. All real estate professionals must follow rules that help protect consumers, like you.

We're here to help you understand your rights as a real estate consumer.

*Keep this information page for your reference and scan the QR code or visit [recbc.ca](http://recbc.ca) for more information about real estate transactions.*



### You can work with a real estate professional in one of the following ways:

#### As a client

If you are the client of a real estate professional, they work on your behalf. The real estate professional representing you has special legal duties to you, including:

- Loyalty.** They will act only in your best interests.
- Full disclosure.** They must tell you everything they know that might influence your decision in a transaction.
- Avoid conflicts of interest.** They must avoid any situation that would affect their duty to act in your best interests.
- Confidentiality.** They must not reveal your private information without your permission, even after your relationship ends. That includes:
  - your reasons for buying, selling or leasing
  - your minimum/maximum price
  - any preferred terms and conditions you may want to include in a contract

*When you become a client, you may be asked to sign a written agreement setting out your and the real estate professional's responsibilities.*

#### As a non-client

A real estate professional who is not representing you as a client does not owe you special legal duties:

- No loyalty.** They may be representing a client with competing interests to yours in a transaction. They must be loyal to their client, not you.
- No duty of full disclosure.** They do not have a duty to give you all relevant information.
- No duty to avoid conflicts.** They are not acting in your interests.
- No confidentiality.** They must share any information you tell them with their clients in a transaction.

*As a non-client, a real estate professional may give you only limited services.*

**\*** Whenever a real estate professional works with you in a real estate transaction, whether you are their client or not, they have a responsibility to act honestly and with reasonable care and skill.



# Your Relationship with a Real Estate Professional

This is a required disclosure form in compliance with section 5-10 of the Rules under the *Real Estate Services Act*. Your real estate professional must present the *Your Relationship with a Real Estate Professional* information page to you along with this disclosure form.

## Real Estate Professional Disclosure Details

I disclose that I am (*check one*):

- representing you as my client
- not** representing you as a client

Kim Taylor

Name

Team name and members. *The duties of a real estate professional as outlined in this form apply to all team members.*

Royal LePage Sussex

Brokerage

Signature

Date

Notes:

## Consumer Acknowledgment This is NOT a contract

I acknowledge that I have received the *Your Relationship with a Real Estate Professional* consumer information page and this disclosure form.

The Municipality of the Village of Lions Bay

Name (optional)

Initials (optional)

Date

Name (optional)

Initials (optional)

Date

The Municipality of the Village of Lions Bay by Peter DeJong, CAO



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## THE MUNICIPALITY OF THE VILLAGE OF LIONS BAY

<b>Type</b>	<b>Request for Decision</b>		
<b>Title</b>	<b>Commercial Filming Policy No. 1902</b>		
<b>Author</b>	<b>Peter DeJong</b>	<b>Reviewed By:</b>	<b>Hayley Cook</b>
<b>Date</b>	<b>November 14, 2019</b>	<b>Version</b>	
<b>Issued for</b>	<b>November 19, 2019</b>		

### **Recommendation:**

- (1) THAT the draft Commercial Filming Policy No. 1902 be amended in respect of the policy number in the title of this policy and in respect of the change to the definition of Daytime Filming Hours in section 2.1 per the tracked changes in the attached draft;
- (2) THAT the draft Commercial Filming Policy No. 1902 be adopted by Council, as amended;
- (3) THAT the draft Commercial Filming Policy No. 1902 be posted as adopted to the Municipal website with a notice included in the Village Update on November 22, 2019;
- (4) THAT the Fees Bylaw No. 497, 2016 be amended to include the draft fee amendments to Schedule 7 as attached to this report and brought to the November 19, 2019 Council meeting for consideration of first and second reading, along with any other recommended amendments to Fees Bylaw No. 497, 2016; and
- (5) THAT staff proceed with incorporating the necessary delegations of authority in the draft general delegation bylaw staff is presently working on, to be brought to Council before the end of the year.

### **Attachments:**

- (1) Draft Commercial Filming Policy No. 1902;
- (2) Municipal Comparisons for Hours of Filming;
- (3) Public Comments on Draft Commercial Filming Policy No. 1902;
- (4) Draft Amendments to Schedule 7 of Fees Bylaw No. 497, 2016.

### **Key Information:**

At the October 15, 2019 Council meeting, Council made a couple of amendments to the draft commercial filming policy and directed staff to post the materials on the municipal



## THE MUNICIPALITY OF THE VILLAGE OF LIONS BAY

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website and in the Village Update, inviting the public to comment on the draft policy. After two full weeks there have been only two comments received, both attached to this report – one from Farrah Azordegan and the other from John Tsang, both property owners on Tidewater Way. In Mrs. Azordegan’s correspondence, she asks that the Daytime Filming Hours not begin until 8 am. Surely, she would also disagree with staff’s recommendation that the hours for Monday to Saturday be extended back to the original 10 pm. As one can see from the Municipal Comparison for Hours of Filming attached to this report, most municipalities provide for hours of filming from 7 am to 10 pm, with a few going to 11 pm and one at 9 pm. Some of these are specific to filming and others simply provide for such ranges through their noise bylaws generally.

The filming industry is one in which production days are long, starting early and going late. Filming schedules are compressed to accomplish the necessary work within very tight time frames and this is generally recognized throughout the filming industry and the communities in which filming takes place. It has been brought to my attention that requiring Filming Activity to cease at 7 pm is unrealistic and would result in almost every filming production having to come to Council for extension of the hours. That was not the intent of the policy and it is recommended that the definition of Daytime Filming Hours in section 2.1 be amended per the tracked changes in the attached draft, in order to prevent frustration of the Commercial Filming Policy.

Mrs. Azordegan also asks that the policy incorporate an affirmative requirement for the Municipality to essentially negotiate compensation and/or accommodation on behalf of any impacted residents who do not want to be present for filming in their neighbourhood. That is not something that is done in any other municipality and would not be appropriate for staff to undertake. Filming productions are generally quite fair and even generous in this regard and realize it’s in their best interest to accommodate a resident who would rather not have the filming at all or be elsewhere if it’s going to go ahead anyway. There has been no indication that staff is aware of where such residents have not been offered reasonable accommodations. Trying to regulate this aspect of Commercial Filming is not recommended.

Mr. Tsang also mentions the threshold and its application to impacted residents who should be accommodated. As Council knows, the 15% threshold came from staff’s recommendation based upon a conservative view of the responses to the survey done in July wherein most respondents suggested a much higher threshold. Very few responses



## THE MUNICIPALITY OF THE VILLAGE OF LIONS BAY

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suggested 10% or less. As well, it should be noted that student films are required to follow the Policy, with an exemption for the payment of fees. Fees are also addressed by reference in the Policy and through proposed amendments to the Fees Bylaw No. 497, 2016, which is to be brought to the November 19<sup>th</sup> meeting. Delegation of permit granting authority to the Village Manager is to be addressed as part of a more general delegation bylaw covering a wide range of administrative matters presently being worked on by the CAO.

### **Options:**

- (1) Approve the recommendations;
- (2) Amend the recommendations and then approve the Policy;
- (3) Refer the matter back to staff with further directions.

### **Preferred Option:**

(1) Approve the recommendations, with the draft Policy being amended to provide for Daytime Filming Hours which reflect the norm in the filming industry. Otherwise, almost every application will need to be brought to Council instead of streamlining the process in accordance with the checks and balances incorporated into the draft Policy.

### **Financial Considerations:**

The proposed fees are based on an attempt to capture all of the direct and indirect costs associated with Filming Activity and what staff heard from the residents and from Council.

### **Legal Considerations:**

The delegation of authority to grant Filming Permits for less impactful applications will need to be covered off in the delegation bylaw being worked on by staff.

### **Follow Up Action and Communication Plan:**

Post the adopted Commercial Filming Policy No. 1902 on the Municipal website and in the Village Update on November 22<sup>nd</sup>.



## THE MUNICIPALITY OF THE VILLAGE OF LIONS BAY

<b>Type</b>	<b>Council Policy</b>	<b>Policy No</b>	<b>POL-2019-021902</b>
<b>Title</b>	<b>Commercial Filming Policy</b>		
<b>Author</b>	<b>Peter DeJong</b>	<b>Reviewed By:</b>	<b>Hayley Cook</b>
<b>Date</b>	<b>October 15, 2019</b>	<b>Version</b>	<b>3</b>

### BACKGROUND

Located on the east shore of Howe Sound, the community of Lions Bay is endowed with a spectacular natural landscape. It is a landscape that both attracts residents to the community, and significantly shapes its character. Lions Bay residents value the community as a peaceful, close-knit Village, deeply connected to the natural West Coast environment. While the community is supportive of the arts, including the film industry in British Columbia, it also values peace and tranquility.

### PURPOSE

With the foregoing in mind, this Policy attempts to find a harmonious balance between commercial filming and the residential character of the Village in order to minimize disruptions to residents. Any person or company who wishes to engage in commercial photography, video, film or television within the Village of Lions Bay must obtain a Filming Permit from the Village of Lions Bay. News media are exempt from this requirement.

### POLICY

#### 1. Policy Objectives:

- 1.1 To facilitate the motion picture film industry in its production endeavors by providing a centralized and efficient procedure for obtaining Municipal authorization for Commercial Filming in the Village of Lions Bay;
- 1.2 To minimize any inconvenience to the general public and residents of the Village of Lions Bay as a result of filming activities;
- 1.3 To ensure the Village of Lions Bay residents shall not be unduly inconvenienced by prolonged loss of access to public areas or roadways, or by restricted parking fronting residents' homes;
- 1.4 To ensure that the Municipality recovers all of its direct and indirect costs associated with Filming Activities and Municipal services and assets;



## THE MUNICIPALITY OF THE VILLAGE OF LIONS BAY

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- 1.5 To ensure that Filming Activities fully observe the bylaws of the Municipality and protect the safety, well-being and interests of residents.

### 2. Definitions

- 2.1 The following words and phrases have the meanings ascribed below:

Affected Households means those primary residences and secondary suites within an area to be determined by the Municipality, depending upon the nature of the Filming Permit Application, as being affected or potentially affected by proposed filming – non-resident owners are not to be included in determining Affected Households.

Applicant/Permittee means the person or persons or corporation applying for and/or receiving a Filming Permit.

Commercial Filming means photography, video, film and television recording undertaken for a commercial purpose.

Daytime Filming Hours means 7 am to 7-10 pm, Monday to Saturday and 8 am to 9 pm Sundays and Statutory Holidays, during which Filming Activity is regularly permitted, notwithstanding Noise Control Bylaw No. 283, 1998.

Extraordinary Services means the provision of Municipal services outside of regular hours (dependent on position) or the need for the Municipality to hire a contractor to address issues related to Filming Activities which were not applied for by the Permittee or expected by the Municipality.

Filming Activity means all outdoor human and mechanical activity related to Commercial Filming and includes all light, sound and the operation or parking of all vehicles, trucks and generators.

Filming Day means any day or portion thereof in which Filming Activity is taking place within the Municipality, except where filming preparation or post-production takedown is solely confined to private property.

Filming Liaison means the Municipal staff person designated by the Village Manager to act as a liaison to Filming Permit Applicants and Permittees.



## THE MUNICIPALITY OF THE VILLAGE OF LIONS BAY

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Filming Permit means the document issued by the Municipality to the Applicant/Permittee granting the conditional right for commercial filming in the Village of Lions Bay.

Municipality means the Village of Lions Bay and includes the adjective Municipal.

Security Deposit means the sum of \$10,000 provided to the Municipality once a Filming Permit has been approved.

Village Manager means the Chief Administrative Officer (CAO), or the person acting in that capacity in the absence of the CAO.

### **3. Application and Approval Process**

- 3.1 All Commercial Filming proponents shall complete a Municipal Filming Permit Application Form.
- 3.2 Applications shall be submitted to the Filming Liaison no later than three (3) weeks prior to the proposed commencement of filming.
- 3.3 Applications will not be processed unless accompanied by written permission from the owner(s) of any private lands where the filming will take place.
- 3.4 If granted, permission to film within the Municipality will be conveyed through the issuance of a Filming Permit issued by the Village Manager once all prerequisites of this policy are met.
- 3.5 If all requirements of this Policy have been met, along with any applicable administrative policies or procedures, Filming Permits may be granted directly by the Village Manager unless:
  - (a) A variance to allow for filming outside of the Daytime Filming Hours is required, or
  - (b) Filming Activity is required repeatedly on non-consecutive days (for example a TV series or mini-series),
  - (c) Filming Activity is for more than five (5) consecutive daysin which case approval by way of Council resolution is required.



## THE MUNICIPALITY OF THE VILLAGE OF LIONS BAY

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- 3.6 A Permittee cannot change dates, locations, filming times or the type of scene to be filmed as set-out in an approved application without first consulting the Filming Liaison and obtaining the consent in writing of the Village Manager. Such consent may be conditional upon notification to all persons impacted and other terms that are appropriate in the circumstances.

### 4. Notification and Polling Requirements

- 4.1 Where Filming Activity is for three (3) or fewer consecutive days and does not require a variance to allow filming outside of Daytime Filming Hours, a notification letter approved by the Village Manager shall be hand delivered by the Applicant to all Affected Households. A Filming Permit will not be issued until at least seven (7) days have passed from the date of notification letter delivery to allow an opportunity for residents of Affected Households to provide feedback to the Municipality's Filming Liaison.

4.2 Where Filming Activity

- (a) is for more than three (3) consecutive days,
- (b) requires a variance to allow filming outside of Daytime Filming Hours, or
- (c) requires repeated filming on non-consecutive days:
  - (i) a polling notification letter approved by the Village Manager shall be hand delivered by the Applicant to all Affected Households;
  - (ii) the Applicant shall document its polling efforts and shall make no less than four (4) attempts to contact the occupants of a Household to determine support or opposition for the proposed filming;
  - (iii) offers by the Applicant of compensation and/or alternate accommodations shall be documented and included with the polling information and submitted to the Municipality in confidence;

- 4.3 The polling threshold for objections from Affected Households is hereby set in this Policy at no more than 15%.



## THE MUNICIPALITY OF THE VILLAGE OF LIONS BAY

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### 4.4. Applications under:

- (a) subsection 4.2(a) for up to and including five (5) consecutive days of Filming Activity may be processed by the Village Manager who may issue a Filming Permit if the polling threshold in section 4.3 has been met, along with all other requirements of this Policy, but nothing herein precludes the Village Manager from referring such an application to Council;
- (b) subsection 4.2(a) for more than 5 consecutive days of Filming Activity, or under subsections 4.2(b) and 4.2(c), shall be submitted in a report from Municipal staff to Council for consideration at the next Council meeting.

### 4.5 The number of Filming Permits which may be approved for any one residential neighbourhood location, as determined by the Municipality, shall be restricted as follows:

- (a) where no polling is required, up to two (2) per calendar year; and
- (b) where polling is required, no more than one (1) per calendar year.

Owners of properties throughout the Village of Lions Bay are encouraged to register their properties with Creative BC's Location Library.

## 5. Use of Municipal Land, Buildings, and Structures

- 5.1 Municipal lands, including roads and boulevards, may be used for the parking of a Permittee's vehicles and the storage of a Permittee's equipment, subject to submission of a proposed parking plan and issuance of parking permits in accordance with Municipal staff direction and Traffic and Parking Bylaw No. 413, 2009, as amended, and Fees Bylaw No. 497, 2016, as amended. Blocking of fire hydrants and residents' driveways will not be tolerated.
- 5.2 Municipal land, buildings, or structures may be used for commercial filming purposes subject to availability and the issuance of a Filming Permit in accordance with this Policy and Fees Bylaw No. 497, 2016, as amended.
- 5.3 Approved Filming Permits are conditional upon the receipt of:



## THE MUNICIPALITY OF THE VILLAGE OF LIONS BAY

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- (a) the applicable filming fees and the Security Deposit;
  - (b) the Certificate of Insurance;
  - (c) the Indemnification Agreement; and
  - (d) any other conditions imposed by the Village Manager or Council.
- 5.4 The Security Deposit may be drawn upon by the Municipality to:
- (a) remedy any damage to Municipal lands, buildings or structures caused by the Filming Activity, without limitation on the Municipality's right to pursue additional compensation or damages if the Security Deposit is insufficient to provide full restitution;
  - (b) enforce any of the Municipality's bylaws and recover any fine levied or judgment obtained against the Permittee;
  - (c) enforce the Indemnification Agreement;
  - (d) reimburse the Municipality for all actual legal costs and for any other expenses incurred in connection with enforcing the Municipality's bylaws, the Indemnification Agreement and the Permittee's liability insurance policy.
- 5.5 A Traffic Management Plan must be submitted for any request to close, or partially close a road and a professional traffic management contractor may be required at the Permittee's expense, in addition to any fees payable under Fees Bylaw No. 497, 2016, as amended. Closing or partial closing of a public roadway must be approved in writing by the Village Manager. Total blockages of public roadways shall not exceed 10 minutes at a time before allowing waiting vehicles to pass, subject only to exceptions granted in writing by the Village Manager, which may include terms and conditions required to be fulfilled by the Permittee including, but not limited to, advance public notice.
- 5.6 Any request for use of a Municipal fire hydrant must be included in a Filming Permit Application All hydrants will be operated by Municipal employees only and fees in accordance with Fees Bylaw No. 497, 2016, as amended, will apply.



## THE MUNICIPALITY OF THE VILLAGE OF LIONS BAY

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### **6. Conduct**

- 6.1 The Permittee shall comply strictly with all federal, provincial and Municipal regulations and bylaws including, but not limited to, cannabis, alcohol and food service regulations.
- 6.2 While working within the Municipality, all Filming Permit Applicants/Permittees, including producers, directors, cast, crew members and anyone else working for or associated with an Applicant/Permittee, shall conduct themselves in accordance with the BC Film Commission's *Best Practices – Motion Picture Locations Code of Conduct*.
- 6.3 The Municipality may fine the Permittee for bylaw infractions and may revoke the Permit without notice and without payment of any damages if the Permittee does not comply with the terms and conditions of the Permit or with applicable enactments.
- 6.4 The Permittee must designate a Production Liaison to the Municipality who is responsible for all film company activities and must be on site for the duration of production. The representative is responsible for ensuring that all cast and crew are informed of, and abide by, the terms and conditions of the Permit and for correcting any deficiencies with compliance. A 24-hour contact number for the representative must be provided to the Municipality.

### **7. Liability Insurance and Indemnification Agreement**

- 7.1 All Filming Permit Applicants shall provide a certificate of insurance evidencing liability insurance in an amount not less than \$5,000,000.00 with the Municipality named as an additional insured.
- 7.2 All Filming Permit Applicants shall cause an authorized signatory to execute the Indemnification Agreement incorporated into the Filming Permit Application as Schedule A.

### **8. Commercial Filming Fees**

- 8.1 All Filming Permit Applicants and Permittees shall provide the Municipality with fees in accordance with Fees Bylaw No. 497, 2016, as amended.
- 8.2 Filming service requests for the Lions Bay Fire Rescue (LBFR) Department or LBFR locations should be made at the earliest possible date but cannot be guaranteed to be



## THE MUNICIPALITY OF THE VILLAGE OF LIONS BAY

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available. If utilized per a filming service or location request, emergency calls may interrupt the filming without incurring responsibility or liability for any losses incurred by the Permittee. A filming service or location request, or an emergency response by LBFR on account of Filming Activity, shall be charged at the rates applicable in Fees Bylaw No. 497, 2016, as amended.

- 8.3 Any Extraordinary Services shall be charged in accordance with Fees Bylaw No. 497, 2016, as amended.
- 8.4 Fees payable to the Municipality do not include fees that may be payable to the owners of private lands on which filming is taking place.
- 8.5 Fees for daily filming, location and parking fees in relation to film school projects will be waived subject to meeting the following criteria:
  - (a) the school is an accredited and recognized educational institution;
  - (b) the project must be assigned by the instructor and be part of the curriculum;
  - (c) all personnel working on the project are doing so without financial compensation; and
  - (d) the project is for academic use only and is not to be used for commercial gain.

All other requirements of this Policy apply to film school projects.

### 9. Donations and Legacies

- 9.1 Applicant/Permittees are encouraged to contribute to the community by donating to local community groups, and/or by leaving a needed legacy behind for the community to enjoy. A non-comprehensive listing of local community groups and potential legacies is available from the Municipality for consideration by Permittees.

Adopted by Council:	
Updated:	



THE MUNICIPALITY OF THE VILLAGE OF LIONS BAY

**NOTE: APPLICATION FORM AND SAMPLE LETTERS NOT TO BE PART OF COUNCIL POLICY (WILL BE PART OF ADMINISTRATIVE POLICY AND PROCEDURES)**

**APPLICATION FOR COMMERCIAL FILMING PERMIT**

**BACKGROUND INFORMATION**

Local Film Company:	
Applicant Name:	
Location Manager:	
Business Address:	
Phone (office):	Phone (cell):
Email:	Fax:

**DESCRIPTION OF FILMING PROPOSAL**

Filming Dates (includes mobilization):	
Location of Filming:	
Hours of Filming:	
Proposed Schedule and Description of Scenes to be Filmed:	
Impact on Neighbourhood Traffic:	
Type of Municipal Facilities Needed:	<input type="checkbox"/> Municipal Road Allowance/ Parking Lot <input type="checkbox"/> Other Municipal Land (eg: Parks, Trails, Open Spaces, etc.) <input type="checkbox"/> Municipal Buildings or Structures

**PRELIMINARY SUBMISSION REQUIREMENTS (to be submitted with initial application)**

- Completed Application Form with non-refundable Application Fee
- Plan showing the way in which Municipal facilities would be used (if applicable)
- Parking Plan for all Vehicles (including Trucks and Generators)



## THE MUNICIPALITY OF THE VILLAGE OF LIONS BAY

- Letter of authorization from the owner(s) of the land, building or structures where the filming will take place.

**ADDITIONAL SUBMISSION REQUIREMENTS** (as directed by the Filming Liaison or Village Manager, and as applicable)

- Filming Notification Letter(s) to Affected Households
- Polling Notification Letter to Affected Households
- Polling Information (including offers of accommodation and/or compensation, polling spreadsheets, maps and notes)

**FINAL SUBMISSION REQUIREMENTS** (to be submitted as a condition of issuance of the Filming Permit)

- Daily Filming Activity Fee for Commercial Filming
- Fees for the use of Municipal lands, including roadways, buildings structures
- Any other fees required by this Policy or Fees Bylaw No. 497, 2016, as amended
- Security Deposit of \$10,000 payable to the Municipality.
- Executed copy of the Release of Liability and Indemnification Agreement (see attached Schedule A)
- Certificate of Insurance evidencing liability insurance in the minimum amount of \$5,000,000.00 with the Municipality named as an additional insured
- Confirmation that other conditional requirements have been fulfilled (if applicable)

Applicant Signature:	Date
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**Municipal Use Only**

<p>Approved Filming Permit No.:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Completed Application Form with non-refundable Application Fee</li> <li><input type="checkbox"/> Authorization Letter from Private Owner(s)</li> <li><input type="checkbox"/> Parking Plan</li> <li><input type="checkbox"/> Filming Notification Letter</li> <li><input type="checkbox"/> Polling Notification Letter (if applicable)</li> <li><input type="checkbox"/> Polling Information (if applicable)</li> <li><input type="checkbox"/> Daily Filming Activity Fees</li> <li><input type="checkbox"/> Other Fees (if applicable)</li> <li><input type="checkbox"/> Security Deposit</li> <li><input type="checkbox"/> Release of Liability and Indemnification Agreement (Schedule A)</li> <li><input type="checkbox"/> Certificate of Insurance</li> <li><input type="checkbox"/> Other Conditional Requirements</li> </ul>
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## THE MUNICIPALITY OF THE VILLAGE OF LIONS BAY

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### **SCHEDULE A**

**(Attached to and forming a part of the Application for Commercial Filming Permit)**

### **INDEMNIFICATION AGREEMENT**

I/We, \_\_\_\_\_, (the "Applicant/Permittee"):

- (a) agree that I/we have received good and valuable consideration in exchange for entering into this Indemnification Agreement;
- (b) agree to indemnify, defend and save harmless the Village of Lions Bay, its elected and appointed officials, officers, employees, servants, representatives and agents (collectively the "Indemnified Parties") from and against any and all claims, demands, actions, causes of action, suits, damages, losses, and costs, liabilities, expenses and judgments (including all actual legal costs) incurred in defending any of the foregoing brought or made on behalf of any person or corporation for damage to or destruction or loss of property, including loss of use, and injury to or death of any person or persons, which any of the Indemnified Parties incur, suffer or are put to arising out of or in connection with any act or omission of the Applicant/Permittee, its directors, officers, employees, agents, contractors or invitees, the Indemnified Parties or caused by or arising out of the condition of any real or personal property owned or controlled by the Indemnified Parties or any of them arising from or in any way connected to the Filming Activity or from the Applicant/Permittee's occupation or use of the property of the Village of Lions Bay;
- (c) agree that the Applicant/Permittee's obligations hereunder will survive the expiry or termination of any permit issued by the Village of Lions Bay to the me/us and, notwithstanding such termination or completion, will continue in full force and effect for the benefit of the Indemnified Parties;
- (d) agree that the Applicant/Permittee, upon submitting a Filming Permit application, whether or not a Filming Permit is issued, releases and discharges the Indemnified Parties from any and all losses which the Applicant/Permittee and any of the Applicant/Permittee's directors, officers, employees, volunteers, agents, contractors or invitees may have arising from actions or inactions on the part of the Indemnified Parties;
- (e) hereby waive all rights of recourse against the Village of Lions Bay for loss or damage to the Applicant/Permittee's property, howsoever incurred.



