

CHAPTER 5.0

ENVIRONMENTAL CONSEQUENCES

This chapter summarizes the potential impacts on the social, cultural, physical and natural environment that would result from the Federal Aviation Administration's (FAA) proposed site approval and land acquisition by the State of Illinois (the Sponsor) for a potential, future air carrier airport in the south suburban area of Chicago. The No-Action Alternative and two reasonable alternatives, the Kankakee and the Will County Alternatives, were identified in [Chapter 3.0](#), Alternatives, for detailed analysis.

Each of the two "action" alternatives involves both the potential acquisition of an inaugural site of approximately 4,000 acres and the potential acquisition of an ultimate site of approximately 24,000 acres. Specific acreages for the acquisition alternatives evaluated were used, when necessary, for the purposes of quantifying potential impacts. The alternatives evaluated are summarized as follows:

- No-Action Alternative - assumes no site approval by the FAA. For the purpose of this National Environmental Policy Act (NEPA) evaluation, and to provide a baseline against which to compare impacts, the No-Action Alternative also assumes that no land would be acquired by the State of Illinois;
- Kankakee Inaugural Acquisition Alternative - assumes site approval and acquisition of approximately 4,240 acres;
- Kankakee Ultimate Acquisition Alternative - assumes site approval and acquisition of approximately 24,521 acres;
- Will County Inaugural Acquisition Alternative - assumes site approval and acquisition of approximately 3,883 acres; and
- Will County Ultimate Acquisition Alternative - assumes site approval and acquisition of approximately 23,492 acres.

For the purpose of disclosure, the evaluation of alternatives assumed that acquisition of the Inaugural Acquisition Alternative would occur within five years from the time of site approval. It also assumed for the purpose of disclosure that acquisition of the Ultimate Acquisition Alternative would occur within 10 years. Again, no planning, construction, or operation of an airport is proposed for any of the acquisition alternatives.

As the Sponsor's proposed action includes land acquisition by the State of Illinois, the Illinois Department of Transportation's (IDOT) land acquisition policy (see [Appendix C](#)) is considered in evaluating potential impacts of alternatives in this chapter. The state's land acquisition policy outlined in the memorandum states that property would be purchased in fee simple title.

The potential environmental impacts of the no-action and acquisition alternatives are identified in the following subsections for 23 different impact categories. Each subsection begins with a brief overview of impacts (printed in bold), followed by a methodology, a description of existing conditions, a discussion of impacts, and a discussion of whether mitigation concepts are applicable. Cumulative impacts are discussed in [Section 5.23](#), Cumulative Impacts.

5.1 NOISE

5.1.1 OVERVIEW OF IMPACTS

No noise impacts are anticipated to occur under the alternatives considered. In this Tier 1 Final Environmental Impact Statement (FEIS), the Sponsor's proposed action of FAA site approval and the acquisition of the inaugural or ultimate site by the State of Illinois would not increase the noise conditions at either the Kankakee or the Will County Inaugural and Ultimate Acquisition Alternatives.

5.1.2 METHODOLOGY

For purposes of this Tier 1 Final Environmental Impact Statement (FEIS), a noise analysis was conducted to determine the potential extent of future significant noise levels from the operation of a potential, future air carrier airport in the south suburban area of Chicago. Since it is IDOT's policy to contain all potential significant noise levels within the acquisition boundaries of a possible future air carrier airport or on compatible land use, the results of the noise analysis were used to help determine the proposed boundaries of the Kankakee and Will County Acquisition Alternatives.

Sound is defined by Webster's New World Dictionary as "vibrations of air, water, etc., that stimulate the sensation of hearing." Noise is defined as being "any loud, discordant or disagreeable sound or sounds." A major part of any airport environmental report includes the study of noise generation, mainly through modeling and measurements. The United States Department of Transportation (USDOT), Federal Aviation Administration's Order 5050.4A, Airport Environmental Handbook directs that noise analysis is needed for proposals involving the location of new transport category airports accommodating Airplane Design Groups III-VI, (i.e., those aircraft with a wingspan of 79 feet up to but not including 262 feet, such as the DC-9, Boeing 737, Airbus A300, Boeing 747). Acoustic noise is defined as sound that can create unwanted effects upon people, animals, or structures. Noise descriptors are ways of measuring and describing noise. Noise descriptors include factors that account for sound magnitude, frequency or pitch, and duration. Magnitude is expressed in terms of Sound Pressure Level and is expressed in decibels. Decibels (dB) are logarithmic units of measure. A-weighted sound levels (dBA) are Sound Pressure Levels filtered, or weighted, to approximate the frequency response of the human ear.

A-weighted sound levels also correlate well with human assessment of the loudness and frequency of sound, and therefore, it has become the virtual standard descriptor for expressing and measuring environmental and industrial noises. It is used in essentially all local noise ordinances, State noise regulations, and by all agencies of the Federal government concerned with noise.

The standard descriptors for single-event noises like aircraft flyovers and vehicle drive-bys are Maximum Sound Level (Lmax), and Sound Exposure Level (SEL). SEL is a measure of combined duration and magnitude for a single event measured in A-weighted sound level. It is used in computing the contribution of single-events to the Equivalent Sound Level (Leq) and the Day-Night Sound Level (DNL) described below.

The standard descriptor for the effects of noises over a specified period of time is the Equivalent Sound Level, known as Leq. Leq is the level of a steady sound that has the same sound energy as an amplitude-varying sound of the same duration. Because the time interval is fixed and specified, Leq is a measure of the total sound energy during the specified interval as well as the energy average during that time.

The U.S. Environmental Protection Agency (USEPA), in conjunction with USDOT, FAA, developed the DNL as a single number measure of community noise exposure over a 24-hour period. DNL is a method for predicting the effects on an average population of the long-term exposure to environmental noises. It is an enhancement of the Leq that uses a 10 dBA adjustment applied to nighttime (10 p.m. to 7 a.m.) noises. The 10 dBA nighttime noise penalty is intended to account for increased sensitivity to noise during the night hours.

For assessing long-term noise exposure with DNL, an annual average day is the usual measure. This is calculated from total annual noise activities divided by 365 days. For example, if total annual aircraft operations happened to be 365,000, then the annual average day operations would be 365,000/365, or 1,000 operations per day.

Any increase in annual noise activities produces an increase in DNL. For example, if operations or activity double, then DNL would increase by 3 dBA, which is a doubling of noise energy. However, this is only true if the fleet mix and relative numbers of day-night operations remain unchanged. When adding two values of DNL (as with other decibel quantities), the total decibel value is obtained by adding the linear energy values first and then calculating the resulting decibel value.

Federal Aviation Regulations (FAR), 14 CFR Part 150 - *Airport Noise Compatibility Planning*, is the primary Federal guidance for planning aviation noise abatement on and around airports in the United States. Part 150 designations do not constitute a Federal determination that any use of land covered by the program is acceptable or unacceptable under Federal, state, or local law. The responsibility for determining permissible land uses and the relationship between specific properties and specific noise contours rests with the local authorities. However, Part 150 does provide guidance on land use compatibility with DNL sound levels. For Part 150 studies, the FAA has established a DNL value of 65 dBA as its significant criterion level. Thus, the FAA considers all land uses in areas exposed to noise levels below DNL 65 dBA to be *noise compatible*. The FAA's Advisory Circular, *Noise Control and Compatibility Planning For Airports*, contains a table, *Land Use Compatibility With Yearly Day-Night Average Sound Levels* that identifies land uses that are *normally compatible* or *incompatible* with various levels of noise exposure. The FAA also defines noise compatible land uses as those areas where noise effects such as speech interference, sleep disturbance, annoyance and hearing damage are generally acceptable either by actual use or by special noise insulation in building constructions.

For residences located in areas where exterior noise exposure is DNL 65 dBA, the requisite noise level reduction (NLR) provided by the structure should be at least 20 dBA in major habitable rooms. The requisite NLR should be increased commensurate with any increase in exterior DNL above 65 dBA. This is mathematically equivalent to achieving a DNL of 45 dBA in all habitable rooms.

In 1990, the U.S. Congress enacted the Airport Noise and Capacity Act of 1990 directing an accelerated phaseout of Stage 2 airplanes above 75,000 pounds gross weight within the contiguous 48 states. Transition to an all Stage 3 fleet was required by January 1, 2000. Stage 3 aircraft are quieter than Stage 2 aircraft of comparable weight and number of engines.

5.1.3 EXISTING CONDITIONS

5.1.3.1 Community Noise

Existing community noise conditions were determined by measuring noise levels in community centers during the summer and winter of 1990, during the summer of 1994 and the spring of 1995. Community centers include communities and villages in the vicinity of the proposed Will County and Kankakee Acquisition Alternatives. The 1990 ambient winter noise measurements had an average level of 46 dBA and the 1990 ambient summer noise measurements had an average level of 43.4 dBA, about 3 dBA lower than in winter. Aircraft noise and nearby identifiable noise sources, such as road traffic or industries were filtered out manually during the ambient noise measurements by the on-site observers. This was done to minimize the effects of random events occurring at these particular monitor equipment positions and to more accurately reflect annual ambient conditions. Noise measurements of the noise of identifiable, specific sources are described below.

Additional noise measurements were performed during 1994, 1995, and 1997, which included the effects of specific noise sources. The measurement locations included noise-sensitive receptors such as residences, churches, schools, and parks located in and around the centers of population (see [Figure 5.1-1](#)). [Table 5.1-1](#) provides a list of noise sensitive receptors. A total of 136 ambient noise measurement sites were evaluated during this survey (shown on [Figure 5.1-2](#)); however, ambient noise levels were measured at only 123 of these locations since many were in very close proximity to one another. Noise levels at these locations ranged from DNL 38 to 65 dBA. Most of the values were in the 40-50 dBA range. Noise monitors used for all measurements during the study were American Standards Institute Type I with calibrators traceable to U.S. Bureau of Standards. See [Table 5.1-2](#) for a complete listing of the measured values.

5.1.3.2 Aircraft Noise

In addition to the noise from aircraft that could potentially operate at the Kankakee or Will County Acquisition Alternatives if an air carrier airport is determined necessary and appropriate to meet future aviation capacity needs in the greater Chicago region, there is and will continue to be noise from other aircraft operating from other airports. Currently, the Will County Acquisition Alternatives experience noise from single-engine piston and turboprop aircraft operating out of Sanger Field.

