

18 January 2021

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**15 Cremorne Street, Herne Bay - Resource consent variation application
LUC60134603-A**

Introduction

- 1 Shearer Consulting Limited, on behalf of the owners of 15 Cremorne Street, Herne Bay, has made an application (LUC60134603-A) to amend the conditions of the existing land use consent (R/LUC/2015/940) (*Existing Consent*) which authorises the operation of a domestic helicopter from 15 Cremorne Street (*the Application*).
- 2 We are instructed on behalf of the owners of 12, 14, 16 and 18 Cremorne Street, Herne Bay in relation to the Application.
- 3 We have reviewed the Application, including the accompanying acoustic report prepared by Hegley Acoustic Consultants (*Hegley Assessment*).
- 4 On the basis of the Hegley Assessment, the Application concludes that the effects will be less than minor and therefore recommends the Application be processed on a non-notified basis.
- 5 For the reasons set out in this letter, we consider that:
 - (a) the Application should be processed as a new consent rather than a variation;
and
 - (b) notification to our clients is required as affected persons.

The Application

- 6 The Application seeks to:

- (a) increase the number of flights per week from two (four movements), with no more than one flight (two movements) on any one day, to ten flights per week (20 movements) with no more than three flights (six movements) per day;
- (b) change the permitted helicopter to be used from a 'Eurocopter 130' to an 'Air Bus H130T2'; and
- (c) add a new condition to specify that noise shall be assessed in accordance with the requirements of NZS6807:1994 Noise Management and Land Use Planning for Helicopter Landing Areas.

Variation

- 7 Section 127 of Resource Management Act 1991 (*the Act*) enables the holder of a resource consent to apply for a change of conditions of the consent.
- 8 However, it is established authority that the scope of section 127 is restricted to variations of the already consented activity, with any proposal beyond that requiring consent as a new activity:¹

In deciding whether an application for variation is in substance a new application, the consent authority should compare any differences in the adverse effects likely to follow from the varied [activity] proposed with those associated with the activity in its original form. Where the variation would result in a fundamentally different activity or one having materially different adverse effects, a consent authority may decide the better course is to treat the application as a new application. That will particularly be the case where the application for variation seeks to expand or extend an activity with a consequential increase in adverse effects.

- 9 Therefore, if the amendments sought in the Application would result in an activity having materially different adverse effects than those authorised by the Existing Consent, the Application should be treated as a new application, rather than a variation, and processed accordingly.
- 10 The Hegley Assessment has assessed noise exposure at 18 Cremorne Street (*Site 1*), 20 Cremorne Street (*Site 2*), 9 Cremorne Street (*Site 3*) and 8 Wairangi Street (*Site 4*) and concludes that the variations sought in the Application will not result in any exceedance of the applicable noise standard (50dBA L_{dn}).
- 11 Our clients have commissioned a peer review of the Hegley Assessment by Marshall Day Acoustics dated 22 December 2020 (*Marshall Day Assessment*). The Marshall Day Assessment is appended to this letter as **Appendix A**.
- 12 On the basis of its own modelling, Marshall Day has concluded in its Assessment that:
 - (a) the number of helicopter movements proposed in the Application would not comply with the 50dBA L_{dn} noise standard at Sites 1, 2, 4 and 3 River Terrace; and

¹ *Body Corporate 970101 v Auckland CC* (2000) 6 ELRNZ 183; [2000] NZRMA 202 (HC) at [74]; with this approach being upheld on appeal *Body Corporate 97010 v Auckland CC* [2000] 3 NZLR 513; (2000) 6 ELRNZ 303; [2000] NZRMA 529 (CA).

- (b) the Hegley Assessment has not fully considered potential noise effects, including changes to noise exposure and single event levels (L_{Amax}), when arriving at the conclusion that the effects of the Application would be less than minor. In particular, the Marshall Day Assessment records that:
 - (i) at certain locations, the increase in movements represents a 7 dB increase in noise – being an appreciable increase in noise;
 - (ii) there will be changes in noise exposure resulting from the variation of helicopter movements;
 - (iii) predicted single event noise levels may exceed the Auckland Unitary Plan standard of 85 dB L_{AFmax} ; and
 - (iv) the difference in noise level between the helicopter authorised under the existing consent and the helicopter proposed to be used in the Application has not been assessed.
- 13 On the basis of the Marshall Day Assessment, we consider that the Application is seeking to materially expand the existing consented activity with a consequential increase in adverse effects such that it should be considered as a new application rather than a variation of the Existing Consent.