THE MUNICIPALITY OF THE VILLAGE OF LIONS BAY

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Applicant/Permittee Name: \_\_\_\_\_

Authorized Signatory: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Accepted by: \_\_\_\_\_  
Authorized Signatory for the Village of Lions Bay

Date: \_\_\_\_\_

DRAFT



## THE MUNICIPALITY OF THE VILLAGE OF LIONS BAY

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### *SAMPLE NOTIFICATION LETTER FROM APPLICANT TO AFFECTED HOUSEHOLDS (NO POLLING REQUIRED)*

[Applicant letterhead]

[date]

Dear Neighbours of [address of filming]:

[Applicant] has applied to the Village of Lions Bay (the “Municipality”) to film a [commercial, TV special/series, movie-of-the-week, feature film] called [title] at [address of proposed shoot] on [date(s)] during Daytime Filming Hours (7 am to 10 pm). Municipal facilities requested include: [eg: street parking (from address to address), occupation of all or portion of the (name of) parking lot, operation of fire hydrant, etc.]

The following is an outline of our proposed dates, times and significant Filming Activities:

[For Each Day and Date]

[Time period] – [List in point form all details of any potential disruptions or other relevant activity, including whether scenes are indoors or outdoors, lighting, traffic control, noise, stunts, special effects and parking]]

The Applicant and the Municipality recognize that there are sometimes inconveniences associated with a location shoot, but we are working hard to ensure that your day-to-day schedule is not disrupted and any impacts are minimized to the extent possible.

If you have any questions or concerns about this location shoot, please contact the Village’s Filming Liaison, Hayley Cook, at 604-921-9333, ext.4 or [accounting@lionsbay.ca](mailto:accounting@lionsbay.ca) within 7 days of the date of this letter. The Village Manager will review all resident feedback from Affected Households in considering whether to grant a Filming Permit for this application.

For further information about [name of Applicant] or [name of filming project], please contact me at [phone number and email address] or [Production Liaison’s name, phone number and email].

For general information about filming in British Columbia, or to comment on ongoing productions in British Columbia contact Creative BC (formerly the British Columbia Film Commission) at (604) 736-7997, or visit their website at [www.creativebc.com](http://www.creativebc.com)

Yours truly,

[your name] [Applicant name]

[contact information]



## THE MUNICIPALITY OF THE VILLAGE OF LIONS BAY

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### *SAMPLE NOTIFICATION LETTER FROM APPLICANT TO AFFECTED HOUSEHOLDS (POLLING REQUIRED)*

[Production company letterhead]

[date]

Dear Neighbours of [address of filming]:

[Applicant] has applied to the Village of Lions Bay (the “Municipality”) to film a [commercial, TV special/series, movie-of-the-week, feature film] called [title] at [address of proposed shoot] on [date(s)]. Due to the proposed filming [covering more than two consecutive days and/or involving filming at night], polling of Affected Households is required.

As part of the proposed filming, Municipal facilities requested include: [eg: street parking (from address to address), occupation of all or portion of the (name of) parking lot, operation of fire hydrant, etc.]

The following is an outline of our proposed dates, times and significant Filming Activities:

[For Each Day and Date]

[Time period] – [List in point form all details of any potential disruptions or other relevant activity, including whether scenes are indoors or outdoors, lighting, traffic control, noise, stunts, special effects and parking]

The Applicant and the Municipality recognize that there are sometimes inconveniences associated with a location shoot, but we are working hard to ensure that your day-to-day schedule is not disrupted and any impacts are minimized to the extent possible.

Over the next few days, representatives from [name of Applicant] will be coming door to door and asking you to participate in a poll for this proposed filming. You will be asked whether you support or oppose our Filming Application. If you have any questions or concerns, I would be happy to speak or email with you.

If you prefer, you may contact the Municipality’s Filming Liaison, Hayley Cook, at 604-921-9333, ext.4, or by email at [accounting@lionsbay.ca](mailto:accounting@lionsbay.ca) to express your support for, or concerns about, our application. Please be sure to clearly state your name and address and leave a phone number or email address if you would like to be contacted.

All polling information will be provided to the Municipality, along with particulars of our application, for consideration of Filming Permit approval in accordance with Commercial Filming Policy 2019-02.



## THE MUNICIPALITY OF THE VILLAGE OF LIONS BAY

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For further information about [name of Applicant] or [name of filming project], please contact me at [phone number and email address] or [Production Liaison's name, phone number and email].

For general information about filming in British Columbia, or to comment on ongoing productions in British Columbia contact Creative BC (formerly the British Columbia Film Commission) at (604) 736-7997, or visit their website at [www.creativebc.com](http://www.creativebc.com)

Yours truly,

[your name] [Applicant name]  
[contact information]

DRAFT



## THE MUNICIPALITY OF THE VILLAGE OF LIONS BAY

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### *SAMPLE NOTIFICATION LETTER FROM PERMITTEE TO AFFECTED HOUSEHOLDS*

[Applicant letterhead]

[date]

Dear Neighbours of [address of filming]:

On behalf of [Permittee], we are providing advance notice that a [commercial, TV special/series, movie-of-the-week, feature film] called [title] will be shooting in this neighbourhood from [dates]. We will be primarily working at [address].

The following is an outline of our proposed dates, times and significant Filming Activities:

[For Each Day and Date]

[Time period] – [List in point form all details of any potential disruptions or other relevant activity, including whether scenes are indoors or outdoors, lighting, traffic control, noise, stunts, special effects and parking]

The production company has all the necessary permits for this film shoot. Please note that the public [is, is not] permitted to visit the location during filming.

The producers and the Municipality recognize that there are sometimes inconveniences associated with a location shoot, but we are working hard to ensure that your day-to-day schedule is not disrupted and any impacts are minimized to the extent possible.

If you have any questions or concerns about this location shoot, please contact me at [phone number]. During the shoot, you can also talk to [Production Liaison's name and phone number] who will be on location. If you have further questions about filming within the Village of Lions Bay or specific concerns about this location shoot, you can contact the Village's Filming Liaison, [name] at [contact telephone number and email address].

Thank you. Your cooperation will help make this location shoot a success and help to encourage more producers to visit the Village of Lions Bay in support of British Columbia's billion-dollar production industry. For general information about filming in British Columbia, or to comment on ongoing production in British Columbia contact Creative BC (formerly the British Columbia Film Commission) at (604) 736-7997, or visit their website at [www.creativebc.com](http://www.creativebc.com)

Yours truly,

[your name] [production company]  
[your contact information]

**Filming Hours for Comparison:**

<b>Municipality</b>	<b>Hours of filming:</b>	<b>Notes</b>
District of North Van	<b>7am to 11pm</b> Mon to Sat, Sun & STATS - 8am to 10pm	Approval from Film Coordinator required for filming outside these hours
New Westminster	<b>7am to 10pm</b> - no filming on STATS or days of recognition	Exemption to Noise Bylaw approved by Filming Coordinator
District of Squamish	<b>8am to 10pm</b> Mon to Sat	No filming on Sunday without noise exemption permit - issued by CAO
Parksville	<b>9am to 11pm</b>	Through Noise Bylaw, no hours of filming defined
Bowen Island	<b>7am to 11pm</b> Mon -Fri, 9am to 6pm Sat, Sun and STATS	Noise Bylaw exemption issued by Council
Whistler	<b>8am to 10pm</b>	Exemptions may be granted by Council
West Vancouver	<b>7am to 10pm</b> Mon to Sat, 8am - 10pm Sun	No filming on STATS without special permit issue by Staff
Belcarra	<b>7am to 9pm</b> Mon to Sat	Through Noise Bylaw, no hours of filming defined.
Anmore	<b>7am to 10pm</b> Mon to Fri, 9am to 6pm Sat, no filming Sun & STATS	Permit required for extension to hours; issued by Staff

**From:** Azordegan Azordegan Family [mailto:azordeganfamily@yahoo.com]  
**Sent:** Wednesday, October 23, 2019 9:32 PM  
**To:** Peter DeJong <cao@lionsbay.ca>  
**Cc:** Ron McLaughlin <mayor.mclaughlin@lionsbay.ca>  
**Subject:** Re: Draft Filming Policy Review

Hi Peter,

We reviewed the filming policy. No filming for us is better than filming because of the inconvenience. Below are a few suggestions to the Draft policy:

- The noise by-law must be enforced for any type of filming (e.g. commercial, or non-profit or educational) regardless of the number of days of filling. No filming should start earlier than 8:00 AM. The policy states from 7 AM to 7 PM. Park hours are from 8 AM thus, please change the start time of filming from 8 AM and not 7 AM.
- We suggest changing 15% to 10% for the immediate impacted residents. We don't understand where 15% came from?
- For those impacted families who oppose such filming, before the filming application is approved, they should agree to provide accommodations for those impacted residents who object to filming.
- The filming company location manager must have 1: 1 meeting with those residents who oppose filming and receive approval from them based on their requirements to accommodate them. Please indicate this in the filming policy.

The Lower Kelvin Grove (LKG) only has 9-10 families who are immediately impacted by filming not the Sweet Water or those who live on the upper part of the Tidewater.

Thank you

Regards

Farrah

**SCHEDULE 7 – FILMING [Draft to be reviewed with Commercial Filming Policy]**

<b>Description</b>	<b>Fee</b>
Filming application fee (non-refundable)	\$300
Filming fees (per day):	
Residential Zone	\$1,000
Commercial Zone	\$500
Additional Location Fees (per day):	
Undeveloped Municipal Land	\$500
Tennis Courts, Wade Park, Trails (eg: Centennial, Pride, Marjorie Meadows)	\$750
Lions Bay Beach Park, Kelvin Grove Beach Park, Brunswick Beach Park/Esplanade	\$1,000
Broughton Hall	\$500
Council Chambers	\$250
Fire Hall (Requires at least one member of LBFR present - Interruptions possible)	\$100/hour
LBFR Training Facility (Requires LBFR personnel on site – minimum number depends on filming activity)	\$100/hour per person
Temporary closure of road (total blockages generally no more than 10 minutes at a time)	\$80/hour (plus costs of certified traffic control company at applicant's expense)
Pyrotechnics Permit (per day)	\$500
Parking fees:	
Car	\$30/day (Completely Electric Vehicles \$0/day)
Truck (includes generator)	\$120/day (Solar/Battery Generators \$0/day)
Filming Liaison	\$80/hour (regular hours)
Public Works Services	\$80/hour per person (regular hours)
Village Manager	\$160/hour (regular hours)
Lions Bay Fire Rescue Services (LBFR)	\$500/hour
Extraordinary Services (Municipal staff call outs outside regular hours or requirement to hire contractor)	Hourly rate x 1.5 or contractor's costs x 1.25
Fire Hydrant Use (only to be operated by Municipal employees)	\$80 per hour - regular hours (7am – 3pm) \$120 per hour (3 hours minimum) outside regular hours
Damage deposit	\$10,000 (refundable)

[Amended by Bylaw No. 554]



## THE MUNICIPALITY OF THE VILLAGE OF LIONS BAY

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<b>Type</b>	<b>Report to Council</b>		
<b>Title</b>	<b>2020 Preliminary Budget</b>		
<b>Author</b>	<b>Pamela Rooke</b>	<b>Reviewed By:</b>	<b>Peter DeJong</b>
<b>Date</b>	<b>November 14, 2019</b>	<b>Version</b>	
<b>Issued for</b>	<b>November 19, 2019 Regular Council Meeting</b>		

### RECOMMENDATION

THAT the report “2020 Preliminary Budget” be received for information purposes.

### ATTACHMENTS

1. 2020 Preliminary Budget Summary
2. 2020 Finance Workplan

### KEY INFORMATION

The attached 2020 budget is a very preliminary first draft which represents the first step in the 2020 budget process. It has been prepared using the 2020 labour model and includes some adjustments to operating expenses and revenues based on 2019 actual YTD results. It does not yet include a tax rate increase or any general fund capital expenditures or supplementary operational expenditures. The purpose of this initial draft is to initiate discussion on the 2020 budget and process.

The preliminary budget shows a cash surplus of only \$35k. This means that the general fund capital and supplemental operational expenses will need to be covered by a draw from surplus offset by any tax increases. Although drawing from surplus (excess funds from previous taxation less expenses) is acceptable, it is not a sustainable practice, especially as we work towards building our reserves for future capital projects and to reduce our infrastructure deficit as identified in the Asset Management Investment Plan. Staff propose



## THE MUNICIPALITY OF THE VILLAGE OF LIONS BAY

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working with Council to identify additional sources of revenue to address long-term financial sustainability as part of the Strategic Planning sessions.

The attached workplan is a preliminary, high-level overview of key tasks (with deadlines) that must be completed by the Finance department. The workplan has been sorted by task. Staff propose a similar budget process to previous years: fine tuning the operating budget, compiling and valuing supplemental capital and operating requests from Council and staff, reviewing and prioritizing the supplemental requests, determining which supplemental requests will be included in the budget and finalizing the 2020 budget and determining the tax rate. Other topics of discussion with Council include determining the best way in which to engage the public in the budget process and prioritizing infrastructure projects to be completed over the next five to ten years.

### **FOLLOW UP ACTION**

Staff will be available to respond to any questions at the November 19, 2019 Council meeting.

## The Village of Lions Bay

### Preliminary Consolidated Operating Budget 2020

	2019 Budget	2020 Budget	Change	%
<b>Revenues</b>				
Taxation	1,550,775	1,548,843	(1,932)	-0.1%
Infrastructure Levy	144,658	144,658	(1)	0.0%
Utility Fees and Rates	1,138,127	1,142,367	4,240	0.4%
Fees, Licenses and Permits	177,723	206,754	29,031	16.3%
Grants	2,413,179	653,797	(1,759,382)	-72.9%
Loan Proceeds	380,000	600,000	220,000	57.9%
Net Land Sales	2,353,539	500,000	(1,853,539)	-78.8%
Other Revenue	118,751	112,531	(6,220)	-5.2%
	<b>8,276,752</b>	<b>4,908,950</b>	<b>(3,367,802)</b>	<b>-40.7%</b>
<b>Expenditures</b>				
Administrative Services	1,230,426	1,255,915	25,489	2.1%
Council	66,270	67,020	750	1.1%
EOC	53,476	48,946	(4,530)	-8.5%
Fire	326,705	325,708	(997)	-0.3%
Bylaw	38,974	40,760	1,786	4.6%
Parks, Recreation and Culture	239,738	243,151	3,413	1.4%
Planning and Development	95,973	95,832	(141)	-0.1%
Public Works	518,257	544,025	25,768	5.0%
Water Fund	957,180	995,447	38,267	4.0%
Sewer Fund	176,063	96,923	(79,140)	-44.9%
Solid Waste	190,258	192,687	2,429	1.3%
	<b>3,893,320</b>	<b>3,906,413</b>	<b>13,094</b>	<b>0.3%</b>
<b>Surplus / (Deficit)</b>	<b>4,383,432</b>	<b>1,002,536</b>		
<b>Non-cash items included in Surplus/(Deficit)</b>				
Add back amortization	736,618	736,618		
MFA Actuarial Gain on Debt	(26,901)	(30,481)		
	<b>5,093,149</b>	<b>1,708,673</b>		
<b>Cash items NOT included in Surplus/(Deficit)</b>				
Repayment of Debt Principal	(178,273)	(212,783)		
	<b>4,914,876</b>	<b>1,495,891</b>		
Capital Expenditures - Sewer/Water		(966,000)		
Capital Expenditures - General		-		
Transfer from (to) Reserves:				
Gas Tax Funding		(59,117)		
Transfer from Surplus - Loan		57,970		
Transfer from Surplus - Re-budgets		219,341		
Transfer to Reserves - Net Land Sales		(500,000)		
Transfer to Reserves - Infrastructure Levy		(144,658)		
Water Surplus		(66,751)		
Sewer Surplus		(259)		
Solid Waste Surplus		(1,315)		
<b>Cash Surplus</b>		<b>35,102</b>		

## The Village of Lions Bay

### Statutory Reporting Requirements

### Finance Workplan 2020 - Preliminary

Deliverable	Item	Due
Annual Report	Annual Report made available for public inspection	Tuesday, June 2, 2020
Annual Report	Public notice of availability of annual report for public inspection	Friday, June 5, 2020
Annual Report	Public notice of availability of annual report for public inspection	Friday, June 12, 2020
Annual Report	Council to consider the Annual Report	Tuesday, June 16, 2020
Fees Bylaw	Fees Bylaw - Review of Proposed Changes/1st & 2nd Reading	Tuesday, November 19, 2019
Fees Bylaw	Fees Bylaw - 3rd Reading	Tuesday, December 3, 2019
Fees Bylaw	Fees Bylaw - Adoption	Tuesday, December 17, 2019
Five Year Financial Plan 2020-2024	Budget Schedule to Council for Discussion	Tuesday, November 19, 2019
Five Year Financial Plan 2020-2024	Preliminary Budget to Council	Tuesday, November 19, 2019
Five Year Financial Plan 2020-2024	Budget Presentations to Council	January 7 to March 3
Five Year Financial Plan 2020-2024	Budget Presentations to Council	January 7 to March 3
Five Year Financial Plan 2020-2024	Budget Presentations to Council	January 7 to March 3
Five Year Financial Plan 2020-2024	Public Communication	January 7 to March 3
Five Year Financial Plan 2020-2024	Start work on 5 Year Financial Plan	March
Five Year Financial Plan 2020-2024	5 Year Financial Plan to Council for review	Tuesday, March 17, 2020
Five Year Financial Plan 2020-2024	5 Year Financial Plan Bylaw: First and second reading	Tuesday, April 7, 2020
Five Year Financial Plan 2020-2024	5 Year Financial Plan Bylaw: Third reading	Tuesday, April 21, 2020
Five Year Financial Plan 2020-2024	5 Year Financial Plan Bylaw: Adoption	Tuesday, May 5, 2020
Five Year Financial Plan 2020-2024	Submission of 5 Year Financial Plan to Ministry	Friday, May 15, 2020
Property Taxes	Property Tax Rate Bylaw: First, second and third reading	Tuesday, April 21, 2020
Property Taxes	Property Tax Rate Bylaw: Adoption	Tuesday, May 5, 2020
Property Taxes	Submission of Tax Rate Bylaw to Ministry	Friday, May 15, 2020
Property Taxes	Property tax brochure finalized	Friday, May 22, 2020
Property Taxes	Property tax bills mailed to residents	Friday, May 29, 2020
Quarterly Reviews	Third Quarter Review to Council (2019)	Tuesday, October 15, 2019
Quarterly Reviews	Fourth Quarter Review to Council (2019)	Tuesday, March 17, 2020
Quarterly Reviews	Second Quarter Review to Council (2020)	Tuesday, July 14, 2020
Quarterly Reviews	Third Quarter Review to Council (2020)	Tuesday, November 5, 2019

**The Village of Lions Bay  
Statutory Reporting Requirements  
Finance Workplan 2020 - Preliminary**

<b>Deliverable</b>	<b>Item</b>	<b>Due</b>
Water, Sewer and Solid Waste	Preliminary Water, Sewer and Solid Waste budget to Council	Tuesday, January 21, 2020
Water, Sewer and Solid Waste	Final Water, Sewer and Solid Waste budget to Council	Tuesday, February 4, 2020
Water, Sewer and Solid Waste	Water, Sewer and Solid Waste Rate Bylaw: 1st, 2nd and 3rd reading	Tuesday, February 4, 2020
Water, Sewer and Solid Waste	Water, Sewer and Solid Waste Rate Bylaw: Adoption	Tuesday, February 18, 2020
Water, Sewer and Solid Waste	Utility brochure finalized	Monday, February 24, 2020
Water, Sewer and Solid Waste	Utility bills mailed to residents	Friday, February 28, 2020
Year-end Audit and Financial Statements	BDO Interim Audit (3 days)	Monday, December 16, 2019
Year-end Audit and Financial Statements	Audit Planning Report to Council	Tuesday, January 21, 2020
Year-end Audit and Financial Statements	Draft financial statements complete for BDO audit	Wednesday, April 8, 2020
Year-end Audit and Financial Statements	Audit package complete for BDO audit	Wednesday, April 8, 2020
Year-end Audit and Financial Statements	BDO commence audit (one week)	Monday, April 13, 2020
Year-end Audit and Financial Statements	Draft audited financial statements	Friday, April 24, 2020
Year-end Audit and Financial Statements	BDO presentation of the draft audited financial statements	Tuesday, May 6, 2020
Year-end Audit and Financial Statements	Council approval of the financial statements	Tuesday, May 6, 2020
Year-end Audit and Financial Statements	LGDE submission to Ministry	Friday, May 15, 2020
Year-end Audit and Financial Statements	Statement of Financial Information (SOFI) report to Ministry	Tuesday, June 30, 2020

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## THE MUNICIPALITY OF THE VILLAGE OF LIONS BAY

<b>Type</b>	<b>Request for Decision</b>		
<b>Title</b>	<b>Consent to Metro Vancouver Regional Parks Service Amendment Bylaw No. 1290</b>		
<b>Author</b>	<b>Nicole Dumas</b>	<b>Reviewed By:</b>	<b>Peter DeJong</b>
<b>Date</b>	<b>November 14, 2019</b>	<b>Version</b>	
<b>Issued for</b>	<b>November 19, 2019 Regular Council Meeting</b>		

### Recommendation:

- (1) THAT the Council of the Village of Lions Bay consent to the approval of the adoption of Metro Vancouver Regional District Regional Parks Service Amending Bylaw No. 1290, 2019 on behalf of the electors; and
- (2) THAT staff be directed to notify the Metro Vancouver Regional District Board of Council's consent.

### Attachments:

- (1) Letter from Chris Plagnol re: Consent to Metro Vancouver Regional Parks Service Amendment Bylaw No. 1290.

### Key Information:

As set out in the letter from Metro's Corporate Officer, the attached bylaw is intended to give effect to the negotiated arrangement with the City of Abbotsford with respect to the continued operation and maintenance of both the Langley (West) and Abbotsford (East) portions of Aldergrove Regional Park.

### Options:

- (1) Approve the recommended, requested resolution consenting to Amendment of the Regional Parks Service.
- (2) Don't approve the resolution.
- (3) Request further information from Metro regarding this matter.



## THE MUNICIPALITY OF THE VILLAGE OF LIONS BAY

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**Preferred Option:** Option 1, approve the recommendation.

**Financial Considerations:** There are no financial considerations as the approval of this amendment was anticipated in advance and the Metro Regional Parks Service has been managing the park for many years. As such, the costs of operating Aldergrove Park were included in both the budget for 2020 and the 5-year financial plan.

**Follow Up Action:** Staff to send a certified copy of the resolution to Metro.

*Board and Information Services*  
Tel. 604 432-6250 Fax 604 451-6686

File: CR-12-01  
Ref: RD 2019 Nov 1

NOV 04 2019

Peter DeJong, Chief Administrative Officer  
Village of Lions Bay  
400 Centre Road  
Lions Bay, BC V0N 2E0  
**VIA EMAIL: [office@lionsbay.ca](mailto:office@lionsbay.ca); [admin@lionsbay.ca](mailto:admin@lionsbay.ca)**

Dear Mr. DeJong:

**Re: Consent to Metro Vancouver Regional Parks Service Amendment Bylaw No. 1290**

At its November 1, 2019 regular meeting, the Board of Directors of the Metro Vancouver Regional District (Metro Vancouver) gave three readings to *Metro Vancouver Regional District Regional Parks Service Amending Bylaw No. 1290, 2019*; directed staff to seek consent of at least 2/3 of the participants to amend the service area to add an extraterritorial area to the regional park function, and following that, forward the Bylaw to the Inspector of Municipalities for approval.

Section 346 of the *Local Government Act* applies to municipal participating area approval and therefore a council may give participating area approval by consenting on behalf of the electors to the adoption of the Bylaw.

I respectfully ask that this matter be included on Council agenda. A sample resolution is set out below for your convenience:

“The Council of \_\_\_\_\_ consents to the approval of the adoption of *Metro Vancouver Regional District Regional Parks Service Amending Bylaw No. 1290, 2019* on behalf of the electors; and directs staff to notify the Metro Vancouver Regional District Board of its consent.”

Please provide a response in the form of a Council resolution to my attention by Friday, December 6, 2019.

33388006

If you have any questions with respect to the proposed bylaw amendment, please contact me by email at [Chris.Plagnol@metrovancover.org](mailto:Chris.Plagnol@metrovancover.org) or by phone at 604-432-6338.

Sincerely,



Chris Plagnol  
Corporate Officer

CP/KH/mp

cc: Ravi Chhina, General Manager, Parks and Housing  
Mike Redpath, Director, Regional Parks, Parks and Housing

Encl: Report dated October 22, 2019, titled "Regional Parks Service Amendment Bylaw No. 1290"  
(Doc# 33135580)

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To: MVRD Board of Directors

From: Carol Mason, Chief Administrative Officer  
Chris Plagnol, Corporate Officer

Date: October 22, 2019 Meeting Date: November 1, 2019

Subject: **Regional Parks Service Amendment Bylaw No. 1290**

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**RECOMMENDATION**

That the MVRD Board:

- a) give first, second and third reading to *Metro Vancouver Regional District Regional Parks Service Amending Bylaw No. 1290, 2019*; and
- b) direct staff to seek consent of at least 2/3 of the participants to amend the service area to add an extraterritorial area to the regional park function, and following that, forward the *Metro Vancouver Regional District Regional Parks Service Amending Bylaw No. 1290, 2019* to the Inspector of Municipalities for approval.

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**PURPOSE**

To consider first, second and third reading of the *Metro Vancouver Regional District Regional Parks Service Amending Bylaw No. 1290, 2019* that will initiate the inclusion of an extraterritorial area for a portion of Aldergrove Park located in the City of Abbotsford, and to direct staff to seek consent of at least 2/3 of the participants in the regional parks function in relation to the amendment.

**BACKGROUND**

The Province of British Columbia is expected to enact a Regulation to specifically authorize Metro Vancouver Regional District to establish and operate the regional parks service outside its boundaries for the portion of Aldergrove Park located in the City of Abbotsford. In anticipation of that Regulation and to facilitate the process in a timely fashion, it is advisable to amend the Regional Parks Service Bylaw to include this extraterritorial area in the defined boundaries of the parks service area.

