

10. Noise and vibration

10.1 Summary of comments

A summary of the comments received during the JRYUP EIS consultation process relevant to noise and vibration issues are outlined below.

- Noise modelling to be undertaken for the temporary construction workforce accommodation village.
- Clarifying that operational noise monitoring for a minimum period of 48 months (which was undertaken for the DBCT Rail Loop Triplication Project) is not appropriate for the JRYUP.

10.2 Construction workforce accommodation village noise assessment

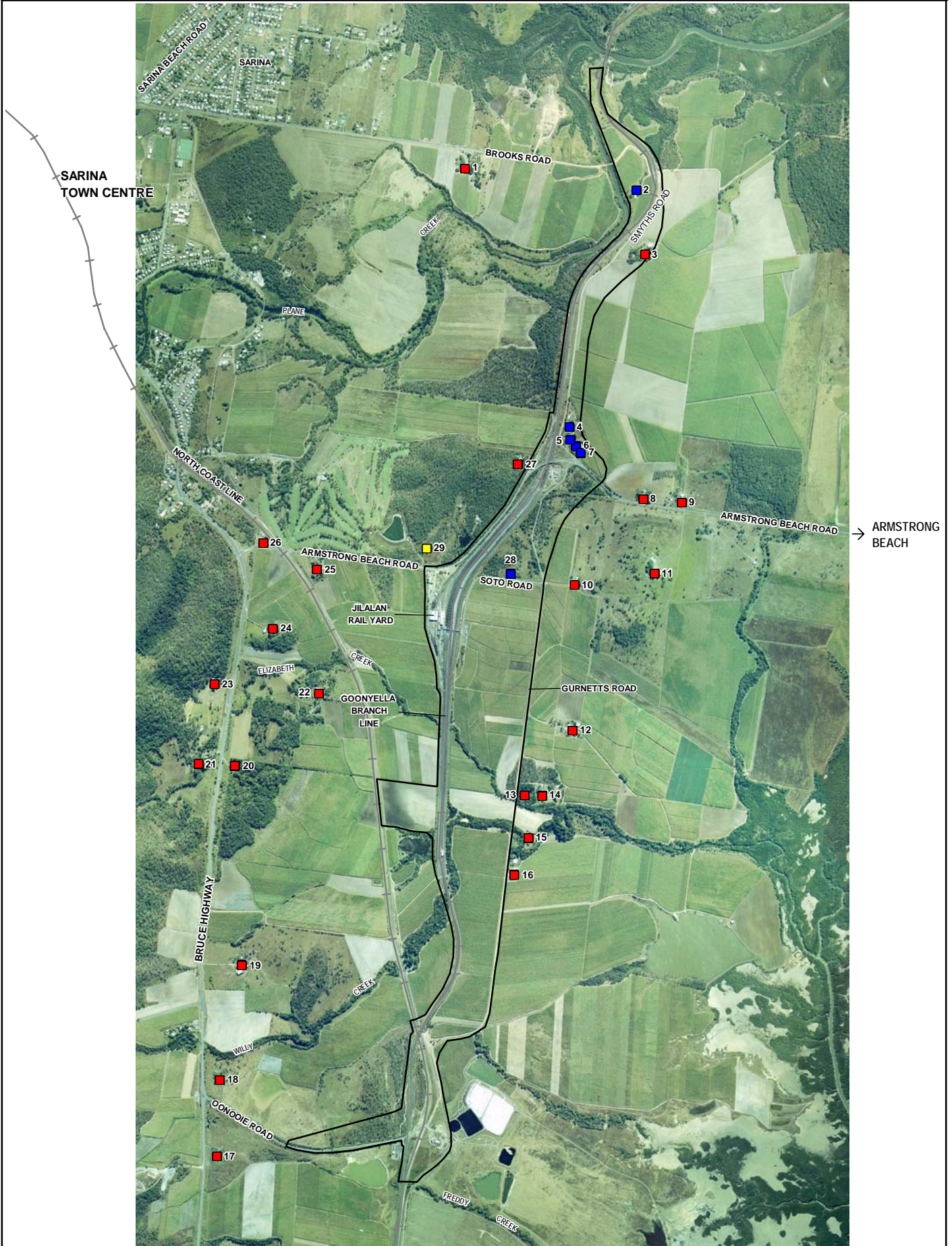
The location of the construction workforce accommodation village and other residential receivers within and/or adjacent to the project area are shown in Figure 10.1. Noise levels for both construction scenarios have been predicted at nine representative receivers for neutral weather conditions. The predicted noise levels are summarised in Table 10.1. The predicted noise levels assume that no special mitigation measures have been employed to limit noise emissions (eg enclosures around compressors).

Table 10.1 Predicted noise levels – construction

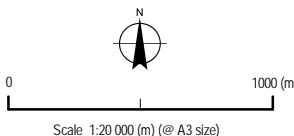
Receiver (residential dwelling number)	Clearing	Ground improvement	Bulk earthworks	Laying of tracks and rail infrastructure
	L _{Amax} in (dB(Lin))			
3	64	66	81	74
8	48	50	63	60
10	56	58	67	65
12	46	49	63	59
13	54	56	64	62
14	51	53	63	60
15	52	54	64	61
16	51	54	65	61
Temporary Construction Workforce Accommodation Village	46 to 61	47 to 61	46 to 61	48 to 63






Noise contour plots for the construction noise scenarios for single event maximum level are shown in Figures 10.3A to 10.3D of the EIS.

Based upon these predictions, rail construction being undertaken in close proximity to residential receivers will implement appropriate mitigation measures to reduce the potential construction noise impacts (refer Section 17.13.2).



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LEGEND	
	Rail
	Project Area
	Residential Dwelling
	Residential Dwelling to be removed by QR
	Construction Workforce Accommodation Village

LOCATION OF RESIDENTIAL DWELLINGS

FIGURE 10.1

10.3 DBCT Rail Loop Triplication Project noise monitoring

The Sarina Shire Council has included a noise monitoring condition as part of the MCU approval (planning scheme) for the DBCT Rail Loop Triplication Project. The condition to monitoring operational noise levels for a minimum period of 48 months is not appropriate for the JRYUP due to the following:

- Noise modelling undertaken as part of the EIS demonstrated that all receiver locations are predicted to comply with QR operational criteria for both the $L_{Aeq}(24 \text{ hour})$ and single event maximum level criteria given the accuracy of the modelling predictions, the number of variables and assumptions made.
- The additional rail traffic associated with the JRYUP is unlikely to affect single event maximum level noise levels significantly at locations that are currently exposed to rail movements.
- Additional noise modelling will be undertaken during the detailed design phase and if exceedances to QR's noise criteria are identified, mitigation measures will be implemented, as required.