

Impact 3.10.3: 2015 Traffic Noise Impacts

Table 3.10-16 presents the traffic noise levels in 2015 along public roads in the vicinity of the Airport without the Proposed Project. **Table 3.10-17** presents the traffic noise levels in 2015 with the Proposed Project. The change in noise levels as a result of the Proposed Project is presented in **Table 3.10-18**. The predicted traffic noise levels 100 feet from the roadway centerline are presented for existing (2009) conditions and for future (2015) conditions without and with the Proposed Project.

General Plan Noise Element Policy NE1-b states that noise levels in outdoor activity (i.e., rear yards) areas should be below 60 L_{dn} . The policy also states that indoor noise levels should be 45 L_{dn} or lower with windows and doors closed. It is common to assume that a home with typical construction will provide 20 to 25 dB outdoor-to-indoor noise reduction (attenuation) with windows and doors closed; the County actually uses a more conservative standard of 15 dB attenuation, as older homes cannot typically achieve the 20 to 25 dB attenuation. This means that any home with is exposed to an outdoor noise level of 60 L_{dn} or less would meet the interior noise goal.

Table 3.10-19 presents noise levels at the nearest residential structure and the rear yard for the closest home along each of the roadway segments in the Airport vicinity. For roadway segments with no residences along the roadway segment, no data is included in **Table 3.10-19** for that roadway segment. For the closest home, the distance to the home from the road centerline is given along with the L_{dn} at that distance. This is the noise level at the structure. Additionally, the noise level for the rear yard is given based on the assumption that the structure would provide 15 dB of shielding to the rear yard. The impact of the Proposed Project per Noise Element Policy NE1-b can be summarized as follows:

1. **Table 3.10-19** shows that there are no homes with rear yard noise exposures over 60 L_{dn} for any road segment for 2015 conditions with and without the Proposed Project. The Proposed Project would not result in any exceedance of the exterior noise as set forth in Policy NE1-b.
2. **Table 3.10-19** shows that for the home structures that have noise exposures under 60 L_{dn} (and hence an interior noise level greater than 45 L_{dn} assuming 15 dB outdoor to indoor noise reduction) for existing as well as future with and without the Proposed Project, there is no home where the home structure would be exposed to greater than 60 L_{dn} with the Proposed Project and less than 60 L_{dn} without the Proposed Project. Therefore, the Proposed Project would not result in any exceedance of the interior noise as set forth in Policy NE1-b.
3. **Table 3.10-19** shows that for the home structures that have noise exposures over 60 L_{dn} (and hence an interior noise level greater than 45 L_{dn} assuming a 15 dB outdoor to indoor noise reduction) for existing conditions as well as future conditions without and with the Proposed Project, there is no home where the home structure would be exposed to greater than 65 L_{dn} with the Proposed Project and less than 65 L_{dn} without the Proposed Project. Pursuant to Policy NE1-a, these homes are already in a noise affected area. The Proposed Project's incremental contribution to the 2015 L_{dn} for these structures is de minimis (less than 1 dB at all locations). Therefore, the Proposed Project would not result in any exceedance of the interior noise as set forth in Policy NE1-b.

Therefore, there will be no traffic noise impacts associated with operations in Year 2015.

Table 3.10-16
TRAFFIC NOISE LEVELS IN 2015 WITHOUT PROPOSED PROJECT

Roadway Segments	L _{dn} at 100 Feet /a/	Distance To L _{dn} Contour (feet) /a/		
		70 L _{dn}	65 L _{dn}	60 L _{dn}
Shiloh Road				
West of Skylane Boulevard	60.7	RW	52	111
East of Skylane Boulevard	63.7	38	81	175
West of Conde Lane	63.7	38	82	176
East of Conde Lane	64.2	41	88	190
West of U.S. 101	64.7	44	95	205
East of U.S. 101	64.0	40	86	186
Airport Boulevard				
West of Skylane Boulevard	57.3	RW	31	66
East of Skylane Boulevard	61.2	26	56	121
West of Brickway Boulevard	62.1	30	64	137
East of Brickway Boulevard	62.7	33	70	152
West of Aviation Boulevard	63.4	36	78	169
East of Aviation Boulevard	65.6	51	110	238
West of U.S. 101	65.6	51	110	238
East of U.S. 101	62.9	34	72	156
Golf Course				
North of Shiloh Road	57.9	RW	33	72
Skylane Boulevard				
South of Shiloh Road	61.2	26	56	120
North of Airport Boulevard	60.8	RW	53	113
North Laughlin Road				
South of Airport Boulevard	57.0	RW	29	63
Laughlin Road				
North of River Road	58.6	RW	37	81
Woolsey Road				
South of River Road	50.0	RW	RW	RW
Slusser Road				
North of River Road	57.3	RW	31	66
Aviation Boulevard				
North of Airport Boulevard	61.6	27	59	128
South of Airport Boulevard	59.0	RW	40	86
Brickway Boulevard				
North of Airport Boulevard	56.5	RW	27	59
South of Airport Boulevard	57.5	RW	31	68
Conde Lane				
North of Shiloh Road	57.3	RW	31	66
River Road				
West of Slusser Road	61.0	25	54	117
East of Slusser Road	61.1	26	55	118
West of Laughlin Road	61.8	28	61	131
East of Laughlin Road	62.5	32	69	148