Notification

- 14 Section 95B(8)-(9) of the Act requires affected persons to be limited notified of consent applications.
- 15 A person is an affected person if the consent authority decides that the activity's adverse effects on the person are minor or more than minor (but are not less than minor).² That assessment is required irrespective of whether the Application is considered as a variation or new consent.
- 16 For variation applications, section 127(4) of the Act specifically requires the consent authority to consider every person who made a submission on the original application and may be affected by the change. However, that provision does not limit the application of the general notification provisions under the Act and the decision whether and to whom an application under section 127 is to be notified must still be made under those provisions.³
- 17 The Marshall Day Assessment predicts an exceedance of the applicable noise standard at one of the properties owned by our clients (18 Cremorne Street / Site 1). As set out above, Marshall Day also considers that the Hegley Assessment has not fully considered the noise effects including changes in noise exposure and single event levels. Marshall Day disagrees with the Hegley Assessment conclusion that the effects would be less than minor.
- 18 If the effects are minor or more than minor on our clients then under the Act they are required to be notified of the Application. Accordingly, we consider that our clients

² Resource Management Act 1991, section 95E.

³ *Te Rūnanga o Ngāti Awa v Bay of Plenty Regional Council* [2019] NZEnvC 196 at [243] – [244].

meet the definition of affected person under the Act and should be notified of the Application.

Conclusion

19 We look forward to your confirmation that:

- (a) the Application will be processed as a new consent application; and
- (b) our clients will be notified of the Application.

20 For the avoidance of doubt, we advise that should the Council make a determination not to notify the Application to our clients, we have been instructed to pursue all appropriate legal remedies.

Yours faithfully
Greenwood Roche



Francelle Lupis
Partner

Appendix A

| | | | |
|-------------------|--|-------------------------|------------------|
| Project: | 15 Cremorne St Helicopter Consent | Document No.: | Ca 001 R02 |
| To: | Prospect Investment Management Trust | Date: | 22 December 2020 |
| Attention: | Richard Mora | Cross Reference: | |
| Email: | richard@richardmora.com | Project No.: | 20201145 |
| From: | Laurel Smith | No. Pages: | 4 |
| CC: | | Attachments: | Yes |
| Subject: | Peer Review of Helicopter Noise Assessment | | |

Summary

We have reviewed the noise assessment report (dated 16 April 2020) prepared by Hegley Acoustic Consultants (HAC) for the proposed variation of consent for a helipad at 15 Cremorne Street, Herne Bay.

In summary, we disagree with the HAC assessment on the following points:

1. Our noise modelling shows that the proposed number of helicopter movements would not comply with 50 dB L_{dn} (7 day) at 18 Cremorne St (Site 1), 20 Cremorne St (Site 2) and 8 Wairangi St (Site 4). Our noise modelling also shows that there will be non-compliance at 3 River Terrace
2. The HAC report has not fully considered the noise effects including change in noise exposure and single event levels (L_{Amax})

Helicopter Noise Modelling

We have undertaken our own noise modelling of the proposed helicopter activity using the flight track information in the HAC report. In 2019 we undertook an in-house study to compare our helicopter measurement data with the predictions from two helicopter noise models SoundPLAN and the Integrated Noise Model (INM). For the EC130 helicopter, we found that SoundPLAN predictions (using DIN 45684-1 Aircraft Class H1.1) align well with our measurement results from a range of locations (approximately +/- 2 dB). SoundPLAN also allows terrain and buildings to be included in the model to accurately predict the effect these have on sound propagation. As such, we are comfortable that our modelled predictions are a reasonably accurate representation of the likely noise levels of helicopter take-offs and landings which take into account the specific screening effects for each receiver point.

The attached noise contour figure shows our predicted L_{dn} contours for the proposed 20 movements (10 flights) per week. Table 1 lists the predicted noise levels. We have assessed noise at more receiver points than the HAC report. The figure below shows the location of these.

