

16 April 2020

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Dear Craig

15 CREMORNE STREET

As requested I have reviewed the noise controls for the consented helipad at 15 Cremorne Street in Hearn Bay. The current consent dated 10 July 2015 includes the following conditions:

7. *The consent holder shall ensure that the use of the landing area on the site to which this consent applies for helicopter operations shall not exceed a noise limit of L_{dn} 50dBA when measured at or within the boundary of any adjacent dwelling (excluding any dwelling where written approval has been provided);*
 8. *All flights shall be restricted to the hours of 7:00am – 10:00pm each day or between Morning Civil Twilight and Evening Civil Twilight whichever is the more restrictive;*
 9. *All arrivals and departures shall take place on the flight path outlined in Figure 1. "Proposed Helipad Site" of the Hegley Acoustic Consultants report dated March 2014;*
 10. *The number of flights per week shall not exceed two (four movements) with no more than one flight (two movements) on any one day;*
 11. *Measurements of helicopter noise shall be carried out in accordance with the requirements of NZS6801: 1991 Measurement of Sound;*
 12. *The helipad shall not be used for any helicopter creating noise effects greater than a 'Eurocopter 130' unless it has been demonstrated that the noise will comply with condition 7. above;*
 13. *The consent holder shall require that all pilots using the site, plan routes and fly in accordance with the recommendations of the Helicopter Association International 'Fly Neighbourly' Guide;*
 14. *The consent holder shall at all times ensure that a full and accurate log of helicopter flights is maintained and located on site. The log shall note the type of helicopter, the helicopter operator and the time of flight. This log shall be made available to the Council upon request by a Council officer, within 24 hours of the time of the initial request to view the register;*
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The Eurocopter 130 helicopter adopted for the original analysis is no longer used but has been replaced with an Air Bus H130T2 as shown on Figure 1. The Air Bus H130T2 is a newer version of the Eurocopter 130.



Figure 1. Air Bus H130T2

Field testing of the Air Bus was undertaken on 27 February 2020. The level of noise from this testing was used to check compliance with the 50dBA L_{dn} requirement of condition 7 as set out above. It is noted I have been advised by the pilot that the motor on the Air Bus H130T2 can be closed down 30 seconds after landing and can take off 30 seconds after starting up. This is compared to the old model where the time is up to 4 minutes.

The flight control was discussed with the helicopter pilot and he has advised that if the passengers are not at the helipad when he arrives on site he closes the helicopter down rather than wait with the engine idling for what could be an unknown period. Similarly, if he has passengers who are not familiar with disembarking he closes the helicopter down to enable him to assist the passengers. Also, when flying passengers who are unfamiliar with a helicopter he needs to check all doors are correctly closed prior to take-off.

When considering the above information it has been assumed the method to operate the site will be to land and shut down the helicopter and then startup and depart once passengers are on board.

Adopting the currently approved flight path as shown on Figure 2 (and referred to in condition 9) and adopting the “Fly Neighborly”¹ program, the noise exposure at the boundary of the closer houses where no written consent has been granted will comply with the 50dBA L_{dn} limit based on 11 flights a week (11 daytime arrivals and 11 daytime departures). This equates to an average of 1.5 flights a day with an upper limit of 3 flights (3 daytime arrivals and 3 daytime departures) a day providing the weekly average does not exceed 11 flights. The resulting noise effect for the closer dwellings where no written consent has been given is shown in Table 1.

¹ <https://www.aia.org.nz/site/aianz/files/Aircare/Company%20training%20Package/Fly%20Neighbourly%20Guide.pdf>