RW = Within the roadway right of way /a/ From roadway centerline.

SOURCE: MGA/L&B, 2011

PREPARED BY: MGA/L&B, 2011

Table 3.10-17
TRAFFIC NOISE LEVELS IN 2015 WITH PROPOSED PROJECT

Roadway Segments	L _{dn} at 100 Feet /a/	Distance To L _{dn} Contour (feet) /a/		
		70 L _{dn}	65 L _{dn}	60 L _{dn}
Shiloh Road				
West of Skylane Boulevard	60.7	RW	52	111
East of Skylane Boulevard	63.7	38	82	176
West of Conde Lane	63.7	38	82	177
East of Conde Lane	64.2	41	89	191
West of U.S. 101	64.7	44	96	206
East of U.S. 101	64.0	40	86	186
Airport Boulevard				
West of Skylane Boulevard	58.2	RW	35	76
East of Skylane Boulevard	61.5	27	59	126
West of Brickway Boulevard	62.3	31	66	143
East of Brickway Boulevard	62.9	34	72	156
West of Aviation Boulevard	63.6	37	80	173
East of Aviation Boulevard	65.7	52	112	241
West of U.S. 101	65.7	52	112	241
East of U.S. 101	62.9	34	73	157
Golf Course				
North of Shiloh Road	57.9	RW	33	72
Skylane Boulevard				
South of Shiloh Road	61.3	26	56	121
North of Airport Boulevard	60.9	RW	53	115
North Laughlin Road				
South of Airport Boulevard	57.1	RW	30	64
Laughlin Road				
North of River Road	58.7	RW	38	82
Woolsey Road				
South of River Road	50.0	RW	RW	RW
Slusser Road				
North of River Road	57.3	RW	31	66
Aviation Boulevard				
North of Airport Boulevard	61.6	27	59	128
South of Airport Boulevard	59.0	RW	40	86
Brickway Boulevard				
North of Airport Boulevard	56.5	RW	27	59
South of Airport Boulevard	57.5	RW	32	69
Conde Lane				
North of Shiloh Road	57.4	RW	31	67
River Road				
West of Slusser Road	61.0	25	54	117
East of Slusser Road	61.1	26	55	119
West of Laughlin Road	61.8	28	61	132
East of Laughlin Road	62.6	32	69	148

RW = Within the roadway right of way /a/ From roadway centerline.

SOURCE: MGA/L&B, 2011

PREPARED BY: MGA/L&B, 2011

Table 3.10-18
CHANGES IN TRAFFIC NOISE LEVELS IN 2015

Roadway Segments	Traffic Noise Level 100 Feet from Roadway Centerline		Change in Traffic Noise Levels as a Result of the Proposed Project
	2015 Without Proposed Project	2015 With Proposed Project	
Shiloh Road			
West of Skylane Boulevard	60.7	60.7	0.0
East of Skylane Boulevard	63.7	63.7	0.0
West of Conde Lane	63.7	63.7	0.0
East of Conde Lane	64.2	64.2	0.0
West of U.S. 101	64.7	64.7	0.0
East of U.S. 101	64.0	64.0	0.0
Airport Boulevard			
West of Skylane Boulevard	57.3	58.2	0.9
East of Skylane Boulevard	61.2	61.5	0.3
West of Brickway Boulevard	62.1	62.3	0.2
East of Brickway Boulevard	62.7	62.9	0.2
West of Aviation Boulevard	63.4	63.6	0.2
East of Aviation Boulevard	65.6	65.7	0.1
West of U.S. 101	65.6	65.7	0.1
East of U.S. 101	62.9	62.9	0.0
Golf Course			
North of Shiloh Road	57.9	57.9	0.0
Skylane Boulevard			
South of Shiloh Road	61.2	61.3	0.1
North of Airport Boulevard	60.8	60.9	0.1
North Laughlin Road			
South of Airport Boulevard	57.0	57.1	0.1
Laughlin Road			
North of River Road	58.6	58.7	0.1
Woolsey Road			
South of River Road	50.0	50.0	0.0
Slusser Road			
North of River Road	57.3	57.3	0.0
Aviation Boulevard			
North of Airport Boulevard	61.6	61.6	0.0
South of Airport Boulevard	59.0	59.0	0.0
Brickway Boulevard			
North of Airport Boulevard	56.5	56.5	0.0
South of Airport Boulevard	57.5	57.5	0.1
Conde Lane			
North of Shiloh Road	57.3	57.4	0.0
River Road			
West of Slusser Road	61.0	61.0	0.0
East of Slusser Road	61.1	61.1	0.0
West of Laughlin Road	61.8	61.8	0.0
East of Laughlin Road	62.5	62.6	0.0

