

Memo for: Mike Mackiggan
From: Peter Harcom
Date: 23 December 2011
Subject: Preliminary report on RM100848: Adcock and Donaldson properties Ltd: Create and Operate a Motorsport Park at Stanley Brook.

Executive Summary

This report records the details of noise assessments carried out on 22 December 2011. No interpretation of the data gathered is made in this report. It is intended that comment interpreting the data gathered will be made after viewing the applicants AEE.

Observations and noise measurements

Observations were made by Environmental Health Officers at four separate locations whilst a drag car and two rally cars generated noise. The observations made by Pete Harcom (TDC Environmental Health Officer) were as follows:

Site 1: Situated 20 metres from the drag car which generated noise for this survey and approximately at the location of the start of the proposed drag strip. Map grid reference: E2498646, N5977725

Sound level measurements were undertaken at the southern end of the proposed location of the Dragstrip track at the Stanley Brook site on the morning of 22 December 2011. Russell Malthus of Viastrada was also on same site taking noise measurements.

Sound Level Assessment:

Time of measurements: From 10.58 am to 12.30pm

Location of measurement:

At the southern end of the proposed site for the Dragstrip – (photos below).
(NZ map grid reference = GPS E2498646 - N5977725)

Weather Conditions: Fine with 50% cloud, northerly breeze generally less than 2m/s at the measurement site. Temperature approximately 22°C at measurement site.

Equipment used:

Sound Level Meter: Rion NL-18 Precision Integrating Sound Level Meter (SLM), serial number 00360034.

Calibration due date: 20 April 2013 (last completed by ECS Ltd)

Acoustic Calibrator: Bruel & Kjaer type 4230, serial number 1206832.

Calibration due date: 20 April 2012 (last completed by ECS Ltd).

SLM operator: Peter Harcom

A microphone wind screen was used for the duration of the survey for each environmental measurement. For each result recorded the SLM was set up and positioned on a tripod approximately 1.5 metres above the ground. The SLM was initially calibrated, and not shut down until re-calibrated at the end of the sequence of measurements at each site. Calibration level limits were within the 0.5 of target 93.8 dBC and are the only measurement in dBC. All other results are in dBA.