5.1.3.3 Automobile Noise

Noise from surface road traffic was measured and calculated to verify baseline conditions. Calculations were performed using both observed traffic and traffic forecast data from the Chicago Area Transportation Study (CATS) and the IDOT. [Table 5.1-3](#) presents the on-site measured values for 64 road segments at the

Kankakee Acquisition Alternatives. [Table 5.1-4](#) presents the on-site measured values for 46 road segments at the Will County Acquisition Alternatives. The table shows Traffic Segment Number, Distance from Roadway Centerline for the Measurement (Dcl), Measured Leq, Calculated Leq for observed traffic, and estimated distance to the Leq 67 and 62 dBA contours (equivalent to DNL 65 and 60 dBA contours, respectively). Note that these distances are for the observed conditions only. Each roadway segment analyzed at the Kankakee and Will County Acquisition Alternatives is identified in [Figures 5.1-3 and 5.1-4](#), respectively. See [Appendix D](#) for more detail. Road noise levels, calculated with FHWA computer programs and given in terms of Leq are for peak-hour traffic conditions. (Descriptions of Leq and DNL are discussed under Noise Descriptors in [Appendix D](#).) Existing roadway noise is also shown on [Figures 5.1-3 and 5.1-4](#).

TABLE 5.1-1

**NOISE SENSITIVE RECEPTORS
KANKAKEE AND WILL COUNTY ACQUISITION ALTERNATIVES**

| Receptor Identifier | Noise Sensitive Receptor | Facility |
|----------------------------|---|-----------------|
| 1 | Peotone Elementary School | School |
| 2 | Peotone Public Library | Library |
| 3 | First Baptist Church of Peotone | Church |
| 4 | Bensenville Home Society | Care Facility |
| 5 | Immanuel United Church of Christ | Church |
| 6 | Peotone High School | School |
| 7 | Peotone Junior High School | School |
| 8 | Harvest Assembly Full Gospel Church | Church |
| 9 | First Presbyterian Church | Church |
| 10 | Peotone United Methodist Church | Church |
| 11 | St. Paul Catholic Church | Church |
| 12 | Zion Lutheran Church and School | Church/School |
| 13 | St. Luke United Church of Christ | Church |
| 14 | Beecher Public Library | Library |
| 15 | Beecher Elementary School | School |
| 16 | Beecher High School | School |
| 17 | St. James Community Health Center | Care Facility |
| 18 | The Anchorage of Beecher | Care Facility |
| 19 | Beecher Community Church | Church |
| 20 | St. Paul's Lutheran Church/Cemetery | Church/Cemetery |
| 21 | St. John's Lutheran Church/Cemetery | Church/Cemetery |
| 22 | Village Woods Retirement Center | Care Facility |
| 23 | Christ Church of Victory | Church |
| 24 | First Baptist Church of Crete | Church |
| 25 | Balmoral Elementary School | School |
| 26 | New Life Family Christian Center | Church |
| 27 | Trinity Lutheran Cemetery | Cemetery |
| 28 | Zion Lutheran Church and School | Church/School |
| 29 | Trinity Lutheran Church and School | Church/School |
| 30 | Crete United Methodist Church and Preschool | Church/School |
| 31 | Cemetery In Crete (Name Unknown) | Cemetery |
| 32 | Deer Creek Church and School | Church/School |

TABLE 5.1-1 (Continued)

**NOISE SENSITIVE RECEPTORS
KANKAKEE AND WILL COUNTY ACQUISITION ALTERNATIVES**

| Receptor Identifier | Noise Sensitive Receptor | Facility |
|----------------------------|-------------------------------------|-----------------|
| 33 | Hubbard Trail Junior High School | School |
| 34 | Deer Creek Junior High School | School |
| 35 | Royal Priesthood Ministries | Church |
| 36 | Kingdom Hall of Jehovah's Witnesses | Church |
| 37 | Hickory School | School |
| 38 | Monee Free Methodist Church | Church |
| 39 | Christian Life Fellowship | Church |
| 40 | University Park Public Library | Library |
| 41 | Monee Elementary School | School |
| 42 | St. Boniface Catholic Church | Church |
| 43 | St. Paul's Church of Christ | Church |
| 44 | Kankakee River SP North | Park |
| 45 | Camp Sha-waw-nas-see | Park |
| 46 | Kankakee River SP Camp | Park |
| 47 | Kankakee River SP Day Use | Park |
| 48 | Kankakee River SP Fishing Area | Park |
| 49 | Kankakee River SP Area A | Park |
| 50 | Mallard Pointe Subdivision | Residential |
| 51 | St. George Estate Subdivision | Residential |
| 52 | Manteno Comfort Inn at I-57 | Residential |
| 53 | Symerton | Residential |
| 54 | Midewin National Tallgrass Prairie | Park |
| 55 | Forsythe Woods Preserve | Park |
| 56 | Partridge Run Subdivision | Residential |
| 57 | Manteno Road Cemetery | Cemetery |
| 58 | Manteno Veteran's Home | Care Facility |
| 59 | Manteno High School | School |
| 60 | Manteno Middle School | School |
| 61 | Wilmington High School | School |
| 62 | L.J. Stevens Middle School | Care Facility |
| 63 | Silver Cross Medical Center | Library |
| 64 | Manteno Library | Church/School |
| 65 | Christian Living Academy | Church |
| 66 | St. Paul's Lutheran Church | Church |
| 67 | Fellowship Baptist Church | Church |

Source: TAMS, 1997.

Note: Data were compiled based on a windshield survey conducted in the area in 1995 and 1997.

TABLE 5.1-2

**AMBIENT MEASURED NOISE LEVELS AT SELECTED MEASUREMENT LOCATIONS
KANKAKEE AND WILL COUNTY ACQUISITION ALTERNATIVES**

| Map Identifier | Location | Estimated DNL Based on Measured Levels |
|-----------------------|---|---|
| A1 | Monee Village Hall Parking Lot | 50 |
| A2 | Crete/Monee Rd. & Highland | 50 |
| A3 | Deer Creek Junior High School (Univ. Pk.) | 42 |
| A4 | Hickory School (Univ. Pk.) | 47 |
| A5 | Hubbard Trail Junior High School | 46 |
| A6 | Crete Elementary School (recess) | 54 |
| A7 | Exchange & Laurel | 46 |
| A8 | Balmoral Elementary School | 46 |
| A9 | Village Woods Retirement Center | 50 |
| A10 | Frank & Maple (Goodenow) | 45 |
| A11 | Goodenow Rd. & Dalton Rd. | 49 |
| A12 | Plum Creek Nature Center | 41 |
| A13 | Beecher High School | 44 |
| A14 | Beecher Elementary School | 50 |
| A15 | Zion Lutheran Church | 51 |
| A16 | Western & 303rd | 47 |
| A17 | Peotone Junior High School | 58 |
| A18 | Peotone High School | 43 |
| A19 | Peotone Elementary School | 48 |
| A20 | Manhattan School | 55 |
| A21 | Wilton Center School | 48 |
| A22 | Laughton Preserve | - |
| A23 | Momence Junior High School | 44 |
| A24 | Rd E. 1241 N/N 591 E | 46 |
| A25 | Grant Park Middle School | 43 |
| A26 | 900E/700N | 47 |
| A27 | Manteno Veteran's Home | 42 |
| A28 | Manteno High School | 49 |
| A29 | Manteno Middle School | 45 |
| A30 | N 1200 E/E 600 N | 44 |
| A31 | N 1170 / E. Sollitt | 44 |
| A32 | Kankakee St./Haley Rd. | 42 |
| A33 | Washington St./Grove St. | 44 |
| A34 | Elevator/Manhattan Wilton Rds. | 57 |
| A35 | Barton Rd./Offner Rd. | 50 |
| A36 | Barton Rd./Watkins Rd. | 43 |
| A37 | Eagle Lake Rd./120th Ave. | 43 |
| A38 | US 52/120th Ave. | 48 |
| A39 | US 52/104th Ave. | 46 |
| A40 | Eagle Lake Rd./104th Ave. | 45 |
| A41 | Manhattan Wilton/104th Ave. | 49 |
| A42 | Pauling Rd./104th Ave. | 47 |
| A43 | Pauling Rd./Joliet Rd. | 44 |

TABLE 5.1-2 (Continued)

**AMBIENT MEASURED NOISE LEVELS AT SELECTED MEASUREMENT LOCATIONS
KANKAKEE AND WILL COUNTY ACQUISITION ALTERNATIVES**

| Map Identifier | Location | Estimated DNL Based on Measured Levels |
|-----------------------|---|---|
| A44 | Manhattan Wilton/Joliet Rd. | 52 |
| A45 | Eagle Lake Rd./Joliet Rd. | 53 |
| A46 | Central Ave./Church Rd. | 46 |
| A47 | Central Ave./Eagle Lake Rd. | 46 |
| A48 | Central Ave./279th St. | 46 |
| A49 | Monee Sanger Landing Field | 49 |
| A50 | Offner Rd/Stony Island Ave. | 46 |
| A51 | Offner Rd./Klemmore Rd. | 44 |
| A52 | Yates/Offner(St. Johns Church) | 46 |
| A53 | Yates/Beecher Sport Club | 46 |
| A54 | Yates/Farm Road | 46 |
| A55 | Yates/303rd St. | 44 |
| A56 | Stony Island Ave./303rd St. | 44 |
| A57 | Stony Island Ave./295th St. | 46 |
| A58 | Stony Island Ave./287th St. | 43 |
| A59 | Harlem & Doolittle (101) | 48 |
| A60 | Green Garden School (102) | 57 |
| A61 | Beverly Dr. (103) | 54 |
| A62 | Beverly Dr. (103) | 46 |
| A63 | Gorman Rd. (104) | 42 |
| A64 | Arlington Rd. (105) | 38 |
| A65 | Greenwood & 265th(106) | 45 |
| A66 | Spruce & Juniper(107) | 39 |
| A67 | Hilltop Road (108) | 45 |
| A68 | St. Boniface Catholic Church | 48 |
| A69 | Christian Life Fellowship (Monee) | 52 |
| A70 | First Presbyterian Church (Monee) | 56 |
| A71 | Immanuel United Church of Christ | 50 |
| A72 | First Baptist Church of Peotone | 44 |
| A73 | The Anchorage of Beecher | 53 |
| A74 | St. Paul's Lutheran Church | 48 |
| A75 | Christ Church of Victory (Crete) | 54 |
| A76 | New Life Family Christian Center | 65 |
| A77 | Zion Evangelical Lutheran Church/School | 50 |
| A78 | Trinity Lutheran Church/School | 62 |
| A79 | Deer Creek Church/School | 50 |
| A80 | Royal Priesthood Ministries | 47 |
| A81 | Miller Chapel/Preschool | 58 |
| A82 | First Baptist Church | 55 |
| A83 | Pilgrimage Protestant Congregation | 60 |
| A84 | Fellowship Baptist Church | 53 |
| A104 | Monee Reservoir | 52 |
| A105 | Raccoon Grove Nature Preserve | 50 |

