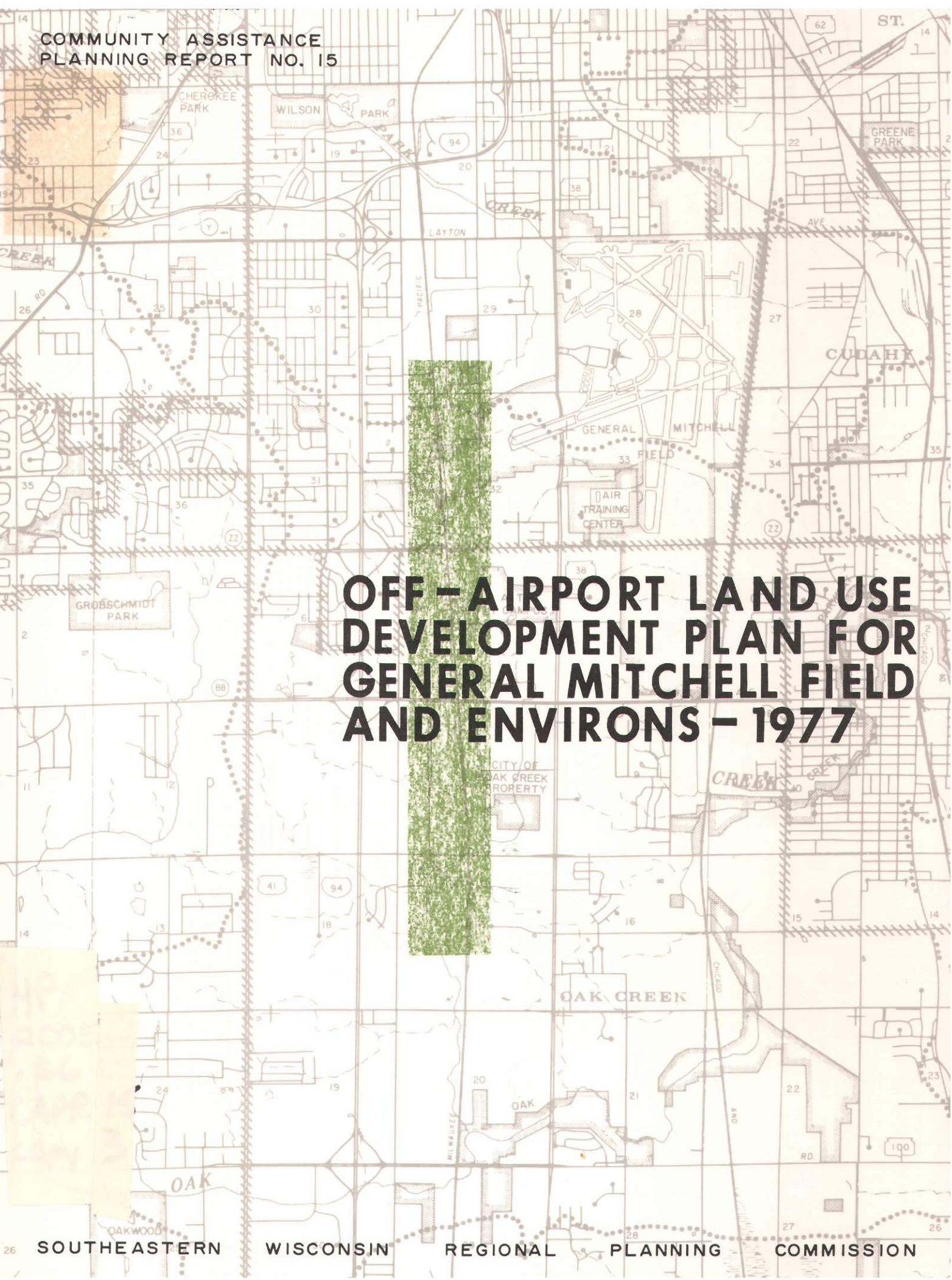
COMMUNITY ASSISTANCE
PLANNING REPORT NO. 15



OFF-AIRPORT LAND USE DEVELOPMENT PLAN FOR GENERAL MITCHELL FIELD AND ENVIRONS - 1977

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COMMUNITY ASSISTANCE PLANNING REPORT
NO. 15

OFF-AIRPORT LAND USE DEVELOPMENT PLAN FOR GENERAL MITCHELL FIELD AND ENVIRONS—1977

Prepared by the

Southeastern Wisconsin Regional Planning Commission
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May 1977

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INTRODUCTION

The Southeastern Wisconsin Regional Planning Commission, in Planning Report No. 21, A Regional Airport System Plan for Southeastern Wisconsin, addressed the current and long-range need for airport facilities and services in the Southeastern Wisconsin Region. In that report the Commission established a need in the Region for 12 major public airports, one of which should be a large Scheduled Air Transit (SAT) type airport facility located in close proximity to the regional population center (currently calculated to be at approximately S. 71st Street and National Avenue in the City of West Allis). It was determined that the present location of General Mitchell Field remained the best location for such a facility and that specific modifications to runways and taxiways and to passenger and cargo handling facilities would provide the increased capacity required at this airport to accommodate existing and anticipated future aircraft operations and related activities.

More specifically, the adopted long-range regional airport system plan proposes the following four major improvements to the landing area capacity of General Mitchell Field, improvements that should be major considerations in the formulation of any land use development plan for the airport environs:

1. Extend Runway 1L-19R to 11,500 feet.

2. Extend Runway 1R-9L to 7,000 feet.

3. Extend Runway 7R-25L to 9,000 feet.

4. Realign and extend Runway 7L-25R to 5,000 feet.

The improvements to the runways and taxiways, as recommended in the regional airport system plan, are substantially the same as the improvements recommended in the Airport Master Plan report[1] (see Map 1).

In addition, the adopted regional airport system plan recommends certain operational restrictions important to land use development in the vicinity of the airport including:

1. That jet aircraft not be permitted to use the proposed realigned general aviation runway (7L-25R) until the entire fleet of general aviation jet aircraft is equipped with the new quieter types of engines.

2. That continued restrictions govern turning movements until aircraft have reached a point on runway headings four or more miles beyond the airport boundaries.

3. That limitations be placed upon jet traffic in late evening and early morning hours.

Other sections of the Airport Master Plan report discuss the historic, present, and future physical requirements for a major SAT airport at General Mitchell Airport. This addendum to the Airport Master Plan report is intended to set forth the general impact of the final recommended airport facilities and use of such facilities upon land use development beyond the present boundaries of, but within close proximity to, the airport.

In June 1974 the Regional Planning Commission upon the specific request of the Wisconsin Department of Transportation (DOT), Division of Aeronautics, and of Milwaukee County, agreed to assist those two agencies in the preparation of an "off-airport" land use plan for inclusion in the airport master plan also being prepared for these two agencies by the firm of R. Dixon Speas Associates, Inc. It was suggested by the Commission that such a plan be prepared with the participation of those local communities located within the vicinity of the airport which are now, or might be expected in the future to be, impacted by take-off and landing operations at the airport. It was further suggested that the required local community participation be accomplished by the establishment of a Community Advisory Committee on land use planning with representation from the affected communities. In response to the request, the Commission, by action of the Executive Committee in September 1974, did establish a Community Advisory Committee[2] on Land Use Planning for the General Mitchell Field Master Planning Study with representation from the policy-making bodies, the staffs, and the citizenry of the eight communities in the vicinity of General Mitchell Field, namely: 1) the City of Cudahy, 2) the City of Franklin, 3) the Village of Greendale, 4) the City of Greenfield, 5) the City of Milwaukee, 6) the City of Oak Creek, 7) the City of South Milwaukee, and 8) the City of St. Francis. The primary task of the Committee was to assist the Commission in preparation of the required off-airport land use plan. The Committee held its organization and orientation meeting on November 19, 1974, and met nine times over the 28-month period required to complete the desired land use plan. It should be noted

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[1] *Airport Master Plan—General Mitchell Field, prepared for Milwaukee County by R. Dixon Speas Associates, Inc., January 1977.*

[2] *See Appendix A for list of Committee representatives.*

Map 1

GENERAL MITCHELL AIRPORT AND ENVIRONS, SHOWING RECOMMENDED 1995 RUNWAY ALIGNMENT AND NOISE INTENSITY ZONES

Source: SEWRPC.

that, during its period of involvement, the Committee had no direct input to the development of the consultant's proposals related to physical and operational expansion of the airport as set forth in the Airport Master Plan report. The off-airport land use development plan report prepared by the Committee was initially intended to be an insert into the text of the Airport Master Plan; however, the latter plan report was published prior to completion of the Committee's work, and this report as presently presented is intended as a supplement or addendum to the Airport Master Plan as published and transmitted to the appropriate county, state, and federal agencies in February 1977.

ANALYSES OF EXISTING AND PROJECTED OFF-AIRPORT LAND USE AND RELATED DATA

From the outset of the study, it was understood that the alternative runway layout generally accepted as the best alternative to meet the forecasted air traffic needs within the physical and fiscal capabilities of the units and agencies of government involved would be used as the basis for off-airport land use plan preparation. As previously indicated, the runway configuration alternative chosen was substantially the same as the recommended plan depicted and discussed in the regional airport system plan and as shown on Map 1 of this report.

Off-Airport Impacts

While operations at any major airport may have both positive and negative impacts on the general development of communities located within the vicinity of the airport, the primary concern in the preparation of both the airport plan and the off-airport land use plan for General Mitchell Field was the land use development within the immediate vicinity of the airport, particularly urban land use development within that vicinity.

The most significant negative impact on inhabited areas adjacent to any major airport is generally considered to be the noise created by aircraft while involved in take-off, landing, and on-field operations. If urban uses are located within the path of the airport take-off and landings or within close proximity to the airport runways, the inhabitants of such uses may be subjected to objectionable noise levels; therefore, these selected uses or types of development must be a primary concern in the preparation of an "off-airport" land use plan. The types of land uses and development in question are listed in Table 1 along with recommended development action within selected noise intensity zones.

In the development of the recommended airport plan, two levels of noise were identified which relate to the forecast aircraft operations at the airport in the expected peak noise production year of 1985. The two noise intensity zones are delineated as isopleths and are shown on Map 1 of this addendum report as a 115 CNR isopleth and a 110 CNR isopleth. In addition, a third "zone" or "general airport noise impact area" was agreed upon by the Committee to be the area encompassed within an approximate four (4) mile radius from the center of airport operations, also shown on Map 1. In 1975 an estimated total of 186,160 persons lived within the "general airport noise impact area"; of this number, about 90, or 0.05 percent, lived within the 115 CNR noise intensity zone and about 26,390, or 14.2 percent, lived within the 110 CNR noise intensity zone.

