



City of Richmond

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| To Public Hearing | |
| Date: | Nov 23, 2004 |
| Item # | 1 |
| Re: | Bylaw 7794 |
| aircraft noise-sensitive development policy | |

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Urban Development Division
Fax: (604) 276-4052
8060-20-7794

November 10, 2004
File: 8060-20-7794

Mr. Vic Farmer
5728 Vermilyea Court
Richmond, BC V7C 5W7

Dear Mr. Farmer:

Re: OCP Aircraft Noise-Sensitive Development Policy

This is to advise you that on Monday, November 8th, 2004, City Council gave first reading to Official Community Plan Amendment Bylaw No. 7794, which introduces a number of text and map amendments to better manage aircraft noise-sensitive development. The bylaw will be considered by Council at a Special Public Hearing to be held at 7:00 PM on Tuesday, November 23, 2004 in the Council Chambers at Richmond City Hall, 6911 No. 3 Road.

As you had previously commented on the staff report, "Preliminary Findings: City Airport Noise and Residential Development Policy Consistency Research, April 14, 2004", we are now sending you the proposed Official Community Plan Amendment Bylaw 7794 and staff report.

If you wish to comment, please note that the deadline for comments is November 22, 2004, however, any submissions received up to and including the time of the Public Hearing will, of course, be considered by Council. **If your organization is able to provide comments by Wednesday, November 17th**, your submission will be able to be included as part of the Public Hearing agenda materials.

Should you have any further questions in regard to the above, please contact Eric Fiss, Planner, Policy Planning, (604) 276-4193.

Yours truly,

Terry Crowe
Manager, Policy Planning

→ Please include the attached letter in your Public Hearing materials



RICHMOND
Island City, by Nature

November 15th, 2004

**Victor J. Farmer
5728 Vermilyea Court,
Richmond, B.C. V7C 5W7**

Mayor Malcolm Brodie,
City of Richmond
Mayor's Office
6911 No. 3 Road
Richmond, British Columbia
V6Y 2C1

Dear Mr. Brodie,

RE: Vancouver International Airport – Expansion of Night Time Operations

An advertisement recently appeared in one of our community newspapers stating that the Vancouver International Airport (YVR) intends to expand its night-time operations. Apparently, YVR has approached the City of Richmond (City) to endorse or support this change. I contacted YVR in order to find out more about their plans and to answer some of my questions. They suggested I contact the City in this regard; hence the purpose of this letter to you, which now seems much more important in light of Larry Berg's quote in last weekend's newspaper "fourth runway a 'conversation starter'." My questions and concerns are specifically related to the additional airport noise that would result from increased airport night-time operations, and are as follows:

How many more night time flights is YVR considering, and what will the noise and associated health impact be on local Richmond residents, particularly those in Noise Exposure Forecast (NEF) contours greater than 25? YVR either could not, or would not, provide any meaningful information as to how many more night time flights they are considering. Surely, the City appreciates that even the current amount of YVR's night time activity disturbs the sleep of many of its citizens. It is therefore obvious that increased airport night time operations will exacerbate the airport's noise effect on Richmond citizens, their sleep, community health, and will substantially reduce our community's liveability.

The negative health effects of airport noise, particularly night time operations, is very well researched and documented. The U.S. Health Subcommittee of the Environmental Impact Committee (Note 1) found that:

- *“Airport noise causes difficulty in attaining deep sleep, shortened REM sleep, and premature arousal from sleep. Both deep and REM sleep are thought to be physiologically important. Sleep deprivation leads to impaired reaction times, fatigue, lethargy, decreased efficiency, anxiety and desire to be left alone,”*
- *“Excessive noise has been positively associated with the development of hypertension, high cholesterol, and high blood sugar, all of which place people at increased risk of heart disease and stroke,”*
- *“Airport noise results in a significant increase in community use of tranquilizers and sleeping pills. Airport communities have an increased rate of alcoholism, and admissions to psychiatric hospitals. Airport-related noise can literally drive people mad.”*

Another more recent, in-depth, Netherland study (Note 2) on the exposure-effect relationship regarding sleep disturbance and aircraft noise concluded that *“In this study a moderate to strong relationship between aircraft noise exposure during sleep and mean motility measures has been found; Motility and a variety of long term variables obtained from the questionnaire and aggregated effect variables obtained from the diaries associated. These variables are: number of times remembered to have been awake during sleep, number of marker pressings during sleep, use of sleeping pills, self-reported sleep quality from the questionnaire, number of general sleep complaints, frequency of times awake due to aircraft noise, number of aircraft noise-induced adverse effects a week, and number of health complaints.”*