TABLE 5.1-2 (Continued)

**AMBIENT MEASURED NOISE LEVELS AT SELECTED MEASUREMENT LOCATIONS
KANKAKEE AND WILL COUNTY ACQUISITION ALTERNATIVES**

| Map Identifier | Location | Estimated DNL Based on Measured Levels |
|-----------------------|-----------------------------------|---|
| A106 | Goodenow Grove Nature Preserve | 55 |
| A107 | Goodenow Grove Nature Preserve | 50 |
| A108 | Kankakee River SP North | 48 |
| A109 | Camp Sha-waw-nas-see entrance | 44 |
| A110 | Kankakee River SP Camp | 46 |
| A111 | Kankakee River SP Day Use | 44 |
| A112 | Wilmington-Peotone Rd./Tully Rd. | 57 |
| A113 | Kankakee River SP Fishing Area | 47 |
| A114 | Kankakee River SP Area A | 52 |
| A115 | Rt. 102/Leisure Rd. | 52 |
| A116 | Wilmington-Peotone Rd./Center Rd. | 65 |
| A117 | Wilmington-Peotone Rd./U.S. 45/52 | 64 |
| A118 | U.S. 45/52/County Line Rd. | 65 |
| A119 | County Line Rd./Center Rd. | 51 |
| A120 | Lake Rd. at Rock Creek Bridge | 54 |
| A121 | Ballou Rd. | 49 |
| A122 | Bluegill Rd. | 42 |
| A123 | Mallard Pointe subdivision | 54 |
| A124 | 7000N/west of U.S. 45/52 | 42 |
| A125 | St. George Estate subdivision | 56 |
| A126 | 2250W/7000N | 42 |
| A127 | Manteno Comfort Inn at I-57 | 67 |
| A128 | Gouger Rd./Joliet Rd. | 49 |
| A129 | Symerton | 41 |
| A130 | Joliet Arsenal, Gate 29 (locked) | 44 |
| A131 | S. 200th Ave./W. 323 Rd. | 50 |
| A132 | Symerton Rd./gravel road | 49 |
| A133 | Forsythe Woods Preserve | 48 |
| A134 | Ballou Rd./Phillips Rd. | 39 |
| A135 | Old Chicago Rd./Goodwin Rd. | 59 |
| A136 | Partridge Run subdivision | 49 |

Source: TAMS, 1997.

Note: Ambient noise levels were monitored in 1994, 1995, and 1997.

TABLE 5.1-3

BASELINE ROADWAY NOISE LEVELS
KANKAKEE ACQUISITION ALTERNATIVES

| Seg. No. | Dcl | Meas. Leq | Cal. Leq | D_67 | D_62 |
|----------|-----|-----------|----------|------|------|
| 1 | - | -- | 57.6 | 24' | 51' |
| 2 | 50 | 62.4 | 52.9 | 11' | 25' |
| 3 | - | -- | 60.0 | 34' | 74' |
| 4 | - | -- | 58.4 | 27' | 58' |
| 5 | - | -- | 61.9 | 46' | 98' |
| 6 | - | -- | 62.3 | 49' | 105' |
| 7 | - | -- | 60.2 | 35' | 76' |
| 8 | 132 | 48.1 | 46.6 | 4' | 9' |
| 9 | - | -- | 48.0 | 5' | 12' |
| 10 | - | -- | 65.5 | 79' | 171' |
| 11 | - | -- | 62.4 | 49' | 106' |
| 12 | - | N/A | -- | ' | ' |
| 13 | - | N/A | -- | ' | ' |
| 14 | - | N/A | -- | ' | ' |
| 15 | - | N/A | -- | ' | ' |
| 16 | - | -- | 67.0 | 100' | 215' |
| 17 | 29 | 69.8 | 67.5 | 108' | 233' |
| 17A | - | -- | -- | ' | ' |
| 18 | 32 | 66.5 | 63.3 | 57' | 122' |
| 19 | 32 | 66.5 | 62.6 | 51' | 110' |
| 20 | 26 | 63.9 | 63.7 | 60' | 130' |
| 21 | 250 | 51.7 | 65.0 | 74' | 158' |
| 22 | 250 | 51.7 | 63.5 | 58' | 126' |
| 23 | 26 | 64.3 | 59.9 | 34' | 72' |
| 24 | 26 | 63.7 | 60.6 | 37' | 81' |
| 25 | 29 | 58.9 | 61.1 | 40' | 87' |
| 26 | - | -- | 64.7 | 70' | 151' |
| 27 | - | -- | 59.9 | 34' | 72' |
| 28 | 74 | 70.8 | 72.7 | 240' | 517' |
| 29 | 74 | 70.8 | 68.0 | 117' | 251' |
| 30 | 74 | 70.8 | 64.0 | 63' | 136' |
| 31 | 60 | 75.0 | 64.4 | 67' | 145' |
| 32 | 60 | 75.0 | 62.6 | 51' | 110' |
| 33 | - | -- | 62.8 | 52' | 113' |
| 34 | 50 | 58.6 | 60.1 | 35' | 75' |
| 35 | 42 | 64.1 | 61.8 | 45' | 97' |
| 36 | 50 | 63.8 | 61.3 | 42' | 90' |
| 37 | - | -- | 48.0 | 5' | 12' |
| 38 | - | -- | 66.7 | 95' | 206' |
| 39 | - | -- | 62.7 | 52' | 111' |
| 40 | - | -- | 63.1 | 55' | 118' |
| 41 | 42 | 64.1 | 63.2 | 56' | 120' |
| 42 | 54 | 65.3 | 65.0 | 74' | 158' |
| 43 | 54 | 65.3 | 64.8 | 71' | 154' |
| 44 | 62 | 69.2 | 64.8 | 71' | 154' |

TABLE 5.1-3 (Continued)

BASELINE ROADWAY NOISE LEVELS
KANKAKEE ACQUISITION ALTERNATIVES

| Seg. No. | Dcl | Meas. Leq | Cal. Leq | D_67 | D_62 |
|----------|-----|-----------|----------|------|------|
| 45 | - | -- | 64.3 | 66' | 142' |
| 46 | 31 | 69.9 | 64.2 | 65' | 140' |
| 47 | 38 | 68.6 | 60.6 | 37' | 81' |
| 48 | 38 | 68.6 | 62.7 | 52' | 111' |
| 49 | - | -- | 60.1 | 35' | 75' |
| 50 | - | -- | 64.3 | 66' | 142' |
| 51 | - | -- | -- | ' | ' |
| 52 | - | -- | -- | ' | ' |
| 53 | - | -- | 59.0 | 29' | 63' |
| 54 | - | -- | 62.9 | 53' | 115' |
| 55 | - | -- | 64.3 | 66' | 142' |
| 56 | - | -- | 61.2 | 41' | 88' |
| 57 | - | -- | 73.0 | 251' | 541' |
| 58 | 62 | 68.6 | 73.3 | 263' | 567' |
| 59 | 62 | 69.2 | 73.4 | 267' | 575' |
| 60 | 62 | 69.2 | 73.4 | 267' | 575' |
| 61 | - | -- | 74.0 | 293' | 631' |
| 62 | - | -- | 74.0 | 293' | 631' |
| 63 | 64 | 75.0 | 74.0 | 293' | 631' |
| 64 | 54 | 76.5 | 74.8 | 331' | 713' |

Source: TAMS, 1997.

Note: Dcl = Distance to Roadway Centerline.

MEAS. Leq = Measured Equivalent Noise Level in dBA.

CALC. Leq = Calculated Equivalent Noise Level for Roadway from STAMINA Road Noise Model.

K = Shielding, or barrier constant (zero in all cases.) not shown on table.

D_62 = Distance from Roadway Centerline to Leq 62 dBA.

D_67 = Distance from Roadway Centerline to Leq 67 dBA.

ALPHA = Propagation Factor (=0.5 in all cases) not shown on table.