The 115 CNR Noise Intensity Zone

As shown in Table 1, 11 major types of general land use and development were assessed as they relate to the two calculated noise intensity zones. The 115 CNR noise intensity zone is the area within which the highest levels of noise generated at the airport may be expected to occur and within which the longest average daily periods of exposure to high noise levels may be expected. Due to

Table 1

GENERAL LAND USE AND DEVELOPMENT RELATED TO CALCULATED AIRPORT NOISE INTENSITY ZONES AT GENERAL MITCHELL FIELD, MILWAUKEE COUNTY, WISCONSIN

Type of Land Use and Development[a]	Recommended Development Action by Noise Intensity Zone[b]	
	115 CNR[c]	110 CNR[c]
Residential	No	d,e
General Commercial	d	Yes
Hotel/Motel	No	d
Offices/Public Buildings	No	d
Theaters/Auditoriums	No	d
Outdoor Amphitheaters and Theaters	No	No
Industrial	d	Yes
Schools/Hospitals/Churches	No	d
Outdoor Recreational (Nonspectator)	Yes	Yes
Agricultural/Open Land	Yes	Yes
Environmental Corridor	Yes	Yes

[a] *See also Objective No. 3, Standard No. 3, Chapter VII of SEWRPC Planning Report No. 21, A Regional Airport System Plan for Southeastern Wisconsin.*

[b] *A noise intensity zone is an area adjacent to an airport runway, defined by CNR isopleths and other techniques in which the noise environment, depending on a person's activity or location, is objectionable. Unless specifically combined, the larger 110 CNR noise intensity zone does not include the smaller 115 CNR noise intensity zone.*

[c] *CNR—or Composite Noise Rating is a technique used for estimating community responses to aircraft noise based upon actual noise levels and their exposure frequency at an airport.*

[d] *An analysis of building noise reduction requirements should be made, and needed noise control features should be included in the building design and construction.*

[e] *Should avoid new single family construction when possible and practicable.*

Source: Adapted by SEWRPC from Bolt, Beranek and Newman, Inc., Aircraft Noise and Airport Neighbor: A Study of Logan International Airport, Technical Report No. DOT/HUD 1ANAP-70-1, March 1970, p. 9, and from Land Use Compatibility Chart for Areas Subjected to Aircraft Noise—Development of Aircraft Noise Compatibility Criteria for Varied Land Uses, FAA Report SRDS 64-148 II, December 1964.

the projected increased air traffic at General Mitchell Airport, the major north-south runway (1L-19R) and the major east-west runway (7R-25L) will both develop 115 CNR noise intensity zones. As shown on Map 1, the 115 CNR noise intensity zone for Runway 1L-19R is encompassed almost entirely within the existing boundaries of the airport, extending beyond the existing airport boundaries on the north into the City of St. Francis to a point just north of E. Bolivar Avenue. The 115 CNR noise intensity zone for Runway 7R-25L extends beyond the existing boundaries of the airport on the west between S. 13th Street and IH 94 and north of W. College Avenue in the City of Milwaukee, and on the east between the Chicago and North Western Railroad and Whitnall Avenue north of E. Morris Avenue in the City of Cudahy. As shown in Table 1, only three of the 11 major land uses listed—namely, agricultural/open land, nonspectator outdoor recreational uses, and environmental corridors—would not be adversely impacted if located within the 115 CNR noise zones. Of the other eight uses, two—commercial and industrial use and development—may be permitted if the design and construction of the buildings incorporate special noise reduction features to protect inhabitants. Six types of land use and development should not, in any case, be located within the 115 CNR noise intensity zone; namely, residences, hotels and motels, offices and public buildings, schools, hospitals and churches, theaters and auditoriums, and outdoor amphitheaters and theaters.

As previously indicated and as shown on Map 2, the 115 CNR noise intensity zones extend beyond the existing (1976) boundaries of General Mitchell Airport in three areas. Existing land uses within these three zones are listed in Tables 2 and 3 of this addendum report. As shown, about 98 acres of land area are included within the combined 115 CNR noise intensity zones. These combined zones also encompass an estimated 25 residential dwelling units, two commercial buildings, and four industrial buildings. The dwelling units within these three zones of high noise intensity house an estimated 90 persons.

The 110 CNR Noise Intensity Zone

The 11 major types of general land use were also assessed as they relate to the larger but less intense 110 CNR[3] noise intensity zone. The overlapping 110 CNR noise intensity zones for parallel Runways 1L-19R and 1R-19L extend northerly to the Lake Michigan shore in the vicinity of the Marine and Naval Research station in the City of Milwaukee and also encompass part of the City of St. Francis. The southerly end of this combined 110 CNR noise intensity zone extends to E. Puetz Road in the City of Oak Creek in the vicinity of Oak Creek High School.

The east-west 110 CNR noise intensity zones for parallel Runways 7L-25R and 7R-25L extend westerly to about S. 55th Street north and W. Rawson Avenue in the City of Franklin and encompass part of the Cities of Franklin, Greenfield, Milwaukee, and Oak Creek and part of the Village of Greendale. The easterly end of the 110 CNR noise intensity zone for Runway 7L-25R extends to S. Kinnickinnic Avenue in the vicinity of Lipton Avenue in the City of Cudahy and encompasses parts of the City of Cudahy and the City of St. Francis. The easterly end of the 110 CNR noise intensity zone for Runway 7R-25L extends beyond the Lake Michigan shore in the vicinity of Sheridan Park and encompasses part of the City of Cudahy. These two easterly 110 CNR noise intensity zones do not overlap.

As indicated in Table 1, only one type of land use and development—outdoor amphitheaters/theaters—would be severely impacted by aircraft operations within the 110 CNR noise intensity zone and, therefore, should not be located within the zone. Of the remaining 10 types of uses, five—residential, hotel/motel, offices/public buildings, schools/hospitals/churches, and theaters/auditoriums—would require the incorporation of noise reduction features in the design and construction of the buildings. It is also suggested that, when possible and practicable, new construction of single family dwellings be avoided in this zone. The other five types of uses—commercial, nonspectator outdoor recreation, industrial, agricultural/open lands, and environmental corridors—would not be adversely affected by aircraft noise in this zone and would not require special design or construction measures.

As shown on Map 2 and tabulated in Table 2, all of the 110 CNR noise intensity zones encompass a total of 4,619 acres of land, not including the area within the existing airport boundaries or within the 115 CNR noise intensity zone. Of the one major type of use adversely impacted within the 110 CNR noise intensity zone—outdoor amphitheater/theaters—none exist within this zone. There are, however, an estimated 7,540 dwelling units, five motels/hotels, six offices/public buildings, 20 schools/hospitals/churches, and one theater/auditorium within this noise intensity zone. These latter uses should be surveyed to determine if noise reduction features can and should be added. As previously indicated, an estimated total of 26,390 persons are housed within these combined 110 CNR zones.

The General Airport Noise Impact Area

The areas outside the 110 CNR noise intensity zone, but within the defined "general airport noise impact area" as shown on Maps 1 and 2, are not expected to be adversely impacted by airport-related noise to levels at or above a 110 CNR, and much of this area is expected to experience noise levels below a 100 CNR. Within this "general airport noise impact area" however, careful consideration should be given by the responsible local

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[3] *Unless otherwise combined, the 110 CNR noise intensity zone as discussed herein does not include the area within the 115 CNR noise intensity zone but includes only that area between the external limits of the 115 CNR noise intensity zone and the external limits of the 110 CNR noise intensity zone as delineated on maps in this report.*

Map 2

EXISTING LAND USE: 1975

LEGEND

- MEDIUM DENSITY URBAN DEVELOPMENT
- HIGH DENSITY URBAN DEVELOPMENT
- COMMERCIAL
- INDUSTRIAL
- INSTITUTIONAL
- TRANSPORTATION, COMMUNICATION, AND UTILITIES
- OUTDOOR RECREATION
- AGRICULTURAL AND OPEN LANDS

GRAPHIC SCALE

Source: SEWRPC.

Table 2

EXISTING LAND USE WITHIN THE CNR NOISE INTENSITY ZONES AND THE GENERAL AIRPORT NOISE IMPACT AREA AT GENERAL MITCHELL AIRPORT IN MILWAUKEE COUNTY, WISCONSIN: 1975

General Land Use Categories[c]	Within the 115 CNR[a] Noise Intensity Zone		Within the 110 CNR[a] Noise Intensity Zone		Within the General Airport Noise Impact Area[b]		Total Noise Area	
	Acres	Dwelling Units or Buildings	Acres	Dwelling Units or Buildings	Acres[d]	Dwelling Units or Buildings	Acres[e]	Dwelling Units or Buildings
Residential								
Single Family Residential	13.0	25	1,344.7	5,413	6,419.5	--[f]	7,777.2	--[f]
Two and Multifamily Residential	--	--	134.2	2,127	902.0	--[f]	1,036.2	--[f]
Subtotal Residential	13.0	25	1,478.9	7,540	7,321.5	45,635	8,813.4	53,200
Commercial								
Motel/Hotel	--	--	4.5	5	--[f]	--[f]	--[f]	--[f]
Offices/Public Buildings	--	--	1.8	6	--[f]	--[f]	--[f]	--[f]
Theaters/Auditorium	--	--	0.5	1	--[f]	--[f]	--[f]	--[f]
Outdoor Amphitheaters/Theaters	--	--	--	--	--[f]	--[f]	--[f]	--[f]
Other Commercial	0.4	2	74.1	160	--[f]	--[f]	--[f]	--[f]
Subtotal Commercial	0.4	2	80.9	172	544.4	--[f]	625.7	--[f]
Institutional								
Industrial	4.0	4	214.6	68	730.3	--[f]	948.9	--[f]
Schools/Hospitals/Churches	--	--	72.5	20	--[f]	--[f]	--[f]	--[f]
Other Institutional	--	--	122.0	14	--[f]	--[f]	--[f]	--[f]
Subtotal Institutional	--	--	194.5	34	1,424.3	--[f]	1,618.8	--[f]
Urban								
Transportation/Communication/Utilities	12.0	--	891.5	--	5,701.4	--[f]	6,604.9	--[f]
Outdoor Recreation	11.0	--	119.0	--	1,734.5	--[f]	1,864.5	--[f]
Subtotal Urban	40.4	31	2,979.4	7,814	17,456.4	--[f]	20,476.2	--[f]
Rural								
Agriculture/Open Lands[g]	58.0	--	1,494.1	--	7,608.8	--[f]	9,160.9	--[f]
Water/Wetlands/Woodlands/Floodlands	--	--	145.2	--	946.5	--[f]	1,091.7	--[f]
Subtotal Rural	58.0	--	1,639.3	--	8,555.3	--[f]	10,252.6	--[f]
Total	98.4	31	4,618.7	7,814	26,011.7	N/A	30,728.8	N/A

[a] *CNR—Composite Noise Rating is a technique used for estimating community responses to aircraft noise based upon actual noise levels and their exposure frequency at an airport.*

[b] *An area encompassed within a four mile radius from the center of airport operations.*

[c] *Modified to include those uses significantly impacted by airport noise.*

[d] *Based on accumulation of data at the U. S. public land survey one-quarter section.*

[e] *Does not include lands within airport boundary 1975.*

[f] *All or part of the data not available.*

[g] *For purposes of this report, the General Mitchell Airport off-airport land use plan "open lands" include those nonagricultural rural lands which cannot be classified in any other land use category.*

[h] *N/A—not applicable.*

Source: SEWRPC.

units of government to the location, design, and construction of schools, hospitals, and churches, as well as theaters and auditoriums, all of which either continuously or periodically house large congregations of people.