This report brings forward the proposed bylaw amendment for the Board's consideration.

**ABBOTSFORD PARTICIPATION IN REGIONAL PARKS**

The City of Abbotsford was a long-standing participant in the MVRD Regional Parks function, but after a parks service review, discussions were initiated between Metro Vancouver and the City of Abbotsford that examined the boundaries of the service area and explored consideration of the potential withdrawal of the City of Abbotsford from the MVRD regional parks function. In 2018 the City withdrew from the parks service.

### **Parkland Transfer to Abbotsford**

As part of the agreement for the City of Abbotsford to withdraw from the MVRD regional parks service, in May 2018, Metro Vancouver transferred all interests in parkland within the boundaries of the City of Abbotsford to the City of Abbotsford, including the Aldergrove Regional Park. However, since that regional park straddles the border of the Township of Langley and the City of Abbotsford, it was agreed that a single local government to own and operate it. Given the majority of visitors to the Aldergrove Regional Park originate from Metro Vancouver, Metro Vancouver agreed that it was the appropriate jurisdiction to continue to own and operate this park.

### **Extraterritorial Area – Aldergrove Regional Park East**

This ownership model posed a problem because the portion of Aldergrove Regional Park located in Abbotsford was outside the boundaries of the Metro Vancouver Regional District. Section 333(4) of the *Local Government Act* requires that a service provided outside of regional district boundaries must be identified as a separate participating area for the service “as if it were located in the regional district”. Given the unique history and circumstances associated with Aldergrove Regional Park, Metro Vancouver requested a remedy from the Province to authorize an exemption to the statutory requirement.

The Province proposed a Regulation to the *Local Government Act* that would provide the requested exemption, as described below.

### **MVRD ALDERGROVE REGIONAL PARK REGULATION**

Staff have been advised that the Province is preparing a new Regulation that will make an exception to section 333(4) of the *Local Government Act*, and authorize Metro Vancouver Regional District to establish and operate the portion of Aldergrove Regional Park in Abbotsford as an “extraterritorial area”. This extraterritorial area must be included in the defined boundaries of the parks service area, as set out in the Regional Parks Service Bylaw.

### **Land Transfer to Metro Vancouver**

In anticipation of the provincial Regulation, the MVRD Board, at its meeting held May 24, 2019, approved the *Abbotsford Disposition of Eastern Portion of Aldergrove Park Land Agreement* between the Metro Vancouver Regional District and the City of Abbotsford for the sale and transfer of the eastern portion of the Aldergrove Regional Park lands within the municipal boundary of Abbotsford back to Metro Vancouver Regional District.

Once the conditions in this agreement are satisfied - a Regulation is in place allowing Metro Vancouver to own and operate the eastern portion of Aldergrove Regional Park without requiring the City of Abbotsford to be a member of the MVRD for regional park purposes - Metro Vancouver will be returned ownership and will continue operation of both the western and eastern portions of the Aldergrove Regional Park, with the eastern portion being an ‘extraterritorial area’.

### **MVRD REGIONAL PARKS AMENDING BYLAW**

The adoption of a bylaw to amend the *Greater Vancouver Regional District Regional Parks Service Conversion and Amendment Bylaw No. 1024, 2005* (proposed in this report) is required to bring effect to the aforementioned Regulation. The required amendment to the Regional Parks Service Bylaw is to include the extraterritorial area in the defined boundaries of the parks service area.

In addition, two minor housekeeping amendments are proposed: two section references to the *Local Government Act* that appear in the Amending Bylaw were outdated, and have been updated to reflect the current numbering in the Act.

The Amending Bylaw is before the Board for first, second and third reading. Once third reading is given, the Amending Bylaw will be circulated to all service area participants to obtain their consent to the adoption of the Bylaw. Two-thirds consent of participants is required before the Amending Bylaw can be considered for adoption by the Board. Once consent is obtained, the Amending Bylaw will be forwarded to the Inspector of Municipalities for approval. If approved by the Inspector, the Amending Bylaw will be presented to the Board for consideration of final adoption.

### **ALTERNATIVES**

1. That the MVRD Board:
  - a) give first, second and third reading to *Metro Vancouver Regional District Regional Parks Service Amending Bylaw No. 1290, 2019*; and
  - b) direct staff to seek consent of at least 2/3 of the participants to amend the service area to add an extraterritorial area to the regional park function, and following that, forward the *Metro Vancouver Regional District Regional Parks Service Amending Bylaw No. 1290, 2019* to the Inspector of Municipalities for approval.
  
2. That the MVRD Board receive for information the report dated October 22, 2019, titled "Regional Parks Service Amendment Bylaw No. 1290", and provide alternate direction.

### **FINANCIAL IMPLICATIONS**

If the Board approves alternative one, there will be no additional financial impacts as staff previously anticipated approval of the provincial regulation when preparing the 2020 budget. Under an existing agreement between the MVRD and the City of Abbotsford that has been in place while awaiting Provincial regulatory approval, Metro Vancouver Regional Parks has operated and maintained both the Langley (West) and Abbotsford (East) portions of Aldergrove Regional Park. The operating costs for Aldergrove Park East are included in the 5-year financial plan.

### **SUMMARY / CONCLUSION**

The Province of British Columbia is expected to enact a Regulation to authorize Metro Vancouver Regional District to operate the regional parks service outside its boundaries for the portion of Aldergrove Park located in the City of Abbotsford, without the City being a participant in the parks service. To bring effect to that Regulation, the *Greater Vancouver Regional District Regional Parks Service Conversion and Amendment Bylaw No. 1024, 2005* must be amended to include this extraterritorial area in the defined boundaries of the parks service area. This report brings forward the associated Amending Bylaw for consideration by the Board. Staff recommend Alternative One.

### **Attachments**

1. Metro Vancouver Regional District Regional Parks Service Amending Bylaw No. 1290, 2019

33135580

**METRO VANCOUVER REGIONAL DISTRICT**  
**BYLAW NO. 1290, 2019**  
**A Bylaw to Amend Greater Vancouver Regional District**  
**Regional Parks Service Conversion and Amendment Bylaw No. 1024, 2005**

**WHEREAS:**

- A. By Division V of Letters Patent issued January 13, 1972, as amended by further Supplementary Letters Patent, Metro Vancouver Regional District (formerly Greater Vancouver Regional District) was granted the function of operating regional parks (the “**Regional Parks Service**”), and the participating areas for the Regional Parks Service were deemed to include not only Metro Vancouver Regional District member municipalities, but also member municipalities of the former Vancouver-Fraser Park District;
- B. On July 25, 2005, the Board of Directors of the Metro Vancouver Regional District adopted “Greater Vancouver Regional District Regional Parks Service Conversion and Amendment Bylaw No. 1024, 2005”, a bylaw to convert the Regional Parks Service and to amend the participating areas;
- C. On April 27, 2018, the Board of Directors of the Metro Vancouver Regional District adopted “Metro Vancouver Regional District Regional Parks Service Amending Bylaw No. 1260, 2018”, a bylaw to amend the participating areas to remove the City of Abbotsford as a municipal participating area for the Regional Parks Service;
- D. The Board of Directors of the Metro Vancouver Regional District has obtained approval from the Province of British Columbia to establish and operate the regional parks service in an extraterritorial area comprising that portion of Aldergrove Regional Park located within the boundaries of the City of Abbotsford;
- E. The Board of Directors of the Metro Vancouver Regional District wishes to amend “Greater Vancouver Regional District Regional Parks Service Conversion and Amendment Bylaw No. 1024, 2005”;

**NOW THEREFORE** the Board of the Metro Vancouver Regional District enacts as follows:

- 1. The “Greater Vancouver Regional District Regional Parks Service Conversion and Amendment Bylaw No. 1024, 2005” (the “**Bylaw**”) is hereby amended as follows:
  - a) In the preamble of the Bylaw, add new paragraphs G and H respectively, at the end of this section, as follows:
    - “G. On April 27, 2018, the Board of Directors of the Metro Vancouver Regional District adopted “Metro Vancouver Regional District Regional Parks Service Amending Bylaw No. 1260, 2018”, a bylaw to amend the participating areas to remove the City of Abbotsford as a municipal participating area for the Regional Parks Service;

- H. Consent from at least two-thirds of the Service participants to add an extraterritorial area comprising that portion of Aldergrove Regional Park located within the boundaries of the City of Abbotsford was received;”
- b) In section 4 of the Bylaw, titled “Service Area”, delete and replace the section in its entirety with the following:
  - “4. The service area for the Service consists of:
    - (a) all that land within the boundaries of the Participating Areas; and
    - (b) all that land in the eastern portion of Aldergrove Regional Park, identified as Extraterritorial Area, as shown on the map in Schedule A, hereto affixed and forming part of the Bylaw.”
- c) In section 5 of the Bylaw, titled “Cost Recovery”, sub section (b), delete the words “Division 4.3” and replace them with the words “Part 11, Division 3”.
- d) In section 6 of the Bylaw, titled “Cost Apportionment,” delete the words “section 804(2)(a)” and replace them with “section 380(2)(a)”.

2. This bylaw may be cited as “Metro Vancouver Regional District Regional Parks Service Amending Bylaw No. 1290, 2019”.

Read a first time this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_.

Read a second time this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_.

Read a third time this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_.

Approved by the <Inspector of Municipalities this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_.

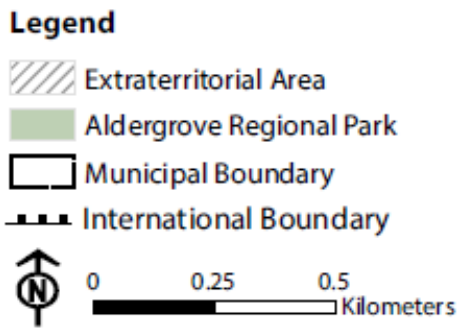
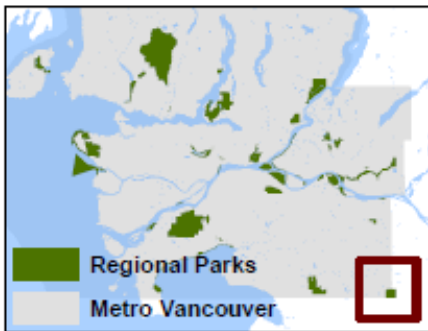
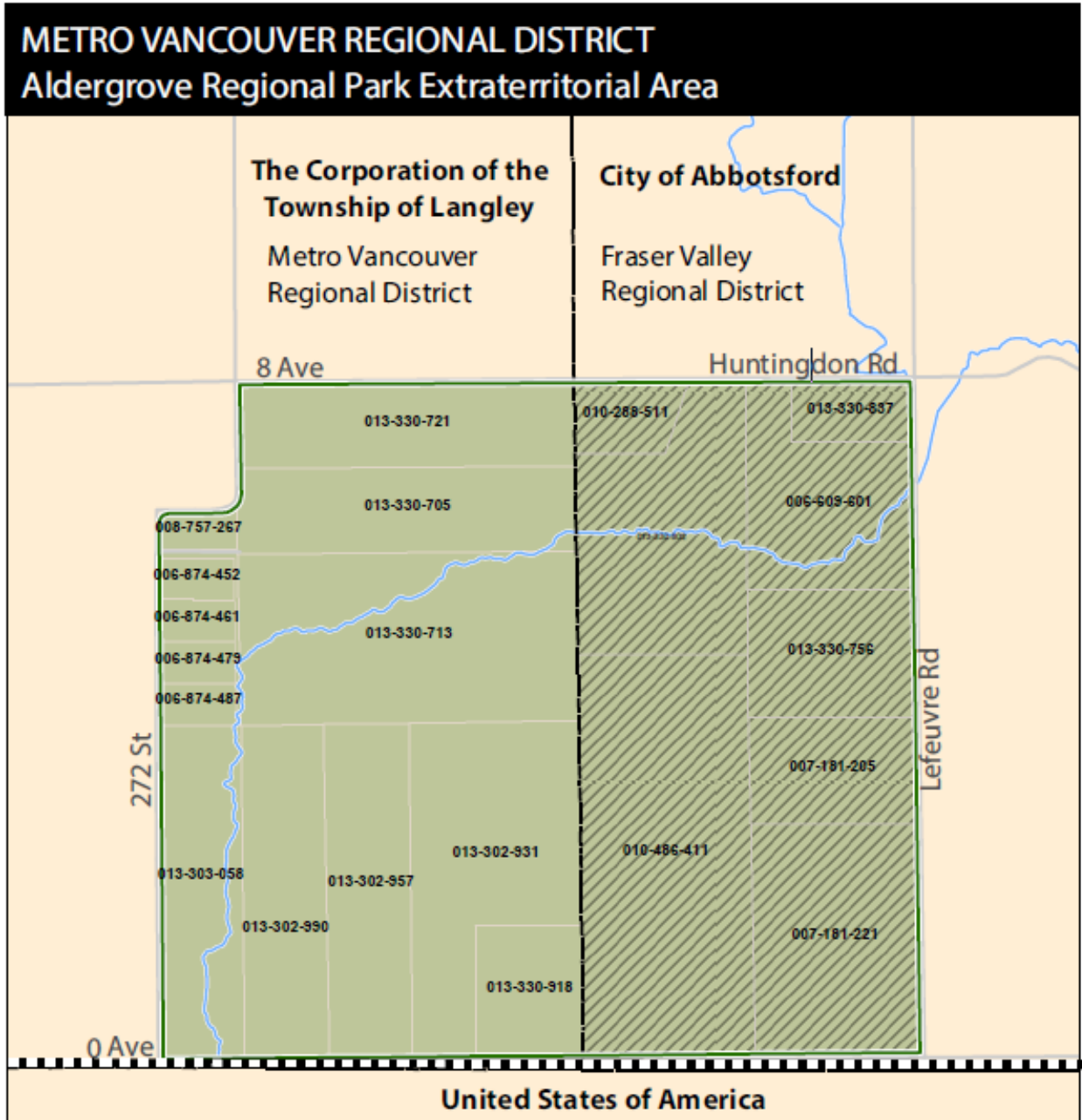
Passed and finally adopted this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_.

\_\_\_\_\_  
Sav Dhaliwal, Chair

\_\_\_\_\_  
Chris Plagnol, Corporate Officer

**Schedule A**

**Aldergrove Regional Park Extraterritorial Area to be Added to Regional Parks Service**



October 2019



## THE MUNICIPALITY OF THE VILLAGE OF LIONS BAY

<b>Type</b>	<b>Information Report</b>		
<b>Title</b>	<b>Strategic Planning and Priority Setting for 2020</b>		
<b>Author</b>	<b>Peter DeJong</b>	<b>Reviewed By:</b>	
<b>Date</b>	<b>November 14, 2019</b>	<b>Version</b>	
<b>Issued for</b>	<b>November 19, 2019 Council Meeting</b>		

### **Recommendation:**

THAT the Information Report, “Strategic Planning and Priority Setting for 2020” be received.

### **Attachments:**

- (1) Draft Council Workshop Agenda for November 25 and 26, 2019;
- (2) Strategic Planning Goals and Priorities Introduction;
- (3) Draft Strategic Goals – 2020 Priorities (tracked change updates from 2019);
- (4) Appendix A to draft Strategic Goals – 2020 Priorities

### **Key Information:**

Strategic planning and priority setting is a process that takes place each year in virtually every local government. It is a process wherein Council and staff review all ongoing, previously identified, and potential new projects, over and above the core work involved with operating a municipality, and within the framework of Council’s overarching goals and objectives, determine which matters are going to be prioritized in terms of the financial and staff resources required to advance them. This helps shape the budget process, which swings into high gear through the peak of winter, ultimately leading to adoption of the budget for the year, along with the five year financial plan, in late April or early May.

Council Strategy Committee meetings have been set up for November 25 and 26, 2019, from 5:30 pm to about 9:30 pm each evening. These workshop meetings are open to the public save and except the Closed portion of the meeting scheduled for the end of the second session. A draft Agenda Schedule is attached along with tracked change updates to the 2019 Strategic Goals and Priorities document, including discussion topics requested by Council and/or the public.



## THE MUNICIPALITY OF THE VILLAGE OF LIONS BAY

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**Follow Up Action:** Staff will prepare the materials in the context of a proper CSC Agenda and publish & distribute that in accordance with the Procedure Bylaw.

**Communication Plan:** A reminder of the meeting was posted in the Village Update on Friday, November 15<sup>th</sup> and posted to the Notice Boards.



**Village of Lions Bay**  
**Strategic Planning-Priority Setting Workshop**  
**Council Chambers**  
**November 25 & 26, 2019**

<b>Monday, November 25, 2019</b>	
5:00 pm – 5:30 pm	Dinner
5:30 pm – 5:45 pm	Commence CSC Meeting with Agenda preliminaries. Welcome & Introduction to Strategic Planning and Priority Setting 2020 What do you want to produce tonight & tomorrow night? Priorities for 2020 & beyond? Updated Strategic Plan to share with community? Other?
5:45 pm – 6:00 pm	<b>Check in</b> – Roles & Responsibilities – Council/Staff policy/operations model <b>Core Work</b> – What is it? What is staff capacity over and above core work?
6:00 pm – 6:15 pm	<b>Where are we at?</b> <b>Five priorities:</b> Infrastructure, Finance, Community Planning, Communication & Organization – still valid? <b>Proposed Workshop Process:</b> Status update, “Doability” & Council direction
6:15 pm – 7:15 pm	<b>Infrastructure</b> <ul style="list-style-type: none"> <li>• Where are we at? Staff status report on Current/Potential Infrastructure Priorities</li> <li>• Council direction on each of the potential priorities</li> </ul>
7:15 pm – 7:30 pm	<b>Break</b>
7:30 pm – 8:30 pm	<b>Finance</b> <ul style="list-style-type: none"> <li>• Where are we at? Staff status report on Current/Potential Finance Priorities</li> <li>• Council direction on each of the potential priorities</li> </ul>
8:30 pm – 9:30 pm	<b>Communication/Public Engagement</b> <ul style="list-style-type: none"> <li>• Where are we at? Staff status report on Current/Potential Communication Priorities</li> <li>• Council direction on each of the potential priorities</li> </ul>
9:30 pm – 9:45 pm	<b>Homework:</b> Reflect on tonight’s discussion & think about Community Planning, Organization and Miscellaneous Projects (Core Work+)
<b>Tuesday, November 26, 2019</b>	
5:00 pm – 5:30 pm	Dinner
5:30 pm – 6:00 pm	<b>Conversation carry-over:</b> Anything left unsaid last night?
6:00 pm – 7:00 pm	<b>Community Planning</b> <ul style="list-style-type: none"> <li>• Where are we at? Staff status report on Current/Potential Community Planning Priorities</li> <li>• Council direction on each of the potential priorities</li> </ul>
7:00 pm – 7:30 pm	<b>Organization</b> <ul style="list-style-type: none"> <li>• Where are we at? Staff status report on Current/Potential Organization Priorities</li> <li>• Council direction on each of the potential priorities</li> </ul>
7:30 pm – 8:00 pm	<b>Miscellaneous Projects (Core Work+)</b> <ul style="list-style-type: none"> <li>• Where are we at? Staff status report on Current/Potential Miscellaneous Projects (Core Work+) Priorities</li> <li>• Council direction on each of the potential priorities</li> </ul>
8:00 pm – 8:15 pm	<b>Break</b>
8:15 pm – 9:00 pm	<b>Closed Portion of the CSC Meeting</b>
9:00 pm – 9:15 pm	What’s next - Wrap up



## VILLAGE OF LIONS BAY CORPORATE STRATEGIC PLANNING -PRIORITY SETTING

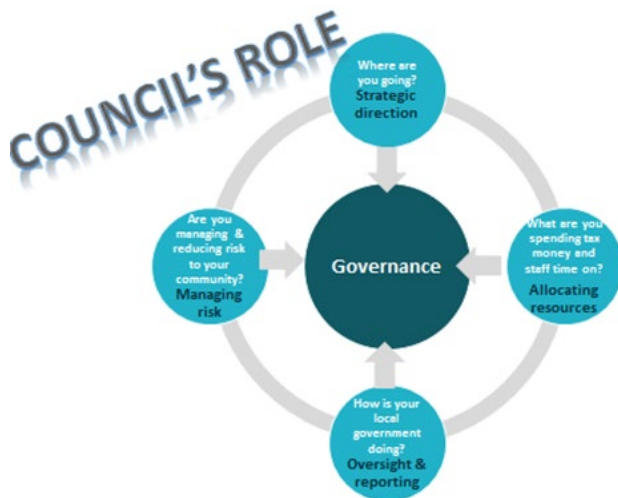
### Why do we do strategic planning - priority setting?

- Sets the strategic direction & goals
- Establishes shared values and standards/expectations.
- Prioritizes initiatives/work
- Provides a roadmap to follow
- Guides the use of resources
- Provides a basis for evaluating progress



Strategic planning and priority setting is a process that takes place each year in virtually every local government. It is a process wherein Council and staff review all ongoing, previously identified, and potential new projects, over and above the core work involved with operating a municipality, and within the framework of Council's overarching goals and objectives, determine which matters are going to be prioritized in terms of the financial and staff resources required to advance them, which also helps shape the budget process.

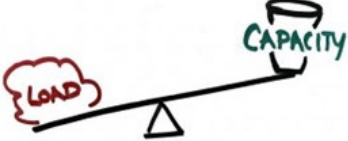
### COUNCIL'S ROLE



There are four key components of council's governance role:

- setting the corporations strategic direction,
- allocating the organization's resources both human and financial,
- managing risks to the organization, and
- oversight and reporting.

In order for the organization to be high performing Council must focus its attention on its governance roles and on advancing its strategic priorities. This generally is much harder than most think. Distractions are everywhere for all councils and staying focused on the most important things rather than operational matters can be exceptionally challenging for many elected officials.

<h3 style="background-color: #00A0C0; color: white; padding: 5px;">Core work versus new work</h3> <table border="0" style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> <p><b>Core Work</b></p> <p>Continuous or ongoing work</p> <p>Examples:</p> <ul style="list-style-type: none"> <li>• Maintenance of facilities &amp; infrastructure</li> <li>• Processing planning applications</li> <li>• Preparing agendas for council meetings</li> </ul> </td> <td style="width: 50%; vertical-align: top;"> <p><b>New Work</b></p> <p>Infrequent – or one time work</p> <p>Examples:</p> <ul style="list-style-type: none"> <li>• Constructing new facilities &amp; infrastructure</li> <li>• Reviewing your OCP</li> <li>• Elections/referenda</li> </ul> </td> </tr> </table>	<p><b>Core Work</b></p> <p>Continuous or ongoing work</p> <p>Examples:</p> <ul style="list-style-type: none"> <li>• Maintenance of facilities &amp; infrastructure</li> <li>• Processing planning applications</li> <li>• Preparing agendas for council meetings</li> </ul>	<p><b>New Work</b></p> <p>Infrequent – or one time work</p> <p>Examples:</p> <ul style="list-style-type: none"> <li>• Constructing new facilities &amp; infrastructure</li> <li>• Reviewing your OCP</li> <li>• Elections/referenda</li> </ul>	<p>Core work generally consumes the vast majority of the resources of local governments. This is particularly true in the case of small communities where staff is small and frequently fully consumed by statutory and operational activities.</p>
<p><b>Core Work</b></p> <p>Continuous or ongoing work</p> <p>Examples:</p> <ul style="list-style-type: none"> <li>• Maintenance of facilities &amp; infrastructure</li> <li>• Processing planning applications</li> <li>• Preparing agendas for council meetings</li> </ul>	<p><b>New Work</b></p> <p>Infrequent – or one time work</p> <p>Examples:</p> <ul style="list-style-type: none"> <li>• Constructing new facilities &amp; infrastructure</li> <li>• Reviewing your OCP</li> <li>• Elections/referenda</li> </ul>		
<h3 style="background-color: #00A0C0; color: white; padding: 5px;">What is your Corporate capacity?</h3> <div style="text-align: center; margin-top: 20px;">  </div>	<p>Given that small local governments are often fully committed to core work their capacity to take on new work is typically limited. It is essential that Council ensure sufficient and appropriate resources both human and financial are allocated to its priorities. Failure to allocate sufficient resources will likely result in frustration, poor staff morale and failure to complete priority work.</p>		

Over the course of the next two evenings, Council and staff will review some of the accomplishments that have been achieved over the past few years, what our current Strategic Planning and Priorities documents look like, get a status update on these matters from staff, and consider whether goals and priorities, and timelines attached to these matters have changed, whether there are new matters to include in the mix and what their priorities may be, and what resources, both financial and human, are required to advance all of Council’s goals and priorities.



# VILLAGE OF LIONS BAY

## CORPORATE STRATEGIC PLANNING AND 2020 PRIORITY SETTING 4.0

### VILLAGE OF LIONS BAY CORPORATE STRATEGIC PLANNING & PRIORITY SETTING

The Village of Lions Bay has been working on developing a strategic plan since early 2016. In February 2016 Council and senior staff held a workshop to explore the challenges and opportunities presented to Lions Bay and to begin to develop a process of prioritizing and addresses them.

In June of 2016 a second workshop was held to review the outcomes of the February workshop and to provide further detail on priorities for the remainder of the Council term. The outcome of the workshop was a roadmap for the remainder of the Council term which focused on key priorities and which guided the allocation of resources including Council energy, staff time and financial resources.

On November 14 and 15, 2017, a workshop was held to review the progress Lions Bay has made and to focus in on the priority work to be advanced and resourced in the last year of the Council term.

The workshop focused on completing several tasks including:

- Updates from staff on the status of the priorities identified in June 2016;
- Discussion of each of the five priority areas and actions; and
- Council direction to staff.

This document includes details of the discussion and Council direction.

