

**Yeelirrie Uranium Project**  
**Response to Submissions**

**Attachment 6**

Additional Air Quality Modelling for  
No-Ibla and Youno Downs Homesteads



# ATTACHMENT B

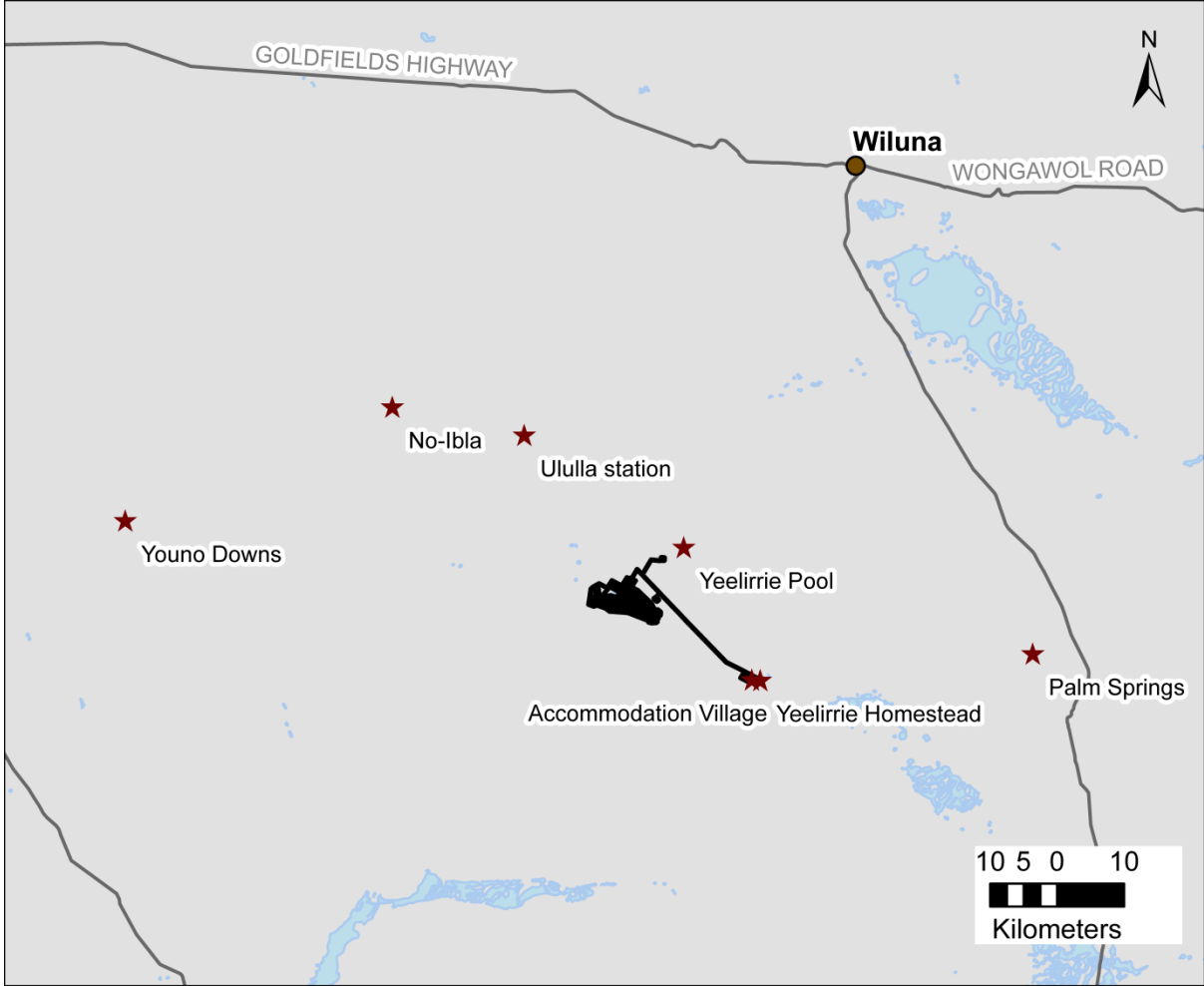


Figure B1 Location of sensitive receptors

**Table B1 Proposed controls**

Source	Control measure	Level of control
Active stockpiles <sup>1</sup>	Continuous watering using water cart and local ground water sources	50%
Topsoil stockpiles	Sealant product (e.g. Rainstorm Gluon 240) applied via water cart	84% (after 3 months of inactivity)
Inactive stockpiles <sup>2</sup>	Sealant product (e.g. Rainstorm Gluon 240) applied via water cart	84% (after 3 months of inactivity)
Working pit areas (active <sup>3</sup> )	Continuous watering using water cart and local ground water sources	50%
Inactive pit areas <sup>4</sup>	Rehabilitated with original surface cover material appropriately stockpiled, followed by ripping and seeding with appropriate native vegetation	99%
Onsite haul Roads	Continuous watering using water cart and local ground water sources and road stabilisation product applied (Level 2 watering of > 2.0 litres/m <sup>2</sup> /hr)	75%
Metallurgical Plant (leaching, CCD and uranium recovery)	Enclosed	100% <sup>5</sup>
Packaging area	Wet scrubber will be installed and area will be at negative pressure	100% <sup>5</sup>