Existing Land Use and Development

As shown on Map 2 of this report and as indicated in Table 2 of this report, the majority of the land encompassed within both the 110 and 115 CNR noise intensity zones is presently developed for urban use. There are only about 137 acres of undeveloped land within both the 110 and 115 CNR to the north of General Mitchell Field, all in scattered, relatively small parcels. To the east of the airport, the combined 110 and 115 CNR noise intensity zones for the 7R-25L runway encompass only a few undeveloped parcels, all within the City of Cudahy and totaling about 113 acres, most of which are within proposed industrial development areas. Areas of the Cities of Franklin, Greenfield, Milwaukee, and Oak Creek to the west of the airport and within the combined 110 and 115 CNR noise intensity zones include agricultural and open lands totaling about 903 acres. Land within the combined 110 and 115 CNR noise intensity zones to the south of the airport is least developed for urban purposes, and most of the undeveloped urban land, 308 acres, lies within the City of Oak Creek, with only 36 acres of undeveloped urban land within the City of Cudahy. Table 2 includes a detailed tabulation of general existing land use with each CNR noise intensity zone within the vicinity of the airport (see Appendix B for similar tables for each community within the vicinity of the airport).

Existing Community Zoning

The community development objectives, as related particularly to the lands encompassed within the 110 and 115 CNR noise intensity zones, are, for the most part, reflected in the existing zoning, as shown on Map 3. As shown by comparing Maps 2 and 3 of this report, and as may be expected in a highly urbanized area, the local zoning corresponds quite closely to existing development. A total of 556 acres, or 83 percent, of the highly developed area within the northerly combined 110 and 115 CNR noise intensity zones is proposed to be used or developed for either high-density—4.8 to 11.8 dwelling units per gross acre—residential development or industrial development (see Table 3 and see Appendix C for similar tables for each community within the vicinity of the airport). An area adjacent to the north boundary of the airport within the combined 110 and 115 CNR noise intensity zones, totaling approximately 100 acres, or 15 percent of the land area, is zoned and substantially developed for medium-density—1.8 to 4.7 dwelling units per gross acre—residential development. The remainder of this combined 110 and 115 CNR noise intensity zone, encompassing 10 acres, or 2 percent of the total area, is zoned for commercial use most of which is located in a strip along S. Kinnickinnic Avenue in the City of Milwaukee.

The 110 CNR noise intensity zone for Runway 7L-25R encompasses a total of 88 acres, of which only one acre, or about 1 percent, is zoned for high-density residential development; 26 acres, or about 30 percent, is zoned for medium-density residential development; 29 acres, or about 33 percent, is zoned for industrial development; and 32 acres, or about 36 percent, is zoned for institutional development.

The combined 110 and 115 CNR noise intensity zones on the east end of Runway 7R-25L encompass a total of 841 acres outside the airport boundaries. Of the 69 acres within the 115 CNR noise intensity zone, only five acres, or 7 percent, are zoned for high-density residential development, and all of the remainder, 64 acres, is zoned for industrial development.

A total of 267 acres, or about 35 percent, of the area within the 110 CNR noise intensity zone, is zoned for high-density residential use; 388 acres, or about 51 percent, are zoned for industrial use; 31 acres, or about 4 percent, are zones for commercial use; and 66 acres, or about 9 percent, are zoned for park and open space use, all within the City of Cudahy.

The combined 110 and 115 CNR noise intensity zones for Runways 7L-25R and 7R-25L encompass a total of 2,650 acres outside of the airport boundaries. Of the total 14 acres within the 115 CNR noise intensity zone, 11 acres, or about 79 percent, are zoned for medium-density residential development; and the remaining three acres, or about 21 percent, are zoned for industrial development purposes.

Within the 110 CNR noise intensity zone, a total of 141 acres, or about 5 percent, is zoned for high-density residential development; 1,524 acres, or about 58 percent, are zoned for medium-density residential development; 791 acres, or about 30 percent, are zoned for industrial development; and 180 acres, or about 7 percent, are zoned for commercial development. The majority of the commercial development zoning occurs in a strip along S. 27th Street in the Cities of Greenfield and Milwaukee.

The southerly 110 CNR noise intensity zone for combined Runways 1L-19R and 1R-19L encompasses a total of 654 acres outside the airport boundaries. With the exception of only 14 acres, or about 2 percent, zoned for high-density residential development, and 140 acres, or about 21 percent, zoned for industrial development purposes, the remaining 500 acres, or about 77 percent, are zoned for medium-density residential development, most of the latter zoned area being located within the City of Oak Creek.

As may be determined from a comparison of Maps 2 and 3 of this addendum report, the majority of those lands undeveloped for urban purposes but within the 110 CNR noise intensity zone, lie within areas zoned for medium-density residential development. It should also be noted that most of the land adjacent to this undeveloped land is already substantially committed to development compatible with medium-density residential use and zoning, but perhaps incompatible with airport aircraft operations. It may be expected, therefore, that the majority of future development in this area will consist of single-family residences. Due to these findings, it is

Map 3

EXISTING ZONING: 1973

LEGEND

- MEDIUM DENSITY RESIDENTIAL
- HIGH DENSITY RESIDENTIAL
- GENERAL COMMERCIAL
- INDUSTRIAL
- INSTITUTIONAL
- OUTDOOR RECREATION

GRAPHIC SCALE
0 2000 4000 FEET

Source: SEWRPC.

Table 3

EXISTING ZONING WITHIN THE CNR NOISE INTENSITY ZONES AND THE GENERAL AIRPORT NOISE IMPACT AREA AT GENERAL MITCHELL AIRPORT IN MILWAUKEE COUNTY, WISCONSIN: 1973

General Zoning Districts[d]	Within the 115 CNR[a] Noise Intensity Zone[b]		Within the 110 CNR[a] Noise Intensity Zone[b]		Within the General Airport Noise Impact Area[c]		Total Noise Area	
	Acres	Percent of Total	Acres	Percent of Total	Acres	Percent of Total	Acres[e]	Percent of Total
Residential								
Medium Density[f]	11	11.2	2,135	46.2	12,046	47.8	14,192	47.4
High Density[g]	5	5.1	450	9.7	6,713	26.7	7,168	24.0
Subtotal	16	16.3	2,585	55.9	18,759	74.5	21,360	71.4
Commercial	--	--	221	4.8	1,515	6.0	1,736	5.8
Industrial	82	83.7	1,714	37.2	4,127	16.4	5,923	19.8
Institutional[h]	--	--	32	0.7	320	1.3	352	1.2
Outdoor Recreation[h]	--	--	66	1.4	461	1.8	527	1.8
Total[i]	98	100.0	4,618	100.0	25,182	100.0	29,898	100.0

[a] *CNR—Composite Noise Rating is a technique used for estimating community responses to aircraft noise based upon actual noise levels and their exposure frequency at an airport.*

[b] *A noise intensity zone is an area adjacent to an airport runway, defined by CNR isopleths and other techniques, in which the noise environment, depending on a person's activity or location, is objectionable. Unless specifically combined, the larger 110 CNR noise intensity zone does not include the smaller 115 CNR noise intensity zone.*

[c] *An area encompassed within a four mile radius from the center of airport operations.*

[d] *These categories were compiled from zoning district maps and ordinance texts provided by the eight communities within the general airport noise impact area of General Mitchell Airport.*

[e] *Do not include airport lands.*

[f] *1.8-4.7 dwelling units (d.u.) per gross acre.*

[g] *4.8-11.8 dwelling units (d.u.) per gross acre.*

[h] *Institutional and outdoor recreation (or park) districts are not commonly included in all community zoning ordinances.*

[i] *It should be noted that traditional land use categories such as transportation and utilities are not commonly specifically included in zoning ordinances and district maps but are assumed to be allowed within any district or are specifically allowed in only selected districts.*

Source: SEWRPC.

not expected that major changes can now be made in the development pattern of these developing areas, such as conversion from residential to general commercial or industrial uses. There is a possibility, however, that changes in types of residential development less incompatible to airport operations and less costly to noise-insulate might be accomplished in these residential zoned yet undeveloped areas following a careful, detailed survey and analysis of existing land use and development by the local units of government involved.

THE RECOMMENDED OFF-AIRPORT LAND USE PLAN

Based on a review of the foregoing information, the Committee determined that the off-airport land use and development plan should address the following four major concerns related to the impact of airport operations on the adjacent off-airport land use areas:

1. Those actions necessary to remove or restrict construction or expansion of structures which are considered incompatible with airport activities and which may cause a safety hazard to the occupants of the structures;

2. The institution of constraints to on-airport activities to effect a reduction in the incidence of noise and other airport-related nuisances;

3. The institution of constraints to off-airport land development which is incompatible from a noise or safety standpoint with airport operations; and,

4. The institution of studies to determine the feasibility and cost of alleviating or reducing existing noise conditions affecting occupants of buildings within the vicinity of the airport.

As already indicated, physical development of the airport as basically recommended in the regional airport system plan was established as a basis for the preparation of the off-airport land use plan, and the airport master plan reiterates the primary recommendation of the regional airport system plan. The physical development of the airport related to changes in runway configuration or terminal expansion is, therefore, not a specific consideration in the preparation of this off-airport land use plan.

Land, Structure, and Easement Acquisition

In the airport master plan and as shown on Map 4, the consultant has recommended that six specific areas of land adjacent to the present airport boundaries should either be purchased outright or aviation easements acquired by the County. Following are the specific recommendations offered by the Committee as they relate to these six areas:

1. It is recommended that an aviation easement be acquired on the approximately 34 acres of land lying within the proposed "clear zone" area on the west end of Runway 7R-25L in the City of Milwaukee and height and development restrictions instituted to ensure that any further development of this land is compatible with airport operations.

2. It is recommended that an aviation easement be acquired on the approximately 27 acres of land lying between the Chicago-Milwaukee-St. Paul and Pacific Railroad right-of-way on the west, S. 6th Street on the east, and south of the Airport Spur Freeway and north of the existing airport boundary in the City of Milwaukee, and that height and development restrictions be instituted to ensure that any further development of the land is compatible with airport operations.

3. It is recommended that the approximately five acres of land and commercial businesses on the west side of Howell Avenue and on the north and south sides of Edgerton Avenue be purchased for clear zone purposes and the buildings removed at such time as Runway 7L-25R is realigned and reconstructed. It is not expected that this acquisition will be necessary until after 1985.

4. It is recommended that the approximately 36 acres of land and residential structures lying north of Layton Avenue in the City of St. Francis and proposed by the consultant to be purchased after 1985 not be purchased. Because these lands are not required for either clear zone purposes or do not lie within a 115 CNR noise intensity zone, the Committee suggests that the property in question should remain in private ownership. It is proposed, however, that an aviation easement on these lands for height restriction purposes be purchased by the County.

5. It is recommended that those lands encompassing about six acres and lying north of Whitnall Avenue in the City of St. Francis, for which the consultant has proposed the acquisition of an aviation easement, not be acquired. This land also is not needed for clear zone purposes nor does it lie within the 115 CNR noise intensity zone.

6. It is recommended that an aviation easement be acquired on the approximately 41 acres of land on the east side of the airport lying north of Grange Avenue and west of Pennsylvania Avenue in the City of Cudahy and that height and development restrictions be instituted to ensure that any further development of the land is compatible with airport operations.

