



Snowy Hydro Limited Kurri Kurri Power Station Noise Management Plan

Revision No.: 9.1

Revision Date: 22 December 2025

snowyhydro

Acknowledgement of Country

Snowy Hydro acknowledges the traditional custodians of Wonnarua Country, where this Management Plan applies. We pay our respects to Elders of the past, present, and emerging for they have, are, and will leave their footprints behind and continue to share their history, culture and traditions.

Document Control

Document Details	
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Position:	Senior Environmental Advisor
Company:	Snowy Hydro Limited

Document History Prior to Approval:

Revision	Date	Description	Prepared	Checked	Reviewed	Approved
Final	20 Dec 2021	Final	S Brennan	P Horn	M Luger	K Ivanusic
Amended Final	28 Dec 2021	Final	S Brennan	I Smith	M Luger	K Ivanusic
Amended Final v2	24 Jan 2022	Final	S Brennan	I Smith	M Luger	K Ivanusic
Amended Final v3	15 Feb 2022	Final	S Brennan	I Smith	M Luger	K Ivanusic
Amended Final v4	22 Aug 2022	Final	S Brennan	I Smith	M Luger	K Ivanusic

The initial management plan was prepared by Jacobs and Snowy Hydro, and approved by the Department for the Hunter Power Project, now known as the Kurri Kurri Power Station. Details of the review process are detailed in the document history table above. Subsequent versions of the approved management plan have been updated by Snowy Hydro in consultation with the Department's Environmental Representative as required, and the reasons for the management plan updates are detailed in the table below.

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Approved Management Plan Revision History:

Approved Revision	Revision Date	Description of Changes	Author	Date Approved
01	15 Feb 2022	Previously referred to as Amended Final v3 and endorsed by the Department and the ER	S Brennan	25 Feb 2022
02	23 Aug 2022	Document updated in response to a Noise Impact Assessment memo completed for an Out of Hours Work (OOHW) Application as it was identified that additional time was required for the construction hours to complete works due to months of above average rainfall. Changes made to the Construction Noise and Vibration Management Plan relate to the revised construction hours and the inclusion of additional mitigation measures provided by the Department as part of the OOHW Approval issued on the 16 May 2022.	I Strahan	N/A
03 Draft	27 Sep 2022	Document updated in response to a second OOHW Application as it was identified that additional time was required for the construction hours to complete works. Changes made to the Construction Noise and Vibration Management Plan relate to the extension of time associated with the revised construction hours and the approval requirements provided by the Department as part of the OOHW Approval issued on the 14 September 2022. The document was issued for the ER to review.	R Vazey	N/A
03 Final	4 Oct 2022	Document updated in response to ER comments on approved version 3.	A van der Kroft	5 Oct 2022
04	20 Jan 2023	Document updated in response to OOHW Application for 12 Continuous concrete pours to occur between January and March 2023. Approval for this was received from the Department on 14 December 2022. Details of previous OOHW Applications (approved 16 May 2022 and also on 14 September 2022) were removed from the document as they have lapsed.	A van der Kroft	2 Feb 2023
05	10 May 2023	Document updated in response to the approval of Modification 1 on 1 March 2023. Details of OOHW Application for concrete pours was removed from the document as it has lapsed.	A van der Kroft	29 May 2023

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Approved Revision	Revision Date	Description of Changes	Author	Date Approved
06	25 Aug 2023	Document updated in response to OOHW Application for 24/7 construction activities.	A van der Kroft	8 Sep 2023
07	15 Jan 2024	Document updated in response to the approval of Modification 2 on 18 November 2023.	A van der Kroft	13 Feb 2024
08	29 Nov 2024	Document updated to include Commissioning	R Vazey, M Luger, A van der Kroft	18 Dec 2024
09	18 Aug 2025	Formatting and content updated for KKPS operations	T Thompson	23 Sep 2025
9.1	22 Dec 2025	Updated in response to DPHI review of Revision 9	T Thompson	

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1.0 Introduction

This Noise Management Plan (Noise MP) has been prepared for the Kurri Kurri Power Station (KKPS), formerly known as the Hunter Power Station, as a subplan to the overarching Operations Environmental Management Plan (OEMP) for the facility.

The objective of this Noise MP is to provide a point of reference to ensure the effective implementation of KKPS' noise related commitments, reporting, controls and mitigation measures specified in:

- The KKPS Environmental Impact Statement (EIS);
- The Response to Submissions Report prepared for the Hunter Power Project, and the Revised Noise and Vibration Assessment included as an appendix to the report;
- Any written directions from the NSW Secretary of the Department of Planning, Housing and Infrastructure (DPHI Secretary);
- The conditions of NSW Infrastructure Approval SSI-12590060 (SSI Approval);
- The conditions of Environment Protection Licence 21627 (EPL21627);
- The conditions of the Federal EPBC Approval 2021/8888 (EPBC Approval), and;
- Applicable legislation.

As a requirement of SSI Approval Condition C1(e), Snowy Hydro Limited (Snowy Hydro), as the proponent of KKPS, must prepare an Environmental Management Strategy (Operational Environmental Management Plan), which includes a Noise Management Plan as a subplan, and to the satisfaction of the DPHI Secretary. Snowy Hydro must also implement the approved OEMP, which includes the Noise MP.

Previous versions of the Noise MP have been developed and approved for construction and commissioning activities of KKPS, however as per Condition C21 of the SSI Approval (Staging of Plans) this version of the Noise MP is for KKPS operations.

The Noise MP is applicable to the whole KKPS site and aims to minimise potential noise related impacts through:

- Identifying the potential noise related impacts from KKPS operations on the receiver locations
- Detailing measures to manage operational noise related impacts
- Operating KKPS in compliance with SSI Approval and EPL21627 conditions, as well as relevant legislation relating to noise.

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1.1 Environmental Management Framework

Snowy Hydro's integrated management system incorporates Health, Safety, Environment, Quality and Asset Management frameworks to meet business requirements. The system is referred to within Snowy Hydro as the Clean, Green and Safe (CGS) Management System, and is certified to:

- ISO 9001 Quality Management Systems
- ISO 14001 Environmental Management Systems
- ISO 45001 Occupational Health & Safety Management System
- ISO 55001 Asset Management Systems

This Noise MP and the overarching OEMP are underpinned by, and align with the wider CGS Management System.

2.0 Overview

2.1 Location

KKPS is located at Loxford, near Kurri Kurri, New South Wales (NSW), within the Cessnock City Council Local Government Area (refer to **Figure 2.1**, and **Figure 2.2**). The facility has been constructed on the site of the former Kurri Kurri Aluminium Smelter, which operated from 1969 to late 2012, closing in 2014.

Figure 2.3 presents the SSI & EPBC Approval boundary for KKPS, overlaid with the EPL boundary.

The site address is 1 Hart Road, Loxford, and is approximately 1.2km from the M15 Hunter Expressway. The site is accessed via Hart Road.

Further details on the location of KKPS can be found in the KKPS OEMP.

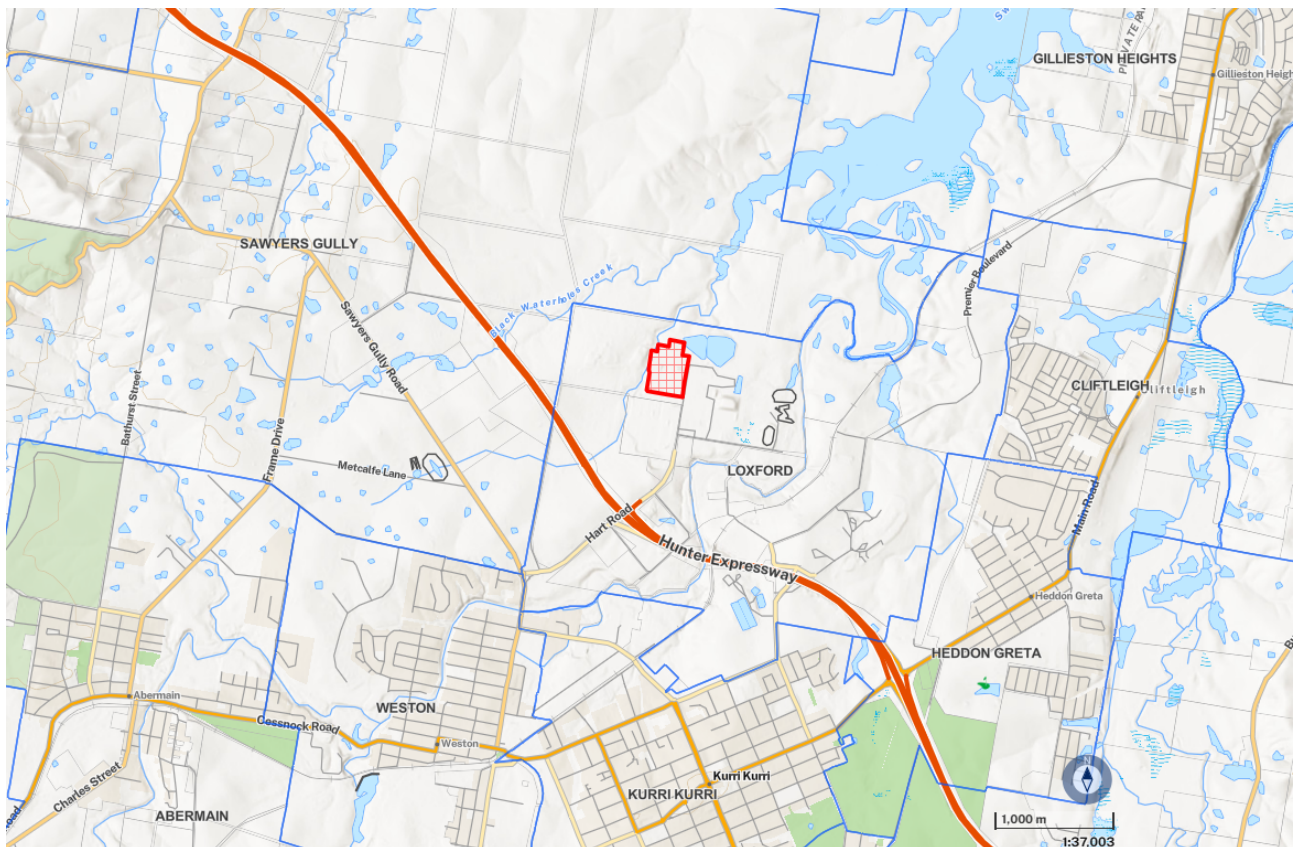


Figure 2.1: Location of the Kurri Kurri Power Station within the regional context (image source: NSW Spatial Services, SDT Explorer)



