



Existing Conditions Report



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Illinois Department of Transportation

Table of Contents

<u>Topic</u>				<u>Page Number</u>
Cover Shee	et			Cover Sheet
Table of Co	ontent	s		i
List of App	endice	es		ii
List of Tabl	es			ii
Section 1 -	- Back	_		
	1.1		iction	
	1.2			
		-	Description of Existing Airspace System	
	2.1		al Airspace System - Overview	
		2.1.1	Chicago Air Route Traffic Control Center	
		2.1.2	Chicago Terminal Radar Approach Control	
		2.1.3	Chicago O'Hare Air Traffic	
		2.1.4	Chicago Midway Air Traffic	
	2.2		er	
		2.2.1	Wind	
		2.2.2	Cloud Cover and Visibility	
		2.2.3	Temperature and Precipitation	
	2.3		rier Airports	
	2.4		l Aviation Facilities	
		2.4.1	Public Use General Aviation Airports	
		2.4.2	Private Airfields	
		2.4.3	Bult Field	
		2.4.4	Registered General Aviation Aircraft	
	2.5		5	
Section 3 -	_		ing and Land Use	
	3.1	_	al Setting	
	3.2		quisition Area	
	3.3		d Townships/Zoning Authority	
	3.4		se Planning and Zoning Agencies	
	3.5		se within the SSA Site	
	3.6		tion Centers	
	3.7		se and Zoning of Surrounding Areas	
	3.8		se Plan of Eastern Will County	
	3.9	3.9.1	Transportation Facilities	
		3.9.1	Regional Road Network Existing Operating Conditions	
		3.9.2	Regional Railroad Network	
	3.10		inity Facilities	
Coation 1	-		al Overview	
Section 4 -			ai Overview	
	4.1 4.2		ılity	
	4.2		,	
	4.3 4.4		Qualitylains	
	4.4		ds	
	4.5 4.6		gered and Threatened Species of Flora and Fauna	
	4.7	_	Communities	
	4.7		d Recreation Lands	
	4.0	i air all	ia Neereadil Lanas	

	4.9	Historic Properties/Archeological Resources	30
	4.10	Prime and Important Farmland	30
Section 5	- Socio	economic Data	32
	5.1	Population	32
	5.2	Housing	32
	5.3	Employment	33
	5.4	Income	34
Section 6 -	- SSA I	and Acquisition Program	
	6.1	Land Acquisition Policies	
	6.2	Land Acquisition Plan	38
List of Ta	bles		
Table 2-1 -	- Chica	ngo Midway International Airport - All Weather Conditions - 13-Knot Wind Coverage	7
Table 2-2 -	- Mon	thly Occurrences of Ceiling/Visibility Conditions at Chicago Midway International Airport	7-8
Table 2-3 -	- Histo	rical Monthly Average High and Low Temperatures	8
		rical Monthly Precipitation in Inches	
		thly Distribution of Wet Pavement Conditions	8
Table 2-6 -		mary of General Aviation/Corporate Aviation Facilities outside the IAP Boundary	
		within the South Suburban Region, 2009	
		mary of General Aviation/Corporate Aviation Facilities within the IAP Boundary	
		munity Facilities	
		ng Section 303(c) Lands	
		lation of 11-County SSA Study Region	
		lation and Age Distribution within the SSA Site	
		ing Units within the 11-County SSA Study Region	
		ing Units within the SSA Site	
		Employment and Unemployment by 11-County SSA Study Region	
	-	oyed Persons by Industry – Will County an Household Income in Dollars within the 11-County SSA Study Region	
		apita Income in Dollars within the 11-County SSA Study Region	
		ons below Poverty, Percent within the 11-County SSA Study Region	
			30-37
List of Ap			
		onyms	
Appendix		ibits	
		ibit 1-1 – Airport Boundary Map	
		ibit 1-2 – 11-County SSA Study Region	
		ibit 1-3 – Greater Chicago Region	
		ibit 2-1 – Regional Airspace Structure	
		ibit 2-2 – Utility Map	
		ibit 3-1 – Existing Land Uselibit 3-2 – Surface Transportation Infrastructure Map	
		ibit 3-3 – Community Facilities	
		ibit 4-1 – Noise-Sensitive Facilities	
		ibit 4-2 – Ambient Noise Measurement Locations	
		ibit 4-3 – 100-Year Floodplains	
		ibit 4-4 – 2008 and 2009 Wetlands Identified	
		ibit 4-5 – DOT Section 303(c) Lands	
		ibit 4-6 – Prime and Important Farmland Soils	

Section 1 - Background

1.1 - Introduction

The Federal Aviation Administration (FAA) has issued guidance for the development of airport master plans, airport design, and environmental impact analysis. FAA Advisory Circular (AC) 150/5070-6A, Change 1 (5/1/2007), Airport Master Plans in conjunction with Advisory Circular (AC) 150/5300-13, Change 15 (12/31/2009) Airport Design have been used as guidelines for developing the Inaugural Airport Master Plan and analyzing the existing conditions of the proposed South Suburban Airport (SSA) site.

The purpose of this document is to describe the existing conditions of the proposed SSA site as of May, 2010, that are affected or created by the Inaugural Airport Program (IAP). The IAP is an initiative by the Illinois Department of Transportation (IDOT) to plan, design, construct and operate a new commercial service airport in eastern Will County, Illinois. The SSA site was approved as a feasible location for an airport by the FAA in their *Record of Decision for Tier 1 Environmental Impact Statement* (Tier 1 EIS) dated July 12, 2002.

For existing airports, documentation of existing conditions focuses on the analysis of historic air traffic patterns, a description of the airport's role in the national aviation system and its role in the community, identification of the existing facilities at the airport, the regional setting and the local land use, an overview of the airport environs, socioeconomic data related to the community and the market served by the airport, a description of aviation activity and a summary of the airport's financial resources. However, since SSA is a proposed new airport, this inventory of existing conditions focuses on the analysis of site characteristics of the existing non-aeronautical land uses that will be taken into consideration by the FAA in their assessment of the environmental impact of the proposed new Inaugural SSA. Accordingly, FAA Orders 5050.4B and 1050.1E and the Tier 1 EIS have been considered in the identification of relevant characteristics of the proposed airport site. **Exhibit 1-1: Airport Boundary Map** identifies the limits of SSA and is referenced throughout this document.

The IAP is defined as the first five-year planning period for SSA, from the first year of operation (DBO+1) through the fifth year of operation (DBO+5). Major topics analyzed and discussed in this report include site location, existing airspace structure and air traffic flow, land use and zoning, socioeconomic profile, community facilities, natural resources, farmland, historic properties/archaeological resources and land acquisition. For the purposes of this Airport Master Plan, the defined study area is the **11-County SSA Study Region**, which includes the Illinois counties of Cook, DuPage, Grundy, Kane, Kankakee, Kendall, Lake, McHenry, and Will as well as the adjoining Indiana counties of Lake and Porter. This study area, which includes approximately 9.1 million people, is consistent with the FAA's previously approved Tier 1 EIS. The 11-County Study Region is depicted in **Exhibit 1-2: 11-County SSA Study Region**.

To provide further statistical analysis in the Airport Master Plan, a subset of the 11-County SSA Study Region, which is called the **Greater Chicago Region** was created. The Greater Chicago Region is defined as nine counties located in northeastern Illinois which are Cook, DuPage, Kane, Kankakee, Lake, McHenry and Will Counties and two counties located in northwestern Indiana, which are Lake and Porter Counties (see **Exhibit 1-3: Greater Chicago Region**).

1.2 - History

In the decades prior to the 1990s the City of Chicago and the State of Illinois recognized the need for an additional commercial service (air carrier) airport to serve the Chicago Consolidated Metropolitan Statistical Area (CMSA). Numerous studies were conducted but consensus on a site was not reached until Illinois centered efforts on the Will County site. A timeline of significant milestones on the selection and development of this site follows:

Section 1 - Background Page 1

¹ U.S. Census Bureau, Census 2000 and 1990 Census, Table 3a. Population in Metropolitan and Micropolitan Statistical Areas Ranked by 2000 Population for the United States and Puerto Rico: 1990 and 2000. Release date: December 30, 2003.

- → 1994 IDOT initiated the Phase I Engineering Study and Environmental Assessment to prepare a master plan, an environmental assessment, an Airport Layout Plan and a financial feasibility analysis for the development.
- → 1995 IDOT began the Market Survey Research program to determine the demand for service at the new airport. State funding was also provided to communities surrounding the proposed Will County airport site, to update local municipal long-range planning documents.
- → 1997 IDOT began a Private Financing Initiative to determine the level of interest in private equity markets to participate in construction of the new airport.
- → 1998 IDOT completed the Environmental Assessment. The document was submitted to FAA for review and approval. The Governor of Illinois declared his support for funding initial land acquisition at the Will County site.
- → 1999 IDOT submitted to FAA a revised plan for an "inaugural airport" at the Will County site that included additional data on the initial demand levels for a single runway airport. In May of 1999, the governor of Illinois announced that \$75 million of a larger infrastructure funding bill called the Illinois FIRST would be allocated for the state to begin acquiring land for the airport project.
- → 2000 May, FAA agreed to begin preparing a tiered Environmental Impact Statement (EIS) document for site approval and acquisition of land. August, FAA held scoping meetings for the public and governmental agencies to comment on FAA's intent to prepare the tiered EIS. September, Governor Ryan again reiterated strong support for building the third airport stating, "There still is one piece that's missing from the Southland's economic development plan. We still need to build a third airport in Will County."
- → 2001 Governor Ryan announced that IDOT would begin acquiring land at the proposed Will County airport site. On March 7, IDOT began advertising for consultants to handle land acquisition from willing sellers. April, IDOT opened the interim Matteson project office to begin the land acquisition process for willing sellers and hardship cases. IDOT awarded a contract to Hanson Engineers Inc. (now Hanson Professional Services Inc.) to begin the inaugural site land acquisition process. August, IDOT moved the project office from 310 South Michigan Avenue in Chicago to the permanent Matteson project office. FAA held a public hearing and workshop on the Tier 1 Draft EIS (for site approval and purchase of land by the state of Illinois). The governor of Illinois and the mayor of Chicago announced agreement on O'Hare International Airport (ORD) expansion, and the building of SSA.
- → 2002 IDOT announced the purchase of the first parcel of land for the airport. The Earl property, a hardship acquisition, was purchased for \$47,000. FAA's Chicago Airport District Office released the Tier 1 EIS, for circulation and review. FAA issued a Record of Decision (ROD) on the SSA Tier 1 EIS. FAA determined that the Will County Site was a technically and environmentally feasible location, and that the benefits of approving a site, so that the State could acquire land to protect against suburban development and protect the airspace, outweighed the adverse environmental impacts of preserving this option as outlined in the Final Environmental Impact Statement (FEIS). FAA approved the SSA Tier 2 grant application to conduct the master plan study and Tier 2 EIS for development of the inaugural airport at the Will County, Illinois site.
- → 2003 FAA published a Notice of Intent (NOI) to prepare a tiered EIS and conduct environmental scoping on December 3 at Governors State University, for the construction and operation of inaugural airport facilities by the state of Illinois. FAA conducted one agency scoping meeting and one public scoping meeting at Governors State University in University Park, Illinois. The meetings were held in conjunction with an informational workshop that included a slide and poster board presentation of the proposed project. Written comments on the project were accepted until December 19, 2003.
- → 2004 IDOT prepared, and submitted for FAA review, a Draft Projections of Aeronautical Activity for the IAP. FAA approved the report stating that it believed the document projects passenger demand and aviation activity at reasonable levels. IDOT established a Local Advisory Group consisting of elected officials, county and village planners, emergency service districts, school districts and other governmental agencies with jurisdiction over the airport site or surrounding areas. Meetings were held with the group in April, May, June, and September.
- → 2005 IDOT prepared, and submitted for FAA review, a Draft Demand/Capacity Analysis & Facility Requirements report for the IAP. IDOT submitted a Draft Existing Conditions report for the new airport to FAA in October, for their review.

Section 1 - Background Page 2

- → 2006 IDOT prepared a Draft Socio-Economic Impact Assessment for the IAP. The Draft Socio-Economic Impact Assessment report was submitted in September to the FAA for their review. IDOT prepared a Draft Baseline User, Wildlife and Habitat Study for the Forest Preserve District of Will County Properties in the vicinity of the proposed airport. It was submitted in October to the FAA for their review. In December, IDOT held a public meeting in Beecher, Illinois to solicit comments from the general public regarding proposed airfield configurations under consideration in the SSA Master Plan. Drawings representing two alternative airfields were discussed in the public meeting, namely the IDOT Inaugural Airport Layout Plan and the Abraham Lincoln National Airport Commission (ALNAC) Inaugural Airport Layout Plan.
- → 2007 IDOT's IAP and the ALNAC plan were submitted to FAA for review. The FAA declined reviewing two concepts for the IAP and returned the plans to IDOT for further consideration and refinement recommending that only one preferred plan should be submitted for review. IDOT re-examined all alternatives with the goal of refining and optimizing the airfield configuration in relation to the previously described concepts. In December, IDOT undertook the evaluation of additional concept alternatives for the IAP. The primary goal was to evaluate alternative locations for the Inaugural Runway and select a Preferred Alternative.
- → 2008 March, IDOT submitted its Preferred IAP Configuration to FAA for their review.

Section 1 - Background Page 3

Section 2 – Inventory and Description of Existing Airspace System

2.1 - National Airspace System - Overview

The National Airspace System (NAS) is an integrated and interconnected system of airports, airways, air traffic facilities and navigational aids. Airports, air traffic facilities and equipment, and navigational aids are static physical components of the NAS where change occurs over long periods of time. However, the airspace system experiences constant change as it is dependent on ever changing weather, winds, and traffic. This section of SSA Existing Conditions document describes the elements of the NAS as they apply to the SSA site.

The NAS includes all airspace over the United States from an elevation of 60,000 ft down to, but not including, the ground. This Airspace is managed by the FAA to provide for its orderly and safe use. For management purposes the airspace is divided into two broad categories, Controlled Airspace (Classes A thru E Airspace), and Uncontrolled (Class G) airspace. These classifications are used by the FAA to define the flight rules, pilot qualifications, and aircraft capabilities required to operate within each class. Airspace classifications that apply to the SSA site, and its future integration into the NAS, are shown in **Exhibit 2-1: Regional Airspace Structure** and are described below.

Class B Airspace surrounds the busiest air carrier airports. The Class B airspace surrounding O'Hare International Airport (ORD) consists of a series of concentric circles each with a different, and varying, radius and each with a defined minimum and maximum altitude (floor and ceiling). The outermost circle within this airspace (extending 25 nm from ORD) is approximately 13 nm north of SSA. It includes the airspace between 3,600 and 10,000 ft above the ground. Aircraft within this airspace must have Air Traffic Control (ATC) authorization regardless of weather conditions, must meet certain pilots' qualification requirements and must have certain required electronic equipment.

Class C Airspace surrounds airports with a large number of commercial service flight operations. This airspace is also defined by a series of concentric circles but smaller in size than those defining Class B airspace. The Class C airspace surrounding Chicago Midway International Airport (MDW) has a 10 mile outer circle, placing it approximately 15 nm north of SSA. Flight within this airspace requires ATC clearance and control.

Class E Airspace surrounds the SSA site. This controlled airspace begins (floor) 700 ft above the ground and extends up to (ceiling) but not including 18,000 ft. The Class E airspace over SSA is defined by the wide magenta line west; south and east of the site (see Exhibit 2-1: Regional Airspace Structure). This airspace allows for positive control for operations under Instrument Flight Rules (IFR) and for communication and/or flight following under Visual Flight Rules (VFR). VFR specifies minimum cloud clearance and visibility requirements for flight. Typically flight operations under VFR require a cloud ceiling of not less than 1,000 ft above the ground and horizontal visibility of at least three miles. IFR refers to procedures for conducting flight in weather conditions below VFR weather minimums. The terms IFR and VFR are also used to define the type of flight plan under which an aircraft is operating.

Class G Airspace is uncontrolled airspace and includes all airspace not otherwise designated as controlled A, B, C, D, or E airspace. Aircraft operations within Class G airspace are governed by the principal of "see and avoid."

2.1.1 - Chicago Air Route Traffic Control Center

Air Route Traffic Control Centers (ARTCCs) control and monitor aircraft in transit over the United States and during approaches to some airports. Each ARTCC handles a different region of airspace, passing control of transient aircraft from one to the other at their respective borders. The 21 ARTCCs are designated by a three-letter code beginning with the letter Z.

The Chicago Air Route Traffic Control Center (Chicago Center-ZAU), located in Aurora, Illinois, controls aircraft entering, exiting, and over-flying the Midwest region. Chicago Center-ZAU controllers are

responsible for approximately 80,000 square miles of airspace, over portions of Illinois, Wisconsin, Indiana, Iowa and Michigan. For aircraft operating in the vicinity of SSA, the Chicago Center ZAU will be the initial point of contact and control under normal operating conditions.

2.1.2 - Chicago Terminal Radar Approach Control

Terminal Radar Approach Control (TRACON) facilities are in place at more than 185 of the major metropolitan areas in the United States. These facilities sequence and separate aircraft as they approach and depart the primary airports within the airspace and provide flight following and/or control of aircraft using other airports within the TRACON boundary or traversing the airspace. FAA air traffic controllers operating in the TRACON provide air traffic services and control for all aircraft within the designated airspace.

The Chicago Terminal Radar Approach Control (Chicago TRACON), located in Elgin, Illinois extends approximately 40 nm from ORD and covers designated airspace up to 13,000 ft above mean sea level (MSL). Classified as a Level 12 facility (Large), this TRACON is consistently rated as the busiest in the FAA's air traffic system. There are 47 public and private use airports within the TRACON's boundary. Twenty four of these have approach procedures that allow landings IFR. The SSA site is located on the southern edge of the Chicago TRACON, just outside its boundaries. Two arrival fixes and five departure corridor fixes for ORD are located in the general area of the SSA site. Aircraft operating into and out of SSA and maintaining flight below approximately 3,000 ft will not be affected by the Chicago TRACON.

2.1.3 - Chicago O'Hare Air Traffic

Aircraft approaching O'Hare International Airport (ORD) from the south are routed by the Chicago Center-ZAU controllers toward one of two 'arrival gates' located southwest and southeast of ORD (northwest and northeast of SSA). The southeast arrival gate, designated BEARZ, is located in Gary, Indiana, approximately 20 miles northeast of SSA. The other, designated BENKY is located near Plano, Illinois in Kendall County, approximately 44 nm northwest of SSA. Turbine aircraft entering the airspace for a landing at ORD will cross these designate intersections at or above 11,000 ft with propeller aircraft crossing at 8,000 ft.²

Southbound departures from ORD are typically routed through one of five 'departure gates', designated (from west-east): ACITO, BACEN, CMSKY, DENNT, EARND. These navigation points are defined by Global Positioning System (GPS) coordinates and by azimuth bearings from ground-based facilities such as, the Roberts Very High Frequency Omni-directional Range collocated with Distance Measuring Equipment (VOR/DME) and the Peotone Very High Frequency Omni-directional Range collocated with Tactical Air Navigation (VORTAC). The Roberts VOR/DME is located near Roberts, Illinois (Ford County), approximately miles southwest of the SSA site. The Peotone VORTAC, located near Manteno, Illinois is approximately eight nm south of the site, and the GUIDO fix located near Armstrong, Illinois (Vermilion County) is approximately 90 miles south of the site. Aircraft departing ORD, MDW and MKE southbound are merged within these five airways typically exiting the Class B airspace through the 10,000 ft ceiling prior to crossing the SSA site.

At the present time ORD is undertaking a major redevelopment plan designed to transform the airfield from a system of intersecting runways into a more efficient, in terms of operating efficiencies, parallel runway configuration. The O'Hare Modernization Program (OMP), when complete, will have eight runways, six

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² FAA, OMP Simulation Data Package, 2018 with Project, April 2004.

³ FAA U.S. Terminal Procedures, O'Hare Five Departure Procedures.

⁴ Very High Frequency Omni-directional Range collocated with Distance Measuring Equipment – emits VOR azimuth data over 360 degrees for non-precision instrument approach procedures.

⁵ Very High Frequency Omni-directional Range collocated with Tactical Air Navigation – a navigation aid providing VOR azimuth, TACAN azimuth and TACAN distance measuring equipment at one site.

parallel east-west and two crosswind runways. Throughout this project the FAA will be changing arrival and departure procedures as new runways and taxiways are completed and brought on-line. Although these changes will not significantly alter procedures currently used by general aviation aircraft operating in the vicinity of SSA they will greatly influence the procedures used by aircraft operating under IFR flight plans. Current information on the status of the OMP can be obtained from the Chicago Department of Aviation website.

2.1.4 - Chicago Midway Air Traffic

Aircraft approaching MDW from the south are typically routed to the final approach via two navigational aids, the Joliet VORTAC and the Chicago Heights VORTAC. The Joliet VORTAC is located approximately 30 miles northwest of the SSA site, near Plattville, Illinois. The Chicago Heights VORTAC is located approximately 10 nm northeast of the SSA site, just east of Chicago Heights, Illinois. In addition, aircraft destined for MKE from the south use the two MDW arrival gates, flying above the ORD and MDW arrivals. ⁶

2.2 - Weather

Local meteorological conditions significantly affect the operational characteristics of aircraft and therefore play an important role in determining the ideal runway orientation and airfield geometry. The primary meteorological characteristics that influence aircraft performance and safety are wind speed and direction, cloud elevation (ceiling); horizontal visibility, temperature and relative humidity. The FAA recommends a minimum of ten consecutive years of weather data be analyzed in order to adequately characterize these conditions at a specific location.