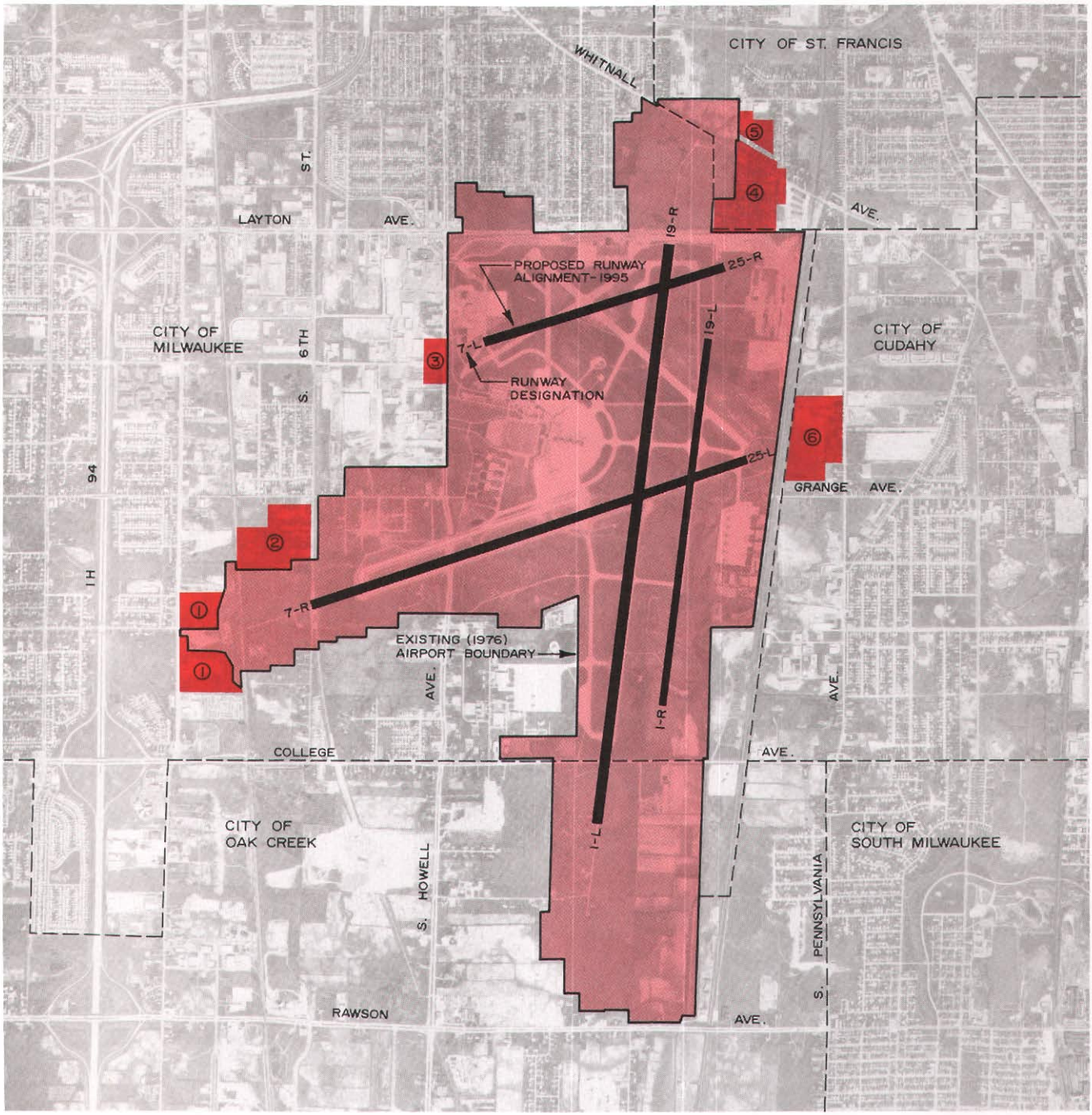
It should be noted that the above recommendations vary substantially from those of the consultant and would result in most of the lands in question remaining in private ownership and the cost for airport plan implementation being reduced by over $4 million. In addition to the above specific recommendation, it is suggested that where acquisition of property is recommended, and when the owners of such properties come forth as willing sellers, the County should negotiate for a fair market price with such willing seller at any time following adoption of the airport master plan and, where feasible, the land be returned to private ownership for uses compatible with airport operations.

The Institution of Constraints to On-Airport Noise-Emitting Operations

In addition to the foregoing recommendations related to land and aviation easement acquisition within the vicinity of the airport, the Committee offers the follow-

Map 4

AREAS OF RECOMMENDED LAND OR AVIATION EASEMENT ACQUISITION IN THE VICINITY OF GENERAL MITCHELL FIELD



LEGEND

② AREA DESIGNATED FOR LAND OR AVIATION EASEMENT AQUISITION-- SEE ACCOMPANYING TEXT FOR AREA DESCRIPTION

GRAPHIC SCALE
0 2000 4000 FEET

ing recommendations related to institution of constraints to on-airport activities to effect a decrease in the incidence of noise and airport-related nuisances:

1. It is recommended that, in those specific areas within the boundaries of the airport where "running up" or testing of aircraft engines is an ongoing occurrence, earthen berms or other physical barriers to such noise should be constructed to lower the noise levels and therefore the nuisance to property owners adjacent to the airport.

2. It is recommended that all air traffic at the airport be curtailed during the hours of 11 p.m. and 7 a.m., when the majority of residents are sleeping, and that, specifically, all jet traffic be eliminated during the same period in order to lower the noise impact levels in the vicinity of the airport.

3. It is recommended that air traffic patterns at the airport be maintained within or changed to conform to the forecast 110 CNR isopleths as shown on Maps 1, 2, and 3 in order that aircraft related noise be confined to the narrowest possible corridor approaches to the existing or proposed runways.

4. It is recommended that the County take action to request that, because General Mitchell Field is a relatively small metropolitan airport encompassed almost entirely within a highly urbanized area, all jet aircraft regularly using General Mitchell Field be required to "retrofit" or upgrade to quieter engines before 1980 rather than the present requirements of 1985.

Institution of Constraints to
Off-Airport Land Use Development

In an effort to address the off-airport land use and development issues as they relate to activity at General Mitchell Field, the Committee offers the following recommendations concerned with existing and future development within certain areas adjacent to the airport:

1. It is recommended that those communities with land areas located within the forecast 110 and 115 CNR noise intensity zones as shown on Map 3 review and, where necessary, make revisions to zoning ordinances, zoning district maps, and building ordinances so that they conform to development action recommendations as set forth in Table 1 of this addendum report in order that future development within these noise intensity zones will be more compatible with airport operations and the inhabitants of such development will be subjected to less objectionable noise levels.

2. It is recommended that the local communities prepare and adopt local noise restriction ordinances incorporating restrictions on airport noise and that upon request Milwaukee County assist the communities in the vicinity of the airport in the preparation of such ordinances.

Institution of Studies Related to Noise
Reduction in Building in the Vicinity of the Airport

It is recommended that the County undertake a feasibility study of noise reduction measures for all existing structures within the forecast 110 and 115 CNR noise intensity zones as shown on Map 3 and that such study examine the ways and means of offsetting all or part of any costs associated with any proposed noise reduction measures determined to be necessary and feasible.

ADOPTION AND IMPLEMENTATION OF THE LAND USE AND RELATED RECOMMENDATIONS

It is recommended that following adoption of the airport master plan and this plan addendum by Milwaukee County and acceptance of these plans by the Wisconsin Department of Transportation, Division of Aeronautics, action be taken by the County to implement the recommendations contained herein. It is also recommended that this airport master plan addendum be reviewed and adopted by each of the eight communities in the vicinity of the airport and represented on the Committee. It is further suggested that the acquisition of aviation easements within proposed clear zones or other areas be staged to take place prior to the physical expansion or realignment of airport runways as recommended by the consultant. These combined actions would alleviate any additional persons being involved or concerned in any land easements acquisition transactions, the perpetrating of any additional hardship on existing property owners, or the perpetrating of hardship on future owners of existing or proposed development within the vicinity of the airport.

APPENDICES

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Appendix A

COMMUNITY ADVISORY COMMITTEE ON LAND USE PLANNING FOR THE GENERAL MITCHELL FIELD MASTER PLANNING STUDY

Norbert S. Theine . . . . . Administrator, City of South Milwaukee
Chairman

Carol F. Pfeifer . . . . . Citizen, City of St. Francis
Vice-Chairman

Robert A. Anderson. . . . . Alderman, City of Milwaukee

John M. Bennett . . . . . City Engineer, City of Franklin

Louis M. Cook . . . . . Alderman, City of Greenfield

Raymond T. Dwyer. . . . . City Engineer, City of Greenfield

Ronald Fisco . . . . . Chairman, City of Franklin Airport Study Committee

Bill R. Hippenmeyer . . . . . Director of Planning and Industrial Development, City of Oak Creek

Donald W. Hermann. . . . . Mayor, City of Oak Creek

Lawrence P. Kelly . . . . . Mayor, City of Cudahy

Stanley Raclaw, Jr. . . . . Alderman, City of St. Francis

Marian Kroscher . . . . . Trustee, Village of Greendale

J. Henry Kulinski . . . . . City Engineer, City of St. Francis

Edwin J. Laszewski, Jr.. . . . . City Engineer, City of Milwaukee

Carl A. Lichte. . . . . Citizen, City of Milwaukee

Thomas Lisota . . . . . Alderman, City of Cudahy

Donald Lukas. . . . . Member, Village of Greendale Plan Commission

Anthony L. Luljak . . . . . Alderman, City of Cudahy

David R. Mayer. . . . . Alderman, City of Franklin

Nick T. Paulos . . . . . Village Engineer and Director of Public Works, Village of Greendale

Rodolfo N. Salcedo . . . . . Environmental Scientist, Department of City Development, City of Milwaukee

Robert H. Thronson. . . . . Citizen, City of South Milwaukee

Allen H. Windschanz . . . . . Alderman, City of Oak Creek

Frank Zawacki, Jr.. . . . . Alderman, City of South Milwaukee

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Appendix B

EXISTING LAND USE WITHIN THE CNR NOISE INTENSITY ZONES AND THE GENERAL AIRPORT NOISE IMPACT AREA AT GENERAL MITCHELL AIRPORT IN MILWAUKEE, WISCONSIN: 1975

Table B-1

EXISTING LAND USE IN THE CITY OF CUDAHY WITHIN THE CNR NOISE INTENSITY ZONES AND THE GENERAL AIRPORT NOISE IMPACT AREA AT GENERAL MITCHELL AIRPORT IN MILWAUKEE COUNTY, WISCONSIN: 1975