Figure 2.2: Local context of Kurri Kurri Power Station (image source: NSW Spatial Services, SDT Explorer)

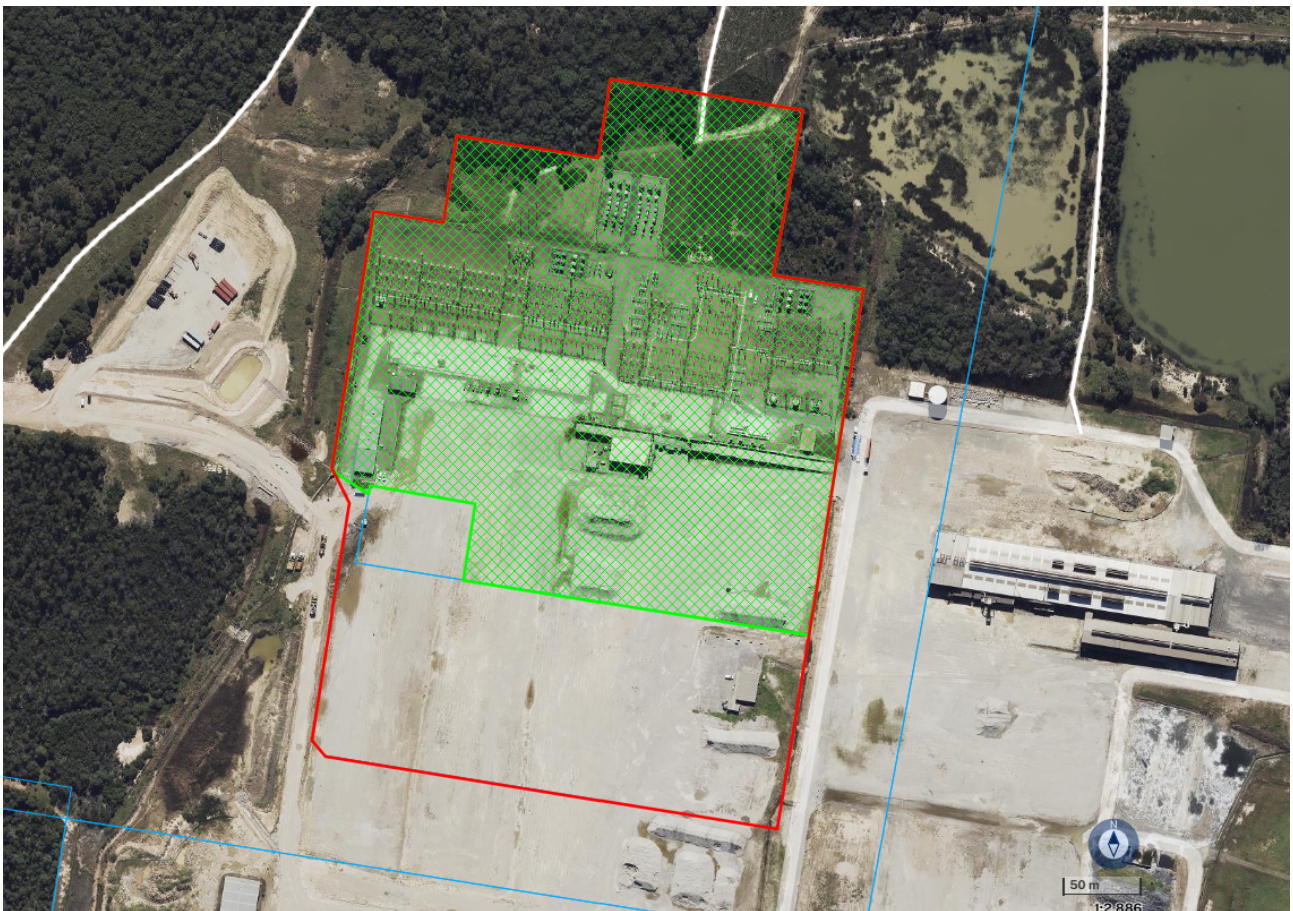


Figure 2.3: Kurri Kurri Power Station boundaries as identified in the SSI and EPBC Approvals (red outline), and EPL21627 (green hatch), (image source: NSW Spatial Services, SDT Explorer)

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2.3 Site Operations

KKPS is a 660MW open cycle gas fired power station that operates as a 'firming' generation facility. It is capable of supporting the transition away from fossil fuel baseload generation, through the security of supplying electricity during periods of low and intermittent generation from renewable generators to maintain a reliable and stable National Electricity Market (NEM). It can also support the NEM at short notice and during times of peak demand, including unplanned supply shortages at other baseload generation facilities.

Further details regarding the site operations of KKPS can be located in the KKPS OEMP.

2.4 Key Site Components and Features

Full details of the key site components of KPS can be located in the KKPS OEMP.

A site layout of KKPS is provided below in **Figure 2.4**.

2.5 Environmental Policy

Snowy Hydro's Environmental Policy is reviewed and updated regularly and can be found in the Snowy Hydro document management system, intranet site (the Grid), and on the public Snowy Hydro website. The link to the public website is provided below.

<https://www.snowyhydro.com.au/about/corporate-governance/>

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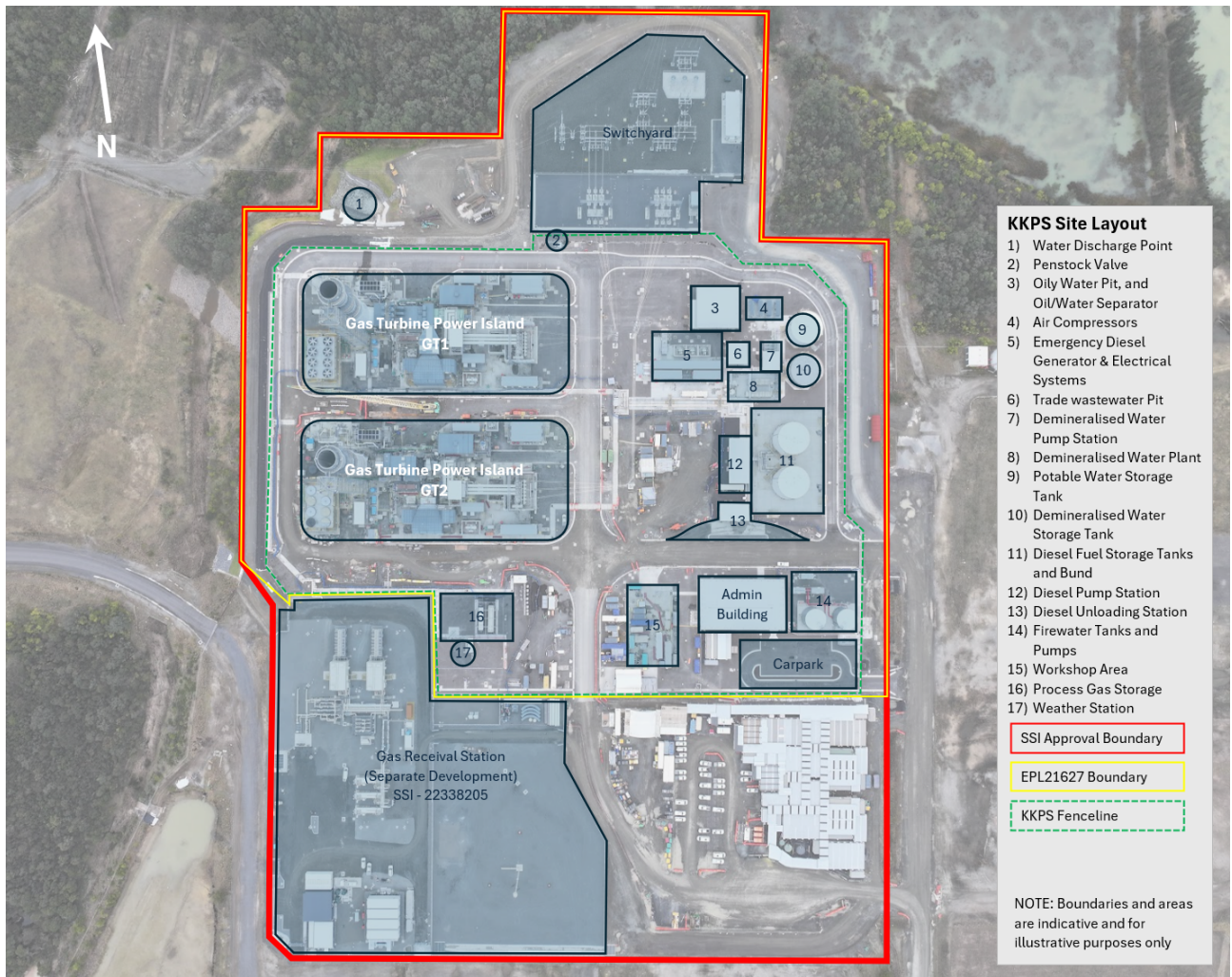


Figure 2.4: Kurri Kurri Power Station Site Layout

3.0 Existing Environment

3.1 Existing Land Use and Background Noise Levels

The Project Site is located entirely within a former industrial area, on land formerly occupied by the Kurri Kurri aluminium smelter, which closed permanently in 2014.