Weather stations are established at Joliet Regional Airport (JOT) and Greater Kankakee Airport (IKK). These stations however did not have the capability to archive the weather data until after 2001 and therefore could not be used for this inventory of existing conditions. The closest weather station to SSA with the required ten year weather history is MDW.

2.2.1 - Wind

Under normal operating conditions aircraft takeoff and land into the wind. Individual aircraft performance characteristics and pilot ability dictate the amount of crosswind (wind blowing at an angle to the runway centerline) that can be handled safely. The FAA recommends that a runway's orientation provide at least 95 percent crosswind coverage. This means that 95 percent of the time the wind does not exceed the allowable crosswind component (design capability) for the established design aircraft.

Ten year wind data, 86,770 observations, was obtained from MDW, the nearest National Weather Service reporting station, and imported to the *FAA Airport Design Program*. In addition to the documented wind data below, these weather observations were compared to the same period of observations from ORD. The comparison between the two airports indicated that there was no statistical difference between weather data from MDW and ORD. **Table 2-1: Chicago Midway International Airport-All Weather Conditions-13 knots Wind Coverage** documents the wind coverage for runway orientations throughout the 36 increments of the compass rose assuming a 13-knot crosswind requirement.

2.2.2 - Cloud Cover and Visibility

In addition to wind speed and direction aircraft operations are affected by cloud cover and horizontal visibility. It is these conditions that define whether aircraft operations can be conducted using VFR or IFR. VFR conditions exist when the cloud ceiling is equal to or greater than 1,000 ft above ground level (AGL) and the horizontal visibility is greater than or equal to three nm. Cloud ceiling less than 1,000 ft AGL and/or

⁶ FAA, OMP Simulation Data Package, 2018 with Project, April 2004.

visibility less than three nm define the threshold for IFR conditions. IFR conditions are further divided into one of three categories: CAT I conditions exist when the ceiling is between 200 and 1,000 ft and/or the visibility is between ½-nm and three nm; CAT II conditions, ceiling between 100 and 200 ft or visibility between ¼-nm and ½-nm; and, CAT III conditions, ceilings less than 100 ft and visibility less than ¼-nm.

Table 2-1: Chicago Midway International Airport	- All Weather Conditions – 13 knot Wind Coverage
Runway Orientation	Wind Coverage
18-36	89.13%
01-19	90.34%
02-20	91.53%
03-21	91.80%
04-22	92.43%
05-23	93.96%◀
06-24	93.28%
07-25	93.30%
08-26	91.40%
09-27	91.21%
10-28	89.38%
11-29	87.92%
12-30	85.75%
13-31	84.93%
14-32	84.69%
15-33	84.65%
16-34	85.15%
17-35	86.76%

Source: Murray and Trettel, Inc., July 2004. Processed from ten years of hourly observations collected by NOAA between the years 1991 and 2000 at Chicago Midway International Airport and archived by NOAA.

Table 2-2: Monthly Occurrences of Ceiling/Visibility Conditions at Chicago Midway International provides information about six ceiling/visibility conditions recorded at MDW from 1991 to 2000. The data indicates that CAT I, or less, conditions can be expected to occur 8.2 percent of the year; CAT II conditions occurred 0.4 percent of the year and CAT III conditions occurred 0.4 percent of the year.

Month	VFR	IFR	MDW		bility Conditions	(%)
iviontn	Conditions ⁷	Conditions ⁸	Minimums ⁹	CAT I ¹⁰	CAT II ¹¹	CAT III 12
January	78.47%	21.53%	3.57%	18.84%	1.33%	1.64%
February	87.48%	12.52%	1.94%	10.91%	0.86%	0.84%
March	89.15%	10.85%	1.88%	9.56%	1.06%	0.49%
April	90.75%	9.25%	0.52%	9.00%	0.21%	0.15%
May	93.95%	6.05%	0.56%	5.69%	0.35%	0.10%
June	94.85%	5.15%	0.34%	4.91%	0.19%	0.06%
July	96.53%	3.47%	0.12%	3.40%	0.01%	0.06%
August	95.82%	4.18%	0.07%	4.13%	0.04%	0.01%
September	96.21%	3.79%	0.08%	3.71%	0.02%	0.06%
October	94.65%	5.35%	0.20%	5.19%	0.09%	0.10%
November	89.87%	10.13%	1.10%	9.23%	0.50%	0.05%

⁷ Ceiling visibility above 1,000 ft; over 3 nm visibility.

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⁸ Ceiling visibility less than 1,000 ft; below 3 nm visibility.

⁹ Ceiling visibility less than 300 ft; below 1 nm visibility.

 $^{^{10}}$ Ceiling visibility less than 1,000 ft and above 200 ft or visibility between $\mbox{\%}$ and 3 nm.

 $^{^{11}}$ Ceiling visibility less than 200 ft and above 100 ft or visibility between ½ and ½ nm.

 $^{^{\}rm 12}$ Ceiling visibility less than 100 ft or visibility less than ¼ nm.

Table 2-2: Mo	nthly Occurrenc	es of Ceiling/Vis	ibility Condition	ns at Chicago IV	lidway Interna	tional Airport
December	85.06%	14.94%	1.76%	13.72%	0.61%	0.74%
Annual	91.08%	8.92%	1.01%	8.18%	0.44%	0.39%

Source: Murray and Trettel, Inc., July 2004. Processed from ten years of hourly observations collected by NOAA between the years 1991 and 2000 at Midway International Airport and archived by NOAA.

2.2.3 - Temperature and Precipitation

Air temperature and relative humidity have a direct impact on the operational characteristics of an airport and the aircraft using the facility. Temperatures in eastern Will County range from an average maximum temperature of 84 degrees in July to an average low temperature of 15 degrees Fahrenheit in January. **Table 2-3: Historical Monthly Average High and Low Temperatures** provides the average monthly high and low temperatures recorded for Beecher, Illinois.

Table 2	-3: Histo	orical Mo	onthly A	verage F	ligh and	Low Ten	nperatur	es				
Ave.	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
High	29	35	46	58	70	80	84	82	75	63	48	35
Low	15	20	30	39	50	60	65	63	55	43	33	21

Source: The Weather Channel, September 2010. Documented from hourly observations collected by NOAA at Weather Observation point in Beecher, IL.

Average annual precipitation is 38.65 inches with June being the wettest month at 4.66 inches. **Table 2-4: Historical Monthly Precipitation in Inches** lists the monthly average precipitation.

Table 2	Table 2-4: Historical Monthly Precipitation in Inches											
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1.79	1.64	2.73	3.80	4.14	4.66	4.08	3.82	3.15	2.79	3.38	2.67	38.65

Source: The Weather Channel, September 2010. Documented from hourly observations collected by NOAA at Weather Observation point in Beecher, IL.

In addition to ceiling and visibility the data contained the percentages of time that wet pavement conditions (any amount of frozen or liquid precipitation) were recorded at MDW. The highest percent of wet pavement conditions occur during the winter months, November through April. On an annual basis wet pavement conditions occur at MDW about 9.2 percent of the time, or about 807 hours per year. **Table 2-5:**Monthly Distribution of Wet Pavement Conditions summarizes the monthly wet pavement occurrences by percent of time.

Table 2	?-5: Mon	thly Dist	tribution	n of Wet Pavement Conditions								
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
17.31%	11.31%	11.31%	11.43%	7.00%	5.44%	3.56%	4.38%	5.20%	6.93%	12.55%	13.77%	9.16%

Source: Murray and Trettel, Inc., July 2004. Processed from ten years of hourly observations collected by NOAA between the years 1991 and 2000 at Chicago Midway International Airport and archived by NOAA.

2.3 - Air Carrier Airports

The Chicago regional airspace is one of the busiest air traffic areas in the world. Two airports within the Chicago Consolidated Metropolitan Statistical Area (CMSA), ORD and MDW currently offer commercial passenger service. General Mitchell International Airport (MKE), Milwaukee, Wisconsin and Chicago/Rockford International Airport (RFD), Rockford, Illinois, are located adjacent, but outside, the Greater Chicago Region. In addition, numerous public and private general aviation and reliever airports also contribute to air traffic in the area. There are approximately 160 public- and private-use airports located within a 50 nm radius of the SSA site.

2.4 - General Aviation Facilities

SSA is expected to play an important role in serving the General Aviation (GA) demand in the southern portion of the CMSA. A review of FAA data available through the Form 5010, Master Record, dated April 7, 2009, and AirNav.com, a web-based airport information resource, indicates that there are 22 airports within 20 nm (23.3 statute miles) of SSA's current Airport Reference Point.¹³ These airports offer 28 runways ranging in length from 1,300 to 7,003 ft. Ten of the runways are paved and the remaining 18 are turf. One of these airports (Bult Field) is within the IAP. The location of each of these airports is illustrated in **Exhibit 2-1: Regional Airspace Structure.**

Two GA airports, Lewis University Airport (LOT) and Joliet Regional Airport (JOT), although located in northern Will County are not included in this inventory summary because they are outside the 20 nm study area. These airports are 22.3 and 22.6 nm northwest of SSA respectively.

2.4.1 - Public Use General Aviation Airports

Seven of the 22 airports within 20 nm of SSA are available for public use. These airports offer seven paved and four turf runways. The paved runways range from 3,395 to 7,003 ft with an average length of 4,754 ft. Following is a description of these public use airports:

Gary/Chicago International Airport (GYY) is a publicly-owned, open-to-the-public airport located approximately 23 miles northeast of SSA Ultimate Airport Boundary. GYY has intermittent commercial service and a contract Airport Traffic Control Tower. There are two active runways at GYY: Runway 12-30 is 7,003 ft long and 150 ft wide. Runway 12 has a non-precision approach, while Runway 30 has a precision instrument approach system. Runway 02-20 is a non-precision runway, 3,603 ft long and 100 ft wide. According to FAA 5010 Form, there were 89 aircraft based at the airport: 42 single-engine, 18 multi-engine, 20 jets and 9 helicopters. GYY had 35,671 total operations in 2007. December 2008 Terminal Area Forecast (TAF) estimations indicate that the operational level will decrease to 30,327 total operations in 2010 and increase to 33,036 total operations in 2020. Approximately 57 percent of General Aviation (GA) activity at GYY is itinerant, 34 percent local activity, 5 percent military and 4 percent air taxi.

Greater Kankakee Airport (IKK) is a publicly-owned open-to-the-public airport located about 24 miles southwest of SSA Ultimate Airport Boundary and three miles south of Kankakee, Illinois. The non-towered airport has two operational runways. Runway 04-22 is asphalt-surfaced, 5,979 ft long and 100 ft wide and has a precision approach on Runway 04 and non-precision on Runway 22; and Runway 16-34 is also asphalt-surfaced, 4,399 ft long and 75 ft wide, with visual approaches at both ends. According to FAA 5010 Form, there were 129-based aircraft at the airport: 96 single-engine airplanes, 13 multi-engine, 2 jets, 3 helicopters and 15 ultra-light aircraft. IKK had 50,000 total operations in 2006. December 2008 (TAF) estimations indicate that the operational level will remain constant in 2010 and in 2020. Approximately 42 percent of GA activity at IKK is itinerant, 50 percent local activity, 6 percent military and 2 percent air taxi. The south of the sun of

Griffith-Merrillville Airport (05C) is a privately-owned, open-to-the-public airport located approximately 18 miles northeast of SSA Ultimate Airport Boundary. 05C has one visual runway, which is asphalt-surfaced, 4,900 ft long and 75 ft wide. According to FAA 5010 Form, there were 61-based aircraft at 05C: 41 single-engine planes, 14 multi-engines and 6 helicopters. 05C had 33,699 total operations in 2006. December 2008 (TAF) estimations indicate that the operational level will remain constant in 2010 and in 2020.

¹³ Source: AirNav.com Airport Distance Calculator and verified using FAA Chicago Sectional Aeronautical Chart, May 7, 2009. Straight-line distance measured, actual ground travel distance will be higher.

¹⁴ FAA, Form 5010, Airport Master Record, Gary/Chicago International Airport, April 7, 2009.

¹⁵ FAA, Terminal Area Forecast Summary: Fiscal Years 2007-2025, Gary/Chicago International Airport, December 2008.

¹⁶ FAA, Form 5010, Airport Master Record, Greater Kankakee Airport, April 7, 2009.

¹⁷ FAA. Terminal Area Forecast Summary: Fiscal Years 2007-2025, Greater Kankakee Airport, December 2008.

¹⁸ FAA, Form 5010, Airport Master Record, Griffith-Merrillville Airport, April 7, 2009.

Approximately 86 percent of 05C's activity is itinerant operations, 13 percent is local aviation activity and 1 percent is air taxi. ¹⁹

Kankakee Airport (3KK) is a privately-owned, open-to-the-public airport located approximately 25 miles southwest of the SSA Ultimate Airport Boundary. The airport has two active runways: Runway 09-27 is 2,644 ft long and 300 ft wide, turf-surfaced; and Runway 18-36 is turf-surfaced, 2,564 ft long and 200 ft wide. According to FAA 5010 Form, there were 25 aircraft based at the airport: 22 single-engine airplanes, 1 multi-engine and 2 ultra-light aircraft. 3KK had 11,000 total operations in 2004. The activity at 3KK is mostly represented by local GA activity (82 percent) and itinerant GA operations (18 percent). ²⁰

Lansing Municipal Airport (IGQ) is a publicly-owned, open-to-the-public airport located approximately 15 miles northeast of the SSA Ultimate Airport Boundary. IGQ has two operational runways: Runway 09-27 is visual, 3,395 ft long and 75 ft wide, with an asphalt surface; and Runway 18-36 is visual, 4,002 ft long and 75 ft wide, with an asphalt surface. According to FAA 5010 Form, there were 187-based aircraft at IGQ: 142 single-engine, 21 multi-engine, 10 jet aircraft, 13 helicopters and 1 ultra-light aircraft. IGQ had 54,000 total operations in 2007. December 2008 (TAF) estimations indicate that the operational level will remain constant in 2010 and in 2020. Fifty percent of activity at IGQ is represented by local GA activity, 41 percent is itinerant GA and 9 percent is air taxi activity.

Lake Village Airport (C98) is a privately-owned, open-to-the-public airport located approximately 20 miles southeast of the IAP Boundary. C98 has one visual, turf runway that is 2,000 ft long and 140 ft wide. According to FAA 5010 Form, there are 20-based aircraft at C98: 16 single-engine and 4 gliders. C98 had 6,976 total operations in 2006, of which 67 percent were local GA and 33 percent were itinerant. ²³

Lowell Airport (C97) is a privately-owned, open-to-the-public airport located approximately 14 miles southeast of the IAP Boundary. C97 has one visual, turf runway that is 3,041 ft long and 100 ft wide. According to FAA 5010 Form, there were 11-based aircraft at C97 (all single-engine.) C97 had 4,176 total operations in 2006, of which 93 percent were local GA and seven percent were itinerant.²⁴

2.4.2 - Private Airfields

In addition, the region within 20 miles of SSA has 15 privately-owned, private-use facilities offering 13 turf and 2 paved runways. These runways range in length from 1,300 to 4,203 ft with an average length of 2,453 ft. Bult Field, an existing privately owned airport in Will County, is not included in this list due to its proximity to the SSA site. This airport is discussed separately. A description of these private airports follows:

Spangler Airport (58IL) is a privately-owned, private-use airfield located approximately 11 miles southwest of the Inaugural IAP Boundary and about 4 miles northwest of Manteno, Illinois. The existing runway (03-21) is a 2,200 ft long, 200 ft wide, turf-surfaced, visual runway. There were three based aircraft at 58IL, according to the 2009 FAA 5010 Form.

Richard Brandt Airport (55IL) is a privately-owned, private-use facility located approximately eight miles southwest of the IAP Boundary and about two miles northeast of Manteno, Illinois. The existing runway (18-36) is visual, turf-surfaced, 2,200 ft long and 70 ft wide. There was one-based aircraft at 55IL, according to the 2009 FAA 5010 Form.

¹⁹ FAA, Terminal Area Forecast Summary: Fiscal Years 2007-2025, Griffith-Merrillville Airport, December 2008.

²⁰ FAA, Form 5010, Airport Master Record, Kankakee Airport, April 7, 2009.

²¹ FAA, Form 5010, Airport Master Record, Lansing Municipal Airport, April 7, 2009.

²² FAA, Terminal Area Forecast Summary: Fiscal Years 2007-2025, Lansing Municipal Airport, December 2008.

²³ FAA, Form 5010, Airport Master Record, Lake Village Airport, April 7, 2009.

²⁴ FAA, Form 5010, Airport Master Record, Lowell Airport, April 7, 2009.

²⁵ FAA, Form 5010, Airport Master Record, Spangler Airport, April 7, 2009.

²⁶ FAA, Form 5010, Airport Master Record, Brandt Airport, April 7, 2009.

Meadow Creek Airport (2IL9) is a privately-owned, private-use facility located approximately 5.7 miles northwest of the IAP Boundary and one mile west of Monee, Illinois. The existing runway is a 3,400 ft long, 40 ft wide, asphalt surface, visual runway. There were 20-based single-engine aircraft at 2IL9, according to the 2009 FAA 5010 Form.

Craig Mussman Airport (7ILO) is a privately-owned, private-use airport located approximately 9.2 miles southeast of the IAP Boundary and approximately three miles north of Grant Park, Illinois. It has a visual Runway 09-27 with a turf surface, which is 2,415 ft long and 75 ft wide. There were four based aircraft at 7ILO, according to the 2009 FAA 5010 Form.

Von Alvens Airview Airport (IL29) is a privately-owned, private-use facility located 5.8 miles southeast of the IAP Boundary and three miles southwest of Beecher, Illinois. The airport has a turf runway, 1,900 ft long and 60 ft wide. ²⁹ There were two based aircraft at IL 29, according to the 2009 FAA 5010 Form.

Hershel Wix Airport (03IL) is a privately-owned, private-use airport, located approximately 6.2 miles northeast of the IAP Boundary and about six miles southwest of Monee, Illinois. There is a 2,600 ft long, 105 ft wide, turf surface, visual runway. There was one based aircraft at 03IL, according to the 2009 FAA 5010 Form.

Benoit Airport (IL78) is a privately-owned, private-use airport located approximately 18 miles south-southwest of the IAP Boundary. The airport has a single, visual, turf runway, 2,000 ft long by 105 ft wide. There were three based aircraft at IL78, according to the 2009 FAA 5010 Form.

Classic Landings Airport (05IL) is a privately-owned, private-use airport located approximately 23 miles southwest of the IAP Boundary. This airport contains a single, visual, turf runway that is 3,200 ft long and 70 ft wide. ³² This is a residential airpark; no information on based aircraft at this facility was available.

Frankfort Airport (C18) is a privately-owned, private-use facility located approximately ten miles northwest of the IAP Boundary and about one mile southeast of Frankfort, Illinois. The existing runway (09-27) is non-precision, with an asphalt surface, 4,203 ft long and 50 ft wide. There were 24-based aircraft at C18, according to the 2009 FAA 5010 Form.

Hawker Airport (12IL) is a privately-owned, private-use airport located approximately 21 miles southwest of the IAP Boundary. Hawker Airport has one visual, turf runway, 1,300 ft long by 100 ft wide.³⁴ There was one based aircraft at 12IL, according to the 2009 FAA 5010 Form.

Neiner Airport (19LL) is a privately-owned, private-use airport located approximately 15 miles southwest of the IAP Boundary. This airport has one visual, turf runway that is 1,940 ft long and 70 ft wide.³⁵ No information on based aircraft for this facility was available.

Sunset Acres Airport (LL24) is a privately-owned, private-use airport located approximately 13 miles south of the IAP Boundary. This airport has a single visual, turf runway, which is 2,640 ft long and 70 ft wide. ³⁶ There were two based aircraft at LL24, according to the 2009 FAA 5010 Form.

²⁷ FAA, Form 5010, Airport Master Record, Meadow Creek Airport, April 7, 2009.

²⁸ FAA, Form 5010, Airport Master Record, Mussman Airport, April 7, 2009.

²⁹ FAA, Form 5010, Airport Master Record, Von Alvens Airview Airport, April 7, 2009.

³⁰ FAA, Form 5010, Airport Master Record, Wix Airport, April 7, 2009.

³¹ FAA, Form 5010, Airport Master Record, Benoit Airport, April 7, 2009.

³² FAA, Form 5010, Airport Master Record, Classic Landings Airport, April 7, 2009.

³³ FAA, Form 5010, Airport Master Record, Frankfort Airport, April 7, 2009.

³⁴ FAA, Form 5010, Airport Master Record, Hawker Airport, April 7, 2009.

³⁵ FAA, Form 5010, Airport Master Record, Neiner Airport, April 7, 2009.

³⁶ FAA, Form 5010, Airport Master Record, Sunset Acres Airport, April 7, 2009.

Sutton's Field (0118) is a privately-owned, private-use airport located approximately 11 miles east-southeast of the IAP Boundary. The airport has a single visual, turf runway that is 1,400 ft long and 100 ft wide.³⁷ There were four based aircraft at 0118, according to the 2009 FAA 5010 Form.