General Land Use Categories[c]	Within the 115 CNR[a] Noise Intensity Zone		Within the 110 CNR[a] Noise Intensity Zone		Within the General Airport Noise Impact Area[b]		Total Noise Area	
	Acres	Dwelling Units or Buildings	Acres	Dwelling Units or Buildings	Acres[d]	Dwelling Units or Buildings	Acres[e]	Dwelling Units or Buildings
Residential								
Single Family Residential	13.0	25	117.70	632	724.1	--[f]	854.8	--[f]
Two and Multifamily Residential	--	--	8.20	360	113.8	--[f]	122.0	--[f]
Subtotal Residential	13.0	25	125.90	992	837.9	5,283	976.8	6,300
Commercial								
Motel/Hotel	--	--	--	--	--[f]	--[f]	--[f]	--[f]
Offices/Public Buildings	--	--	0.80	3	--[f]	--[f]	--[f]	--[f]
Theaters/Auditorium	--	--	--	--	--[f]	--[f]	--[f]	--[f]
Outdoor Amphitheaters/Theaters	--	--	--	--	--[f]	--[f]	--[f]	--[f]
Other Commercial	0.4	2	18.29	65	--[f]	--[f]	--[f]	--[f]
Subtotal Commercial	0.4	2	19.05	68	71.5	--[f]	90.9	--[f]
Institutional								
Industrial	1.0	1	80.60	16	129.9	--[f]	211.5	--[f]
Schools/Hospitals/Churches	--	--	24.00	7	--[f]	--[f]	--[f]	--[f]
Other Institutional	--	--	4.00	4	--[f]	--[f]	--[f]	--[f]
Subtotal Institutional	--	--	28.00	11	110.1	--[f]	138.1	--[f]
Urban								
Transportation/Communication/Utilities	9.0	--	127.00	--	566.3	--[f]	702.3	--[f]
Outdoor Recreation	--	--	52.00	--	320.4	--[f]	372.4	--[f]
Subtotal Urban	23.4	28	432.50	1,087	2,036.0	--[f]	2,491.9	--[f]
Rural								
Agriculture/Open Lands[g]	54.0	--	110.10	--	310.9	--[f]	475.0	--[f]
Water/Wetlands/Woodlands/Floodlands	--	--	2.20	--	55.6	--[f]	57.8	--[f]
Subtotal Rural	54.0	--	112.30	--	366.5	--[f]	532.8	--[f]
Total	77.4	28	544.80	1,087	2,402.5	N/A[h]	3,024.7	N/A[h]

[a] *CNR—Composite Noise Rating is a technique used for estimating community responses to aircraft noise based upon actual noise levels and their exposure frequency at an airport.*

[b] *An area encompassed within a four mile radius from the center of airport operations.*

[c] *Modified to include those uses significantly impacted by airport noise.*

[d] *Based on accumulation of data at the U. S. public land survey one-quarter section.*

[e] *Does not include lands within airport boundary 1975.*

[f] *All or part of the data not available.*

[g] *For purposes of this report, the General Mitchell Airport off-airport land use plan "open lands" include those nonagricultural rural lands which cannot be classified in any other land use category.*

[h] *N/A—not applicable.*

Source: SEWRPC.

Table B-2

EXISTING LAND USE IN THE CITY OF FRANKLIN WITHIN THE CNR NOISE INTENSITY ZONES AND THE GENERAL AIRPORT NOISE IMPACT AREA AT GENERAL MITCHELL AIRPORT IN MILWAUKEE COUNTY, WISCONSIN: 1975

General Land Use Categories[c]	Within the 115 CNR[a] Noise Intensity Zone		Within the 110 CNR[a] Noise Intensity Zone		Within the General Airport Noise Impact Area[b]		Total Noise Area	
	Acres	Dwelling Units or Buildings	Acres	Dwelling Units or Buildings	Acres[d]	Dwelling Units or Buildings	Acres[e]	Dwelling Units or Buildings
Residential								
Single Family Residential	--	--	49	286	319.6	--[f]	368.6	--[f]
Two and Multifamily Residential	--	--	29	126	--	--[f]	29.0	--[f]
Subtotal Residential	--	--	78	412	319.6	388	397.6	800
Commercial								
Motel/Hotel	--	--	--	--	--[f]	--[f]	--[f]	--[f]
Offices/Public Buildings	--	--	--	--	--[f]	--[f]	--[f]	--[f]
Theaters/Auditorium	--	--	--	--	--[f]	--[f]	--[f]	--[f]
Outdoor Amphitheaters/Theaters	--	--	--	--	--[f]	--[f]	--[f]	--[f]
Other Commercial	--	--	4	4	--[f]	--[f]	--[f]	--[f]
Subtotal Commercial	--	--	4	4	115.1	--[f]	119.1	--[f]
Institutional								
Industrial	--	--	--	--	2.3	--[f]	2.3	--[f]
Schools/Hospitals/Churches	--	--	--	--	--[f]	--[f]	--[f]	--[f]
Other Institutional	--	--	6	1	--[f]	--[f]	--[f]	--[f]
Subtotal Institutional	--	--	6	1	24.6	--[f]	30.6	--[f]
Urban								
Transportation/Communication/Utilities	--	--	23	--	94.5	--[f]	117.5	--[f]
Outdoor Recreation	--	--	--	--	--	--[f]	--	--[f]
Subtotal Urban	--	--	111	417	556.1	--[f]	667.1	--[f]
Rural								
Agriculture/Open Lands[g]	--	--	300	--	821.9	--[f]	1,121.9	--[f]
Water/Wetlands/Woodlands/Floodlands	--	--	47	--	73.1	--[f]	120.1	--[f]
Subtotal Rural	--	--	347	--	895.0	--[f]	1,242.0	--[f]
Total	--	--	458	417	1,451.1	N/A[h]	1,909.1	N/A[h]

[a] *CNR—Composite Noise Rating is a technique used for estimating community responses to aircraft noise based upon actual noise levels and their exposure frequency at an airport.*

[b] *An area encompassed within a four mile radius from the center of airport operations.*

[c] *Modified to include those uses significantly impacted by airport noise.*

[d] *Based on accumulation of data at the U. S. public land survey one-quarter section.*

[e] *Does not include lands within airport boundary 1975.*

[f] *All or part of the data not available.*

[g] *For purposes of this report, the General Mitchell Airport off-airport land use plan "open lands" include those nonagricultural rural lands which cannot be classified in any other land use category.*

[h] *N/A—not applicable.*

Source: SEWRPC.

Table B-3

EXISTING LAND USE IN THE VILLAGE OF GREENDALE WITHIN THE CNR NOISE INTENSITY ZONES AND THE GENERAL AIRPORT NOISE IMPACT AREA AT GENERAL MITCHELL AIRPORT IN MILWAUKEE COUNTY, WISCONSIN: 1975

General Land Use Categories[c]	Within the 115 CNR[a] Noise Intensity Zone		Within the 110 CNR[a] Noise Intensity Zone		Within the General Airport Noise Impact Area[b]		Total Noise Area	
	Acres	Dwelling Units or Buildings	Acres	Dwelling Units or Buildings	Acres[d]	Dwelling Units or Buildings	Acres[e]	Dwelling Units or Buildings
Residential								
Single Family Residential	--	--	66	159	399.2	--[f]	465.2	--[f]
Two and Multifamily Residential	--	--	5	36	21.1	--[f]	26.1	--[f]
Subtotal Residential	--	--	71	195	420.3	1,905	491.3	2,100
Commercial								
Motel/Hotel	--	--	--	--	--[f]	--[f]	--[f]	--[f]
Offices/Public Buildings	--	--	--	--	--[f]	--[f]	--[f]	--[f]
Theaters/Auditorium	--	--	--	--	--[f]	--[f]	--[f]	--[f]
Outdoor Amphitheaters/Theaters	--	--	--	--	--[f]	--[f]	--[f]	--[f]
Other Commercial	--	--	--	--	--[f]	--[f]	--[f]	--[f]
Subtotal Commercial	--	--	--	--	2.5	--[f]	2.5	--[f]
Institutional								
Industrial	--	--	--	--	0.0	--[f]	0.0	--[f]
Schools/Hospitals/Churches	--	--	--	--	--[f]	--[f]	--[f]	--[f]
Other Institutional	--	--	6.0	--	--[f]	--[f]	--[f]	--[f]
Subtotal Institutional	--	--	6.0	--	56.7	--[f]	62.7	--[f]
Urban								
Transportation/Communication/Utilities	--	--	10	--	202.6	--[f]	212.6	--[f]
Outdoor Recreation	--	--	1	--	72.2	--[f]	73.2	--[f]
Subtotal Urban	--	--	88	195	754.3	--[f]	842.3	--[f]
Rural								
Agriculture/Open Lands[g]	--	--	12	--	191.6	--[f]	203.6	--[f]
Water/Wetlands/Woodlands/Floodlands	--	--	--	--	75.3	--[f]	75.3	--[f]
Subtotal Rural	--	--	12	--	266.9	--[f]	278.9	--[f]
Total	--	--	100	195	1,021.2	N/A[h]	1,121.2	N/A[h]

[a] *CNR—Composite Noise Rating is a technique used for estimating community responses to aircraft noise based upon actual noise levels and their exposure frequency at an airport.*

[b] *An area encompassed within a four mile radius from the center of airport operations.*

[c] *Modified to include those uses significantly impacted by airport noise.*

[d] *Based on accumulation of data at the U. S. public land survey one-quarter section.*

[e] *Does not include lands within airport boundary 1975.*

[f] *All or part of the data not available.*

[g] *For purposes of this report, the General Mitchell Airport off-airport land use plan "open lands" include those nonagricultural rural lands which cannot be classified in any other land use category.*

[h] *N/A—not applicable.*

Source: SEWRPC.

Table B-4

EXISTING LAND USE IN THE CITY OF GREENFIELD WITHIN THE CNR NOISE INTENSITY ZONES AND THE GENERAL AIRPORT NOISE IMPACT AREA AT GENERAL MITCHELL AIRPORT IN MILWAUKEE COUNTY, WISCONSIN: 1975

General Land Use Categories[c]	Within the 115 CNR[a] Noise Intensity Zone		Within the 110 CNR[a] Noise Intensity Zone		Within the General Airport Noise Impact Area[b]		Total Noise Area	
	Acres	Dwelling Units or Buildings	Acres	Dwelling Units or Buildings	Acres[d]	Dwelling Units or Buildings	Acres[e]	Dwelling Units or Buildings
Residential								
Single Family Residential	--	--	95	219	849.2	--[f]	944.2	--[f]
Two and Multifamily Residential	--	--	--	--	26.8	--[f]	26.8	--[f]
Subtotal Residential	--	--	95	219	876.0	3,281	971.0	3,500
Commercial								
Motel/Hotel	--	--	--	--	--[f]	--[f]	--[f]	--[f]
Offices/Public Buildings	--	--	--	--	--[f]	--[f]	--[f]	--[f]
Theaters/Auditorium	--	--	--	--	--[f]	--[f]	--[f]	--[f]
Outdoor Amphitheaters/Theaters	--	--	--	--	--[f]	--[f]	--[f]	--[f]
Other Commercial	--	--	4	4	--[f]	--[f]	--[f]	--[f]
Subtotal Commercial	--	--	4	4	39.7	--[f]	43.7	--[f]
Institutional								
Industrial	--	--	2	1	10.7	--[f]	12.7	--[f]
Schools/Hospitals/Churches	--	--	6	1	--[f]	--[f]	--[f]	--[f]
Other Institutional	--	--	1	1	--[f]	--[f]	--[f]	--[f]
Subtotal Institutional	--	--	7	2	231.5	--[f]	238.5	--[f]
Urban								
Transportation/Communication/Utilities	--	--	40	--	483.0	--[f]	523.0	--[f]
Outdoor Recreation	--	--	--	--	139.1	--[f]	139.1	--[f]
Subtotal Urban	--	--	148	226	1,780.0	--[f]	1,928.0	--[f]
Rural								
Agriculture/Open Lands[g]	--	--	113	--	453.7	--[f]	563.7	--[f]
Water/Wetlands/Woodlands/Floodlands	--	--	7	--	80.6	--[f]	87.6	--[f]
Subtotal Rural	--	--	120	--	531.3	--[f]	651.3	--[f]
Total	--	--	268	226	2,311.3	N/A[h]	2,579.3	N/A[h]

[a] *CNR—Composite Noise Rating is a technique used for estimating community responses to aircraft noise based upon actual noise levels and their exposure frequency at an airport.*

[b] *An area encompassed within a four mile radius from the center of airport operations.*

[c] *Modified to include those uses significantly impacted by airport noise.*

[d] *Based on accumulation of data at the U. S. public land survey one-quarter section.*

[e] *Does not include lands within airport boundary 1975.*

[f] *All or part of the data not available.*

[g] *For purposes of this report, the General Mitchell Airport off-airport land use plan "open lands" include those nonagricultural rural lands which cannot be classified in any other land use category.*

[h] *N/A—not applicable.*

Source: SEWRPC.

