

ASSESSMENT REPORT

Section 75W Modification Tooheys Brewery, Lidcombe – Modification to Acoustic Criteria (06_0303 Mod 4)

1. PROJECT BACKGROUND

Tooheys Brewery is located in Nyrang Street, Lidcombe in the Auburn local government area (see Figure 1). The site is bounded on three sides by industrial premises and by residential dwellings to the east.



Figure 1: Regional Context

The nearest residential receivers are located immediately opposite the site entrance on the eastern side of Nyrang Street in Lidcombe. Figure 2 presents an aerial view of the site in the context of its immediate surroundings.

The site was initially used as a packaging facility until brewing operations commenced at the site in 1978.

In July 2007, the then Minister for Planning approved a project application to allow for a major upgrade to the brewery which included:

- a new Beer Processing Building and upgrade of the associated beer processing equipment;
- a new Bright Beer Tank (BBT) Cellar and BBTs;
- an increase in production capacity to up to 3.3 hectolitres of beer per annum; and
- upgrade of utility services including the heating, refrigeration and compressed air plant.

The upgrade works, which have been completed, included significant works to reduce the electricity and natural gas consumption of the brewery thereby improving the facility's economic efficiency.

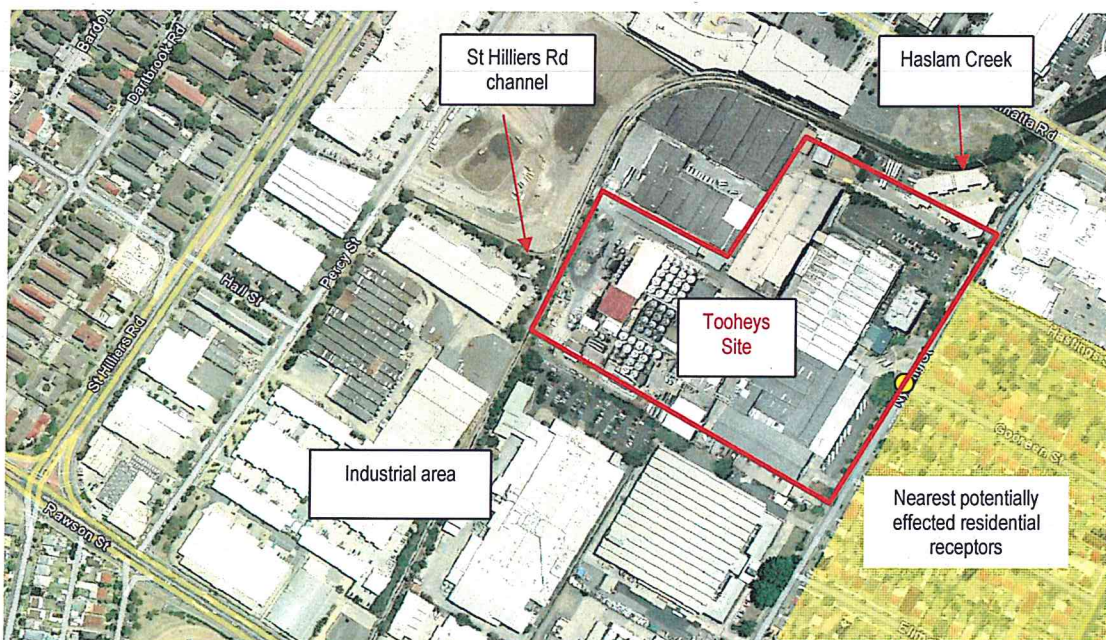


Figure 2: Site and immediate surrounds

Since the approval of the upgrade in 2007, the Minister has approved three modifications:

- 06_0303 MOD 1 - to install a 2MW Cogeneration Plant in order to further reduce the brewery's consumption of grid electricity;
- 06_0303 MOD 2 - to install new fermentation vessels and make minor changes to the site layout to allow for a longer processing time for the Heineken product; and
- 06_0303 MOD 3 - to install a new cooling tower and a Wastewater Treatment Plant (WWTP) at the site to enable Tooheys to meet Sydney Water's discharge concentration requirements.