Sweedler Airport (3IL2) is a privately-owned, private-use airport located approximately 19 miles west of the IAP Boundary. The airport has a single visual, turf runway that is 2,600 ft long by 135 ft wide.³⁸ There were two based aircraft at 3IL2, according to the 2009 FAA 5010 Form.

Wietbrock Airport (IN90) is a privately-owned, private-use airport located approximately 13 miles southeast of the IAP Boundary. Wietbrock contains a single visual, turf runway, 2,800 ft long by 100 ft wide. There is one single-engine aircraft based at this airport. According to the 2009 FAA 5010 Form.

Table 2-6: Summary of General Aviation/Corporate Aviation Facilities outside the IAP Boundary and within the South Suburban Region, 2009 is a summary of the GA facilities that are within 20 nm of the SSA site.

Table 2-6 Summary of General Aviation/Corporate Aviation Facilities outside the IAP Boundary and within the South Suburban Region, 2009

Airport Name (FAA Identifier)	ARP ⁴⁰	Runv	vay(s)		В	ased Aircra	ft		Aeronautical Operations
		Orientation	Dimensions	SE	ME	Jet	Rotary	Other	
Spangler (58IL)	12.3	03-21†	2,200' x 200'	3	0	0	0	0	1,200*
Richard Brandt (55IL)	9.1	18-36†	2,200' x 70'	1	0	0	0	0	400*
Meadow Creek (2IL9)	5.7	04-22	3,400' x 40'	16	2	0	2	0	8,000*
Craig Mussman (7IL0)	9.2	09-27†	2,415' x 75'	3	0	0	0	1‡	1,600*
Von Alvens Airview (IL29)	5.8	18-36†	1,900' x 60'	1	0	0	0	1‡	800*
Hershel Wix (03IL)	6.2	18-36†	2,600' x 105'	1	0	0	0	0	400*
Benoit Airport (IL78)	18	18-36†	2,000' x 105'	3	0	0	0	0	1,200*
Classic Landings (05IL)	23	10-28†	3,200' x 70'	0	0	0	0	0	NA
Frankfort Airport (LL40)	10	09-27	4,203' x 50'	23	1	0	0	0	9,600*
Richard Hawker (12IL)	21	09-27†	1,300' x 100'	1	0	0	0	0	400*
Pat Neiner (19LL)	15	18-36†	1,940' x 70'	0	0	0	0	0	NA
Sunset Acres (LL24)	13	09-27†	2,640' x 70'	1	0	0	0	1‡	800*
Sutton's Field (0II8)	11	01-19†	1,400' x 100'	3	1	0	0	0	1,600*
Sweedler Airport (3IL2)	19	18-36†	2,600' x 135'	1	1	0	0	0	800*
Wietbrock (IN90)	13	09-27†	2,800' x 100'	1	0	0	0	0	400*
Gary/Chicago	23	12-30	7,003' x 150'	42	18	20	9	0	25 671
Regional (GYY)	23	02-20	3,603' x 100'	42	10	20	9	U	35,671
Greater Kankakee (IKK)	24	04-22	5,979' x 100'	96	13	2	3	15‡	50,000
Greater Kankakee (IKK)	24	16-34	4,399' x 75'	96	13	2	3	15+	50,000
Griffith Merrillville (05C)	18	08-26	4,900' x 75'	41	14	0	6	0	33,699
Koerner Kankakee (3KK)	25	09-27†	2,644' x 300'	22	1	0	0	2‡	11,000
KOEMEr Kankakee (3KK)	25	18-36†	2,564' x 200'	22	1	U	U	Z+	11,000
Lancing Municipal (ICO)	15	09-27	3,395' x 75'	142	21	10	12	1‡	F4.000
Lansing Municipal (IGQ)	15	18-36	4,002' x 75'	142	21	10	13	1+	54,000
Lake Village (C98)	20	18-36†	2,000' x 140'	16	0	0	0	4‡	6,976
Lowell (C97)	14	18-36†	3,041' x 100'	11	0	0	0	0	4,176

Source: FAA Form 5010, Airport Master Records, 2009. SE - Single-Engine Piston Aircraft; ME – Multi-Piston Engine Aircraft; NA – Not Available. † - Turf Runway; ‡ - Ultra Light Aircraft; * - Estimated number of operations = 400 operations per based aircraft.

³⁷ FAA, Form 5010, Airport Master Record, Sutton's Field Airport, April 7, 2009.

³⁸ FAA, Form 5010, Airport Master Record, Sweedler Airport, April 7, 2009.

³⁹ FAA, Form 5010, Airport Master Record, Wietbrock Airport, April 7, 2009.

⁴⁰ Source: AirNav.com Airport Distance Calculator and verified using FAA Sectional Aeronautical Chart, May 7, 2009. Straight-line distance measured, actual ground travel distance will be higher.

2.4.3 - Bult Field

One airport in the region is listed and reviewed separately because of its proximity to SSA. Bult Field, designation C56, is a privately-owned, public use facility located approximately 0.7 miles east/northeast of the IAP's Airport Reference Point and four miles southeast of the Village of Monee. This airport has a 5,000 ft long by 75 ft wide concrete east/west runway available for dawn-to-dusk operations. This facility has ninety (90) based aircraft, 76 single engine and eight multi-engine airplanes, three helicopters and three other sport aircraft. (see **Table 2-7: Summary of General Aviation/Corporate Aviation Facilities Within the IAP Boundary**).

Formerly called Sanger Field, this facility was completely rebuilt by the new owner. At the present time the facility consists of 132 aircraft hangars, an 18,000 sq ft terminal building and fuel service for both Avgas and Jet A. Bult Field has long been recognized by the FAA and IDOT as an existing GA facility.

Table 2-7: Sum	mary o	f General Avi	ation/Corporate	Aviatio	n Facilit	ies with	nin the l	AP Bour	ndary
Airport Name FAA Identifier	ARP*	Rur	Runway(s) Based Aircraft				Aeronautical Operations		
		Orientation	Dimensions	SE	ME	Jet	Rotary	Other	
Bult Field (C56)	0.7	09-27	5,000' x 75'	76	8	0	3	3**	13,000

Source: FAA, Form 5010, Airport Master Record, Bult Field, December 2007. *Distance to SSA's Reference Point (ARP). **Aircraft lighter than air; Recreational or sport are excluded from based aircraft numbers for purposes of projections.

2.4.4. - Registered General Aviation Aircraft

There are currently (2009) 445 aircraft registered to residents or corporations within Will County. A further division of this registration information indicates that 120 of those aircraft are registered to addresses in eastern Will County. For purposes of this section only, eastern Will County describes that portion of the county east of an imaginary line beginning in Custer Park running northeast through, and including, Symerton, Manhattan and Frankfort. It is assumed that the SSA site and Bult Field provide an easily accessible location for aircraft owners in this part of the county to base their aircraft.

In addition, the seven counties adjoining Will County: Cook, DuPage, Grundy, Kane, Kankakee, Kendall, and Lake, combine for an additional 3,982 registered aircraft. This total of 4,426 registered aircraft accounts for 41.8 percent of the total aircraft registered in Illinois.⁴¹

2.5 - Utilities

SSA site is currently served by ComEd for electricity and various telecommunications companies for telephone service. Natural gas service, provided by Nicor Inc, is available into Bult Field from a pipeline along Western Avenue but the majority of the properties at the site use liquid propane, oil or electricity for heating. All properties in the vicinity of the site rely on public or private well and septic systems (see **Exhibit 2-2: Utility Map**).

⁴¹ FAA Aircraft Registration, State and County, September 2010.

Section 3 – Regional Setting and Land Use

3.1 – Regional Setting

As defined in Section 1 of this report, the airport site is located within the 11-County SSA Study Region and specifically in Will County, Illinois. The 11-County SSA Study Region is the third largest metropolitan area in the United States according to the U.S. Census Bureau. This region is a highly diverse area ranging in land use from prime farmland to heavy industrialized, commercial business, and residential areas. Located on Lake Michigan, Chicago is a center for Midwest commerce and is one of the country's major commercial centers. The surrounding area is also one of the nation's richest farming centers.

3.2 - Site Acquisition Area

The Ultimate Airport Boundary for SSA comprises approximately 20,000 acres in eastern Will County, Illinois. The IAP Boundary of SSA is located on approximately 5,400 acres within the Ultimate Airport Boundary. Five municipalities surround the airport site including: Beecher to the southeast, Crete to the northeast, Monee to the northwest, Peotone to the southwest, and University Park to the north.

The center of the site is approximately 35 miles south-southwest of the Chicago Central Business District (Chicago Loop), 42 miles south-southeast of ORD and 29 miles south of MDW. The site is located east of Interstate 57 and Illinois Route 50 and west of Illinois Routes 394 and 1. The airfield site is also bounded on the east by the Union Pacific Railroad and on the west by the Canadian National Railway and the National Railroad Passenger Corporation known as Amtrak.

3.3 - Affected Townships/Zoning Authority

The SSA site is located in unincorporated Will County, Illinois, mostly in the Townships of Will and Monee, with smaller portions located in Crete and Washington Townships. The majority of the development associated with the IAP will occur within Will Township, with some related development impacting Monee and Washington Townships.

The townships primarily provide road construction and maintenance services, including snow removal in the area. Fire, rescue and ambulance services are provided by independent public or private entities. Zoning, police and taxing authority reside with the county in unincorporated areas. Incorporated municipalities in Illinois have extraterritorial zoning authority for all land within 1.5 miles of municipal borders, where county zoning is not present. Since Will County does have zoning, no municipality currently has zoning authority over the airport site.

3.4 - Land Use Planning and Zoning Agencies

The Chicago Metropolitan Agency for Planning (CMAP) is the official regional planning organization for the northeastern Illinois counties of Cook, DuPage, Kane, Kendall, Lake, McHenry and Will. CMAP was formed in 2008 by merging the staffs of the Northeastern Illinois Planning Commission and the Chicago Area Transportation Study (CATS) in an effort to integrate planning for transportation and land use. Consistent with state and federal law CMAP is responsible for developing and maintaining the regions comprehensive plan, *Go To 2040*. This plan will be based on a diverse coordinated set of strategies to address projected population growth of more than two million new residents by 2040. The plan focuses on the implications the projected growth will have on transportation, housing, economic development, open space, the environment and other quality-of-life issues. As the land use planning agency for the area, CMAP is the designated clearinghouse for Federal documents under Executive Order 12372, ⁴³ Intergovernmental Review of Federal Programs (formerly A-95).

⁴³ http://www.fws.gov/policy/library/rgeo12372.pdf

3.5 - Land Use within the SSA Site

Land use within the boundary of the SSA site is predominantly agricultural. **Exhibit 3-1: Existing Land Use** shows existing land use for the area. Approximately 85 percent of the SSA site is active farmland, and about eight percent is developed land occupied by residences and farm buildings. The remaining six percent is a combination of land uses including fallow cropland, successional field, wetlands and woodland (identified as Natural Areas/Open Space on the **Exhibit 3-1: Existing Land Use**). Bult Field, a small private GA airport, is located near the center of the study area. This rural land use pattern is typical of the area today but it is changing. More extensive residential development is found to the north in Monee, Crete and University Park; to the southwest in Peotone; and to the east in Beecher. Commercial development is concentrated along Illinois Route 50 and at Interstate 57 interchanges on the west and along Illinois Routes 1 and 394 on the east.

Suburban growth is encroaching on the northern limit of the primary study area. While land use within the acquisition boundary predominantly consists of farming and rural residential uses, there is evidence that significant growth is also occurring within the primary study area. In October 2004, the acquisition boundary contained 424 rural residences, 109 farm residences, 627 manufactured homes and 2 commercial businesses. Approximately 2,693 people lived within the Ultimate Airport Boundary in 2004. Based on the U.S. Census Data, residences within this area increased by approximately 22 percent between 1995 and 2006. Section 6 of this document contains a more detailed description of the SSA land acquisition program initiated in 2001. Current status of the program is available on the SSA project website at www.southsuburbanairport.com.

3.6 - Population Centers

The population centers of Beecher, Crete, Monee, Peotone and University Park are situated on the perimeter of the airport. These include a combination of fast growing suburban communities and smaller, older rural communities.

<u>Village of Beecher</u> – A special census was conducted in 2007 which indicated a population of 4,111. This is a marked increase from the 2000 U.S. Census population for Beecher which was 2,033. Beecher is a rural community that was first settled in the 1850's. The historic areas of the community are located near the railroad on the west side of the village with new development concentrated to the east toward Illinois Route 1. Housing in Beecher is predominantly single-family and owner occupied. About 25 percent of the homes were built after 1970. Cardinal Creek Golf Course and other parks and recreational facilities constitute almost 20 percent of the total land use in the village. Industrial uses have appeared in the northwest corner of the village, and considerable residential development is occurring in the northern and eastern portions of the village.

<u>Village of Crete</u> - The largest population center near SSA site is Crete, with a 2000 U.S. Census Bureau population of 7,346, a nine percent increase from 1990. The village was founded around 1850 and incorporated in 1880. Crete has experienced considerable growth in recent years with most new development consisting of large, single-family homes. Commercial development in Crete is currently limited to the central business district, new developments along Dixie Highway (Illinois Route 1), and new planned developments along Illinois Route 394. Many of the older Victorian houses have recently been renovated. New residential development has occurred along Richton Road in the northern part of the village and is occurring along Exchange Street in the western portion of the village.

<u>Village of Monee</u> - The Village of Monee is located directly northwest of the airport site and southwest of University Park. In 2000, the U.S. Census Bureau recorded a population of 2,924, a 294 percent increase since 1990. Monee is a rural community dating back to the middle of the 19th century. The village was planned along the Illinois Central Railroad and flourished as a major town in Will County.

The predominant land use in the Village of Monee is residential with single-family homes. Commercial activities are generally distributed throughout the village, with some concentration along Illinois Route 50, which also bisects this community. The housing stock is largely single-family, owner-occupied. Multi-family units are limited

and about 20 percent of the existing single-family homes are offered as one- or two-family rental units. A number of single-family housing units have been constructed in recent years on former farmland.

Development in the village generally occurred on large lots of one to five acres due to the predominance of septic systems; however newer development tends to be on smaller (0.25 - 0.50 acre) lots as more areas are connected to sewers. Zoning codes in the Village of Monee are being revised to include smart growth principles. Major recreational facilities near Monee are Raccoon Grove Nature Preserve and Monee Reservoir owned and operated by the Forest Preserve District of Will County.

<u>Village of Peotone</u> - The Village of Peotone is a rural community located southwest of the airport site. It is predominantly a single-family residential community of owner-occupied homes. According to the 2000 U.S. Census Bureau, Peotone's population was 3,385, a 15 percent increase from 1990. Commercial uses are primarily located along Illinois Route 50 in the central business district and, more recently, near the Interstate 57 interchange. Industrial uses are limited to an area east of Illinois Route 50 and a few parcels along the Illinois Central Railroad.

<u>Village of University Park</u> - The Village of University Park, incorporated in 1967, is a planned suburban community located north of the SSA site. The village grew from the former community of Park Forest South. The 2000 U.S. Census Bureau recorded a population for University Park of 6,662, a seven percent increase from 1990. University Park contains a mixture of single-family homes and a large number of multi-family structures. Commercial uses are concentrated along University Parkway and Monee-Manhattan Road. Gateway Industrial Park is located in the western part of the village between Interstate 57 and Governors Highway. Governors State University is located in central University Park. Recreational and open space areas comprise a significant portion of the village, and include the Deer Creek Golf Course, and Thorn Creek Woods Forest Preserve, which is owned and operated by the Forest Preserve District of Will County, the Illinois Department of Natural Resources and the Villages of Park Forest and University Park.

<u>Unincorporated Areas</u> - Goodenow is a small, unincorporated community located to the north of the former Beecher landfill along Pauling Road. According to the 2000 U.S. Census Bureau, Goodenow's population was estimated to be 87. To the east of Goodenow are Goodenow Grove Nature Preserve and Middle Plum Forest Preserve, both owned and operated by the Forest Preserve District of Will County.

3.7 - Land Use and Zoning of Surrounding Areas

The area around the Ultimate Airport Boundary is comprised of the incorporated population centers as described above, as well as unincorporated areas of Will County and northern Kankakee County. Land uses and zoning in these unincorporated areas are generally agricultural with a scattering of small residential subdivisions. The northern part of the area was former agricultural land, but is rapidly transforming to a suburban residential character. Residential development is also occurring in the unincorporated areas around Peotone and Beecher, with most new homes on lots equal to or greater than one acre. These areas are zoned for residential development by the county.

Current development trends in the vicinity of the airport site include intense residential and retail-commercial development to the north along U.S. Route 30 from Joliet, Illinois, to Valparaiso, Indiana. The communities of New Lenox, Frankfort, Mokena, Matteson, Lynwood, Dyer, Schererville and Griffith, located along this corridor, are experiencing substantial growth.

Land use in the area immediately south of the airport site is generally agricultural and rural residential. Land use plans for this area indicate similar future uses. The exception to this land use pattern is the new development occurring farther south along Interstate 57 between Manteno and the City of Kankakee (see **Exhibit 3-1: Existing Land Use).**

Zoning designations for portions of the SSA site are agricultural, low density residential (minimum of 2.5-acre lot), and residential.

3.8 - Land Use Plan of Eastern Will County

Will County is recognized as the agency of record having jurisdiction for the land use planning of the SSA area and is considered the lead agency in several of the region's joint land use planning efforts. The County's planning staff maintains a wide variety of data pertinent to county growth and development and is responsible for preparing and implementing the County's Land Resource and Management Plan as well as other studies that help guide future growth and preserve Will County's heritage. The County's plans incorporate input from local municipalities and townships as well as the findings of other regional planning bodies.

Will County adopted its current Land Resource and Management Plan in April 2002. This plan identified the Will County site as the preferred location of a potential SSA. The plan identifies the airport as a "Project of Regional Impact", but treats it as an overlay to existing and planned rural land uses since the airport project had not been approved. In addition, on April 16, 2009 the County Highway Department adopted the Will County 2030 Transportation Plan in an effort to ensure that adequate transportation facilities are in place to accommodate the county's growth. This plan included the SSA site based upon the 2008 IDOT Draft Inaugural Airport Layout Plan and makes recommendations for right-of-way expansion as well as identification of roadway closures.

3.9 – Ground Transportation Facilities

The existing ground transportation network serving the future SSA site includes both major roadway and railroad facilities. Following is a brief description of the primary roads and rail lines as illustrated in **Exhibit 3-2: Surface Transportation Infrastructure Map**.

3.9.1 – Regional Road Network

Regional roadways are in place to serve the variety of traffic associated with SSA. Traffic associated with these roads is generally moderate, as the network serves a developing suburban area.

Interstate 57: This north/south highway is part of the Federal Highway Authority's Interstate roadway system, providing a direct link between the Chicago metro area, eastern Illinois and the southeast portion of Missouri. The interstate is access controlled and it carries two-lanes of traffic in each direction. There are two existing interchanges on I-57 in the vicinity of the project; the Manhattan–Monee Road interchange (mile marker 335) is located near the north end of the airport site and the Peotone–Wilmington Road interchange (mile marker 327) is located near the south end of the airport site. Located within this eight mile segment of roadway are a truck weigh station and a rest area. Each of these interchanges is approximately eight miles, drive distance, from the center of SSA.

Illinois Route 50: IL-50 is a marked state highway that runs parallel to I-57 in the vicinity of the airport site. It is located approximately two-thirds of a mile to the east of the interstate along the west side of the airport site. IL-50 currently carries two-lanes of traffic in each direction and it is a major arterial roadway for cars and trucks in the region.

Illinois Route 394: IL-394 is a four-lane (two-lanes in each direction) divided highway that is located adjacent to the northeast corner of the airport boundary. IL-394 runs in a north-south direction and provides direct connections from I-94, I-80 and U.S. Route 30 to the north to its terminus at Illinois Route 1. IL-394 is a controlled access major arterial roadway that carries significant truck traffic for the region.

Illinois Route 1: IL-1 runs in a north-south direction along the east side of the airport site and is designated as a Strategic Regional Arterial. The roadway consists of one lane of traffic in each direction with paved shoulders. IL Route 1 is a heavily used truck route for the region.

3.9.2 – Existing Operating Conditions

In general, the existing roadway network around the site operates at an acceptable level of service. The four main roadways in the area are: I-57, IL-50, IL-394 and IL-1. Each of these roadways runs in a north-south direction along the eastern and western edges of SSA. The following is a brief description of the existing (2010) operation and Average Annual Daily Traffic (AADT)⁴⁴ on these roads.

Interstate 57: I-57 currently carries approximately 36,000 vehicles per day in the segment between the Manhattan-Monee Interchange and the Peotone-Wilmington Road Interchange. The operations along the interstate and at the Peotone-Wilmington Road Interchange are acceptable. IDOT has identified capacity problems with the existing Manhattan-Monee Road Interchange that currently experiences significant delays on ramps that serve the entrance and exit operations to the north. IDOT recently approved a Phase I Engineering Study that included geometric improvements to the existing ramps of this interchange.

IL Route 50: IL-50 currently carries between 6,000 and 9,000 vehicles per day AADT on the segment adjacent to the airport. Presently no operational deficiencies have been identified for this roadway segment.