### STRATEGIC FOCUS AREAS, GOALS & PROJECTS/INITIATIVES

The overarching goal of the current Village of Lions Bay Council is to work towards ensuring the Village of Lions Bay is a strong and viable municipality. In setting this goal Council recognizes the significant challenges facing the Village including major infrastructure and planning needs.

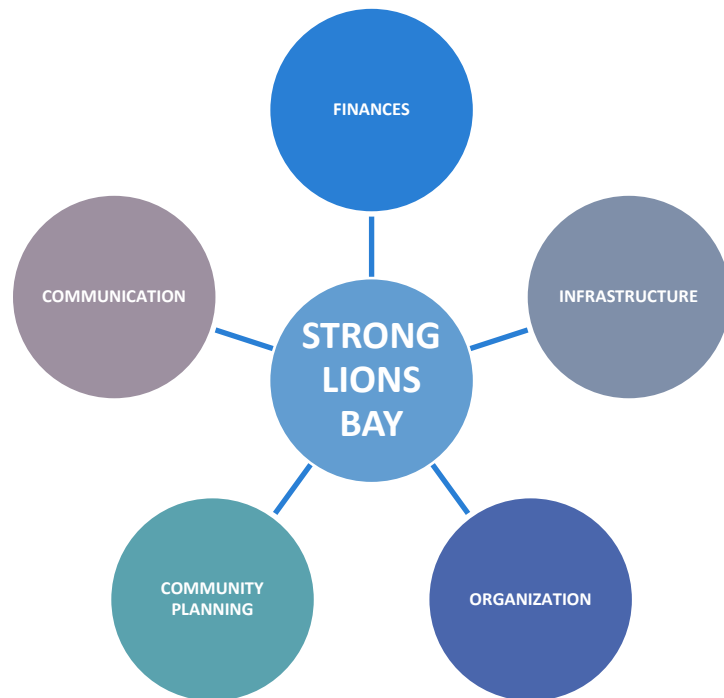
Since the February 2016 Strategic Planning and Priority Setting Workshop, Lions Bay Council has used five strategic priorities as the basis for the organization’s strategic planning:

- Maintained and Adequate Infrastructure**
- Financially Viable**
- Supported Community Planning**
- Informed and Engaged Public**
- Strong Village Organization**

As the graphic illustrates, the five key priority areas identified by Council all need to be addressed to achieve the goal of a strong and viable Village. Council recognizes the interdependency of the five strategic areas.

Tremendous progress has been made by the Village over the last three years to address infrastructure needs, improve the financial stability of the Village, to modernize Village planning regulations, improve communications with the public and to stabilize the organization. A few recent significant accomplishments of the organization include:

- Completed and adopted a comprehensive 30-year infrastructure master plan
- Secured voter approval for up to \$3M in loan funding for infrastructure
- Selling road-ends to fund acquisition of waterfront land for municipal needs, and to create a cash reserve for internal loans



- Multiple operating improvements in water infrastructure (new pressure relief valves at PRV stations and new chlorine & turbidity analyzers at both treatment plants), safety improvements, and reconstruction of the Harvey Intake weir both through NBCF2 grant funding (66% of \$369K), water storage facility and network upgrades through CWWF grant funding (83% of \$2.71M), a 50% reduction in water waste through

leakage control and pressure management, elimination of Boil Water Advisories, improved SCADA, Outdoor Water Use Bylaw and Water Shortage Plan, strategic water supply planning via a long-term hydrology study in cooperation with UBC; water pipeline feasibility research; property purchased for a future desalination plant if necessary; and shovel-ready plans for Bayview Drainage & Road Improvement Project (DRIP)

- Modernized zoning bylaw: marine parks, cottages, Community Amenity Contributions, regulated Short Term Rentals
- Improved community communications: new website, new and improved communications media, created emergency notification system, improved consultation framework and processes
- Completed a core services review for Public Works
- Stabilization of organization and negotiation of new collective agreement
- Consolidation of all bylaws
- Completed review of SCADA technical communications study
- Completed public landscaping plan funded through agreement with MOTI
- Implemented strategic changes to parking in Lions Bay
- Engaged community in consultation process for revitalization of Lions Bay Beach Park

At the December 2018 workshop, Council began with a proposed set of goals and priorities for 2019 which build on and provide further detail of the goals and priorities of the previous strategic planning work.

Each of the strategic focus areas with goals and priority actions is outlined below with target timelines set out as:

- Short Term – 1-2 years
- Medium Term – 2-4 years
- Long Term – over 4 years (next Council).

**MAINTAINED AND ADEQUATE INFRASTRUCTURE**

GOALS	PRIORITY ACTIONS	TARGET TIMELINE
<p><b>Adequately resource maintenance of existing Lions Bay infrastructure and infrastructure spending based on the long-range priorities of the Infrastructure Master Plan <u>and the Asset Management Investment Plan.</u></b></p> <p><b>Identify and meet service standards and best practices appropriate to the needs of Lions Bay.</b></p> <p><b>Meet critical standards and industry best practices as they continue to evolve.</b></p>	a. Manage CWWF1-funded Water Network Project to completion.	Short Term
	b. <del>Apply for ICIP grant for a portion of the remainder of the CWWF1 project</del> <u>Incorporate PRVs into CWWF project and fund from remainder of grant/loan (consult public re. 3<sup>rd</sup> PRV funding).</u>	Short Term
	c. Apply for next round of infrastructure grant funding <u>– confirm Bayview DRIP project</u>	Short Term
	d. Progress cell tower project <u>– support public consultation process and move project toward completion in 2020.</u>	Short Term
	e. Implement Phase 1 of Lions Bay Beach Park improvement project, using Water-Access Capital Reserve funds where possible. <u>– await grant funding for Phase 2.</u>	Phase 1 - Complete Phase 2 – Short to Medium Term
	f. Support the UBC long-range watershed hydrology study <u>– coordinate UBC equipment on cell tower</u>	Ongoing
	g. Kelvin Grove WWTP replacement study <u>– Select proponent for RBC “like-for-like” replacement, manage project to completion in 2020.</u>	Short Term
	h. Develop Stormwater Management Plan <u>– extrapolate from the ISL study on Oceanview to extent possible</u>	Short to Medium Term

## FINANCIALLY VIABLE

GOALS	PRIORITY ACTIONS	TARGET TIMELINE
<p>Ensure the municipality has adequate long-term financial resources to sustain core work and strategic priorities.</p> <p>Pursue a capital reserve policy to meet the requirements of a comprehensive Asset Management Plan.</p> <p>Utilize grant and debt funding for spending on new and replacement assets for future generations, and eligible funding for operating costs and addressing the infrastructure gap.</p>	a. Apply for all suitable Infrastructure Grants	Ongoing
	b. Advocate for small community concessions <del>(eg: on-gas tax, and</del> rural allowances, <u>Metro issues, Translink, etc).</u> -	Short Term
	c. Complete work on a comprehensive Asset Management Plan. <u>(Phase 2 of AMIP underway)</u>	Short Term
	d. Complete sale of municipally-owned lot at 52 Brunswick.- <u>completed</u>	Short Term
	e. <del>Proceed with</del> <u>Complete</u> sale of municipally-owned lot in Upper Kelvin Grove.	Short Term
	f. <u>Support PRV projects under expanded CWWF through loans under current Loan Authorization bylaw.</u>	<u>Short Term</u>
	g. <u>Determine options for funding Kelvin Grove WWTP project and implement best option.</u>	<u>Short Term</u>
	h. <u>Consider proceeding with Road Closure Bylaws for Oceanview site and for Brunswick Beach Point.</u>	<u>Short to Medium Term</u>
	i. <u>Consider additional sources of revenue to address long-term financial sustainability and what is required to implement them</u>	<u>Short Term</u>

## SUPPORTED COMMUNITY PLANNING

GOALS	PRIORITY ACTIONS	TARGET TIMELINE
<p><b>Continue to enhance and implement the Official Community Plan (OCP) in order to produce a prosperous, diverse and vibrant complete community, accessible to residents and welcoming to visitors.</b></p>	<p>a. Adopt a new local Building Bylaw complying with new provincial Building Act <u>and advancing Municipal policy objectives (use law firm for bulk of the work)</u></p>	<p>Short Term Staff to review and bring recommendations for <del>new</del> <u>Building Bylaw suitable for Lions Bay policy objectives</u></p>
	<p>b. Apply for provincial License of Occupation for W2 Water Zones.</p>	<p>Long Term</p>
	<p>c. Consider natural hazards Development Permits and associated OCP amendment;</p>	<p>Short Term</p>
	<p>d. Complete Community Amenity Contribution (CAC) policy.</p>	<p>Short Term</p>
	<p>e. Develop and implement initiatives with SD45 to <del>keep</del> <u>help support</u> Lions Bay School <del>open</del></p>	<p>Ongoing</p>
	<p>f. Scope the effort to inventory, assess condition and manage trails in Lions Bay</p>	<p>Short Term</p>
	<p>g. Develop a Boulevard Encroachment Bylaw to address encroachment and vegetation.</p>	<p>Short Term</p>
	<p>h. Further develop the Emergency <del>Management Plan</del> <u>Program to meet our municipal legal obligations and policy objectives -</u></p>	<p>Short Term</p>
	<p>i. Negotiate long-term provincial lease at Upper Brunswick, plan move of Public Works Yard there, complete community consultation for redevelopment of the existing site.</p>	<p>Short Term</p>

	j. Support initiatives protecting glass sponge reefs in Howe Sound, establishing Howe Sound as a UNESCO Biosphere Region, promoting a Howe Sound National Park.	Ongoing
	k. Work with Sea-to-Sky communities towards intra-region transit.	<del>Ongoing</del> <u>Medium Term</u>
	l. Work with TransLink on <del>the service improvements to</del> Lions Bay <del>micro-shuttle pilot project</del> transit.	Short <del>to</del> <u>Medium</u> Term ( <del>Advocacy</del> )
	m. Through advocacy & representation, address high noise and excessive accident risk on the Sea-to-Sky Hwy.	Short Term (Advocacy)
	n. Work with <u>owners</u> /developers regarding potentially developable properties ( <u>small lot subdivisions, Kelvin Grove lands, PW Yard, etc</u> )	Short Term Medium Term
	o. Council Consideration of options for future of Oceanview Road ROW ( <u>see h. in Financially Viable section above</u> )	Short Term
	p. Boundary Discussions with: <ul style="list-style-type: none"> <li>• <u>West Van re. amalgamation</u></li> <li>• <u>Metro re. VoLB expansion</u></li> <li>• SLRD re. support for VoLB expansion</li> </ul>	Long Term
	q. <u>Hire a consultant to draft DCCs and Subdivision Servicing Bylaws</u>	<u>Short Term</u>
	r. <u>Hire a consultant to do a Housing Needs Assessment (required for grant funding through BC Housing) (UBCM grant for next year)</u>	<u>Short Term</u>
	s. <u>Start planning for undertaking a major update to the OCP by budgeting an amount each year over the next 4 years</u>	<u>Ongoing</u>

## INFORMED AND ENGAGED PUBLIC COMMUNICATIONS

GOALS	PRIORITY ACTIONS	TARGET TIMELINE
Facilitate an informed and engaged public by proactive and transparent communication.	a. Utilise outside consultants for select community consultations. <u>eg: DPAs, Blvd. Bylaw, Infrastructure Financing</u>	Ongoing
	b. Promote <u>Website</u> , Village Update and Lions Bay Alert	Ongoing

**ADDITIONAL AGENDA ITEMS FOR DISCUSSION AND CONSIDERATION**

GOALS	PRIORITY ACTIONS	TARGET TIMELINE
As proposed by Arash Iranshahi	Undertake development of a “View Bylaw”	
Items put forward by Councillor Abbott	Community Planning: Climate Action Initiatives Community Planning: Metro - Wood Smoke Bylaw Community Planning: Metro - Urban Containment Boundary Public Communications: Communications Strategy Infrastructure and Financial Viability: Capital Expenditures Focus Community Planning: Emergency Planning Organization: Core Service Review Update Organization: (Closed)	See Appendix A

## STRONG VILLAGE ORGANIZATION

GOALS	PRIORITY ACTIONS	TARGET TIMELINE
<b>Support a motivated, fulfilled, high-functioning and stable staff organization capable of innovatively meeting the core work and statutory requirements of the organization and Council's strategic priorities.</b>	a. Continue to build staff skills in customer service, communication, administration, planning, finance, IT, records management & emergency management.	Ongoing
	b. Hire a part-time emergency planning coordinator. <u>Completed</u>	Short Term
	c. Commence strategic planning for LBFR service levels.	Short Term for Burn Bldg.  Medium Term for LBFR Strategic Planning
	d. Build relationships with local First Nations	Ongoing

## MISCELLANEOUS PROJECTS (CORE WORK+)

GOALS	PRIORITY ACTIONS	TARGET TIMELINE
<p><b>Initiate and manage various projects to support the goals and objectives of the key strategy areas.</b></p>	<p>a. Policies: Purchasing, Communications, Trails Management, Risk Management, Volunteers, Fire Service Level</p>	<p>Short Term and Ongoing</p>
	<p>b. Bylaws: Delegation, Blvd. Encroachment, Indemnification, Noise, <u>Outdoor Water Use, Pesticide, Trees et al.</u>, Civic Addressing, Water, Sewer, Solid Waste and Fees</p>	<p>Short Term and Ongoing</p>
	<p>c. Asset Management Plan refinements – <u>Phase 2</u></p>	<p>Short Term and Ongoing</p>
	<p><del>h</del><u>i</u>. <u>Hire a consultant to draft DCCs and Subdivision Servicing Bylaws(Moved To Planning)</u></p>	<p><u>Medium Term</u></p>
	<p><del>d</del><u>e</u>. <u>Records Management project (mapping and document scanning and reorganization of paper and digital records per LGMA Manual)</u></p>	<p><u>Ongoing</u></p>
	<p><del>e</del><u>e</u>. <u>Initiate part-time RCMP position – Leave on for reconsideration</u></p>	<p>Short Term</p>
	<p><del>e</del><u>f</u>. Business Licensing</p>	<p>Medium Term</p>
	<p><del>f</del><u>g</u>. Lions Bay Alert</p>	<p>Short Term</p>
	<p><del>g</del><u>h</u>. Brunswick Hill Landfill Closure</p>	<p>Medium Term</p>
	<p><del>h</del><u>i</u>. Subdivision and Cottage Applications</p>	<p>Short Term</p>
	<p><del>i</del><u>j</u>. Risk Mngt. Plan for 63 Brunswick</p>	<p>Medium Term</p>
	<p><del>j</del><u>k</u>. <u>Hazard mitigation: Intake Access Roads, Alberta Ck./Timbertop, Upper Bayview</u></p>	<p><u>CoreOngoing, Short Term and Medium Term</u></p>

	k.l. LBFR Burn Building	Short Term
	l.m. Oceanpoint, <u>Strachan and Montizambert</u> fire protection	<del>Medium</del> Short Term

Next Steps

This strategic planning and priority document is another step in developing a long term strategic plan for the Village of Lions Bay.

Council’s next step is to consider and affirm the priorities noted in the plan and allocate adequate resources to them.

The priority actions proposed in this document should be further developed by staff into work plans for each of the Village departments. The work plans for the remainder of the Council term should identify scheduling and estimated costs of the work to be done. Target dates for completion and resources needed will assist Council in allocating appropriate resources at budget time and will set realistic expectations about when work will be completed.

## Appendix "A"

### Agenda Items Put Forward by Councillor Abbott for Strategic Planning Session:

1. Climate Action Initiatives – renew Village’s commitment
  - a. Review of CARIP report for 2018 – short term goals
    - i. Start reporting GHGE
    - ii. Create a plan towards Carbon Neutrality
  - b. Outstanding Commitments to Metro & others
    - i. BC building step code
    - ii. Howe Sound Community Forum Commitments
2. Wood Smoke Bylaw
  - a. Implications of Metro CAC’s decision
  - b. Status our commitments after the survey for 5 additional actions
    - i. Public Education – what else can we do?
    - ii. Revise building bylaw
    - iii. Question of exclusion from UCB or Metro
    - iv. Motivation to Hydro to review 2 Tier rates
    - v. Motivation to Fortis re opportunities for natural gas
3. Urban Containment Boundary Discussion
  - a. Review of our Regional Context Statement
  - b. Future Implications of bylaws like Wood Smoke
  - c. Rural Dividends Program Implications
4. Communications Strategy – discussion of 1<sup>st</sup> draft of high level strategy document.  
(I will have something to present).
  - a. Review of Goals
  - b. “Have your say”
  - c. Update of Village website
5. Capital Expenditure Focus
  - a. Review of grant opportunities & related projects
  - b. Identify projects to be explored outside of grants
  - c. Service agreement strategy for roads & drainage
6. Emergency Planning
  - a. Evacuation Plan
  - b. Set up of committee
  - c. Establish EOC volunteer program
  - d. Expansion of Neighbourhood Watch
7. Core Service Review Update
  - a. a. Maintenance goals & progress
8. Fiscal Initiatives
  - a. Forecast 2020-2022, what will this Council’s legacy be?

*Additional discussions in Closed session.*



Royal Canadian Mounted Police  
Gendarmerie royale du Canada

Security Classification/Designation  
Classification/désignation sécuritaire

**Unclassified**

Inspector Kara TRIANCE  
OIC Sea to Sky RCMP  
1000 Finch Drive  
Squamish, BC  
V8B 0M5

Your File      Votre référence

Village of Lions Bay  
400 Centre Road  
Lions Bay, BC  
V0N 2E0

Our File      Notre référence

2019-11-05

To Whom It May Concern,

**Lions Bay Activity Report**  
**Report period: September and October, 2019**

The following is a list describing Calls for Service to the RCMP from in and around the area of Lions Bay.

**HWY 99 (within boundaries of Lions Bay):**

Traffic - Moving/Non-Moving/Insurance Violations x 13  
Impaired Driving Investigations x 1  
Collision - Damage Over / Under \$1000 / Non-fatal x 5  
Prevention of Collision (debris, stalled vehicles, animals, pedestrians on shoulder) x 1  
Parking Violations x 0  
Other remaining call types x 2

**22 Calls for Service**

**Lions Bay Village:**

Cause Disturbance/Breach of Peace x 0  
911 - False/Abandoned x 0  
False Alarms x 6  
Stranded Person - location known x 2  
Theft of Vehicle / Theft from Motor Vehicle x 4  
Theft under \$5000 x 0  
Break and Enter Residence/Business x 1  
Mischief x 3  
Bylaw x 1  
Other investigations x 14

**31 Calls for Service**

**Total = 53**

Should you have any questions, please do not hesitate to contact the Squamish RCMP Detachment at (604)892-6100.

Kind regards,

K. (Kara) TRIANCE, O.3086 (Insp)  
OIC Sea to Sky RCMP

/hm

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## THE MUNICIPALITY OF THE VILLAGE OF LIONS BAY

<b>Type</b>	<b>Request for Decision</b>		
<b>Title</b>	<b>Fees Bylaw No. 497, 2016, Amendment Bylaw No. 567, 2019</b>		
<b>Author</b>	<b>Nicole Dumas</b>	<b>Reviewed By:</b>	<b>P. DeJong</b>
<b>Date</b>	<b>November 15, 2019</b>	<b>Version</b>	<b>1</b>
<b>Issued for</b>	<b>November 19, 2019 Regular Council Meeting</b>		

### **Recommendation:**

(1) THAT Fees Bylaw No. 497, 2016, Amendment Bylaw No. 567, 2019 be introduced and read a 1<sup>st</sup> and 2<sup>nd</sup> time.

### **Attachments:**

- (1) Fees Bylaw No. 497, 2016, Amendment Bylaw No. 567, 2019
- (2) Fees Bylaw No. 497, 2016 (Consolidation BL567)

### **Key Information:**

The purpose of this amendment is to perform the annual update which ensures that the content of the bylaw remains current.

### **Options:**

- (1) Approve the recommendation above and give the bylaw two readings.
- (2) Provide additional amendments and give the bylaw two readings.
- (3) Refer the bylaw back to staff for revisions.

### **Preferred Option:**

Option 1: approve the recommendation and give the bylaw two readings.

### **Follow Up Action:**

Assuming the bylaw is read twice, bring the bylaw back for a third reading at the December 3<sup>rd</sup>, 2019 Council Meeting.



## THE MUNICIPALITY OF THE VILLAGE OF LIONS BAY



### **Fees Bylaw No. 497, 2016**

### **Amendment Bylaw No. 567, 2019**

Adopted: \_\_\_\_\_, 20\_\_

PO Box 141, 400 Centre Road, Lions Bay, BC V0N 2E0

Phone: 604-921-9333 Fax: 604-921-6643

Email: [office@lionsbay.ca](mailto:office@lionsbay.ca) Web: [www.lionsbay.ca](http://www.lionsbay.ca)

## **Fees Bylaw No. 497, 2016 Amendment Bylaw No. 567, 2019**

The Council of the Village of Lions Bay, in open meeting assembled, enacts as follows:

1. This bylaw may be cited for all purposes as “Fees Bylaw No. 497, 2016, Amendment Bylaw No. 567, 2019”.
2. Fees Bylaw No. 497, 2016, Amendment Bylaw No. 567, 2019 is hereby amended as follows:
  - (a) Schedule 1 – General Administration:
    - i. Remove the entire row referencing “Shipping documents”;
    - ii. Change “(FOI)” to read “(Fee applies to 8 pages and more)” in the description column of the Photocopying/printing/scanning documents row and change the fee from \$1.65 to \$1.00;
    - iii. Add “of printing copy” to the end of the sentence in the fee column for the Copy of house plans row; and
    - iv. Remove the entire row referencing “Permit under Outdoor Water Use Bylaw No. 484”.
  - (b) Schedule 2 – Development, Land and Building Services:
    - i. Change the second sentence underneath “Permit renewals” in the description column to read “A permit may be renewed only once...” instead of “... once only...”; and
  - (c) Schedule 3 – Engineering and Public Works:
    - i. Remove the entire row referencing “Bear Smart garbage container”;
  - (d) Schedule 4 – Animal Control & Licencing:
    - i. Under the fee for an altered dog, change the date from “March 31<sup>st</sup>” to “February 28<sup>th</sup>”;
    - ii. Change the fee after February 28<sup>th</sup> to read “\$45 thereafter” instead of “\$60 for all others” for an altered dog;
    - iii. Under the fee for an unaltered dog, change the date from “March 31<sup>st</sup>” to “February 28<sup>th</sup>”;
    - iv. Change the fee after February 28<sup>th</sup> to read “\$60 thereafter” instead of “\$60 for all others” for an unaltered dog;

## (e) Schedule 5 – Traffic &amp; Parking Fees:

- i. Change the word “annual” to “resident” under description and remove “per year” under fees in the first line.

## (f) Schedule 6 – Community Facility Rentals:

- i. Change the “set-up fee” to read “Prior day hall rental set-up fee (subject to availability)”; and
- ii. Change the fee from \$220 to \$150 for liquor being served.

## (g) Schedule 7 – Filming

- i. Remove the table in Schedule 7 and replace with the following table:

Description	Fee
Filming application fee (non-refundable)	\$300
Filming fees (per day):	
Residential Zone	\$1,000
Commercial Zone	\$500
Additional Location Fees (per day):	
Undeveloped Municipal Land	\$500
Tennis Courts, Wade Park, Trails (eg: Centennial, Pride, Marjorie Meadows)	\$750
Lions Bay Beach Park, Kelvin Grove Beach Park, Brunswick Beach Park/Esplanade	\$1,000
Broughton Hall	\$500
Council Chambers	\$250
Fire Hall (Requires at least one member of LBFR present - Interruptions possible)	\$100/hour
LBFR Training Facility (Requires LBFR personnel on site – minimum number depends on filming activity)	\$100/hour per person
Temporary closure of road (total blockages generally no more than 10 minutes at a time)	\$80/hour (plus costs of certified traffic control company at applicant’s expense)
Pyrotechnics Permit (per day)	\$500
Parking fees:	
Car	\$30/day (Completely Electric Vehicles \$0/day)
Truck (includes generator)	\$120/day (Solar/Battery Generators \$0/day)
Filming Liaison	\$80/hour (regular hours)
Public Works Services	\$80/hour per person (regular hours)
Village Manager	\$160/hour (regular hours)
Lions Bay Fire Rescue Services (LBFR)	\$500/hour
Extraordinary Services (Municipal staff call outs outside regular hours or requirement to hire contractor)	Hourly rate x 1.5 or contractor’s costs x 1.25

Fire Hydrant Use (only to be operated by Municipal employees)	\$80 per hour - regular hours (7am – 3pm) \$120 per hour (3 hours minimum) outside regular hours
Damage deposit	\$10,000 (refundable)

(h) Schedule 8 – Fire Rescue/Emergency Permits & Fees:

- i. Add “(valid only Oct 31<sup>st</sup> & New Year’s Eve)” after “Fireworks Permit”.

3. Fees Bylaw No. 497, 2016, Amendment Bylaw No. 567, 2019 is further amended in respect of various inconsequential typographical and punctuation changes throughout the bylaw.

**READ A FIRST TIME**            this \_\_ day of \_\_\_\_\_, 2019  
**READ A SECOND TIME**       this \_\_ day of \_\_\_\_\_, 2019  
**READ A THIRD TIME**        this \_\_ day of \_\_\_\_\_, 20\_\_

**ADOPTED**                    this \_\_ day of \_\_\_\_\_, 20\_\_

\_\_\_\_\_  
**Mayor**

\_\_\_\_\_  
**Corporate Officer**

**Certified a true copy of Fees Bylaw No. 497, 2016,  
 Amendment Bylaw No. 567, 2019 as adopted.**

\_\_\_\_\_  
**Corporate Officer**



## THE MUNICIPALITY OF THE VILLAGE OF LIONS BAY



# Fees Bylaw No. 497, 2016

## Office Consolidation

This document is an office consolidation of Fees Bylaw No. 497, 2016 with subsequent amendments adopted by the Village of Lions Bay.

