

SSD70889211 MARSDEN PARK DATA CENTRE RESPONSE TO SUBMISSIONS MATRIX					
AGENCY	CATEGORY	SUBJECT	COMMENT	TEAM RESPONSE	Status of RTS Response
EPA	Operational Noise	Operational Noise	The operational noise impact assessment (ONIA) did not appear to fulfill the requirements of the Noise Policy for Industry (EPA 2017, NPI) with issues identified concerning the background noise monitoring, consideration of annoying characteristics, assessment locations, noise modelling inputs and the assessment of impacts.	Report has been updated to address the issues raised. Additional Background noise monitoring has been conducted (Section 3.3) Additional Assessment of Low Frequency Noise has been conducted (Section 4.1.3.4) Grid Noise Maps have been extended and also assessed to 1.5m and 4.5m, sensitive receivers have been selected on focused grid noise maps around receiver locations to identify most affected locations (Section 5.5.1) All Noise modelling inputs and the assessment of impacts have been presented in the acoustic report.	Complete
EPA	Operational Noise	Background noise monitoring	The noise monitoring conducted at location L1 (Thursday 25 July) did not appear to record similar levels to other night periods. The noise level appears relatively constant from the evening on 24 July and remains elevated until it starts to rise in the morning of the 25 July. This does not appear to follow the same pattern as all other weekday nights, and may have been impacted by extraneous noise, or may be atypical of long term background noise levels in the area.	Reviewed data, and cancelled out the evening and night periods (5:45pm to 7:00am) on the 24th-25th of July. This does not affect the Laeq values of the overall data, however the evening RBL for the overall monitoring period does decrease by 1dB (more stringent) which results in a intrusiveness level of 42 for the evening which has been adopted. Updated Section 3.2.1, 4.1.3, 4.1.4 and 5.5 to include updated criteria for evening to 42dB(A). Excluded the evening and night periods of 24th-25th July from the calculations due to extraneous noise events.	Complete
EPA	Operational Noise	Background noise monitoring	The Northrop attended measurement notes indicated that background noise levels were controlled by frog noise at the location M01, which is close to receivers near to the proposed development. Attended measurements were not conducted by Stantec during the night period to characterise the noise sources which contribute to the measured background noise levels.	Additional Measurements conducted during the Night-time period (2:00am - 3:00am) in the summer months to confirm any seasonal and unrepresentative extraneous noise. The measurements noted the presence of frogs and crickets.	Complete
EPA	Operational Noise	Background noise monitoring	Therefore, it is unclear if the background noise levels measured by Stantec also included frog noise and if the frog noise is extraneous noise that is unrepresentative of long term repeatable background noise levels. There is potential risk that both sets of measurements were affected by seasonal and unrepresentative extraneous noise, which may affect the measured background noise levels during the critical night time period.	Section 3.3 has been updated with a discussion of the additional attended noise monitoring.	
EPA	Operational Noise	Background noise monitoring	The EPA recommends that DPH request: a) The noise sources which contribute to the noise environment during the night periods in the Stantec measurements be described and quantified. b) Evidence and justification that noise measurements are representative of long term background noise level at the potentially worst affected receivers in the absence of extraneous noise should be provided, or additional measurements supplied.		
EPA	Operational Noise	Northrop measurement results	The Northrop measurement results have lower background noise levels than those conducted by Stantec at the retirement village. Therefore, it's not clear why the Northrop measurements were not adopted as the basis for determining the project noise trigger levels for the retirement village.	At the time of establishing criteria, the Northrop data was not apart of the report. The northrop data was added to support our data i.e. similar noise levels at similar locations. We could not conduct monitoring at the same location as Northrop due to construction noise along Hollinsworth Rd. Northrops RBLs have been adopted, however this will not change the PNTL's as they are driven by Amenity (evening). The Day time will reduce the intrusiveness criteria to 46dB(A) which is 1dB more stringent, but will not result in any exceedances based on the assessment conducted	Complete
EPA	Operational Noise	Northrop measurement results	The EPA recommends that DPH requests the applicant justify the use of the higher background noise levels for the retirement village in the assessment or amend the assessment accordingly.	Updated Section 3.2.1, 4.1.3, 4.1.4 and 5.5 to include updated criteria for Day at R2 to 46dB(A) in line with Northrop's data	Complete
EPA	Operational Noise	Adjustment of Amenity Noise Level	Section 4.1.3.2 of the ONIA states the following: "A meeting with NSW EPA was held on the 18th of September 2024 to discuss the determination of criteria for the project. From this meeting, Stantec inquired for clarity surrounding the +3dB adjustment to amenity criteria to convert from a period level to a 15min and whether it was applicable to a project of this nature. The NSW EPA confirmed that the +3dB correction is to be upheld for establishing the criteria for the development. As such, the project teams subsequently concluded to adopt a 38dB(A) criteria for the night time as the most stringent relevant project noise trigger level."	Nothing for Stantec as discussed in the meeting with EPA on the 23rd January 2025. Updates to Section 4.1.3.2	Complete
EPA	Operational Noise	Adjustment of Amenity Noise Level	The EPA's comments in the meeting were to confirm the Noise Policy for Industry (NPI) position on the correction to the amenity criteria is an addition of +3dB to the Leq, period to convert it to Leq, 15min with alternative corrections possible provided they are supported with robust evidence. It is the responsibility of the applicant to provide justification for the project noise trigger levels applied to the project.	We have adopted the +3dB with justification based on performance of the chillers is dictated by ambient temperature and previous projects.	Complete
EPA	Operational Noise	Adjustment of Amenity Noise Level	a) The EPA recommends that DPH takes note of the EPA's position regarding corrections to the Leq, period to convert it to Leq, 15min.		Complete
EPA	Operational Noise	Adjustment of Amenity Noise Level	Table 4-3 does not appear consistent with Fact Sheet C of the Noise Policy for Industry (NPI). The assessment requirements for low frequency noise are incomplete, and Fact Sheet C does not include a correction for impulsive noise.	Modifying Factors have been updated (Section 4.1.3.3)	Complete
EPA	Operational Noise	Adjustment of Amenity Noise Level			
EPA	Operational Noise	Adjustment of Amenity Noise Level	a) The EPA recommends that DPH request the Applicant to amend the noise assessment and any applicable corrections to consider Fact Sheet C from the NSW EPA's NPI (2017).	Stantec has conducted additional measurements of a similar industry and similar environment as per the AAS Paper provided and the NPI, understanding the equipment selected is not currently available for testing. (Section 4.1.3.4 of Report)	Complete
EPA	Operational Noise	Adjustment of Amenity Noise Level			
EPA	Operational Noise	Adjustment of Amenity Noise Level	The Operational Noise impact associated with the generators has still been assessed and doesn't not change the outcomes of the assessment.	Updated Section 4.2 to remove comment above the license threshold. However kept in comments about the likelihood of power failure	Complete
EPA	Operational Noise	Adjustment of Amenity Noise Level	The EPA understands that the premises will require an environment protection licence due to the capacity to store diesel fuel, and not electricity generation. Operational noise associated with all activities carried out on the premises are to be assessed and will be regulated through an environment protection licence.	Operation of generators in emergency scenarios have been assessed. We have assessed the impact of two scenarios (30% of generators operating in a power outage, and 75% of generators operating during a catastrophic event.) Section 5.4.2 discusses the scenarios and likelihood of event occurring. Results are presented in Section 5.5	Complete
EPA	Operational Noise	Adjustment of Amenity Noise Level	a) The EPA recommends that DPH notes that as the premises will be required to be licensed under the POEO Act, operational noise associated with all activities on the premises are required to be assessed.		Complete