IL Route 394: IL-394 currently carries 8,700 vehicles per day AADT immediately north of the airport site; this volume increases to approximately 22,600 vehicles per day AADT in the area south of U.S. Route 30 and to 37,600 vehicles per day AADT to the north of U.S. 30. No operational deficiencies have been identified at the southern terminus of IL-394.

IL Route 1: IL-1 currently carries 8,700 vehicles per day AADT along the eastern boundary of the airport site and through the center of Beecher, Illinois. A significant portion of the existing traffic on IL-1 is truck traffic that has had negative impacts on the Village of Beecher. A bypass roadway along the west side of Beecher's limits has been recommended in the CATS 2030 plan to mitigate the impacts of truck traffic through downtown Beecher.

3.9.3 – Regional Railroad Network

In addition to the existing roadway network, there are two railroad lines that run adjacent to SSA:

Canadian National Railway: The Canadian National's freight single track rail line runs from Chicago south to Champaign, Illinois passing the airport site along the west side of IL Route 50. The Metra Electric Line currently runs scheduled commuter passenger service on the Canadian National right-of-way from downtown Chicago to University Park, which is located approximately eight miles northwest of the airport site.

Union Pacific Railroad: The Union Pacific Railroad has existing freight tracks that run from Chicago to St. Louis. This double track rail bed runs north/south along the east side of the airport site through the Villages of Crete and Beecher.

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⁴⁴ Internet Source: IDOT, 2009 Average Annual Daily Traffic Maps, http://www.dot.il.gov/trafficmaps/table.html

3.10 - Community Facilities

There are no churches, hospitals or schools located within the boundaries of the IAP. The community facilities in the vicinity of the study area are listed in **Table 3-1**: **Community Facilities** and their location shown on **Exhibit 3-3**: **Community Facilities** contained in **Appendix B**.

entifier (see Exhibit 3-3)	Community Facility	Type of Facility
1	Free Methodist Church	Church
2	St. Paul's United Church of Christ	Church
3	St. Boniface Catholic Church	Church
4	Fireman's Park	Park
5	Monee Elementary School	School
6	Christian Life Fellowship	Church
7	Pilgrimage Protestant Congregation	Church
8	University Park Public Library	Library
9	Hickory Elementary	School
10	Tots Park	Park
11	Crete-Monee Middle School	School
12	Deer Creek Church	Church
13	Deer Creek School	School
14	Crete-Monee Education Center, GSU/Echo	School
15	Trinity Evangelical Lutheran Church	Cemetery
16	First Baptist Church of Crete	Church
17	Crete-Monee Intermediate Center	School
18	Crete Cemetery	Cemetery
19	Zion Evangelical Lutheran School	School
20	Zion Evangelical Lutheran Church	Church
21	Illinois Lutheran High School	School
22	Crete Fire Department	Fire Department
23	Trinity Lutheran Church	Church
24	Trinity Lutheran School/preschool	School
25	Zion/Trinity Cemetery	Cemetery
26	New Life Family Christian Center	Church
27	Middle Plum Preserve	Park
28	Christ Church of Victory	Church
29	Village Woods Retirement Center	Care Facility
30	Goodenow Grove Nature Preserve	Park
31	Goodenow Grove Nature Preserve	Park
32	St. John's Cemetery	Cemetery
33	St. Johns Evangelical Lutheran Church	Church
34	The Anchorage of Beecher	Care Facility
35	St. James Community Care of Beecher	Care Facility
36	Beecher High School	School
37	Beecher Elementary School	School
38	Museum & Library	Library/Museum
39	St. Luke United Church of Christ	Church
40	Beecher Community Church	Church
41	Zion Lutheran Church	Church
42	Zion Lutheran School	School
43	St. Paul's Cemetery	Cemetery

entifier (see Exhibit 3-3)	Community Facility	Type of Facility
45	St. Paul's Church	Church
46	Peotone Elementary School	School
47	First Presbyterian Church	Church
48	Crete Police Department	Police Department
49	United Methodist Church	Church
50	Peotone Junior High School	School
51	Immanuel United Church of Christ	Church
52	Peotone Library	Library
53	The Peotone Senior Living Center	Care Facility
54	Peotone High School	School
55	Park Forest Community Gardens	Park
56	Peotone Park	Park
57	Monee Reservoir	Park
58	Raccoon Grove Nature Preserve	Park
58 59	St. Paul's Christian School	School
60	St. Paul's United Church of Christ Cemetery	Cemetery
61	Water Tower Park	Park
62	Business District – Beecher	Shopping Area
63	Business District – Peotone	Shopping Area
64	Business District – Crete	Shopping Area
65	Fellowship Baptist Church	Church
66	Wayne Lehnert Preserve	Park
67	Pine Lake Park	Park
68	Thorn Creek Nature Preserve	Park
69	Thorn Grove	Park
70	Deer Creek Preserve	Park
71	Lower Plum Creek Preserve	Park
72	Victory Baptist Church	Church
73	Grace Lutheran Church	Church
74	Riverside Community Health Center	Care Facility
75	Will County Fair Grounds	Community Facility
76	Riverside Community Health Center	Care Facility
77	St. James Community Health Center	Care Facility
78	St. James Manor Nursing Homes/Villas Assisted Living	Care Facility
79	Crete Fire Department	Fire Department
80	Trinity Full Gospel Church	Church
81	Steger, playlot	Park
82	Steger Community Building	Community Facility
83	Eastview Elementary School	School
84	Immanuel Lutheran Church/Activity Center	Church
85	St. Liborius Church	Church
86	St. Liborius School	School
87	First Congregational United Church of Christ	Church
88	Steger, park	Park
89	Parkview Elementary School	School
90	Evergreen Hill Cemetery	Cemetery
91	Steger Estates Fire Department	Fire Department
92	Unitarian Universalist Church	Church
93	Aunt Martha's Youth Service Center (childcare)	Care Facility
94		Care rucinty

Hope Lutheran Early Learning Center St. Mary's Church St. Mary's School/Preschool Village Bible Church Skyline Memorial Cemetery Michael E. Craig Park, Heritage Playground Miller Chapel First Baptist Church First Baptist Daycare University Park Little People's Preschool	School Church School Church Cemetery Park Church Church Care Facility Park
St. Mary's Church St. Mary's School/Preschool Village Bible Church Skyline Memorial Cemetery Michael E. Craig Park, Heritage Playground Miller Chapel First Baptist Church First Baptist Daycare University Park	Church School Church Cemetery Park Church Church Care Facility
St. Mary's School/Preschool Village Bible Church Skyline Memorial Cemetery Michael E. Craig Park, Heritage Playground Miller Chapel First Baptist Church First Baptist Daycare University Park	School Church Cemetery Park Church Church Care Facility
Village Bible Church Skyline Memorial Cemetery Michael E. Craig Park, Heritage Playground Miller Chapel First Baptist Church First Baptist Daycare University Park	Cemetery Park Church Church Care Facility
Skyline Memorial Cemetery Michael E. Craig Park, Heritage Playground Miller Chapel First Baptist Church First Baptist Daycare University Park	Cemetery Park Church Church Care Facility
Michael E. Craig Park, Heritage Playground Miller Chapel First Baptist Church First Baptist Daycare University Park	Park Church Church Care Facility
Miller Chapel First Baptist Church First Baptist Daycare University Park	Church Church Care Facility
First Baptist Church First Baptist Daycare University Park	Church Care Facility
First Baptist Daycare University Park	Care Facility
University Park	
	School
Crete Reformed Church	Church
	Fire Department
	Cemetery
,	Cemetery
	Cemetery
•	Church
	Cemetery
,	Cemetery
	Church
	Cemetery
	School
	Community Facility
	Town Hall
	Cemetery
	Cemetery
,	Park
	Church
	Fire Department
,	Police Department
	Park
	Park
	Park
•	Park
	Church
	Park
	School
	School
,	Church
	Cemetery
	School
-	Park
	Library
	Park
	School Police Department
	Crete Fire Protection Pet Cemetery Eagle Lake Cemetery St. Luke's Cemetery St. John's United Church of Christ St. John's Cemetery Peotone Cemetery St. John's United Church of Christ St. John's United Church of Christ St. John's Cemetery Green Garden School SoWilC Education Center (Southern Will County Cooperative Green Garden Town Hall St. Peter's Cemetery Union Cemetery Park Pilgrimage Protestant Church University Park Fire Department University Park Police Department Park Forest, park Shabbona Park Crete Park/Willard Wood Park Center Steger, park Swiss Valley Park Veteran's Park Steger, park Crete Elementary School Crete Preschool Cooperative Crete United Methodist Church Adams Cemetery Crete-Monee High School Heritage Park Crete Public Library Joe Albrecht Memorial Field, baseball St. Liborius School/Earl Childhood Program Peotone Fire Department

Table 3-1 – Community Facilities					
Identifier (see Exhibit 3-3)	Community Facility	Type of Facility			
147	Beecher Police Department	Police Department			
148	Beecher Fire Department	Fire Department			
149	University Park Police Department	Police Department			
150	Monee Police Department	Police Department			
151	Monee Fire Department	Fire Department			
152	Firemen's Park	Park			
153	Coptic Orthodox Church Patriarchate of Alexandria	Church			
154	Trinity Evangelical Church	Church			
155	Beecher Junior High School	School			

Source: TAMS, 2001; Updated 2004 and 2010.

Section 4 - Environmental Overview

The purpose of the environmental review is to identify key environmental resources that may be affected by airport development. The data compiled in this section will be used throughout the study in evaluating potential airport development alternatives and to identify environmental related permits that may be required for recommended development projects.

The SSA site has been studied in detail over the past 20+ years. Existing environmental conditions were documented in the FAA's "Final Environmental Impact Statement Tier 1: FAA Site Approval and Land Acquisition by the State of Illinois Proposed South Suburban Airport". The ROD for the FEIS was issued by the FAA in July 2002. The FEIS describes the existing conditions on social, physical and natural parameters. As part of the Tier 2 EIS process that examines the construction and operation of the inaugural airport, this information will be analyzed and updated as necessary. Below is a summary of SSA existing conditions from 2002 for noise, air quality, water quality, floodplains, wetlands, endangered and threatened species of flora and fauna, biotic communities, park and recreation lands, historic, archaeological and cultural resources and farmlands.

4.1 - Noise

Noise conditions were determined for the communities and villages in the vicinity of SSA throughout the 1990's and again in 2004. Ambient noise levels were measured at more than 120 locations, including noise sensitive receptors. **Exhibit 4-1: Noise Sensitive Facilities** and **Exhibit 4-2: Ambient Noise Measurement Locations** present the location of noise sensitive facilities and the location of noise measurements in the vicinity of the airport site. Noise levels ranged from DNL 38 to 65 dBA with most values in the 40 to 50 dBA range. Noise levels were also measured along 46 roadway segments in the vicinity of the airport site. The measured levels ranged from 52 to 76 dBA within 50 to 75 ft of the roadway centerline. Noise measurements were also taken near railroad tracks, industrial sites and near Bult Field. Through a 24-hour day, it was determined that roadway traffic was the major contributor to the noise footprint in the vicinity of SSA.

4.2 - Air Quality

The information presented in the following section provides a brief overview of air quality conditions in the study area (within Will County) based on annual reports from the US Environmental Protection Agency by state that includes the nonattainment and maintenance areas for the following pollutants: 1-Hour Ozone, 8-Hour Ozone, Carbon Monoxide, Nitrogen Dioxide, Sulfur Dioxide, PM-10, PM-2.5 and Lead. In 2010, Will County was listed as Moderate classification in the 8-Hour Ozone and as in nonattainment for the PM-2.5.

Air Quality Monitoring Data

This discussion of existing air quality monitoring information is based on data from previous analysis conducted in 2000. Multiple roadway intersections were analyzed using the CO modeling analysis. The results indicate that there were no violations of the 1-hour CO standard of 35 ppm; but the 8-Hour CO standard of 9 ppm was potentially exceeded at some locations. However these modeling results are based on worst-case assumptions that produced conservatively high results with the data available at that particular time.

Ozone Levels

The highest 1-Hour Ozone levels exceeded the NAAQS in 1994 but there were no exceedances in 1999. Similarly, the highest 8-Hour Ozone levels in 1999 did not exceed this standard.

Other Pollutants

The highest NO_2 levels recorded in both 1994 and 1999 were within the NAAQS for this pollutant. Similarly, the highest annual average, 24-Hour and 3-Hour SO_2 concentrations remained below the NAAQS.

Particulate matter (in both the 2.5- and 10-micron size ranges) also remained within the NAAQS; with one exception. The exception being is the annual average value for PM_{2.5}, which was just slightly above the criteria. Lead levels remained below the NAAQS since before 1994.

4.3 - Water Quality

Physical and chemical measurements at stream sampling stations within the SSA site were conducted in October 1990 and May 1991. Both water and sediment samples were taken. Water quality analyses performed during the Illinois-Indiana Regional Airport Program (I-IRAP) Site Selection Study in 1990 and 1991 were discussed in detail in Technical Paper No. 5, Water Quality, Appendix E, Volume III of the I-IRAP Site Selection Report-Abstract (TAMS, 1991p). Additional water quality sampling was performed in the summer of 1994. The Governor's Air and Water Quality Certificate was issued on December 2, 1997 during the State of Illinois' review process of the SSA Environmental Assessment (IDOT, 1997).

4.4 - Floodplains

This section provides an inventory of the waterways and associated floodplains within the SSA site. Flooding is currently limited to agricultural fields along the creeks draining the area, and to some rural roads crossing these creeks. The depth of flooding during a 100-year flood event ranges from one inch to approximately to three ft. There are no designated floodways identified on the Federal Emergency Management Agency Flood Insurance Rate Maps for SSA. However, construction activities in the non-designated floodways, if the stream drains one square mile or greater, are still regulated by the Illinois Department of Natural Resources (IDNR), Office of Water Resources and county governments. In Will County, the floodplain is regulated as two zones: floodway and flood fringe.

The SSA site is drained by several headwater streams that flow through cropland in eastern Will County. Many reaches of these streams have been improved, straightened, or otherwise altered to improve drainage for agricultural purposes. Some of these streams have designated 100-year floodplains, while others are tributaries that flow into larger channels with designated floodplains. **Exhibit 4-3: 100-Year Floodplains** presents the 100-year floodplains for the airport site.

A total of approximately 38 miles of stream channels run through the SSA site. Associated with these channels are about 1,704 acres of designated, 100-year floodplains within the proposed airport boundary.

The extreme northern and eastern portions of the SSA site drain to the northeast towards Lake Michigan, as part of the Calumet River drainage. Two headwater tributaries of Plum Creek flow northeast through the area between the site and Illinois Route 1, to the east. These intermittent farm channels drain approximately 6.6 square miles of cropland. They join approximately two miles northeast of the site to form the main channel of Plum Creek. There is designated 100-year floodplains, approximately 150 ft wide, associated with these headwaters.

The majority of the site drains toward the south and southwest into the Kankakee River. Black Walnut Creek flows from the northeast corner to the southwest corner of the SSA site, draining approximately 11.7 square miles. It flows through open cropland with some forested banks. Black Walnut Creek flows southwest for approximately five miles before joining with the South Branch of Rock Creek, which is a tributary of the Kankakee River. There is designated 100-year floodplains associated with Black Walnut Creek varying from approximately 100 to 1,400 ft in width.

The headwaters of Marshall Slough are located in the extreme southwest portion of the site. Marshall Slough drains approximately two square miles of the SSA site. It is an intermittent stream, mostly improved, flowing through cropland. It joins with Black Walnut Creek and the South Branch of Rock Creek approximately six miles southwest of the site. The designated 100-year floodplain is approximately 200 ft wide.

The headwaters of the South Branch of Rock Creek drain approximately 5.4 square miles in the central and southern portions of the SSA site. These are mainly intermittent farm swales draining cropland. The South Branch of Rock Creek flows south for approximately five miles before joining with Rock Creek, which empties into the Kankakee River. There is 100-year floodplains associated with the South Branch of Rock Creek varying from approximately 100 to 2,300 ft in width.

Rock Creek and its tributaries drain approximately 6.8 square miles at the extreme western side of the SSA site. The main channel flows through the area between the site and Interstate 57, to the west. The tributaries are intermittent farm swales located to the northwest and northeast of the main channel. Both Rock Creek and its tributaries flow through open cropland. The designated 100-year floodplain for Rock Creek is approximately 2,100 ft wide, and its tributaries vary from approximately 250 to 400 ft wide. Rock Creek is contained within the Rock Creek Drainage District, reactivated in the summer of 1997 to alleviate flooding problems in the Village of Peotone.

Exline Slough's headwaters and tributaries are located in the eastern quadrant of the SSA site, draining approximately 3.4 square miles. Exline Slough flows south for approximately 22 miles before emptying into the Kankakee River. The tributaries are intermittent streams flowing through cropland. The designated 100-year floodplain varies in width from approximately 150 to 1,100 ft.

The analysis of the existing floodplains within SSA was conducted using a topographical survey that was (completed in 2009) and computer modeling (continues throughout 2010). Results of this analysis will be incorporated into the Tier 2 EIS.

4.5 - Wetlands

The most common type of wetland found within the SSA site is palustrine emergent wetland (PEM), followed by palustrine forested (PFO) wetland, wetland complexes, and palustrine scrub-shrub (PSS) wetland. Riverine (R2OWHx) habitat (jurisdictional waters of the U.S.) is also extensive within this site. Palustrine open water (POW) and ponds (PUB) comprise the other waters of the U.S. within the site. The state of Illinois contracted with Earth Tech, now AECOM, to conduct a wetland analysis of the Inaugural SSA site in 2008 and 2009. The draft report is available for review in the Environmental section of the project web site at www.southsuburbanairport.com. Exhibit 4-4: 2008 and 2009 Wetlands Identified presents the wetlands identified on the airport site in 2008 and 2009

The palustrine emergent (PEM) wetlands within the SSA site include both cultivated and uncultivated wetlands dominated by herbaceous, hydrophytic vegetation. Uncultivated areas are dominated by a variety of perennial emergent species such as reed canary grass (*Phalaris arundinacea*), cattail (*Typha* spp.), bulrushes (*Scirpus* spp.) and sedges (*Carex* spp.). Cultivated (farmed) wetlands are characterized by weedy, annual species such as barnyard grass (*Echinochloa crusgalli*) and pinkweed (*Polygonum pensylvanicum*).

The PFO wetland designation includes wetlands characterized by deciduous trees in the canopy layer. Forested wetlands within the SSA site are typically found in depressions or swales in cultivated fields where wetlands have remained unplowed long enough for trees to mature. This wetland type is also found along flooded, swampy stream margins where the adjacent hydrology has not been altered due to stream channel dredging and placement of dredged material in spoil banks along the channels. This wetland type is also a component of the wetland complexes within the site. Dominant species include green ash (Fraxinus pennsylvanica subintegerrima), American elm (Ulmus americana) and cottonwood (Populus deltoides).

The PSS wetlands are dominated by low-growing woody vegetation such as sandbar willow (*Salix interior*) and redosier dogwood (*Cornus stolonifera*). Scrub-shrub wetlands are generally associated with emergent and/or forested wetlands (wetland complexes) within this area.

Palustrine wetland complexes include a combination of wetland types, where interspersion is too great to allow mapping at a practical scale. For example, wetland complexes may consist of emergent wetlands with a pond, forested wetlands with a shrubby component, or expansive areas with a mosaic of several wetland and water/land cover categories.

Within the SSA site, the waters of the U.S. designated as riverine (R2OWHx) by the NWI are primarily comprised of constructed drainage channels (ditches). A few small natural creeks remain within the site; however, most of the once natural creeks have been channelized, resulting in steep-sided, straight-lined channels with well-drained spoil berms along the tops of the channel banks. In these instances, wetland hydrology is confined to the width of the stream channel. Plant species, such as reed canary grass (*Phalaris arundinacea*), beggar's ticks (*Bidens* spp.) and jewelweed (*Impatiens* spp.), grow in the channel where water is shallow or where the banks have slumped. The tops of the channel banks generally support upland species, such as Hungarian brome (*Bromus inermis*) and tall fescue (*Festuca elatior*). Where woody vegetation has become established along the channels, common species include cottonwood (*Populus deltoides*), box elder (*Acer negundo*), and green ash (*Fraxinus pennsylvanica subintegerrima*).

Waters of the U.S. within the SSA site also includes POW habitats. These open water areas have mainly resulted from excavation activities, such as construction of borrow pits, residential landscaping, or livestock watering ponds. Some ponds are lined with gravel or rip rap. Residential pond borders are generally mowed to the edge, while livestock pond borders are grazed. Emergent or scrub-shrub vegetation (cattails, sandbar willow) is found along the banks of some manmade ponds. Naturally occurring ponds also fall into this category. Generally, naturally occurring ponds within this site are found in association with emergent, scrub-shrub or forested wetland types. Their acreage is included within the wetland complex category.

Wildlife habitat is the primary value of the wetlands and other waters of the U.S. within the SSA site. Also, wetlands adjacent to ditches and streams provide some water quality improvement by trapping sediment in runoff before it enters drainageways. And, even though channelization and other drainage activities have reduced the flood attenuation value of these wetlands, they do provide some flood attenuation capacity by collecting and detaining overland runoff.