Table B-5

EXISTING LAND USE IN THE CITY OF MILWAUKEE WITHIN THE CNR NOISE INTENSITY ZONES AND THE GENERAL AIRPORT NOISE IMPACT AREA AT GENERAL MITCHELL AIRPORT IN MILWAUKEE COUNTY, WISCONSIN: 1975

General Land Use Categories[c]	Within the 115 CNR[a] Noise Intensity Zone		Within the 110 CNR[a] Noise Intensity Zone		Within the General Airport Noise Impact Area[b]		Total Noise Area	
	Acres	Dwelling Units or Buildings	Acres	Dwelling Units or Buildings	Acres[d]	Dwelling Units or Buildings	Acres[e]	Dwelling Units or Buildings
Residential								
Single Family Residential	--	--	592.0	2,517	2,213.0	--[f]	2,805.0	--[f]
Two and Multifamily Residential	--	--	74.0	1,414	602.1	--[f]	676.1	--[f]
Subtotal Residential	--	--	666.0	3,931	2,815.1	23,769	3,481.1	27,700
Commercial								
Motel/Hotel	--	--	4.5	5	--[f]	--[f]	--[f]	--[f]
Offices/Public Buildings	--	--	1.1	3	--[f]	--[f]	--[f]	--[f]
Theaters/Auditorium	--	--	0.5	1	--[f]	--[f]	--[f]	--[f]
Outdoor Amphitheaters/Theaters	--	--	--	--	--[f]	--[f]	--[f]	--[f]
Other Commercial	--	--	30.9	54	--[f]	--[f]	--[f]	--[f]
Subtotal Commercial	--	--	37.0	63	197.0	--[f]	234.0	--[f]
Institutional								
Industrial	3	3	97.0	43	244.4	--[f]	344.4	--[f]
Schools/Hospitals/Churches	--	--	32.5	10	--[f]	--[f]	--[f]	--[f]
Other Institutional	--	--	104.5	7	--[f]	--[f]	--[f]	--[f]
Subtotal Institutional	--	--	137.0	17	633.2	--[f]	770.2	--[f]
Urban								
Transportation/Communication/Utilities	3	--	494.4	--	2,540.6	--[f]	3,038.0	--[f]
Outdoor Recreation	11	--	66.0	--	295.2	--[f]	372.2	--[f]
Subtotal Urban	17	3	1,497.4	4,054	6,725.5	--[f]	8,239.9	--[f]
Rural								
Agriculture/Open Lands[g]	4	--	468.0	--	1,175.9	--[f]	1,647.9	--[f]
Water/Wetlands/Woodlands/Floodlands	--	--	36.0	--	39.5	--[f]	75.5	--[f]
Subtotal Rural	4	--	504.0	--	1,215.4	--[f]	1,723.4	--[f]
Total	21	3	2,001.4	4,054	7,940.9	N/A[h]	9,963.3	N/A[h]

[a] *CNR—Composite Noise Rating is a technique used for estimating community responses to aircraft noise based upon actual noise levels and their exposure frequency at an airport.*

[b] *An area encompassed within a four mile radius from the center of airport operations.*

[c] *Modified to include those uses significantly impacted by airport noise.*

[d] *Based on accumulation of data at the U. S. public land survey one-quarter section.*

[e] *Does not include lands within airport boundary 1975.*

[f] *All or part of the data not available.*

[g] *For purposes of this report, the General Mitchell Airport off-airport land use plan "open lands" include those nonagricultural rural lands which cannot be classified in any other land use category.*

[h] *N/A—not applicable.*

Source: SEWRPC.

Table B-6

EXISTING LAND USE IN THE CITY OF OAK CREEK WITHIN THE CNR NOISE INTENSITY ZONES AND THE GENERAL AIRPORT NOISE IMPACT AREA AT GENERAL MITCHELL AIRPORT IN MILWAUKEE COUNTY, WISCONSIN: 1975

General Land Use Categories[c]	Within the 115 CNR[a] Noise Intensity Zone		Within the 110 CNR[a] Noise Intensity Zone		Within the General Airport Noise Impact Area[b]		Total Noise Area	
	Acres	Dwelling Units or Buildings	Acres	Dwelling Units or Buildings	Acres[d]	Dwelling Units or Buildings	Acres[e]	Dwelling Units or Buildings
Residential								
Single Family Residential	--	--	247	796	568.6	--[f]	815.6	--[f]
Two and Multifamily Residential	--	--	--	--	30.9	--[f]	30.9	--[f]
Subtotal Residential	--	--	247	796	599.5	1,704	846.5	2,500
Commercial								
Motel/Hotel	--	--	--	--	--[f]	--[f]	--[f]	--[f]
Offices/Public Buildings	--	--	--	--	--[f]	--[f]	--[f]	--[f]
Theaters/Auditorium	--	--	--	--	--[f]	--[f]	--[f]	--[f]
Outdoor Amphitheaters/Theaters	--	--	--	--	--[f]	--[f]	--[f]	--[f]
Other Commercial	--	--	6	10	--[f]	--[f]	--[f]	--[f]
Subtotal Commercial	--	--	6	10	48.3	--[f]	54.3	--[f]
Institutional								
Industrial	--	--	16	2	175.2	--[f]	191.2	--[f]
Schools/Hospitals/Churches	--	--	8	1	--[f]	--[f]	--[f]	--[f]
Other Institutional	--	--	--	--	--[f]	--[f]	--[f]	--[f]
Subtotal Institutional	--	--	8	1	110.5	--[f]	118.5	--[f]
Urban								
Transportation/Communication/Utilities	--	--	102	--	907.4	--[f]	1,009.4	--[f]
Outdoor Recreation	--	--	--	--	58.9	--[f]	58.9	--[f]
Subtotal Urban	--	--	379	809	1,899.8	--[f]	2,278.8	--[f]
Rural								
Agriculture/Open Lands[g]	--	--	376	--	4,223.2	--[f]	4,599.2	--[f]
Water/Wetlands/Woodlands/Floodlands	--	--	22	--	623.5	--[f]	645.5	--[f]
Subtotal Rural	--	--	398	--	4,846.7	--[f]	5,244.7	--[f]
Total	--	--	777	809	6,746.5	N/A[h]	7,523.5	N/A[h]

[a] *CNR—Composite Noise Rating is a technique used for estimating community responses to aircraft noise based upon actual noise levels and their exposure frequency at an airport.*

[b] *An area encompassed within a four mile radius from the center of airport operations.*

[c] *Modified to include those uses significantly impacted by airport noise.*

[d] *Based on accumulation of data at the U. S. public land survey one-quarter section.*

[e] *Does not include lands within airport boundary 1975.*

[f] *All or part of the data not available.*

[g] *For purposes of this report, the General Mitchell Airport off-airport land use plan "open lands" include those nonagricultural rural lands which cannot be classified in any other land use category.*

[h] *N/A—not applicable.*

Source: SEWRPC.

Table B-7

EXISTING LAND USE IN THE CITY OF SOUTH MILWAUKEE WITHIN THE CNR NOISE INTENSITY ZONES AND THE GENERAL AIRPORT NOISE IMPACT AREA AT GENERAL MITCHELL AIRPORT IN MILWAUKEE COUNTY, WISCONSIN: 1975

General Land Use Categories[c]	Within the 115 CNR[a] Noise Intensity Zone		Within the 110 CNR[a] Noise Intensity Zone		Within the General Airport Noise Impact Area[b]		Total Noise Area	
	Acres	Dwelling Units or Buildings	Acres	Dwelling Units or Buildings	Acres[d]	Dwelling Units or Buildings	Acres[e]	Dwelling Units or Buildings
Residential								
Single Family Residential	--	--	--	--	1,035.6	--[f]	1,035.6	--[f]
Two and Multifamily Residential	--	--	--	--	74.0	--[f]	74.0	--[f]
Subtotal Residential	--	--	--	--	1,109.6	6,700	1,109.6	6,700
Commercial								
Motel/Hotel	--	--	--	--	--[f]	--[f]	--[f]	--[f]
Offices/Public Buildings	--	--	--	--	--[f]	--[f]	--[f]	--[f]
Theaters/Auditorium	--	--	--	--	--[f]	--[f]	--[f]	--[f]
Outdoor Amphitheaters/Theaters	--	--	--	--	--[f]	--[f]	--[f]	--[f]
Other Commercial	--	--	--	--	--[f]	--[f]	--[f]	--[f]
Subtotal Commercial	--	--	--	--	57.4	--[f]	57.4	--[f]
Institutional								
Industrial	--	--	--	--	146.1	--[f]	146.1	--[f]
Schools/Hospitals/Churches	--	--	--	--	--[f]	--[f]	--[f]	--[f]
Other Institutional	--	--	--	--	--[f]	--[f]	--[f]	--[f]
Subtotal Institutional	--	--	--	--	83.0	--[f]	83.0	--[f]
Urban								
Transportation/Communication/Utilities	--	--	--	--	613.5	--[f]	613.5	--[f]
Outdoor Recreation	--	--	--	--	641.1	--[f]	641.1	--[f]
Subtotal Urban	--	--	--	--	2,650.7	--[f]	2,650.7	--[f]
Rural								
Agriculture/Open Lands[g]	--	--	--	--	377.9	--[f]	377.9	--[f]
Water/Wetlands/Woodlands/Floodlands	--	--	--	--	22.8	--[f]	22.8	--[f]
Subtotal Rural	--	--	--	--	400.7	--[f]	400.7	--[f]
Total	--	--	--	--	3,051.4	N/A[h]	3,051.4	N/A[h]

[a] *CNR—Composite Noise Rating is a technique used for estimating community responses to aircraft noise based upon actual noise levels and their exposure frequency at an airport.*

[b] *An area encompassed within a four mile radius from the center of airport operations.*

[c] *Modified to include those uses significantly impacted by airport noise.*

[d] *Based on accumulation of data at the U. S. public land survey one-quarter section.*

[e] *Does not include lands within airport boundary 1975.*

[f] *All or part of the data not available.*

[g] *For purposes of this report, the General Mitchell Airport off-airport land use plan "open lands" include those nonagricultural rural lands which cannot be classified in any other land use category.*

[h] *N/A—not applicable.*

Source: SEWRPC.