EPA	Operational Noise	Adjustment of Amenity Noise Level	The assessment appears to have only considered the closest sensitive receivers. However, the assessment location according to the NPI is potentially most affected location, which depends on a number of site-specific factors and therefore may not be the closest to the development. This is particularly relevant where topography or receiver height may affect the propagation of noise including where receivers located further away from the development receive higher noise levels due to the effect of topography reducing the screening effect of other objects.	Grid Noise map has been extended to show impacts to receivers further back in the residential area to the south. Grid noise map have been run at both 1.5 and 4.5 meters high to show impacts to any two storey developments	Complete
EPA	Operational Noise	Adjustment of Amenity Noise Level	A review of the noise contour plots appears to show yellow markers where receivers are located in the model. However other residences appear to have potentially higher contour values than those residences marked with the receiver location. This effect may also be increased at the two storey dwellings in the residential area.	Grid Noise map has been extended to show impacts to receivers further back in the residential area to the south. Grid noise map to be run at both 1.5 and 4.5 meters high to show impacts to any two storey developments	Complete
EPA	Operational Noise	Adjustment of Amenity Noise Level			
EPA	Operational Noise	Adjustment of Amenity Noise Level	The assessment has not provided evidence that the reasonably most affected locations have been assessed, therefore additional information is required to establish if the potentially most affected receiver has been considered in the assessment.	Section 5.5.1 presents detailed grid noise maps at higher resolution around receivers which has informed the locations of point receivers.	Complete
EPA	Operational Noise	Adjustment of Amenity Noise Level	a) The EPA recommends that DPH requests the Applicant demonstrates the potentially most affected locations have been assessed and amend the assessment as required.	Grid Noise map has been extended to show impacts to receivers further back in the residential area to the south. Grid noise map to be run at both 1.5 and 4.5 meters high to show impacts to any two storey developments	Complete
EPA	Operational Noise	Adjustment of Amenity Noise Level			
EPA	Operational Noise	Adjustment of Amenity Noise Level	Section 5.5 of the ONIA states the following: Further to the above, the acoustic assessment has been conducted to the boundary or the most affected point on a property as per the requirements of the NSW EPA NPI. When considering the noise intrusion into a habitable area of a residential property, it is expected to be significantly reduced due to the attenuation provided by the building's facade. This means that while boundary levels might be higher, the actual impact on indoor noise levels is considerably lower and likely to be inaudible.	Yes, we understand the NPI does not assess internal noise levels, however this statement was included to provide support that the development would not impact the residents during the night time period (internally).	Complete
EPA	Operational Noise	Adjustment of Amenity Noise Level			
EPA	Operational Noise	Adjustment of Amenity Noise Level	The NPI applies to external noise levels only for residential receivers and does not provide for an assessment of internal noise levels, nor audibility of noise sources. Therefore, whilst there is no requirement to assess internal noise levels or audibility, the EPA notes that there is not sufficient evidence within the assessment to support the statement that the data centre would likely be inaudible within residential properties.	Statement has been removed from Section 5.5 of report	Complete
EPA	Operational Noise	Adjustment of Amenity Noise Level	The EPA notes that where noise levels are below the project noise trigger levels, this does not necessarily mean the development will be inaudible to residents.	Yes, we understand the NPI does not assess internal noise levels, however this statement was included to provide support that the development would not impact the residents during the night time period (internally).	Complete
EPA	Operational Noise	Adjustment of Amenity Noise Level			
EPA	Operational Noise	Adjustment of Amenity Noise Level	a) The EPA recommends that DPH notes the EPA's comments regarding internal noise levels and potential audibility of the development.	Statement has been removed from the report	Complete
EPA	Operational Noise	Adjustment of Amenity Noise Level			
EPA	Operational Noise	Adjustment of Amenity Noise Level	The frequency spectra used for the noise sources in Table 5-2 of the ONIA appear to be limited to 63Hz as the lowest frequency band. This does not meet the frequency spectrum requirements for the low frequency screening test in NPI Fact Sheet C and it misses potentially critical parts of the spectrum below 63Hz. These frequency bands can substantially contribute to the difference between C weighted and A weighted noise levels. There is an unknown level of risk associated with not assessing the noise levels across a sufficient spectral range.	Stantec has conducted additional measurements of a similar industry and similar environment as per the AAS Paper provided and the NPI, understanding the equipment selected is not currently available for testing. (Section 4.1.3.4 of Report)	Complete
EPA	Operational Noise	Adjustment of Amenity Noise Level	a) The EPA recommends that DPH requests the Applicant amend the noise assessment to consider frequency bands below 63Hz as part of the noise assessment and low frequency characteristics test and meets the requirements of NPI Fact Sheet C.	Stantec has conducted additional measurements of a similar industry and similar environment as per the AAS Paper provided and the NPI, understanding the equipment selected is not currently available for testing. (Section 4.1.3.4 of Report)	Complete
EPA	Operational Noise	Adjustment of Amenity Noise Level			
EPA	Operational Noise	Adjustment of Amenity Noise Level	The assumed worst-case evening and night period temperature is 28 degrees. The applicant should provide evidence such as climatic data or projections that this temperature is representative of a worst-case scenario and provide a consideration of how the temperature and relative humidity affects the duty on the chillers.	Climate Data for past 5 years have been reviewed and were used to determine the 99th percentile over the summer months. Data supports the operating conditions of the chillers. Information was provided to chiller manufacturer to supply data during the evening period for unique assessment (Section 5.2.8 & 5.2.1)	Complete
EPA	Operational Noise	Adjustment of Amenity Noise Level	Worst-case evening period temperatures would be expected to be higher than night periods, especially during daylight savings when the sun does not set until well after 6pm which is when the evening period begins. As a result it's not clear if it's appropriate to assume that chillers would operate at the same duty during the evening and night period when there is potential for evening period temperatures to be higher than during the night.	Climate Data for past 5 years have been reviewed and were used to determine the 99th percentile over the summer months. Data supports the operating conditions of the chillers. Information was provided to chiller manufacturer to supply data during the evening period for unique assessment (Section 5.2.8 & 5.2.1)	Complete
EPA	Operational Noise	Adjustment of Amenity Noise Level	a) The EPA recommends that DPH requests the Applicant clarify and amend where required the assumptions used for ambient temperatures, relative humidity and chiller duty levels during the evening and night periods.	Climate Data for past 5 years have been reviewed and were used to determine the 99th percentile over the summer months. Data supports the operating conditions of the chillers. Information was provided to chiller manufacturer to supply data during the evening period for unique assessment (Section 5.2.8 & 5.2.1)	Complete
EPA	Operational Noise	Adjustment of Amenity Noise Level			
EPA	Operational Noise	Adjustment of Amenity Noise Level	Stantec has provided CDC with the noise level requirements for the 6 x transformers which the supplier will be contracted to meet to demonstrate compliance and we have incorporated these noise levels into our model (Section 5.2.8 & 5.2.3)	Section 5.1.1 & 5.3.2 presents additional potential sources from the substation and the expected impact from the operation of these sources.	Complete
EPA	Operational Noise	Adjustment of Amenity Noise Level	The substation proposed as part of the development does not appear to have been included in the assessment. Substations have the potential to generate low frequency noise as well as general industrial noise and should be accounted for in the assessment.		Complete