In addition to the project approval, Tooheys are required to operate the site in accordance with an Environmental Protection Licence (EPL # 1167) issued by the Environment Protection Authority (EPA).

Tooheys has now lodged an application with the Department to further modify project approval 06_0303 under section 75W of the *Environmental Planning and Assessment Act, 1979* (EP&A Act) to increase the noise criteria that applies to its operations at Nyrang Street.

2. PROPOSED MODIFICATION

Tooheys seek to modify its approval to increase the operational noise limits for the site which are detailed in both the project approval and the site's Environmental Protection Licence (EPL).

The current approval for the site specifies a maximum noise criteria of 50 dB(A) for day, evening and night. Tooheys propose to increase its maximum criteria by 12 dB(A) to a limit of 62 dB(A). The current and proposed operational noise criteria for the site are presented in Table 1.

Table 1: Approved and Proposed Noise Criteria

	Day	Evening	Night		Location
	L_{Aeq} (15 minute)		L_{A1} (1minute) or L_{Amax}		
Approved	50	50	50	65	At any residence or other noise sensitive receiver
Proposed	62	62	62	65	At any residence or other noise sensitive receiver

Tooheys have advised that routine compliance measurements conducted at the site since commencement of the expansion operations have demonstrated that the existing noise criteria prescribed in the project approval (06_0303) and the Environmental Protection Licence (EPL) L1167 are not being met.

3. STATUTORY CONTEXT

Section 75W

In accordance with Clause 12 of Schedule 6A of the EP&A Act, section 75W of the Act as in force immediately before its repeal on 1 October 2011 and as modified by Schedule 6A, continues to apply to transitional Part 3A projects.

Under Section 75W of the EP&A Act, the Minister is obliged to be satisfied that what is proposed is indeed a modification of the original proposal, rather than being a new project in its own right.

The Department notes that:

- the primary function and purpose of the approved project would not change as a result of the proposed modification; and
- any potential environmental impacts would be minimal and appropriately managed through the existing or modified conditions of consent.

Therefore, it is considered that the proposed modification is within the scope of section 75W of the EP&A Act. Consequently, the Department considers that the application should be assessed and determined under Section 75W of the EP&A Act rather than requiring a new development or project application to be lodged.

Approval Authority

The Minister was the approval authority for the original project approval, and is consequently the approval authority for this application.

The Executive Director, Major Projects Assessment, may determine this application on behalf of the Minister in accordance with the Minister's delegation dated 14 September 2011, subject to the following:

- where the relevant local Council/s has not made an objection;
- where a political donations disclosure statement has not been made; and
- there are less than 10 public submissions in the nature of objections.

The Department is satisfied that the application meets the terms of the delegation and that the Executive Director may determine the application under delegated authority.

3.2 Consultation

In accordance with Section 75W of the EP&A Act, the Department made the application publicly available on its website and consulted with owner/occupiers in the vicinity of the site, the Environment Protection Authority (EPA), and Auburn City Council (Council). No submissions were received from owner/occupiers. A summary of the issues raised in the EPA's and Council's submissions is provided below.

Environment Protection Authority - The EPA advised that it has been involved in ongoing discussions with Tooheys regarding its proposal to increase its operational noise limits, and has previously requested Tooheys assess all feasible and reasonable noise mitigation measures that could be implemented to reduce noise emissions from the premises. The EPA raised no concerns with the proposal and advised that it supported Tooheys modification application to increase the noise limits to those proposed.

Auburn City Council - Council did not oppose the proposed modification provided that the noise limits are in accordance with the EPL and/or recommendations of the EPA; and that the number of truck movements and noise emitting activities are limited to the current approved operations.

The Department has considered the EPA's and Council's comments in its assessment of the proposed modification.