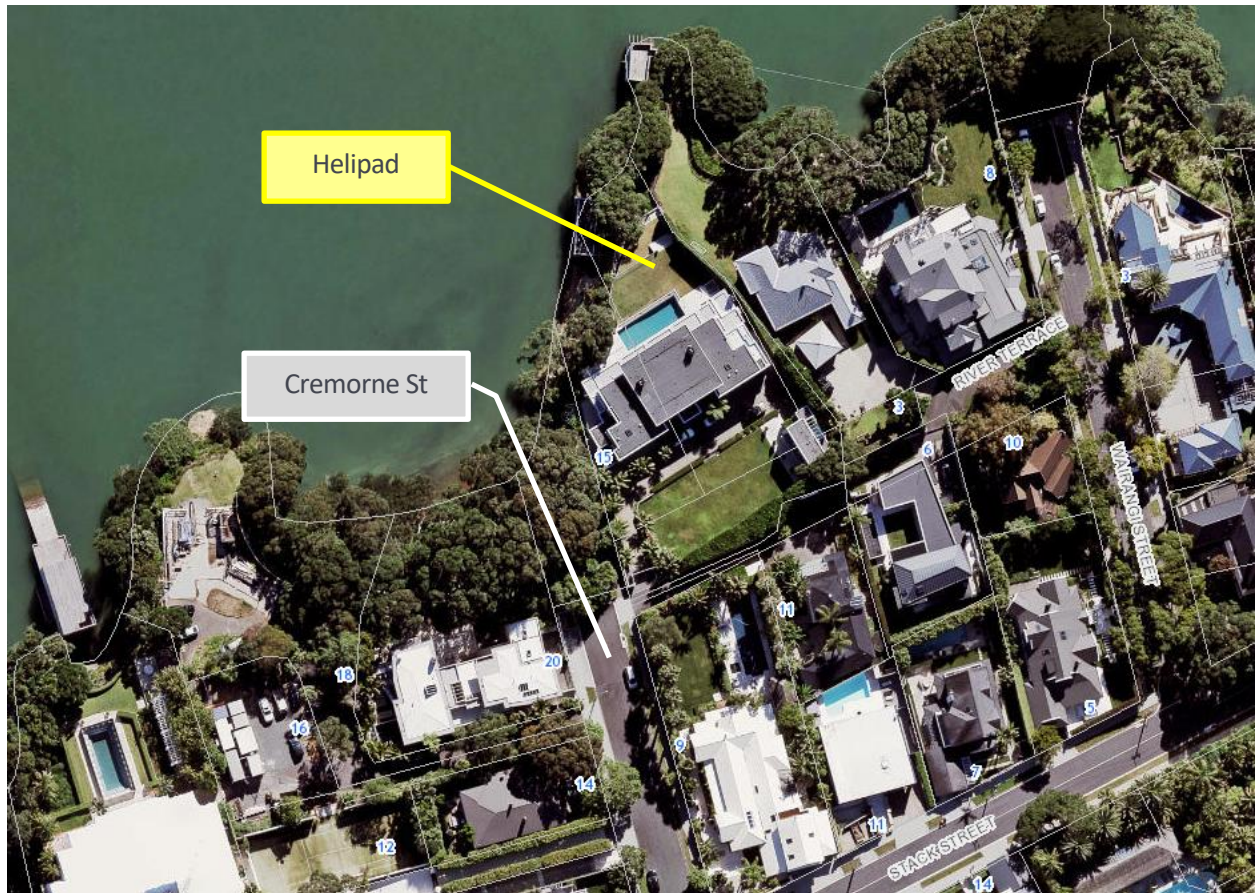


Table 1: Predicted Noise Levels for Proposed Variation to Helicopter Movements

| Receiver | HAC Prediction (dB L _{dn}) | MDA Prediction (dB L _{dn}) | |
|----------------------|--------------------------------------|--------------------------------------|-------------------|
| | 22 movements / week | 20 movements / week | 6 movements / day |
| Site 1 (18 Cremorne) | 47 | 52 | 56 |
| Site 2 (20 Cremorne) | 50 | 54 | 57 |
| Site 3 (9 Cremorne) | 47 | 46 | 49 |
| Site 4 (8 Wairangi) | 49 | 52 | 55 |
| 11 Cremorne St | - | 44 | 47 |
| 3 River Terrace | - | 61 | 64 |

Our predictions in the table show that the proposed number of movements over a 7 day period would not comply with 50 dB L_{dn} at Sites 1, 2, 4 and the neighbouring property to the east, 3 River Terrace.

In Table 2 below we have predicted the allowable number of weekly movements that would comply with 50 dB L_{dn} (7 day) at the receiver locations. The allowable number of movements based on our predictions is considerably lower than proposed in the variation at four receivers.