Existing land use surrounding KKPS is summarised as follows:

- To the west is Sawyers Gully, a predominantly rural locality with sparsely distributed receivers. Sawyers Gully is also adjacent to the Hunter Expressway, with a number of receivers in close proximity to the major roadway.
- Directly south of KKPS is the western extent of Loxford. The western extent of Loxford comprises sparsely distributed residential receivers with some industry. The western extent of Loxford is adjacent to both the Hunter Expressway, and the Kurri Kurri Wastewater Treatment Facility.
- To the southeast of KKPS is the eastern extent of Loxford. This area comprises sparsely distributed residential receivers, and the Kurri Kurri TAFE campus.
- Further east of Loxford are the townships of Cliftleigh and Heddon Greta, predominantly featuring residential and commercial properties. Notably are new and proposed residential developments in the areas closest to KKPS
- To the northeast of KKPS is Gilleston Heights, which consists of isolated farmhouses in the areas closest to KKPS, as well as residential and commercial properties. Similar to Cliftleigh, there are new and proposed residential developments in the areas closest to KKPS
- Approximately 2km south of KKPS is the Kurri Kurri Industrial Area, with the townships of Kurri Kurri and Weston located further south

Surrounding land use and noise sensitive areas are depicted in **Figure 3.1**, with further information on land use surrounding KKPS, detailed in the KKPS OEMP.

A summary of background noise levels is shown below in **Table 3.1** which refers to the Noise Catchment Areas (NCA) shown in **Figure 3.2**. Revised background noise monitoring was performed in June/July 2021 in response to feedback from the NSW EPA, following earlier rounds of background noise monitoring conducted in December 2020 and January 2021. A monitoring location was selected to represent each of the NCAs. Monitoring was undertaken during the winter period in order to limit insect and other environmental noise to the greatest extent possible. It was noted that the evening period was louder than the day period at most noise monitoring locations, as a result of the noise controlling nature of traffic along the Hunter Expressway at NCA 1 and to a lesser extent NCA 2, as well as a result of frogs and other wildlife becoming more active (pertaining especially to NCAs 3, 4 and 5). In those cases, the criterion derived from these noise levels were adjusted to prevent the more sensitive time period from having a less noise sensitive criterion.

Table 3.1: Background noise levels around KKPS

Monitor ID	Noise Catchment Area	Monitoring Location	Monitoring Duration	Measurement	Measured Noise Level - (dBA)		
					Day (07:00 to 18:00)	Evening (18:00 to 22:00)	Night (22:00 to 07:00)
NM1	NCA 1	103 Bishops Bridge Road, Sawyers Gully	29 June 2021 - 13 July 2021	LAeq	55	57	53
				RBL (LA90)	45	45	36
NM2	NCA 2	10 Dawes Avenue, Loxford	29 June 2021 - 13 July 2021	LAeq	48	47	46
				RBL (LA90)	40	43	38
NM3	NCA 3	20 Bowditch Avenue, Loxford	29 June 2021 - 13 July 2021	LAeq	47	44	44
				RBL (LA90)	38	39	37
NM4	NCA 4	464 Cessnock Road, Gilleston Heights	29 June 2021 - 13 July 2021	LAeq	43	38	38
				RBL (LA90)	29	33	30
NM5	NCA 5	60 Metcalfe Lane, Sawyers Gully	29 June 2021 - 13 July 2021	LAeq	45	46	42
				RBL (LA90)	37	41	35

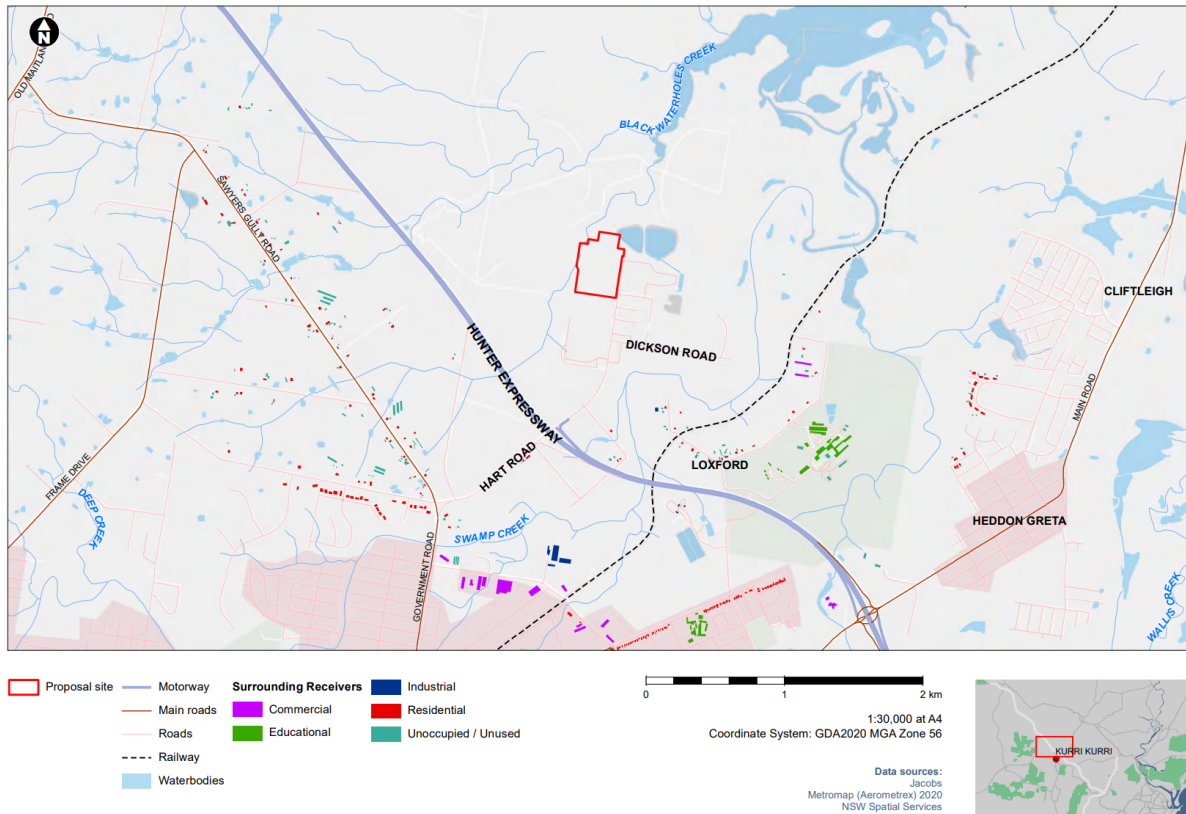


Figure 3.1: Noise sensitive receivers around KKPS

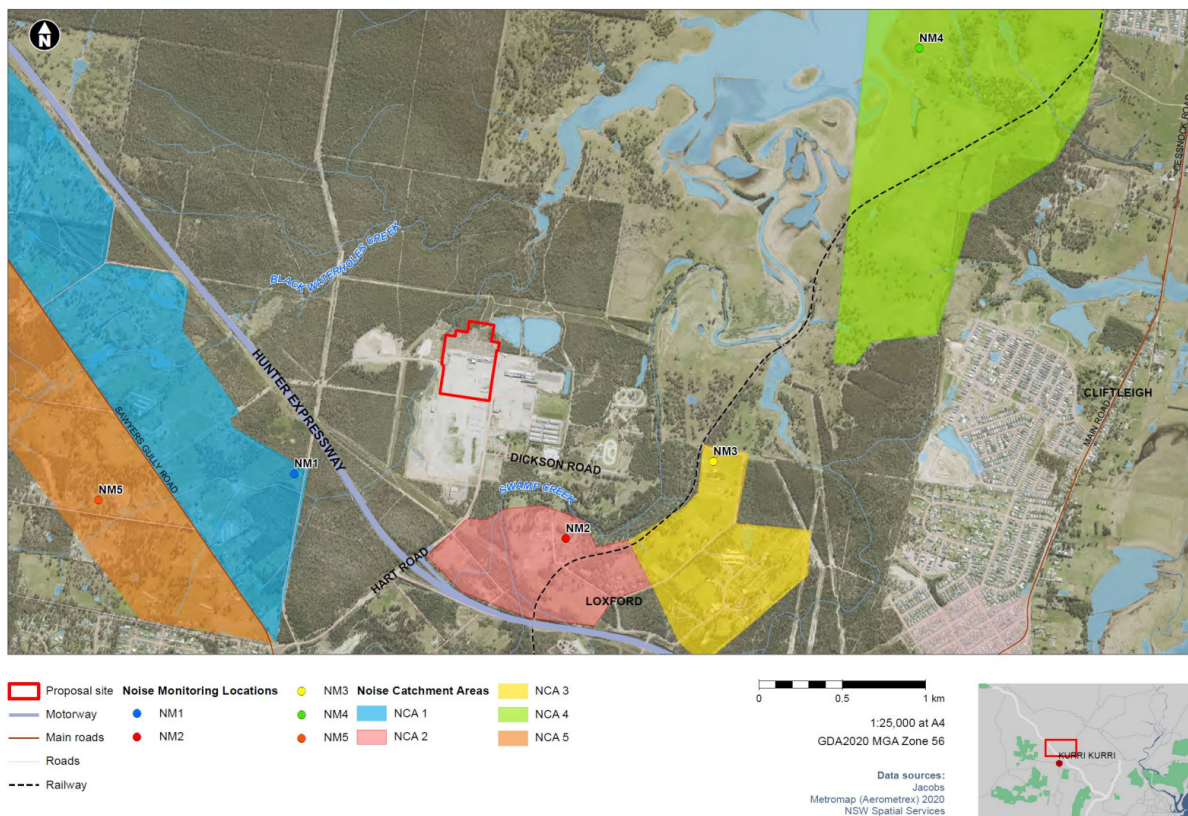


Figure 3.2: Noise catchment areas around KKPS

3.2 Operational Noise Emissions

Noise generation from KKPS operations can be generally divided into two sources, namely:

- The power islands (i.e. the gas turbines, generator, stack along with the other supporting equipment), and;
- The balance of plant (i.e. diesel unloading station, water pumps and the demineralisation plant).

Table 3.2 provides an indication on the estimated noise levels of the main power island components based on the details included in the KKPS EIS Noise Impact Assessment. The table also displays the attenuated component levels, which were used in the noise modelling and impact assessment.

The attenuation was modelled as being applied equally across the dB(A), dB(C) and unweighted dB, and the levels of attenuation required have been developed to sit well below what is considered feasibly possible to be provided from a supplier.

Table 3.3 displays the indicative noise levels from the Balance of Plant.

It is noted that noise levels from the KKPS switchyard (located at the northern extent of the site) are considered to be negligible as the associated generator step-up transformers would be located within the power island footprints. As such, the noise levels from the power islands would mask any noise generated from the electrical switchyard itself.