				Stantec have provided CDC with the noise level requirements for the 6 x transformers which the supplier will be contracted to meet to demonstrate compliance and we have incorporated these noise levels into our model (Section 5.2 & 5.2.3). Section 5.1.1 & 5.3.2 presents additional potential sources from the substation and the expected impact from the operation of these sources.	
EPA	Operational Noise	Substation	a) The EPA recommends that DPH requests the Applicant to consider the risk and noise impacts the substation will have as part of the ONIA. The noise contour plots supplied with the ONIA do not appear to cover sufficient areas of the residential receivers to the south of the development and the retirement village. The plots only appear to cover the first row of residential receivers and in some areas, the plots appear to show higher noise levels towards the second row of houses compared with the first. This implies that receivers further back from the development, and potentially at a higher elevation may have higher noise levels than those closer in.	Grid Noise map has been extended to show impacts to receivers further back in the residential area to the south. Grid noise map to be run at both 1.5 and 4.5 meters high to show impacts to any two storey developments	Complete
EPA	Operational Noise	Noise contour plots	a) The EPA recommends that DPH requests from the Applicant amended noise contour plots that cover a sufficient area of residential receivers (including the retirement village) to demonstrate the assessment has considered how noise propagates through the area and considers the potentially most-affected receivers.	Grid Noise map has been extended to show impacts to receivers further back in the residential area to the south. Grid noise map to be run at both 1.5 and 4.5 meters high to show impacts to any two storey developments	Complete
EPA	Operational Noise	Generator testing assessment scenario	Section 5.5 of the ONIA states the following: Based on the results above for typical operation scenario (Scenario 1) and maintenance scenario (Scenario 2), the noise impact to all surrounding receivers are expected to comply with the established noise criteria for all time periods and stability categories. This statement is not supported by the results as the assessment indicated a 1 dB exceedance at receiver R1 117 Stockholm Avenue during the day period under Scenario 2 stage 3. The note to table 5-4 refers to this exceedance as follows: 1-2dB(A) is not deemed a perceptible change in noise level. Furthermore, this scenario is descriptive of the worst-case testing scenario and is expected to be short-term impact and therefore not expected to cause any adverse impact to the receiver.	Stantec has provided Markup of Source locations assumed for each of the operational scenarios. Including worst case for the residential receivers and the mosque during generator testing (Scenario 2). Section 5.4.1 and Appendix F of Acoustic Report	Complete
EPA	Operational Noise	Generator testing assessment scenario	The NPHI requires that if predicted noise levels are above the project noise trigger level, all feasible and reasonable mitigation is applied prior to assessment of residual impacts. There does not appear to be any discussion to demonstrate that all feasible and reasonable mitigation measures have been applied for the generator testing scenario. The assumptions in Section 5.4 mention that no more than 10 generators at a time would be tested, however there is no mention of generator mitigation in Section 5.3.1. As a result its not clear how testing schemes or other mitigation has been investigated to reduce noise levels below the project noise trigger levels.	Stantec has provided Markup of Source locations assumed for each of the operational scenarios. Including worst case for the resi and the mosque during generator testing (Scenario 2). Section 5.4.1 and Appendix F of Acoustic Report. Generators Mitigation has been outlined in Section 5.3.1 of the Report	Complete
EPA	Operational Noise	Generator testing assessment scenario	The assessment does not provide sufficient detail to understand which generators are active during the assessment of generator testing schemes, or how the worst case scenario was determined. For example, the worst case for receivers in the south, the retirement village and the place of worship are likely to be different due to their different orientations to the premises. Therefore, it is difficult to understand if the scenario is a representative assessment.	Stantec has provided Markup of Source locations assumed for each of the operational scenarios. Including worst case for the resi and the mosque during generator testing (Scenario 2). Section 5.4.1 and Appendix F of Acoustic Report	Complete
EPA	Operational Noise	Generator testing assessment scenario	The sound power levels appear to only include one sound power level to characterise the generators. However, generators can have several noise sources that make up the total noise emission and cause directivity of noise emissions. Generators typically have noise sources associated with inlets, exhausts, and enclosure and the sound emission can vary depending on the orientation towards receivers. In some cases, generators may have common exhausts as outlined in the AQIA.	At the distances of the receivers, discrete sources will be indistinguishable, which is why they have been modelled as a point source. A separate point source has been included for the flues of each generator which are proposed to be in line with the top of the acoustic barriers on the chiller plant deck. Full details of each discrete source has been provided in the data sheets provided for the generators. (Updated to Section 5.2, 5.3 and Appendix D)	Complete
EPA	Operational Noise	Generator testing assessment scenario	The testing of generators is a routine operation at the premises and presently the information provided in the assessment indicates an unknown level of risk, which should be addressed by further information.	Stantec has provided Markup of Source locations assumed for each of the operational scenarios. Including worst case for the resi and the mosque during generator testing (Scenario 2). Section 5.4.1 and Appendix F of Acoustic Report Further discussion around the generator testing scenario has been provided in Section 5.5.1.	Complete
EPA	Operational Noise	Generator testing assessment scenario	The EPA recommends that DPH requests from the Applicant the following additional information: a) The assumptions used, and design of, generator testing scenarios including the location of the generators assumed to be on b) How the location of each group of sensitive receivers relative to the premises was considered in the scenario c) Demonstration that all feasible and reasonable mitigation has been applied to the generating testing, including any at-source measures for the generators, and the number and location of generators being tested at any one time d) Clarification of the sound power level(s) used for the generators, how they represent the different noise sources and how directivity of sources was considered in the assessment. e) Consideration of other generator testing scenarios which may cause exceedances and indication of the frequency and duration of generator testing.	Acoustic Report provides a markup to show which generators have been assumed to be operating in the testing scenarios (worst cases for the mosque and residential to the south and north). All mitigations applied to the generators have been presented. Clarification on the discrete sources of the generators has been discussed with justification of modelling as a point source.	Complete