Table 2: Predicted Number of Movements to Comply with Intended Noise Limits

| Receiver | # Weekly movements to comply with 50 L _{dn} |
|----------------------|--|
| Site 1 (18 Cremorne) | 12 |
| Site 2 (20 Cremorne) | 8 |
| Site 3 (9 Cremorne) | 49 |
| Site 4 (8 Wairangi) | 13 |
| 11 Cremorne St | 78 |
| 3 River Terrace | 2 |

The existing consent and the proposed variation include a condition limiting the number of movements on any one day. NZS 6807:1994 '*Noise Management and Land Use Planning for Helicopter Landing Areas*' allows noise from helipads to be averaged over a 7 day period provided the level on any one day does not exceed 53 dB L_{dn}. This is the same as saying the number of movements on any one day shall not be more than twice the weekly allowable movements divided by seven. For the existing consent, the daily maximum is 2 movements as it is not practicable for it to be less than one landing and one take-off. For the proposed variation, the daily maximum is 6 movements which is double the 20 weekly movements divided by 7. Applying the same approach to our predictions at 20 Cremorne St, the allowable daily maximum number of movements would be 2.

Change in Noise Level of Proposed Variation

The existing consent limits the number of helicopter movements to four movements per week with a maximum of two on any one day. I understand that written approval for this original consent was provided by owners of 3 River Terrace, 11, 12, 14, 16 and 20 Cremorne St. We have predicted L_{dn} noise levels for the existing consent conditions using the same methodology described above and the results are listed in Table 3.

Table 3: Predicted Noise Levels for Helicopter Movements in Existing Consent

| Receiver | MDA Predictions | |
|----------------------|---------------------|---------------------|
| | 4 Movements / 7 day | 2 Movements / 1 day |
| Site 1 (18 Cremorne) | 45 | 51 |
| Site 2 (20 Cremorne) | 47 | 53 |
| Site 3 (9 Cremorne) | 39 | 45 |
| Site 4 (8 Wairangi) | 45 | 50 |
| 11 Cremorne St | 37 | 43 |
| 3 River Terrace | 54 | 60 |

The levels in Table 3 show that the number of movements allowed in the existing consent would comply with 50 dB L_{dn} (7 day) at all receivers except 3 River Terrace. The proposed increase in helicopter movements from 4 per week to 20 per week represents a 7 dB increase in noise. Subjectively this is an appreciable increase in noise.

The HAC report does not address the change in noise exposure resulting from the variation to helicopter movements. The HAC report briefly discusses that the variation to the consent would apply to a more modern version of the EC130 (Airbus H130T2) which does not require as long to shut down or start up. However, there is no data provided in the HAC report to show the following:

1. The difference in noise level between the modern version and the earlier version of the EC130
2. The difference in noise exposure due to the shorter idling time.

Single Event Noise Levels

Noise from individual helicopter events can be quantified using the L_{Amax} metric which is the maximum level occurring during a noise event. This contrasts with the L_{dn} level which is the average noise exposure over a day or a week. The HAC report does not address L_{Amax} noise levels experienced at receivers during each helicopter event.

The existing consent conditions do not include an L_{Amax} noise limit however the Auckland Unitary Plan Rule E25.6.32 defines a limit of 85 dB L_{AFmax} for helicopters received at noise sensitive activities. This provides a reference of acceptability.