All persons making use of this consolidation are reminded that it has no Council sanction, and that amendments have been incorporated only for convenience of reference, and that for all purposes of interpretation and application, the original bylaws should be consulted. The Village of Lions Bay will, in no event, be liable or responsible for damages of any kind arising out of the use of this consolidation.

This is not the official version of Fees Bylaw No. 497, 2016, as amended, nor is it admissible in a court of law. For such purposes, official certified copies of the original bylaws can be obtained from the Village Office or by contacting us at: [admin@lionsbay.ca](mailto:admin@lionsbay.ca)

### List of Amending Bylaws

Bylaw No.	Section	Description	Adopted
519	3	Deletes section 5.1.13	April 4, 2017
526	2.1	Amends schedule 1	May 5, 2017
530	2(a)	Adds metered parking fees to schedule 5	July 4, 2017
534	2.1	Replaces Schedules 1-10	December 19, 2017
544	2(a) 2(b)	Adds soil deposit and removal fees in schedule 2 Amends parking meter rates in schedule 5	May 11, 2018
547	2(a)-(c)	Amends text in Schedules 2 and 5	June 5, 2018
551	2(a)-(d) 3	Amends birthday party rental fees and non-profit rental fees in schedule 6 Deletes insurance costs from the table	September 18, 2018
554	2(a)-(f)	Amends text and fees in schedules 1, 2, 3, 5, 6	December 18, 2018

		and 7	
563	2(a)-(b)	Amends Extra Annual Parking Permit description and Parking Meters Fees in schedule 5	May 14, 2019
567			

## **Fees Bylaw No. 497, 2016**

A bylaw to provide for the imposition of fees.

**WHEREAS**, pursuant to the provision of the *Community Charter and the Local Government Act*, the Village of Lions Bay may impose municipal fees in respect of all or part of a service of the municipality, the use of municipal property, the exercise of authority to regulate, prohibit or impose requirements, or in respect of such other matters permitted by an enactment;

NOW THEREFORE the Council of the Village of Lions Bay in open meeting assembled enacts as follows:

### **Part 1 – CITATION:**

1.1 This Bylaw may be cited for all purposes as "Fees Bylaw No. 497, 2016".

### **Part 2 – SEVERABILITY:**

2.1 If a portion of this bylaw is held invalid by a Court of competent jurisdiction, then the invalid portion must be severed and the remainder of this bylaw is deemed to have been adopted without the severed section, subsection, paragraph, subparagraph, clause or phrase.

### **Part 3 – FEES AND CHARGES**

3.1 The municipality hereby imposes the fees for the provision of services and information as specified in Schedules 1 to 10 inclusive, which are attached hereto and form part of this bylaw.

#### **Schedules**

Schedule 1: General Administration

Schedule 2: Development, Land and Building Services

Schedule 3: Engineering and Public Works

Schedule 4: Animal Control & Licencing

Schedule 5: Traffic & Parking Fees

Schedule 6: Community Facility Rentals

Schedule 7: Filming

Schedule 8: Fire Rescue / Emergency Permits & Fees

Schedule 9: Memorials and Dedications

Schedule 10: General

- 3.2 Fees imposed under this bylaw for the provision of services or information apply instead of any fees imposed under other bylaws for the same services or information, in the event of any conflict between this bylaw and any other bylaw.

#### **Part 4 – REPEAL**

- 4.1 The following bylaws are hereby repealed:

1. Security Alarm System Regulation Bylaw No. 272, 1997;
2. Fees and Charges Bylaw No. 462, 2014;
3. Repeal of Prior Fees and Charges Bylaw No. 465, 2014;
4. Fees and Charges Amendment Bylaw No. 480, 2014; and
5. Fees and Charges Amendment Bylaw No. 490, 2015.

#### **Part 5 – CONSEQUENTIAL AMENDMENTS**

- 5.1 The following bylaws are hereby amended as follows:

1. Water Rates and Regulation Bylaw No. 2, 1971, as amended:
  - (a) Section 4 is amended to read: "Fees for services that may be or are provided under this Bylaw shall be payable as set out in Fees Bylaw No. 497, 2016, as amended"; and
  - (b) Schedule A is amended by deleting section 2, Connection Charges.
2. Village of Lions Bay Sewer Bylaw #101, 1984, as amended:
  - (a) Section 3 is amended by striking the heading and substituting therefore the heading "Fees";
  - (b) Section 3 is further amended by deleting the existing wording and substituting therefore: "Fees for services that may be or are provided under this Bylaw shall be payable as set out in Fees Bylaw No. 497, 2016, as amended";
  - (c) Section 17 is hereby renumbered as Section 18; and
  - (d) The following is hereby inserted as Section 17:

"17. The tie-in of the building sewer shall be made into a wye at the property line. The owner shall be required to install this wye. A plug shall be inserted into the upper end of the wye to prevent any flow into the sewer system. After the acceptance of the house plumbing by the building inspector and after the building sewer from the wye to the house has been tested successfully, the plug shall be removed in the presence of a representative of the Village. The wye branch shall then be plugged and the excavation backfilled with suitable material. Under no

circumstances shall the building sewer be used for drainage purposes during construction.

(e) Schedule A is hereby deleted.

3. Subdivision Bylaw No. 141, 1985, as amended:

(a) Section 5 is amended to read: "Fees for services that may be or are provided under this Bylaw or Development Application Procedures and Fees Bylaw No. 431, 2011, as amended, shall be payable as set out in Fees Bylaw No. 497, 2016, as amended. These fees shall be in addition to any fees prescribed under the *Land Title Act*, RSBC 1996, Chapter 250".

4. Lions Bay Soil and Material Deposit Bylaw No. 157, 1987:

(a) Section 6 is amended to read: "Fees for services that may be or are provided under this Bylaw shall be payable as set out in Fees Bylaw No. 497, 2016, as amended".

5. Village of Lions Bay Blasting Bylaw No. 170, 1988:

(a) Section 5 is amended to read: "Fees for services that may be or are provided under this Bylaw shall be payable as set out in Fees Bylaw No. 497, 2016, as amended".

6. Building Regulation Bylaw 234, 1994:

(a) The heading for Section 21 is hereby amended by adding the words: "and Fees" to the word: "Schedules";

(b) The existing Section 21 is hereby renumbered as Section 21(b);

(c) The following shall be inserted as Section 21(a): "Fees for services that may be or are provided under this Bylaw shall be payable as set out in Fees Bylaw No. 497, 2016, as amended"; and

(d) Schedule D, Village of Lions Bay Permit Fees, is hereby deleted.

7. Animal Control and Licencing Bylaw No. 461, 2014:

(a) All references in Sections 5, 11 and 12 to Village of Lions Bay Fees and Charges Bylaw No. 462, 2014 are hereby deleted and replaced with references to Fees Bylaw No. 497, 2016, as amended.

8. Village of Lions Bay Trees, Views and Landscapes Bylaw No. 393, 2007, as amended:

(a) The reference in Section 3.4.1.4 to Fees and Charges Bylaw No. 462, 2014 is hereby replaced with a reference to Fees Bylaw No. 497, 2016, as amended.

9. Traffic and Parking Bylaw No. 413, 2009, as amended:

(a) The following is inserted as Section 35: "Fees for services that may be or are provided under this Bylaw shall be payable as set out in Fees Bylaw No. 497, 2016, as amended".

10. Fire Bylaw No. 428, 2011, as amended:

- (a) Section 53 is hereby renumbered as Section 54;
- (b) The following is hereby inserted as Section 53: "Additional fees for services that may be or are provided under this Bylaw shall be payable as set out in Fees Bylaw No. 497, 2016, as amended".
- (c) Appendix B is hereby deleted.

11. Development Application Procedures and Fees Bylaw No. 431, 2011, as amended:

- (a) All references in Sections 3 and 12 to Village of Lions Bay Fees and Charges Bylaw No. 462, 2014 are hereby deleted and replaced with references to Fees Bylaw No. 497, 2016, as amended.

12. Village of Lions Bay Outdoor Water Use Bylaw No. 484, 2015:

- (a) The reference in Section 4 of Schedule B to the Village of Lions Bay Fees and Charges Bylaw is hereby deleted and replaced with a reference to Fees Bylaw No. 497, 2016, as amended.

**Part 6 – EFFECTIVE DATE**

6.1 This bylaw shall come into force and take effect on January 1, 2017.

<b>READ A FIRST TIME</b>	<b>December 15, 2015</b>
<b>READ A SECOND TIME</b>	<b>December 15, 2015</b>
<b>READ A THIRD TIME</b>	<b>December 6, 2016</b>
<b>ADOPTED</b>	<b>December 20, 2016</b>

\_\_\_\_\_  
**Mayor**

\_\_\_\_\_  
**Corporate Officer**

**Certified a true copy of Fees  
Bylaw No. 497, 2016 as adopted.**

\_\_\_\_\_  
**Corporate Officer**

**SCHEDULE 1 – GENERAL ADMINISTRATION**

<b>Description</b>	<b>Fee</b>
Freedom of Information and Protection of Privacy Act Fees payable for requests made under the <i>Freedom of Information and Protection of Privacy Act and Regulation</i>	As per <i>Freedom of Information and Protection of Privacy Act and Regulation</i> , Schedule of Maximum Fees.*  *Note: For commercial applicants, for each service listed, the actual cost to the public body of providing that service shall be determined at the rate of \$10.00 per ¼ hour.
Locating, retrieving, producing or preparing records for disclosure	\$7.50 per ¼ hour
Shipping documents	Actual cost of shipping method chosen by applicant
Photocopying / printing / scanning documents <del>(FOI)</del> (Fee applies to 8 pages and more)	\$0.25 per page (black & white) \$1.00 <del>65</del> per page (colour)
Copy of house plans	\$75 plus actual costs of printing copy
Tax certificates (no charge for property owners)	\$30 each
Property title search from Land Title Office	\$25
<b>Property Tax and Utility Information:</b>	
Property Tax Certificate	\$30 (no charge to owners)
Reprinted Property Tax/Utility Fee Notice	\$20 (no charge to owners)
Property Title Search from Land Title Office	\$25
Property Ownership Transfer Tax on tax sale properties	As per Land Title Office fees
Property Tax Sale, registration and removal of Liens	As per Land Title Office fees
Reprinted tax / utility documents	\$20 per document (no charge for property owner)
Lions Bay Flag	\$100
Lions Bay Historical Society Booklet	\$10
Lions Bay stickers	\$2
Community Garden	\$25 per plot annually
<del>Permit under Outdoor Water Use Bylaw No. 484</del>	<del>\$40</del>
Biodegradable Organics Bags	\$4 plus GST

[Amended by Bylaw No. 554]

**SCHEDULE 2 – DEVELOPMENT, LAND AND BUILDING SERVICES**

<b>Description</b>	<b>Fee</b>
Official Community Plan Amendment (Residential)	\$2,500 or \$3,000 if combined with rezoning application, plus actual advertising cost, plus 10% thereof, with \$700 refunded if no public hearing.
Zoning Bylaw Amendment (Residential)	\$2,500, plus actual advertising cost, plus 10% thereof, with \$700 refunded if no public hearing.
OCP or Zoning Amendment (Non-Residential)	\$2,500 for first 465 m2 of building area plus \$500 for each additional 100 m2 or part thereof.
Request for Preliminary Review of Subdivision Development Proposal (Initial Meeting)	\$250
Request for Preliminary Review of Subdivision Development Proposal (Preliminary Review Process)	\$2,000 plus \$300 for each additional lot after first lot created. Additional expenses may apply per Bylaw No. 431, as amended.
Land Subdivision (Final Approval) Application	\$1,000 plus \$200 for each additional lot or strata lot after first lot or strata lot created
Development Permit	\$1,200
Development Variance Permit	\$750
Temporary Use Permit Application Fee (non-refundable)	\$250
Inspection fee for Temporary Use Permit for Short Term Rentals	\$250 – Includes initial inspection plus one additional inspection. Each additional inspection \$75/hour
Temporary Use Permit	\$1,000 plus \$750 for renewal application
Board of Variance (non-refundable)	\$500
Building Permit Application Fee (non-refundable)	\$100
Pre-Building Permit Application Consultation Fee	\$75 per hour
Building Permits (based on value of construction):	
Minimum fee (<\$1,000)	\$150
• \$1,000-\$9,999	\$150 plus \$12 per \$1,000
• \$10,000-\$49,999	\$250 plus \$11 per \$1,000
• \$50,000-\$99,999	\$300 plus \$10 per \$1,000
• \$100,000 and greater	\$400 plus \$9 per \$1,000
<i>The minimum fee for a building permit for a <u>new dwelling</u> shall be not less than the fee for a building having a value of \$300,000 (\$3,100.00).</i>	<i>Building permits are valid for a maximum of two years, at which time they expire. A permit may be renewed once only in accordance with Building Bylaw No. 234, 1994, as amended.</i>

Permit renewals <i>A building permit is valid for a maximum of two years, at which time it expires. A permit may be renewed <u>only</u> once <u>only</u> in accordance with Building Bylaw No. 234, 1994, as amended.</i>	75% of current Building Permit Fee at time of renewal
Damage Deposit (based on value of construction): <ul style="list-style-type: none"> <li>• Up to \$10,000</li> <li>• Up to \$50,000</li> <li>• Up to \$250,000</li> <li>• Greater than \$250,000</li> </ul> <p><i>A Damage Deposit is required when taking out a Building Permit or a Demolition Permit, or when performing other works requiring an engineer's certificate or heavy machinery on Village highways. An occupancy certificate is needed with respect to a Building Permit and an inspection by the Public Works Manager is required prior to a Damage Deposit being returned.</i></p>	\$500 \$1,500 \$3,000 \$5,000
Demolition Permit fees: Accessory building or structure All other buildings	\$100 per building \$1,000 per building
Change of Address	\$500
Blasting permit application fee	\$250
Secondary suite surcharge	40% of Annual Utility Billing
Secondary suite inspection fee	Initial inspection plus one additional inspection free. Each additional inspection \$75/hour
Tree cutting permit applications	\$75 (non-refundable)
Lawn sprinkling permit application	\$40
Driveway Crossing Permit	\$100
Plumbing Fee	\$100 plus \$25 for each fixture
Fire Sprinkler Permit: New construction	\$125 plus \$2.50 per sprinkler head
Renovations requiring sprinkling	\$250 plus \$2.50 per sprinkler head
Alternate Solutions: Building Inspector (additional charge if required on more involved issues per Building Bylaw) Code Professional (additional charge if required on more involved issues per Building Bylaw)	\$75 per hour (\$225 minimum) Actual cost plus 10%
Extra Inspections (after second inspection)	\$100 per inspection
Pre-inspection of a building being moved within the Village	\$500 per structure

When a permit is surrendered and cancelled before any construction begins and the owner has provided written notification that the project will not be undertaken	50% of the building permit fee paid and 100% of the deposit shall be refunded to the property owner.
Plan review for building design modifications	\$75 per hour
Transfer of building permit	\$125
Unregistered Encroachment Agreement	\$400
Review & registration of Section 219 covenant placed according to the Land Title Act	\$400
For discharge of Section 219 covenant placed according to the Land Title Act	\$100
An application for the soil deposit or removal of more than 27 cubic meters (m <sup>3</sup> ) and up to 45 m <sup>3</sup> of in any one year.	\$100 (non-refundable)
Any application for the soil deposit or removal of more than 45 m <sup>3</sup> and up to 90 m <sup>3</sup> in any one year.	\$200 (non-refundable)
Any application for the soil deposit or removal of more than 90 m <sup>3</sup> and up to 180 m <sup>3</sup> in any one year.	\$400 (non-refundable)
Any application for the soil deposit or removal of more than 180 m <sup>3</sup> in any one year.	\$600 (non-refundable)

*\*NOTE: All permits include one inspection. All security deposits are refunded, less costs incurred, after Final Inspection*

[Amended by Bylaw No. 547]

[Amended by Bylaw No. 554]

**SCHEDULE 3 – ENGINEERING & PUBLIC WORKS**

Description	Fee
Water service connection fees	\$600 plus actual costs
Sewer service connection fees	\$600 plus actual costs
Locate water leak / water shutoff valve on private property / turn water on or off	Regular hours (7 am to 3 pm): \$75 per hour or portion, plus equipment costs  After hours: \$115 per hour (3 hour minimum)
Locate Sewer Pipes / Connection	Regular hours (7 am to 3 pm): \$75 per hour or portion, plus equipment costs  After hours: \$115 per hour (3 hour minimum)
Public Works hourly rate per worker (regular business hours)	\$75 per hour
Emergency after hours call-out	\$115 per hour (3 hour minimum)
<del>Bear Smart garbage container</del>	<del>\$175</del>

[Amended by Bylaw No. 554]

**SCHEDULE 4 – ANIMAL CONTROL & LICENCING**

Description	Fee
Annual licence for altered dog	\$30 if paid before <del>March 31<sup>st</sup></del> <u>February 28<sup>th</sup></u> or within 30 days of becoming a new resident or obtaining a new dog  <del>\$4560 for all othersthereafter</del>
Annual licence for unaltered dog	\$60 if paid before <del>March 31<sup>st</sup></del> <u>February 28<sup>th</sup></u> or within 30 days of becoming a new resident or obtaining a new dog  \$90 <del>for all othersthereafter</del>
Rebate of annual licence fee for dog altered subsequent to licence being paid	\$30
Tag replacement	\$10

**SCHEDULE 5 – TRAFFIC & PARKING FEES****FEES FOR PERMITS**

Description	Fee
Extra <u>annual-resident</u> parking permit – obtainable by a resident, allows parking in “permit parking” zones	<del>\$40-per-year</del> (1 free permit for each Lions Bay Fire Rescue member, Search and Rescue member, Non-Resident Volunteer member of a Lions Bay committee, and Village staff member, not otherwise receiving free permits with a property tax notice, and two free permits within 30 days of becoming a new property owner)
Worksite parking permit for building-site workers for three months – obtainable by homeowners or construction managers on projects, allows parking in “permit parking” zones	\$40 for three months
Film company parking Film worker’s personal vehicle Film company truck	Refer to Schedule 7: Filming
Daily parking permit – obtainable by residents, allows parking for one day for guests	\$0 per vehicle
Operating a vehicle or combination of vehicles in excess of 63,500 kgs licensed gross vehicle weight on highway	\$35 per vehicle load
Monthly fee for parking of extraordinary vehicle or trailer on Village property, with permission of Council Extraordinary vehicle or trailer under 6.1 metres in length Extraordinary Vehicle or trailer 6.1- 6.5 metres in length Extraordinary Vehicle or trailer 6.5-7.7 metres in length Extraordinary Vehicle or trailer over 7.7 metres in length	\$80 per month/\$960 per year \$80 per month/\$960 per year \$110 per month/\$1,320 per year \$135 per month/\$1,620 per year
Daily fee for placing dumpster/bin or construction material on highway	\$35
Where work is performed by the Village in cleaning up spills or deposits on a highway, or remediating damage to a highway, fees per hour of work will be charged as shown below, to cover staff time plus use of Village equipment. Actual extra costs to the Village for items such as fuel, materials, turf, plants, storage in commercial premises, and equipment rentals required for clean-up or remediation work, will also be charged, based on invoices or receipts for materials or equipment. If work is performed by a commercial contractor under contract to the Village, the actual cost of the contract will be charged, in addition to a \$150 flat fee for Village administration time.	
Clean-up of spills or deposits on highway	Regular hours (7 am to 3 pm): \$75 per person per hour or portion, plus equipment costs After hours: \$115 per hour (3 hour minimum)
Remediation of damage to highway	Regular hours (7 am to 3 pm): \$75 per person per hour or portion, plus equipment costs After hours: \$115 per hour (3 hour minimum)

**FEES FOR REMOVALS FROM HIGHWAY**

Where vehicles, obstructions and chattels are removed from a highway, fees per hour of work are charged for removals and towing. If these items are not claimed and must subsequently be advertised and sold at auction, a flat fee is charged to cover the cost of storage, administration time and advertising.	
Removal of chattels, obstructions and things seized from highway	Regular hours (7 am to 3 pm): \$75 per hour or portion, plus equipment costs After hours: \$115 per hour (3 hour minimum) plus \$50 per day fee for storage
Towing of vehicle	Actual cost plus Regular hours (7 am to 3 pm): \$75 per person per hour or portion, plus equipment costs After hours: \$115 per person per hour (3 hour minimum)
Sale of chattels, obstructions and things seized from highway	\$1,000 flat fee

**FEES FOR METERED PARKING**

Description	Fee
Lions Bay Beach Park Lot (adjacent to train tracks) <i>*Permit holders NOT exempt from fee.</i>	\$4/hour or portion thereof up to a maximum of \$32 within a calendar day
Kelvin Grove Beach Park Lot <i>*Permit holders exempt from fee.</i>	\$3/hour or portion thereof up to a maximum of \$24 within a calendar day
Sunset Trailhead Lot <i>*Permit holders exempt from fee.</i>	\$2/hour or portion thereof up to a maximum of \$16 within a calendar day

[Amended by Bylaw No. 530]

[Amended by Bylaw No. 544]

[Amended by Bylaw No. 547]

[Amended by Bylaw No. 554]

[Amended by Bylaw No. 563]

**SCHEDULE 6 – COMMUNITY FACILITY RENTALS**

Rental fee includes use of kitchen, tables, chairs and music player.

Description	Fee*
<b>Hall Rental for private events:</b> Examples of use: dances, weddings, ceremonies, etc.  <b>Prior day hall rental set-up fee (subject to availability):</b>	<del>\$220-150</del> if liquor being served \$110 if no liquor being served \$55  <i>If event occurs over multiple days, the rate above applies per day</i>
<b>Hall Rental for children’s Birthday parties</b>	\$50 per event (maximum 4 hours)
<b>Hall Rental for program use:</b> Examples of use: programs contracted through the Village.	20% of revenue per session, or minimum payment amount of \$40.00 per month, whichever is greater.
<b>Hall Rental for non-profit groups:</b> Community group activities, meeting a maximum of once per week to a maximum of 12 hours per month.  Additional fee for events exceeding the maximum  Non-profit community groups (single event)	\$25 per month  \$25 per event  \$25 per event  <i>This is the fee rate applicable to requests for fee waivers under the Municipal Grant program. Youth must be supervised by an adult while using Village facilities.</i>
<b>Meeting Room Rental (accommodates up to 10 persons):</b> Council Chambers (former library)	\$10 per hour (2 hour minimum)
<b>Rental of Tennis Courts for Program Use</b> (max 2 hours per day)	20% of revenue per session or minimum payment amount of \$40.00 per month, whichever is greater.
<b>Cancellation Fee:</b>	Refer to policy: POL-1408 Refunds & Cancellations
<b>Staff Assistance (assemble &amp;/disassemble equipment on-site – excluding stage):</b>	\$50 set up \$50 take down
<b>Stage (assemble &amp;/disassemble):</b>	\$100
<b>Sound System:</b>  <i>No offsite rental for stage and sound equipment.</i>	\$50

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<b>Equipment Rental Rates (for off-site use):</b> Table rental Chair rental (No outside use of chairs without explicit written authorization)  <i>Equipment not returned within 72 hours will result in forfeiture of deposit.</i>	\$10 each \$1 each (\$10 minimum)
<b>Deposit for facility / equipment rental:</b>	\$100 Refundable in accordance with policy POL-1407 Community Facility Rentals. <i>Note: Liability for damage or loss is not limited to the deposit amount.</i>

*\*plus deposit*

[Amended by Bylaw No. 551]  
[Amended by Bylaw No. 554]

**SCHEDULE 7 – FILMING [to be reviewed with filming policy]**

<u>Description</u>	<u>Fee</u>
Filming application fee (non-refundable)	\$250
Filming fee (per day)	\$300
Damage deposit	\$5000 (refundable)
Filming in VOLB parks (per day)	\$500
Parking fees:	
Car	\$25/day
Truck	\$100/day
Filming Liaison	\$40/hour
Municipal Services	\$80/hour
Fire Rescue Services	\$100/hour
Fireworks (pyrotechnics) permit	\$100

[Amended by Bylaw No. 554]

<u>Description</u>	<u>Fee</u>
Filming application fee (non-refundable)	\$300
Filming fees (per day):	
Residential Zone	\$1,000
Commercial Zone	\$500
Additional Location Fees (per day):	
Undeveloped Municipal Land	\$500
Tennis Courts, Wade Park, Trails (eg: Centennial, Pride, Marjorie Meadows)	\$750
Lions Bay Beach Park, Kelvin Grove Beach Park, Brunswick Beach Park/Esplanade	\$1,000
Broughton Hall	\$500
Council Chambers	\$250
Fire Hall (Requires at least one member of LBFR present - Interruptions possible)	\$100/hour
LBFR Training Facility (Requires LBFR personnel on site – minimum number depends on filming activity)	\$100/hour per person
Temporary closure of road (total blockages generally less than 10 minutes at a time)	\$80/hour (plus costs of certified traffic control company at applicant's expense)
	\$500
Parking fees:	
Car	\$30/day (Completely Electric Vehicles \$0/day)
Truck (includes generator)	\$120/day (Solar/Battery Generators \$0/day)
Filming Liaison	\$80/hour (regular hours)
Public Works Services	\$80/hour per person (regular hours)
Village Manager	\$160/hour (regular hours)
Lions Bay Fire Rescue Services (LBFR)	\$500/hour

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<u>Extraordinary Services (Municipal staff call outs outside regular hours or requirement to hire)</u>	<u>Hourly rate x 1.5 or contractor's costs x 1.25</u>
<u>Fire Hydrant Use (only to be operated by Municipal employees)</u>	<u>\$80 per hour - regular hours (7am – 3pm)</u> <u>\$120 per hour (3 hours minimum) outside regular hours</u>
<u>Damage deposit</u>	<u>\$10,000 (refundable)</u>

**SCHEDULE 8 – FIRE RESCUE / EMERGENCY PERMITS & FEES**

Description	Fee
Fire investigation	\$200 per person per hour or portion plus actual site security costs
Fire Safety Plan Review	\$100
Inspection of buildings other than routine inspections (after 2 <sup>nd</sup> inspection) under the Fire Services Act	\$100
Inspection of buildings other than routine inspections (after 3 <sup>rd</sup> and subsequent inspection) under the Fire Services Act	\$200
Inspections – special request	\$150
Special events fire permit/inspection	\$100 per person per hour or portion thereof
Fireworks Permit <a href="#">(valid only Oct 31 &amp; New Years Eve)</a>	\$50
Cost recovery for work performed in removal or remediation of a fire hazard at or around a building or premises	<p>\$100 per person per hour or portion thereof to cover time plus use of municipal equipment.</p> <p>Actual extra costs for items such as equipment rentals required for clean up or remediation work will also be charged, based on invoices or receipts for materials or equipment.</p> <p>Actual costs of a commercial contractor under contract to the municipality will be charged in addition to a flat fee of \$150 for municipal administration.</p>

*\*Note: all permits include one inspection*

**SCHEDULE 9 – MEMORIALS AND DEDICATIONS**

<b>Description</b>	<b>Fee</b>
Bench Dedication	\$1,500 - \$1,750 includes cost and installation of bench, cost and installation of plaque and ongoing maintenance.