The World Health Organization (Note 4) states that:

- *“In workers exposed to noise, and in people living near airports, industries and noisy streets, noise exposure may have a large temporary, as well as permanent, impact on physiological functions. After prolonged exposure, susceptible individuals in the general population may develop permanent effects, such as hypertension and ischaemic heart disease associated with exposure to high sound levels,”*
- *It has been shown, mainly in workers and children, that noise can adversely affect performance of cognitive tasks. Although noise-induced arousal may produce better performance in simple tasks in the short term, cognitive performance substantially deteriorates for more complex tasks. Reading, attention, problem solving and memorization are among the cognitive effects most strongly affected by noise. Noise can also act as a distracting stimulus and impulsive noise events may produce disruptive effects as a result of startle responses,”*
- *“Noise can produce a number of social and behavioural effects as well as annoyance. These effects are often complex, subtle and indirect and many effects are assumed to result from the interaction of a number of non-auditory variables,”*

“Exposure to night-time noise also induces secondary effects, or so-called after effects. These are effects that can be measured the day following the night-time exposure, while the individual is awake. The secondary effects include reduced perceived sleep quality; increased fatigue; depressed mood or well-being; and decreased performance, among others. Long-term effects on psychosocial well-being have also been related to noise exposure during the night.”

Some studies (Note 5) have confirmed the obvious: *at the same noise levels, night-time annoyance is above day-time annoyance in the case of aircraft noise.* Other studies have concluded that the effect of night time noise is more dramatic on children.

Is this the kind of liveability criteria we strive for in Richmond? Aircraft noise disturbs the normal activities of airport neighbours - their conversation, sleep, relaxation, degrades their quality of life (Note 6) and subjects them to a wide range of other possible secondary effects. I am hopeful that the City is not supportive of any increased night time YVR operations. And I trust that you agree that the City has a moral, if not a legal responsibility, to do what it can to ensure that YVR's night time operations do not adversely affect the health and well-being of its citizens.

Has YVR been asked to consider more equitable alternatives? It's unfortunate that YVR is seeking to have the cost of the environmental impacts of its airport operations fall disproportionately on nearby communities. In the case of aircraft noise and the resulting health risk consequences, there should be some mechanism that limits the health cost to our local citizens, and therefore puts the responsibility of these costs back onto those that are so benefiting. Fair is fair, and there are many examples of this type of approach.

- For each of Heathrow, Gatwick and Stansted airports, the UK Government prescribes very high restrictions on the total number of aircraft movements at night. Further, *Heathrow airport prices night time flights at a very high level. This results in very few night time operations.* As an incentive for airlines to use quieter aircraft, these airports have introduced a range of differential landing charges based on certificated noise values, preferentially rewarding those emitting least noise (Note 7).
- The Hong Kong Airport's website states that *“due to the airport's remote location and with most flight paths over water, fewer than 500 people are now exposed to significant aircraft noise where they live as compared with about 350,000 in Kowloon when Kai Tak airport operated.”* Perhaps it is time to plan for a relocation of YVR to a less densely populated area, similar to what was done in Hong Kong. This may be especially important since YVR is located particularly close to a large urban population area. There are other airports in Pitt Meadows, Abbotsford and Boundary Bay that could be used for cargo transport. And perhaps YVR should consider utilizing other more rural locations for their night time operations?

- There is some literature that indicates that landings create less noise than aircraft take-offs. If this is true, then perhaps night time operations should be limited to a prescribed number of landings and no take offs.
- There is also some literature that suggests flight timetables can be adjusted to eliminate the requirement of night time operations by varying flight departure times, flight travel times, travel routes, and stop-over times.
- The Los Angeles Airport alone has spent over \$130 million to purchase private residences and plans to spend \$21 million on soundproofing schools and other public buildings near the airport - Note 3. Many airports have also financially assisted the construction of sound barriers and acoustical shielding, including the soundproofing of surrounding single family residences and public buildings.

In doing my research for this letter, I note that many world renowned airports are attempting to find ways to better mitigate the effect of the noise on the local community. Conversely, YVR appears to be attempting to justify increased noise to the local community - Richmond.