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CATEGORY	SUBJECT	COMMENT	TEAM RESPONSE	Status of RTS Response
		Comments previously captured in revision 006		
Operational Noise	Assessment Location/s	7. Predicted operational noise levels must be identified at all receivers potentially affected by the development in accordance with Section 3.3 of the Noise Policy for Industry (NPI). Given the large number of residences surrounding the site, the noise assessment must include noise contour maps at selected heights of 1.5 and 4.5 metres above ground level to report noise levels at all receivers and validate the location of the potentially most-affected residence. Note that the 'nearest' noise affected receivers identified in Figure 2-1 of the Operational Noise and Vibration Report (ONVR) do not appear to correspond to the 'most-affected' locations based on a review of the limited extent noise contour maps provided in Appendix B.	Grid Noise Maps have been extended and run at 1.5m and 4.5m to demonstrate the effect on 2 storey receivers. Refer to Sections 5.5.1 and Appendix B for updates in the report.	Complete
Operational Noise	Background Noise Monitoring	8. The reporting of the background noise monitoring procedure and results in Section 3 of the ONVR does not appear to have satisfied the requirements identified in Fact Sheets A and B of the NPI or the Environment Protection Authority's (EPA's) advice on the Planning Secretary's Environmental Assessment Requirements (SEARs). In this regard, please provide additional details on the following: a. a statement justifying the selection of each monitoring site, including the procedure used to choose each site, with reference to the definition of the "reasonably most-affected location(s)" b. daily logger graphs for the long-term monitoring site at 4 McCann Place (L01) c. detailed information on the exact location of each monitoring site, including the specific positioning of the equipment d. a description of the dominant and background noise sources observed, along with the procedure used to identify noise sources (e.g. audio capture or operator-attended measurements conducted during unattended data logging), as well as the range of measured sound pressure levels for each identified source e. a statement confirming that short-term noise monitoring was conducted during periods when maximum impact would likely occur, having regard to the variability observed across the long-term noise monitoring site(s) f. a record of any periods with affected data (due to adverse weather and extraneous noise), methods used to exclude invalid data, and a statement regarding the need for any re-monitoring.	Justification of monitoring positions have been provided (Section 3.2.1). Daily Logger Graphs for 4 McCann Place (Northrops monitoring) has been provided in Appendix C. Detailed graphics showing logger locations included. Dominant background noise sources have been described with additional attended monitoring conducted during various periods to demonstrate change in the noise environment associated with Day Evening and Night. More detailed images of logger locations presented in Section 3.2. Data of Short term monitoring was conducted across multiple seasons and time periods to characterise the noise level. All periods of excluded data have been identified in the daily logger graphs in Appendix C.	Complete
Operational Noise	Background Noise Monitoring	9. The noise monitoring records indicate that night-time background noise levels are 36 dB(A) at 4 McCann Place (approximately 250 metres from Richmond Road) and 37-39 dB(A) at M02 (exact location not specified, over 900 metres from Richmond Road), whereby both sites are said to be influenced by distant traffic noise from Richmond Road. Further clarification is needed to explain why the measured background noise is higher at M02 compared to 4 McCann Place, despite M02 being located a further distance away from Richmond Road.	We have included Northrops data in our report to corroborate our data and provide further justification of our measured results. However, this monitoring was not conducted by Stantec, and we cannot comment on the specific observations captured in the Northrop Monitoring. Monitoring conducted by Stantec suggests that this contribution is from Industrial Developments to the NorthWest which we observed in our attended monitoring	Complete
Operational Noise	Background Noise Monitoring	10. Further information is required to clarify why the long-term noise monitoring dataset from Stantec was used instead of the dataset from Northrop to derive the relevant intrusiveness noise levels at assessment location R2 (Ingenia Lifestyle – Stoney Creek).	Originally Stantec intended to conduct this assessment completely independently of Northrop, and so their data was not used. However, later it was determined that the additional monitoring conducted by Northrop would be beneficial to include. We have since aligned our criteria to be consistent, adopting the more stringent intrusiveness criteria for R2. Refer to Section 4.1.3.1.	Complete
Operational Noise	Operational Noise Model	11. The Department is concerned the 'worst-case' operational noise scenarios considered in the ONVR do not accurately reflect the potential impacts associated with the operation of the development (and as per the SEARs). As an example, the Balt-ul-Huda Mosque should be exposed to greater noise impacts associated with the testing of back-up generators associated with Stage 3. However, Table 5-4 of the ONVR suggests that operational noise at this location would reduce once Stage 3 is operational. It is also unclear whether the proposed substation and other sources (such as load bank/s, transformer/s, flue stacks, etc) have been included in the noise assessment, as Section 5.2 of the ONVR has only listed equipment sound power levels for chillers, PAC units and generators. In this regard, please provide additional details on the following: a. all internal and external noise sources and emission parameters related to the proposed development must be clearly identified in the ONVR in accordance with Section 3.3 of the NPI b. a plan showing the assumed location of each noise source for each modelled scenario must be provided c. the 'worst-case' operational noise scenarios relevant to the Balt-ul-Huda Mosque, the potentially most-affected double-storey residences in Hassall Grove and Ingenia Lifestyle – Stoney Creek must be identified and justified via a sensitivity analysis (i.e. by varying input variables such as the location and load of back-up generators being tested).	Stantec have provided CDC with the noise level requirements for the 6 x transformers which the supplier will be contracted to meet to demonstrate compliance and we have incorporated these noise levels into our model. Discussion of discrete generator sources has been provided justifying a single point source per generator. The generators flues have been modelled as separate sources as this is proposed to be at a height inline with the top of the acoustic barriers on the chiller deck. (Refer to Section 5.2) Data sheets can be found in Appendix D which details the discrete sources of the generators. Stantec has provided a markup of sources operational in the modelling scenarios (refer to Section 5.4.1)	Complete