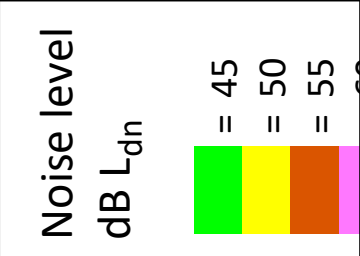
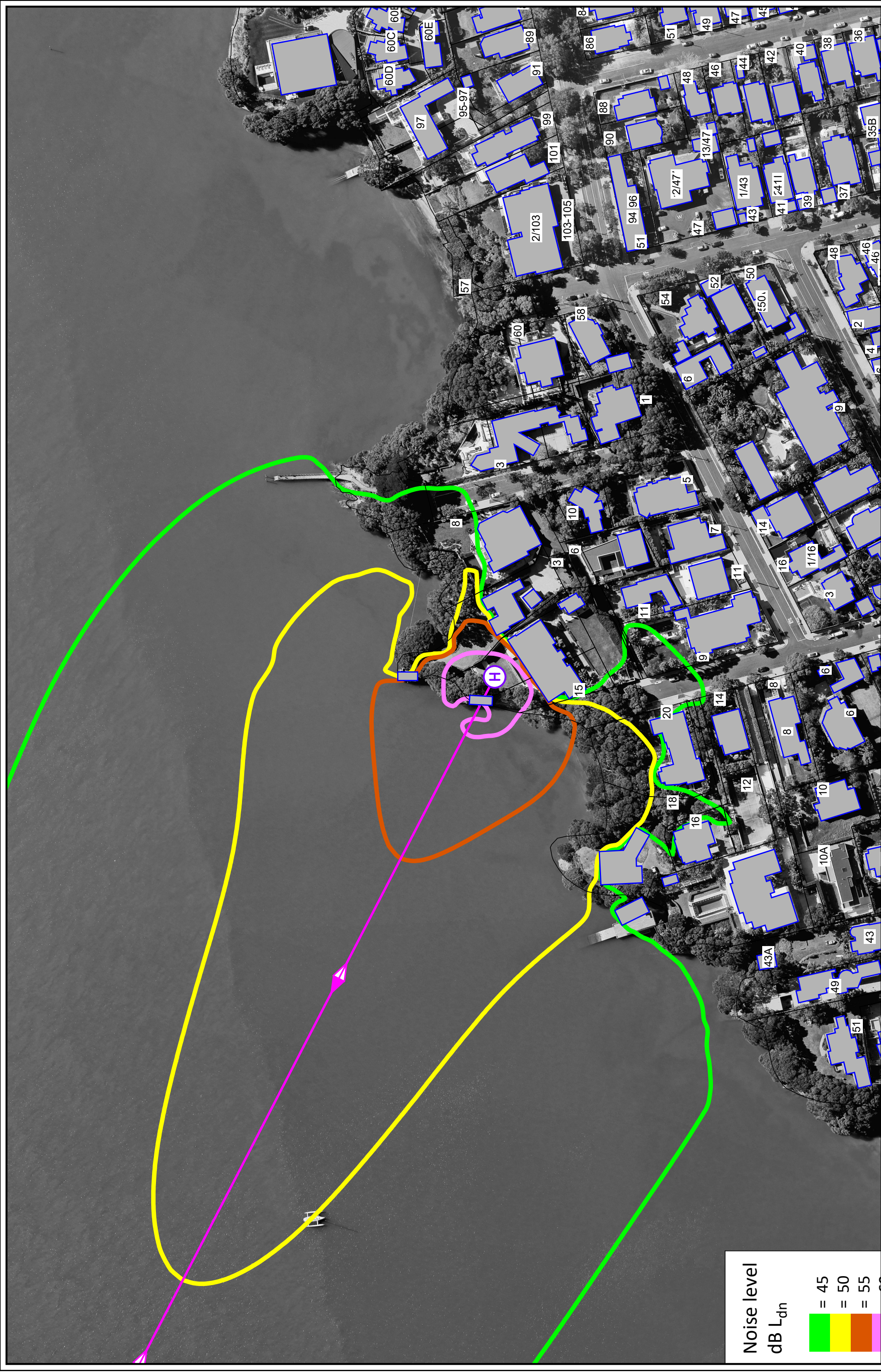
The SoundPLAN model does not predict L_{Amax} for helicopters. Our previous measurements of the EC130 helicopter show that at a distance of 80 m from a helipad and perpendicular to the flight path the maximum noise level is 93 dB L_{Amax} for a take-off or a landing. Sites 2 and 3 are in a similar position but 50 m and 92 m respectively from the helipad. Site 2 may experience some screening of the actual helipad from the house at 15 Cremorne St but the main flight path is not screened. We predict the maximum level at Sites 2 and 3 for each helicopter movement would be within the range of 85 – 95 dB L_{Amax} . Events this loud would be disruptive and interrupt communication during the event.

Conclusion

In summary, we disagree with the HAC assessment on the following points:

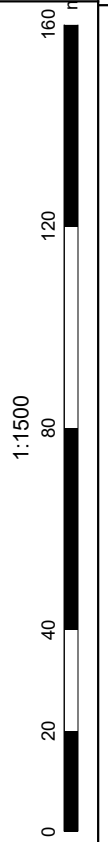
1. Our noise modelling shows that the proposed number of helicopter movements would not comply with 50 dB L_{dn} (7 day) at Sites 1, 2, 4 and 3 River Terrace
2. The HAC report has not fully considered the noise effects including change in noise exposure and single event levels (L_{Amax})

In our view, the effects of the proposed variation have not been fully considered. The HAC report has only considered whether the proposed number of movements would exceed 50 dB L_{dn} (7 day). In predicting that the levels would not exceed 50 dB L_{dn} (7 day), the report concludes that the effects would be less than minor. We disagree with this conclusion.



Predicted helicopter noise levels
20 movements / 7 days

Date: 18/12/2020
Project No: 20201145
Client: Prospect Group
Run No.: 2
Drawn by: msy



The noise contours in this Figure were obtained by computer interpolation between calculated grid points. There is an interpolation accuracy of +/- 1.5 dB.