4.6 - Endangered and Threatened Species of Flora and Fauna

The results of an informal information request to the IDNR EcoCAT database made in January 2010 showed no occurrences of any federal-listed or candidate species and one occurrence of a state-listed species, the Barn Owl (*Tyto alba*), within the study area or the immediate vicinity. 45

4.7 - Biotic Communities

The SSA site is located within the Western Morainal Section of the Morainal Natural Division. It is characterized by rolling topography associated with end moraines deposited by Wisconsinan glaciers. Elevations within the site range between 690 ft to 800 ft above sea level. Soils usually have a high clay content, frequently resulting in a seasonally perched water table. This area was once predominantly prairie and oak savanna, with isolated patches of denser woodland. In the project area, oak groves were once present north and northwest of the SSA site, and the area within the proposed acquisition boundaries was once overwhelmingly open grassland. By the late 1800's, most of the area had been converted to agriculture, which remains the most prominent land use (more than 70 percent) today.

⁴⁵ EcoCAT. Illinois Department of Natural Resources, Division of Ecosystems and Environment. Accessed January 29, 2010.

Plant Biota

Much of the remaining vegetated land in the greater Chicago region bears little resemblance to pre-settlement ecological conditions. Most areas have been disturbed and degraded to some degree and contain varying proportions of adventive (non-native) weedy invaders. The floristic quality of the SSA site is low, with Native Floristic Quality Index values less than 20. Land cover classes containing plant communities such as fallow cropland, pasture, and herbaceous successional field, often rate in the 0 to 20 range. Such areas are essentially of no natural area significance from a floristic quality perspective, and are replaceable (Wilhelm and Ladd, 1988).

Terrestrial Biota - Mammals

Most of the SSA site was originally grassland. Prairie remnants are inhabited by deer mice (*Peromyscus maniculatus*) and meadow voles (*Microtus pennsylvanicus*). These species also seem to thrive in the extensive fallow cropland that was farmed until a few years ago within the Ultimate Airport Boundary. Other common mammals of open areas include thirteen-lined ground squirrels (*Spermophilus tridecemlineatus*), masked shrews (*Sorex cinereus*), short-tailed shrews (*Blarina brevicauda*), Eastern cottontails (*Sylvilagus floridanus*), and striped skunks (*Mephitis mephitis*). In the few wooded areas and in later successional fields where shrubs are present, white-footed mice (*Peromyscus leucopus*) replace deer mice. White-tailed deer (*Odocoileus virginiana*) are more abundant in wooded areas of the sites, but have not yet over-populated the area. General field observations included the observations of deer mice and thirteen-lined ground squirrels on adjacent grassy roadside strips.

Birds

Over a 16-month period of time from 1990 continuing into 1991, 156 species were observed within and around the SSA site. Seventy percent of the individuals belonged to open country passerines, which also had the highest percentage of species, 31 percent. Waterbirds had the second highest percentage of individuals, 11 percent, while woodland passerines had the second highest percentage of species, 30 percent. Twenty-seven species were confirmed to breed, and breeding evidence indicated that an additional 41 species were probably nesting within the vicinity of the SSA site.

Raccoon Grove Nature Preserve, located northwest of the proposed acquisition boundaries, was surveyed periodically in 1994. This preserve contains mature deciduous woodland, emergent wetlands and successional field communities. Louisiana waterthrushes (Seiurus motacilla) were found nesting in the floodplain forest sections of the preserve. European starlings (Sturnus vulgaris), American robins (Turdus migratorius), tufted titmice (Parus bicolor), and wood thrushes (Hylocichla mustelina) nest in the upland forest portions of the preserve. Nest parasitism by brown-headed cowbirds (Molothrus ater) was observed within the upland forest. There does not appear to be a large enough block of contiguous closed canopy forest to dispel predation by the brown-headed cowbird on forest interior species.

American robins and red-bellied woodpeckers (Melanerpes carolinensis) were found nesting along the forest edge. Field sparrows (Spizella pusilla), house wrens (Troglodytes aedon), Tree Swallows (Tachycineta bicolor) and European starlings were found nesting in successional field habitat within the preserve. Breeding evidence indicated that the following species probably nest in the various habitats found within the preserve: downy woodpeckers (Picoides pubescens), hairy woodpeckers (Picoides villosus), Northern flickers (Colaptes auratus), green-backed herons (Butorides striatus), Northern cardinals (Cardinalis cardinalis), rufous-sided towhees (Pipilo erythropthalmus), wood ducks (Aix sponsa), black-capped chickadees (Parus atricapillus), blue jays (Cyanocitta cristata), Carolina wrens (Thryothorus ludovicianus), Eastern wood-pewees (Contopus virens), great crested flycatchers (Myiarchus crinitus), red-eyed vireos (Vireo olivaceus), white-breasted nuthatches (Sitta carolinensis), common grackles (Quiscalus quiscula), song sparrows (Melospiza melodia), red-winged blackbirds (Agelaius phoeniceus), American goldfinches (Carduelis tristis), Eastern bluebirds (Sialia sialis) and mourning doves (Zenaida macroura). A total of 70 species were observed within Raccoon Grove.

Reptiles and Amphibians

Thirteen species of amphibians and reptiles are known to occur in the immediate vicinity of the SSA site. Most are considered relatively common in northeastern Illinois. The one exception is the plains leopard frog (Rana blairi), which is widespread in central Illinois, but seldom common at any one locality, and is at the edge of its range in this area (Brown and Morris, 1990). Blanding's turtle (Emydoidea blandingii), a State threatened species and a Federal "species at risk" (formerly Category 2) is present at Raccoon Grove Nature Preserve.

Because almost all of the study area was originally prairie, the herpetofauna consists almost entirely of grassland species and habitat generalists. Prairie remnants, herbaceous successional fields and marshes are inhabited by American toads (*Bufo americanus*), western chorus frogs (*Pseudacris triseriata*), northern leopard frogs (*Rana pipiens*), western fox snakes (*Elaphe vulpina*), and plains garter snakes (*Thamnophis radix*). Savanna species like the eastern tiger salamander (*Ambystoma tigrinum*), are largely restricted to the immediate vicinity of Raccoon Grove Nature Preserve. Aquatic species, such as bullfrogs (*Rana catesbeiana*), green frogs (*Rana clamitans*), and snapping turtles, (*Chelydra serpentina*), occupy the small streams. Only toads and fox snakes have been seen in intensively cultivated areas.

<u> Aquatic Biota – Fishes</u>

The smaller streams in rural Illinois, including some of those found in the vicinity of the SSA site, has gradually declined in quality (Karr et al., 1986; Smith, 1971; Gammon et al., 1990). Non-point source pollution, such as agricultural runoff, sedimentation and habitat modification, such as channelizing, straightening and removing obstacles from streams, are among the contributing factors to this decline.

Black Walnut Creek is a small headwater stream. Fish diversity was poor in the upper reaches where water is seasonally stagnant. The middle portion of the stream has a higher gradient, better habitat diversity and a more varied substrate. Intolerant species present included Southern redbelly dace (*Phoxinus erythrogaster*) and fantail darters (*Etheostoma flabellare*) Lower segments of the stream near the confluence with the South Branch of Rock Creek are maintained in a channelized condition. This homogenous habitat resulted in moderate species diversity. Bluntnose minnows (*Pimephales notatus*) comprised nearly half the catch in this area.

The South Branch of Rock Creek joins with Black Walnut Creek and Marshall Slough, just south of the Village of Peotone. A few types of fish were abundant, but species diversity was only average. Southern redbelly dace dominated the upstream station; striped shiners (Luxilus chrysocephalus) were most common downstream. Habitat quality was low.

Exline Slough was of less than optimal habitat quality. Grass pickerel (*Esox americanus*) and pirate perch (*Aphredoderus sayanus*) were consistently captured at the upstream area. A gravel bottomed riffle at the downstream area produced the only rainbow darters (*Etheostoma caeruleum*) collected during the field assessment; banded darters (*Etheostoma zonale*) were more common here than elsewhere.

Benthic Macroinvertebrates

In general, stream quality ranged from poor to fair-good.⁴⁶ The one exception was the downstream station on Exline Slough where, in May 1991, field analysis reflected very good water quality.

Species diversity was generally high at Exline Slough, which is indicative of good water quality conditions; however, some fluctuation was evident. Most of the remaining stream samples featured low diversity, indicating impacted water quality conditions.

⁴⁶ Technical Paper No. 7, TAMS, November 1991.

4.8 - Park and Recreation Lands

Section 4(f) of the DOT Act of 1966 (49 U.S.C. 303), which is currently referred to as Section 303(c), states that, "the Secretary of Transportation" shall not approve any program or project which will require the use of any publicly owned land from a public park, recreation area, or wildlife and waterfowl refuge of national, state or local significance, or any local land from an historic site of national, state or local significance unless:

- a) there is no feasible and prudent alternative to its use, and
- b) all possible planning to minimize harm is made part of the project." (FAA 1985a)

All publicly owned parks, recreation areas, publicly owned nature preserves (dedicated natural areas) have been included as Section 303(c) lands. Illinois nature preserves may not be acquired for any other use, including by eminent domain, except for another public use and by approval of the Illinois Nature Preserves Commission, the governor, and the public owner. **Table 4-1: Existing Section 303(c) Lands** identifies the Section 303(c) properties, their ownership and their public uses within the immediate vicinity of the SSA site. There are no Section 6(f) lands in the vicinity of the SSA site. **Exhibit 4-5: DOT Section 303 (c) Lands** presents the park and recreation lands in the vicinity of the airport site.

Section 303(c) Lands Ownership		Public Uses	Year Established	Size	Average Annual Visitors	Federal Funds
Deer Creek Preserve	Forest Preserve District of Will County	Special use permits	1994	30 acres	Unknown	No
Fireman's Park	Village of Monee	Tours of National Register Historic site	1940	7 acres	6,000	No
Goodenow Grove Nature Preserve	Forest Preserve District of Will County	Hiking, picnicking, camping, ski trails, fishing, bird watching, sledding, skating, environmental education center, educational programs, special use permits, critical habitat, scientific monitoring and research programs	1938; 1996 designated as Nature Preserve	541 acres dedicated Nature Preserve	27,811+	
Laughton Preserve	Forest Preserve District of Will County	Fishing, bird watching, hiking, picnicking, special use permits	1931 585 acres	190+	190+	No
Lower Plum Creek Preserve	Forest Preserve District of Will County	Special use permits	1989	540 acres	Unknown	No
Middle Plum Preserve	Forest Preserve District of Will County	High-quality forested, open-space corridor	N/A	318 acres	Unknown	No
Monee Reservoir	Forest Preserve District of III County	Fishing, picnicking, boating, hiking, biking, special use permits, educational programs, skating, dog sledding, cross country skiing	1988	195 acres	86,199+	Dingell- Johnson
Old Plank Road Trail/Grand Illinois Trail/ American Discovery Trail	Forest Preserve District of Will County, Illinois Dept. of Natural Resources & several municipalities and townships	Hiking, bird watching, biking, cross country skiing	1997	22 mile	500,000+	ISTEA
Peotone Park	Peotone Park District	Ballparks, playground	Unknown	25 acres	20,000	No
Pine Lake Park	Village of University Park	Picnicking, fishing, canoeing, hiking, educational programs	1967	37 acres	2,600	No

Section 303(c) Lands Ownership		Public Uses	Year Established	Size	Average Annual Visitors	Federal Funds
Plum Valley Preserve	Cook County Forest Preserve	Hiking, bird watching	Unknown	1,068 acres	Unknown	Unknown
Raccoon Grove Nature Preserve	Forest Preserve District of Will County	Restoration of prairie and savanna, nature walks, critical habitat, bird watching, hiking, picnicking,, educational programs, special use permits, scientific monitoring and research programs	1937	210 acres	Unknown	No
Sauk Trail Preserve	Forest Preserve District of Will County	Educational trail, educational programs, bird watching, special use permits	1976	240 acres	4,000+	No
Sauk Trail Woods	Cook County Forest Preserve District	Hiking, bird watching, biking	Unknown	246 acres	6 acres Unknown	
Thorn Creek Nature Preserve	Forest Preserve District of Will County, Illinois Dept. of Natural Resources, Park Forest, University Park	Hiking, educational programs, educational trails, museum, bird watching, scientific monitoring and research programs	1974	825 acres	11,158+	No
Thorn Grove Preserve	Forest Preserve District of Will County	Special use permits	1989	86 acres	Unknown	No
Wayne Lehnert Preserve	Forest Preserve District of Will County	Special use permits	1971	80 acres	Unknown	No

Source: TAMS, 1995, 1997, 2001; Forest Preserve District of Will County, IDNR; Peotone Park District; and Village of Monee.

4.9 - Historic Properties/Archaeological Resources

Land use within the SSA site was agricultural after Euro-American settlement occurred in the third quarter of the 19th century. A number of late 19th century farmsteads have been recorded and studies are underway concerning the associated agrarian-related architecture. The Potawatomi Tribe historically utilized portions of the SSA site. The Carl Gottlieb Seggebruch Homestead, a historic 1860-era farmstead, was designated as a Will County Historic Landmark by the Will County Historic Preservation Commission in April 2004. The farmstead is in the footprint of the Ultimate Airport Boundary in Crete.

A review of Illinois properties on the National Register of Historic Places in 2005 indicated that there were no known sites listed in or eligible for the National Register within the SSA site. An archaeological reconnaissance and historic structure survey was conducted at the airport site in 1995 and 1996. This work and subsequent investigations are being coordinated with the Illinois State Historic Preservation Officer.

Beginning in the spring of 1995, archaeologists from the University of Illinois and architectural historians, under the direction of Dr. John Vogel of Heritage Research, Ltd., initiated a background resource documentary research and a pedestrian survey of the airport site. Prehistoric site density varies from two sites per 100 acres in high probability zones to one site per 400 acres in low probability zones. Approximately 8,000 acres of high probability zone areas are contained within the SSA site. Coordination with the Illinois Historic Preservation Agency's, State Historic Preservation Officer (SHPO) is ongoing regarding this survey.

4.10 - Prime and Important Farmland

The majority of the existing land use within the SSA Ultimate Airport Boundary is farmland. About 85 percent of the site consists of active farmland. Within the site, almost three-fourths of the active farmland is classified as

prime farmland soils and the remaining is classified as important farmland soils, as defined by the Illinois Farmland Preservation Act. **Exhibit 4-6: Prime and Important Farmland Soils** depicts the prime and important farmland soils as presented in the FAA's Tier 1 FEIS.

Section 5 - Socioeconomic Data

Socio-economic and demographic factors within the defined service area of an existing or a future airport are key factors in determining future usage. Demographic analysis presented below is based on data obtained from Woods & Poole; Bureau of the Census, U.S. Department of Commerce; Bureau of Labor Statistics, U.S. Department of Labor; the Bureau of Economic Analysis, U.S. Department of Commerce; and the Illinois Department of Employment Security. As appropriate, demographic and employment data for 1970, 1980, and 1990 are compared with those of 2000 and 2004 Census data as well as 2008 Census estimates when available.

5.1 - Population

Population has steadily grown in the 11-County Study Region. In 2000, the regional population totaled 9,157,140, an increase of approximately 15 percent over the 1970 population of 7,947,852, approximately 13 percent over the 1980 population of 8,114,844, and approximately 11 percent over the 1990 population of 8,239,820. While the region has thrived over the past 30 years, the focus of growth until the early 1990's shifted from the center of the City of Chicago to the suburbs.

As shown in **Table 5-1: Population of the 11-County SSA Study Region**, population in the SSA study area has been increasing at variable rates. For example, Will County gained nearly 145,000 new residents (40 percent increase) between 1990 and 2000, while Kankakee County, Illinois, and Lake County, Indiana gained eight and two percent, respectively, during the same time period. In fact, the U.S. Census Bureau estimated that Will County's population has increased by 22.2 percent from 502,266 to 613,849 between April 1, 2000 and July 1, 2004. Based on Census Bureau data, in terms of population numbers, Will County is the fifth fastest growing county in the U.S. Further, estimates from the U.S. Census Bureau's American Community Survey 2006 to 2008 indicates that the population of Will County increased by 167,051 individuals (33 percent) between 2000 and 2008. In terms of population numbers, Will County continues to be identified as one of the fastest growing counties in the U.S.

The SSA site includes portions of four townships in the proposed acquisition area: Monee, Washington, Crete and Will. Overall, these townships have exhibited substantial growth in population (34 to 109 percent) since 1970. Although Monee Township experienced a two percent population decline between 1980 and 1990, it achieved a 23 percent growth rate between 1990 and 2000. This growth rate has continued throughout the 2000s. The dominant age group in the vicinity of the primary study area is adults ages 20 to 64, comprising 59 percent of the total 2000 population (Table 5-2: Population and Age Distribution within the SSA Site).

5.2 - Housing

Similar to population levels in the greater Chicago region, the number of housing units has steadily increased over the last 30 years, with the exception of the City of Chicago. The city experienced a drop in the number of housing units between 1970 and 1990, but reversed that trend with an increase in housing units between 1990 and 2000 and continuing through the 2008 estimates. **Table 5-3: Housing Units within the 11-County SSA Study Region** lists the number of housing units within the greater Chicago region by county from 1970 to 2000. The number of housing units increased by nearly 16 percent between 1970 and 1980, by 5.6 percent between 1980 and 1990, and by nearly 10 percent between 1990 and 2000. U.S. Census Bureau estimates indicate that the number of housing units in Will County increased by 53,049 between 2000 and 2008.

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⁴⁷ Population Division, U.S. Census Bureau, Table 9 – 100 Fastest Growing U.S. Counties with 10,000 or more Population in 2004: April 1, 2000 to July 1, 2004. Release Date: April 14, 2005.

Table 5-1: Population of 11-County SSA Study Region								
County	1970	1980	1990	2000	2008 Estimates			
Illinois	•							
Cook	5,493,766	5,253,628	5,105,067	5,376,341	5,278,738			
excluding Chicago	2,124,409	2,248,566	2,321,341	2,480,325	2,553,532			
Chicago	3,369,357	3,005,072	2,783,726	2,896,016	2,725,206			
DuPage	487,966	658,858	781,666	904,161	927,410			
Grundy	26,535	30,582	32,337	37,535	46,819			
Kane	251,005	278,405	317,471	404,119	497,667			
Kankakee	97,250	102,926	96,255	103,833	111,335			
Kendall	26,374	37,202	39,413	54,544	95,826			
Lake	382,638	440,388	516,418	644,356	706,864			
McHenry	111,555	147,897	183,241	260,077	314,112			
Will	247,825	324,460	357,313	502,266	669,317			
Indiana								
Lake	546,253	522,917	475,594	484,564	491,436			
Porter	87,114	119,816	128,932	146,798	160,169			
Region Total	7,758,281	7,917,079	8,033,707	8,918,594	9,299,431			

Source: Source: U.S. Census Bureau, 1990 Census of Population and Housing, Table 30: Population and Housing Units: 1940 to 1990; Table 45: Population and Housing Units, 1970 to 1990; Area Measurements and Density: 1990. Population Division, U.S. Census Bureau, 2008 Annual Estimates.

Table 5-2: Population and Age Distribution within the SSA Site								
Tarronalain	Population			2000 Population by Age				
Township	1980	1990	2000	2008*	Under 5	5 to 19	20 to 64	Over 64
Will County, IL		-	-	-	-		-	
Crete	20,416	21,629	23,589	26,446	1,432	4,758	14,212	3,187
Monee	10,996	10,817	13,294	17,183	1,065	3,175	7,798	1,256
Washington	3,536	10,817	3,948	5,317	173	870	2,224	681
Will	1,136	1,332	1,568	2,013	107	387	915	159
Totals	36,084	37,529	42,399	50,959	2,777	9,190	25,149	5,283

Source: Woods & Poole, 1993; U.S. Census Bureau, 2000 and 2008. *Estimate.

In 2000, housing in the vicinity of the SSA site was characterized as low-density residential, predominantly single-family and owner-occupied (**Table 5-4: Housing Units within the SSA Site**). In 2000, there was a 4.4 percent vacancy rate in the townships containing the SSA site. Although 2008 Township estimates are not available, the U.S. Census Bureau estimated that 5.9 percent of the housing units were vacant that year throughout Will County.

5.3 - Employment

Based on 2008 estimates from the Bureau of Labor Statistics, the employed civilian labor force in the greater Chicago region was nearly 4.64 million (Table 5-5: Total Employment and Unemployment by 11-County SSA Study Region), and the unemployed labor force was 365,851. The largest number of jobs (nearly 54 percent) for the thirteen-county region occurred in Cook County. This number of jobs, as a percentage of the total jobs in the region, represented a decrease from nearly 60 percent in 2000. As of 2000, unemployment in the region had declined to about 4.4 percent. This trend reversed in 2008 with a downturn in the national economy. In Will County, the dominant industries in 1998 were manufacturing, retail trade, construction and health care and social services (Table 5-6: Employed Persons by Industry-Will County). Labor statistics from 2008 indicate that the dominate industry categories are government, retail trades and manufacturing sectors. Will County reported a 2008 employed labor force of 336,956, and an unemployed population of 21,997, a rate of 6.5 percent (Table 5-5: Total Employment and Unemployment by County Greater Chicago Region).