Table 3.2: Sound Power Levels (SWL's) of KKPS Power Island Elements

Noise Source	Unattenuated SWL			Attenuation Applied (dB)	Attenuated SWL		
	dB	dBA	dB(C)		dB	dBA	dB(C)
Exhaust Stack/Opening	135	109	132	12	123	97	120
Exhaust Diffuser	125	112	122	14	111	98	108
Gas Turbine Housing	122	104	123	6	116	98	117
Gas Turbine Air Inlet	117	107	116	12	105	95	104
Gas Turbine Generator Enclosure	121	102	119	5	116	97	114
Generator Step-up Transformers	116	104	115	5	111	99	110
Generator Fin Fan Cooler	116	100	112	3	113	97	109
Hydraulic Skid	99	96	99	nil	99	96	99
Liquid Fuel Module	100	96	99	nil	100	96	99
Fuel Gas Systems	99	96	98	nil	99	96	98

Table 3.3: KKPS Balance of Plant Sound Power Levels (SWL's)

Noise Source	Overall SWL		
	dB	dBA	dBC
Water Tank Pumps	95	93	95
Liquid Fuel (diesel) Pump Station	88	85	88
Demineralisation Plan	88	85	88

4.0 Legislative Compliance

4.1 Applicable Legislation, Standards and Guidelines

This Noise MP has been developed in consideration of the following legislation and guidelines:

- *Environmental Planning and Assessment Act 1979 (NSW)*
- *Protection of the Environment Operations Act 1997 (NSW)*
- *NSW EPA's Noise Policy for Industry*

Further details on relevant legislation applicable to KKPS can be found in the OEMP.

4.2 SSI Approval Conditions

Noise related management requirements for KKPS operations specified by the SSI Approval are provided in **Table 4.1**.

The applicable administrative conditions of the SSI Approval (Conditions A1 to A24), are summarised in **Table 4.1**, as they remain applicable to this management plan. The full detail of the conditions, and where these conditions are addressed is included in the KKPS OEMP.

Table 4.1: Noise related approval conditions (KKPS operations)

Condition	Description	Where/how addressed																																						
PART A: ADMINISTRATIVE CONDITIONS																																								
A1 to A24	- Obligation to minimise harm to the environment (A1) - Terms of Approval (A2 to A5) - Lapse of Approval (A6) - Limits on Approval (A7) - Limits on Operations (A8 to A12) - Statutory Requirements (A13 to A14) - Notification (A15) - Structural Adequacy (A16) - Demolition (A17) - Protection of Public Infrastructure (A18) - Operation of Plant and Equipment (A19) - Environmental Representative (A20 to A24)	KKPS OEMP																																						
PART B: ENVIRONMENTAL CONDITIONS - GENERAL																																								
NOISE																																								
B21	Noise Limit Conditions Operational noise generated at the premises must not exceed the noise limits at the times and locations in Table 5 below (or alternative limits as permitted by the applicable EPL). Table 5: Nose Limits <table><tr><th rowspan="3">Location</th><th colspan="4">Noise Limits in dB(A)</th></tr><tr><th>Day</th><th>Evening</th><th>Night</th><th>Night</th></tr><tr><th>L_{Aeq}(15 minute)</th><th>L_{Aeq}(15 minute)</th><th>L_{Aeq}(15 minute)</th><th>L_AFmax</th></tr><tr><td>103 Bishops Bridge Rd, Sawyers Gully</td><td>50</td><td>48</td><td>41</td><td>52</td></tr><tr><td>10 Dawes Ave, Loxford</td><td>45</td><td>45</td><td>43</td><td>53</td></tr><tr><td>20 Bowditch Ave, Loxford</td><td>43</td><td>43</td><td>38</td><td>52</td></tr><tr><td>464 Cessnock Rd, Gillieston Heights</td><td>40</td><td>35</td><td>35</td><td>52</td></tr><tr><td>59 Sawyers Gully Rd, Sawyers Gully</td><td>42</td><td>42</td><td>38</td><td>52</td></tr></table>	Location	Noise Limits in dB(A)				Day	Evening	Night	Night	L _{Aeq} (15 minute)	L _{Aeq} (15 minute)	L _{Aeq} (15 minute)	L _A Fmax	103 Bishops Bridge Rd, Sawyers Gully	50	48	41	52	10 Dawes Ave, Loxford	45	45	43	53	20 Bowditch Ave, Loxford	43	43	38	52	464 Cessnock Rd, Gillieston Heights	40	35	35	52	59 Sawyers Gully Rd, Sawyers Gully	42	42	38	52	Section 5.0
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59 Sawyers Gully Rd, Sawyers Gully	42	42	38	52																																				
B22	The noise limits set out in condition B21 apply under the meteorological conditions described in Table 6 Table 6: Meteorological Conditions <table><tr><th>Assessment Period</th><th>Meteorological Conditions</th></tr><tr><td>Day</td><td>Stability Categories A, B, C and D with wind speeds up to and including 3 m/s at 10 m above ground level.</td></tr><tr><td>Evening</td><td>Stability Categories A, B, C and D with wind speeds up to and including 3 m/s at 10 m above ground level.</td></tr><tr><td>Night</td><td>Stability Categories A, B, C and D with wind speeds up to and including 3 m/s at 10 m above ground level; or Stability category E and F with wind speeds up to and including 2 m/s at 10 m above ground level.</td></tr></table>	Assessment Period	Meteorological Conditions	Day	Stability Categories A, B, C and D with wind speeds up to and including 3 m/s at 10 m above ground level.	Evening	Stability Categories A, B, C and D with wind speeds up to and including 3 m/s at 10 m above ground level.	Night	Stability Categories A, B, C and D with wind speeds up to and including 3 m/s at 10 m above ground level; or Stability category E and F with wind speeds up to and including 2 m/s at 10 m above ground level.	Section 5.0																														
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Night	Stability Categories A, B, C and D with wind speeds up to and including 3 m/s at 10 m above ground level; or Stability category E and F with wind speeds up to and including 2 m/s at 10 m above ground level.																																							
B23	For those meteorological conditions not referred to in condition B22, the noise limits that apply are the noise limits in condition B21 plus 5 dB(A).	Section 5.0																																						
B24	For the purposes of condition B22, the meteorological conditions are to be determined from meteorological data obtained from the meteorological weather station (point to be established) and the stability category shall be determined using the sigma-theta data method (section D1.4) from Fact Sheet D of the Noise Policy for Industry (NSW EPA, 2017), or latest version.	Section 5.0																																						

Condition	Description	Where/how addressed
B25	For the purpose of determining the noise generated from the premises, the modifying factor corrections in Table C1 in Fact Sheet C of the Noise Policy for Industry (NSW EPA, 2017), or latest version, must be applied, if appropriate, to the noise measurements by the noise monitoring equipment.	Section 5.0
B26	Meteorological Monitoring Prior to the commencement of the installation of the gas turbines, unless otherwise agreed by the Secretary, the Proponent must ensure there is a suitable meteorological weather station operating located on the premises or at a location approved by the EPA that: a) complies with the NSW EPA's Approved Methods for Sampling and Analysis of Air Pollutants in New South Wales (or latest version); b) is capable of continuous real-time measurement of wind speed, wind direction, sigma theta, air temperature, rainfall and relative humidity; and c) is capable of measuring meteorological conditions in accordance with the Noise Policy for Industry (EPA 2017 or latest version).	Section 5.2
B27	Noise Monitoring Within six months of full operation post commissioning attended noise validation monitoring must be undertaken during a period of full load and must: a) occur at each receiver location listed in condition B21; b) occur annually in a reporting period; c) occur during day, evening and night period as defined in the Noise Policy for Industry (or latest version) over two 15- minute compliance measurements during each period; d) occur for three consecutive operating days.	Section 5.4
B28	On completion of post commissioning attended noise validation monitoring required in condition B27, that shows compliance with conditions B21 and B23, ongoing attended noise monitoring must be undertaken to the satisfaction of the EPA.	Section 5.4
B29	Noise Monitoring Report A noise compliance assessment report must be submitted to the EPA and the Secretary within 30 days (or an alternative timeframe agreed by the Secretary) of the completion of the post commissioning validation monitoring and any annual monitoring. The assessment must be prepared by a qualified person and include: a) an assessment of compliance with noise limits presented in conditions B21 and B23; and b) an outline of any management actions taken within the monitoring period to address any exceedances of the limits contained in conditions B21 and B23.	Section 5.4 & Section 7.1
PART C: ENVIRONMENTAL MANAGEMENT AND REPORTING		
ENVIRONMENTAL MANAGEMENT		

Condition	Description	Where/how addressed
C1	Environmental Management Strategy Prior to commencing construction, the Proponent must prepare an Environmental Management Strategy for the development to the satisfaction of the Secretary. This strategy must: e) include: i) the following subplans: • construction noise management plan prepared in consultation with the EPA;	KKPS OEMP and this Noise MP
COMPLIANCE		
C6	Incident Notification, Reporting and Response The Secretary must be notified in writing via the Major Projects website immediately after the Proponent becomes aware of an incident. The notification must identify the development (including the application number and the name of the development if it has one) and set out the location and nature of the incident. Subsequent notification requirements must be given, and reports submitted in accordance with the requirements set out in Appendix 4.	Section 4.3.2 in the KKPS OEMP
C7	Non-Compliance Notification The Secretary must be notified in writing via the Major Projects website within seven days after the Proponent becomes aware of any non-compliance.	Section 7.5.3 Section 4.3.2a in the KKPS OEMP
C8	A non-compliance notification must identify the development and the application number for it, set out the condition of approval that the development is non-compliant with, the way in which it does not comply and the reasons for the non-compliance (if known) and what actions have been, or will be, undertaken to address the non-compliance.	Section 4.3.2a in the KKPS OEMP
C9	A non-compliance which has been notified as an incident does not need to also be notified as a noncompliance.	Section 7.5.3 Section 4.3.2a in the KKPS OEMP
C10	Compliance Reporting Compliance Reports of the development must be carried out in accordance with the Compliance Reporting Requirements outlined in the Compliance Reporting Post Approval Requirements (2020) or its latest version.	Section 4.3.2b in the KKPS OEMP
C11	Compliance Reports must be submitted to the Department in accordance with the timeframes set out in the Compliance Reporting Post Approval Requirements (2020) or its latest version, unless otherwise agreed to by the Secretary.	Section 4.3.2b in the KKPS OEMP
C12	The Proponent must make each Compliance Report publicly available within 60 days of submitting it to the Secretary, unless otherwise agreed by the Secretary	Section 4.3.2b in the KKPS OEMP
C13	Notwithstanding the requirements of the Compliance Reporting Post Approval Requirements (2020) or its latest version, the Secretary may approve a request for ongoing annual operational compliance reports to be ceased, where it has been demonstrated to the Secretary's satisfaction that an operational compliance report has demonstrated operational compliance.	Section 4.3.2b in the KKPS OEMP