4. ASSESSMENT

In assessing the merits of the modification, the Department has considered the following:

- Toohey's original (2007) environmental assessment;
- Toohey's project approval as modified (Consolidated Approval at Appendix A);
- Toohey's modification application and supporting environmental assessment;
- the EPA and Council's submissions (see Appendix B);
- Toohey's response to issues raised in submissions; and
- the relevant environmental planning instruments, guidelines and policies.

The following provides the Department's assessment of the proposed increase in operational noise limits.

4.1 Noise

Issue

The proposed modification could result in greater noise impacts to sensitive receptors.

Consideration

Tooheys propose to increase the operational noise limits detailed in its project approval from 50dB(A) to 62dB(A) at the nearest residential receiver. Figure 3 shows the site layout and the location of the nearest residential receivers.

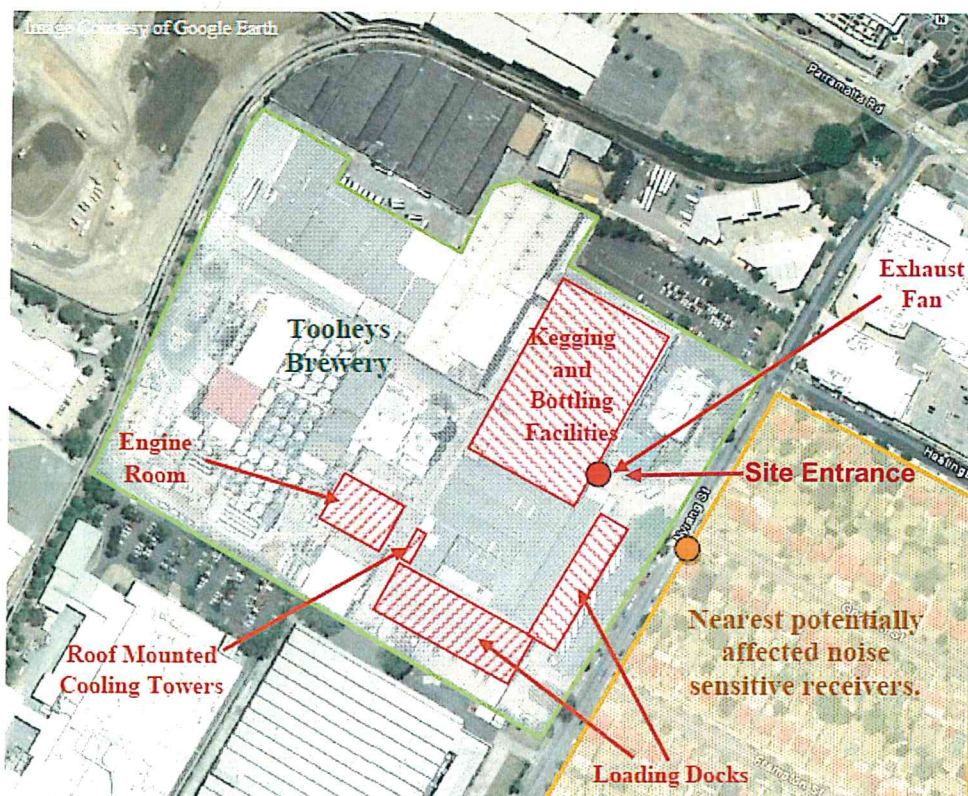


Figure 3: Site layout and nearest sensitive receptors

Noisy activities during operations include trucks entering and leaving the site and loading dock activities in the forecourt area adjacent to Nyrang Street. Other noise generating activities include the kegging and bottling facilities, engine room, roof mounted cooling towers and the exhaust fan.

However, these noise sources are screened to a large extent by buildings within the site thereby reducing the impact on the residential receivers.

No new site operations are proposed under the current modification application.

2007 Assessment

The noise criteria established for the 2007 upgrade project, limited operational noise to 50 aB(A) at the nearest residential receivers.