TABLE 5.1-4

BASELINE ROADWAY NOISE LEVELS WILL COUNTY ACQUISITION ALTERNATIVES

| Seg. No. | Dcl | Meas. Leq | Cal. Leq | Alpha | D_67 | D_62 |
|----------|------|-----------|----------|-------|------|------|
| 1 | 75' | 62.2 | 59.8 | 0.5 | 34' | 73' |
| 2 | 50' | 59.5 | 60.6 | 1.0 | 30' | 54' |
| 3 | 50' | 61.1 | 62.5 | 1.0 | 37' | 67' |
| 4 | 50' | 55.7 | 55.9 | 0.5 | 12' | 27' |
| 5 | 50' | 51.7 | 41.4 | 0.5 | 1' | 3' |
| 6 | 121' | 64.4 | 66.3 | 1.0 | 141' | 250' |
| 7 | 84' | 71.8 | 72.3 | 0.5 | 258' | 555' |
| 8 | 50' | 65.8 | 64.7 | 0.5 | 48' | 103' |
| 9 | 64' | 75.0 | 75.1 | 0.5 | 302' | 650' |
| 10 | 74' | 73.3 | 71.5 | 0.5 | 201' | 432' |
| 11 | 50' | 67.7 | 66.1 | 0.5 | 59' | 128' |
| 12 | 50' | 66.7 | 66.0 | 0.5 | 58' | 126' |
| 13 | 50' | 59.9 | 60.5 | 1.0 | 30' | 53' |
| 14 | 50' | 61.1 | 61.4 | 0.5 | 29' | 62' |
| 15 | 50' | 62.1 | 62.0 | 0.5 | 32' | 68' |
| 16 | 50' | 65.2 | 65.4 | 1.0 | 52' | 93' |
| 17 | 60' | 64.0 | 62.9 | 0.5 | 43' | 94' |
| 18 | 50' | 63.0 | 64.7 | 1.0 | 48' | 86' |
| 19 | 50' | 69.8 | 69.8 | 0.5 | 104' | 225' |
| 20 | 50' | 66.0 | 65.7 | 1.0 | 54' | 96' |
| 21 | 50' | 67.3 | 65.0 | 0.5 | 50' | 108' |
| 22 | 64' | 67.6 | 65.7 | 0.5 | 71' | 154' |
| 23 | 54' | 69.3 | 67.5 | 0.5 | 79' | 171' |
| 24 | 60' | 75.0 | 72.8 | 0.5 | 199' | 428' |
| 25 | 50' | 66.4 | 65.8 | 0.5 | 57' | 122' |
| 26 | 50' | 63.8 | 63.5 | 1.0 | 42' | 75' |
| 27 | 50' | 65.1 | 64.6 | 0.5 | 47' | 101' |
| 28 | 50' | 63.8 | 63.8 | 0.5 | 42' | 90' |
| 29 | 50' | 63.6 | 64.4 | 1.0 | 47' | 83' |
| 30 | 50' | 62.4 | 62.6 | 1.0 | 38' | 67' |
| 31 | 54' | 76.5 | 76.5 | 0.5 | 316' | 680' |
| 32 | 54' | 75.7 | 75.6 | 0.5 | 275' | 592' |
| 33 | 60' | 68.2 | 67.0 | 0.5 | 82' | 176' |
| 34 | 60' | 67.4 | 65.0 | 0.5 | 60' | 129' |
| 35 | 75' | 66.1 | 63.7 | 0.5 | 61' | 132' |
| 36 | 75' | 67.8 | 66.4 | 0.5 | 93' | 200' |
| 37 | 54' | 68.2 | 69.4 | 1.0 | 90' | 159' |
| 38 | 50' | 65.7 | 63.1 | 0.5 | 37' | 80' |
| 39 | 90' | 63.0 | 63.8 | 0.5 | 75' | 161' |
| 40 | 50' | 62.4 | 65.1 | 1.0 | 51' | 90' |
| 41 | 74' | 70.8 | 73.3 | 1.0 | 192' | 342' |
| 42 | 74' | 67.5 | 69.0 | 1.0 | 117' | 209' |
| 43 | 75' | 64.7 | 65.9 | 1.0 | 83' | 148' |
| 44 | 75' | 67.4 | 66.4 | 0.5 | 93' | 200' |
| 45 | 75' | 73.4 | 71.8 | 0.5 | 213' | 459' |
| 46 | 75' | 71.4 | 71.6 | 0.5 | 207' | 445' |

Source: TAMS, 1997.

Note: Dcl = Distance to Roadway Centerline.
 MEAS. Leq = Measured Equivalent Noise Level in dBA.

TABLE 5.1-4 (Continued)

**BASELINE ROADWAY NOISE LEVELS
WILL COUNTY ACQUISITION ALTERNATIVES**

CALC. Leq = Calculated Equivalent Noise Level for Roadway from STAMINA Road Noise Model.

K = Shielding, or barrier constant (zero in all cases.) not shown on table.

D_62 = Distance from Roadway Centerline to Leq 62dBA.

D_67 = Distance from Roadway Centerline to Leq 67dBA.

ALPHA = Propagation Factor (=0.5 in all cases) not shown on table.

5.1.3.4 Train Noise

The Illinois Central Gulf Railroad is parallel to Illinois State Route 50 just outside the eastern edge of the Kankakee Acquisition Alternatives and traverses the western portions of the Will County Acquisition Alternatives. Analysis of train noise was based on measurements of diesel and electric trains operating on steel track sections and operational data provided by the Commuter Rail Division of the Regional Transportation Authority known as Metra. Noise levels from this non-airport source are insignificant through 2020, as the DNL 65 contours stay within the railroad's right-of-way. See [Appendix D](#) for more detail.

5.1.3.5 Industrial Noise

Only a few industrial activities were found in the study area. See [Appendix D, Table D-27](#), which lists the industrial activities and the measured noise levels. Noise levels around these activities were measured and were found to only slightly contribute to the total noise analysis. [Appendix D](#) discusses industrial noise sources in more detail.

5.1.4 DISCUSSION OF IMPACTS

The action under consideration in this Tier 1 FEIS includes site approval and land acquisition only, and not planning, construction or operation of a potential air carrier airport. In fact, the need for planning, construction, funding, and operation of a new air carrier airport in the south suburban area of Chicago has not yet been determined. Additionally, according to the state's land acquisition policy (see [Appendix C](#)), existing land uses would continue and no additional development would occur within the proposed acquisition alternative areas. Potential reasonably foreseeable noise impacts are discussed in [Section 5.23](#), Cumulative Impacts.

5.1.4.1 No-Action Alternative

The No-Action Alternative assumes that the FAA would not approve a proposed site for a potential future air carrier airport. Noise conditions in the vicinity of the proposed acquisition alternatives would therefore be subject to normal development of the areas. Noise conditions that are likely to prevail as a result of normal development patterns in the southwest and south suburbs will be generated by several land uses. These land uses include, but are not limited to, residential, commercial and roadway traffic.

The major noise contributor under the No-Action Alternative would be roadway traffic. [Figures 5.1-5 and 5.1-6](#) show the projected roadway noise contours around each acquisition alternative due to anticipated population, employment, and household growth in the area.

Highway noise levels were calculated for a 1990 (most recent year of available traffic data) baseline condition and for the future (2020) conditions for the Kankakee and Will County Acquisition Alternatives. The Federal Highway Administration's STAMINA model was used to calculate the future noise levels based on traffic data provided by the Chicago Area Transportation Study and the Illinois Department of Transportation. Details of the highway noise analysis are provided in [Appendix D](#). [Figures 5.1-3 and 5.1-4](#) present the existing highway noise contours for the major roads in the vicinity of the Kankakee and Will County

Acquisition Alternatives. [Figures 5.1-5 and 5.1-6](#) present the highway noise contours for the Kankakee and Will County Acquisition Alternatives through 2020.

5.1.4.2 Kankakee Inaugural Acquisition Alternative

No construction or land use changes are proposed under this alternative. Therefore, noise impacts under this alternative would be similar to anticipated noise impacts under the No-Action Alternative. In addition, the proposed acquisition boundaries for this alternative include almost all predicted DNL 65 dBA and higher noise contours should a potential air carrier airport be constructed at this site in the future. A small portion of the predicted significant aircraft noise levels would fall on compatible land uses. [Appendix D](#) contains the methodology and results of noise modeling conducted for this alternative.

5.1.4.3 Kankakee Ultimate Acquisition Alternative

No construction or land use changes are proposed under this alternative. Therefore, noise impacts under this alternative would be similar to anticipated noise impacts under the No-Action Alternative. In addition, the proposed acquisition boundaries for this alternative include all predicted DNL 65 dBA and higher noise contours should a potential air carrier airport be constructed at this site in the future. [Appendix D](#) contains the methodology and results of noise modeling conducted for this alternative.

5.1.4.4 Will County Inaugural Acquisition Alternative

No construction or land use changes are proposed under this alternative. Therefore, noise impacts under this alternative would be similar to anticipated noise impacts under the No-Action Alternative. In addition, the proposed acquisition boundaries for this alternative include almost all predicted DNL 65 dBA and higher noise contours should a potential air carrier airport be constructed at this site in the future. A small portion of the predicted DNL 65 dBA and higher noise contours would fall on compatible land uses. [Appendix D](#) contains the methodology and results of noise modeling conducted for this alternative.

5.1.4.5 Will County Ultimate Acquisition Alternative

No construction or land use changes are proposed under this alternative. Therefore, noise impacts under this alternative would be similar to anticipated noise impacts under the No-Action Alternative. In addition, the predicted DNL 65 dBA and higher noise contours would be contained on airport property or on compatible land uses should a potential air carrier airport be constructed at this site in the future. [Appendix D](#) contains the methodology and results of noise modeling conducted for this alternative.

5.1.5 MITIGATION

No noise impacts that would require mitigation would occur under any of the acquisition alternatives.

5.2 LAND USE IMPACTS

5.2.1 OVERVIEW OF IMPACTS

Under the Tier 1 FEIS No-Action Alternative, the existing land uses in the area south of the City of Chicago would remain essentially unchanged in the short-term until development pressures from the north encroached on the region. Changes in land use that could be expected to occur over time would include increased residential development, as well as industrial and commercial growth. The amount of existing farmland would continue to diminish, as large sections of cropland are sold for residential development or commercial/industrial development.

While the need for the planning, construction, and operation of a new air carrier airport in the south suburban area of Chicago has not been determined, the possibility of such an action at the Kankakee or Will County Acquisition Alternatives has been considered in future planning by Kankakee County, Will County and the Will Township. The *Comprehensive Plan* for Kankakee County, the *Will County Land Resource Management Plan*, and *Will Township Plan* identify and address the potential for a future airport in the respective jurisdictions. Local plans have also included major infrastructure to support a potential airport.

Under the Tier 1 FEIS Kankakee and Will County Inaugural Acquisition Alternatives, the State of Illinois would acquire approximately 4,200 and 4,000 acres, respectively. Under the Kankakee and Will County Ultimate Acquisition Alternatives, the state would acquire approximately 24,500 and 23,500 acres, respectively. According to the state's land acquisition policy (IDOT Memorandum, October 12, 2000 in [Appendix C](#)), existing land uses would continue and no additional development would occur within the acquisition alternatives.

5.2.2 METHODOLOGY

According to FAA Order 5050.4A, *Airport Environmental Handbook*, the compatibility of existing and planned land uses in the vicinity of an airport is usually related to the noise impacts associated with the operation of an airport. The action being evaluated in this Tier 1 FEIS is site approval and land acquisition only. This action is needed at this time to preserve the option of developing a potential future air carrier airport to serve the greater Chicago region if determined necessary and appropriate to meet future aviation capacity needs. Therefore, the impacts assessed in this section consider the compatibility of existing and planned land uses with site approval and acquisition of land only and an analysis of potential aircraft noise impacts on surrounding land uses is not required. Potential reasonably foreseeable land use impacts are discussed in [Section 5.23](#), Cumulative Impacts.

Evaluation of compatible land use impacts includes documentation of what is being done by jurisdictions with land use control authority to ensure compatible development near the site. This includes assurances that proper zoning or other land use controls are being undertaken. This section evaluates local zoning laws and authorities used to control the compatibility of land adjacent to the proposed acquisition alternatives, adopted land use plans, and the compatibility of existing and planned land uses with the proposed action.