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Condition	Description	Where/how addressed
NOTIFICATIONS		
C14	Notification of Department Prior to commencing the construction, operations, upgrading or decommissioning of the development or the cessation of operations, the Proponent must notify the Department via the Major Projects website portal of the date of commencement, or cessation, of the relevant phase. If any of these phases of the development are to be staged, then the Proponent must notify the Department in writing prior to commencing the relevant stage, and clearly identify the development that would be carried out during the relevant stage.	Section 4.3.3 in the KKPS OEMP
ACCESS TO INFORMATION		
C20	Before the commencement of construction until the completion of all rehabilitation required under this approval, the Proponent must: a) make the following information and documents (as they are obtained, approved or as otherwise stipulated within the conditions of this approval) publicly available on its website: i) the EIS; ii) all current statutory approvals for the development; iii) all approved strategies, plans and programs required under the conditions of this approval; iv) the proposed staging plans for the development if the construction, operation or decommissioning of the development is to be staged; v) regular reporting on the environmental performance of the development in accordance with the reporting requirements in any plans or programs approved under the conditions of this approval; vi) a comprehensive summary of the monitoring results of the development, reported in accordance with the specifications in any conditions of this approval, or any approved plans and programs; vii) a summary of the current phase and progress of the development; viii) contact details to enquire about the development or to make a complaint; ix) a complaints register, updated monthly; x) the Annual Reviews of the development; xi) audit reports prepared as part of any Independent Environmental Audit of the development and the Proponent's response to the recommendations in any audit report; xii) any other matter required by the Secretary; and b) keep such information up to date, to the satisfaction of the Secretary.	Section 6.1 in the KKPS OEMP

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Condition	Description	Where/how addressed
UPDATING AND STAGING OF STUDIES, STRATEGIES AND PLANS		
C21	To ensure the studies, strategies and plans for the development are updated on a regular basis and incorporate any required measures to improve the environmental performance of the development, the Proponent may submit revised studies, strategies or plans required for the development under the conditions of approval at any time. With the agreement of the Secretary, the Proponent may also submit any study, strategy or plan required under the conditions of this approval on a staged basis.	Section 8.0
C22	The Secretary may approve a revised strategy or plan required under the conditions of approval, or the stage submission of these documents, at any time. With the approval of the Secretary, the Proponent may prepare the revised or staged strategy or plan without undertaking consultation with all parties nominated under the applicable conditions in this approval. Notes: • <i>While any study, strategy or plan may be submitted on a progressive basis, the Proponent must ensure that the existing operations on site are covered by suitable studies, strategies or plans at all times.</i> • <i>If the submission of any study, strategy or plan is to be staged, then the relevant study, strategy or plan must clearly describe the specific stage to which the study, strategy or plan applies, the relationship of this stage to any future stages, and the trigger for updating the study, strategy or plan.</i>	Section 8.0

4.3 EPL21627 Conditions

Noise management requirements specified by the SSI Approval are provided in **Table 4.2**.

Table 4.2: Noise related EPL conditions

Condition	Description	Where/how addressed																														
P1 Location of monitoring/discharge points and areas																																
P1.3	The following points referred to in the table below are identified in this licence for the purposes of weather and/or noise monitoring and/or setting limits for the emission of noise from the premises. <table><tr><th colspan="3">Noise/Weather</th></tr><tr><th>EPA identification no.</th><th>Type of monitoring point</th><th>Location description</th></tr><tr><td>4</td><td>Meteorological Station</td><td>Meteorological station to be appropriately sited and established (with its location to be marked and shown on an updated plan of the premises to be provided to the EPA) prior to commencing operations.</td></tr></table>	Noise/Weather			EPA identification no.	Type of monitoring point	Location description	4	Meteorological Station	Meteorological station to be appropriately sited and established (with its location to be marked and shown on an updated plan of the premises to be provided to the EPA) prior to commencing operations.	Section 5.0																					
Noise/Weather																																
EPA identification no.	Type of monitoring point	Location description																														
4	Meteorological Station	Meteorological station to be appropriately sited and established (with its location to be marked and shown on an updated plan of the premises to be provided to the EPA) prior to commencing operations.																														
L4 Noise Limits																																
L4.1	Operational noise generated at the premises must not exceed the noise limits (expressed in dB) at the times and locations in the table below. <table><tr><th>Location</th><th>Day LAeq (15min)</th><th>Evening LAeq (15min)</th><th>Night LAeq (15min)</th><th>Night LAFmax</th></tr><tr><td>103 Bishops Bridge Rd, Sawyers Gully</td><td>50</td><td>48</td><td>41</td><td>52</td></tr><tr><td>10 Dawes Ave, Loxford</td><td>45</td><td>45</td><td>43</td><td>53</td></tr><tr><td>20 Bowditch Ave, Loxford</td><td>43</td><td>43</td><td>38</td><td>52</td></tr><tr><td>464 Cessnock Rd, Gillieston Heights</td><td>40</td><td>35</td><td>35</td><td>52</td></tr><tr><td>59 Sawyers Gully Rd, Sawyers Gully</td><td>42</td><td>42</td><td>38</td><td>52</td></tr></table>	Location	Day LAeq (15min)	Evening LAeq (15min)	Night LAeq (15min)	Night LAFmax	103 Bishops Bridge Rd, Sawyers Gully	50	48	41	52	10 Dawes Ave, Loxford	45	45	43	53	20 Bowditch Ave, Loxford	43	43	38	52	464 Cessnock Rd, Gillieston Heights	40	35	35	52	59 Sawyers Gully Rd, Sawyers Gully	42	42	38	52	Section 5.0
Location	Day LAeq (15min)	Evening LAeq (15min)	Night LAeq (15min)	Night LAFmax																												
103 Bishops Bridge Rd, Sawyers Gully	50	48	41	52																												
10 Dawes Ave, Loxford	45	45	43	53																												
20 Bowditch Ave, Loxford	43	43	38	52																												
464 Cessnock Rd, Gillieston Heights	40	35	35	52																												
59 Sawyers Gully Rd, Sawyers Gully	42	42	38	52																												
L4.2	For the purposes of Condition L4.1: a) Day means the period from 7am to 6pm Monday to Saturday, and the period from 8am to 6pm Sundays and Public Holidays; b) Evening means the period from 6pm to 10pm; and c) Night means the period from 10pm to 7am Monday to Saturday, and the period from 10pm to 8am Sundays and Public Holidays.	Section 5.0																														

Condition	Description	Where/how addressed								
L4.3	Noise-enhancing meteorological conditions: a) The noise limits set out in licence condition L4.1 apply under the meteorological conditions in the following table. b) For those meteorological conditions not referred to in the table below, the noise limits that apply are the noise limits in licence condition L4.1 plus 5dB. <table><tr><th>Assessment Period</th><th>Meteorological Condition</th></tr><tr><td>Day</td><td>Stability Categories A, B, C and D with wind speeds up to and including 3m/s at 10m above ground level.</td></tr><tr><td>Evening</td><td>Stability Categories A, B, C and D with wind speeds up to and including 3m/s at 10m above ground level.</td></tr><tr><td>Night</td><td>Stability Categories A, B, C and D with wind speeds up to and including 3m/s at 10m above ground level; or Stability category E and F with wind speeds up to and including 2m/s at 10m above ground level.</td></tr></table>	Assessment Period	Meteorological Condition	Day	Stability Categories A, B, C and D with wind speeds up to and including 3m/s at 10m above ground level.	Evening	Stability Categories A, B, C and D with wind speeds up to and including 3m/s at 10m above ground level.	Night	Stability Categories A, B, C and D with wind speeds up to and including 3m/s at 10m above ground level; or Stability category E and F with wind speeds up to and including 2m/s at 10m above ground level.	Section 5.0
Assessment Period	Meteorological Condition									
Day	Stability Categories A, B, C and D with wind speeds up to and including 3m/s at 10m above ground level.									
Evening	Stability Categories A, B, C and D with wind speeds up to and including 3m/s at 10m above ground level.									
Night	Stability Categories A, B, C and D with wind speeds up to and including 3m/s at 10m above ground level; or Stability category E and F with wind speeds up to and including 2m/s at 10m above ground level.									
L4.4	For the purposes of licence condition L4.3: a) The meteorological conditions are to be determined from meteorological data obtained from the licensed Point 4. b) Stability category shall be determined using the following method from Fact Sheet D of the Noise Policy for Industry (NSW EPA, 2017): i) Use of sigma-theta data (section D1.4).	Section 5.0								
L4.5	To assess compliance: a) with the LAeq(15 minutes) or the LMax noise limits in licence condition L4.1 and L4.3, the noise measurement equipment must be located: i) approximately on the property boundary, where any residence is situated 30 metres or less from the property boundary closest to the premises; or where applicable, ii) in an area within 30 metres of a residence façade, but not closer than 3 metres where any residence on the property is situated more than 30 metres from the property boundary closest to the premises; or where applicable, iii) in an area within 50 metres of the boundary of a National Park or Nature Reserve, iv) at any other location identified in licence condition L4.1. b) with the LAeq(15 minutes) or the LMax noise limits in licence condition L4.1 and L4.3, the noise measurement equipment must be located: i) at the reasonably most affect point at a location where there is no residence at the location; or ii) at the reasonably most affected point within at area at a location prescribed by licence condition L4.5(a).	Section 5.0								
L4.6	A non-compliance of licence conditions L4.1 and L4.3 will still occur where noise generated from the premises is measured in excess of the noise limit at a point other than the reasonably most affected point at locations referred to in licence condition L4.5(a) or L4.5(b).	Section 5.0								