SOURCE: MGA/L&B, 2011
 PREPARED BY: MGA/L&B, 2011

Table 3.10-19
2015 TRAFFIC NOISE LEVELS AT THE NEAREST HOMES

Roadway Segments	Feet from Roadway Centerline	Without Proposed Project		With Proposed Project	
		L _{dn} at Residence	L _{dn} at Back Yard	L _{dn} at Residence	L _{dn} at Back Yard
Shiloh Road					
West of Skylane Boulevard	77	62.4	47.4	62.4	47.4
East of Skylane Boulevard	112	63.0	48.0	63.0	48.0
West of U.S. 101	99	64.8	49.8	64.8	49.8
East of U.S. 101	57	67.7	52.7	67.7	52.7
Airport Boulevard					
East of Brickway Boulevard	55	66.6	51.6	66.8	51.8
West of Aviation Boulevard	102	63.3	48.3	63.5	48.5
West of U.S. 101	77	67.3	52.3	67.4	52.4
East of U.S. 101	56	66.7	51.7	66.7	51.7
Golf Course					
North of Shiloh Road	32	65.3	50.3	65.3	50.3
Skylane Boulevard					
South of Shiloh Road	83	62.4	47.4	62.5	47.5
Laughlin Road					
North of River Road	32	66.0	51.0	66.1	51.1
Woolsey Road					
South of River Road	102	49.9	34.9	49.9	34.9
Slusser Road					
North of River Road	340	49.3	34.3	49.3	34.3
Conde Lane					
North of Shiloh Road	18	68.5	53.5	68.6	53.6
River Road					
West of Slusser Road	83	62.2	47.2	62.2	47.2
East of Slusser Road	69	63.5	48.5	63.5	48.5
West of Laughlin Road	54	65.8	50.8	65.8	50.8
East of Laughlin Road	86	63.5	48.5	63.6	48.6

SOURCE: MGA/L&B, 2011
 PREPARED BY: MGA/L&B, 2011

Mitigation Measure 3.10.3

No mitigation is warranted.

Impact 3.10.4: Construction Noise Impacts Associated With Long-Term Project Elements

The construction-related noise impacts associated with the long-term project elements would be the less than the construction-related noise impacts described for the short-term project elements. The types of projects associated with the long-term project elements will not require the significant grading and fill associated with the short-term project elements, nor will they require night construction. As with short term construction activities, if potential impacts are identified, temporary construction noise barriers, such as sound blankets may be of some use if they are high enough and have no flanking around the sides. This generally would require a

continuous ‘wall’ of such blankets. While a minimum barrier of this type may provide from 5 to 10 dB of noise reduction, it is not practical along the haul roads as the necessary breaks for driveways would create holes in the barrier that would render them mostly ineffective.

Mitigation Measure 3.10.4

Prior to the initiation of construction for each new long-term project element, the County shall develop and implement a construction noise control plan to minimize all construction-related noise impacts. At a minimum, the construction noise control plan shall include measures, such as prohibitions on night construction activities, restrictions on days and hours of construction, sufficient to reduce the impacts to adjacent land uses to a less-than-significant level.

Impact 3.10.5: Change in Noise Contours for 2030

The long-term project elements would not change runway configurations, the flight track allocations, or utilization from that described for 2015. The fleet mix and number of operations, however, would change to reflect the forecast. Changing these aircraft flight characteristics would result in a change in the shape and coverage area of the noise contours relative to existing conditions. The 2009 and 2030 fleet mix are listed in **Table 3.10-20**.

The 2030 CNEL noise contours associated with the Proposed Project were prepared using the Integrated Noise Model Version 7.0b. These contours are shown in **Figure 3.10-10**. The 2030 CNEL noise contours without the Proposed Project are shown on **Figure 3.10-11** for comparison.