Operational Noise	Operational Noise Model	12. Please clarify the assumptions made in the ONVR for the approved SMW data centre (DA-24-00542). In this regard, please provide additional details on the following: a. the number of chiller units identified in Section 5.1 of the ONVR appears to be less than the number indicated on the approved architectural plans b. the assumed chiller emission levels in the ONVR appear to be lower than those assessed in the Northrop Acoustic Report dated 13 May 2024 c. the noise mitigation measures for the approved data centre chillers, as modelled in the ONVR, appear to differ from those approved under DA-24-00542.	The numbers outlined in Section 5.1 where provided by CDC and should be inline with the latest architectural drawings provided by EJE. The assumed chiller emission noise levels are lower than what Northrop previously assessed, as we have gone with a different chiller manufacturer to get lower noise levels. Similarly, the noise mitigation measures have changed from the DA-24-00542, as more mitigation was required in order to meet the noise emission criteria from the development as a whole (we have proposed additional treatments.)	Complete
Operational Noise	Operational Noise Model	13. Cooling equipment specifications must be provided to confirm that the assumed operational parameters identified in Section 5.2 of the ONVR account for realistic hot/dry conditions, including higher temperatures and/or humidity levels during evening and night. Local weather data must be referenced to support the specified worst-case temperature of 28°C during the night-time period and to clarify the humidity level considered in the design conditions for the air-cooled chillers. Additionally, please clarify how the data centre will be operated to guarantee that the number of concurrently operated chillers does not exceed the quantities specified in Section 5.1 of the ONVR.	Climate Data for past 5 years have been reviewed and were used to determine the 99th percentile over the summer months. Data supports the operating conditions of the chillers. Information was provided to chiller manufacturer to supply data during the evening period for unique assessment (Section 5.2 & 5.2.1)	Complete
Operational Noise	Operational Noise Model	14. Back-up generator specifications must be provided to confirm that the assumed operational parameters identified in Section 5.2 of the ONVR account for the anticipated testing loads as per the monthly and annual testing regimes.	Data Sheet provided for the Generator in Appendix D of Acoustic Report. This details each discrete source as well as attenuation of individual elements applied to the source. Section 5.5.1 discusses the expected timeframes of maintenance of the generators and how often short-term exceedances would occur.	Complete
Operational Noise	Operational Noise Model	15. Evidence of the suitability of the selected sound propagation calculation method for accurately predicting noise under local conditions must be provided in accordance with Section 3.3 of the NPI. Furthermore, all user-adjusted variables in the noise model must be identified and justified, including, but not limited to, settings for the geometric representation of noise sources, building reflection, noise-enhancing meteorological conditions and any modification applied to account for the effects of wind and temperature inversion on barrier attenuation (as outlined in the 1981 CONCAWE report no. 4/81).	Added additional assumptions to the modelling to section 5.4. Including Reflection Loss of buildings. Wind Direction Meteorological conditions including wind direction Calculation Method	Complete
Operational Noise	Annoying Noise Characteristics	16. As required by the EPA's advice on the SEARs, cumulative data centre operational noise must be evaluated for any potential annoying noise characteristics such as tonality, intermittency and dominant low-frequency content in accordance with Fact Sheet C of the NPI. There is insufficient quantitative evidence provided in the ONVR to demonstrate that cumulative data centre operational noise will not exhibit any annoying noise characteristics. Specifically, for the low-frequency noise assessment, all frequencies from 10 to 160 Hz must be evaluated (see An example approach to consider low frequency noise in the context of the NSW noise policy for industry, Acoustics Australia Vol. 48, No. 2, August 2020, pages 170-172 for further guidance). The tonality assessment must evaluate all one-third octave band frequencies from 25 to 10,000 Hz as per Table C1 of the NPI. Noise source levels and characteristics can be sourced from direct measurement of similar activities or from literature (if full references are provided).	Stantec has conducted additional measurements of a similar industry and similar environment as per the AAS Paper provided and the NPI, understanding the equipment selected is not currently available for testing. (Section 4.1.3.4 of Report)	Complete
Operational Noise	Noise Mitigation Measures	17. All viable source and pathway noise mitigation measures that can effectively address any exceedances of the relevant project noise trigger levels must be identified in the ONVR in accordance with Section 4 of the Noise Policy for industry.	All Reasonable and feasible mitigation measures have been applied and summarised in Section 5.3 of the acoustic Report. Attenuation elements to the generators have been presented in the data sheet from the manufacturer and provided in Appendix D Table 5-4 in the acoustic report presents a feasible and reasonable matrix in line with the NPI	Complete

