

Appendix B

Noise Calculations

Noise Calculations for Bulldozing at Snowy Plover Beach Restoration

Noise-Generating Construction Equipment

Equipment Type	Individual Equipment		Combined Equipment		Attenuated Noise	
	SPL L-max at 50-ft	Acoustic Usage Factor	No. of Pieces	SPL Leq at 50-ft	Barrier Attenuation	SPL Attenuated Leq at 50-ft
Dozer	85	0.40	1	81.0	0	81.0
COMBINED EQUIPMENT (SPL AT 50 FEET)						
	101	--	1	81.0		
References: E. Thalheimer. Construction noise control program and mitigation strategy for the Central Artery/Tunnel Project. Noise Control Engineering Journal, 48(5), September 2000, pp. 157-165.						
Reference 2: EPA, 1971. Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances, Technical Report NTID300.1. Published noise levels from 1971 were reduced by 3 dBA to account for trend to quieter modern equipment						
Sound propagation calcs by FTA Transit Noise and Vibration Impact Assessment, FTA-VA-90-1003-06, May 2006.						
Note 1: Crusher noise source from Maury Island Lone Star EIS						
Note 2: Screening plant noise levels from Cadman High Rock EIS						
Note 3: Field data of forklift operations at a Home Depot warehouse store						
Note 4: Indiana DOT data on noise from idling trucks.						

10^(L/10)
1.26E+08
1.27E+08

Modeled Noise Levels at Varying Distances (Includes Hemispherical Spreading and Atmospheric Absorption)

Equivalent Source-Receiver Height	8	feet				
FTA Ground Attenuation Factor G	0.607	dBA				
Distance from Construction Site (feet)	Upper Bound: Wave Spreading and Atmospheric Absorption Only; No Ground Attenuation		Lower Bound: Includes Substantial Ground Attenuation		Source-Receiver Pair	
	Outdoor Leq	Outdoor L8	Outdoor Leq	Outdoor L8		
50	81	84	81	84		
100	75	78	73	76		
200	69	72	65	68		
300	65	68	61	64		
500	61	64	55	58		
700	58	61	51	54		
900	55	58	48	51		
Background Level (Leq)	45	48	45	48		
CEQA Impact Threshold (Leq)	55		55			
Daytime Ordinance Limit	Not regulated	Not regulated	Not regulated	Not regulated		

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