Table B-8

EXISTING LAND USE IN THE CITY OF ST. FRANCIS WITHIN THE CNR NOISE INTENSITY ZONES AND THE GENERAL AIRPORT NOISE IMPACT AREA AT GENERAL MITCHELL AIRPORT IN MILWAKEE COUNTY, WISCONSIN: 1975

General Land Use Categories[c]	Within the 115 CNR[a] Noise Intensity Zone		Within the 110 CNR[a] Noise Intensity Zone		Within the General Airport Noise Impact Area[b]		Total Noise Area	
	Acres	Dwelling Units or Buildings	Acres	Dwelling Units or Buildings	Acres[d]	Dwelling Units or Buildings	Acres[e]	Dwelling Units or Buildings
Residential								
Single Family Residential	--	--	178.0	804	310.3	--[f]	488.3	--[f]
Two and Multifamily Residential	--	--	18.0	191	33.2	--[f]	51.2	--[f]
Subtotal Residential	--	--	196.0	995	343.5	2,605	539.5	3,600
Commercial								
Motel/Hotel	--	--	--	--	--[f]	--[f]	--[f]	--[f]
Offices/Public Buildings	--	--	--	--	--[f]	--[f]	--[f]	--[f]
Theaters/Auditorium	--	--	--	--	--[f]	--[f]	--[f]	--[f]
Outdoor Amphitheaters/Theaters	--	--	--	--	--[f]	--[f]	--[f]	--[f]
Other Commercial	--	--	11.0	23	--[f]	--[f]	--[f]	--[f]
Subtotal Commercial	--	--	11.0	23	12.8	--[f]	23.8	--[f]
Institutional								
Industrial	--	--	19.0	6	21.8	--[f]	40.8	--[f]
Schools/Hospitals/Churches	--	--	2.0	1	--[f]	--[f]	--[f]	--[f]
Other Institutional	--	--	0.5	1	--[f]	--[f]	--[f]	--[f]
Subtotal Institutional	--	--	2.5	2	174.7	--[f]	177.2	--[f]
Urban								
Transportation/Communication/Utilities	--	--	95.0	--	293.6	--[f]	388.6	--[f]
Outdoor Recreation	--	--	--	--	207.6	--[f]	207.6	--[f]
Subtotal Urban	--	--	323.5	1,026	1,054.0	--[f]	1,377.5	--[f]
Rural								
Agriculture/Open Lands[g]	--	--	144.0	--	27.8	--[f]	171.8	--[f]
Water/Wetlands/Woodlands/Floodlands	--	--	2.0	--	4.9	--[f]	6.9	--[f]
Subtotal Rural	--	--	146.0	--	32.7	--[f]	178.7	--[f]
Total	--	--	469.5	1,026	1,086.7	N/A[h]	1,556.2	N/A[h]

[a] *CNR—Composite Noise Rating is a technique used for estimating community responses to aircraft noise based upon actual noise levels and their exposure frequency at an airport.*

[b] *An area encompassed within a four mile radius from the center of airport operations.*

[c] *Modified to include those uses significantly impacted by airport noise.*

[d] *Based on accumulation of data at the U. S. public land survey one-quarter section.*

[e] *Does not include lands within airport boundary 1975.*

[f] *All or part of the data not available.*

[g] *For purposes of this report, the General Mitchell Airport off-airport land use plan "open lands" include those nonagricultural rural lands which cannot be classified in any other land use category.*

[h] *N/A—not applicable.*

Source: SEWRPC.

Appendix C

EXISTING ZONING WITHIN THE CNR NOISE INTENSITY ZONES AND THE GENERAL AIRPORT NOISE IMPACT AREA AT GENERAL MITCHELL AIRPORT IN MILWAUKEE COUNTY, WISCONSIN: 1973

Table C-1

EXISTING ZONING IN THE CITY OF CUDAHY WITHIN THE CNR NOISE INTENSITY ZONES AND THE GENERAL AIRPORT NOISE IMPACT AREA AT GENERAL MITCHELL AIRPORT IN MILWAUKEE COUNTY, WISCONSIN: 1973

General Zoning Districts[d]	Within the 115 CNR[a] Noise Intensity Zone[b]		Within the 115 CNR[a] Noise Intensity Zone[b]		Within the General Airport Noise Impact Area[c]		Total Noise Area	
	Acres	Percent of Total	Acres	Percent of Total	Acres	Percent of Total	Acres[e]	Percent of Total
Residential								
Medium Density[f]	--	--	18	2.3	662	31.0	680	22.7
High Density[g]	5	7.0	167	21.2	379	17.7	551	18.4
Subtotal	5	7.0	185	23.5	1,041	48.7	1,231	41.1
Commercial	--	--	31	3.9	121	5.7	152	5.1
Industrial	66	93.0	506	64.2	597	28.0	1,169	39.0
Institutional[h]	--	--	--	--	--	--	--	--
Outdoor Recreation[h]	--	--	66	8.4	377	17.6	443	14.8
Total[i]	71	100.0	788	100.0	2,136	100.0	2,995	100.0

[a] *CNR—Composite Noise Rating is a technique used for estimating community responses to aircraft noise based upon actual noise levels and their exposure frequency at an airport.*

[b] *A noise intensity zone is an area adjacent to an airport runway, defined by CNR isopleths and other techniques, in which the noise environment, depending on a person's activity or location, is objectionable. Unless specifically combined, the larger 110 CNR noise intensity zone does not include the smaller 115 CNR noise intensity zone.*

[c] *An area encompassed within a four mile radius from the center of airport operations.*

[d] *These categories were compiled from zoning district maps and ordinance texts provided by the eight communities within the general airport noise impact area of General Mitchell Airport.*

[e] *Does not include airport lands.*

[f] *1.8-4.7 dwelling units (d.u.) per gross acre.*

[g] *4.8-11.8 dwelling units (d.u.) per gross acre.*

[h] *Institutional and outdoor recreation (or park) districts are not commonly included in all community zoning ordinances.*

[i] *It should be noted that traditional land use categories such as transportation and utilities are not commonly specifically included in zoning ordinances and district maps but are assumed to be allowed within any district or are specifically allowed in only selected districts.*

Source: SEWRPC.

Table C-2

EXISTING ZONING IN THE CITY OF FRANKLIN WITHIN THE CNR NOISE INTENSITY ZONES AND THE GENERAL AIRPORT NOISE IMPACT AREA AT GENERAL MITCHELL AIRPORT IN MILWAUKEE COUNTY, WISCONSIN: 1973

General Zoning Districts[d]	Within the 115 CNR[a] Noise Intensity Zone[b]		Within the 115 CNR[a] Noise Intensity Zone[b]		Within the General Airport Noise Impact Area[c]		Total Noise Area	
	Acres	Percent of Total	Acres	Percent of Total	Acres	Percent of Total	Acres[e]	Percent of Total
Residential								
Medium Density[f]	--	--	385	81.7	1,441	80.6	1,826	80.8
High Density[g]	--	--	73	15.5	98	5.5	171	7.6
Subtotal	--	--	458	97.2	1,539	86.1	1,997	88.4
Commercial	--	--	13	2.8	214	12.0	227	10.1
Industrial	--	--	--	--	34	1.9	34	1.5
Institutional[h]	--	--	--	--	--	--	--	--
Outdoor Recreation[h]	--	--	--	--	--	--	--	--
Total[i]	--	--	471	100.0	1,787	100.0	2,258	100.0

[a] *CNR--Composite Noise Rating is a technique used for estimating community responses to aircraft noise based upon actual noise levels and their exposure frequency at an airport.*

[b] *A noise intensity zone is an area adjacent to an airport runway, defined by CNR isopleths and other techniques, in which the noise environment, depending on a person's activity or location, is objectionable. Unless specifically combined, the larger 110 CNR noise intensity zone does not include the smaller 115 CNR noise intensity zone.*

[c] *An area encompassed within a four mile radius from the center of airport operations.*

[d] *These categories were compiled from zoning district maps and ordinance texts provided by the eight communities within the general airport noise impact area of General Mitchell Airport.*

[e] *Does not include airport lands.*

[f] *1.8-4.7 dwelling units (d.u.) per gross acre.*

[g] *4.8-11.8 dwelling units (d.u.) per gross acre.*

[h] *Institutional and outdoor recreation (or park) districts are not commonly included in all community zoning ordinances.*

[i] *It should be noted that traditional land use categories such as transportation and utilities are not commonly specifically included in zoning ordinances and district maps but are assumed to be allowed within any district or are specifically allowed in only selected districts.*

Source: SEWRPC.

Table C-3

EXISTING ZONING IN THE VILLAGE OF GREENDALE WITHIN THE CNR NOISE INTENSITY ZONES AND THE GENERAL AIRPORT NOISE IMPACT AREA AT GENERAL MITCHELL AIRPORT IN MILWAUKEE COUNTY, WISCONSIN: 1973

General Zoning Districts[d]	Within the 115 CNR[a] Noise Intensity Zone[b]		Within the 115 CNR[a] Noise Intensity Zone[b]		Within the General Airport Noise Impact Area[c]		Total Noise Area	
	Acres	Percent of Total	Acres	Percent of Total	Acres	Percent of Total	Acres[e]	Percent of Total
Residential								
Medium Density[f]	--	--	81	100.0	793	85.8	874	87.0
High Density[g]	--	--	--	--	57	6.2	57	5.6
Subtotal	--	--	81	100.0	850	92.0	931	92.6
Commercial	--	--	--	--	--	--	--	--
Industrial	--	--	--	--	3	0.3	3	0.3
Institutional[h]	--	--	--	--	--	--	--	--
Outdoor Recreation[h]	--	--	--	--	71	7.7	71	7.1
Total[i]	--	--	81	100.0	924	100.0	1,005	100.0

[a] *CNR—Composite Noise Rating is a technique used for estimating community responses to aircraft noise based upon actual noise levels and their exposure frequency at an airport.*

[b] *A noise intensity zone is an area adjacent to an airport runway, defined by CNR isopleths and other techniques, in which the noise environment, depending on a person's activity or location, is objectionable. Unless specifically combined, the larger 110 CNR noise intensity zone does not include the smaller 115 CNR noise intensity zone.*

[c] *An area encompassed within a four mile radius from the center of airport operations.*

[d] *These categories were compiled from zoning district maps and ordinance texts provided by the eight communities within the general airport noise impact area of General Mitchell Airport.*

[e] *Does not include airport lands.*

[f] *1.8-4.7 dwelling units (d.u.) per gross acre.*

[g] *4.8-11.8 dwelling units (d.u.) per gross acre.*

[h] *Institutional and outdoor recreation (or park) districts are not commonly included in all community zoning ordinances.*

[i] *It should be noted that traditional land use categories such as transportation and utilities are not commonly specifically included in zoning ordinances and district maps but are assumed to be allowed within any district or are specifically allowed in only selected districts.*

Source: SEWRPC.