Date	Correspondence	Stantec Comments
29/07/2025	Department expects the following opportunities to be explored in order to mitigate exceedances of the project noise criteria:	Orientation of chillers to optimise shielding and line of site so that noisiest side is away from residents -The chiller stacks to the top of the units, have been effective to the point in our calculations, the contribution from the tops of the chillers is not the driving contributor for chiller noise – the sides of the chillers are much greater contribution and as such, further mitigation to the chiller tops/exhaust does not further reduce our overall noise. -The noise from the chiller sides, has been further attenuated (beyond the attenuation that the supplier has proposed) by adding an enclosure to the condensers. -The chiller supplier has already undergone rigorous R&D from the supplier in order to optimise the enclosures and units themselves to reduce the noise as much as practical; this process took several months and was undertaken last year in order for us to use the lowest possible noise levels available. Noting that the original units proposed for this project where much louder, we can confirm that the reduction from chiller noise has been thoroughly considered and exhausted. ie original Mitsubishi units 102dB(A) vs the current spec from SE units at 100dB(A) SWL, with further optimisation and reduction for evening and night at 96dB(A) and 95dB(A) – these have been verified with the max temperatures for the periods with weather data over the past 5 years. -Barrier extents have been completely exhausted in order to retain the airflow requirements. As such the multiple layers of barriers have been implemented to reduce any line of sight as a result of gaps below the chiller deck in some sections. -Generators have now been updated to be modelled as industrial building sources, providing optimisation from the shielding of the units themselves, again optimising the orientation of surfaces with louder noise levels facing away from receivers. -Generator manufacturer has also been engaged to provide optimal attenuation and performance to CDC, including acoustic enclosures, acoustic louvres and attenuators. -Transformers have been significantly attenuated by a series of barriers to attenuate as much as practical the noise contribution from these units. -Investigated options of additional barriers within the nature strip along between the site and Hassall Grove residential estate – noting insignificant return – ie 10m high barrier with a less than 1 dB reduction. This is not reasonable or feasible and therefore had been excluded.
	1. Optimise the safety/tolerance factor adopted in the model to ensure the final noise assessment presents a noise level that can be met under relevant meteorological conditions, while avoiding overly conservative assumptions that may over-predict operational noise levels (e.g. settings for the geometric representation of noise sources); and	Updates to Table 6-5 in Section 6.3.3 to include feasible and reasonable mitigation test for all identified mitigation measure. Stantec believe that we have exhausted all feasible and reasonable mitigation options for the proposed noise sources. Any further mitigations that have been identified however, have not been implemented due to negligible improvement to noise emissions and physical limitations (i.e. additional barriers height limits, significant cost pullt to account for wind loading and structural support).
	2. Incorporate all feasible and reasonable source and pathway noise control measures in accordance with Sections 3 and 4 of the NPI.	Feedback from Generator supplier was that the enclosures would struggle to get much more attenuation (maybe some) but 12dB attenuation is significant. Noting that the units are already reduced from 127.5dB(A) at 1m to 52dB(A) at 1m (for exhaust, other faces exhibit similar reductions). The acoustic model has been updated to have these represented as industrial buildings to account for shielding provided by each subsequent generator which is a more accurate representation of the impact from these sources. It is noted that overall the impact is significantly less than what was predicted previously during maintenance and testing of generator equipment. Refer to Section 6.5 for results (specifically Table 6-7 - Scenario 2) to see the noise impact to receivers during operation of the generators.
	With regard to item (2), the Department notes that other data centre operators have proposed a combination of mitigation strategies to achieve compliance, including the use of quieter chillers, retrofitting internal and external acoustic panel treatments to chillers (to reduce casing-radiated sound), installation of discharge cowl (to redirect noise away from sensitive receivers), localised screening at fan discharge points, and improved generator enclosure designs (e.g. reducing mitigated sound power levels from 99 dBA to 87 dBA). Accordingly, the Department expects similar or equivalent measures to be considered and justified in the context of this proposal.	Agreed, at receiver noise treatments are not being relied on here to demonstrate compliance. It has been identified that there is potential that identified receivers may experience some minor exceedances of the criteria. In the event that extreme concerns are raised once operation commences, and noise complaints are verified that project noise trigger levels are reasonably exceeded, then at receiver mitigation could be considered.
	Any residual noise impacts above the noise criteria would need to be assessed on their merits, taking into account the noise control measures proposed and the justification for any measures being discounted.	Yes, Refer to Table 6-5 in Section 6.3.3
	In accordance with the NPI, at-receiver noise treatments are considered a 'last resort', and rating the significance of residual noise impact (e.g. negligible, marginal, moderate, significant) for the purposes of determining such treatments should only be contemplated in instances where:	Section 6.5.1 has been updated to include Additional Monitoring proposed by Stantec which is proposed to occur at the commencement of each stage of the development to verify that the noise emissions remain within the levels assessed and modelled. Noise Monitoring to take place 'day negative 1' to establish the noise level in the absence of the operational load and again at 'day 1' with the site in operation.
	all source and pathway feasible and reasonable noise mitigation measures have been exhausted; and	The 'day negative 1' noise levels will be used as a benchmark and aim to undertake monitoring in similar conditions on multiple occasions to ensure that there is no significant noise creep associated with the site.
19/06/2025	To assist with our review and assessment, could you please request Stantec to provide the 'Assessment Background Level (ABL)' information at L3 (open park) and L4 (5 Aveline Place) as required by the NPI? See below table for the required format. Note that this information should already be available as 'Rating Background Level (RBL)' is computed from the ABL.	Appendix I has been updated to include Assessment Background Level (ABL) for the loggers at L3 and L4
23/05/2025	The proposed options for deploying the long-term unattended noise logger generally align with the potentially most-affected residential locations, based on the operational noise contours. We acknowledge the intention to select final deployment sites that minimise the influence of extraneous noise sources, including foliage-related noise and localised mechanical plant noise, such as pool pumps and condenser units.	Additional Monitoring conducted at locations L3 and L4. Updated Section 4.2.1 to include new data. Section 4.5 has been updated which discusses the new unattended monitoring compared with the previous data collected by both Northrop and Stantec. PNTLs have been updated (Section 5.1.4) with new day time criteria to reflect the new unattended monitoring results.
	Most affected receiver	
