



APPENDIX H

NOISE ANALYSIS

Harvey Field Future Noise Analysis

Future Noise

This section discusses the input data developed for the year 2034 Future Build Alternative and the resulting noise contours.

Runway Layout and Use

The runway layout for the 2034 Future Build Alternative included a 2,400-foot replacement runway just to the southwest of the current 15L-33R. The runway use percentages modeled for the year 2034 Future Build Alternative were the same as the 2014 condition.

Aircraft Operations

The Master Plan forecast of operations for the year 2034 by aircraft category is presented in **Table 1**. As shown, the 2034 forecast includes 108,550 annual operations – an average of approximately 297 operations per day.

Table 1. 2034 Annual Aircraft Operations by Category

Aircraft Category	Operations
Air Taxi	1,601
General Aviation Local	55,249
General Aviation Itinerant	51,500
Military	200
Total	108,550

Source: Harvey Field Master Plan Update, August, 2015

Operational Time-of-Day

The percentages of nighttime operations (10:00pm-7:00am) modeled for the 2034 Future Build Alternative were the same as those for the Existing Conditions 2014.

Fleet Mix

The 2034 aircraft fleet mix was determined by multiplying the percentages by aircraft type from 2014 by the total operations forecasted to occur at the airport in 2034. The 2034 aircraft operations and fleet mix are provided in **Table 2**.

Table 2. 2034 Annual Operations and INM Fleet Mix

Operation Type	Aircraft Category	Aircraft Types	INM Aircraft	Daytime Operations	Nighttime Operations	Total Operations
GA Itinerant and Air Taxi	Single-Engine Piston	Cessna 150/ 152/ 172/ 177	CNA172	25,028	1,317	26,345
		Beech 33, Mooney M-20J/ K/ L, Piper Dakota/Arrow	GASEPV	6,352	334	6,686
		Cessna 182	CNA182	5,302	279	5,581
		Cessna 180/185/206/210	CNA206	5,135	270	5,405
	Multi-Engine Piston	Beech 18/55/ 58, Aero Commander 500, Cessna 303/310/ 320/ 337, Diamond Twin Star	BEC58P	2,562	135	2,697
	Turboprop	Cessna 208B, TBM-700	CNA208	1,754	92	1,846
		Cessna 441, Super King Air 200/ 300B, King Air 90/100, Mitsubishi MU-2	CNA441	1,753	92	1,845
	Rotorcraft	Schweizer 300C	S300C	1,921	101	2,022
		R-22	R22	640	34	674
Itinerant Total				50,447	2,654	53,101
GA Local	Single-Engine Piston	Cessna 150/ 152/ 172/ 177	CNA172	41,126	2,164	43,290
	Multi-Engine Piston	Piper PA-23 Apache	BEC58P	4,210	221	4,431
	Turboprop	Cessna 208B	CNA208	2,940	155	3,095
	Rotorcraft	Schweizer 300C	S300C	4,211	222	4,433
	Local Total				52,487	2,762
Military	Rotorcraft	UH-60	S70	200		200
Grand Total				103,134	5,416	108,550

Sources: FAA's Traffic Flow Management System Counts (TFMSC), Harvey Field Airport Master Plan Update, August, 2015, KB Environmental Sciences, Inc.

Flight Tracks

The INM flight tracks for the 2034 Future Build Alternative were reflective of the replacement runway (i.e., the 2034 flight tracks were shifted to align with the new runway ends). The flight track use percentages, and flight profiles for the 2034 scenario were the same as those for the Existing Conditions 2014.