Table 5-3: Housing	Table 5-3: Housing Units within the 11-County SSA Study Region					
County	1970	1980	1990	2000 ⁴⁹	2008 ⁵⁰ Estimates	
Illinois						
Cook	1,855,373	1,994,211	2,021,833	2,096,121	2,171,801	
excluding Chicago	645,955	819,505	888,794	943,253	989,475	
Chicago	1,209,418	1,174,706	1,133,039	1,152,868	1,182,326	
DuPage	141,119	234,819	292,537	335,621	358,282	
Grundy	8,831	11,529	12,652	15,040	18,284	
Kane	77,088	98,547	111,496	138,998	171,626	
Kankakee	29,660	37,587	37,001	40,610	44,083	
Kendall	7,774	12,518	13,747	19,519	32,979	
Lake	110,448	150,505	183,283	225,919	252,621	
McHenry	36,288	52,976	65,985	92,908	114,247	
Will	73,328	109,754	122,870	175,524	228,573	
Indiana						
Lake	167,175	186,375	183,014	194,992	209,311	
Porter	26,205	41,529	47,240	57,616	65,485	
Regional Total	2,532,929	2,927,350	3,091,658	3,392,868	3,667,292	

Source: U.S. Census Bureau, 1990 Census of Population and Housing, Table 30: Population and Housing Units: 1940 to 1990; Table 45: Population and Housing Units, 1970 to 1990; Area Measurements and Density: 1990.

Table 5-4: Housing Units within the SSA Site					
Township	Housing Units	Owner Occupied	Renter Occupied	Vacant	
Will County	-	-			
Crete	9,442	7,129	1,936	377	
Monee	5,034	3,492	1,294	248	
Washington	1,505	1,172	266	67	
Will	579	432	111	36	
Total Housing Units	16,650	12,225	3,607	728	

Source: U.S. Census Bureau, 2001.

5.4 - Income

In 2000, DuPage County, Illinois had the highest median household income within the greater Chicago region, as shown in Table 5-7: Median Household Income in Dollars within the 11-County SSA Study Region. Will County had the fifth highest median household income within the region, averaging \$62,238 per household in 2000, a 51 percent increase over 1990 median household income. Census Bureau estimates in 2008 indicate this trend continued with Will County remaining fifth on the list with a median household income of \$62,238 and Lake County replacing DuPage as the county with the highest at \$80,240.

Lake County, Illinois had the highest per capita income in 2000 within the greater Chicago region, at \$32,102 (see Table 5-8: Per Capita Income in Dollars within the 11-County SSA Study Region). Will County ranked fifth in the region with a \$24,613 per capita income, a 62 percent increase over 1990 per capita income. Again these trends continue with the 2008 estimates: Will County remains fifth with a per capita income of \$29,820 dollars while DuPage and Lake counties rank number one and two with per capita incomes of \$38,458 and \$38,365, respectively.

⁴⁹ U.S. Bureau of Census, 2000.

⁵⁰ U.S. Census Bureau, American Community Survey, 2006-2008.

In 2008, Lake County, Indiana had the highest percentage of individuals living below the poverty level (16.0 percent), while Will County ranked number tenth, of 13 counties, in this category with 6.0 percent of its population below the poverty level (see **Table 5-9**: **Persons below Poverty**, **Percent within the 11-Sounty SSA Study Region)**.

Table 5-5: Total Employment and Unemployment by 11-County SSA Study Region **Unemployed Civilian Labor Force Employed Civilian Labor Force** County 2000⁵¹ 2000⁵² 1980 1990 2008* 1980 1990 2008* Illinois 2,363,086 2,474,073 2,569,474 2,495,909 205,581 178,686 125,430 222,042 Cook 296,073 445,482 516,874 489,362 17,244 17,194 13,994 26,744 DuPage Grundy 15,060 15,572 18,194 23,938 1,631 1,425 1,126 1,858 125,237 165,997 213,520 248,198 10,795 9,668 8,765 15,375 Kane 4,587 Kankakee 37,790 43,861 50,110 52,103 4,793 3,387 2,554 Kendall 18,320 21,322 29,554 38,923 1,137 922 841 2,805 11,757 12,022 198,096 266,056 322,972 351,793 14,861 24,561 Lake McHenry 99,137 134,893 163,408 5,482 5,212 4,503 10,258 66,452 Will 145,955 178,245 242,383 336,956 13,915 11,473 10,131 21,997 Indiana 215,573 206,730 208,911 221,128 28,871 14,380 10,181 19,724 Lake Porter 49,390 62,763 71,809 80,609 4,511 2,612 2,405 4,808 **Region Total** 3,531,031 3,979,238 4,378,694 4,502,327 308,821 256,716 193,523 354,759

Source: 1998 USA Counties, Labor Force, Civilian and Unemployment (BLS); U.S. Census Bureau; U.S. Census Bureau, American Community Survey 2006-2008. *Estimated.

Table 5-6: Employed Persons by Industry – Will County		
Industry	1998	2008
Agricultural Services, Forestry and Fishing*	2,651	358
Mining	257	278
Utilities	2,535	1,946
Construction	15,745	12,646
Manufacturing	25,517	20,188
Wholesale Trade	8,284	11,943
Retail Trade	18,645	28,201
Transportation & Warehousing	4,984	8,502
Information	3,688	3,169
Finance & Insurance	4,455	5,217
Real Estate & Rental & Leasing	1,627	1,818
Professional, Scientific & Technical Services	5,846	6,801
Management of Companies & Enterprises	1,453	1,040
Administrative, Support, Waste Management, Remediation Services	10,297	9,281
Educational Services	2,667	3,413
Health Care & Social Assistance	13,641	19,560
Arts, Entertainment & Recreation	5,504	4,040
Accommodation & Food Services	10,903	15,516
Other Services	8,471	6,847
Auxiliaries	1,051	571
Government *	26,000	33,192

Source: U.S. Census Bureau, 2003, Bureau of Economic Analysis, U.S. Department of Commerce, 2003. Illinois Department of Employment Security (IDES); Historical Illinois at Work Data, 4th Quarter, 2008; http://lmi.ides.state.il.us/ilatwork/ilatwork_revised.htm. Note: Discrepancies

⁵¹ Civilian Labor Force – U.S. Bureau of Labor Statistics, Local Area Unemployment Statistics, U.S. Department of Labor, 2001.

⁵² Civilian Labor Force – U.S. Bureau of Labor Statistics; Local Area Unemployment Statistics, U.S. Department of Labor, 2001.

between Tables 5-5 and 5-6 are due to accounting differences between part-time and full-time jobs and classification of agricultural and government, employees.

Table 5-7: Median Household Income in Dollars within the 11-County SSA Study Region					
County	1980 ⁵³	1990*	2000	2008 Estimates	
Illinois					
Cook	32,151	32,673	45,922	54,355	
DuPage	46,096	48,876	67,887	77,441	
Grundy	36,325	35,728	51,719	72,654	
Kane	37,036	40,080	59,351	68,969	
Kankakee	29,127	28,284	41,532	51,619	
Kendall	41,076	42,834	64,625	79,839	
Lake	42,244	46,047	66,973	80,240	
McHenry	39,333	43,471	64,826	77,681	
Will	39,092	41,195	62,238	75,891	
Indiana					
Lake	35,704	30,439	41,829	49,835	
Porter	40,553	37,142	53,100	61,512	

Source: American Fact Finder, Table C1, Median Household Income by County: 1969, 1979, 1989, U.S. Census Bureau; U.S. Census Bureau, 2004; U.S. Census Bureau, American Community Survey 2006-2008.

Table 5-8: Per Capita Income in Dollars within the 11-County SSA Study Region					
County	1980 ⁵⁴	1990 ⁵⁵	2000	2008 Estimates	
Illinois				-	
Cook	13,789	15,697	23,227	29,299	
DuPage	17,534	21,155	31,315	38,458	
Grundy	13,588	14,474	22,591	27,465	
Kane	14,188	15,890	24,315	29,664	
Kankakee	11,415	12,142	19,055	22,709	
Kendall	14,226	16,115	25,188	30,531	
Lake	16,929	21,765	32,102	38,365	
McHenry	14,480	17,271	26,476	31,798	
Will	13,394	15,186	24,613	29,820	
Indiana					
Lake	12,945	12,663	19,639	23,515	
Porter	14,175	15,059	23,957	28,837	

Source: American Fact Finder, Table C3, Per Capita Income by County: 1959, 1969, 1979 and 1989, U.S. Census Bureau; U.S. Census Bureau, 2004; Census Bureau, American Community Survey 2006-2008.

Table 5-9: Persons below Poverty, Percent within the 11-County SSA Study Region				
County 2000 2008 Estimates				
Illinois				
Cook	13.5	14.8		
DuPage	3.6	3.6		
Grundy	4.8	6.2		
Kane	6.7	8.4		
Kankakee	11.4	13.2		

⁵³ In 1989 CPI-U adjusted dollars. ⁵⁴ In 1989 CPI-U adjusted dollars.

⁵⁵ In 1989 CPI-U adjusted dollars.

Table 5-9: Persons below Poverty, Percent within the 11-County SSA Study Region				
County	2000	2008 Estimates		
Kendall	3.0	3.8		
Lake	5.7	6.4		
McHenry	3.7	5.6		
Will	4.9	6.0		
Indiana				
Lake	12.2	16.0		
Porter	5.9	9.6		

Source: U.S. Census Bureau, 2004; U.S. Census Bureau, American Community Survey 2006-2008.

Section 6 – SSA Land Acquisition Program

6.1 – Land Acquisition Policies

The State of Illinois' land acquisition policies for SSA have been stated in the Tier 1 EIS, Chapter 6.0 Mitigation and Appendix C, Illinois Department of Transportation Land Acquisition Policy. Appendix C includes IDOT Memorandums of October 12, 2000, August 14, 2001, January 9, 2002 and February 22, 2002. These documents define the State's land acquisition policies for the Inaugural Airport Program.

6.2 - Land Acquisition Plan

IDOT initiated the land acquisition program for SSA with the purchase of the first parcel in 2002. Since the purchase of the initial property, IDOT has acquired 128 parcels totaling 2,429 acres within the footprint of SSA as of the date of this document. Seventy four of these parcels, totaling 2,281 acres, are within the defined IAP Boundary. **Exhibit 1-1: Airport Boundary Map** illustrates the status of SSA Land Acquisition program through June 30, 2010. At that time the land acquisition office also had 20 additional parcels, representing 1,427 acres in process. The exhibit depicts land that has been acquired and land remaining to be acquired for the IAP. This exhibit, updated periodically, is available online at the SSA project website www.southsuburbanairport.com.

Appendix A: Acronyms

Definition of Terms

AADT	Annual Average Daily Traffic
AC	Advisory Circular
AGL	Above Ground Level
ALNAC	Abraham Lincoln National Airport Commission
ARP	Airport Reference Point
ARTCC	Air Route Traffic Control Center
ATC	Air Traffic Control
Chicago Center-ZAU	Chicago Air Route Traffic Control Center
Chicago Loop	Chicago Central Business District
Chicago TRACON	Chicago Terminal Radar Approach Control
CMAP	Chicago Metropolitan Agency for Planning
CMSA	Chicago Consolidated Metropolitan Statistical Area
DME	Distance Measuring Equipment
DOB	Date of Beneficial Occupancy
EIS	Environmental Impact Statement
FAA	Federal Aviation Administration
FEIS	Final Environmental Impact Statement
GA	General Aviation
GPS	Global Positioning System
GYY	Gary/Chicago International Airport
IAP	Inaugural Airport Program
IDNR	Illinois Department of Natural Resources
IDOT	Illinois Department of Transportation
I-IRAP	·
	Illinois-Indiana Regional Airport Program
IFR IVE	Instrument Flight Rules
IKK	Greater Kankakee Airport
JOT	Joliet Regional Airport
LOT	Lewis University Airport
MDW	Chicago Midway International Airport
MKE	General Mitchell International Airport
MSL	Mean Sea Level
nm	Nautical Miles
NAS	National Airspace System
NOI	Notice of Intent
OMP	O'Hare Modernization Program
ORD	Chicago O'Hare International Airport
PFO	Palustrine Forested Wetland
POW	Palustrine Open Water
PSS	Palustrine Scrub-Shrub
RFD	Chicago/Rockford International Airport
ROD	Record of Decision
SHPO	Historic Preservation Agency's State Historic Preservation Officer
SSA	South Suburban Airport
TAF	Terminal Area Forecast
Tier 1 EIS	Tier 1 Environmental Impact Statement
Tier 2 EIS	Tier 2 Environmental Impact Statement
TRACON	Terminal Radar Approach Control
L	11 77 77

Appendix A: Acronyms Page 39

VFR	Visual Flight Rules	
VOR	Very high Frequency Omni-directional Range collocated with	
	Distance Measuring Equipment	
VORTAC	Very High Frequency Omni-directional Range collocated with	
	Tactical Air Navigation	
ZAU	Chicago Air Route Traffic Control Center	

Appendix A: Acronyms Page 40

APPENDIX B - Exhibits

Exhibit 1-1 – Airport Boundary Map

Exhibit 1-2 - 11-County SSA Study Region

Exhibit 1-3 – Greater Chicago Region

Exhibit 2-1 – Regional Airspace Structure

Exhibit 2-2 – Utility Map

Exhibit 3-1 – Existing Land Use

Exhibit 3-2 – Surface Transportation Infrastructure Map

Exhibit 3-3 – Community Facilities

Exhibit 4-1 – Noise-Sensitive Facilities

Exhibit 4-2 – Ambient Noise Measurement Locations

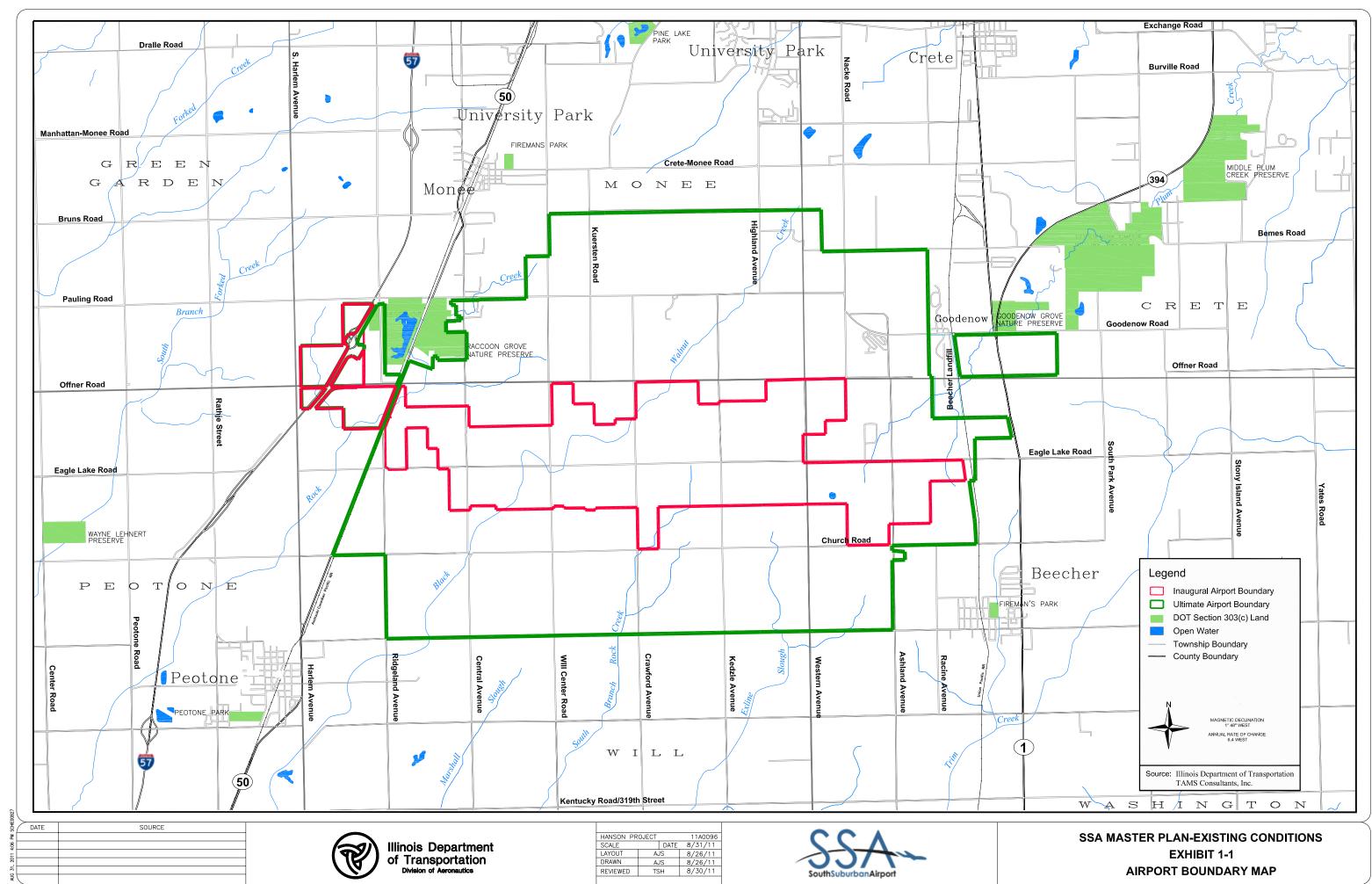
Exhibit 4-3 - 100-Year Floodplains

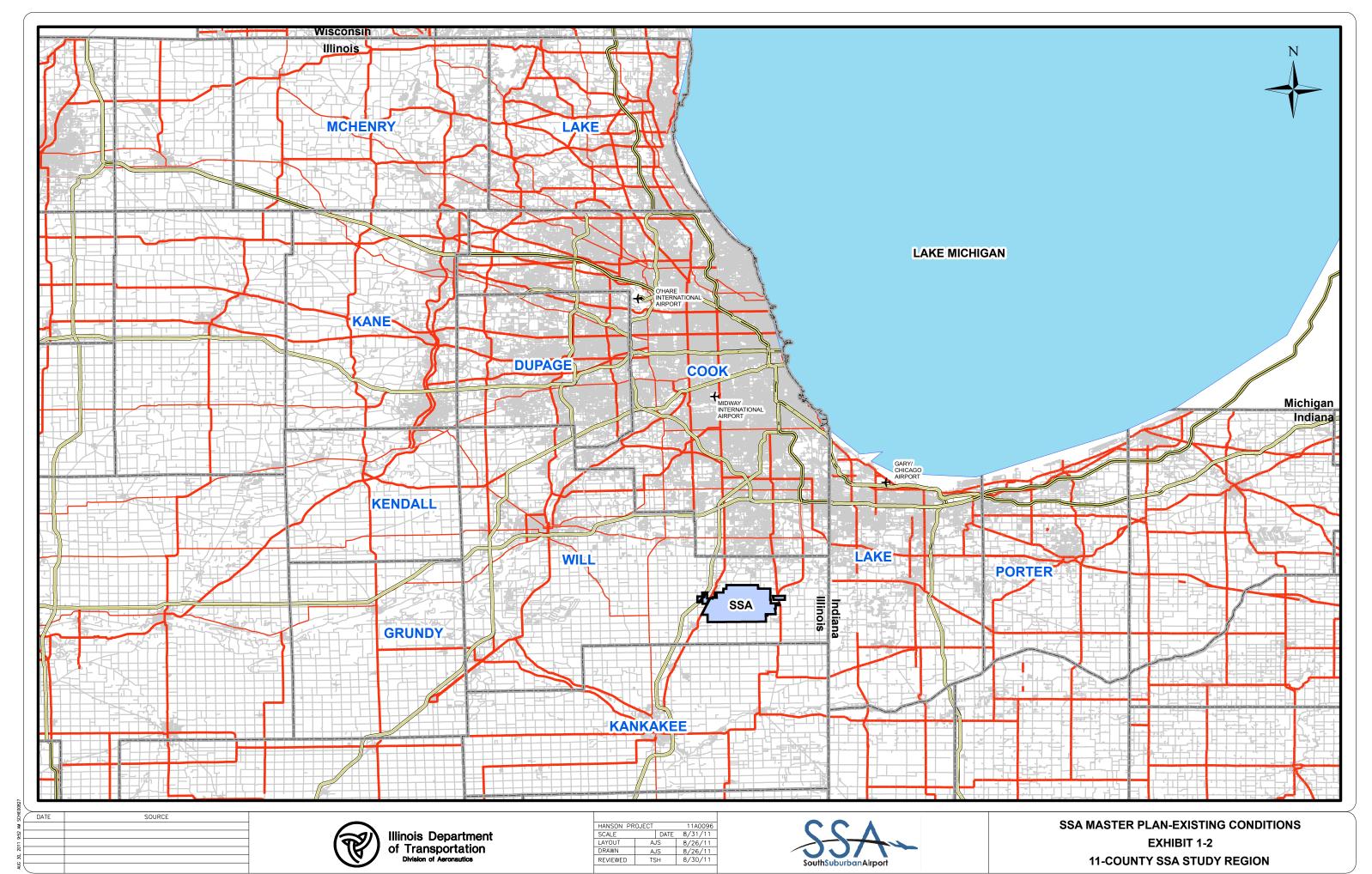
Exhibit 4-4 – 2008 and 2009 Wetlands Identified