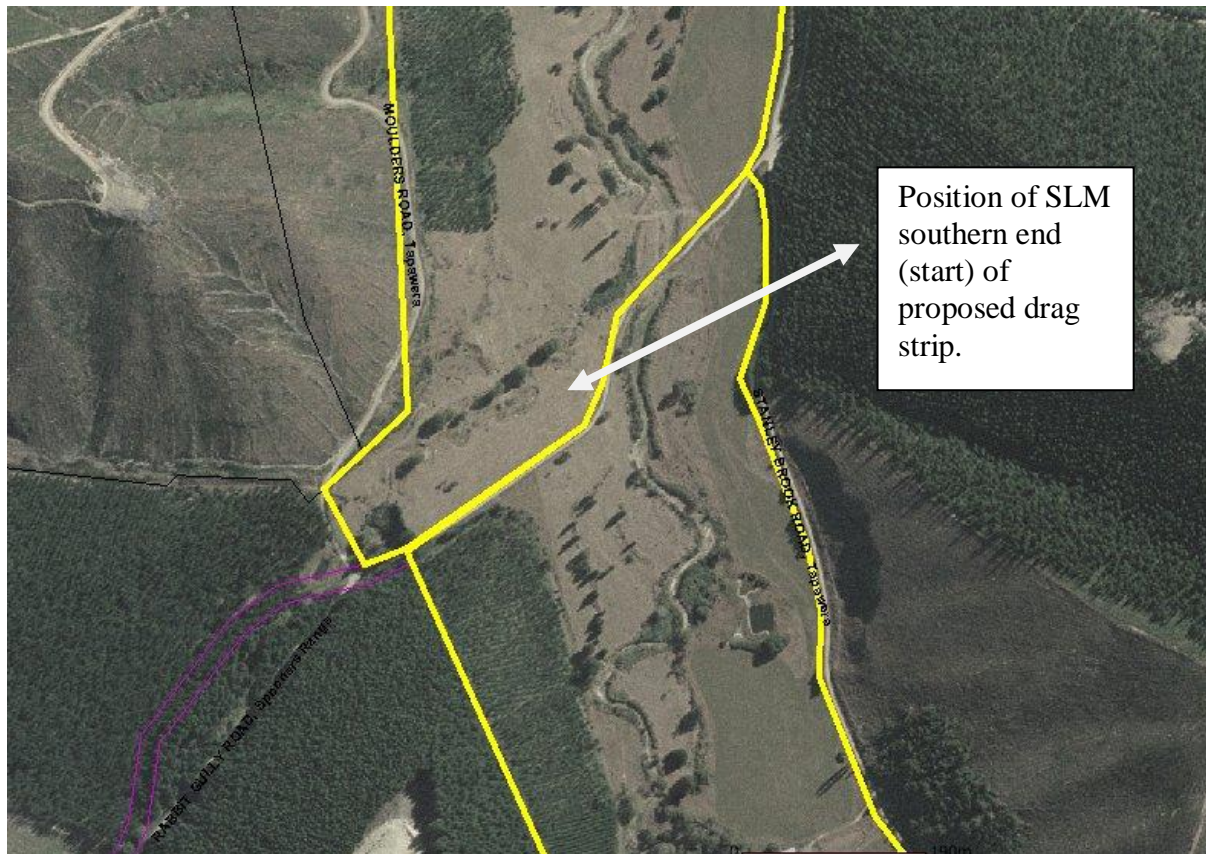
Sound level measurement location and duration

Measurement site as shown in the table below as 'Site 1'.

Duration of measurements is stated in the results and it is noted that all are of short duration and are significantly less than required by NZS680. Therefore, it was considered that the special audible characteristic penalty of 5 decibels would not be applicable in this circumstance.

All results are rounded to the nearest whole number, with 0.5 rounded up.

Pic 1 - Aerial view of SLM location (Site 1) – 22 December 2011



Sound level measurement results 22 December 2011:

Site 1, proposed Motorsport Park, Stanley Brook Road, NZ map grid reference = GPS E2498646 - N5977725

Calibration: 10.58 am 93.4 dBC; and 12.30pm 94.3 dBC

Measurement number	1	2	3	4	5	6
Start time	10.58am	11.14am	11.24am	11.51am	12.11pm	12.23pm
End time	10.58am	11.14pm	11.24am	11.52am	12.13pm	12.25pm
Total Measurement time	1 minute	36 seconds	51 seconds	56 seconds	1 minute 34 seconds	2 minutes
L_{eq} in dBA	39	91	71	89	38	65
L_{max} in dBA	47	97	84	100	49	84
L _{min} in dBA	35	70	41	60	33	38
L ₁₀ in dBA	41	95	76	94	40	67
L ₉₀ in dBA	37	73	46	70	35	42
L ₉₅ in dBA	37	72	44	60	35	40
Comment	A 1 minute background was obtained prior to the drag car being started up. The background at this site was predominantly insect noise and a small amount of birdsong and occasional distant cattle lowing.	First Drag Car monitoring – (owner ran engine whilst the vehicle was on a trailer) – ran engine for 36 seconds.	Rally Cars running from ford back to the gate – 51 seconds recorded.	Second run of the Drag Car.	Rally cars at the far (Northerly) end of the site. (Barely distinguishable above the general background of birds, bees and crickets).	Rally Cars recorded coming back to the monitoring site. The Leq and L max readings were due to the rally car carrying out a 360 on the track approx 200 yards from the SLM.



Pic 2 – Rally car – on track adjacent to the same SLM position as in Pic 1 above.

Peter Harcom
Environmental Health Officer
23 December 2011