Condition	Description	Where/how addressed
L4.7	For the purposes for licence conditions L4.5 and L4.6, the reasonably most affected point is a point at a location or within an area at a location experiencing or expected to experience the highest sound pressure level from the premises.	Section 5.0
L4.8	For the purpose of determining the noise generated from the premises, the modifying factor corrections in Table C1 in Fact Sheet C of the Noise Policy for Industry (NSW EPA, 2017) may be applied, if appropriate, to the noise measurement by the noise monitoring equipment.	Section 5.0
L4.9	Noise measurements must not be undertaken where rain or wind speed at microphone level will affect the acquisition of valid measurements.	Section 5.0
L4.10	For the purposes of the licence: · Noise Policy for Industry means the document entitled "Noise Policy for Industry" published by the NSW Environment Protection Authority in October 2017. · Noise – 'sound pressure levels' for the purposes of conditions L4.1 to L4.8 includes: · LAeq (15 minute), meaning the value of the A-weighted sound pressure level of a continuous steady sound that, over a 15 minute time interval, has the same mean square sound pressure level as a sound under consideration with a level that varies with time (Australian Standard AS 1055:2018 Acoustics: description and measurement of environmental noise). · LAFmax, meaning the maximum sound pressure level of an event measured with a sound level meter satisfying Australian Standard AS IEC 61672.1-2013 Electroacoustics - Sound level meters - Part 1: Specifications set to 'A' frequency weighting and fast time weighting.	Section 5.0
O1 Activities must be carried out in a competent manner		
O1.1	Licensed activities must be carried out in a competent manner. This includes: a) the processing, handling, movement and storage of materials and substances used to carry out the activity; and b) the treatment, storage, processing, reprocessing, transport and disposal of waste generated by the activity.	Section 6.0 & 7.0
O2 Maintenance of plant and equipment		
O2.1	All plant and equipment installed at the premises or used in connection with the licensed activity: a) must be maintained in a proper and efficient condition; and b) must be operated in a proper and efficient manner	Section 6.0 & 7.0

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Condition	Description	Where/how addressed																																								
M5 Weather Monitoring Requirement to monitor concentration of pollutants discharged																																										
M5.1	At the point(s) identified below, the licensee must monitor (by sampling and obtaining results by analysis) the parameters specified in Column 1 of the table below, using the corresponding sampling method, units of measure, averaging period and sampling frequency, specified opposite in the Columns 2, 3, 4 and 5 respectively. POINT 4 <table><tr><th>Parameter</th><th>Sampling method</th><th>Units of measure</th><th>Averaging period</th><th>Frequency</th></tr><tr><td>Siting</td><td>AM-1</td><td>-</td><td>-</td><td>Continuous</td></tr><tr><td>Temperature at 2 metres</td><td>AM-4</td><td>degrees Celsius</td><td>1 hour</td><td>Continuous</td></tr><tr><td>Wind Direction at 10 metres</td><td>AM-2 & AM-4</td><td>Degrees</td><td>15 minutes</td><td>Continuous</td></tr><tr><td>Wind Speed at 10 metres</td><td>AM-2 & AM-4</td><td>metres per second</td><td>15 minutes</td><td>Continuous</td></tr><tr><td>Sigma theta</td><td>AM-2 & AM-4</td><td>Degrees</td><td>15 minutes</td><td>Continuous</td></tr><tr><td>Rainfall</td><td>AM-4</td><td>millimetres</td><td>15 minutes</td><td>Continuous</td></tr><tr><td>Relative humidity</td><td>AM-4</td><td>percent humidity</td><td>1 hour</td><td>Continuous</td></tr></table>	Parameter	Sampling method	Units of measure	Averaging period	Frequency	Siting	AM-1	-	-	Continuous	Temperature at 2 metres	AM-4	degrees Celsius	1 hour	Continuous	Wind Direction at 10 metres	AM-2 & AM-4	Degrees	15 minutes	Continuous	Wind Speed at 10 metres	AM-2 & AM-4	metres per second	15 minutes	Continuous	Sigma theta	AM-2 & AM-4	Degrees	15 minutes	Continuous	Rainfall	AM-4	millimetres	15 minutes	Continuous	Relative humidity	AM-4	percent humidity	1 hour	Continuous	Section 5.2
Parameter	Sampling method	Units of measure	Averaging period	Frequency																																						
Siting	AM-1	-	-	Continuous																																						
Temperature at 2 metres	AM-4	degrees Celsius	1 hour	Continuous																																						
Wind Direction at 10 metres	AM-2 & AM-4	Degrees	15 minutes	Continuous																																						
Wind Speed at 10 metres	AM-2 & AM-4	metres per second	15 minutes	Continuous																																						
Sigma theta	AM-2 & AM-4	Degrees	15 minutes	Continuous																																						
Rainfall	AM-4	millimetres	15 minutes	Continuous																																						
Relative humidity	AM-4	percent humidity	1 hour	Continuous																																						
M8 Noise Monitoring																																										
M8.1	Attended noise monitoring must be undertaken in accordance with licence condition L4.5 and must: a) occur at each location specified in Condition L4.1; b) occur annually in a reporting period; c) occur during each day, evening and night period as defined in the Noise Policy for Industry (NSW EPA, 2017) for a minimum of: - o 1.5 hours during the day; - o 30 minutes during the evening; and - o 1 hour during the night. d) occur for three consecutive operating days. Note: The above requirements do not come into effect until the facility commences to be commissioned.	Section 5.0																																								
R4 Other reporting conditions																																										
R4.1	Noise Monitoring Report A noise compliance assessment report must be submitted to the EPA within 30 days of the completion of the annual monitoring. The assessment must be prepared by a competent person and include: a) an assessment of compliance with noise limits presented in licence conditions L4.1 and L4.3; and b) an outline of any management actions taken within the monitoring period to address any exceedances of the limits contained in licence conditions L4.1 and L4.3.	Section 5.4 & Section 7.1																																								

4.4 EIS Commitments

Table 4.3 specifies the operational related commitments for KKPS in relation to noise management

Table 4.3: Noise related EIS Commitments/mitigation measures

Reference	Description	Where/how addressed
EIS Section 16.3 & 22	NV3 Noise monitoring of the Proposal post construction will be performed to verify the predicted noise levels at the relevant receivers. These levels will then be used to review and if necessary, improve the equipment and other attenuation requirements and to confirm that the noise attenuation achieves compliance	Section 5.4

4.5 Consultation

The SSI Approval required the Noise MP to be prepared in consultation with the NSW Environment Protection Authority (NSW EPA). The EPA was invited to comment on the draft Noise MP on 12 November 2021, however they declined this opportunity. A summary of this consultation outcome is provided in **Table 4.4**. The EPA was further consulted on 15 February 2022 regarding the Noise MP and similarly declined to comment. Evidence of the consultation has been provided to the Department.

Table 4.4: Consultation summary for the Noise MP

Agency	Feedback	Response
NSW EPA	EPA responded they "encourage the development of [management plans] to ensure that proponents and licensees have determined how they will meet their statutory obligations and designed environmental objectives. Being a regulatory authority, the EPA's role is to administer and regulate the statutes for environmental management and protection. As such the EPA does not directly get involved in the development of strategies to achieve those objectives and does not review or comment on such plans."	Noted.

5.0 Monitoring

5.1 Noise Limits

Noise monitoring locations reflect the identified noise catchment areas identified in **Section 3.1**, and have been consistent throughout the entirety of the development of KKPS. The operational noise receiver locations and their associated noise limits are detailed in **Table 5.1**, and depicted in **Figure 5.1**.

It is noted that the noise limits described in **Table 5.1** apply under the meteorological conditions that have been described in **Table 5.2**, as recorded by the KKPS onsite weather station. For meteorological conditions not described in **Table 5.2**, +5dBA shall be added to the corresponding noise limit described in **Table 5.1**.

If noise levels are determined to be above those specified in **Table 5.1**, the meteorological conditions recorded by the KKPS onsite weather station at the time of monitoring will be assessed to determine whether +5dBA is required to be added to the noise limit in accordance with Condition B23 of the SSI Approval, and Condition L4.3 of EPL21627.

Table 5.1: Noise Limits

Receiver Location	Receiver Type	Noise Limits in dBA			
		Day ¹	Evening ²	Night ³	Night ³
		L _{Aeq} (15min)	L _{Aeq} (15min)	L _{Aeq} (15min)	L _A F _{max}
NM1 103 Bishops Bridge Road, Sawyers Gully	Residential	50	48	41	52
NM2 10 Dawes Avenue, Loxford	Residential	45	45	43	53
NM3 20 Bowditch Avenue, Loxford	Residential	43	43	38	52
NM4 464 Cessnock Road, Gilleston Heights	Residential	40	35	35	52
NM5 59 Sawyers Gully Road, Sawyers Gully	Residential	42	42	38	52

Table 5.1 Notes:

- 1) **Day** means the period from 7am to 6pm Monday to Saturday, and the period from 8am to 6pm Sundays and Public Holidays
- 2) **Evening** means the period from 6pm to 10pm
- 3) **Night** means the period from 10pm to 7am Monday to Saturday, and the period from 10pm to 8am Sundays and Public Holidays