In its assessment of the upgrade project (2007), the Department noted that despite a reduction in heavy vehicle movements, exceedances of the DECC's criteria by up to 12dB(A) had been recorded at Nyrang Street residences during day and night time periods. Notwithstanding, the Department applied an operational noise limits of 50dB(A) and included conditions in Tooheys approval requiring the implementation of all reasonable and feasible noise reduction measures, and on-going noise monitoring to evaluate compliance with its noise limits.

At the time of determination, the Department was satisfied that with the implementation of noise reduction measures outlines in Tooheys 2007 environmental assessment and the proposed decrease in operational traffic using Nyrang Street, the upgrade project would result in reduced noise levels from the brewery operations.

Compliance monitoring

Routine compliance measurements were conducted by Tooheys in March 2011, the results of which showed that the existing noise criteria prescribed to the site in Tooheys project approval and EPL were not being met on a daily basis.

An acoustic audit was conducted at the site in July 2011 in order to benchmark the existing acoustic environment against the compliance measurements. During this audit, Tooheys undertook attended and unattended noise surveys along Nyrang Street. It is noted that this is not during Tooheys peak operational period. Figure 4 shows the attended and unattended noise monitoring locations. The noise logger installed at the corner of Gooreen and Nyrang Streets (Location 1) is considered to be representative of current operational noise levels (associated with Tooheys) being experienced by the nearest residential receiver. The results of the survey are provided in Table 2.

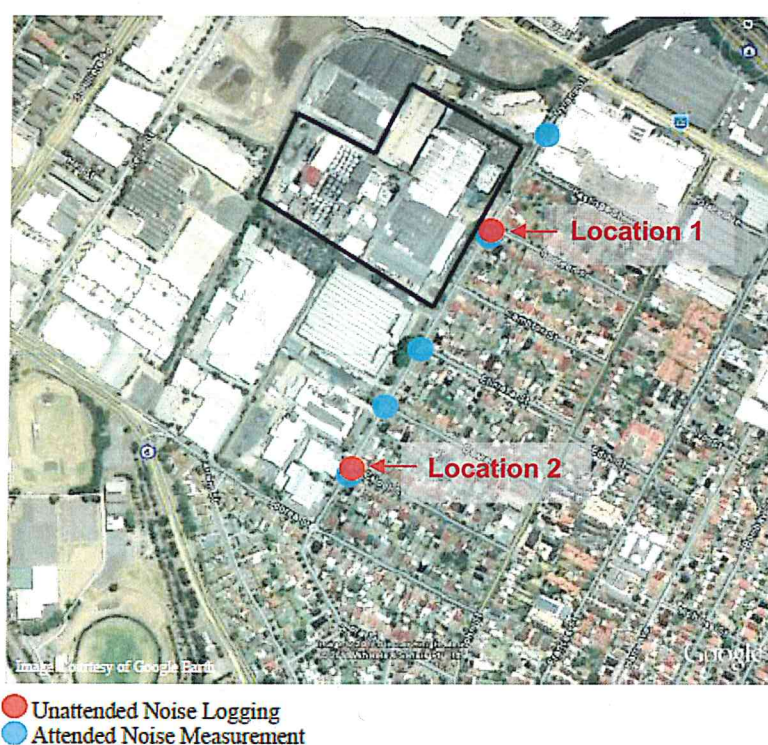


Figure 4: Noise Survey Locations

Table 2: Unattended Measured Ambient Noise Levels

Logger Location	Time Period	Rating Background Level (RBL) - dBA	L _{Aeq} (period) - dBA
Location 1 – Gooreen Street	Day	53	64
	Evening	50	59
	Night	49	57
Location 2 – Calool Street	Day	4	60
	Evening	47	57
	Night	45	55

The acoustic audit showed that the noise at each measurement location was generally dominated by constant industrial noise as well as intermittent local traffic flows along Nyrang Street. The northern end of Nyrang Street was influenced by road traffic noise from Parramatta Road and truck movements. The southern end of Nyrang Street was occasionally influenced by rail activity along the distant railway lines. Measurements conducted opposite the Brewery are dominated by industrial noise emissions from the site with occasional traffic along Nyrang Street.

