

**APPENDIX K**  
**STATIONARY NOISE ANALYSIS**



**Appendix K**  
**Project-Generated Construction Source Noise Prediction Model**

Syar Industries-Instream Mining Project



Receptor <sup>4</sup>	Proposed Bar <sup>4</sup>	Distance to Receptor in feet	Modeled Noise Level (dBA)			Assumptions:	Reference Emission Noise Levels (L <sub>max</sub> ) at 50	Usage Factor <sup>2</sup>
			L <sub>eq</sub>	L <sub>10</sub>	L <sub>max</sub>			
1	S-10	450	61.7	58.7	65.4	Grader	85	0.48
2	S-10	720	56.4	53.4	60.1	Dozer	85	0.54
3	S-10	1,050	52.2	49.2	55.9	Front End Loader	80	0.43
4	S-9	1,015	52.6	49.6	56.3	Water Truck	84	0.2
5	S-9	500	60.5	57.5	64.2			
6	S-9	715	56.5	53.5	60.2			
7	S-9	530	59.8	56.8	63.6			
8	S-9	925	53.6	50.6	57.3	Ground Type	Soft	
9	S-9	900	53.9	50.9	57.6	Source Height	8	
10	S-9	1,050	52.2	49.2	55.9	Receiver Height	12	
11	S-8	1,500	48.2	45.2	51.9	Ground Factor	0.57	
12	S-8	1,480	48.4	45.4	52.1			
13	S-7	2,275	43.6	40.6	47.3	Predicted Noise		
14	S-7	1800	46.2	43.2	49.9	Level <sup>3</sup>	L <sub>eq</sub> dBA at 50 feet <sup>3</sup>	
15	S-7	1,950	45.3	42.3	49.0	Grader	81.8	
16	S-6	2,700	41.6	38.6	45.4	Dozer	82.3	
17	S-5	2300	43.4	40.4	47.2	Front End Loader	76.3	
18	S-4	2080	44.6	41.6	48.3	Water Truck	77.0	
19	S-4	2000	45.0	42.0	48.7			
20	SD-4	1775	46.3	43.3	50.1			
21	SD-4	3560	38.6	35.6	42.3			
22	SD-2	1500	48.2	45.2	51.9			
23	SD-2	2265	43.6	40.6	47.3			
24	SD-1	2590	42.1	39.1	45.8			
25	SD-1	2600	42.1	39.1	45.8			
<b>Combined Predicted Noise Level (L<sub>eq</sub> dBA at 50 feet)</b>							86.2	

Sources:

<sup>1</sup> Obtained from the FHWA Roadway Construction Noise Model, January 2006.

<sup>2</sup> Based on information provided by Syar Industries.

<sup>3</sup> Based the Federal Transit Noise and Vibration Impact Assessment, 2006.

<sup>4</sup> Based on Figures 3.7-1 through 3.7-3