Table C-4

EXISTING ZONING IN THE CITY OF GREENFIELD WITHIN THE CNR NOISE INTENSITY ZONES AND THE GENERAL AIRPORT NOISE IMPACT AREA AT GENERAL MITCHELL AIRPORT IN MILWAUKEE COUNTY, WISCONSIN: 1973

General Zoning Districts[d]	Within the 115 CNR[a] Noise Intensity Zone[b]		Within the 115 CNR[a] Noise Intensity Zone[b]		Within the General Airport Noise Impact Area[c]		Total Noise Area	
	Acres	Percent of Total	Acres	Percent of Total	Acres	Percent of Total	Acres[e]	Percent of Total
Residential								
Medium Density[f]	--	--	73	34.6	1,703	70.7	1,776	67.8
High Density[g]	--	--	15	7.1	283	11.8	298	11.4
Subtotal	--	--	88	41.7	1,986	82.5	2,074	79.2
Commercial	--	--	26	12.3	270	11.2	296	11.3
Industrial	--	--	97	46.0	151	6.3	248	9.5
Institutional[h]	--	--	--	--	--	--	--	--
Outdoor Recreation[h]	--	--	--	--	--	--	--	--
Total[i]	--	--	211	100.0	2,407	100.0	2,618	100.0

[a] *CNR—Composite Noise Rating is a technique used for estimating community responses to aircraft noise based upon actual noise levels and their exposure frequency at an airport.*

[b] *A noise intensity zone is an area adjacent to an airport runway, defined by CNR isopleths and other techniques, in which the noise environment, depending on a person's activity or location, is objectionable. Unless specifically combined, the larger 110 CNR noise intensity zone does not include the smaller 115 CNR noise intensity zone.*

[c] *An area encompassed within a four mile radius from the center of airport operations.*

[d] *These categories were compiled from zoning district maps and ordinance texts provided by the eight communities within the general airport noise impact area of General Mitchell Airport.*

[e] *Does not include airport lands.*

[f] *1.8-4.7 dwelling units (d.u.) per gross acre.*

[g] *4.8-11.8 dwelling units (d.u.) per gross acre.*

[h] *Institutional and outdoor recreation (or park) districts are not commonly included in all community zoning ordinances.*

[i] *It should be noted that traditional land use categories such as transportation and utilities are not commonly specifically included in zoning ordinances and district maps but are assumed to be allowed within any district or are specifically allowed in only selected districts.*

Source: SEWRPC.

Table C-5

EXISTING ZONING IN THE CITY OF MILWAUKEE WITHIN THE CNR NOISE INTENSITY ZONES AND THE GENERAL AIRPORT NOISE IMPACT AREA AT GENERAL MITCHELL AIRPORT IN MILWAUKEE COUNTY, WISCONSIN: 1973

General Zoning Districts[d]	Within the 115 CNR[a] Noise Intensity Zone[b]		Within the 115 CNR[a] Noise Intensity Zone[b]		Within the General Airport Noise Impact Area[c]		Total Noise Area	
	Acres	Percent of Total	Acres	Percent of Total	Acres	Percent of Total	Acres[e]	Percent of Total
Residential								
Medium Density[f]	11	78.6	874	47.7	935	12.3	1,820	19.3
High Density[g]	--	--	86	4.7	4,758	62.7	4,844	51.4
Subtotal	11	78.6	960	52.4	5,693	75.0	6,664	70.7
Commercial	--	--	123	6.7	662	8.8	785	8.3
Industrial	3	21.4	749	40.9	1,229	16.2	1,981	21.0
Institutional[h]	--	--	--	--	--	--	--	--
Outdoor Recreation[h]	--	--	--	--	--	--	--	--
Total[i]	14	100.0	1,832	100.0	7,584	100.0	9,430	100.0

[a] *CNR—Composite Noise Rating is a technique used for estimating community responses to aircraft noise based upon actual noise levels and their exposure frequency at an airport.*

[b] *A noise intensity zone is an area adjacent to an airport runway, defined by CNR isopleths and other techniques, in which the noise environment, depending on a person's activity or location, is objectionable. Unless specifically combined, the larger 110 CNR noise intensity zone does not include the smaller 115 CNR noise intensity zone.*

[c] *An area encompassed within a four mile radius from the center of airport operations.*

[d] *These categories were compiled from zoning district maps and ordinance texts provided by the eight communities within the general airport noise impact area of General Mitchell Airport.*

[e] *Does not include airport lands.*

[f] *1.8-4.7 dwelling units (d.u.) per gross acre.*

[g] *4.8-11.8 dwelling units (d.u.) per gross acre.*

[h] *Institutional and outdoor recreation (or park) districts are not commonly included in all community zoning ordinances.*

[i] *It should be noted that traditional land use categories such as transportation and utilities are not commonly specifically included in zoning ordinances and district maps but are assumed to be allowed within any district or are specifically allowed in only selected districts.*

Source: SEWRPC.

Table C-6

EXISTING ZONING IN THE CITY OF OAK CREEK WITHIN THE CNR NOISE INTENSITY ZONES AND THE GENERAL AIRPORT NOISE IMPACT AREA AT GENERAL MITCHELL AIRPORT IN MILWAUKEE COUNTY, WISCONSIN: 1973

General Zoning Districts[d]	Within the 115 CNR[a] Noise Intensity Zone[b]		Within the 115 CNR[a] Noise Intensity Zone[b]		Within the General Airport Noise Impact Area[c]		Total Noise Area	
	Acres	Percent of Total	Acres	Percent of Total	Acres	Percent of Total	Acres[e]	Percent of Total
Residential								
Medium Density[f]	--	--	583	76.5	4,099	69.9	4,682	70.7
High Density[g]	--	--	9	1.2	170	2.9	179	2.7
Subtotal	--	--	592	77.7	4,269	72.8	4,861	73.4
Commercial	--	--	28	3.7	189	3.2	217	3.3
Industrial	--	--	142	18.6	1,407	24.0	1,549	23.3
Institutional[h]	--	--	--	--	--	--	--	--
Outdoor Recreation[h]	--	--	--	--	--	--	--	--
Total[i]	--	--	762	100.0	5,865	100.0	6,627	100.0

[a] *CNR--Composite Noise Rating is a technique used for estimating community responses to aircraft noise based upon actual noise levels and their exposure frequency at an airport.*

[b] *A noise intensity zone is an area adjacent to an airport runway, defined by CNR isopleths and other techniques, in which the noise environment, depending on a person's activity or location, is objectionable. Unless specifically combined, the larger 110 CNR noise intensity zone does not include the smaller 115 CNR noise intensity zone.*

[c] *An area encompassed within a four mile radius from the center of airport operations.*

[d] *These categories were compiled from zoning district maps and ordinance texts provided by the eight communities within the general airport noise impact area of General Mitchell Airport.*

[e] *Does not include airport lands.*

[f] *1.8-4.7 dwelling units (d.u.) per gross acre.*

[g] *4.8-11.8 dwelling units (d.u.) per gross acre.*

[h] *Institutional and outdoor recreation (or park) districts are not commonly included in all community zoning ordinances.*

[i] *It should be noted that traditional land use categories such as transportation and utilities are not commonly specifically included in zoning ordinances and district maps but are assumed to be allowed within any district or are specifically allowed in only selected districts.*

Source: SEWRPC.

Table C-7

EXISTING ZONING IN THE CITY OF SOUTH MILWAUKEE WITHIN THE CNR NOISE INTENSITY ZONES AND THE GENERAL AIRPORT NOISE IMPACT AREA AT GENERAL MITCHELL AIRPORT IN MILWAUKEE COUNTY, WISCONSIN: 1973

General Zoning Districts[d]	Within the 115 CNR[a] Noise Intensity Zone[b]		Within the 115 CNR[a] Noise Intensity Zone[b]		Within the General Airport Noise Impact Area[c]		Total Noise Area	
	Acres	Percent of Total	Acres	Percent of Total	Acres	Percent of Total	Acres[e]	Percent of Total
Residential								
Medium Density[f]	--	--	--	--	1,888	60.6	1,888	60.6
High Density[g]	--	--	--	--	818	26.3	818	26.3
Subtotal	--	--	--	--	2,706	86.9	2,706	86.9
Commercial	--	--	--	--	59	1.9	59	1.9
Industrial	--	--	--	--	350	11.2	350	11.2
Institutional[h]	--	--	--	--	--	--	--	--
Outdoor Recreation[h]	--	--	--	--	--	--	--	--
Total[i]	--	--	--	--	3,115	100.0	3,115	100.0

[a] *CNR—Composite Noise Rating is a technique used for estimating community responses to aircraft noise based upon actual noise levels and their exposure frequency at an airport.*

[b] *A noise intensity zone is an area adjacent to an airport runway, defined by CNR isopleths and other techniques, in which the noise environment, depending on a person's activity or location, is objectionable. Unless specifically combined, the larger 110 CNR noise intensity zone does not include the smaller 115 CNR noise intensity zone.*

[c] *An area encompassed within a four mile radius from the center of airport operations.*

[d] *These categories were compiled from zoning district maps and ordinance texts provided by the eight communities within the general airport noise impact area of General Mitchell Airport.*

[e] *Does not include airport lands.*

[f] *1.8-4.7 dwelling units (d.u.) per gross acre.*

[g] *4.8-11.8 dwelling units (d.u.) per gross acre.*

[h] *Institutional and outdoor recreation (or park) districts are not commonly included in all community zoning ordinances.*

[i] *It should be noted that traditional land use categories such as transportation and utilities are not commonly specifically included in zoning ordinances and district maps but are assumed to be allowed within any district or are specifically allowed in only selected districts.*

Source: SEWRPC.

Table C-8

EXISTING ZONING IN THE CITY OF ST. FRANCIS WITHIN THE CNR NOISE INTENSITY ZONES AND THE GENERAL AIRPORT NOISE IMPACT AREA AT GENERAL MITCHELL AIRPORT IN MILWAUKEE COUNTY, WISCONSIN: 1973

General Zoning Districts[d]	Within the 115 CNR[a] Noise Intensity Zone[b]		Within the 115 CNR[a] Noise Intensity Zone[b]		Within the General Airport Noise Impact Area[c]		Total Noise Area	
	Acres	Percent of Total	Acres	Percent of Total	Acres	Percent of Total	Acres[e]	Percent of Total
Residential								
Medium Density[f]	--	--	121	25.6	525	38.5	646	34.9
High Density[g]	--	--	100	21.1	150	11.0	250	13.5
Subtotal	--	--	221	46.7	675	49.5	896	48.4
Commercial	--	--	--	--	--	--	--	--
Industrial	13	100.0	220	46.5	356	26.1	589	31.8
Institutional[h]	--	--	32	6.8	320	23.4	352	19.1
Outdoor Recreation[h]	--	--	--	--	13	1.0	13	0.7
Total[i]	13	100.0	473	100.0	1,364	100.0	1,850	100.0

[a] *CNR—Composite Noise Rating is a technique used for estimating community responses to aircraft noise based upon actual noise levels and their exposure frequency at an airport.*

[b] *A noise intensity zone is an area adjacent to an airport runway, defined by CNR isopleths and other techniques, in which the noise environment, depending on a person's activity or location, is objectionable. Unless specifically combined, the larger 110 CNR noise intensity zone does not include the smaller 115 CNR noise intensity zone.*

[c] *An area encompassed within a four mile radius from the center of airport operations.*

[d] *These categories were compiled from zoning district maps and ordinance texts provided by the eight communities within the general airport noise impact area of General Mitchell Airport.*

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[f] *1.8-4.7 dwelling units (d.u.) per gross acre.*

[g] *4.8-11.8 dwelling units (d.u.) per gross acre.*

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[i] *It should be noted that traditional land use categories such as transportation and utilities are not commonly specifically included in zoning ordinances and district maps but are assumed to be allowed within any district or are specifically allowed in only selected districts.*

Source: SEWRPC.

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