14/05/2025	The Department reiterates its previous concerns regarding the identification of the reasonably most-affected location(s) and the need for corresponding background noise monitoring in accordance with the requirements of the <i>Noise Policy for Industry</i> (NPI). Based on its review of the updated Operational Noise and Vibration Assessment (ONVA), including the noise contours provided in Appendix B, the potentially most-affected residence(s) for the proposed development may be the double-storey properties at 97 Stockholm Ave, 8 Aveline Ave, 26 Dermont St and 29 Dermont St, which are set back from the long-term background noise monitoring location referred to in the ONVA. Based on noise verification data from other projects, background levels in the vicinity of this area could be as low as 30 dBA during the evening/night. Accordingly (and in order to minimise any operational noise risks post-construction), the Department recommends that background noise monitoring be undertaken at 97 Stockholm Ave, 8 Aveline Ave, 26 Dermont St or 29 Dermont St to confirm the relevant PNTLs in this area and, consequently, whether these dwellings should be considered as the potentially most-affected residence(s) for the proposed development. The Department is concerned there is the potential for operational noise at these residences to exceed the PNTLs for the evening and night by up to 3 dB, particularly given compliance with the previously established PNTLs in the updated ONVA is predicted with little to no tolerance.	Based on attended measurements conducted by Stantec during the night time period, it was noted that Industrial Premises are in operation during the night time and are audible to the north west (i.e. closer to the receivers in question).
	Low frequency noise	Stantec believe that the request for additional noise monitoring extends beyond the reasonable scope of this SSDA. Based on the large extent of monitoring presented in the report (from both Stantec and Northrop) and extensive investigation of the local noise environment, there is a high level of consistency across the measurements. This suggests there will be little change to the proposed locations above, and the monitoring conducted is deemed representative of the environment and will be suitable for protecting the environment and sensitive receivers amenity regarding noise impacts.
	Additionally, while the updated ONVA includes low-frequency noise data below 160 Hz, based on measurements taken at another data centre site on 5 February 2025, no information has been provided to confirm the applicability of this data to the proposed development. Section 7 of the NPI outlines the performance monitoring approach and reporting requirements, which must be addressed. For example:	Additionally, there were multiple meetings and rounds of comments with both EPA and DPHI agreeing on determination of the criteria. Outside of additional attended measurements for seasonal noise (ie frog noise which was undertaken) there has been no instruction or correspondence to undertake additional long-term monitoring for the site in previous rounds.
	-If the sound propagation conditions between the source and receiver are not comparable, on-site measurements of noise-producing plant and equipment should be undertaken to inform the noise model inputs, rather than directly applying measured low-frequency noise levels from a different receiver location	The study conducted and presented in the Stantec report for the Low Frequency Assessment was conducted based on input from DHPI and in line with the Acoustics Australia Vol. 48, No. 2, August 2020. The statement above asks for comparable weather conditions to the on-site measurements, which are highly unlikely. In order for this to be comparable we would need a temperature inversion to occur with wind speeds of 2m/s during the hours of 10:00pm and 7:00am, and ambient temperatures to align with the conditions in the model.
	-It is also required that the operational condition of the noise source (e.g. operating at full capacity or a reduced load) be reported—particularly given it is unclear whether the weather conditions experienced on 5 February 2025 would represent the worst-case ambient conditions modelled for chiller operations at the Marsden Park site	The alternative option suggested above asks for measurements of equipment to inform the noise model input. However, there are issues / concerns with the practicality of this. Each of our sources are modelled individually and as industrial buildings with each plane assigned a Sound Power Level. The available locations to measure data with similar sized chiller equipment for similar use is limited. This exercise would not be possible at the location where the measurements have been conducted previously, as it is not possible to measure contribution from only 1 unit to inform the inputs into the model. This is due to it being an active data centre site and impossible to switch off all other units (bar 1) to obtain this information.
	-Selecting a noise instrument that is capable of addressing the requirements of the NPI (note: The data used in the ONVA appears to have collected using a sound level meter that is unable to capture low-frequency noise at 10Hz)	Finding equipment capable to capturing low frequency noise at 10Hz in the field is challenging and ultimately not considered a risk. The latest assessment in the Acoustic Report demonstrates that we are well under the NPI Low Frequency limits at 12.5Hz. In order for this to exceed the criteria there would need to be a tonal spike of approximately 45dB between 12.5Hz and 10Hz which would not be possible without there being some contribution evident in the adjacent frequency band, our data shows a decline in SPL at 12Hz not an large up-kick. We used a class 1 microphone Brüel & Kjær 2250 – an industry standard sound level meter. In lieu of the ability to measure at 10Hz, this has been extrapolated for the purposes of the assessment.
	-The results of noise monitoring or prediction at each assessment location (note: Currently, the ONVA only provides a detailed low-frequency noise assessment at 101 Stockholm Avenue, a single storey property)	Lastly, our Acoustic Report states that the detailed low frequency assessment results have been conducted at what Stantec has identified the worst case scenario from the 'screening' test as outlined in the Acoustics Australia Vol. 48, No. 2, August 2020 paper. The Report goes on further to explain that due to the large extent of receivers which have been assessed, it is impractical and unnecessary to present the full detailed results for the purposes of an Acoustic SSDA where we have assessed what has been identified as a worst-case scenario. Appendix H of the acoustic report has been included to show the low frequency assessment for each of the receivers during the worst case scenarios for each time period.
20/05/2025	As a summary from our meeting on Friday, the Department maintains the view that the background noise monitoring undertaken by Stantec—used to establish project noise trigger levels (PNTLs) for the potentially most-affected residences in Hassall Grove—does not satisfy the requirements outlined in Fact Sheets A and B of the Noise Policy for Industry (NPI), as outlined in the Department's additional matters for the Submissions Report dated 14 January 2025.	Additional Monitoring conducted at locations L3 and L4. Updated Section 4.2.1 to include new data. Section 4.5 has been updated which discusses the new unattended monitoring compared with the previous data collected by both Northrop and Stantec. PNTLs have been updated (Section 5.1.4) with new day time criteria to reflect the new unattended monitoring results.
	Specifically, the Department has identified the following issues:	Audio Recordings were conducted with the monitoring and reviewed to identify any extraneous noise events to exclude from the data. All excluded data has been identified in Appendix C, wind graph has been also shown on the daily and weekly graphs.
	The data logger was sited in close proximity to trees, and no attempt has been made to exclude wind-induced foliage noise, contrary to A4 and B1.1 of the NPI	ADI: For this location, wind speed at 1.2 and 1.8 hours have been recorded in Appendix I.
	Simultaneous data logging, audio recordings, and operator-attended measurements have not been conducted to support the identification of relevant noise sources, as required under B1.2	
	15-minute samples affected by adverse weather and/or extraneous noise were not fully excluded as per B1.3 (see attached sample with no apparent exclusion of data points), noting that where the number of excluded 15-minute samples exceeds 8, 2 or 4 for day, evening or night, respectively, background noise needs to be re-monitored	
	There is insufficient long-term noise monitoring data at the potentially most-affected residences to accurately characterise the existing noise environment (As per Table A1 and section A5, at least one week of valid data covering operational days and times is required)	