The methodology used in determining potential impacts of land acquisition involve reviewing both existing land use and future land use plans for the Kankakee and Will County Inaugural and Ultimate Acquisition Alternatives. This information includes local comprehensive and development plans and existing land use data. Data from individual jurisdictions was combined graphically to show conditions in the Primary Impact Study Areas associated with the Kankakee and the Will County Acquisition Alternatives. Individual planning documentation was evaluated to determine the existence of goals, policies, or objectives relating to compatible land use development.

While the need for the planning, construction and operation of a new air carrier airport in the south suburban area of Chicago has not been determined, the possibility of such an action at either the Kankakee or Will County Acquisition Alternatives has been considered in future planning by Kankakee County, Will County and by surrounding townships and municipalities. The analysis of land use impacts for the Kankakee and Will County Alternatives also uses the planned land use development scenarios developed by local jurisdictions in the Primary Impact Study Areas. The state's land acquisition policy (see [Appendix C](#)), states that existing land uses will continue and no additional development would occur within the proposed alternatives' acquisition areas until it is determined that an air carrier airport is needed. Because the proposed action does not include planning, construction and operation of an air carrier airport, the land use impact analysis considers only the compatibility of site approval and land acquisition with local land use plans.

5.2.3 EXISTING CONDITIONS

[Chapter 4.0](#), Affected Environment, describes the affected environment for the No-Action, Kankakee, and Will County Alternatives including the existing land use characteristics of the Primary Impact Area. The following discussion summarizes the existing land use characteristics associated with the alternatives. In addition, it presents a description of the locally adopted goals, policies, and plans associated with future land uses within and near the acquisition alternatives.

The Chicago Area Transportation Study (CATS) is responsible for transportation planning and the Northeastern Illinois Planning Commission (NIPC) is responsible for land use planning for six counties in northeastern Illinois, including Will, Cook, DuPage, Kane, Lake, and McHenry counties. As the regional planning agency, NIPC is the designated clearinghouse for coordination under Executive Order 12372 (formerly A-95). However, neither NIPC nor CATS has planning jurisdiction over Kankakee County, which is responsible for its own land use planning and zoning. The agency responsible for land use planning for Kankakee County is the Kankakee County Regional Planning Commission. The agency responsible for land use planning in Will County is the Will County Land Use Planning and Zoning Commission.

The South Suburban Mayors and Managers Association (SSMMA) is responsible for sub-regional comprehensive and transportation planning for South Cook and parts of eastern Will counties, including Crete and University Park. SSMMA is one of 11 CATS Councils of Mayors responsible for identifying transportation projects. Incorporated municipalities in Illinois have extra-jurisdictional zoning authority for all land within 1.5 miles of municipal boundaries, if no county zoning is present. The Will County Governmental League is responsible for the remaining areas, including Beecher, Monee, and Peotone.

5.2.3.1 Kankakee Acquisition Alternatives

The proposed Kankakee Inaugural and Ultimate Acquisition Alternatives are located within the unincorporated limits of the northeastern portion of Kankakee County and the southwestern portion of Will County, Illinois. The acquisition alternatives lie to the west of I-57 and the Village of Manteno, northwest of the City of Kankakee, and west-southwest of the Village of Peotone and within the Townships of Rockville and Manteno in Kankakee County, and in Florence, Wesley, and Wilton Townships in Will County.

The townships primarily provide road construction and maintenance services, including snow removal. 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.

Approximately 89 percent of both the Inaugural and Ultimate Kankakee Acquisition Alternatives is active farmland, and about 6 percent is developed land occupied by residences and farm buildings. The remaining 5 percent of the sites is a combination of land uses including successional fields, deciduous woodland, and wetlands (designated as Natural Areas/Open Space). This rural land use pattern is typical of the area surrounding the sites at this time. [Figure 4.3-1](#) illustrates the existing land use for the Kankakee Acquisition Alternative.

The small, unincorporated community of Deselm is located at the intersection of Manteno and Deselm Roads in the southern portion of the Kankakee Ultimate Acquisition Area. The estimated population for Deselm in 2000 was approximately 146. More extensive residential development is found to the north of the Kankakee Acquisition Alternatives in Wilton Center, to the northeast in Peotone, to the east in Manteno, and to the northwest in Symerton. Commercial development is located east of the Kankakee Acquisition Alternatives, primarily concentrated along I-57 and Illinois Route 50 in the Villages of Manteno and Peotone, and south along U.S. 45/52 in Bourbonnais and Illinois Route 50 through Bradley.

Existing suburban growth is limited to the environs of the Villages of Manteno and Peotone, around the I-57 interchanges. The population centers are situated on the perimeter of the proposed acquisition alternatives. These include a combination of growing suburban communities and smaller, more established rural communities.

The existing zoning characteristics of the Kankakee Acquisition Alternatives are primarily agricultural. A corridor zoned for light industrial uses, such as warehousing and business parks, extends along I-57 from the Village of Manteno south to the City of Kankakee (see [Figure 4.3-2](#)).

The counties and the incorporated areas have authority over local zoning, police, and taxes. Incorporated municipalities in Illinois have extra-jurisdictional zoning authority for all land within 1.5 miles of municipal boundaries, if no county zoning is present. Since Kankakee and Will counties have adopted zoning regulations, no municipality would have zoning authority over any portion of the Kankakee Acquisition Alternatives.

While the need for the planning, construction, funding, and operation of a new air carrier airport in the south suburban area of Chicago has not yet been determined, the *Kankakee County Comprehensive Plan*, adopted on November 10, 1992, includes planning for a supplemental regional airport within or near the

county. Similarly, Will County adopted its *Land Resource and Management Plan* in October 1990, and also discussed plans for a proposed third regional airport in the county; however, no specific location was designated. This plan discusses several other major transportation initiatives, including the creation of a bus system to service the Kankakee metropolitan area, provision of commuter rail service to Chicago, construction of an east-west expressway or freeway to serve the airport, and the development of three new interchanges on I57 to stimulate development. An addendum to the *Kankakee County Comprehensive Plan* was adopted in May 1997, which analyzed the impact of an airport on the Will County Acquisition Alternatives, but not the Kankakee Acquisition Alternatives.

Again, while the need for the planning, construction and operation of a new air carrier airport in the south suburban area of Chicago has not yet been determined, the existing *Will County Land Resource Management Plan* addresses planning policies aimed at Special Facilities Areas which:

- Provide adequate ground transportation and appropriate links to existing roadway and transit systems for all airport facilities which maintain regularly scheduled commercial flights;
- Permit land use development within airport noise impact zones appropriate to the level of potential noise impacts generated by planned facilities;
- Assure adequate room for the expansion of existing or planned airport facilities and for the expansion of impact areas;
- Encourage the development of uses that would benefit from the airport; and
- Develop areas within the noise impact areas surrounding each airport for uses not harmed by noise, including agriculture, industry and warehousing and distribution facilities.

The plan recommends prohibiting certain uses, such as residential and schools adjacent to the proposed acquisition sites. Other noise-sensitive and incompatible land uses, such as hospitals, parks, churches and other institutions, are not recommended for development around an airport. A draft Land Resource Management Plan for Will County was released in early 2002. This draft plan contains similar planning policies to the 1990 Land Resource Management Plan, related to the construction of a potential airport in Will County.

The Village of Manteno issued a revised Comprehensive Plan in August of 1998, which established several goals for future land use within the village. The plan states that the village will continue to be predominantly residential with major residential development planned for the areas east and west of Illinois Route 45/52 and north of Manteno Road, and east and west of I-57. Planned commercial activity is centered primarily in the downtown area, along Illinois Route 50 and at the interchange(s) with I-57. The village desires a second interchange with I-57 south of the village to allow better access to industrial areas. The village has also adopted an *Addendum to the Comprehensive Plan With Airport Scenario*, analyzing the effects an airport on the proposed Will County Acquisition Alternatives would have on the village.

The Village of Peotone adopted a *Comprehensive Plan Update* on December 15, 1997 that examined projected growth and land use plans with and without an airport (on the proposed Will County Acquisition Alternatives). The village plans to remain predominantly residential and will encourage large lot single-family

developments on the east, west and north sides of the village. Commercial areas will remain concentrated in the downtown area, along Illinois Route 50 and around the interchange with I-57. Light industrial development has been designated for land west of I-57 and in the southwest corner of the village.

5.2.3.2 Will County Acquisition Alternatives

The Will County Inaugural and Ultimate Acquisition Alternatives are located in unincorporated Will County, Illinois, mostly in the Townships of Will and Monee, with smaller portions located in Crete and Washington Townships. A small portion of the Inaugural Acquisition area lies within the incorporated limits of the Village of Monee.

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.

Land use within the boundaries of the Will County Acquisition Alternatives is predominantly agricultural. Approximately 67 percent of the Will County Alternative site is active farmland, and about 8 percent is developed land occupied by residences and farm buildings. The remaining 25 percent of the sites is a combination of land uses including fallow cropland, successional field, wetlands, and woodland (designated as Natural Areas/Open Space). Existing land uses for the Will County Acquisition Alternatives are shown in [Figure 4.3-3 of Chapter 4.0, Affected Environment](#).

This rural land use pattern is also typical of the area surrounding the Will County Acquisition Alternatives. More extensive residential development is found to the north in Monee, University Park, and Crete, to the southwest in Peotone, and to the east in Beecher. Commercial development is concentrated along major transportation routes, particularly Illinois Routes 50 and 1, and also at I-57 interchanges. Currently, suburban growth is encroaching on the northern limit of the proposed sites, but as of 2000, land use within the proposed acquisition boundaries is limited primarily to farming and rural residential uses. Even so, the number of residences within the Will County Acquisition Alternatives has increased by approximately 22 percent since May of 1995.

Current development trends in the vicinity of the proposed acquisition sites include the 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, Sauk Village, Lynwood, Dyer, Schererville, and Griffith, located along this corridor, are experiencing substantial growth. In fact, Will County is the second fastest growing county in Illinois, experiencing a 33 percent increase in population between 1990 and 2000. New development is also occurring farther south along I-57 between Manteno and the City of Kankakee.