As part of the July 2011 acoustic audit, an assessment of industrial noise impacts was also conducted using noise modelling software. A table of the calculated noise levels, based on operations in July 2011, at receiver locations is provided in Table 3. Receiver locations are organised from north to south along Nyrang Street.

Table 3: Resultant Noise Levels at Residential Receivers in Nyrang Street

Receiver Location	Resultant Noise Level (dBA)
Nyrang Street between Gooreen and Hasting Streets	60
Corner of Nyrang and Gooreen Streets (North)	63
Corner of Nyrang and Gooreen Streets (South)	63
Nyrang Street between Gooreen and Frampton Streets	62
Corner of Nyrang and Frampton Streets (North)	62
Corner of Nyrang and Frampton Streets (South)	61
Nyrang Street between Frampton and Elimatta Streets	58
Corner of Nyrang and Elmiatta Streets	56

Table 3 demonstrates that industrial noise levels currently experienced at the corner of Gooreen and Nyrang Streets is in the order of 13 dB(A) higher than the current license condition of 50 dB(A). The modelled noise levels are also consistent with the attended and unattended noise levels that were obtained and presented in Table 2.

In September 2011, Tooheys commenced discussions with the EPA regarding their noise limits and non-compliances with their criteria. The Department understands that the EPA advised Tooheys that updated noise limits would be considered, subject to a more detailed investigation into the feasibility and reasonableness of implementing noise mitigation strategies.

As a result, in December 2011, Tooheys undertook an investigation, which included predictive noise modeling, of a number of noise mitigation strategies. The recommendation of the investigation was to install a loading dock enclosure extending from the site entrance along the eastern boundary of the site (see Figure 5), and to seek approval to increase the noise criteria to a limit that is achievable for Tooheys while avoiding adverse noise impacts on surrounding residents.

In April 2012, Tooheys constructed loading dock noise enclosure and undertook noise monitoring at three locations. The noise monitoring results were compared against the December 2011 predicted noise levels. The results are detailed in Table 4.

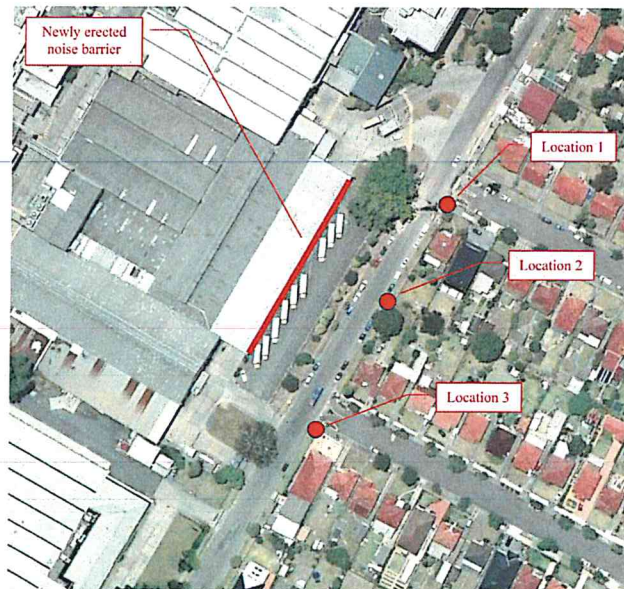


Figure 5: Location of the loading dock enclosure

Table 4: Measured and predicted operational noise levels

Measurement Location	Start	Duration (minutes)	Operation Noise Level (dBA _{Aeq})	
			Measured	Predicted
1	8:09 AM	15	56	61-62
	3:23 PM	5	57	
2	8:40 AM	15	52	57
	3:14 PM	5	54	
3	9:18 AM	15	54	56-58
	2:53 PM	5	54	

Operational noise levels were measured to be lower than those predicted as part of the modelling undertaken for the noise mitigation assessment. Tooheys indicated that the discrepancy is a result of the predicted noise levels being based on maximum operations (high demand / activity) compared to the compliance monitoring which was undertaken in Autumn (less demand / activity) when operations were not at their peak. As such, Tooheys seeks to adopt the predicted noise emission levels as the basis for modifying the criteria to a limit of 62dB(A) as the maximum noise level at the boundary of 24 Nyrang Street.