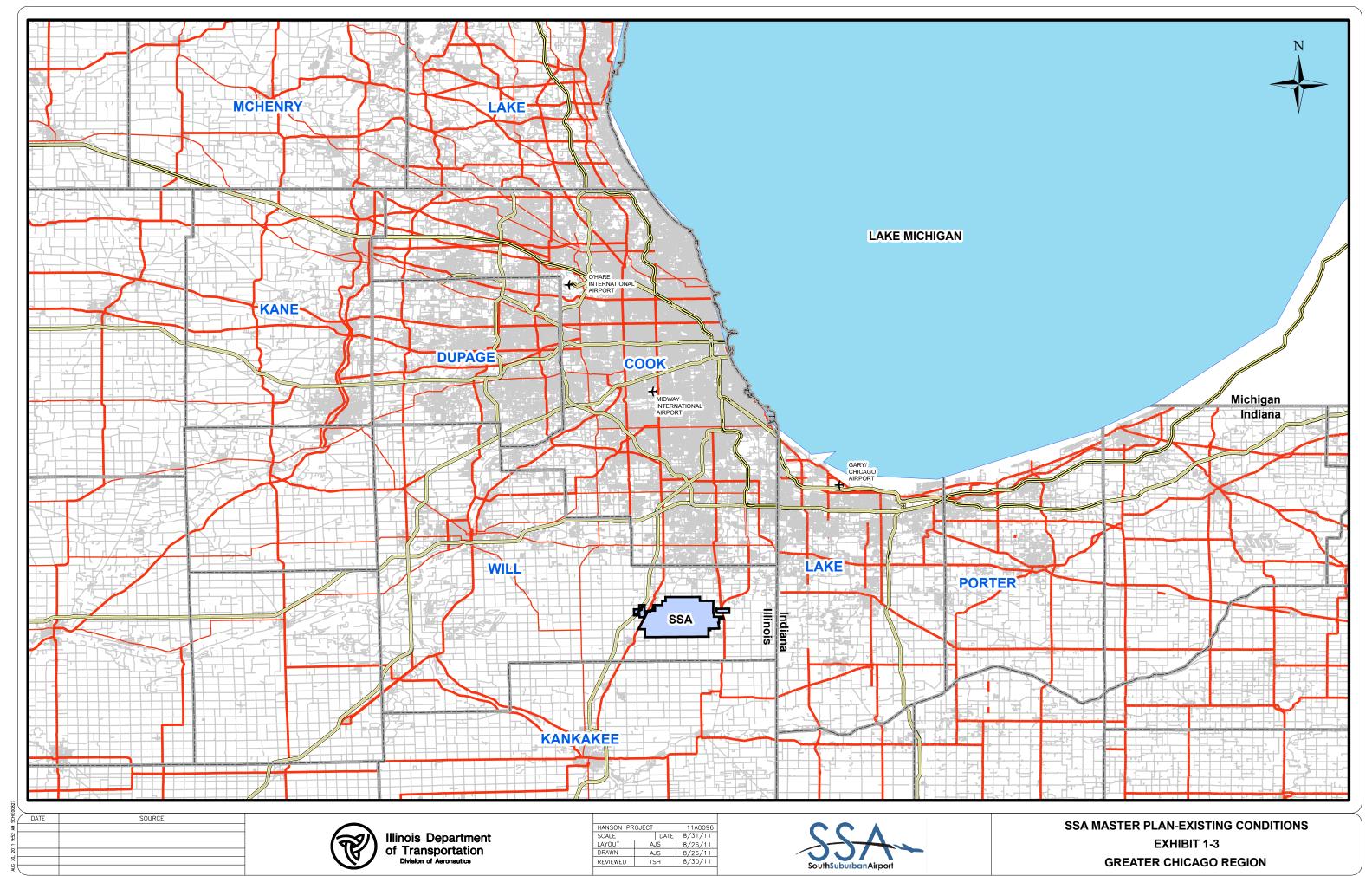
Exhibit 4-5 – DOT Section 303(c) Lands

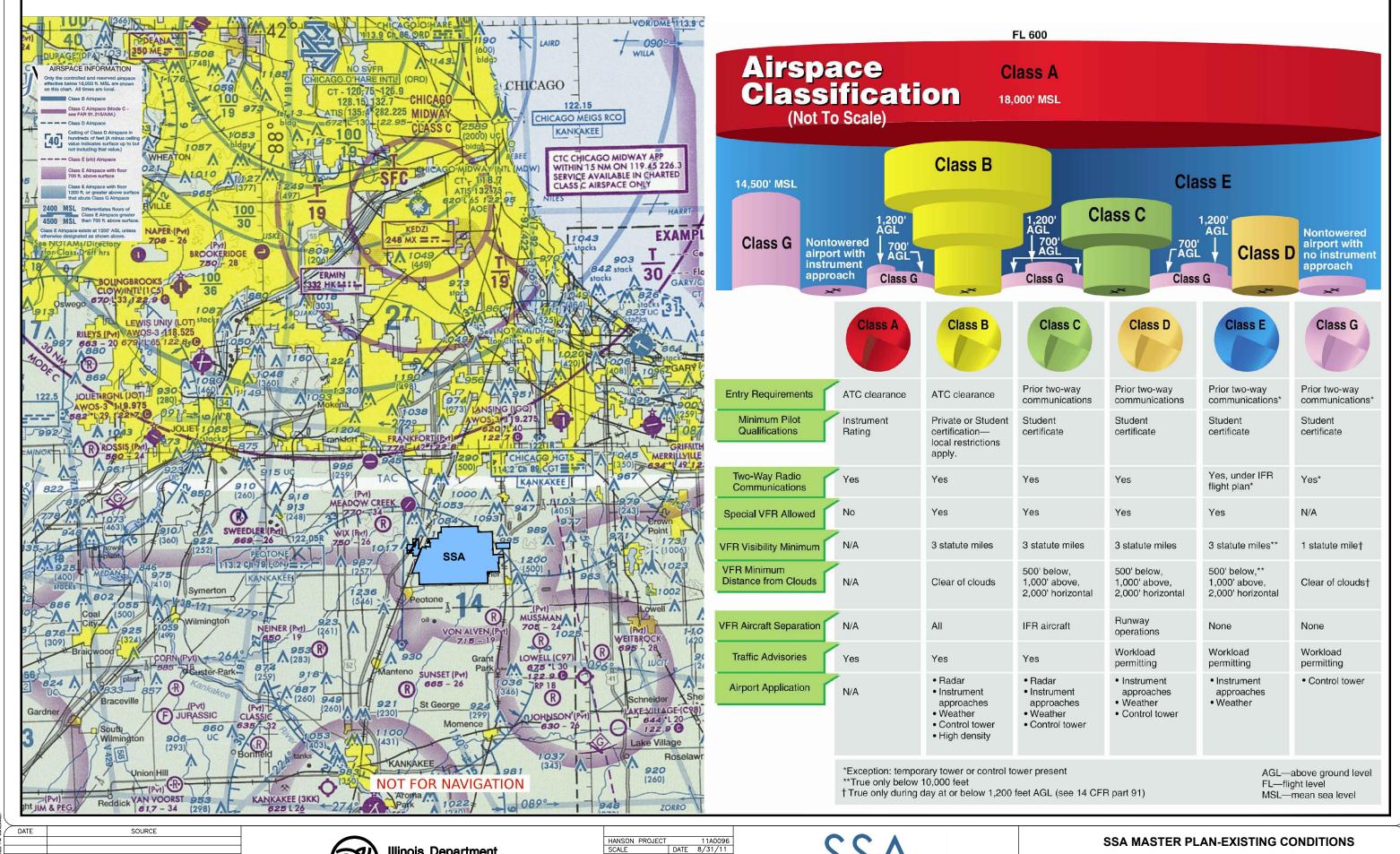
Exhibit 4-6 – Prime and Important Farmland Soils

