Department of Planning and Environment

Our ref: SSI-9471-PA-84

Mrs Alexandra Lovell
HSE Manager
Australian Industrial Energy
PO Box 1070
WOLLONGONG NSW 2500

30/09/2022

Subject: Port Kembla Gas Terminal Project (SSI-9471) - Out of Hours Work Location

Dear Mrs Lovell

I refer to your request dated 26 September 2022 to change the location of the horizontal directional drilling (HDD) for the purposes of the out of hours works approval that was granted on 20 November 2020.

That approval allows HDD to be undertaken out of normal work hours along the pipeline route at a location near Five Islands Road, subject to a range of conditions outlined in the approval letter. The Department notes that you are seeking approval to undertake the HDD along the pipeline at Berth 101 instead of near Five Islands Road, on the basis that the change in location would not increase the noise impacts at nearby residences.

The Department accepts your justification and agrees that the HDD can be undertaken out of standard work hours at the location described in your request.

Accordingly, as nominee of the Planning Secretary, I approve HDD out of hours at the new location, subject to the same conditions outlined in the Department's approval letter dated 20 November 2020.

If you wish to discuss the matter further, please contact Rose-Anne Hawkeswood on 9274 6324.

Yours sincerely

Stephen O'Donoghue
Director
Resource Assessments
As nominee of the Planning Secretary

Technical Memorandum

September 23, 2022

To	Alexandra Lovell	**Contact No.**	02 9239 7028
Copy to	Karl Rosen	**Email**	Pri.Pandey@ghd.com
From	Pri Pandey	**Project No.**	2127477
Project Name	East Coast Gas Project		
Subject	Technical Note: Noise impacts from changes to underboring locations		

1. Introduction

Australian Industrial Energy (AIE) is developing a liquefied natural gas (LNG) import terminal at Port Kembla, south of Wollongong, NSW (the Project).

AIE received approval from the Department of Planning, Industry and Environment (DPIE) on the 20th of November 2020, to extend construction hours for certain activities associated with the project in accordance with Condition 27 of Schedule 3 of SSI 9471. The Out of Hours Works approval was based upon a construction noise assessment prepared by Hutchison Weller (2020) for specific tasks including:

– Diaphragm wall construction at Berth 101 including excavation, bentonite slurry and concrete pours
– Dredging with backacter and loading to barge at berth 101, disposal at outer harbour
– Underboring using horizontal directional drilling along the new pipeline corridor
– Earthmoving at berth 101 and disposal site.

Subsequently, GHD undertook an out of hours work assessment of piling activities as part of the quay wall construction. Approval from Department of Planning and Environment ((DPE) previously DPIE) was granted on the 2nd of February 2022 for these activities.

Slight changes to the underboring locations are now proposed by AIE due to changes in the pipeline construction methodology.

1.1 Purpose of this Memorandum

This Memorandum has been prepared to qualitatively discuss the potential noise impacts of changes in the underboring locations and any potential consequences on the original DPIE out of hours construction work extension granted on 20th November 2020.

1.2 Scope and limitations

This technical memorandum has been prepared by GHD for AIE. It is not prepared as, and is not represented to be, a deliverable suitable for reliance by any person for any purpose. It is not intended for circulation or incorporation into other documents. The matters discussed in this memorandum are limited to those specifically detailed in the memorandum and are subject to any limitations or assumptions specially set out.

This Technical Memorandum is provided as an interim output under our agreement with AIE. It is provided to foster discussion in relation to technical matters associated with the project and should not be relied upon in any way.

1.3 Changes to underboring locations

The proposed changes to the underboring locations are shown in Figure 1 Proposed changes to underboring locations (Figure 1.