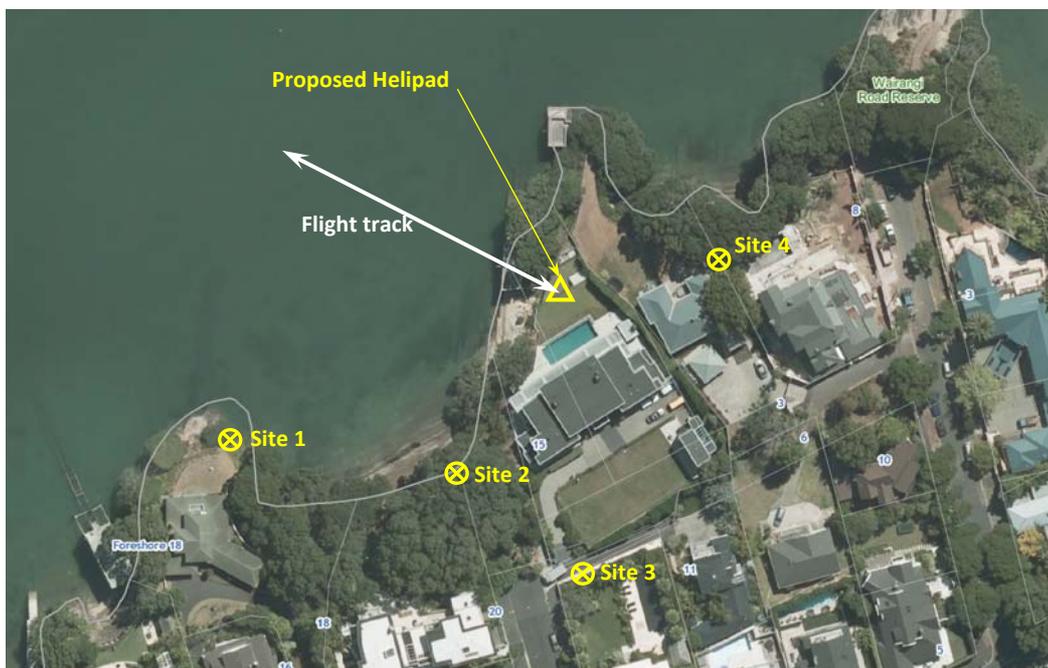


Figure 2. Proposed helipad site

Site*	L _{dn} , dBA
1	47
2	50
3	47
4	49

* See Figure 1 for the site location

Table 1. Predicted helicopter noise

It is proposed to add a condition limiting the total number of flights to 104 a year (104 daytime arrivals and 104 daytime departures), which reflects the current requirements of condition 10.

While the current proposal reflects the intention of the existing conditions and falls within the original submissions made for this activity, it will be appropriate to update conditions 10 and 12. The proposed changes are set out below.

10. *The number of flights per week shall not exceed ten (twenty movements) with no more than three flights (six movements) on any one day and 104 flights (208 movements) in any year;*
12. *The helipad shall not be used for any helicopter creating noise effects greater than an 'Air Bus H130T2' unless it has been demonstrated that the level of noise will comply with condition 7 above;*

Conditions 7 – 9, 11, 13 and 14 should remain unchanged.

It is noted the original conditions, as set out above do not refer to NZS6807:1994 *Noise Management and Land Use Planning for Helicopter Landing Areas*. There is no reference on how helicopter noise should be assessed in the current conditions or in the Auckland Unitary Plan -

Operative in Part, so to provide certainty it is recommended the requirements of NZS6807 should be adopted. It is noted that L_{dn} is not defined in the AUP-OP so has no meaning without reference to a specific document. Unless there is some clarity the conditions cannot be effectively enforced as currently written, as it requires assumptions to be made that may vary between different parties. It is therefore appropriate to relate the activity to NZS6807, which was prepared specifically for such use and reflects what is believed to be the aim of the conditions and Rule E25.6.32 in the AUP-OP. It is recommended a new condition should be added to the existing conditions and is set out below.

New The noise from helicopters using the site shall comply with the requirements of NZS6807:1994 Noise Management and Land Use Planning for Helicopter Landing Areas.

The above satisfies the L_{dn} 50dBA noise limit as set out in condition 7 and maintains the theoretical yearly flights to 104. With the addition of a new condition requiring the assessment to be in accordance with NZS6807, there is certainty provided for the conditions.

Should you have any questions regarding the above please do not hesitate to contact me.

Yours sincerely
Hegley Acoustic Consultants



Nevil Hegley