There is a lack of evidence demonstrating that the rating background noise levels derived from L1 (Stockholm Avenue) are truly representative of the noise environment at the most-affected residences.

Next Steps and Options

Unless additional background noise monitoring data is provided in accordance with the NPfI, the proposed development must incorporate additional noise mitigation measures to comply with the following project noise trigger levels at all residences in Hassall Grove:

•42 dB(A) LAeq,15min during the day

•40 dB(A) LAeq,15min in the evening

•36 dB(A) LAeq,15min at night.

These levels are consistent with those applied to the neighbouring Marsden Park Warehousing Estate, which were based on monitoring undertaken in 2017 at 13 Amelia Way (long-term) and verified in 2021 at 9 Pine Crescent (short-term, over three nights).

Low-frequency noise

Further to the above, the Department requires additional information to clarify how low-frequency noise impacts have been assessed for the demonstrated worst-case scenario, including both the back-up generator testing and normal operating scenarios. Please provide outline the requested information using the following table format:

With regard to low-frequency noise at 10Hz, the Department understands the sound level meter used by Stantec is capable of measuring one-third octave band noise level down to the NPfI's required frequency range (refer to page 11 of Product Data: Hand-held Analyzer Types Z250 and Z270 (bp2025) for an overview of software features). The Department also notes that other consultants have demonstrated this assessment can be completed at multiple receivers (e.g. Appendix G of the MPark Talavera Road Data Centre Noise and Vibration Impact Assessment).

For this reason, you are required to provide predicted/estimated noise level contribution at 10Hz to enable a complete assessment in accordance with the NPfI. The Department has specifically requested the inclusion the 'low frequency tail' down to 10Hz as it can materially affect the predicted difference between C-weighted and A-weighted noise levels, as can be seen between the EIS and RTS noise assessments.

1. Page 16 – Last Paragraph

Recommend removing the final paragraph, as the assertion that progressively increasing background noise levels could reduce variability and the likelihood of intrusive events is inconsistent with the guidance in Fact Sheet A of the Noise Policy for Industry.

2. Daytime Rating Background Level at L3

The calculation should be revised to exclude the outlier recorded on 4 June 2025, unless it can be justified that all potential extraneous noise and weather-affected data have been excluded from the 4 June samples, and that the resulting assessment background level of 42.8 dB(A) is representative of daytime conditions in accordance with the NPfI.

Notes for the rating calculated at L3 and L4 have been provided in Appendix I.

Information presented in Appendix H of the acoustic report has been included to show the low frequency assessment for each of the receivers during the worst case scenarios for each time period. This includes Standard operation, Testing of back-up generators, as well as emergency scenario.

In lieu of the ability to measure at 10Hz, this has been extrapolated for the purposes of the assessment.

Finding equipment capable to capturing low frequency noise at 10Hz in the field is challenging and ultimately not considered a risk. The current assessment in the Acoustic Report demonstrates that we are well under the NPfI Low Frequency limits at 12.5Hz. In order to for this exceed the criteria there would need to be a tonal spike of approximately 45dB between 12.5Hz and 10Hz which would not be possible without there being some contribution evident in the adjacent frequency band, our data shows a decline in SPL at 12Hz not an large up-kick. We used a class 1 microphone Brüel & Kjær 2250 – an industry standard sound level meter.

Noted, we will delete this from the updated report.

We acknowledge that one of the monitoring days shows higher background noise levels compared to the remainder of the monitoring period. However, we do not consider this data point to be an outlier warranting exclusion.

We have thoroughly re-reviewed both the meteorological data and the audio recordings associated with the day in question (4th June 2025).

We have utilised post processing to review the full data set and have identified an additional 15 minute period (8:15am - 8:30am on the 4th June 2025) where rain was present slightly before 8:30am during the recording. This rain was not captured in the weather data, however has been picked up through audio processing. (this has now been included in the exclusions and updated in the report graphics).

The period between 12:00pm - 12:15pm, had been previously excluded for rain based on the weather data. Through post processing of the audio data, no rain is audible despite being noted at the weather station. We have since excluded this from the data.

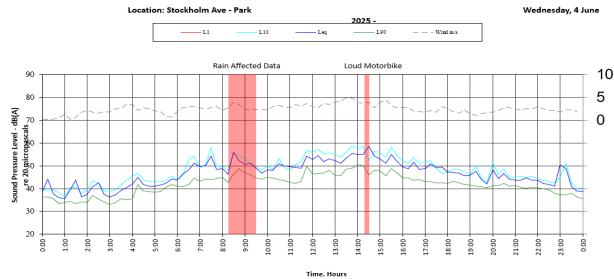
One additional extraneous noise event was identified between 2:15pm - 2:30pm, with a loud motorbike passby of approximately 17 seconds. There is an argument to be made that this is typical of the area with a large quantity of bike passbys across all days monitored.

However, this period has also been excluded for the purposes of this assessment to avoid any extraneous noise on the day to address DPHI's concern.

To summarise, a thorough investigation of the data has been undertaken, and Stantec can confidently confirm that all data affected by adverse weather conditions or extraneous noise events have already been identified and excluded from the dataset in accordance with NPfI. Upon further examination of the audio recordings, the elevated background noise levels are attributable to bird activity and local dog noise in the area. Note that this is typical on other days as well and is not considered extraneous noise events for the area. Given that bird activity is a natural and recurring component of the acoustic environment at this location, its contribution is considered representative of typical site conditions rather than anomalous. As such, the data remains valid for inclusion in the overall assessment and accurately reflects the site's environmental noise characteristics.

As previously discussed at length, the location of the monitor was chosen specifically to avoid any foliage noise or influence from individual residential noise (i.e. HVAC, pool pumps and pets). The data recorded is representative of the entire neighborhood and all noises captured are considered typical of that area with the 1 hour of rain excluded.

See below for updated graphic which will be included in the updated report.



3. Daytime Project Noise Trigger Level (PNTL)

Update the daytime PNTL to reflect the revised background level in (2) above. This may result in a reduction from 42 dB(A) to 41 dB(A).

4. Residential Receiver Assessment

Update Appendix G ('Detailed List of Exceedances') to identify all residential receivers that exceed the revised daytime PNTL.

As per above, the PNTL does not require updating and will remain at 42 dB(A).

Refer to above.

Acoustic Modelling was updated in the latest revision to include wind in all directions in Stability Category F (night time). This is what has caused a lift in the noise levels during this specific meteorological condition. As noted in previous revisions of the report we had used the prevailing wind in earlier versions of the report.

In the event of an exceedance, an automatic control system via the BMS can be implemented to manage the chillers so that the ones furthest away from the sensitive receivers are operated under certain weather conditions (i.e. temperature inversions) limiting impact. This is noted to have potential impact on the reliability of the critical infrastructure on the site and should only be considered in the event of verified exceedances of the criteria.

The proprietary BMS system has the capability to deploy a control protocol that will re-prioritise the staging for mechanical plant, such that the chillers furthest away from sensitive receivers will be selected to operate when:

1. Weather Conditions Require, such as an extreme temperature inversion.

2. Exceedances at sensitive receivers in Hassell Grove have been reported & verified by CDC and NSW Planning.

The above operating mode would limit the acoustic impact on the sensitive receivers during these events.

Note that the chiller operation transfer would be a staged change-over after activation to ensure stable plant operations. The acoustic-mode would only be used as an additional mitigation option in extraneous weather conditions, as to affect the distribution of run-hours across the chillers.