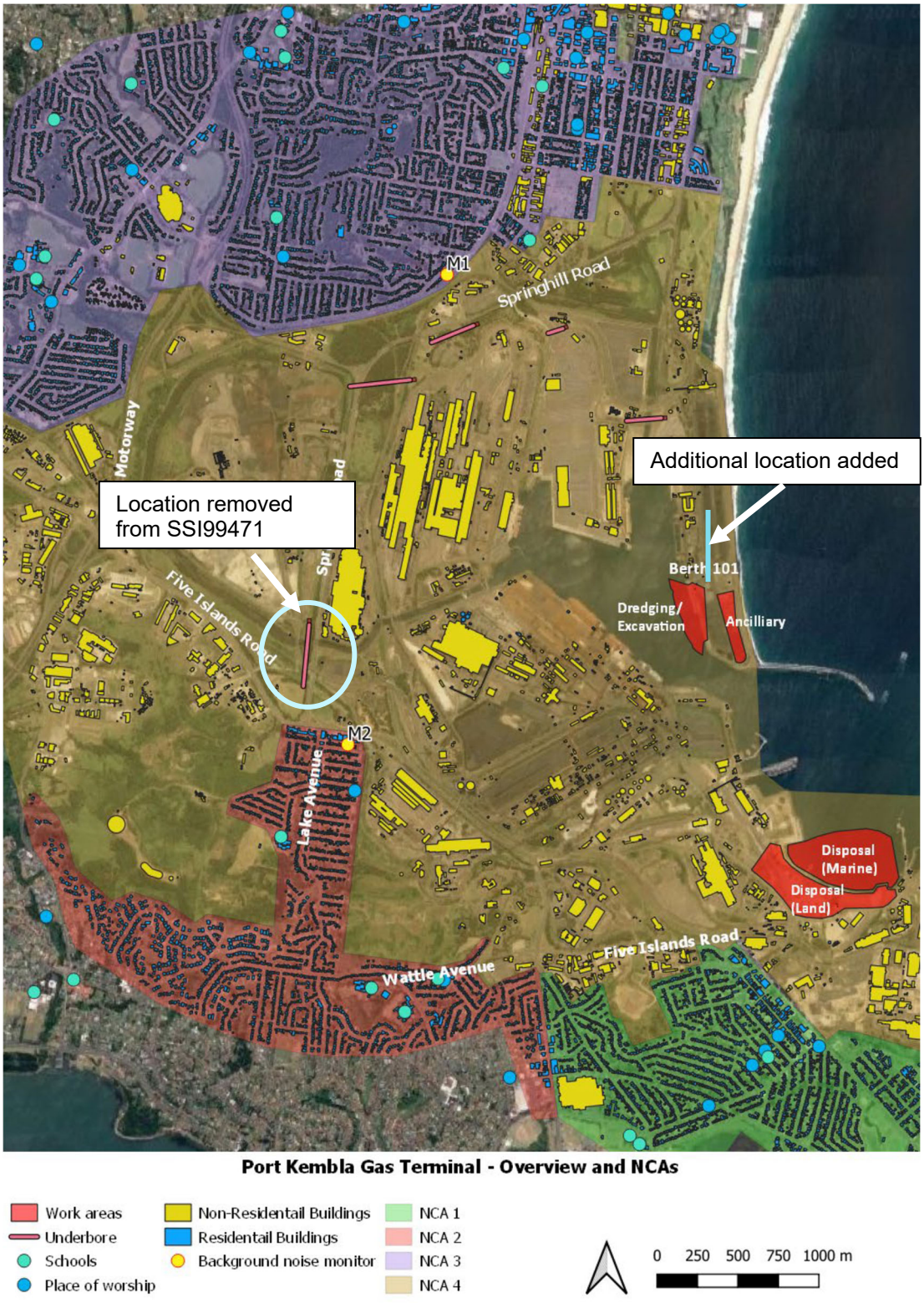

Figure 1 Proposed changes to underboring locations (Base imagery: Construction noise and vibration impact assessment – out of hours works October 2020 Doc no. 20020-NV-RP-1-5, Hutchison Weller)

1.4 Discussion

An assessment of noise impacts from the original underboring locations was undertaken as part of the out of hours noise assessment prepared by Hutchison Weller (2020).

The Horizontal Directional Drill (HDD) was modelled with a sound power level of 106 dBA. *Table 13-Predicted noise levels – individual activities* of the out of hours assessment provide a maximum predicted LAeq, 15 minute noise level of 46 dBA from HDD operations. Six (6) sensitive receivers were predicted to exceed the noise management level during the day, evening and night time period for work outside standard construction hours.

Noise contours were provided in Figure 6 of the assessment (reproduced in Figure 2 below) and indicate that these exceedances are in NCA2 directly adjacent to the underboring location that has been subsequently removed.