**Table note:**

<sup>1</sup> Active stockpiles refers to those where loading and/or dumping activities are carried out during the operational period

<sup>2</sup> Inactive stockpiles refers to those used previously, with no loading and/or dumping activities carried out during the operational period

<sup>3</sup> Active/working pit refers to the pit where excavation, loading, etc. activities are carried out during the operational period

<sup>4</sup> Inactive pit areas refers to those used previously, with no excavation, loading, etc. activities are carried out during the operational period

<sup>5</sup> 100% control has been assumed for the assessment. In reality emissions may occur, however, these will be negligible due to the proposed control measures

**Table B2 Predicted ground-level concentrations ( $\mu\text{g}/\text{m}^3$ ) of TSP,  $\text{PM}_{10}$  and  $\text{PM}_{2.5}$  and dust deposition rate ( $\text{g}/\text{m}^2/\text{month}$ ) due to the Yeelirrie Uranium Project**

Pollutant	Averaging Period	Units	Criteria	No-Ibla		Yuono Downs	
				Operationally contributed	With bkgd	Operationally contributed	With bkgd
TSP	24-hour	$\mu\text{g}/\text{m}^3$	90	<2.1	<52.1	<9.1	<59.1
	Annual	$\mu\text{g}/\text{m}^3$	90	<0.1	<25.1	<0.6	<25.6
$\text{PM}_{10}$	24-hour, 6 <sup>th</sup> highest <sup>1</sup>	$\mu\text{g}/\text{m}^3$	50	<1.1	<26.1	<5.0	<30.0
	Annual	$\mu\text{g}/\text{m}^3$	25	<0.1	<12.6	<0.6	<13.1
$\text{PM}_{2.5}$	24-hour	$\mu\text{g}/\text{m}^3$	25	<0.5	<11.3	<1.9	<12.7
	Annual	$\mu\text{g}/\text{m}^3$	8	<0.02	<7.7	<0.12	<7.8
Dust dep.	Annual	$\text{g}/\text{m}^2/\text{month}$	2 <sup>2</sup>	<0.001	N/A	<0.008	n/a

Table note:  
<sup>1</sup> 6<sup>th</sup> Highest 24-hour concentration presented for  $\text{PM}_{10}$  in accordance with the Air NEPM  
<sup>2</sup> Dust deposition criterion of 2  $\text{g}/\text{m}^2/\text{month}$  is maximum increase in deposited dust level above background

**Table B3 Predicted operationally contributed ground-level concentrations ( $\mu\text{g}/\text{m}^3$ ) due to diesel generators (Assume zero capture of generator emissions)**

Pollutant	Averaging Period	Units	Criteria	No-Ibla	Yuono Downs
				Operationally contributed	Operationally contributed
$\text{NO}_2$	1-hour	$\mu\text{g}/\text{m}^3$	250	<66.1	<62.5
	Annual	$\mu\text{g}/\text{m}^3$	62	<0.2	<0.4
CO	8-hour	$\mu\text{g}/\text{m}^3$	11,000	<1.2	<1.7
$\text{SO}_2$	1-hour	$\mu\text{g}/\text{m}^3$	570	<2.9	<2.8
	24-hour	$\mu\text{g}/\text{m}^3$	230	<0.2	<0.3
	Annual	$\mu\text{g}/\text{m}^3$	57	<0.01	<0.02
$\text{PM}_{10}$	24-hour, 6 <sup>th</sup> highest <sup>1</sup>	$\mu\text{g}/\text{m}^3$	50	<0.03	<0.03
	Annual	$\mu\text{g}/\text{m}^3$	25	<0.002	<0.004
$\text{PM}_{2.5}$	24-hour	$\mu\text{g}/\text{m}^3$	25	<0.01	<0.05
	Annual	$\mu\text{g}/\text{m}^3$	8	<0.002	<0.004

Table note:  
<sup>1</sup> 6<sup>th</sup> Highest 24-hour concentration presented for  $\text{PM}_{10}$  in accordance with the Air NEPM