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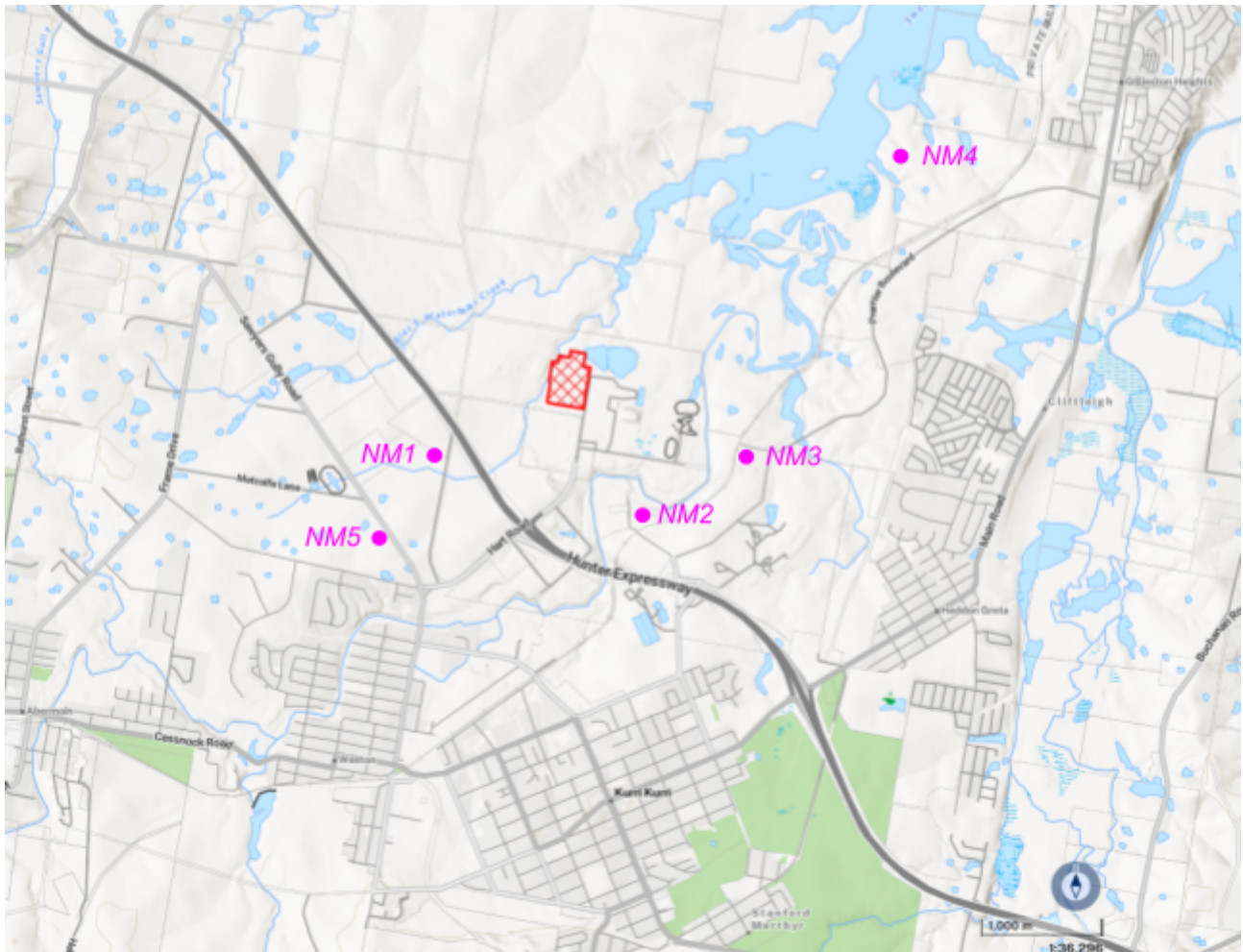


Figure 5.1: KKPS Operational noise monitoring locations

5.1.1 Conditions Noise Limits are Applied

In accordance with EPL21627 and the SSI Approval, the noise limits specified in **Table 5.1** apply under the meteorological conditions detailed in **Table 5.2** as measured by the KKPS onsite weather station. The stability categories are determined utilising the Sigma Theta method from Fact Sheet D of the Noise Policy for Industry.

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Table 5.2: Meteorological conditions for the application of noise limits

Monitoring Period	Meteorological Condition Description	Application of Meteorological Parameters	
		Sigma Theta	Wind Speed
Day	Stability Categories A, B, C and D with wind speeds up to and including 3m/s at 10m above ground level	$\geq 7.5^\circ$	$\leq 3.0\text{m/s}$
Evening	Stability Categories A, B, C and D with wind speeds up to and including 3m/s at 10m above ground level	$\geq 7.5^\circ$ & $< 12.5^\circ$	$\leq 3.0\text{m/s}$
		$\geq 12.5^\circ$ & $< 17.5^\circ$	$\geq 2.4\text{m/s}$ & $\leq 3.0\text{m/s}$
Night	Stability Categories A, B, C and D with wind speeds up to and including 3m/s at 10m above ground level	$\geq 7.5^\circ$ & $< 12.5^\circ$	$\leq 3.0\text{m/s}$
		$\geq 12.5^\circ$ & $< 17.5^\circ$	$\geq 2.4\text{m/s}$ & $\leq 3.0\text{m/s}$
	Stability category E and F with wind speeds up to and including 2m/s at 10m above ground level	$\geq 2.1^\circ$ & $< 7.5^\circ$	$\leq 2.0\text{m/s}$

5.2 Onsite Weather Station

To enable the monitoring of relevant meteorological conditions for noise management purposes, an onsite weather station has been installed at KKPS. The weather station is capable of the continuous measurement of weather conditions in accordance with the NSW EPA's Noise Policy for Industry, and Approved Methods for Sampling and Analysis of Air Pollutants in New South Wales, EPL 21627 and the SSI Approval. **Table 5.4** below describes the parameters and monitoring requirements specified in EPL21627.

Table 5.3: KKPS onsite weather station monitoring requirements

Parameter	Sampling Method	Unit of Measure	Averaging Period	Frequency
Siting	AM-1	—	—	Continuous
Temperature (at 2 metres)	AM-4	degC	1 hour	Continuous
Wind Direction (at 10 metres)	AM-2 & AM-4	deg	15 minutes	Continuous
Wind Speed (at 10 metres)	AM-2 & AM-4	m/s	15 minutes	Continuous
Sigma Theta	AM-2 & AM-4	deg	15 minutes	Continuous
Rainfall	AM-4	mm	15 minutes	Continuous
Relative Humidity	AM-4	%	1 hour	Continuous

5.3 Monitoring Requirements

In addition to the meteorological conditions that the noise limits for KKPS apply, Conditions L4.5 to L4.9 of EPL21627 specify various details on how to monitor for noise compliance at KKPS. In summary, these details specify;

- Where noise monitoring equipment must be located at the receiver locations (Condition L4.5)
- That a non-compliance will still occur if KKPS related noise is measured above the applicable noise limit at another location on the premises (Condition L4.6)
- How the reasonably most affected point at a location, in relation to noise, is defined (Condition L4.7)
- Modifying factor corrections must be applied (if appropriate) to the noise measurement by noise monitoring equipment in accordance with Fact Sheet C of the Noise Policy for Industry (Condition L4.8)
- Noise measurements must not be undertaken where rain or wind speed at microphone level will affect the acquisition of valid measurements (Condition L4.9)

5.4 Annual Attended Noise Monitoring

Within six months of KKPS becoming fully operational (post commissioning noise validation monitoring), and annually thereafter, Snowy Hydro shall engage a suitably qualified noise consultant to undertake attended noise monitoring in accordance with the requirements specified in EPL21627 (Condition M8.1 & R4.1) and the SSI Approval (Condition B27, B28 & B29) to assess ongoing compliance to the noise limits specified in **Table 5.2**, and to ensure consistency with the noise levels predicted in the Noise Impact Assessment for KKPS.

The requirements for annual attended noise compliance monitoring is summarised in **Table 5.4** below

Table 5.4: Annual Attended Noise Monitoring Requirements

	EPL21627	SSI Approval	Adopted Requirement
Locations	Each location specified in Condition L4.1	Each receiver location listed in condition B21	All locations specified in Table 5.1
Frequency	Annually	Within six months of full commissioning, then annually	Within six months of full commissioning, then annually
Timing and Duration	Day: 90 minutes Evening: 30 minutes Night: 60 minutes	Day: 2x 15 minute compliance measurements Evening: 2x 15 minute compliance measurements Night: 2x 15 minute compliance measurements	Day: 90 minutes Evening: 30 minutes Night: 60 minutes
Recurrence	Three consecutive operating days	Three consecutive operating days	Three consecutive operating days

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5.4.1 Annual Noise Monitoring Report

Within 30 days of the completion of annual attended noise monitoring (and post commissioning validation monitoring), a Noise Compliance Assessment Report will be submitted to the NSW EPA and the DPHI Secretary. The report will be prepared by the noise consultant and contain:

- an assessment of compliance with noise limits specified in Conditions B21 and B23 of the SSI Approval, and Conditions L4.1 and L4.3 of EPL21627. These are indicated in **Section 5.1**
- an outline of any management actions taken within the monitoring period to address any exceedances of the noise limits.

5.4.2 Exceedances of Noise Limits

If a noise monitoring result obtained during attended monitoring indicates a potential exceedance to a noise limit, the noise consultant, in consultation with the KKPS Site Team, and Environment Advisor, will commence a process of validating the noise monitoring result.

The validation process will incorporate:

- a) A process of verifying the recorded noise monitoring results against applicable noise limits;
- b) Investigation of areas of plant that are likely to have contributed to the elevated result;
- c) Confirmation that a noise exceedance has occurred.

Should a noise exceedance be confirmed, the exceedance shall be recorded as an incident/non-compliance in Snowy Hydro's Event Management System, and appropriate notifications made in accordance with **Section 7.5**.

Where a noise exceedance has been confirmed an investigation shall be conducted to identify the potential cause/s, and appropriate corrective, mitigative and/or management measures to prevent a future reoccurrence.

6.0 Management and Mitigation Measures

The management and mitigation measures described in **Table 6.1** will be implemented to ensure potential noise related impacts are mitigated appropriately.

Table 6.1: Noise management measures

Aspect	Description
Design & Commissioning	- Noise is fundamentally managed by the design of the generating units, and the selection of attenuation measures to reduce noise impacts during site operations. These include, but are not limited to: - Sound attenuation barriers on emission stacks - Insulated enclosures/sound barriers on and around noise generating plant - Slow fan speeds (lower noise) for cooling systems - Post commissioning noise verification assessment to confirm noise compliance, and consistency with the Noise Impact Assessment developed for the KKPS EIS.
Operational Controls	- Original Equipment Manufacturers (OEM) and Production Operating Procedures. - Detailed Operating Instruction for KKPS to be utilised by the Generation Operation team. - Operation of a site weather station allowing for the assessment of potential noise enhancing/inversion conditions. - Application of appropriate control measures to ensure site activities mitigate noise generation as far as reasonably practical. This includes measures such as ensuring all doors, vents, louvres are closed (where possible) during operation to attenuate noise from the generator/turbine enclosures.
Maintenance Controls	- Turbine equipment is performance tested, and tuned to ensure OEM specifications are confirmed during commissioning to ensure that the manufacturer's standard has been delivered. - All equipment is maintained according to Plant Operating, Maintenance and Calibration Manuals, Procedures & Schedules. - Maintenance activities are scheduled and tracked via the Ellipse management system and through Strategic Asset Management reviews.
Management Controls	- Regular assurance activities to ensure the effective implementation of noise mitigation measures - Annual noise verification/compliance assessments by suitably qualified noise consultants, with subsequent reports submitted to the EPA/DPHI Secretary. - Daily review of weather conditions by the site team - The employment of suitably qualified personnel - Appropriate training and demonstrated competency. - Implementation of a complaints management protocol.