**SCHEDULE 10 – GENERAL**

Description	Fee
Boat space rental permit at Lions Bay Beach Park	<p>\$125 per calendar year if paid by March 31<sup>st</sup>                      \$150 if paid after March 31<sup>st</sup>, but before May 31<sup>st</sup>                      (after May 31<sup>st</sup>, boat will be seized and removed)</p> <p><i>*If a new boat space is obtained after March 31<sup>st</sup>, the \$150 permit fee shall be prorated based on the number of months left in the year. No refunds will be issued for permits terminated during the year.</i></p>
Seizure and removal of boat from boat space rental area for failure to pay annual fee by June 1 <sup>st</sup> .	\$100 plus \$20/day for storage
Sale of seized boat if unclaimed for 120 days after seizure.	\$500 flat fee

## VILLAGE OF LIONS BAY

### Incoming Correspondence - November 19, 2019

#### *General Correspondence:*

G1: Letter re: UBCM Member Local Governments	Page 1
G1: Letter re: Notification Regarding Update to Metro 2040	Page 3
G3: Letter re: Establishment of an Intergovernmental Advisory Committee	Page 25
G4: Letter re: Metro Vancouver Housing 10-Year Plan	Page 27

#### *Resident Correspondence:*

R1: Karl Buhr - re: Village Update	Page 29
R2: Ian Mackie re: Air Quality in Lions Bay	Page 31

THE CITY OF VICTORIA



OFFICE OF THE MAYOR

November 12, 2019

Dear UBCM Member Local Governments,

I am writing on behalf of Victoria City Council, requesting favourable consideration of these resolutions and that you share this support with the Provincial Government for the following resolutions. Unfortunately, despite the fact that we are have an opioid crisis across the Province, these resolutions did not make it onto the floor of the UBCM at this year's convention as the resolutions session ran out of time.

## (B171) Safer Drug Supply to Save Lives

Whereas It has been two years since BC declared a public-health emergency due to increased overdoses, yet the death toll for those consuming substances continues to rise due to an unpredictable and highly-toxic drug supply;

And whereas people with opioid use disorder, a chronic relapsing medical condition, are at high risk of overdose- related harms including death and an estimated 42,200 people inject toxic substances in British Columbia, it is not possible for the treatment system to rapidly increase services fast enough to manage this number of people as "patients" within a medical treatment model given the many challenges in achieving and retaining the people on opioid use disorder treatment, people at risk of overdose in British Columbia do not have access to a safer alternative to the unpredictable, highly-toxic drug supply:

Therefore be it resolved that in an effort to save lives and reduce harm due to an unpredictable and highly-toxic drug supply, and as part of a holistic response to the public-health emergency, including prevention, treatment, and recovery, that the Province of British Columbia work with local communities, Health Authorities across the Province, the Ministry of Mental Health and Addictions, and the Ministry of Health ensure that people at risk of overdose harm have access to safer alternatives.

## (B172) Observed Inhalation Sites for Overdose Prevention

Whereas British Columbia is currently experiencing an unprecedented public health emergency due to an unpredictable and highly-toxic drug supply, and smoking or inhalation is the second most common mode of consumption among all people who have died from a suspected illicit drug overdose and the most common mode of consumption among men and those between the ages of 15 and 29;

And whereas observed consumption services (i.e. supervised consumption services and overdose prevention services) are evidence-based harm reduction approaches shown to reduce overdose-related harm, and there is not adequate access to observed consumption services that provide space for inhalation where communities are facing crisis:

Therefore be it resolved that to ensure that people at risk of overdose across BC have access to observed consumption services that provide space for inhalation, that the Province of British Columbia fund and work through local communities, Health Authorities across the Province, the Ministry of Mental Health and Addictions and the Ministry of Health to provide these services as part of a holistic response to the public-health emergency, including prevention, treatment, and recovery.

We eagerly look forward to your support on this matter.

Sincerely,



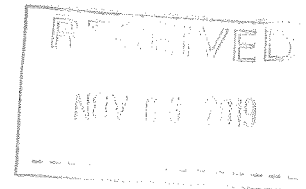
Lisa Helps  
Victoria Mayor

Office of the Chair  
Tel. 604 432-6215 Fax 604 451-6614

File: CR-12-01  
Ref: RD 2019 Oct 4

NOV 04 2019

Mayor Ron McLaughlin and Council  
Village of Lions Bay  
400 Centre Road PO Box 141  
Lions Bay, BC V0N 2E0



Dear Mayor McLaughlin and Council:

**Re: Notification Regarding Update to Metro 2040**

At its October 4, 2019 regular meeting, the Board of Directors of the Metro Vancouver Regional District (Metro Vancouver) adopted the following resolutions:

*That the MVRD Board:*

- a) approve the updated Metro 2050 Engagement Plan as outlined in the report dated August 15, 2019, titled "Metro 2050 Engagement Plan";*
- b) in alignment with the requirements of Subsection 434(3) of the Local Government Act, direct staff to include a Regional Public Hearing as part of the engagement process for Metro 2050;*
- c) as per Subsection 433(4) of the Local Government Act, notify affected local governments and the Minister of Municipal Affairs and Housing of the initiated update to Metro 2040; and*
- d) direct staff to offer each member jurisdiction the opportunity to co-host a public information meeting on Metro 2050 aligned with respective Council presentations.*

*Metro Vancouver 2040: Shaping our Future (Metro 2040)*, the regional growth strategy, is the region's collective vision for how growth will be managed to support the creation of complete, connected and resilient communities; protect important lands; and support the efficient provision of urban infrastructure like transit and utilities. Since its adoption in 2011, *Metro 2040* has been a strong and effective tool for managing growth in the region.

Metro Vancouver is updating the regional growth strategy building on its strengths to: extend the time horizon to the year 2050; integrate with *Transport 2050*, TransLink's new Regional Transportation Strategy; consider emerging external forces, such as climate change; and improve upon specific policy areas. Metro Vancouver is committed to working in close collaboration with its member jurisdictions, TransLink, the Province, adjacent regional districts, and other regional agencies throughout the update to *Metro 2040*. The updated strategy, which is targeted for completion in 2022, will be called *Metro 2050*.

32936465

By way of this letter, Metro Vancouver is providing formal notification of this update to all affected local governments and agencies per Subsection 433(4) of the *Local Government Act*. A brief summary of the *Metro 2050* development process as well as key elements of planned engagement with member jurisdictions are provided in the report and engagement plan enclosed.

The approval of the *Metro 2050* engagement plan, sets the stage for conversations about the future of growth management in the region between Metro Vancouver, member jurisdictions and other levels of government and regional agencies. There will be many opportunities for you to help shape the region's shared vision and the directions we pursue together to support a growing and livable region.

Metro Vancouver staff would be pleased to present at one of your upcoming Council or Board meetings to provide an overview of the scope of *Metro 2050* and discuss the opportunities for engagement. If this is of interest, we would ask that your Planning Director or equivalent contact Heather McNell, Director, Regional Planning and Electoral Area Services by phone at 604-436-6813 or by email at [Heather.McNell@metrovancover.org](mailto:Heather.McNell@metrovancover.org).

The Metro Vancouver Board values input from all affected local governments and agencies throughout the update to the regional growth strategy. More information on the process and additional details on the scale and scope of the update can be found at [www.metrovancover.org/metro2050](http://www.metrovancover.org/metro2050).

Yours sincerely,



Sav Dhaliwal  
Chair, Metro Vancouver Board

SD/NC/js

cc: Peter DeJong, Chief Administrative Officer, Village of Lions Bay

Encl: Report dated August 15, 2019, titled "*Metro 2050* Engagement Plan" (Doc# 31245904)

32936465

To: Regional Planning Committee

From: Sean Tynan, Acting Senior Planner, Regional Planning  
Lucy Duso, Policy Coordinator, External Relations

Date: August 15, 2019 Meeting Date: September 13, 2019

Subject: **Metro 2050 Engagement Plan**

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### RECOMMENDATION

That the MVRD Board:

- a) approve the updated *Metro 2050* Engagement Plan as outlined in the report dated August 15, 2019, titled "*Metro 2050* Engagement Plan";
  - b) in alignment with the requirements of Subsection 434(3) of the *Local Government Act*, direct staff to include a Regional Public Hearing as part of the engagement process for *Metro 2050*;
  - c) as per Subsection 433(4) of the *Local Government Act*, notify affected local governments and the Minister of Municipal Affairs and Housing of the initiated update to *Metro 2040*; and
  - d) direct staff to offer each member jurisdiction the opportunity to co-host a public information meeting on *Metro 2050* aligned with respective Council presentations.
- 

### PURPOSE

The purpose of this report is to seek MVRD Board approval of the updated *Metro 2050* Engagement Plan, to seek MVRD Board direction on the inclusion of a Regional Public Hearing in the engagement process, and to address a *Local Government Act* requirement to notify affected local governments of the process to update *Metro 2040*.

### BACKGROUND

At its meeting of April 5, 2019 the MVRD Board adopted the following resolutions:

*That the MVRD Board:*

- a) *initiate a comprehensive update to Metro Vancouver 2040: Shaping our Future;*
- b) *direct staff to prepare a Stakeholder Engagement Plan for the update to Metro Vancouver 2040: Shaping our Future for Board consideration; and*
- c) *authorize staff to partner with TransLink in its May to September 2019 'Vision and Values' public engagement process for the future of the region.*

On July 26, 2019, a report titled *Metro 2050* Engagement Plan dated June 14, 2019 was provided to the MVRD Board. The report sought to respond to resolutions b) and c) above by providing the *Metro 2050* Engagement Plan for Board consideration. At its July 26 meeting, the MVRD Board passed the following resolutions:

*That the MVRD Board refer to staff the following Amendment to the Main Motion to report back on the feasibility and implications of including more than one Regional Public Hearing:*

*"That the MVRD Board amend the Main Motion, in part b), by replacing the phrase "include a Regional Public Hearing", with the phrase "include three Regional Public Hearings with at least one located South of the Fraser"*

*Consider all three recommendations a) through c) in light of the discussion at the Board, including requests to clarify and potentially expand public engagement.*

This report is intended to address the July 26, 2019 MVRD Board resolutions and associated comments by providing additional opportunities for public input through the *Metro 2050* Engagement Plan and by identifying the feasibility and implications of additional Regional Public Hearings as part of the *Metro 2050* process.

## **METRO 2050 ENGAGEMENT PLAN**

### **Scope of Metro 2050**

The comprehensive update to *Metro 2040* will build on its strengths, extend the strategy's time horizon to the year 2050, integrate with the update to the Regional Transportation Strategy, improve current policy actions and address policy gaps.

Through implementation of the regional growth strategy, significant effort has gone into assessing performance, progress made, and implementation successes and challenges with the strategy's policies. Over 2019, Metro Vancouver is completing several policy reviews, each intended to take stock of *Metro 2040's* policy framework, identify gaps and policy options in response, and help shape the development of *Metro 2050*. These Policy Reviews include: Urban Centres and Frequent Transit Development Areas, Agriculture, Environment, Industrial and Mixed Employment Lands, Climate Change, Housing, Transportation, and Complete Communities.

Two additional policy areas have been identified as significant gaps in *Metro 2040*: climate action and equity. Staff will explore climate action and equity as lenses through which to view all regional growth strategy policies. In addition, the *Long-Range Growth and Transportation Scenarios*, completed in May 2019, provide an opportunity to test the resilience of *Metro 2040* policies to multiple futures. These scenarios also begin to address uncertainties such as global economic shifts and the impacts of technology and automation on population growth, employment and other areas. Other areas identified for updates were noted in the March 28, 2019 report to the Regional Planning Committee titled "Towards *Metro 2050*: Updating Metro Vancouver 2040: Shaping our Future" (see Reference 1).

Staff also intend to update the *Metro 2040* vision statement and include guiding principles in the update. This content will in part be informed through the joint engagement process with TransLink, which focuses on public input on 'vision and values' to inform planning for the future of the region.

While the update is comprehensive, the intent is to refine *Metro 2040* rather than to create a new regional growth strategy. Staff anticipate few changes to the overall goals and strategies of *Metro 2040*.

### Timeline and Phasing of Metro 2050

It will require approximately three years to develop *Metro 2050*. A description of phases and timing are included in the table below.

Phase 1: Review & New Ideas	Phase 2: Plan Development	Phase 3: Approvals
Q2 2019 to Q2 2020	Q3 2020 to Q2 2021	Q3 2021 to Q3 2022
Review <i>Metro 2040</i> to identify opportunities for improvement, develop an updated vision statement, and create guiding principles.	Refine and add detail to recommended policies and write draft <i>Metro 2050</i> content.	Communicate, refine, and seek approvals for <i>Metro 2050</i> .

### Requirements for Engagement

Updating *Metro 2040* requires a Type 1 Major Amendment, requiring acceptance from all affected local governments and triggering consultation requirements identified through Sections 434 and 450 of the *Local Government Act*. Section 434 specifies:

- (1) *During the development of a regional growth strategy,*
  - (a) *the proposing board must provide opportunity for consultation with persons, organizations and authorities that the board considers will be affected by the regional growth strategy, and*
  - (b) *the board and the affected local governments must make all reasonable efforts to reach agreement on a proposed regional growth strategy.*
  
- (2) *For the purposes of subsection (1) (a), as soon as practicable after the initiation of a regional growth strategy, the board must adopt a consultation plan that, in the opinion of the board, provides opportunities for early and ongoing consultation with, at a minimum, the following:*
  - (a) *its citizens;*
  - (b) *affected local governments;*
  - (c) *first nations;*
  - (d) *boards of education, greater boards and improvement district boards;*
  - (e) *the Provincial and federal governments and their agencies.*
  
- (3) *In adopting a consultation plan under subsection (2), the board must consider whether the plan should include the holding of a public hearing to provide an opportunity for persons, organizations and authorities to make their views known before the regional growth strategy is submitted for acceptance under section 436 [acceptance by affected local governments].*

In addition, Section 450 of the *Act* includes a requirement to establish an intergovernmental advisory committee.

The *Metro 2050* Engagement Plan describes a range of engagement opportunities for the audiences identified in the *Local Government Act*, and includes timing and methods for engagement with each. It also meets the requirement to establish an intergovernmental advisory committee and includes a Regional Public Hearing to provide a formal opportunity for input from the broader public.

The *Metro 2050* Engagement Plan also meets the requirements of Metro Vancouver's *Public Engagement Policy* in addition to the requirements of the *Local Government Act*.

#### **Requirement for Notification to Affected Local Governments**

Under Subsection 433(4) of the *Local Government Act*, as part of initiating a process to amend a regional growth strategy, the MVRD Board is required to give written notice to affected local governments and to the Minister of Municipal Affairs and Housing.

#### **RESPONSE TO BOARD DIRECTION TO EXPLORE ADDITIONAL PUBLIC ENGAGEMENT OPPORTUNITIES**

At its July 26, 2019 meeting, the MVRD Board directed staff to report back on the feasibility of holding three Regional Public Hearings with at least one hearing to be held south of the Fraser River.

#### **Multiple Public Hearings**

Staff have explored the feasibility of holding more than one Regional Public Hearing and have identified the following:

- The regional growth strategy bylaw adoption process can only include one Regional Public Hearing.
- It is feasible to adjourn a Regional Public Hearing and reconvene in a separate location on a different date. Five such sessions were held in 2010 as part of the public hearing for *Metro 2040*.
- A Regional Public Hearing requires quorum from the MVRD Board for each session. However, the MVRD Board can pass a resolution to lower quorum for a Regional Public Hearing. This could address potential scheduling challenges as well as reduce the costs associated with the Regional Public Hearing.
- In addition to reducing quorum, the MVRD Board can pass a resolution to delegate the responsibility to attend the Regional Public Hearing to a limited number of MVRD Board Directors.
- The Regional Public Hearing must occur after a complete draft of proposed changes to the regional growth strategy has been developed. This is anticipated to occur in Spring 2021.
- The timing of the Regional Public Hearing may not be ideal for receiving input as it occurs late in the planning process, when the regional growth strategy amendment has already been drafted. The Engagement Plan therefore includes other engagement opportunities for the public earlier in the process.

### **Additional Public Engagement Opportunities**

In July 2019, the Board directed staff to explore additional public engagement opportunities. Staff have updated the *Metro 2050 Engagement Plan* with the following public input opportunities all of which occur earlier in the planning process and would take place in 2020/ early 2021.

- **Metro 2050 Community Dialogues:** Staff propose to increase the number of public meetings in Phase 1, with at least one to be held south of the Fraser River. These meetings, titled “*Metro 2050 Community Dialogues*”, will be coordinated through the established Metro Vancouver Sustainability Breakfast Program. Additional public meetings can be considered for Phase 2 based on the level of public interest.

These dialogues would be run by staff, and provide an opportunity for elected officials from each sub-region to attend and participate.

- **Online Open Houses:** An additional online meeting is proposed for Phase 2 in early 2021. This is an opportunity for any interested Metro Vancouver resident to learn about and provide input into *Metro 2050* in a webinar format, one that has proven successful in previous engagement processes. Promotion of the webinar increases awareness of Metro 2050, and should also drive interest in the online feedback forms. These online open houses would be run by staff, with results reported to the Regional Planning Committee and Board.
- **Co-Hosted Public Information Meetings in Member Jurisdiction City Halls:** Metro Vancouver will invite each member jurisdiction to co-host a public information meeting (open house format) coinciding with the *Metro 2050* Council presentations or workshops offered to each member jurisdiction Council. This presents an opportunity for member jurisdictions to provide local context to participants and align with other local engagement activities, such as an Official Community Plan update. If the municipality co-hosts and helps to advertise the meeting, it is more likely that members of the public will attend. The timing of these meetings would coincide with the referral of the draft of *Metro 2050*, updated regional growth strategy for comment, anticipated for early 2021.

Staff would represent Metro Vancouver at these information meetings, and elected officials would be welcome, but not required, to attend.

### **Engagement on Equity in Regional Growth Management**

The Equity in Regional Growth Management Study is an initiative to explore how dimensions of equity intersect with regional growth management. Through a combination of research and engagement opportunities, the project is intended to identify equity considerations that are important and meaningful to Metro Vancouver residents. Engagement on the project will seek input from a diversity of equity-seeking groups as well as organizations representing equity-seeking populations. Staff intend to apply learnings from this initiative to *Metro 2050*.

## ALTERNATIVES

1. That the MVRD Board:
  - a) approve the updated *Metro 2050* Engagement Plan as outlined in the report dated August 15, 2019, titled "*Metro 2050* Engagement Plan";
  - b) in alignment with the requirements of Subsection 434(3) of the *Local Government Act*, direct staff to include a Regional Public Hearing as part of the engagement process for *Metro 2050*;
  - c) as per Subsection 433(4) of the *Local Government Act*, notify affected local governments and the Minister of Municipal Affairs and Housing of the initiated update to *Metro 2040*; and
  - d) direct staff to offer each member jurisdiction the opportunity to co-host a public information meeting on *Metro 2050* aligned with respective Council presentations.
  
2. That the MVRD Board:
  - a) approve the updated *Metro 2050* Engagement Plan as outlined in the report dated August 15, 2019, titled "*Metro 2050* Engagement Plan";
  - b) in alignment with the requirements of Subsection 434(3) of the *Local Government Act*, direct staff to include a Regional Public Hearing as part of the engagement process for *Metro 2050* and provide direction that the Regional Public Hearing should be reconvened in three locations with at least one location south of the Fraser River;
  - c) as per Subsection 433(4) of the *Local Government Act*, notify affected local governments and the Minister of Municipal Affairs and Housing of the initiated update to *Metro 2040*; and
  - d) direct staff to offer each municipality the opportunity to co-host a public information meeting on *Metro 2050* aligned with respective Council presentations.
  
3. That the MVRD Board:
  - a) as per Subsection 433(4) of the *Local Government Act*, notify affected local governments and the Minister of Municipal Affairs and Housing of the initiated update to *Metro 2040*; and
  - b) provide alternate direction to staff regarding the *Metro 2050* Engagement Plan.

## FINANCIAL IMPLICATIONS

If the MVRD Board chooses Alternative 1, most financial implications are in the form of Metro Vancouver staff time, with substantive work to be undertaken by staff from Regional Planning and External Relations.

In 2019, the engagement activities identified in the *Metro 2050* Engagement Plan can be accommodated within the Board-approved 2019 Regional Planning budget.

In 2020, staff anticipate that the engagement activities will cost approximately \$40,000, including venue rental and catering, advertising, communications materials. This includes an estimate of \$15,000 for five Community Dialogues.

In 2021, the cost associated with public engagement may vary substantially based on the number of public meetings and the format of the Regional Public Hearing. The public information meetings would need to be added into the five-year financial plan for 2021 Regional Planning budget, and will cost in the range of \$3,000 to \$6,000 per meeting depending on venue rental, newspaper advertising costs, and anticipated scale. The cost of a single Regional Public Hearing is in the range of \$45,000 to

\$60,000, including MVRD Board remuneration, catering, advertising and other associated costs. The total costs will need to be confirmed through the 2021 budget.

If the MVRD Board chooses Alternative 2, there would be a cost of approximately \$40,000 for 2020 as identified in Alternative 1. In addition, there would be a cost of between \$110,000 and \$160,000 associated with three sessions of the Regional Public Hearing that would need to be considered in the 2021 budget. As with Alternative 1, the 2021 budget would also need to include any public information meetings with a potential cost between \$3,000 and \$10,000 per meeting depending on venue rental, newspaper advertising, and anticipated scale.

Under Alternative 3, staff would need to identify financial implications associated with additional direction from the MVRD Board.

Under both Alternative 1 and Alternative 2, the cost of the Regional Public Hearing could be higher or lower depending on the length of the public hearing and size of quorum.

### **SUMMARY / CONCLUSION**

The comprehensive update to *Metro 2040* will build on its strengths, extending the strategy's time horizon to the year 2050, integrating with *Transport 2050*, and strengthening current policies to address policy gaps.

Pursuant to Section 434 of the *Local Government Act*, the MVRD Board is required to adopt a consultation plan that provides early and ongoing opportunities for engagement. Section 434 also defines several audiences that must be included in the process and requires the MVRD Board to consider whether holding a Regional Public Hearing will or will not be incorporated into the engagement process. These requirements are complemented by Subsection 433(4) which also requires the MVRD Board to give written notice to affected local governments and to the Minister of Municipal Affairs and Housing as part of initiating a major amendment to the regional growth strategy.

The *Metro 2050* Engagement Plan provides opportunities for plan signatories, non-signatory stakeholders, First Nations and the public to provide input into the comprehensive update to *Metro 2040*. The engagement plan is intended to meet the requirements of the *Local Government Act* and to align with Metro Vancouver's *Public Engagement Policy*.

Based on comments provided by the MVRD Board to consider additional opportunities for public input, several updates were made to the *Metro 2050* Engagement Plan. These include: additional sub-regional public meetings (*Metro 2050* Community Dialogues), an additional online opportunity for input (Online Open House), and providing an opportunity for each member jurisdiction to co-host a public information meeting on *Metro 2050*.

In addition, the Equity in Regional Growth Management project is intended to provide opportunities for organizations representing, or working for, more vulnerable populations to identify and define equity considerations that are important and meaningful to Metro Vancouver residents. This work will directly influence the development of *Metro 2050*.

As the Metro 2050 Engagement Plan provides early and meaningful opportunities for the public to provide input into *Metro 2050*, staff recommend Alternative 1.

**Attachment**

*Metro 2050 Engagement Plan* dated August 15, 2019. (Doc # 31520013)

**References**

1. *Towards Metro 2050: Updating Metro Vancouver 2040: Shaping our Future* dated March 28, 2019  
(See agenda item E2.4)
2. *Local Government Act [RSBC 1996] Chapter 323 (Part 13)*

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## Metro 2050 Engagement Plan

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### Executive Summary

Metro Vancouver and its member jurisdictions have had a regional growth strategy since the 1990s. The current regional growth strategy, *Metro Vancouver 2040: Shaping our Future (Metro 2040)*, was adopted in July 2011.

*Metro 2040* is the region's collective vision for how anticipated growth will be managed to support the creation of complete, connected and resilient communities, protect important lands and support the efficient provision of urban infrastructure like transit and utilities.

Metro Vancouver is updating *Metro 2040*, with a focus on building on its strengths. The update is being undertaken to consider new drivers of change, integrate with the new Regional Transportation Strategy being prepared by TransLink, and ensure policy improvements. The updated regional growth strategy will be referred to as *Metro 2050*.