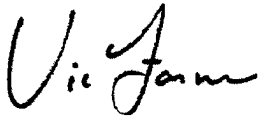
Has the City post-evaluated the effectiveness of its September 18, 1995 amendment to the Official Community Plan to: “require all new housing built within the area outlined in Attachment 4 and which need rezoning or subdivision approval, be noise insulated to CMHC standards as determined by a registered professional qualified in acoustics.” The City seems to be under the impression that all new homes must have noise mitigation incorporated into their construction (I was told this by the City last year when I purchased my new home, and I have heard related conversation since). Mine is a new home, completed in 2003. As best as I can tell, the acoustical study that was performed on my house (pre-construction) does not indicate additional insulation requirements beyond the Building Code, even though my home is in the NEF 30+ zone. This was recently confirmed by an independent building inspector that I hired at the expiration of the first year of my new home warranty.

Does the City seriously believe it is acting in the best interest of its Citizens if it even considers endorsing increased night-time operations at YVR? The Official Community plan states that Richmond’s vision is to be “*the most appealing, liveable, and well-managed community in Canada.*” This was reinforced in the Mayor’s December 8, 2003 Annual Address where you said that “*Richmond will continue its efforts to be the most appealing, livable and well-managed community in Canada.*” Both the City’s vision and your statement are inconsistent with any endorsement or support that allows or encourages YVR to increase its night-time operations. The World Health Organization (Note 4) states that “Governments should consider the protection of populations from community noise as an integral part of their policy for environmental protection,” and it recommends that “*municipalities should develop low-noise implementation plans.*” These guidelines and recommendations are no doubt intended to make communities more appealing and liveable, whereas any support of increased YVR night-time operations does not.

Does the City not have an obligation to first inform those citizen's who may be affected by any endorsement they may be considering? I attended two YVR open houses over the last year. At no time during either of these two events did YVR ever state their plans to increase airport noise, particularly night-time airport noise. I do not believe that most Richmond citizens living in NEF 25+ zones are aware of the potential of increased YVR night time noise. I hope you agree that public awareness is critical and a huge City Council responsibility.

In conclusion, it's obvious that any more night-time airport noise will adversely impact Richmond's liveability and the health and well being of many of its citizens. I fully understand that living within the vicinity of the Vancouver Airport also means living with some airport noise. However, I trust you share my opinion that there is much responsibility on YVR's part to mitigate the impact of noise on local residents where there is such opportunity, and there clearly is such opportunity. In any case, efforts should always be to manage and reduce airport noise, not to increase it. I trust that the City will properly, fully, and independently, research the adverse consequences of increased YVR night time operations, including the questions posed in this letter, and completely and openly communicates these results to those so affected. Further, I hope that the City requires YVR to exhaust all other alternatives rather than endorsing or supporting any motion or action that could possibly lead to increased night-time YVR airport noise.

Sincerely,



Vic Farmer

cc: Councillor Linda Barnes
Councillor Evelina Halsey-Brandt
Councillor Rob Howard
Councillor Bill McNulty
Councillor Derek Dang
Councillor Sue Halsey-Brandt
Councillor Kiichi Kumagai
Councillor Harold Steves

- Note 1:** *The Adverse Health Impacts of Airport Expansion with Particular Reference to Sea-Tac International Airport* From the Health Subcommittee of the Environmental Impact Committee of the Regional Coalition on Airport Affairs, Prepared by D. Dennis Hansen, M.D. and Lee A. Sanders M.D., Ph.D. 1992
- Note 2:** W Passchier-Vermeer, H. Vos, JHM Steenbekkers and FD van de Ploeg *TBO Report on Sleep Disturbance and Aircraft Noise Exposure*, Division of Public Health, The Netherlands, 2002: pages 88/9
- Note 3:** Federal Aviation Administration 12 New England Executive Park Burlington, MA 01803
- Note 4:** Berglund, B., Lindvall, T., Schwela, D., and Goh, K. (Eds.) "Community Noise," World Health Organization, Geneva, Switzerland: Department for Protection of the Human Environment, 2000.
- Note 5:** Katja Wirth, Mark Brink & Christoph Schierz *Aircraft Noise Annoyance at Different Times of Day* Institute for Hygiene and Applied Physiology, Swiss Federal Institute of Technology, CH-8092 Zurich, Switzerland
- Note 6:** U.S. FAA Office of Environment & Energy, Environmental Network *Introduction & Summary of Aviation Noise Abatement Policy Chapter 2. How Noise Affects People*
- Note 7:** Please see the BAA website (Owner of seven UK airports, including the world's busiest international airport, Heathrow). http://www.baa.com/main/corporate/sustainable_development/noise/initiatives_frame.html