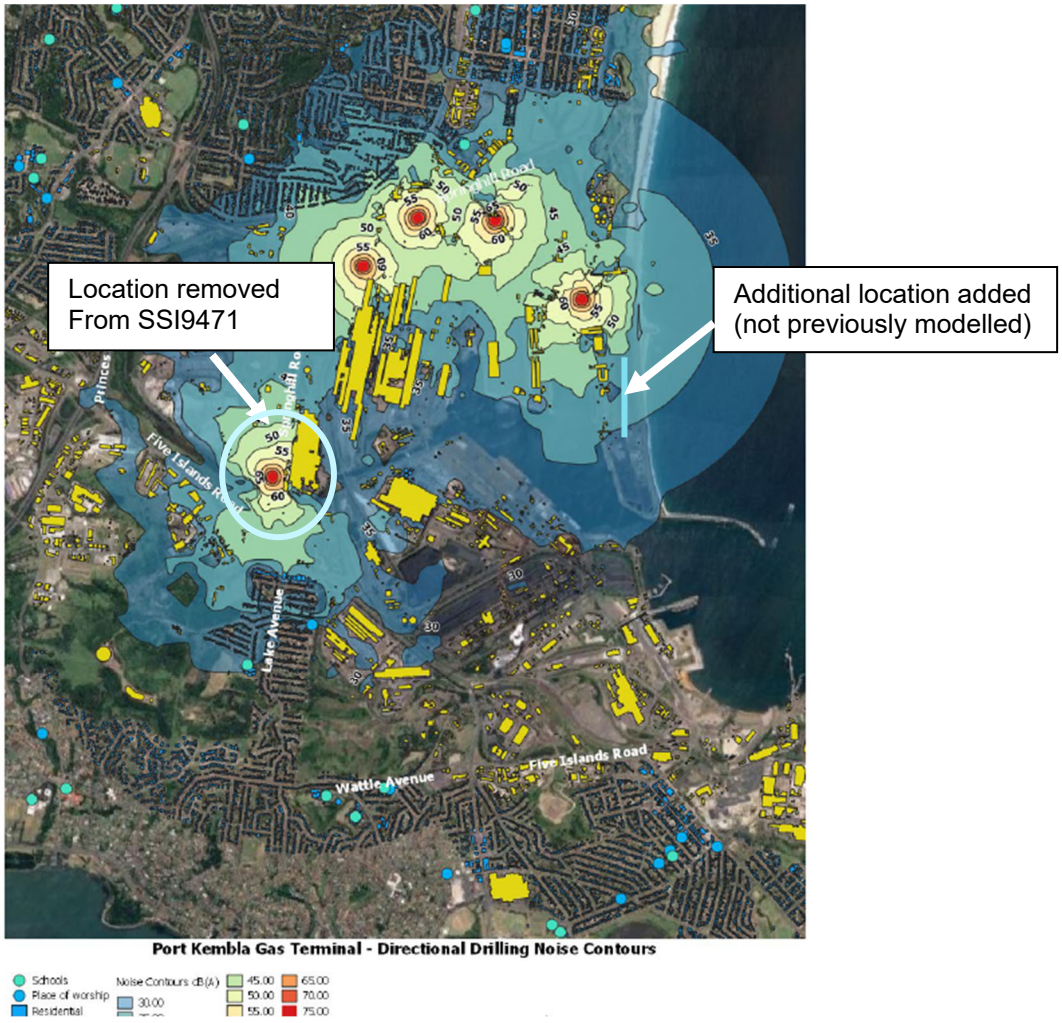

Figure 2 Directional drilling noise contours (Source: Construction noise and vibration impact assessment – out of hours works October 2020 Doc no. 20020-NV-RP-1-5, Hutchison Weller)

The additional proposed underboring location is at Berth 101 and over 2 kilometers away from the nearest sensitive receivers. Based on contours provided in Figure 6 of the 2020 assessment and reproduced above, noise levels at this distance would be anticipated to below the noise management levels.

Furthermore, compared to currently approved construction activities in the area (including piling), the HDD would be quieter and less intrusive.

1.5 Conclusion

Proposed changes to underboring locations are unlikely to change the outcomes of the 2020 out of hours noise assessment. The proposed changes are likely to reduce noise levels in NCA 2.

Regards

Pri Pandey
Senior Engineer – Noise and Vibration