Metro Vancouver is committed to working in close collaboration with member jurisdictions, TransLink, the Province, adjacent regional districts, and other regional agencies throughout the update to *Metro 2040*. Metro Vancouver is also committed to providing the public with meaningful and early opportunities to engage on *Metro 2050* in a variety of accessible formats, leveraging web-based platforms and in-house engagement expertise. A summary of *Metro 2050* engagement activities is provided in Appendix A. Legislative requirements for engagement are provided in Appendix B.

Through the collaborative process of updating the regional growth strategy, Metro Vancouver hopes to achieve:

- a renewed commitment to the regional vision and how that vision integrates with municipal planning;
- better integration between land use and transportation planning;
- better preparation for future uncertainties; and
- a series of more robust and updated policies to achieve the regional vision.

### Objective: Why Update *Metro 2040*?

*Metro 2040* is the region's collective vision for how anticipated growth will be managed to support the creation of complete, connected and resilient communities, protect important lands and support the efficient provision of urban infrastructure like transit and utilities. Updating *Metro 2040* requires close collaboration with member jurisdictions, the public, First Nations and others. The *Metro 2050* Engagement Plan describes the approach Metro Vancouver will take to provide the opportunity for consultation with persons, organizations and authorities considered to be affected by the regional growth strategy. The consultation will meet the engagement requirements of a Type 1 Major Amendment in accordance with *Metro 2040* as well as the provisions of Sections 434 and 450 of the *Local Government Act*, and will align with the Metro Vancouver Board's *Public Engagement policy*.

In addition to providing a proactive and transparent approach to consultation, this plan provides a structure to track feedback that can inform decisions on updates to the regional growth strategy. The consultation process will contribute to building support with signatories, strengthening relationships with other governments, and reaffirming the purpose of the regional growth strategy and benefits of regional planning.

### **Timing**

The Metro Vancouver Board initiated the process for a comprehensive update to *Metro 2040* in April 2019 and directed staff to prepare an Engagement Plan. Some early consultation is occurring through the summer of 2019 through a shared public process undertaken with TransLink to inform *Transport 2050* and *Metro 2050*. In addition, staff have initiated discussions with stakeholders, largely member jurisdictions, on specific policies within *Metro 2040* through a series of Policy Reviews.

The update to *Metro 2040* will be called *Metro 2050*. The approach to engagement aligns with the three phases of *Metro 2050* development outlined in the table below. The table also includes 'pre-consultation' activities to reflect the Policy Review and visioning work already underway.

It is anticipated that the bylaw updating *Metro 2040* will be adopted in mid-2022. Each phase of development will last approximately one year. Phase 1 is intended to include broad engagement to review currently policies, identify new ideas for actions, and to develop an updated vision statement and guiding principles. Phase 2 includes approximately one year for drafting *Metro 2050* and circulating for formal comment from municipal councils as well as additional public engagement opportunities, with anticipated completion in mid-2021. Phase 3 provides approximately one year for approvals (acceptance) from plan signatories.

### Metro 2050 Development and Engagement Timeline

	<b>Pre-consultation</b> 2018 – Q2 2019	<b>Phase 1: Review &amp; New Ideas</b> Q2 2019-Q2 2020	<b>Phase 2: Plan Development</b> Q3 2020 to Q2 2021	<b>Phase 3: Approvals</b> Q3 2021 to Q3 2022
<b>Project Phase</b>	Early consultation in anticipation of an update to <i>Metro 2040</i>	Review <i>Metro 2040</i> to identify opportunities for improvement, develop an updated vision and guiding principles.	Refine and add detail to recommended policies and write draft <i>Metro 2050</i> content.	Communicate, refine, and conduct approvals for <i>Metro 2050</i> .
<b>Engagement</b>	Ongoing discussion with stakeholders regarding the application and effectiveness of the regional policies in <i>Metro 2040</i>	Consultation activities differ with different audiences. Technical and municipal staff are engaged at a policy-specific level, and regional agencies and governments on the fuller strategy.	Engagement largely with signatories through reviewing and incorporating feedback and writing content.  Refer <i>Metro 2050</i> for formal comment from affected local governments.	Engagement largely with elected councils, public hearing and MVRD Committees and Board.

### Audiences

Section 434 of the *Local Government Act* specifies that the Metro Vancouver Board must adopt a consultation plan that provides early and ongoing opportunities for consultation with: citizens; affected local governments; First Nations; Boards of Education, Greater Boards and Improvement District Boards; and, the Provincial and Federal Governments and their agencies. The Province may specify which Ministries and agencies are to be consulted. These requirements complement Metro Vancouver's Board's *Public Engagement Policy*, ensuring public involvement in decision making where Board decisions may impact their lives. For the update to *Metro 2040*, Table 1 identifies audiences for engagement in alignment with the *Local Government Act* requirements.

**Table 1. Metro 2050 Engagement Audiences**

<b>Metro 2050 Engagement Audience</b>	<b>Description</b>
<b>Metro 2040 Signatories and Metro Vancouver Boards and Committees</b>	<p><b>Signatories:</b> Member jurisdictions*, Fraser Valley and Squamish-Lillooet Regional Districts, and the South Coast British Columbia Transportation Authority (TransLink)</p> <p><b>Metro Vancouver Boards and Committees</b> including the Regional Planning Committee and MVRD Board; Staff advisory committees including the Regional Planning Advisory Committee and its subcommittees and the Regional Administrators Advisory Committee; Metro Vancouver Departments through policy development including Parks, Housing, Air Quality and Climate Change, Liquid Waste, and Water Services.</p> <p><b>The Province of BC</b> (Ministry of Municipal Affairs and Housing, Ministry of Transportation and Infrastructure, Ministry of Jobs, Technology and Trade, to be confirmed by the Province.)</p> <p>* Bowen Island and Electoral Area A (specifically UEL/ UBC) are member jurisdictions but are not plan signatories.</p>
<b>Non-signatory regional interests</b>	<p><b>Interested or Affected Regional Agencies:</b> Agricultural Land Commission, Vancouver Fraser Port Authority, School Districts, BC Housing, Health Authorities, Vancouver International Airport Authority, etc.</p> <p><b>Subject matter experts:</b> Such as academics, researchers, and non-government organizations.</p>
<b>First Nations</b>	<b>First Nations with an identified interest</b> in any lands located in Metro Vancouver as per the BC Government's First Nations Consultative Areas Data Base including local First Nations without in-region territories.
<b>General Public</b>	<b>General Public</b> including Metro Vancouver residents, community groups, businesses, and media organizations.

### Scope of the Engagement Plan

The *Metro 2050* Engagement Plan describes broad inter-governmental and community-level engagement activities, including those required by the *Local Government Act*. It does not include details on the specifics of the engagement that will be required for each *Metro 2040* Policy Review (e.g. Agriculture Policy Review, Environment Policy Review) as these reviews will come forward to the Regional Planning Committee and Metro Vancouver Board independently. A list of the Policy Reviews is found item 5.5 in the Regional Planning Committee Agenda for April 5, 2019.

## Consultation Approach by Audience

The *Local Government Act* requires establishment and identified membership for an Intergovernmental Advisory Committee (IAC) to advise on the update, and facilitate coordination of relevant regional and Provincial regulations. Relevant sections of the *Local Government Act*, including the required membership of the IAC, are included in Appendix B. Metro Vancouver will use the Regional Planning Advisory Committee, including both member jurisdictions and associate members, as the foundation for the IAC, and will add additional representatives, including those identified by the Province to meet the legislated membership requirements.

In addition to the role of the IAC, the Regional Planning Committee and Metro Vancouver Board will guide the development of *Metro 2050*. Where possible, Metro Vancouver will leverage other existing committees of staff and elected officials for engagement.

Section 434 of the *Local Government Act* states that the relevant Regional District Board must consider whether the engagement plan will include a public hearing before the regional growth strategy is submitted for acceptance. The hearing would need to occur before third reading of *Metro 2050*.

Table 2 lists the proposed engagement by audience.

**Table 2. Metro 2050 Engagement Approaches by Audience**

Audience	Engagement Approaches
<b>Metro 2040 Signatories and Metro Vancouver Boards and Committees</b>	
Member Jurisdictions (20 municipalities and one Treaty First Nation)	<ul style="list-style-type: none"> <li>• Notification letter as per LGA</li> <li>• Inviting staff to meetings, events and forums through Policy Reviews</li> <li>• Regional Planning Advisory Committee / Intergovernmental Advisory Committee</li> <li>• Regional Transportation Advisory Committee</li> <li>• Regional Administrators Advisory Committee</li> <li>• Potential inclusion on Council of Councils agenda(s)</li> <li>• Presentations / workshops with member jurisdiction Councils</li> <li>• Formal referral of <i>Metro 2050</i> to signatory member jurisdictions for comment and for acceptance</li> <li>• Option to co-host Public Meeting with each member jurisdiction</li> </ul>
Fraser Valley Regional District and Squamish-Lillooet Regional District	<ul style="list-style-type: none"> <li>• Notification letter as per LGA</li> <li>• Inviting staff to meetings, events and forums through Policy Reviews</li> <li>• Regional Planning Advisory Committee / Intergovernmental Advisory Committee</li> <li>• Presentations / workshops with Boards</li> <li>• Formal referral of <i>Metro 2050</i> to Boards for comment and for acceptance</li> </ul>

South Coast British Columbia Transportation Authority (TransLink)	<ul style="list-style-type: none"> <li>• Notification letter as per LGA</li> <li>• Targeted meetings, events and forums through Policy Reviews and <i>Metro 2040</i> implementation</li> <li>• Regional Planning Advisory Committee / Intergovernmental Advisory Committee</li> <li>• Joint / coordinated approach to <i>Transport 2050</i> development with Metro Vancouver participation in all levels of project governance</li> <li>• Formal referral of <i>Metro 2050</i> comment and for acceptance</li> </ul>
Metro Vancouver Boards and Committees	<ul style="list-style-type: none"> <li>• Regional Planning Committee</li> <li>• MVRD Board (for plan adoption)</li> <li>• GVS&amp;DD and GVWD (for information)</li> <li>• Industrial Lands Strategy Task Force, Housing Committee, Parks Committee and Climate Action Committee (for information)</li> <li>• Meetings and Workshops</li> <li>• Board Strategic Plan will be used to inform <i>Metro 2050</i></li> </ul>
Metro Vancouver staff	<ul style="list-style-type: none"> <li>• Targeted meetings, events and forums through Policy Reviews and <i>Metro 2040</i> implementation</li> <li>• Corporate Planning Committee</li> <li>• Additional meetings or workshops as required for</li> </ul>
Province of British Columbia	<ul style="list-style-type: none"> <li>• Targeted meetings, events and forums through Policy Reviews and <i>Metro 2040</i> implementation</li> <li>• Regional Planning Advisory Committee / Intergovernmental Advisory Committee</li> <li>• Potential for a cross-departmental meeting in Victoria</li> <li>• Correspondence and referrals as per LGA</li> </ul>
<b>First Nations</b>	
First Nation governments as per the BC Government's First Nations Consultative Areas Data Base	<ul style="list-style-type: none"> <li>• Offer to meet individually with each First Nation to seek input on <i>Metro 2050</i></li> <li>• Utilize existing meetings between Metro Vancouver and First Nations to provide updates and discuss regional growth strategy issues of interest</li> <li>• Consider using Community to Community events as a forum for input</li> <li>• Correspondence and referral of <i>Metro 2050</i> for comment</li> </ul>

<b>Non-signatory Stakeholders</b>	
Federal Government (especially Natural Resources Canada and CMHC)	<ul style="list-style-type: none"> <li>• Targeted meetings, events and forums through Policy Reviews and <i>Metro 2040</i> implementation</li> <li>• Regional Planning Advisory Committee / Intergovernmental Advisory Committee</li> <li>• Correspondence and referrals as needed</li> </ul>
Non-signatory but affected local governments (Bowen Island, Electoral Area A, specifically UEL/ UBC)	<ul style="list-style-type: none"> <li>• Targeted meetings, events and forums through Policy Reviews and <i>Metro 2040</i> implementation</li> <li>• Regional Planning Advisory Committee / Intergovernmental Advisory Committee</li> <li>• Correspondence and referrals as per LGA</li> </ul>
Regional interests and organizations including: Agricultural Land Commission, Vancouver Coastal Health, Fraser Health, Port of Vancouver, YVR, BC Housing,	<ul style="list-style-type: none"> <li>• Targeted meetings, events and forums through Policy Reviews and <i>Metro 2040</i> implementation</li> <li>• Regional Planning Advisory Committee Associates meetings (for Associate members)</li> <li>• Additional meetings or workshops as required for policy development / review</li> </ul>
School Districts	<ul style="list-style-type: none"> <li>• Correspondence and referrals as per LGA</li> </ul>
Other subject matter experts (e.g. Planning professionals, (consultants, academics, NGOs)	<ul style="list-style-type: none"> <li>• Targeted engagement through key informant interviews and Policy Reviews</li> <li>• Offer for presentations and workshops with post-secondary institutions with a planning program / interest</li> </ul>

<b>General Public</b>	
Residents, businesses, community organizations, media	<ul style="list-style-type: none"> <li>• Public input to inform updating the regional vision statement and adding guiding principles through an online public survey on the vision and values of residents for the future of the region in partnership with TransLink</li> <li>• Web-based information and feedback form</li> <li>• Social media to promote feedback options</li> <li>• <i>Metro 2050</i> Online Open Houses (webinar format) in Phase 1 and 2.</li> <li>• <i>Metro 2050</i> Community Dialogue Series (typically five locations across the region, including one south of the Fraser).</li> <li>• Optional Public Information Meetings co-hosted by member jurisdictions at city halls in coordination with Council presentations.</li> <li>• Presentations and meetings in response to requests</li> <li>• Content in Metro Vancouver email newsletters</li> <li>• A Regional Public Hearing</li> </ul>

## **Opportunities for Public Input on *Metro 2050***

There are opportunities for the public to provide input in each phase of the *Metro 2050* process. Early engagement is prioritized because later in the process, especially once *Metro 2050* has been referred to signatories for comment, it becomes more challenging to incorporate public input. Staff will therefore seek to encourage feedback in the earlier phases of development as there is greater opportunity to incorporate new ideas early in the process.

Public feedback is encouraged through the online feedback form at any time during the process. Staff will also ensure that organizations representing a range of demographics across this region, including marginalized communities, are invited to engagement activities and encouraged to provide comment. Public engagement activities are described by phase below.

**Phase 1** includes opportunity for new policy ideas to be considered (through the comment form) as well as an opportunity for the public to help shape an updated regional vision and principles (through the joint TransLink survey). During this phase the public can provide input online, through the survey on the vision and values (open to fall 2019), several *Metro 2050* Community Dialogue events (locations across the region, including south of the Fraser River), and through an Online Open House (webinar).

In 2020, there is the potential to engage stakeholders about the topic of equity in regional growth management policy. This dialogue would support the *Metro 2050* process to determine if an equity lens or content can be incorporated into the regional growth strategy. Details will be brought to the Metro Vancouver Board for consideration in advance of undertaking this work.

**Phase 2** includes the opportunity to comment on draft policy ideas through an online comment card and a second Online Open House. If there is significant public interest in the Phase 1 *Metro 2050* Community Dialogue events, an additional dialogue series can be considered for Phase 2. Metro Vancouver will offer member jurisdictions the option to co-host a Public Information Meeting in conjunction with presentations at Council meetings during the formal referral for comment stage of the planning process. In accordance with the *Local Government Act*, one Regional Public Hearing will be offered at the end of Phase 2; this is an opportunity for the public to provide feedback to the Metro Vancouver Board on *Metro 2050*.

**Phase 3** will focus on keeping the public informed about the *Metro 2050* process. Updates will be made through the website, social media, and the Regional Planning E-Bulletin typically published quarterly. The public can continue to provide input through the online feedback form, through municipal council meetings as part of *Metro 2050* acceptance, or as a delegation to the Regional Planning Committee or Metro Vancouver Board.

## **Leveraging Complementary Engagement Opportunities for *Metro 2050***

In addition to the partnership with TransLink, *Metro 2050* will leverage other recent or ongoing engagement processes and surveys. These complementary engagement processes include:

- Engagement on Metro Vancouver's *Climate 2050* "roadmap" development and the *Clean Air Plan*;
- Engagement with industry and related sectors through the Regional Industrial Lands Strategy; and
- Recent surveys including the two Shaping our Communities Engagement Initiative Surveys.

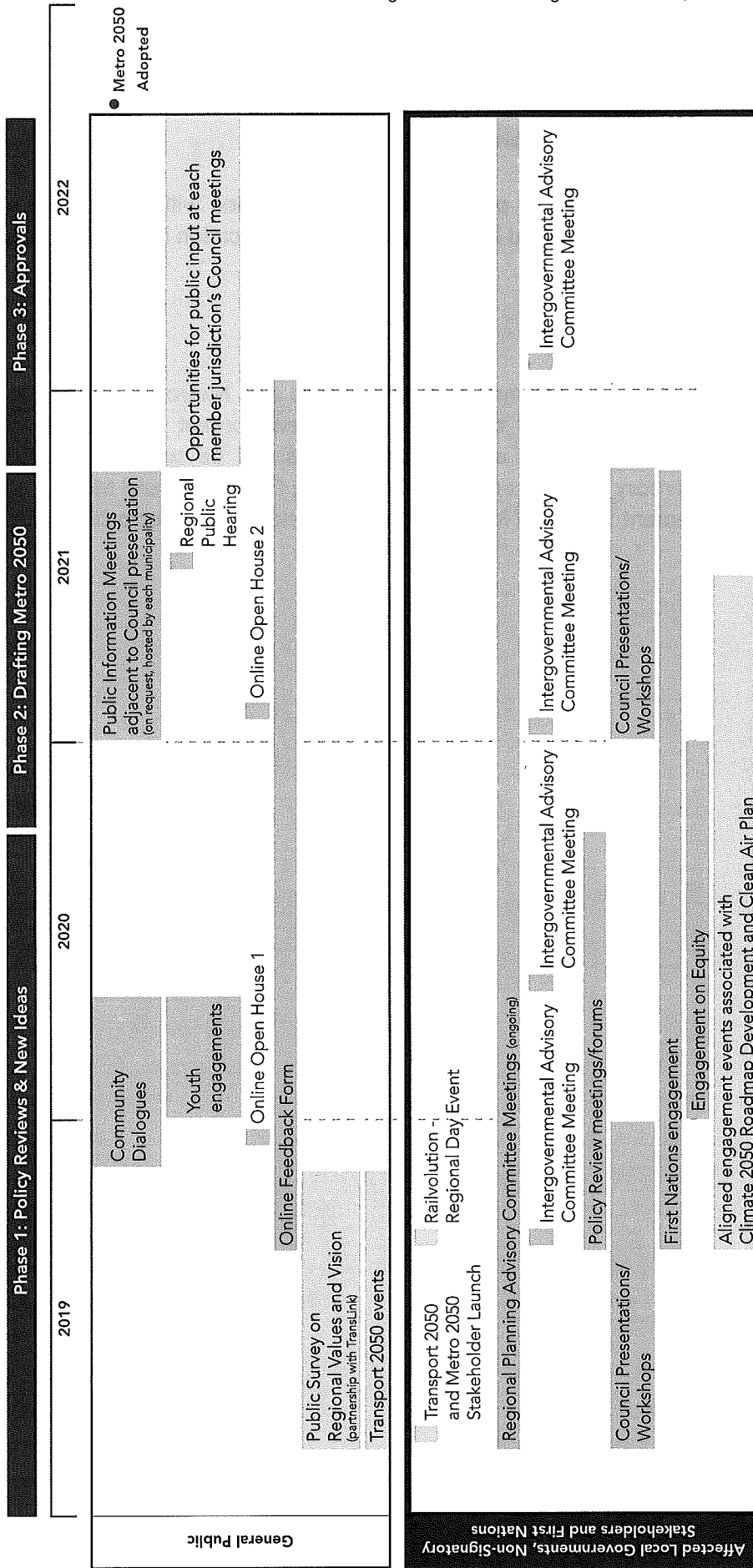
### ***Metro 2050* Engagement Notification**

To formally initiate the engagement process, written notification will be provided on behalf of the Metro Vancouver Board to all affected local governments. Notification letters will be sent in parallel to First Nations.

### **Reporting and Evaluation**

The Intergovernmental Advisory Committee, Committees and Metro Vancouver Board will receive updates on engagement throughout the *Metro 2050* development process. In addition to these updates, feedback gathered in this engagement process will be summarized and shared to the Intergovernmental Advisory Committee, Regional Planning Committee and Metro Vancouver Board in the form of an Engagement Summary Report at the conclusion of the *Metro 2050* process.

# Metro 2050 Engagement Timeline\*



\* The development of Metro 2050 will be informed by other recent engagement activities led by Metro Vancouver, such as engagement with industry on the Regional Industrial Lands Strategy (ongoing) and the Shaping our Communities Public Surveys (2016-2017).

Metro 2050 event  
Other processes and events providing input into Metro 2050

## **Appendix B: Local Government Act Requirements for Consultation**

Based on a review of the *Local Government Act*, a major amendment to *Metro 2040* triggers the same consultation requirements as a new regional growth strategy. The requirements are outlined in Sections 434 and 450 of the *Local Government Act*. These sections outline requirements for consultation during the development of a regional growth strategy and for establishing an intergovernmental advisory committee. Excerpts are included below.

### ***Consultation during development of regional growth strategy***

*434 (1) During the development of a regional growth strategy,*

- a) the proposing board must provide opportunity for consultation with persons, organizations and authorities that the board considers will be affected by the regional growth strategy, and*
- b) the board and the affected local governments must make all reasonable efforts to reach agreement on a proposed regional growth strategy.*

*(2) For the purposes of subsection (1) (a), as soon as practicable after the initiation of a regional growth strategy, the board must adopt a consultation plan that, in the opinion of the board, provides opportunities for early and ongoing consultation with, at a minimum, the following:*

- a) its citizens;*
- b) affected local governments;*
- c) first nations;*
- d) boards of education, greater boards and improvement district boards;*
- e) the Provincial and federal governments and their agencies.*

*(3) In adopting a consultation plan under subsection (2), the board must consider whether the plan should include the holding of a public hearing to provide an opportunity for persons, organizations and authorities to make their views known before the regional growth strategy is submitted for acceptance under section 436 [acceptance by affected local governments].*

*(3.1) The minister may make regulations respecting the procedure to be used for hearings under subsection (3).*

*(4) A failure to comply with a consultation plan under subsection (2) does not invalidate the regional growth strategy as long as reasonable consultation has been conducted.*

*(5) For certainty, at any time during the development of a regional growth strategy, additional regional matters may be included under section 429 (3).*

***Intergovernmental advisory committees***

***450 (1) A board***

- a) may establish an intergovernmental advisory committee for its regional district,*
- b) must establish an intergovernmental advisory committee for its regional district when a regional growth strategy is initiated, and*
- c) must establish an intergovernmental advisory committee for its regional district if*
  - i. there is a proposed amendment to the regional growth strategy, except in relation to an amendment under section 437 [minor amendments to regional growth strategies], and*
  - ii. the committee established under paragraph (a) or (b) of this subsection no longer exists.*

***(2) The role of an intergovernmental advisory committee is***

- a) to advise the applicable local governments on the development and implementation of the regional growth strategy, and*
- b) to facilitate coordination of Provincial and local government actions, policies and programs as they relate to the development and implementation of the regional growth strategy.*

***(3) The membership of an intergovernmental advisory committee is to include the following:***

- a) the planning director of the regional district, or another official appointed by the board;*
- b) the planning director, or another official appointed by the applicable council, of each municipality all or part of which is covered by the regional growth strategy;*
- c) for the purposes of an intergovernmental advisory committee established in the Metro Vancouver Regional District, the planning director of the South Coast British Columbia Transportation Authority or another official appointed by the board of directors of that authority;*
- d) senior representatives of the Provincial government and Provincial government agencies and corporations, determined by the minister after consultation with the board;*
- e) representatives of other authorities and organizations if invited to participate by the board.*

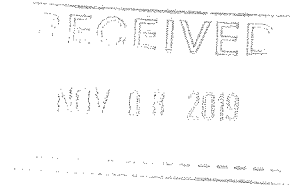
Office of the Commissioner/Chief Administrative Officer  
 Tel. 604 432-6210 Fax 604 451-6614

File: CR-12-01

Ref: RD 2019 Oct 4

NOV 01 2019

Peter DeJong, Chief Administrative Officer  
 Village of Lions Bay  
 400 Centre Road P.O. Box 141  
 Lions Bay, BC V0N 2E0



Dear Mr. DeJong:

**Re: Establishment of an Intergovernmental Advisory Committee for the Update to the Regional Growth Strategy**

At its October 4, 2019 regular meeting, the Board of Directors of the Metro Vancouver Regional District (Metro Vancouver) adopted the following resolutions:

*That the MVRD Board:*

- a) *establish an Intergovernmental Advisory Committee to advise on the development and implementation of the update of the regional growth strategy, as required by Section 450 of the Local Government Act;*
- b) *appoint the Director of Regional Planning and Electoral Area Services and the Division Manager of Growth Management and Transportation of Metro Vancouver to the Intergovernmental Advisory Committee;*
- c) *invite the following authorities and organizations to make appointments to the Intergovernmental Advisory Committee:*
  - i) *Metro Vancouver member jurisdictions;*
  - ii) *South Coast British Columbia Transportation Authority;*
  - iii) *Provincial Government;*
  - iv) *Fraser Valley Regional District and the Squamish-Lillooet Regional District;*
  - v) *Port of Vancouver;*
  - vi) *Vancouver Airport Authority;*
  - vii) *Agricultural Land Commission;*
  - viii) *Fraser Health and Vancouver Coastal Health;*
  - ix) *the University of British Columbia, Simon Fraser University and Kwantlen Polytechnic University; and*
  - x) *Local First Nations.*

*Metro Vancouver 2040: Shaping our Future (Metro 2040)*, the regional growth strategy, is the region's collective vision for how to manage growth to the region to support the creation of complete, connected and resilient communities; protect important lands like our agricultural, industrial and conservation lands; and support the efficient provision of urban infrastructure like

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transit and utilities. Since its adoption in 2011, *Metro 2040* has been a strong and effective tool for managing growth.