2034 DNL Noise Contours

The 2034 DNL contours are provided on **Figure 1**. **Table 3** provides the area, in acres, of each contour interval (i.e., 65-69 DNL, 70-74 DNL, and 75 and greater DNL). As shown, the total area encompassed by the 65 DNL contour is 114 acres. The 65 DNL contour extends slightly beyond the limits of the property

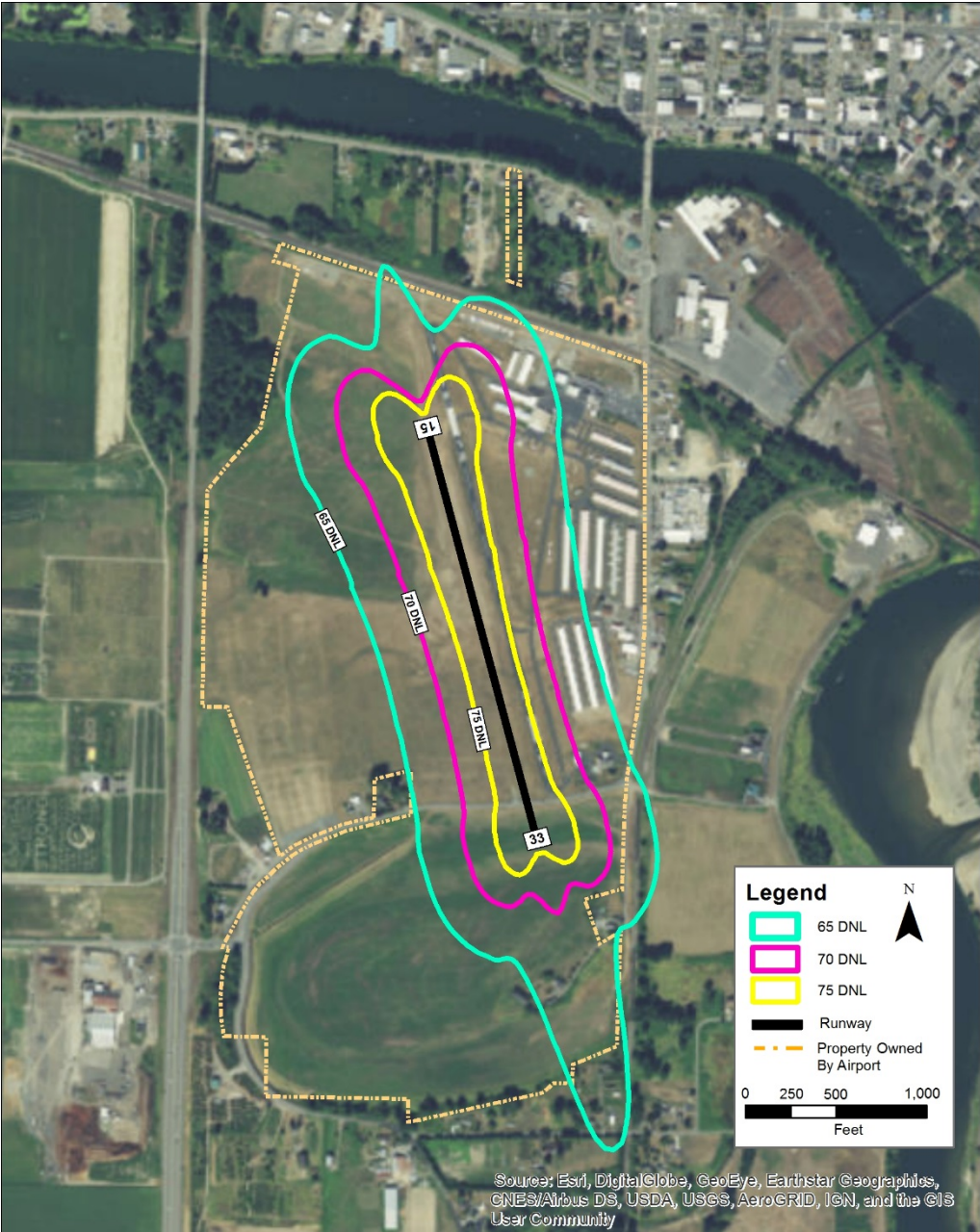
owned by the airport both to the north and south. It is estimated that there are six residences within the 2034 65-69 DNL contour limits. All of these residences are located southeast of the Runway 33 threshold.

Table 3. 2034 DNL Noise Contour Areas

DNL (dB(A))	Area (Acres)
65 - 69	62
70 - 74	29
75 +	23
<i>Total</i>	<i>114</i>

Source: KB Environmental
Sciences, Inc.

Figure 1. 2034 DNL Contours



Source: KB Environmental Sciences, Inc.