



Corporate Administration
Memorandum

To: Chief Administrative Officer
From: Deputy Chief Administrative Officer
Date: November 7, 2011
Subject: **Manufacturing Noise Issue at 34980 Lougheed Highway**

Recommendation

This report has no recommendation.

Background

On September 6, 2011, a neighbourhood delegation came to Council to request the District of Mission address their concerns over the noise emitting from a manufacturing business in the area. The location of the property from which the noise is originating is 34980 Lougheed Highway, which is on the south side of the highway. The property is zoned "ING" heavy industrial zone. Historically, this property has been used for heavy industry uses, such as a shake mill.

Millstream Sorting Ltd. Had recently established a new process utilizing a log peeler with a veneer head to remove log tapers as part of their product processing and this has become the source of the noise issue. Millstream Sorting Ltd. makes dowels for an emerging market in the Far East and utilizes this site location to transport their product up the Fraser for breakbulk transportation.

In an effort to resolve the issue staff met with representatives of the neighborhood where the noise complaints originated and subsequently met with the owners of Millstream Sorting Ltd. The Millstream Sorting Ltd owners commissioned the services of an acoustical engineering firm to advise them on how to reduce the noise issues.

At the October 17, 2011 Council meeting staff reported that the owners of Millstream Sorting Ltd had committed to completing remedial work on the log peeler to reduce the noise that emanated off site. In an update from the owner this week, the District has been asked to extend that deadline to November 11, 2011 whereby the operation would not continue until the work on the enclosure had been completed.

This time extension is to facilitate the peeling of his remaining log inventory and subsequent customer orders thus avoiding additional costs to shut down at this critical time.

It is staff's opinion that the time extension is relatively minor in length, although that is not a comfort to the concerned neighborhood, and the owner has demonstrated a willingness to resolve this issue. It should be noted that sound testing has been completed and base decibel readings have been logged. Additional testing will be undertaken once the remedial work and enclosure has been completed.

Conclusion

While this issue has created an untenable situation for the neighborhood for quite some time I do not think it would be beneficial to take any action at this time to interfere with the operations of this business

given the time extension is minimal in the overall scheme of things. Staff will be onsite again on November 14, 2011 to see that the commitment by the owner is being honored.

Communication

Staff have discussed this most recent development with the neighborhood representative.

A handwritten signature in black ink, appearing to read "Paul Gipps". The signature is written in a cursive style with a large initial "P" and a long, sweeping underline.

Paul Gipps

From: Brent Tolmie
Sent: Wednesday, November 02, 2011 8:38 PM
To: Mike Rohde
Cc: Paul Gipps
Subject: Re: Mill Stream Pole Peeler Sound Deadening Report & Works.

Gentlemen,

I was taken away on business so I apologize for the delay. We have run the bulk of our inventory and will be shutting down by next week's end to perform works recommended by Eric of BKL. It's not something that could be done while running and due to the monumental drop in the China market we could not afford the downtime.

The long and short of it is that we are hoping to peel until next week's end, then complete enclosure works. We will not run again until it is in place.

Please reply at your earliest convenience.

Regards,
Brent Tolmie



October 20, 2011

File: 3205-11A

Southview Sorting Ltd.
PO Box 2437 Sardis Stn Main.
Chilliwack, BC
V2R 1A7

Attention: Brent Tolmie

Dear Brent:

Re: Mission Log Peeling Facility - Noise Investigation

We understand that the District of Mission has received complaints regarding the noise emissions from your log peeling facility in Mission, BC. On October 6th, 2011, BKL Consultants Ltd. performed a series of noise measurements near the log peeler and in the nearby residential community. This report documents the results of our measurements and provides general recommendations to reduce the noise impact of the log peeler in the neighbouring community.