Metro Vancouver is updating *Metro Vancouver 2040: Shaping our Future (Metro 2040)*, the regional growth strategy. The updated strategy, which is targeted for completion in 2022, will be called *Metro 2050*.

Subsection 450(1)(c) of the *Local Government Act* requires regional districts to establish an Intergovernmental Advisory Committee (IAC) if there is a new, or a major amendment proposed to, the regional growth strategy. The role of an IAC is to advise local governments and other agencies on the development and implementation of the regional growth strategy, and to facilitate coordination of Provincial and local government actions, policies and programs as they relate to the development of the regional growth strategy.

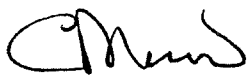
IAC membership is to include the planning director or another senior staff member from each affected local government, including member jurisdictions, adjacent regional districts, First Nations, the Provincial government and its agencies, TransLink, and any other authorities/organizations as determined by the Board of Directors of the regional district.

As a result, by way of this letter, Metro Vancouver is providing formal notification of the establishment of an Intergovernmental Advisory Committee. Metro Vancouver is extending an invitation to participate in the IAC and asks that you identify the appropriate staff representative to participate on the IAC. We expect the first IAC meeting to be held in late November 2019 and therefore request that you communicate your decision to Metro Vancouver as soon as possible.

The Metro Vancouver Board values input from all affected local governments and agencies throughout the update to the regional growth strategy. More information on the process and additional details on the scale and scope of the update can be found at [www.metrovancouver.org/metro2050](http://www.metrovancouver.org/metro2050).

Please contact Kristi Galovich, Program Assistant, Regional Planning by phone at 604-432-6384 or by email at [Kristi.Galovich@metrovancouver.org](mailto:Kristi.Galovich@metrovancouver.org) regarding IAC membership.

Yours sincerely,



Carol Mason  
Commissioner/Chief Administrative Officer

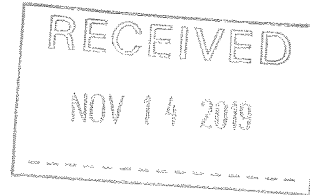
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Office of the Commissioner / Chief Administrative Officer  
Tel. 604-432-6210 Fax 604-451-6614

File: PE-03-01

NOV 07 2019

Peter DeJong, Chief Administrative Officer  
Village of Lions Bay  
400 Centre Road P.O. Box 141  
Lions Bay, BC V0N 2E0



Dear Mr. DeJong:

**Re: Metro Vancouver Housing 10-Year Plan - Launch and Implementation**

As Metro Vancouver's new Chief Administrative Officer, I am pleased to share with you that the Metro Vancouver Board recently approved the *Metro Vancouver Housing 10-Year Plan*.

As one of the largest non-profit housing agencies in the province, Metro Vancouver Housing provides affordable homes to over 9,400 people (3,400 units) on a rent-geared-to-income or low-end-of-market rental basis. The majority of homes are geared towards families as well as seniors and people with special housing needs.

The 10-Year Plan provides a framework for how Metro Vancouver Housing will provide, preserve, and expand its portfolio of affordable housing in the region.

To support this Plan, Metro Vancouver Housing will invest \$190 million in affordable housing over the next 10 years. This includes \$90 million in renewing and enhancing its existing housing and another \$100 million to develop new affordable housing. This investment will help support Metro Vancouver's target of adding 1,350 new affordable rental units over the next decade. We will also seek to partner with BC Housing and or CMHC to leverage this investment and support even more affordable housing across the region.

The plan emphasises building positive relationships – especially with our member municipalities – as well as with other orders of government, non-profit housing agencies, and the development sector.

There is a real opportunity to provide more affordable housing through existing housing sites and through partnerships, such as working with municipalities to build on public land. To support such partnerships, Metro Vancouver has approved a new \$4 million annual affordable housing requisition as a stable funding source dedicated to building new affordable rental housing on member and regional lands.

33336408

I encourage you to review the new 10-Year Plan, and look forward to collaborating with our members and the housing and development sectors to achieve our common goals. The Plan is available at [www.metrovancouver.org/housing](http://www.metrovancouver.org/housing), and attached to this letter.

For more information, or to discuss potential opportunities for collaboration, please feel free to have your staff contact Metro Vancouver Housing staff at [housing@metrovancouver.org](mailto:housing@metrovancouver.org).

Yours sincerely,



Jerry W. Dobrowolny, P.Eng., MBA  
Commissioner/Chief Administrative Officer

JD/RC/lc

Encl: Metro Vancouver Housing 10-Year Plan (Doc# 33316499)

33336408

**From:** [REDACTED]  
**Sent:** Saturday, November 09, 2019 11:21 AM  
**To:** Council <[council@lionsbay.ca](mailto:council@lionsbay.ca)>  
**Cc:** Peter DeJong <[cao@lionsbay.ca](mailto:cao@lionsbay.ca)>  
**Subject:** RE: Village Update

Ron, and Council, a few comments on the municipal aspects of this week's update:

- The PRV at the school was always a temporary installation, but the valve itself was new at the time, about 2014. It needs replacement already? I trust that we will be borrowing from ourselves out of the \$2 mil. restricted "ocean access reserve" rather than going to MFA and paying real interest? I trust too that the infrastructure levy will be applied, however small?
- How about a link to the photos/videos of the Harvey Tank's construction? I needn't remind you that this is the single largest project ever undertaken by Lions Bay, and should be celebrated, not mentioned in passing. You might also remind those who feel we will run out of water that the 25% added capacity is not for increased consumption, but to address a previous shortfall in firefighting reserve.
- I don't recall seeing a report on the transit survey, but trust that the Translink service hour increase usage is based on data, not anecdote? The last time I looked at the data I'd've thought there was more demand for increased service late on summer weekends than on year-round weekday afternoons? You already know that most use of the 262 is to get to HSBay to catch the downtown express and to Caulfeild to shop, not to get to Park Royal (as the 3rd recommendation in the staff report linked to in your piece seems to indicate).

Regards,  
Karl

PS: hyperlinks in the piece don't work with Firefox, but do with Chrome and Edge?!

**From:** Peter DeJong <[cao@lionsbay.ca](mailto:cao@lionsbay.ca)>  
**Sent:** Friday, November 15, 2019 11:28 AM  
[REDACTED]  
**Cc:** Nicole Dumas <[office@lionsbay.ca](mailto:office@lionsbay.ca)>  
**Subject:** RE: Village Update

Hi Karl:

Thanks for your email, which will be included in the Agenda package for November 19<sup>th</sup>. Please note the following in respect of your points below:

- The existing 75 mm (3 inch) valve was purchased new, but it was an older model that came at a much-reduced cost. We can no longer obtain parts for this valve and it's too small to provide the requisite fire flows. When staff installed this temporary station, it was meant to provide for the emergency supply of water for residential consumption across the boundary between both the Harvey and Magnesia systems during periods of low supply in the summer – it was not meant to transfer high volumes of water. The AECOM IMP (pages 2.6-2.7) recommended that a permanent station be installed with dual PRV's – a 75 mm valve for low flows and a 150 mm (6 inch) valve for high flows/fire flows. As stated in the Nov. 5<sup>th</sup> Council Report:

“Currently, this PRV is only used in the case of extreme emergencies; however, there are several critical fire flow deficiencies south of this station, including the school, which cannot be alleviated without installing a permanent, larger sized PRV at this location.”

The “ocean access reserve” you mention is in respect of the sale of the road end at 52 Brunswick Beach which, after reimbursing ourselves for the purchase of the lands north of Magnesia Creek at 63 Brunswick Beach, sits at \$1,074,435. You may also recall that we are required to pay a reasonable rate of interest on loans to ourself from this fund (eg: the current MFA rate of 2.51%). There are significant reasons why it would be better to borrow for this 3<sup>rd</sup> PRV (along with the other two PRVs), but that information will be in the Village Update today with an invitation to the public to provide feedback to Council on that very issue.

- The time lapse photography camera for the Harvey Tank construction project has yet to be removed – Industra’s people are finalizing the fencing install. Once they’ve completed everything they’ll get the camera down and process the images into a video like they did before and we’ll share that on our website with a link from the Village Update. Rest assured that is coming. The VU piece noted above will reference the 25% increase in the size of the Harvey Tank and its beneficial use to address deficient fire flows, such as along Bayview adjacent to the school, which requires the new PRV to give effect to this benefit.
- Translink data is not so granular as to provide clear indications in respect of time of day ridership but they have provided their recommendations in support of their Automated Passenger Counts, survey data we provided, and direct response data in respect of increased service hour options. The early summer survey data we collected suggested a much weaker response than expected regarding trips to Caulfeild, but the Horseshoe Bay connection issues are certainly on the radar.

I note that I had no issues with the Mayor’s Message links using Firefox, but we’ll keep an eye on this going forward. Again, thank you for writing.

**Peter DeJong, BA, LLB, CRM**  
*Chief Administrative Officer*



**The Municipality of the Village of Lions Bay** [www.lionsbay.ca](http://www.lionsbay.ca)  
PO Box 141, 400 Centre Road, Lions Bay, BC V0N 2E0 , Canada  
Village Office (604) 921-9333 | Fax (604) 921-6643

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**From:** [Nicole Dumas](#)  
**To:** [Nicole Dumas](#)  
**Subject:** FW: Air Quality in Lions Bay  
**Date:** Friday, November 15, 2019 9:56:47 AM

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From: Ian Mackie [REDACTED]  
Sent: Friday, November 15, 2019 5:07 AM  
To: [AQinfo@metrovancover.org](mailto:AQinfo@metrovancover.org)  
Cc: Council  
Subject: Air Quality in Lions Bay

All

The air quality in Lions Bay is terrible due to unrestricted burning of wood for home heating. While Lions Bay is one of the wealthiest communities in Metro the Council has asked that Lions Bay be exempted from the Metro wood smoke ban. This position is quite hypocritical given Lions Bay's stated support for higher environmental standards in Howe Sound. This is a case of some comparatively wealthy residents insisting on burning wood to heat their homes in order to save a few dollars while exposing their neighbours to the toxic effects of wood smoke. Lions Bay should be required to comply with the Metro wood smoke bylaw despite the fact that some residents would prefer to save a few dollars burning wood to heat their homes despite the provisions in the Official Community Plan espousing the need to protect the environment.

Regards

Ian D. Mackie

[REDACTED]  
[REDACTED]  
[REDACTED]

Sent from my iPad

# **ON-TABLE ITEMS**



## THE MUNICIPALITY OF THE VILLAGE OF LIONS BAY

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<b>Type</b>	Information Report		
<b>Title</b>	PRV Funding Feedback		
<b>Author</b>	Nicole Dumas	<b>Reviewed By:</b>	Peter DeJong
<b>Date</b>	November 19, 2019	<b>Version</b>	
<b>Issued for</b>	November 19, 2019		

**Recommendation:**

THAT the Information Report, “PRV Funding Feedback” be received for information purposes.

**Attachments:**

(1) Feedback summary.

**Key Information:**

Staff added a piece to the Village Update on Friday, November 15, 2019, which provided some background information on the PRVs that are currently identified as high priority within the Infrastructure Master Plan. The piece also explained the details of borrowing pros and cons, and options regarding reserves.

A request was put out for residents to provide their feedback. The feedback received to date is attached hereto.

**Follow Up Action:**

Continue to monitor the feedback as it comes in and provide such to Council at the next meeting on December 3, 2019.

**Communication Plan:**

None at this time.

-----Original Message-----

From: Andrew Wray

Sent: Friday, November 15, 2019 4:59 PM

To: Lions Bay Feedback <feedback@lionsbay.ca>

Subject: 3rd PRV for location by the school

Good evening... I applaud council for all the work that you have done to bring our aged infrastructure back to life. We are supportive of the 3rd PRV and subsequent \$29 increase to insure good fire coverage to the school and to enable the water transfer. It would certainly seem to make sense to do this PRV at the same time as the other two.

Regards,

Andrew & Ingrid

Andrew Wray

-----Original Message-----

From: Louis Peterson

Sent: Friday, November 15, 2019 4:59 PM

To: Lions Bay Feedback <feedback@lionsbay.ca>

Subject: Borrowing

Hello Council,

A very well presented case for the 3rd PRV valve. I support the borrowing requirement.

Louis.

-----Original Message-----

From: jay hope

Sent: Friday, November 15, 2019 5:14 PM

To: Lions Bay Feedback <feedback@lionsbay.ca>

Subject: PRV

Agreed on 3rd PRV loan

-----Original Message-----

From: Ian Mackie

Sent: Friday, November 15, 2019 4:49 PM

To: Lions Bay Feedback <feedback@lionsbay.ca>

Subject: Third PRV funding

We are opposed to the Village using the loan authorization to fund the third PRV which would be contrary to the terms on which the residents approved the Village obtaining the loan

Ian D. Mackie

Danielle Mackie

Lions Bay

-----Original Message-----

From: Lee Rivett  
Sent: Friday, November 15, 2019 5:29 PM  
To: Lions Bay Feedback <feedback@lionsbay.ca>  
Subject: Funding PRVs

Sounds good for going ahead with the loan/valve replacement and thank you for the transparency!

Lee Rivett

-----Original Message-----

From: Rod Baker  
Sent: Friday, November 15, 2019 8:55 PM  
To: Lions Bay Feedback <feedback@lionsbay.ca>  
Subject: \$29

I am ok with a \$29 increase in utilities

--

Rod Baker

-----Original Message-----

From: Ralph Markham  
Sent: Saturday, November 16, 2019 12:28 PM  
To: Lions Bay Feedback <feedback@lionsbay.ca>  
Subject: Infrastructure Borrowing

After reading your letter, we both feel that borrowing for the proposed projects is very sensible and is the best solution for the necessary improvements at this time.

Sincerely,  
Ralph Markham & Kenneth Broadway

-----Original Message-----

From: jimcave  
Sent: Saturday, November 16, 2019 1:59 PM  
To: Lions Bay Feedback <feedback@lionsbay.ca>  
Subject: Re: Feedback on PRVs.

Council notes:

*“Well, while the grant/loan ratio to fund all three PRVs with borrowing would still be a very acceptable 68/32, and it would only be an extra \$29/year on your water utility bill for the 3<sup>rd</sup> PRV, the fact of the matter is the 3<sup>rd</sup> PRV does not actually have grant funding attached to it.”*

Here's My problem: Lions Bay already has **BY FAR** the highest water utility bill in British Columbia. Note: **BY FAR**. But you dangle for “only another \$29/year, you can get...! It comes across like an infomercial on late night TV!

Quite frankly I oppose any increases to the already usurious water rates.

Jim Cave

-----Original Message-----

From: Rob Peebles  
Sent: Monday, November 18, 2019 4:26 PM  
To: Lions Bay Feedback <feedback@lionsbay.ca>  
Subject: Infrastructure borrowing

By all means, let's go forward with the increased borrowing to fund the 3rd PRV valve. Using reserve funds for such a project seems contrary to the principle of having a reserve fund in the first place.

Rob Peebles

-----Original Message-----

From: Penny Nelson  
Sent: Monday, November 18, 2019 4:57:02 PM  
To: Neville Abbott <[councillor.abbott@lionsbay.ca](mailto:councillor.abbott@lionsbay.ca)>; Fred Bain <[councillor.bain@lionsbay.ca](mailto:councillor.bain@lionsbay.ca)>; Jaime Cunliffe <[councillor.cunliffe@lionsbay.ca](mailto:councillor.cunliffe@lionsbay.ca)>; Norman Barmeier <[councillor.barmeier@lionsbay.ca](mailto:councillor.barmeier@lionsbay.ca)>; Ron McLaughlin <[mayor.mclaughlin@lionsbay.ca](mailto:mayor.mclaughlin@lionsbay.ca)>  
Subject: Village Update piece regarding borrowing

Council,

I would like to voice my concern and disappointment about the piece that appeared in the last Village Update regarding proposed borrowing. There is a lot wrong with this piece, but suffice to say it is written with the sole intention of swaying residents to a specific point of view.

Even more troubling is that it purports to be "transparent", but **it does not provide the necessary numbers to allow us to make a decision**, and necessary information is withheld.

What we are not told is:

1. How much does council want to borrow? The entire crux of the question. It doesn't say.
2. Whatever that number is, it will apparently "only" cost \$29 a year on our water bills... for how long?
3. Do we have options to borrowing? Very important information and not provided.
  - a) How much money do we have in our various reserves right now? The implication is that whatever the number is, it would not cover a bill of \$327,000, which is not true. I'm told we have around \$2.5 million in our reserves and around \$2.5 million more available. But the VU piece did not tell us how much money we have. I have no idea what a PRV costs or how much we want to borrow but, since the Harvey Tank Project cost less than \$3 million, I'm sure a PRV costs a fraction of that, meaning we could afford to pay for it without borrowing.
  - b) The 10% Infrastructure tax generated \$144,658 (Agenda Package, Regular Council Meeting 15<sup>th</sup> October 2019). Will this be used to pay for this PRV, if not in total, maybe in part? If not, why not?
  - c) We recently sold a prime piece of waterfront real estate to generate revenue, hopefully to cover the cost of much-needed critical infrastructure projects such as this PRV. At worst, we could loan ourselves money from this account. Why are we not using this instead of borrowing elsewhere? The VU piece does not address this. If we are not going to use this, what else are we going to spend that \$1,070 million on?

In closing, the piece that appeared in the VU is an unfortunate piece of communication and I'm sure this is not how members of council intended for the issue to be presented to the community. I and others had hoped that we'd moved away from this type of "communication" permanently.

It does not engender trust between residents and Council and it certainly does not support the 7 Core Values of Public Participation: "Public participation provides participants with the information they need to participate in a meaningful way" (#6).

Please make sure this email is included in the next agenda package for the public record.

Sincerely,  
Penny Nelson

-----Original Message-----

From: Marek Sredzki  
Sent: November 16, 2019 10:21 AM  
To: McLaughlin Ron <[ronmclaughlin@telus.net](mailto:ronmclaughlin@telus.net)>  
Subject: Harvey Water Tank & 3rd PRV  
Hi Ron,

Good news on the completion of Harvey Water Tank and extra capacity available for fire fighting. Hopefully residents don't get any ideas on unlimited water supply in late summers.

In reference to the 3rd PRV, if required, it should be upgraded in a principle of safety first.

When you say "extra \$29/year", residents may wish to know for how long: 1 year or 5 years or in perpetuity. Better understanding might make it easier for many to accept.

Cheers

**Marek Sredzki**

-----Original Message-----

From: Monica  
Sent: Tuesday, November 19, 2019 12:55 PM  
To: Lions Bay Feedback <[feedback@lionsbay.ca](mailto:feedback@lionsbay.ca)>  
Subject: INFRASTRUCTURE SURVEY

Since our reserves are small we need to keep a reserve. So I concur on BORROWING and if need me charge an extra \$29/year on our water utility bill .

Thanks for consulting  
Monica

***"Art isn't life, art makes us realize  
what life is" - Picasso***

**Monica Gewurz**

RECEIVED

NOV 19 2010



## HAVE YOUR SAY!

With the new Harvey Water Tank up and running with 25% more capacity for additional required fire flows, it's time to provide an update on what's next. We're pleased to advise that the Province has agreed to allow us to utilize the balance of the grant funds remaining after completion of the new tank in order to construct two critical Pressure Reducing Valves (PRVs). These two PRV's were part of the original project scope of work and will enable us to decommission the old Phase 4 and 5 Tanks. Some additional borrowing is required but the grant funding / loan funding ratio is still about 75/25 and has been approved by Council.

A 3<sup>rd</sup> PRV identified in the Infrastructure Master Plan as a high priority for replacement is the temporary above ground PRV adjacent to the school. The existing 75mm (3") valve is too small to provide requisite fire flows, with several critical deficiencies south of this station, including the school, which cannot be alleviated without installing a permanent larger sized PRV at this location. This strategic PRV is required in order to utilize the increased fire storage capacity built into the new Harvey Tank. It will also enable transfer of supply between the Harvey and Magnesia water systems and improve water quality. For these reasons and cost efficiencies of doing it with the other two, this project has also been approved by Council. So what's the catch, you ask?

Well, while the grant/loan ratio to fund all three PRVs with borrowing would still be a very acceptable 68/32, and it would only be an extra \$29/year on your water utility bill for the 3<sup>rd</sup> PRV, the fact of the matter is the 3<sup>rd</sup> PRV does not actually have grant funding attached to it. Why does that matter, some of you may ask? It matters because when the previous Council took the \$3M loan authorization bylaw to referendum, a promise was made to only draw from the loan funding if a project had at least 50% grant funding. Your current Mayor and Council want to be completely transparent about these details and get your feedback on the notion of borrowing for this 3<sup>rd</sup> PRV.

Why borrow instead of using reserves? Well, for starters, our current reserves won't put much of a dent in our infrastructure deficit as identified in the Asset Management Investment Plan, which is why Council has been focused on building up these reserves. Moreover, depletion of reserves now may result in having insufficient funds in the event of an emergency (eg: the Kelvin Grove watermain break in 2011 had to be funded from reserves to the tune of about \$327K).

As well, grants are becoming smaller, less frequent, more restrictive and more competitive, and there are many projects in our Infrastructure Master Plan which will not be eligible for grants or loans (eg: roads). Therefore, the case can be made that it is better to save reserves for projects not eligible for grants or loans. The 3<sup>rd</sup> PRV is legally eligible for funding under our loan authorization bylaw; the question is whether you agree that such funding is the smart choice in the circumstances.

**Council wants to hear what you have to say!** Send your comments by November 25<sup>th</sup> to [feedback@lionsbay.ca](mailto:feedback@lionsbay.ca), or fill out the box below and either fax them to 604-921-6643, or drop them off in the Village Office or through the mail slot after hours.

**Comments:**

We should maintain the decision to borrow on minimum 50% funding by senior governments, for which this item does not qualify. This strategic investment approach would allow us to complete more important projects first.

No explanation given why this was not part of original project. This PRV is not on the Capital Projects List.

The Infrastructure Master Plan (IMP) defines this PRV as "only used in the case of extreme emergencies".

The IMP recommends as a very high priority item to lower the psi on this PRV to "allow PRV-4 to be the primary feed".

There other projects which are equally important and can serve more residents beyond "extreme emergencies" e.g. projects #6, 8, 10, 43, 51 are "highest priority", while #19, 21, 33, 46 are "high" in the IMP, to name a few. Each of these costs less than a PRV.

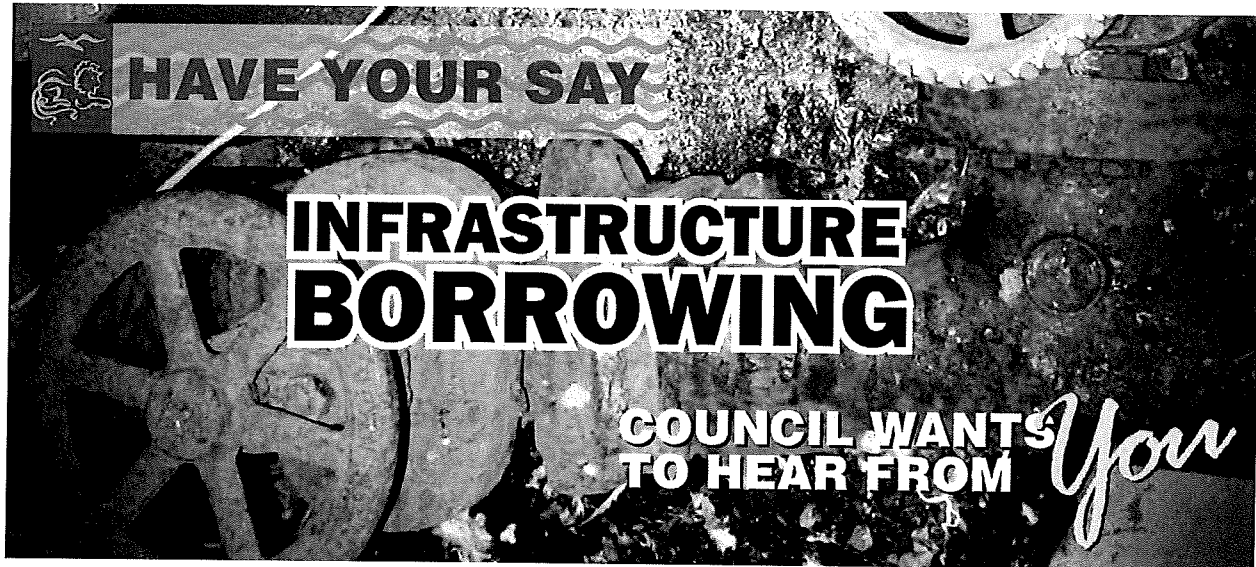
The additional \$29 per year for 30 years (a total of over \$450K) is on top of increases already planned and on top of increases levied over recent years.

For the five-year period 2014 to 2018, residents have experienced an overall tax increase of over 28%. Utilities alone have increased nearly 75% in five years. (source: Village Financial Statements)

Lions Bay has the second highest total residential property taxes & charges in the 161 municipalities in BC. Lions Bay has the highest user fees in the province, nearly 40% higher than West Vancouver in second place.  
[https://www2.gov.bc.ca/assets/gov/british-columbians-our-governments/local-governments/finance/local-government-statistics/schedule704\\_2019.xls](https://www2.gov.bc.ca/assets/gov/british-columbians-our-governments/local-governments/finance/local-government-statistics/schedule704_2019.xls)

**Recommend this project be deferred for future consideration and focus on the Capital Projects List.**

I VOTE YES



## HAVE YOUR SAY!

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