In addition to the installation of the loading dock enclosure, Tooheys have implemented a number of additional measures to reduce potential noise impacts from the site. These measures have included:

- the identification and implementation of internal roadway infrastructure repair works to reduce noise from forklift movements;
- employing a 10km/h speed restriction to forklifts and trucks within the site;
- restricting forklift gas refuelling activities to between 6am and 10pm;
- ensuring that roller door procedures are in place for both the keg plant and the bottling plant;
- implementing environmental toolbox talks with all personnel in order to educate them about the impacts of site operations on the environment and sensitive receptors; and
- the installation of baffling on a number of bottle hall ventilation grills.

Tooheys consider that the current noise levels at the site are consistent with their assessment of the upgrade project in 2007 which demonstrated an exceedence of the criteria by up to 12dB(A). Further, Tooheys consider that they have implemented all reasonable and feasible measures to address noise impacts at the site.

The EPA advised that it has been involved in discussion with Tooheys to address noise impacts from the site since 2006 and that it had requested Tooheys assess and implement all reasonable and

feasible noise mitigation measures that could be implemented to reduce noise impacts from the premises.

The EPA acknowledged that while the installation of the loading dock barrier did not reduce noise levels at the most effected residences directly across from the site entrance, it did reduce noise levels at other residences along the eastern side of Nyrang Street which it considered to be a good outcome. Further, the EPA advised that it considered Tooheys has implemented all reasonable and feasible mitigation and that it could support Tooheys modification and proposed noise limits.

Auburn Council advised that it did not oppose the proposed modification provided the noise limits were in accordance with the license and recommendations of the EPA.

Conclusion

Having regard to the history of the site, the absence of any lodged noise complaints, and the implementation of all reasonable and feasible measures, the Department agrees with the EPA in regards to setting practical noise limits for the site and Tooheys operations

The Department considers it reasonable to set noise limits in line with the maximum predictions for the site which are consistent with expected levels experienced in an urban/industrial interface. The noise limits will apply to Tooheys entire site and its operations at Nyrang Street.

Further, the Department and EPA are satisfied that Tooheys have implemented all reasonable and feasible measures to address potential noise impacts from its operations.

As such, the Department recommends the operation noise limits be set at 62dB(A) for day, evening and night, with an Lmax of 65 dB(A), and that Tooheys undertake a noise validation of the site within 30 days of commencement of its peak operations to demonstrate compliance with the modified noise limits.

5. RECOMMENDED CONDITIONS OF APPROVAL

The Department considers that the proposed modification is primarily administrative to ensure the project approval is consistent with the proposed EPL. This represents a minor modification of the project as approved.

The Department has recommended minor amendments to the current project approval to include the modification application within the terms of the approval and to increase the noise limits to 62dBA at the nearest residential receiver.

6. CONCLUSION

The Department has assessed the merits of the proposal in accordance with the requirements in Clause 8B of the EP&A Regulation. This assessment has found that the proposed modification is minor and is unlikely to cause any significant impacts to adjoining residential receivers provided Tooheys comply with the proposed noise level criteria.

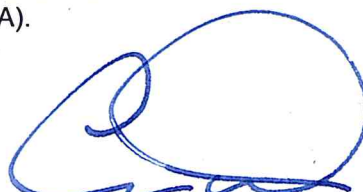
Consequently, the Department is satisfied that the modification should be approved.

7. RECOMMENDATION

It is RECOMMENDED that the Executive Director, Major Projects Assessment:

- **consider** the findings of this report;
- **approve** of the proposed modification under Section 75W of the EP&A Act; and
- **sign** the attached instrument (tagged A).


Chris Ritchie
Manager - Industry
Industry Projects
3/12/12.


Chris Wilson
Executive Director
Major Projects Assessment
4.12.12
Christine Chapman
Major Projects Assessment