While the need for the planning, construction and operation of a new air carrier airport in the south suburban area of Chicago has not yet been determined, communities within the primary study area have adopted planning documents, or land use plans, that consider plans for future development based on the assumption that an airport will be constructed on the Will County Acquisition Alternatives. These adopted plans indicate the intentions of local jurisdictions to ensure compatible development near each proposed acquisition

alternative site. The plans adopted by these communities, however, do not necessarily indicate that they support the assumed airport project. A description of these plans is provided below.

Will County adopted its *Land Resource and Management Plan* in October 1990, and Will Township adopted its *General Development Plan* in June 1993. Will County also released a draft updated *Land Resource Management Plan* in early 2002. These documents include guidance for the future development of a proposed supplemental airport site. The Will Township plan specifically designated the proposed site and surrounding land for agricultural use. This designation is consistent with the Will County plan. While these plans assume that a new airport may be constructed at the proposed Will County site, detailed regional planning is ongoing. Zoning designations for portions of the alternative site are agricultural, estate, and residential.

Based on an intergovernmental agreement, elected officials from Will County have organized the Eastern Will County Regional Council to help create a cohesive strategy for addressing future growth in the region. This Council is comprised of members representing Peotone, Crete Township, Kankakee County, Manteno, Monee Township, Park Forest, Steger, Sumner Township, University Park, Will County, and Will Township.

A separate group, called the South Suburban Planning Committee, is composed of representatives from the Villages of Crete, Monee, Beecher, Peotone and University Park, plus the Regional Council and Will and Kankakee counties. This group is funded by grants provided by the Illinois Department of Transportation to help the local municipalities effectively plan for the proposed supplemental airport.

The Eastern Will County Regional Council and the South Suburban Planning Committee are developing standards to guide regional policy on transportation and land use issues. A potential supplemental airport is addressed in these policy guidelines; a land use plan for eastern Will County has also been developed. The *Land Use Plan for the Eastern Will County Area* outlines a land use plan and development principles for the local municipalities if an airport is sited and constructed on the Will County Acquisition Alternatives. It is assumed that should an airport be constructed on the proposed acquisition sites, commercial and industrial land uses would increase significantly, primarily around the perimeter of the proposed acquisition alternatives. The land use plan also presents land use options without an airport.

In addition, the *Will County Land Resource Management Plan* addresses planning policies aimed at Special Facilities Areas which:

- Provide adequate ground transportation and appropriate links to existing roadway and transit systems for all airport facilities which maintain regularly scheduled commercial flights;
- Permit land use development within airport noise impact zones appropriate to the level of potential noise impacts generated by planned facilities;
- Assure adequate room for the expansion of existing or planned airport facilities and for the expansion of impact areas;
- Encourage the development of uses that would benefit from the airport; and

- Develop areas within the noise impact areas surrounding each airport for uses not harmed by noise, including agriculture, industry and warehousing and distribution facilities.

The plan recommends prohibiting certain uses, such as residential and schools adjacent to a proposed future airport. Other noise-sensitive and incompatible land uses, such as hospitals, parks, churches and other institutions, are not recommended for development around an airport.

The Kankakee Regional Planning Commission adopted an amendment to the *Kankakee County Comprehensive Plan* in May of 1997 that examined the anticipated land use impacts to portions of Kankakee County if an airport was sited and constructed on the Will County Acquisition Alternatives. This information was incorporated into the *Land Use Plan for the Eastern Will County Area*.

Washington Township adopted a Comprehensive Plan in 1995 and updated it in February 2000. In the update, the township established planning policies including:

- Protect and preserve agricultural areas from poorly designed land development inconsistent with the Future Land Use Map; and
- Review and seek to achieve consistency with future land use plans of surrounding Townships, the Village of Beecher, Eastern Will County Regional Council, Will County, and NIPC.

The Village of Beecher adopted a Comprehensive Plan Amendment in April 1996 and is planning on completing an update by the fall of 2001. This amendment examined growth expected with and without an airport. Some of the community goals and development policies include:

- Ensure Village participation in a regional planning process including, but not limited to, corridor councils, regional planning, boundary agreements and transportation routes;
- Plan for a Village population of 6,000 in case the airport is not established;
- Plan for a Village population of 12,000 if the airport is established;
- Encourage and demand an official leadership role and membership on any governing board which may operate the airport; and
- Participate in the planning process and abide by any state regulations pertaining to restrictive airport buffer zones if the establishment of such zones are determined to be in the best interests of the village.

The amendment recommended the establishment of a business park at the northeast corner of Illinois Route 1 and Church Street, which has occurred. Commercial areas have been designated along Illinois Route 1 and in the downtown area. Residential development is occurring east of Illinois Route 1 in several locations.

The Village of Crete prepared a *Planning Workbook* in January 1997 that examined future land uses with and without an airport. The stated objectives of this comprehensive framework plan are:

- To maintain the rural, historic and primarily residential character of Crete by identifying the natural features that define that character and methods of preserving them;

- To maintain the present asset of Crete's built environment by planning for the future in such a manner as to preserve and enhance the built environment;
- To develop a balanced economy between industry, commercial development, residential and open land in order to provide a high standard of land use; and
- To accommodate specific types and amounts of development to offer opportunity and choice.

Residential uses will continue to predominate. Commercial and business uses are designated along Illinois Route 1, Exchange Street, and Illinois Route 394. Industrial uses are centered along the abandoned railroad tracks south of Burrville Road.

The Village of Manteno issued a revised Comprehensive Plan in August of 1998, which established several goals for future land use within the village. The plan states that the village will continue to be predominantly residential with major residential development planned for the areas east and west of Illinois Route 45/52 and north of Manteno Road, and east and west of I-57. Planned commercial activity would be centered primarily in the downtown area, along Illinois Route 50 and at the interchange(s) with I-57. The village desires a second interchange with I-57 south of the village to allow better access to industrial areas.

The village has also adopted an *Addendum to the Comprehensive Plan With Airport Scenario*, analyzing the effects an airport on the Will County Acquisition Alternatives would have on the village.

The Village of Monee adopted a Comprehensive Plan in July of 1997, which examines future land use with and without an airport on the Will County Acquisition Alternatives. Several goals included in the plan are:

- Anticipate the need for additional land necessary to accommodate and serve the future growth of Monee and provide for the annexation of these lands;
- Plan for a Village population of 16,526 with airport development;
- Obtain an official leadership role and membership on any governing board which may operate the airport; and
- Participate in the planning process and abide by any State regulations pertaining to restrictive airport buffer zones in a manner that will maximize the best interests of the village.

The plan states that the village will remain predominantly residential. Commercial uses are designated for the land surrounding the interchange with I-57, as well as along Monee-Manhattan Road and Illinois Route 50. Industrial uses have been identified for land on the west side of I-57.

The Village of Peotone adopted a *Comprehensive Plan Update* on December 15, 1997, which examined projected growth and land use plans with and without an airport (on the Will County Acquisition Alternatives). The plan lists several general future land use goals, which are:

- Maintain the balance between infrastructure and residential development;
- Maintain area of influence agreements with adjacent municipalities;

- Pursue annexation of adjacent land appropriate for commercial or industrial development;
- Maintain buffers of landscaping and other features between residential and commercial/industrial uses; and
- Pursue a slow to moderate rate of residential growth.

The village plans to remain predominantly residential and will encourage large lot single-family developments on the east, west and north sides of the village. Commercial areas will remain concentrated in the downtown area, along Illinois Route 50 and around the interchange with I-57. Light industrial development has been designated for land west of I-57 and in the southwest corner of the village.

The Village of University Park has also adopted a land use plan that considers the impact of an airport on the Will County Acquisition Alternatives. Most of the land uses within the village have been designated residential, but a large area along Illinois Route 50 and I-57 has been designated for industrial and commercial uses.

The existing zoning characteristics of the Will County sites are primarily agricultural. A corridor zoned for light industrial uses, such as warehousing and business parks, extends along I-57 from the Village of Monee north to the Village of University Park (see [Figure 4.3-4](#)).

The counties and the incorporated areas have authority over local zoning, police, and taxes. Incorporated municipalities in Illinois have extra-jurisdictional zoning authority for all land within 1.5 miles of municipal boundaries, if no county zoning is present. Since Kankakee County and Will County are zoned, the only municipality that would have zoning authority over a small portion of the Will County sites is the Village of Monee.

5.2.4 DISCUSSION OF IMPACTS

The action under consideration in this Tier 1 FEIS includes site approval and land acquisition only, and not planning, construction or operation of a potential air carrier airport. In fact, the need for a new air carrier airport in the south suburban area of Chicago has not yet been determined. Additionally, according to the state's land acquisition policy (see [Appendix C](#)), existing land uses would continue and no additional development would occur within the proposed acquisition alternatives. Therefore, the impacts assessed in this section consider the compatibility of existing and planned land uses with site approval and acquisition of land only and an analysis of potential aircraft noise impacts on surrounding land uses is not required. Potential reasonably foreseeable land use impacts are discussed in [Section 5.23](#), Cumulative Impacts.

5.2.4.1 No-Action Alternative

The No-Action Alternative assumes that the FAA would not approve a proposed site for a potential future air carrier airport. Under the No-Action Alternative, the character of the land is expected to remain essentially unchanged. However, over time residential development is expected to continue to expand to the south as suburban sprawl expands southward. As changes in farm prices occur and the area experiences increased

interest in suburban growth and development, existing agricultural areas most likely would be replaced by residential, commercial, or industrial uses.

Comprehensive land use plans prepared by Kankakee and Will counties show that consideration by local officials has been given to the development of a new supplemental airport on the Will County Acquisition Alternatives. Both counties have adopted land use plans with and without an airport.

Under the no-airport plan, the *Kankakee County Comprehensive Plan* identifies the land within the Kankakee Acquisition Alternatives as continuing in agricultural use. The *Land Use Plan for the Eastern Will County Area* identifies the majority of the land within the Will County Acquisition Alternatives as remaining in agricultural use, with increased residential development progressing south from the Villages of University Park, Crete and Monee, and with residential and industrial development expanding around the Villages of Beecher, Peotone, Manteno, and Grant Park. [Figures 5.2-1 and 5.2-2](#) illustrate planned future land uses for the Kankakee and Will County Acquisition Alternatives under the No-Action Alternative.

Under the No-Action Alternative, no land would be acquired for a supplemental airport, and approximately 3,900 acres to 24,500 acres would be available for future private development. Although it is anticipated that much of the agricultural land would remain in crop production, private development of this area would increase as a result of suburban development pressures occurring from the north.