Background

The District of Mission's Consolidated Noise Regulation Bylaw 1090-1981 contains the following clause which is relevant to community noise issues:

- *No person being the owner, tenant or occupier of real property shall allow or permit such real property to be used so that noise or sound which occurs thereon or emanates therefrom, disturbs or tends to disturb the quiet, peace, rest, enjoyment, comfort or convenience of any person or persons on the same piece of property or in the neighbourhood or vicinity.*

To define whether or not a noise would “*disturb the quiet, peace, rest, enjoyment, comfort or convenience of any person or persons on the same piece of property or in the neighbourhood or vicinity*”, we have compared measured sound levels emitted from the log peeler with quantitative noise limits specified in the City of Vancouver's Noise Bylaw 6555. Clause 6(a) of the Vancouver Bylaw is relevant and restricts continuous noise from activity zones to 60 dBA when received at a point of reception in a quiet zone during daytime hours and 55 dBA during nighttime hours.

Vancouver's Noise Bylaw No. 6555 defines a "continuous" noise source as "*any sound occurring for a duration of more than three minutes, or occurring continually, sporadically or erratically but totalling more than three minutes in any 15 minute period of time.*" Activity zones are typically located in designated industrial areas in the City of Vancouver. We would consider the industrial area in which the log peeler operates to be located within such an activity zone.

Measurements

Simultaneous noise measurements were performed at a location near the log peeler and at several locations within the nearby residential community. These locations are indicated in Figure 1. The simultaneous measurements permitted calculation of the sound attenuation provided by distance, terrain and meteorological conditions between the location closest to the log peeler and the assessment locations within the community.

B&K (Brüel & Kjær) Type 2250 sound level meters equipped with a B&K Type 4189 microphone were used for each of the measurements. These instruments comply with Type 1 accuracy as set out under ANSI S1.4 and IEC 123. The meters have been lab calibrated within the past year and were field calibrated before and after the measurements.

The calculated maximum "continuous" sound levels received at the assessment locations are shown table below:

| Location | Max. Calculated "Continuous" Sound Level (dBA) |
|---|--|
| Near Peeler | 77 |
| 35043 Lougheed Hwy (south facing Lougheed) | 66 |
| North of 35043 Lougheed Hwy on Sunnyside Dr | 57 |
| 35034 Fisher Pl | 47 |

Bylaw Assessment

We understand that the operation of the log peeler has been limited to daytime use only. As a result, noise levels from the log peeler would be restricted to 60 dBA at the residential property line when applying Vancouver's Noise Bylaw No. 6555 Clause 6 (a). However, tonal components in the log peeler noise, which are often perceived to be annoying, were observed after spectral analysis of collected data. To account for tonality, we found that the Ontario Ministry of the Environment (NPC-104) recommends a 5 dB penalty to the overall measured A-weighted sound level. Applying

this 5 dB penalty, we recommend limiting noise from the log peeler to 55 dBA at the residential property line during daytime hours.

Noise from the log peeler exceeds this recommended 55 dBA limit by 11 dBA at the nearest assessed residential receptor at 35043 Lougheed Hwy.

Recommendations

We recommend reducing noise from the log peeler by at least 11 dBA in order to meet the 55 dBA noise limit at the nearest noise sensitive receptor. To do this, we recommend the following:

- House the complete outfeed apparatus of the log peeler with an acoustic enclosure as shown in the attached Figure 2. Wood studded framing and plywood panels (min. 19mm thickness) are to be used in the construction of the enclosure. The inside of enclosure should be lined with 89mm (R12) fibreglass insulation or 50mm rigid duct liner. Any air gaps and holes in the enclosure should be avoided where possible. Further, rigid connections between the enclosure and the log peeling apparatus should be avoided.

While 3/4" plywood has recommended, any panel material having a surface mass of min. 10 kg/m² will provide similar results.

An opening at the outfeed will be required to permit free exit of peeled logs (see Figure 2). We recommend installing a flexible rubber or vinyl curtain at the outfeed opening. The total area of the outfeed opening should be minimized while ensuring safe exit of rolling logs.

As shown in Figure 3, the enclosure should include any exposed machinery on the east side of peeling apparatus.

Please note that the above general recommendation has been formulated to address noise issues only. The detailed design of this enclosure should take into account safety, structural integrity and the overall mechanical operation of the log peeler. We would be pleased to provide an acoustical review of any of your proposed design or construction details.

We understand that the District of Mission has requested follow-up noise measurements of any mitigation. We would be pleased to offer our services to perform any additional post-construction noise measurements in a separate proposal at your request.