Table 3.10-21 identifies the size of the respective 2030 CNEL contours in acres for the Proposed Project. The contour areas for the existing conditions and the 2030 CNEL without the Proposed Project are shown for comparison. Similar to the analysis for the short-term and as shown in **Table 3.10-22**, the greater than 70 dB CNEL noise contour area for the Proposed Project would be slightly larger than the 70 dB CNEL noise contour area without the Proposed Project. However, the 55 dB CNEL and greater noise contour area for the Proposed Project would be slightly smaller than the 55 dB CNEL and greater noise contour area without the Proposed Project. This is primarily because the departure threshold is moved north for south-flow traffic (the dominant traffic flow). Moving the Runway 14 landing threshold to the north would have two effects: (1) the arrival noise would increase north of the Airport; and (2) the departure noise would decrease south of the Airport. The area of noise decrease would be larger than the area of noise increase. For this reason, the 55-70 dB CNEL contour for the Proposed Project is smaller than the 55-70 dB CNEL without the Proposed Project. **Figure 3.10-12** shows the change in area (acres) of the 55, 60, and 65 db CNEL between the 2030 No Project and the Proposed Project alternatives.

The modeled noise levels at the receptor locations for the Proposed Project in 2030 are shown in **Table 3.10-22**. For comparison purposes, the 2030 noise levels without the Proposed Project also are included.

Table 3.10-20

AIRCRAFT OPERATIONS AND FLEET MIX – 2009 AND 2030

INM Category/Aircraft		2009	2030	
	Aircraft Description		No Project Alternative	Proposed Project
Jet				
737700	Boeing Business Jet	30	1,460	1,460
CIT3	Citation III	374	648	648
CL600	Challenger 600	625	1,082	1,082
CLREGJ	Canadair Regional Jet 200	-	-	-
CNA500	Citation I	700	1,212	1,212
CNA510	Citation Mustang	105	182	182
CNA750	Citation X	523	906	906
CRJ9-ER	Canadair Regional Jet 900	-	-	1,460
CRJ9-LR	Canadair Regional Jet 1000	-	3,650	3,650
DO328	Dornier 328	26	45	45
EMB120	Embraer 120	13	23	23
EMB145	Embraer 145	30	53	53
EMB190	Embraer 190	-	2,920	1,460
FAL20	Falcon 20	268	464	464
GII	Gulfstream II	17	30	30
GIIB	Gulfstream III	145	252	252
GIV	Gulfstream IV	304	526	526
GV	Gulfstream V	88	152	152
IA1125	Westwind Astra	281	487	487
LEAR25	Lear 25	49	84	84
LEAR35	Lear 35	668	1,158	1,158
MU3001	Beechjet 400	1,874	3,246	3,246
SUBTOTAL		6,120	18,580	18,580

Table 3.10-20
AIRCRAFT OPERATIONS AND FLEET MIX – 2009 AND 2030 (cont.)

INM Category/Aircraft		2009	2030	
	Aircraft Description		No Project Alternative	Proposed Project
Propeller				
BEC58P	Beech Baron	13,605	25,071	25,071
C130	C130 Hercules	50	100	100
CNA172	Cessna 172	5,339	9,248	9,248
CNA182	Cessna 182	2,912	5,043	5,043
CNA206	Cessna 206	7,077	12,258	12,258
CNA208	Cessna 208	1,676	2,904	2,904
CNA20T	Cessna 206 Turbo	2,462	4,265	4,265
CNA441	Cessna Conquest	1,851	3,207	3,207
DHC6	Dash 6	3,883	6,725	6,725
DHC830	Bombardier Q400	3,510	7,300	7,300
GASEPF	Single Engine Piston-Fixed Pitch	21,922	42,197	42,197
GASEPV	Single Engine Piston-Variable Pitch	12,737	23,870	23,870
OV10A	Rockwell Bronco	742	1,284	1,284
PA30	Piper Twin Comanche	72	125	125
PA31	Piper Navajo	359	623	623
SD330	Shorts 330 (Piaggio P190)	2,457	4,256	4,256
SUBTOTAL		80,654	148,476	148,476
Helicopter				
A109	Augusta 109	924	1,600	1,600
B222	Bell 222	43	74	74
B407	Bell 407	866	1,500	1,500
EC130	Eurocopter 130	43	74	74
R44	Robinson 44	1,938	3,356	3,356
S70	Sikorsky Blackhawk	72	125	125
SUBTOTAL		3,886	6,729	6,729
TOTAL OPERATIONS		90,660	173,785	173,785

SOURCE: Mead & Hunt, 2011
 PREPARED BY: MGA/L&B, 2011