5.2.4.2 Kankakee Acquisition Alternatives

The *Kankakee County Comprehensive Plan*, adopted in November 1992, includes consideration of a supplemental regional airport within the county; however, no specific location was designated. In addition, the county has recognized the need to plan for services, such as ground transportation, to support the proposed airport. An Addendum to the *Kankakee County Comprehensive Plan* was adopted in May 1997, which analyzed the impact of an airport located on the Will County Acquisition Alternatives, but not the Kankakee Acquisition Alternatives.

The predominant land use at the Kankakee Acquisition Alternatives is agricultural, mixed with some residential, commercial, and transportation uses. Although all land within the alternatives would be purchased by IDOT under either of the Kankakee Acquisition Alternatives, all existing land uses would remain and continue through leasing agreements with IDOT (see [Appendix C](#)). Therefore, no major impact to land uses would result. [Table 5.2-1](#) identifies the existing land uses within the Kankakee sites.

TABLE 5.2-1

EXISTING LAND USES - KANKAKEE ACQUISITION ALTERNATIVES

| Existing Land Uses | Inaugural Acquisition Alternative | Ultimate Acquisition Alternative |
|----------------------------------|-----------------------------------|----------------------------------|
| | Acres | Acres |
| Residential | 100 | 756 |
| Commercial | 0 | 25 |
| Institutional | 0 | 2.5 |
| Transportation ¹ | 154 | 544 |
| Cropland ² | 3,766 | 22,091 |
| Pasture | 42 | 331 |
| Hedgerow | 0.5 | 17 |
| Successional Fields ³ | 120 | 322 |
| Wetlands | 57 | 318.5 |
| Woodlands | 0 | 114 |
| TOTAL | 4,240 | 24,521 |

Source: TAMS, 2000.

Note: Acres have been rounded.

¹ Includes highways, roadways, and railroads.

² Includes active and fallow cropland.

³ Includes herbaceous and shrub successional fields.

Figure 5.2-3 shows future land use plans for the Kankakee Acquisition Alternatives if either of the acquisition alternatives is approved. No impacts to planned land uses are anticipated given the “with airport” land use scenarios adopted by communities near the Kankakee Acquisition Alternatives.

5.2.4.3 Will County Acquisition Alternatives

Existing land uses within the Will County Acquisition Alternatives would continue under either alternative. The predominant land use within the Will County Acquisition Alternatives is agricultural, mixed with some residential, commercial and transportation uses. Although all land within the alternatives would be purchased by IDOT under either of the Will County Alternatives, all existing land uses would remain and continue through leasing agreements with IDOT (see Appendix C). Table 5.2-2 identifies the existing land uses within the Will County Acquisition Alternatives. The agency responsible for land use planning for Will County is the Will County Land Use Planning and Zoning Commission.

Figure 5.2-4 shows the future land use for the Will County sites if either of the acquisition alternatives is approved. No impacts to planned land uses are anticipated given the “with airport” land use scenarios adopted by communities near the Will County sites.

5.2.5 MITIGATION

No land use changes or construction are proposed under any of the alternatives. Therefore, no mitigation is warranted.

TABLE 5.2-2

**EXISTING LAND USES
WILL COUNTY ACQUISITION ALTERNATIVES**

| Existing Land Uses | Inaugural Acquisition Alternative | Ultimate Acquisition Alternative |
|----------------------------------|-----------------------------------|----------------------------------|
| | Acres | Acres |
| Residential | 232 | 1,901 |
| Commercial | 17 | 42 |
| Institutional | 0 | 4 |
| Transportation ¹ | 121 | 675 |
| Vacant | 5 | 24 |
| Cropland ² | 3,090 | 17,658 |
| Pasture | 18 | 431 |
| Hedgerow | 27 | 207 |
| Prairie | 0 | 62 |
| Successional Fields ³ | 198 | 1,483 |
| Creeks and Wetlands | 121 | 548 |
| Woodlands | 54 | 457 |
| TOTAL | 3,883 | 23,492 |

Source: TAMS, 2000.

Note: Acres have been rounded.

¹ Includes airports, highways, roads and railroads.

² Includes active and fallow cropland.

³ Includes herbaceous and shrub successional field.

5.3 SOCIAL IMPACTS

5.3.1 OVERVIEW OF IMPACTS

Property Acquisition and Relocation Impacts

Under the No-Action Alternative, the FAA would not give approval for a potential new air carrier airport site in the south suburban area of Chicago. No action would be taken to expand the aviation capacity of the greater Chicago region beyond what is included in the approved plans of existing airports and programs of the FAA. In February 2001, the State of Illinois announced that it would begin, and subsequently began, to acquire land from willing sellers prior to an FAA determination regarding site approval. In January and February 2002, the State also announced that it may acquire property through the use of eminent domain. Although the State of Illinois is proceeding to acquire land, it is assumed for comparison purposes and in order to provide a baseline for the No-Action Alternative that no property acquisition and relocation would take place. The potential impacts of state land acquisition and relocation will be disclosed in the acquisition alternatives. The No-Action Alternative establishes the baseline from which all other alternatives are measured.

Under the proposed Kankakee or Will County Alternatives, property acquisition would occur in fee simple. A total of 4,240 and 24,512 acres of land would be acquired under the Kankakee Inaugural and Ultimate Acquisition Alternatives, respectively, and 3,883 and 23,492 acres of land would be acquired under the Will County Inaugural and Ultimate Acquisition Alternatives, respectively. All existing land uses will remain and continue through a leasing arrangement with IDOT until needed for potential airport development.

Approval of the Kankakee Inaugural Acquisition Alternative would involve acquisition of properties including 19 farm operations and the relocation of an estimated 93 people from approximately 35 households. Approval of the Kankakee Ultimate Acquisition Alternatives would involve acquisition of properties including 2 businesses and 140 farm operations and the relocation of an estimated 681 people from approximately 255 households. Residential owners/occupants of properties acquired will be allowed to lease the property, as long as the acquisition is not a hardship acquisition. Incumbent residents who have received relocation assistance would not be allowed to lease back the property that has been acquired (see [Appendix C](#)). IDOT would lease farmland and outbuildings on a competitive basis. No schools, churches, or hospitals are located within the acquisition boundaries.

Approval of the Will County Inaugural Acquisition Alternative would involve property acquisition including 19 farm operations and the relocation of approximately 202 people from 76 households. Approval of the Will County Ultimate Acquisition Alternative would involve property acquisition including 16 businesses and 129 farm operations and the relocation of approximately 2,985 people from approximately 1,232 households. Residential owners/occupants of properties acquired will be allowed to lease the property, as long as the acquisition is not a hardship acquisition. Incumbent residents who have received relocation assistance would not be allowed to lease back the property that has been acquired (see [Appendix C](#)). IDOT would lease farmland and

outbuildings on a competitive basis. No schools, churches, or hospitals are located within the acquisition boundaries.

Demographics and Environmental Justice Impacts

The percentages of low-income or minority population in the townships affected by any of the acquisition alternatives are low compared to each respective county. No disproportionate impacts to low-income or minority residents are expected to occur under any of the acquisition alternatives.

Impacts to Established Communities

No impacts to established communities would occur with the No-Action or the Inaugural Acquisition Alternatives. The unincorporated community of Deselm would be acquired under the Kankakee Ultimate Acquisition Alternative. Two established neighborhoods, Pheasant Lake Estates and portions of Heatherbrook Estates, would be acquired under the Will County Ultimate Acquisition Alternative. Residential owners/occupants of properties acquired would be allowed to lease the property, as long as the acquisition is not a hardship acquisition. Incumbent residents who have received relocation assistance would not be allowed to lease back the property that has been acquired (see [Appendix C](#)).

Local Employment Impacts

No impacts to existing or projected local employment would occur as a result of the No-Action or either of the Inaugural Acquisition Alternatives. Two businesses, with an estimated employment of 12, would be acquired under the Kankakee Ultimate Acquisition Alternative. The Will County Ultimate Acquisition Alternative would result in the acquisition of 16 businesses with an estimated employment between 51 and 97. Business owners/occupants of properties acquired would be allowed to lease the property, as long as the acquisition is not a hardship acquisition. Business owners/occupants who have received relocation assistance would not be allowed to lease back the property that has been acquired (see [Appendix C](#)).

Local Property Tax Impacts

Land acquisition by the State of Illinois will result in the conversion of land from taxable to tax exempt. However, Kankakee and Will counties have the option to tax these leaseholds at the same rate as private property, in which case, no impacts to taxing districts would occur. Under any of the acquisition alternatives, all existing properties will be leased.

Schools and Public Services

No changes in school attendance are anticipated as land and buildings located in the acquisition areas will be leased to existing and/or new residents. Household characteristics of both areas are expected to remain the same after land is acquired by IDOT. There are no churches, hospitals, or schools located within the boundaries of either the Kankakee or Will County sites. No changes in

land use or transportation infrastructure would occur under either alternative. Thus, no changes to public services are anticipated.

5.3.2 METHODOLOGY

Based on guidance provided in FAA Order 5050.4A, *Airport Environmental Handbook*, the principal social impacts that are considered in the environmental review process are those associated with 1) property acquisition and relocations, 2) alteration to surface transportation, 3) disruption to established communities, 4) disruption to orderly, planned development, or 5) creation of an appreciable change in employment.

This section addresses the principal social impacts associated with the acquisition of land for a possible new air carrier airport in the greater Chicago region. Changes in property acquisition and relocations, changes in local employment and tax bases, and disruptions to community services are evaluated by alternative. [Section 5.4](#), Induced Socioeconomic Impacts, discusses impacts to population, employment and public facilities, and services that would be induced by secondary impacts. A detailed analysis of the impacts on surface transportation can be found in [Section 5.21](#), Surface Transportation.

The methodology used to determine social impacts involved conducting an inspection of the alternative sites and recording the existing cover type, infrastructure of the area, interviews, and conversations with local officials, and compiling socioeconomic data of the affected jurisdictions.

Determination of land to be acquired for each alternative site was based on the amount of land projected to be needed for airside and landside airport facilities, access roads, significant noise impacted areas, and environmental mitigation. The acquisition boundaries were drawn to avoid land locking parcels or creating uneconomic remnants, which are remnants of a parcel that, due to their size or shape, cannot be economically used for any type of development or used for agricultural operations.