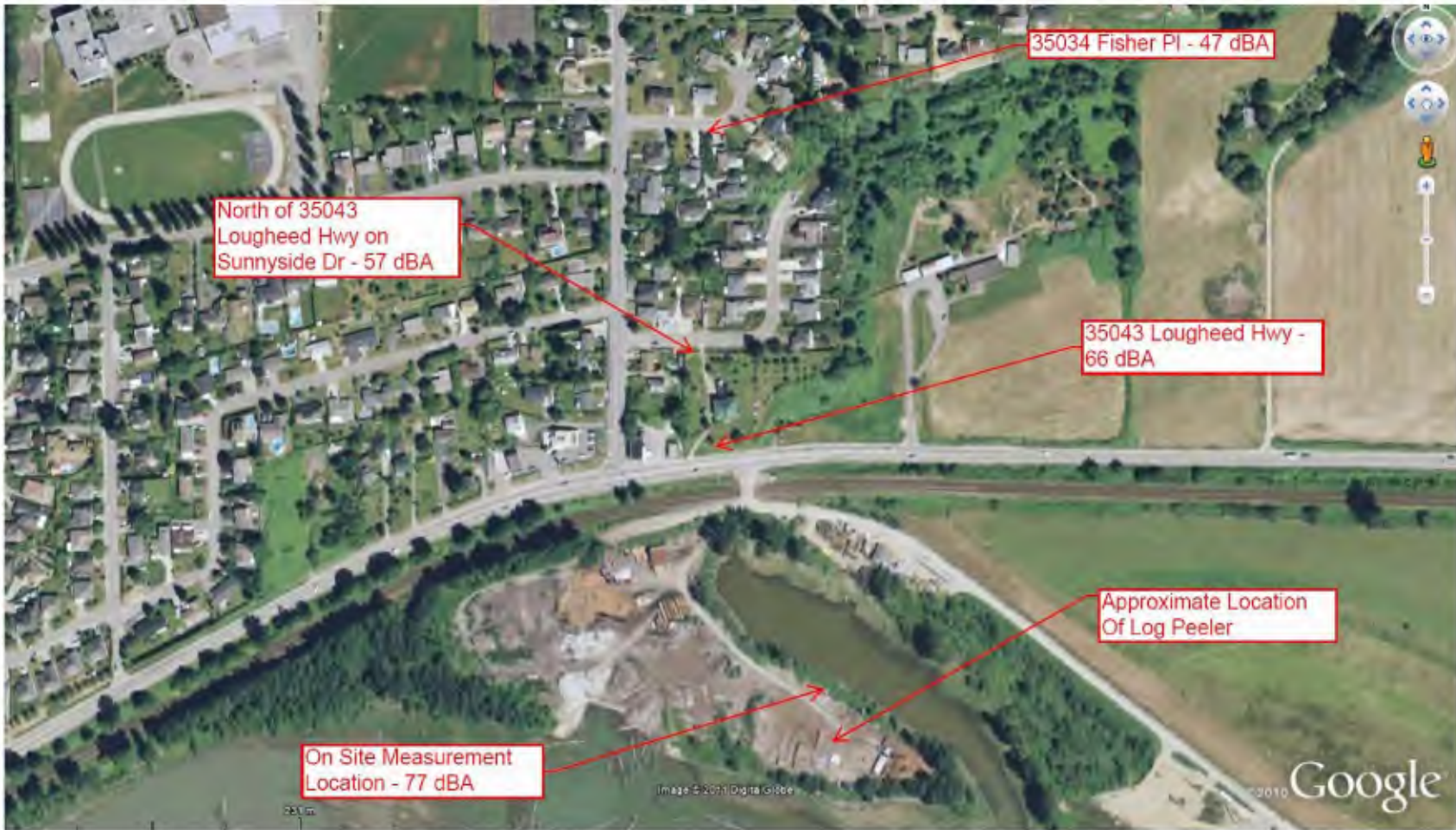
Sincerely,

BKL Consultants Ltd.

per:



Eric M. de Santis, M.Sc., EIT
enclosures





3205-11A

Figure 2: Conceptual Layout

October 2011



3205-11A

Figure 3: Conceptual Layout

October 2011