Appendix B: Exhibits Page 41





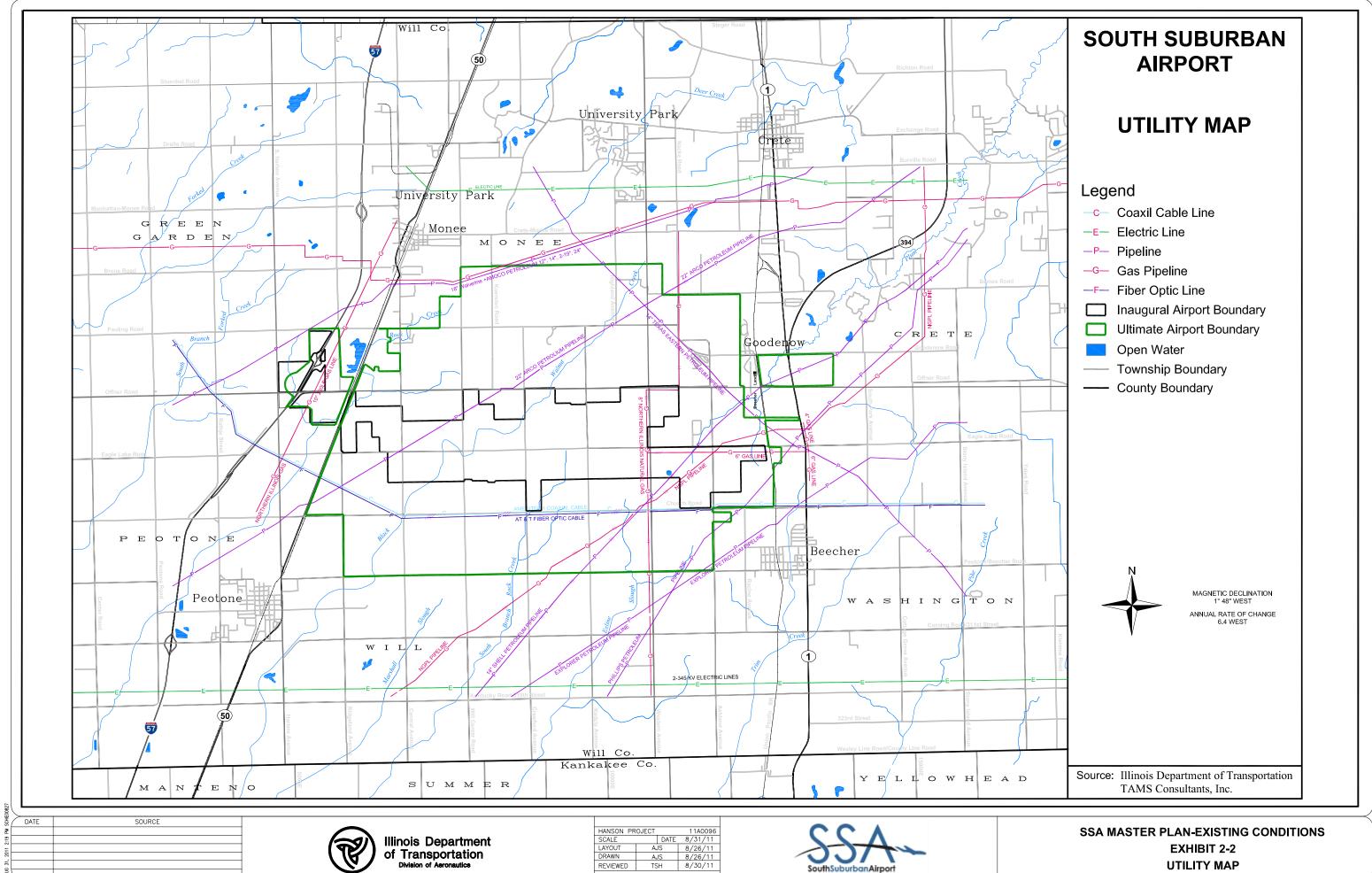


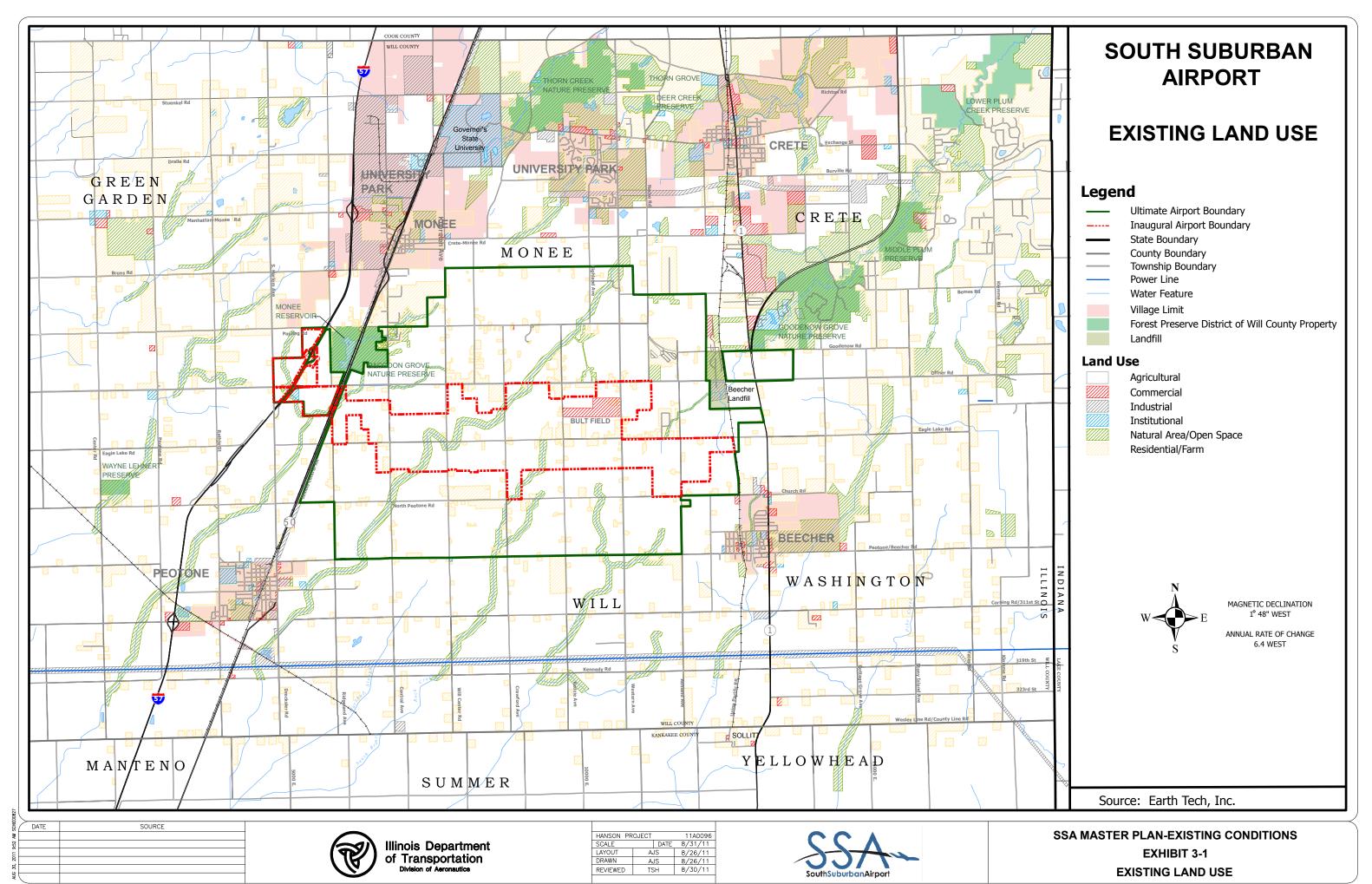


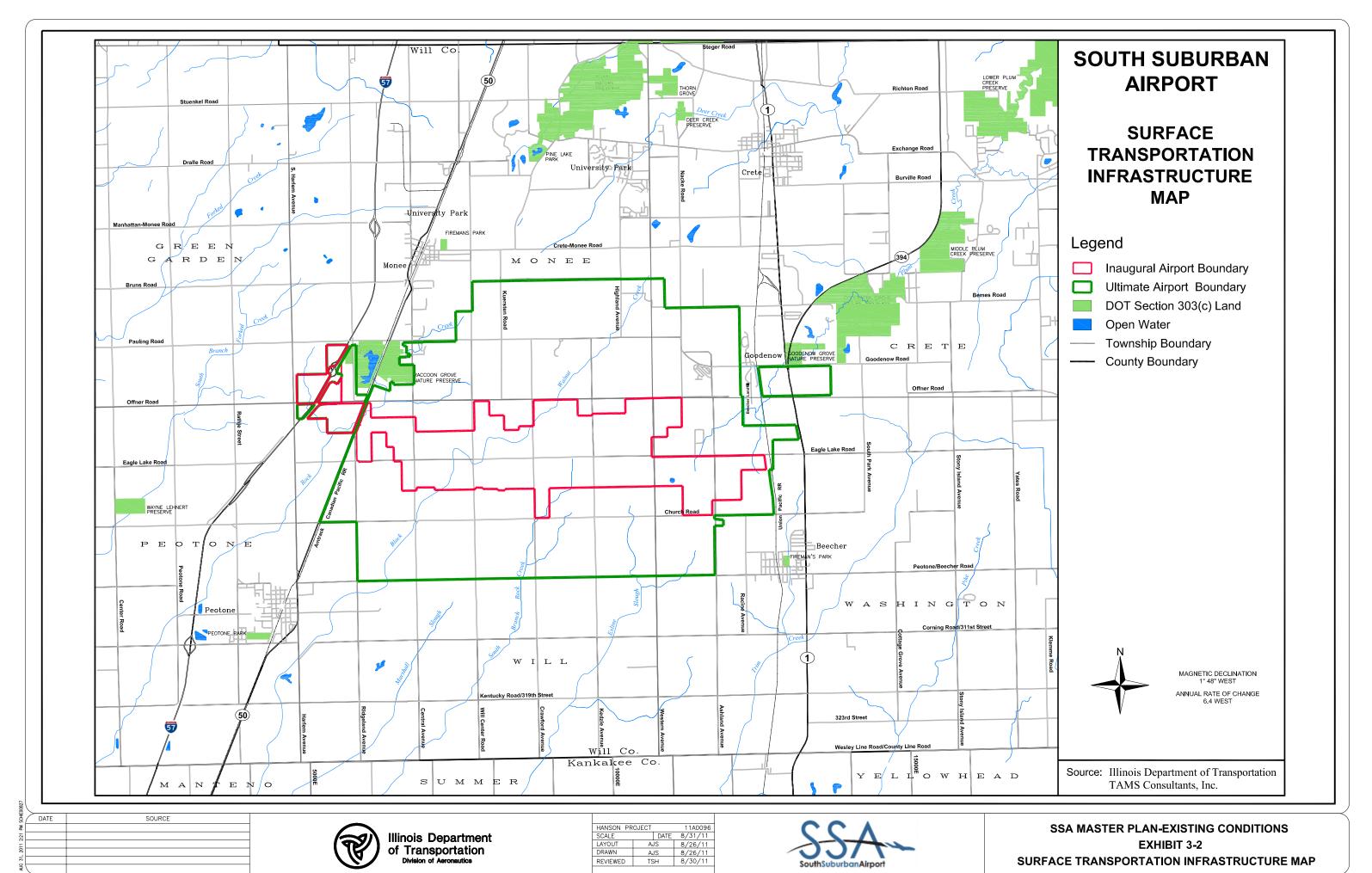


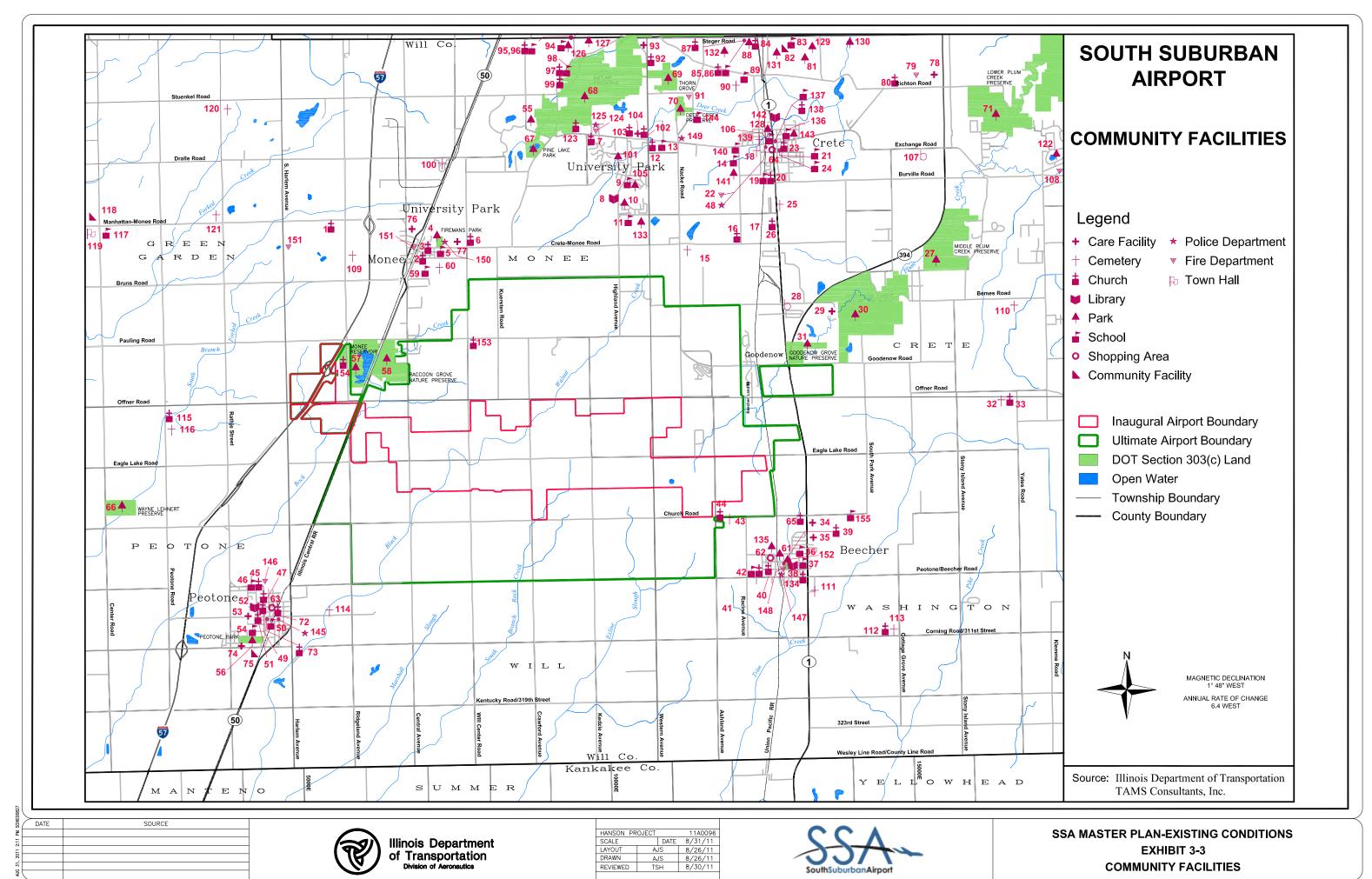


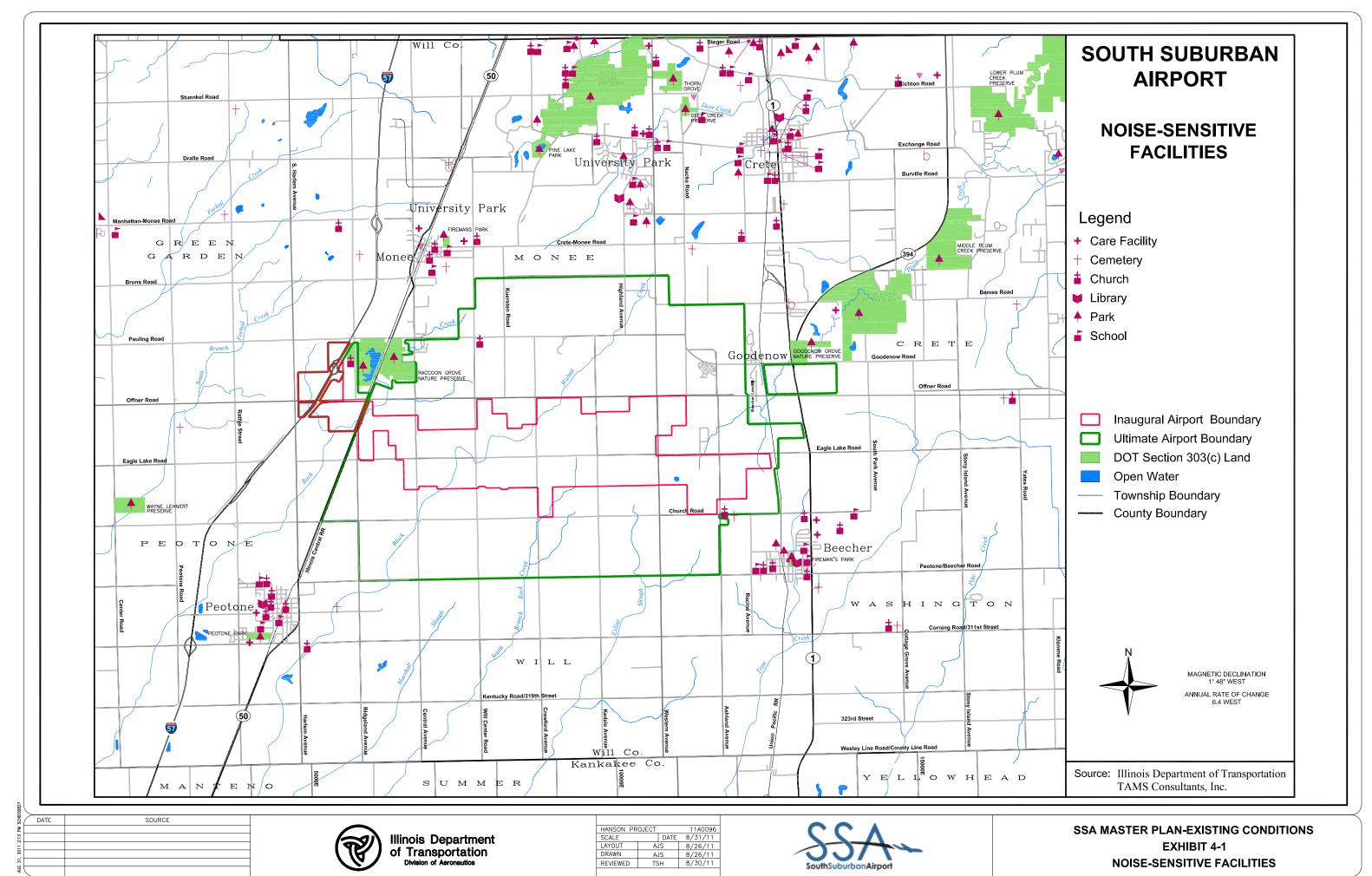
SA MASTER PLAN-EXISTING CONDITIONS
EXHIBIT 2-1
REGIONAL AIRSPACE STRUCTRE

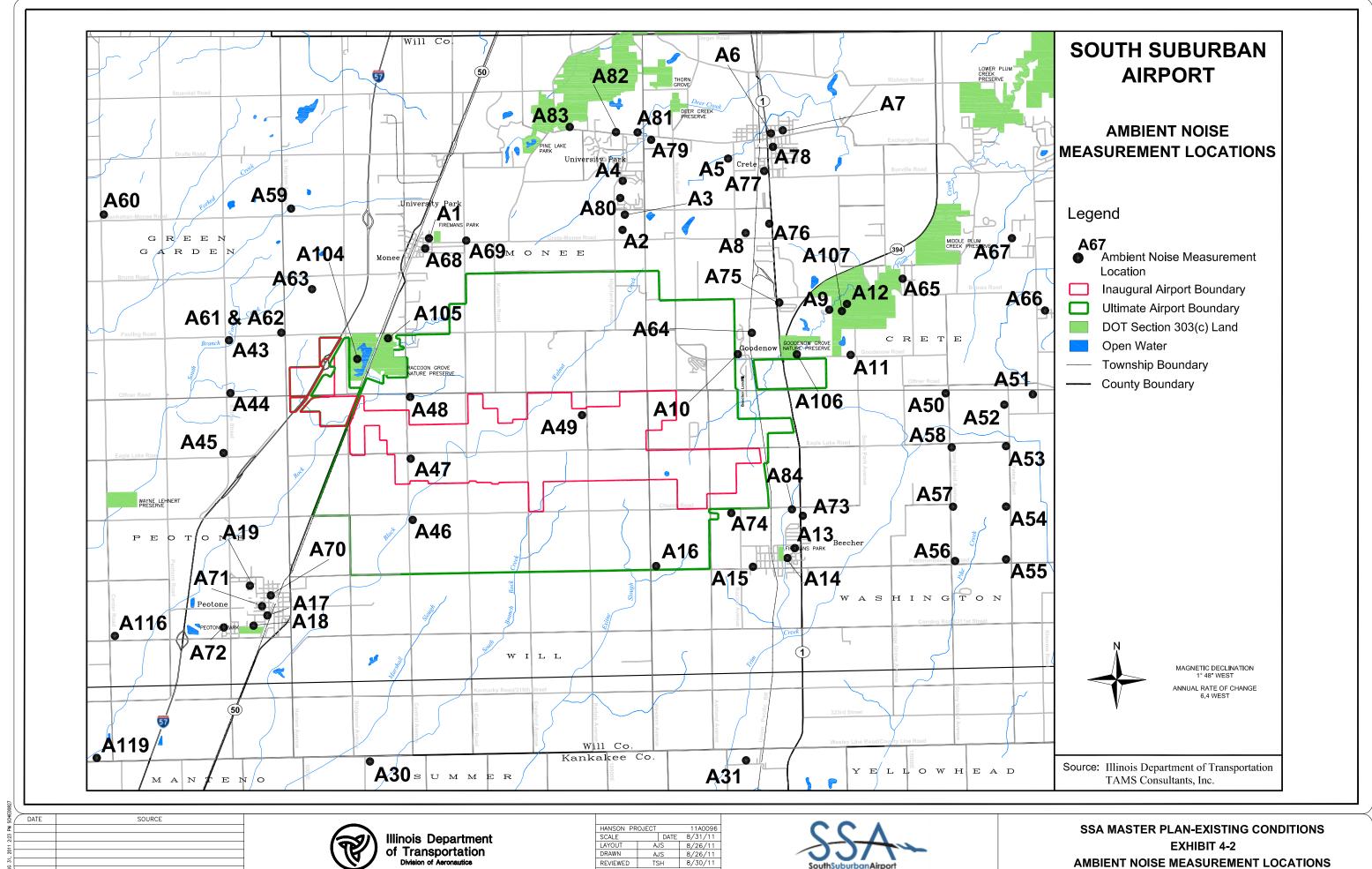




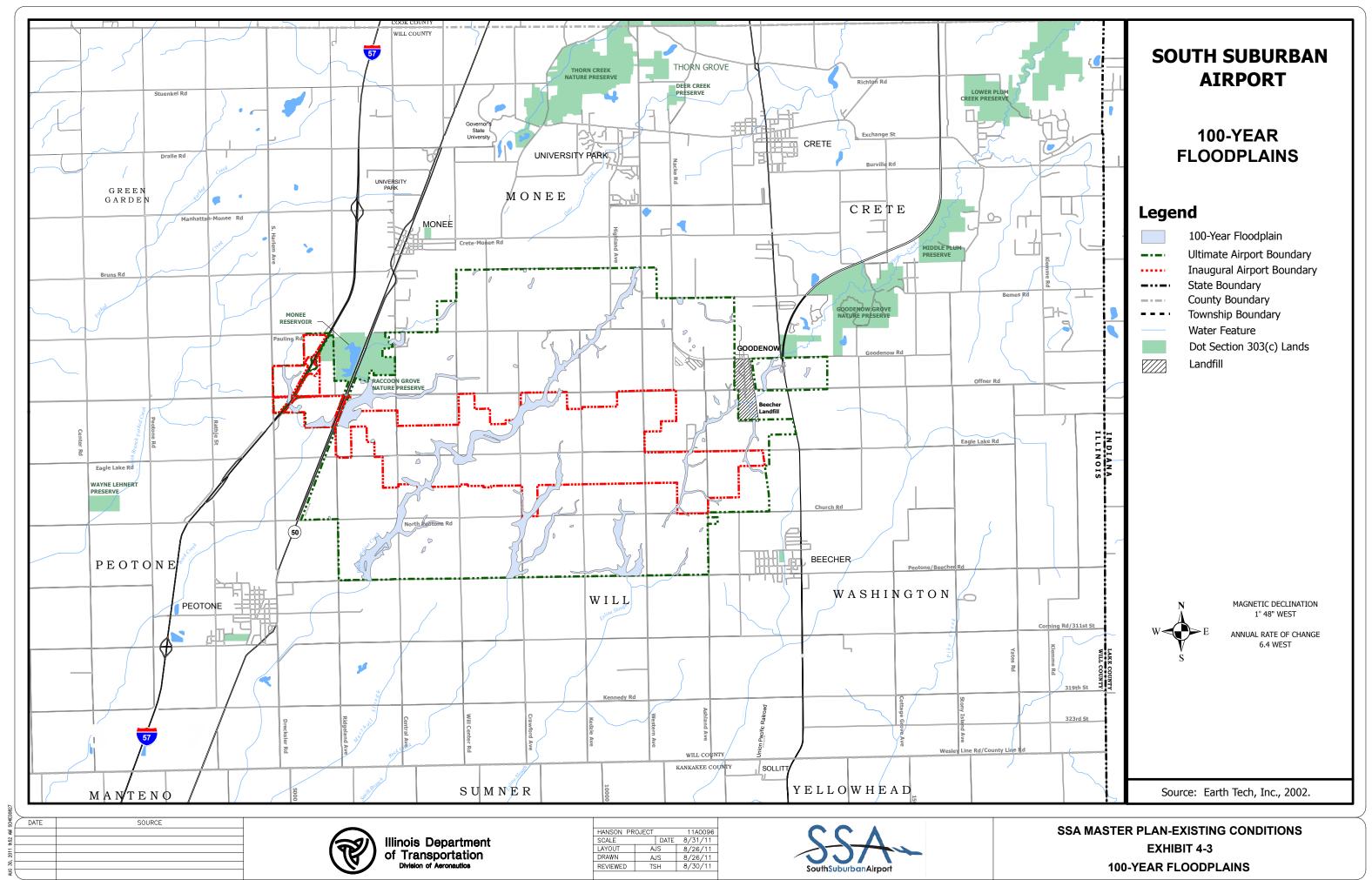


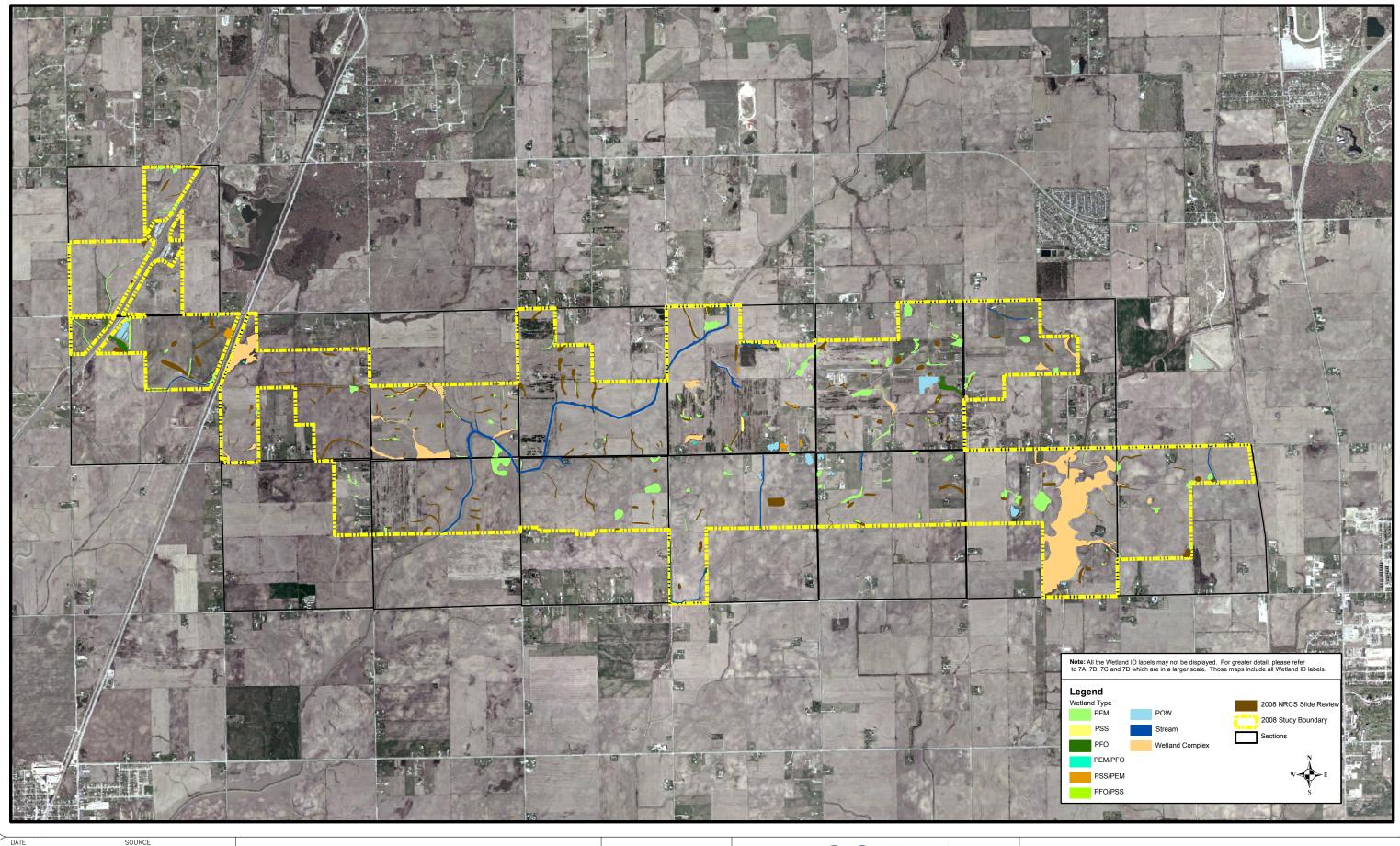


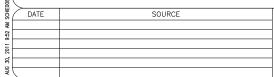




AMBIENT NOISE MEASUREMENT LOCATIONS





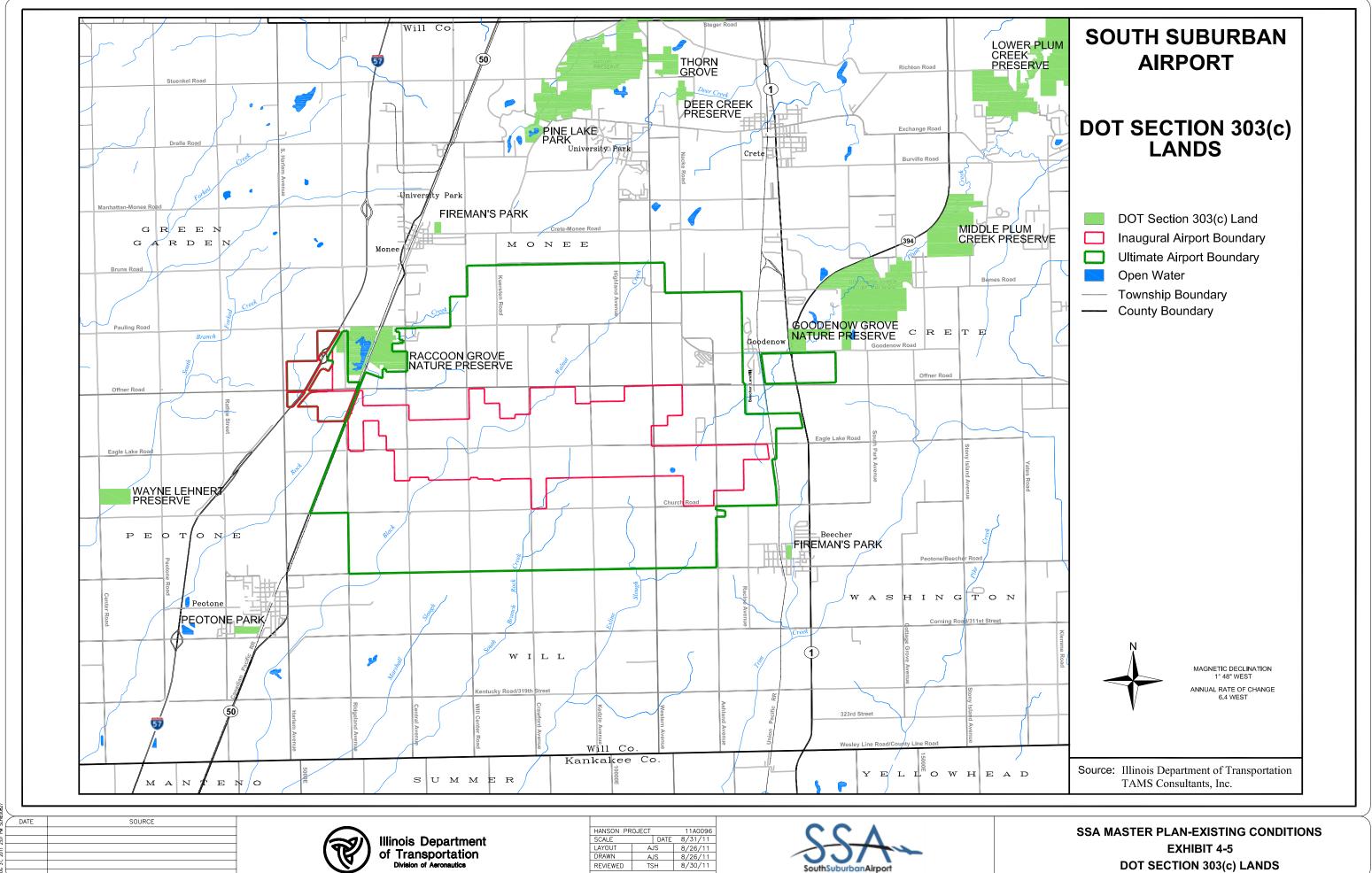




HANSON PR	OJECT		11A0096
SCALE		DATE	8/31/11
LAYOUT	A	is	8/26/11
DRAWN A.		IS	8/26/11
REVIEWED TS		SH	8/30/11



SSA MASTER PLAN-EXISTING CONDITIONS
EXHIBIT 4-4
2008 AND 2009 WETLANDS IDENTIFIED



DOT SECTION 303(c) LANDS

