

AMBS Ref: 16219

28 March 2017



Angus Morten
Lendlease
Level 14, Tower Three, International Towers Sydney
Exchange Place, 300 Barangaroo Avenue
Barangaroo NSW 2000

Dear Angus,

***Western Sydney Stadium – Response to Office of Environment and
Heritage comments on the Stage 1 Modification Application***

I refer to the letter dated 22 February 2017 from the NSW Office of Environment and Heritage (OEH), which provides comments on the proposed modification to Stage 1 of the Western Sydney Stadium project (SSD7354 MOD1). I have reviewed the comments that are in relation to potential impacts on the Grey-headed Flying-fox (GHFF), and have provided a number of responses below.

In my view the OEH comments can be summarised into three key points, as follows:

1. The noise impacts of the modification were difficult to assess on the basis of the information provided;
2. There may be greater noise and vibration impacts on the GHFF camp as a result of the additional works proposed by the modification; and
3. The mitigation measures required by Condition B2 of the Development Consent should also apply to the modification.

Our response can be summarised as follows:

1. Additional information has been provided by Acoustic Logic;
2. We believe that the additional information supports our view that the impacts of the modification would be similar to that expected from the Stage 1 demolition works; and
3. It was our understanding that the mitigation measures required by Condition B2 of the Development Consent would also apply to the modification. In addition, the recommendation in our report was that noise levels reaching the GHFF camp should not be more than 57 dB(A).

A more detailed response is provided below.

OEH noted the Noise and Vibration report stated that the hours of work are proposed to be extended on Saturdays from 1 pm to 5 pm, but that this was not mentioned in the Modification Description. OEH recommends the proposed construction hours be clarified. It is AMBS' understanding that the hours of work under the proposed modification will be the same as that specified in the Stage 1 Development Consent and we agree that the hours of work should be clarified.

OEH noted that noise levels were not modelled at 1 Fleet Street, Parramatta, which was the receiver closest to the GHFF camp in the AECOM (2016) assessment, making direct comparisons with the AECOM assessment difficult. Further, OEH commented that possible changes to the 'nature' of the noise generated were not assessed. In relation to noise levels, Acoustic Logic have since provided noise level estimates for 1 Fleet Street, Parramatta (Table 1). The information provided indicates that predicted noise levels from a range of equipment, in a "worst case scenario" and without any noise mitigation, will be between 44-54 dB(A). The few items of equipment (Hydraulic Hammers, Hammering) that potentially exceed those levels may not be required for the modification works (Table 1).

Table 1 Predicted noise levels (Acoustic Logic)

Equipment/Process	1 Fleet Street	Equipment/Process	1 Fleet Street
Excavator / Bulldozer #	53	Truck	47
Concrete Crusher	53	Forklifts	39
Bobcat	44	Angle Grinder #	52
Hydraulic Hammer on 20-60t Excavator	64	Electric Saw	50
Hydraulic Hammer on 5t Excavator	59	Drilling	33
Rock/Masonry Saw on Excavator	49	Hammering	59
Piling Rig #	54	Site Crane #	44
Rock Anchor Drill Rig	49	Impact drill	44
Pneumatic Hammer	54	Remediation Plant	54
Electric Hammer	44	Air compressor	25
Concrete Pump #	49	Concrete Float/Vibrators	44
Concrete Truck #	49		

equipment most likely to be utilised during the Modification works (A. Morten pers. comm.).

In relation to the nature of the noise generated, this is extremely difficult to assess and the approach taken by EcoLogical (ELA 2016) was to address this issue by recommending a number of mitigation measures that were subsequently made into consent conditions for Stage 1. It is AMBS' understanding that the same mitigation measures would also apply to the modification.

The OEH comments and our recommended responses are summarised in the following table:

Summary of comment	Summary of response	AMBS recommendation
Saturday work hours need to be clarified.	It is AMBS' understanding that Saturday work hours will be the same as for the Stage 1 demolition works.	Clarify Saturday work hours.
Noise levels not modelled at 1 Fleet Street.	Additional information has been provided by Acoustic Logic.	
Nature of noise / mitigation measures.	It is AMBS' understanding that the mitigation measures in Condition B2 of the consent for Stage 1 will also be applied to the modification.	Clarify mitigation measures.

Should you require any additional information or if I can be of assistance in any way please contact me on (02) 9518 4489 or email mark@ambs.com.au.

Yours sincerely,

Mark Semeniuk
Director Fauna
AMBS Ecology & Heritage