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7.0 Compliance Management

Specific aspects of the compliance tracking program used to provide oversight for compliance at KKPS is provided in the OEMP.

Environmental compliance at KKPS is demonstrated in Annual Compliance Reports submitted to DPHI and DECCWW addressing compliance reporting obligations in the SSI and EPBC Approvals, and the Annual Return to the NSW EPA.

Within Snowy Hydro, compliance is reported monthly to the operations executive committee and then to the Snowy Hydro Board. The reports to the operations executive include any identified non-compliances with the conditions of the SSI Approval, EPBC Approval, EPL21627, or any other applicable compliance obligation.

7.1 Monitoring and Reporting

Regular monitoring and inspections of the management and mitigation measures outlined in this Noise MP shall occur, and will include, however not be limited to:

- General site based inspections of KKPS included as a routine task for KKPS Production Technicians to ensure the site is being maintained and operated in a manner that ensures noise emissions are being appropriately managed. As a minimum, general inspections are conducted on a daily basis, with numerous ad-hoc opportunities to observe noise management measures by all site personnel.
- Targeted inspections/monitoring conducted by Snowy Hydro personnel, or an external party to ensure existing noise management measures remain effective and fit-for-purpose. These targeted noise inspections/monitoring shall be conducted where there may be opportunities to improve current performance, and/or correct identified deficiencies. A nominal frequency cannot be specified, however an annual noise compliance assessment will determine ongoing performance during operations.
- Environmental auditing and assurance activities to assess ongoing compliance with the requirements of this Noise MP, and applicable Snowy Hydro policies and procedures
- Investigation of noise related incidents/community complaints, to identify causes, preventative actions and improvement opportunities, as well as tracking identified actions to ensure timely and effective implementation.

7.1.1 Post Commissioning, and Annual Noise Verification Assessment

In accordance with SSI Approval Conditions B27-B29, and EPL 21627 Conditions M8.1 and R4.1, attended noise validation monitoring will be undertaken during a period of full load to confirm compliance against noise limits (See **Section 5.1**) for all noise receiver locations that are listed in

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Condition B21 of the SSI Approval and Condition L4.1 of EPL21627 (Refer to **Table 5.1** and **Figure 5.1** for these locations). This monitoring will be done within six months of operations commencing and annually thereafter.

Following completion of the attended noise monitoring described above, Snowy Hydro will submit a report to the EPA and DPHI Secretary.

For further detail see **Section 5.4**.

7.2 Auditing

Auditing and assurance activities are undertaken to assess the effectiveness of environmental controls, and ongoing compliance with the KKPS OEMP and associated subplans, applicable SSI Approval conditions, EPBC Approval conditions and EPL21627.

Audits and assurance activities at KKPS include:

- Regular site based inspections
- Internal audits
- External audits, consisting of;
 - SSI Independent Compliance Audits
 - SSI Independent Site Hazard Audits
 - EPBC Independent Audit
 - Environmental Management System Audits

Auditing and assurance activities will be undertaken in accordance with the KKPS OEMP.

7.3 Training

Formal training is developed in accordance with Snowy Hydro's Training and Development Procedure, and is administered in the company's Learning Management System (LMS) which maintains training requirements for individuals and completion records of training attended.

Personnel working at KKPS receive training relevant to their role and the required skills to fulfil their role in a competent manner. Environmental training and awareness activities that are facilitated include:

- Snowy Hydro Environmental Induction
- KKPS Site Induction
- Environmental Compliance Training
- Specialised Environmental Training
- Targeted Environmental Awareness Packages
- Daily Pre-start Meetings

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Further detail on environmental related training and awareness packages are described in the KKPS OEMP

7.4 Noise Management Responsibilities

During normal operating hours, KKPS is staffed by a Plant Manager, Planning Officer, and a team of Production Technicians. The Plant Manager holds overall responsibility for the management and safe operation of KKPS, including noise management.

Local support for KKPS is provided at all times, with the KKPS Production Technicians available on a rostered on-call basis.

Environmental, Safety, Production and Engineering support is provided by the relevant Snowy Hydro teams based locally or Cooma as required.

Detail on the roles and responsibilities for environmental management, which includes noise management, is provided in the KKPS OEMP.

7.5 Reporting and Notification Requirements

7.5.1 Incidents - Internal Reporting

Incidents at KKPS are managed in accordance with Snowy Hydro's Incident Management Procedure, and classified in accordance with the Safety and Environment Incident Classification Matrix. Incident management procedures are accessible on the Snowy Hydro Intranet, which provide guidance on internal notification and investigation requirements.

Any incident or near hit, including non-compliances and community complaints, should be reported in the event management system and communicated with the appropriate stakeholders.

7.5.2 Environmental Incidents - External Reporting

The response to a pollution incident causing or threatening material harm to the environment is detailed in the KKPS Emergency Response Handbook (ERH). The ERH serves as the KKPS Pollution Incident Response Management Plan (PIRMP), which is a document required by all holders of an Environment Protection Licence (EPL) under Part 5.7A of the POEO Act. A publicly available version of the PIRMP (internet based version) is also available on the Snowy Hydro website.

For full details on the external reporting requirements for environmental incidents, please refer to the KKPS OEMP.

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7.5.3 Non-compliance Notification - SSI Approval

As per Condition C7 of the SSI Approval, Snowy Hydro must notify the DPHI Secretary via the Major Projects Portal of any non-compliance with the conditions of the SSI Approval, within seven days after becoming aware of the non-compliance. The details required for this notification are provided in condition C8 of the SSI Approval.

Note that this excludes any non-compliances that have already been notified via the Major Projects Portal as an incident.

Further details on non-compliance notification requirements are provided in the KKPS OEMP.

7.5.4 Non-compliance Notification - EPBC Approval

As per Condition 8 of the EPBC Approval, Snowy Hydro must notify the Federal Department responsible for administering the EPBC Act (presently the Department of Climate Change, Energy, the Environment and Water) in writing of any incident, as defined by the terms of the approval, non-compliance with the conditions of the EPBC Approval or non-compliance with commitments made in any plans required under the EPBC Approval as soon as practicable, but no later than two business days after becoming aware of the non-compliance. The details required for this notification and follow up requirements are provided in conditions 8 and 9 of the EPBC Approval.

Further details on non-compliance notification requirements are provided in the KKPS OEMP.

7.5.5 Statutory Environmental Reporting and Notifications

At KKPS, there are numerous statutory environmental reporting and notification requirements. Further detail on the statutory environmental reporting and notification requirements can be found in the KKPS OEMP.

7.6 Record Keeping

Records must be kept for all monitoring, investigation, communication, agreements, incidents, reports and any other matter that has the potential to be referred to in the future. Documentation and records relating to site operations shall be retained in accordance with Snowy Hydro's Information Asset Management Procedure.

EPL21627 specifies documentation and records relating to environmental management, monitoring, and reporting must be retained for a minimum of four years. These documents and records must be available onsite in hard copy or electronically within the Snowy Hydro Document Management System.

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7.7 Community Enquiries, Complaints and Feedback

Snowy Hydro maintains several avenues for members of the community to make contact in relation to any aspect of KKPS. In addition to a dedicated telephone complaints line required by condition M7 of EPL21627, Snowy Hydro can also be contacted by email and via post.

Contact details for community complaints, enquiries and other feedback relevant to KKPS are:

Telephone: 1800 766 333 (freecall)

Email: info@snowyhydro.com.au

Post: PO Box 332
Cooma NSW 2630

These contact details are advertised to the public on the Snowy Hydro website, in the White Pages telephone directory. The telephone number is also provided in the KKPS PIRMP.

The provision of the above contact details also satisfies the requirements of Condition C20(a)(viii) of the SSI Approval.

Full details can be found in the KKPS OEMP.

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8.0 Document Review

The KKPS OEMP and associated subplans, including this Noise MP, are not static documents, and are regularly reviewed and updated as required to reflect changes in environmental management requirements and/or statutory obligations. Updates to this plan may be made in response to:

- scheduled reviews of the OEMP, and/or associated subplans
- regulatory changes
- internal or external audit recommendations
- issues identified in Annual Compliance Reports or EPL Annual Returns
- staff and organisational changes
- incidents and investigation outcomes; and
- new initiatives in environmental management.

The SSI Approval specifies (Condition C5) that within three months of the following listed triggers, Snowy Hydro shall review and, if necessary, revise the OEMP, and relevant studies, strategies or plans required under the SSI Approval. If the review of the relevant document(s) leads to an updated revision, the document(s) will be submitted to DPHI Secretary for approval via the Major Projects Portal within 4 weeks of the document review.

The specified triggers listed under Condition C5 of the SSI approval to review applicable document(s) are:

- DPHI notification of an incident that has caused or threatened material harm (condition C6)
- The submission of an Independent Environmental Audit (conditions C15-C19)
- DPHI granting approval to a modification of any condition in the SSI Approval, or
- A direction from the DPHI Secretary

Notwithstanding the above triggers, Conditions C21 and C22 of the SSI Approval allows for Snowy Hydro to submit revised studies, strategies or plans required for KKPS under a condition of the SSI Approval at any time, and for the DPHI Secretary to approve these at any time.

With the agreement of the DPHI Secretary, the Proponent may also submit any study, strategy or plan required under the conditions of this approval on a staged basis. With the approval of the DPHI Secretary, the Proponent may prepare the revised or staged strategy or plan without undertaking consultation with all parties nominated under the applicable conditions in this approval.

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