5.3.3 EXISTING CONDITIONS

5.3.3.1 Housing Characteristics

According to the 2000 Census, there were 216,134 housing units within Kankakee and Will counties. Of these, 95 percent were occupied, and 5 percent, or 10,410 homes, were vacant. The mean household income (in 1990) of the residents within the proposed airport sites was \$39,975. [Table 5.3-1](#) shows housing characteristics and availability in Will County. [Table 5.3-2](#) shows the number of homes listed for sale in Kankakee County and portions of Will County (east of Joliet and south of Interstate 80) as of February 14, 2002. The areas shown in these tables indicate areas where residents in the acquisition areas will most likely relocate; additional housing is available throughout the greater Chicago metropolitan region.

**TABLE 5.3-1
HOUSING CHARACTERISTICS - WILL COUNTY**

| Property Type | Number | Percent |
|---------------------------------|-----------|---------|
| Occupied | 167,542 | 95.45 |
| Vacant | 7,982 | 4.55 |
| Total Housing Units Reported | 175,524 | 100.00 |
| Rental Units: | | |
| Under \$200 | 2,161 | 8.29 |
| \$200-299 | 1,063 | 4.08 |
| \$300-499 | 3,050 | 11.69 |
| \$500-749 | 13,116 | 50.29 |
| \$750-999 | 4,610 | 17.67 |
| \$1,000-1,499 | 1,735 | 6.65 |
| \$1,500 or more | 347 | 1.33 |
| Total Rental with Reported Rent | 26,082 | 100.00 |
| Median Rent | \$597 | |
| Housing Value: | | |
| Under \$50,000 | 1,488 | 1.22 |
| \$50,000-99,999 | 23,522 | 19.27 |
| \$100,000-149,999 | 32,263 | 26.43 |
| \$150,000-199,999 | 29,450 | 24.12 |
| \$200,000-299,999 | 20,923 | 17.14 |
| \$300,000-499,999 | 13,703 | 11.22 |
| \$500,000-999,999 | 735 | 0.60 |
| \$1,000,000 or more | 0 | 0 |
| Total Owner Occupied with Value | 122,084 | 100.00 |
| Median Value | \$154,815 | |

Source: Census 2000 Supplemental Survey, U.S. Census Bureau, U.S. Department of Commerce, 2001.

**TABLE 5.3-2
AVAILABLE HOUSING, FEBRUARY 2002**

| Location | Number of Homes Listed on the Market | | | | |
|-------------------------|--------------------------------------|-------------------------|-------------------------|-------------------------|--------------------|
| | Under \$100,000 | \$100,001- \$200,000 | \$200,001- \$300,000 | \$300,001- \$500,000 | Above \$500,000 |
| Kankakee County | | | | | |
| Bourbonnais/Bonfield | 6 | 17 | 4 | | |
| Bradley | 7 | 3 | | | |
| Grant Park | 1 | 11 | 2 | | |
| Kankakee | 27 | 7 | 2 | 2 | |
| Manteno | 2 | 20 | 2 | 1 | |
| Momence | 11 | 3 | | | |
| Will County | | | | | |
| Beecher | 6 | 30 | 9 | 6 | |
| Braidwood | 11 | 25 | 15 | 1 | 1 |
| Crete | 7 | 61 | 37 | 27 | 9 |
| Elwood | 2 | 10 | 2 | 2 | 1 |
| Frankfort/Green Garden | 2 | 33 | 60 | 55 | 21 |
| Manhattan/Wilton Center | 3 | 16 | 10 | 9 | 1 |
| Mokena | 10 | 41 | 33 | 15 | 3 |
| Monee | | 46 | 9 | 13 | 7 |
| New Lenox | 3 | 62 | 62 | 17 | 8 |
| Peotone | 1 | 14 | 6 | 1 | 1 |
| University Park | 43 | 23 | | | |
| Wilmington | 28 | 33 | 14 | 2 | 1 |
| TOTALS | 170 | 455 | 267 | 151 | 53 |

Source: www.mlsni.com – Multiple-Listing Service of Northeastern Illinois, February 2002.

5.3.3.2 Demographics and Income Characteristics

Regional population estimates and trends are presented in [Chapter 4.0](#), Affected Environment. The following additional data presents information used in the analysis of demographic and environmental justice impacts.

In 2000, a total of 12,661 people were recorded as residing within the townships that include the Kankakee Acquisition Area: 7,846 in Manteno, 786 in Rockville, 642 in Florence, 2,568 in Wesley, and 819 in Wilton (U.S. Census, 2000). Between 1980 and 1990, Kankakee County experienced a 6percent decline in population while between 1990 and 2000 the county increased in population by 8 percent (U.S. Census, 2000).

Two sources, the Illinois Bureau of Budget and Data Resources, Inc., project that the population for Kankakee County is expected to decline between 1980 and 2010. These declines ranged from 3.8 percent to 5.5 percent. However, Woods and Poole Economics, Inc. projected a 10 percent increase for the same period. This projected population increase may be the result of the continued suburban expansion around Chicago (Kankakee County, 1992).

Since 1990, substantial new subdivisions and other suburban development have been constructed in the communities surrounding the Will County sites. For example, the Village of Beecher has approved three planned developments: 250 residential units (125 single-family homes and 125 town homes) on 60 acres; 345 homes (no more than 172 town homes) on 80 acres; and another 880 units (mix of single-family and multi-family homes) around the Cardinal Creek Golf Course (*Kankakee Journal*, Oct. 5, 2000).

From 1995 through 2001, the Village of Beecher issued building permits for 106 single-family homes, the Village of Crete issued building permits for 261 single-family homes, the Village of Monee issued building permits for 678 single-family homes, the Village of Peotone issued building permits for 104 single-family homes and the Village of University Park issued building permits for 179 single-family homes. Will County has issued building permits for 40,454 single-family homes and 510 multi-family buildings containing 3,025 multi-family units during the same time period (NIPC, 2002).

[Table 5.3-3](#) presents the 1990 (most current available) mean household and per capita income for households within the affected area for the Kankakee and Will County Alternative sites. These incomes are representative of mean household incomes throughout the townships, whether within or outside the boundaries of the proposed sites.

TABLE 5.3-3

MEAN HOUSEHOLD AND PER CAPITA INCOME LEVELS BY TOWNSHIP, 1990

| County/ Township | 2000 Housing Units ² | Mean Household Income | Mean Household Difference ¹ | Per Capita Income | Per Capita Difference ¹ |
|---------------------------------|------------------------------------|-----------------------------|--|----------------------|---------------------------------------|
| Kankakee Alternatives | | | | | |
| Kankakee County | 40,610 | \$28,824 | | \$12,142 | |
| Rockville | 275 | \$38,523 | +33.6% | \$14,057 | +15.8% |
| Manteno | 3,283 | \$31,229 | +8.3% | \$13,389 | +10.3% |
| Will County | 175,524 | \$45,507 | | \$15,358 | |
| Florence | 225 | \$37,604 | -17.4% | \$12,781 | -16.8% |
| Wesley | 873 | \$40,125 | -11.8% | \$12,191 | -20.6% |
| Wilton | 275 | \$41,806 | - 8.1% | \$15,927 | +3.7% |
| Will County Alternatives | | | | | |
| Will County | 175,524 | \$45,507 | | \$15,358 | |
| Crete | 9,442 | \$46,435 | +2.0% | \$17,061 | +11.1% |
| Monee | 5,034 | \$41,003 | -9.9% | \$14,012 | -8.8% |
| Washington | 1,505 | \$43,198 | -5.1% | \$15,702 | +2.2% |
| Will | 579 | \$45,342 | -0.4% | \$15,446 | +0.6% |

Source: U.S. Bureau of Census, 1990.

¹ Percentage difference between county and township.

² U.S. Bureau of Census, 2000.

Note: The 1990 data for per capita income at a Township level was the latest available at the time of publication of this EIS.

The median household income for Kankakee County in 1998 was \$38,294 (U.S. Census Bureau) and the per capita personal income in 1999 was \$23,256 (Bureau of Economic Analysis, U.S. Department of Commerce, 2001). The median household income for Will County, based on 2000 census estimate data, was \$61,197 (Census 2000 Supplemental Survey, U.S. Census Bureau), and the per capita personal income in 1999 was \$26,483 (Bureau of Economic Analysis, U.S. Department of Commerce, 2001).

The *Comprehensive Plan* for Kankakee County showed that between 1980 and 1990 the household income for Kankakee County increased. For example, in 1980, 27.7 percent of the population in Kankakee County had incomes less than \$10,000, and only 3.4 percent of the households had incomes more than \$50,000. In 1990, 19.2 percent of the households had incomes less than \$10,000 and 46.9 percent had incomes ranging between \$20,000 and \$49,999.

The county plan explained that households with incomes less than \$20,000 only decreased by about 20 percent between 1980 and 1990, which was far below the rate of inflation over the same period. A large percentage of households that were 60 years and older (likely on fixed incomes) and new jobs with salaries less than the higher paying manufacturing jobs that are being replaced were factors that may have contributed to incomes remaining relatively low (Kankakee County, 1992).

Table 5.3-4 presents the number of persons living at or below poverty level in 1990 within the study areas for the Kankakee and Will County Alternatives, by township. As shown in the table, a total of 499 residents, or 5.5 percent, within the Kankakee Alternative affected area lived below poverty level. Of the five townships

within the Kankakee Alternatives, Wesley had the highest percentage, 7.4 percent, of its residents living below poverty. The Township of Manteno followed Wesley with 6.8 percent of its residents living below poverty. Women, between the ages of 18 and 64 residing in the Townships of Wesley and Manteno, comprised the largest group residing in poverty.

TABLE 5.3-4

**PERSONS BELOW POVERTY LEVEL,
CATEGORIZED BY AGE GROUP AND GENDER, BY TOWNSHIP, 1990**

| County/ Township | Male | | | | | Female | | | | Total In Poverty | Percent In Poverty |
|---------------------------------|--------------------|------------|---------------|----------------|------------|------------|---------------|----------------|------------|------------------------|--------------------------|
| | 1990 Population | Under 5 | 5 to 17 | 18 to 64 | Over 65 | Under 5 | 5 to 17 | 18 to 64 | Over 65 | | |
| Kankakee Alternatives | | | | | | | | | | | |
| Kankakee County | | | | | | | | | | | |
| Rockville | 692 | 0 | 0 | 14 | 0 | 0 | 0 | 0 | 0 | 14 | 2.0% |
| Manteno | 4,362 | 9 | 20 | 41 | 21 | 9 | 45 | 95 | 57 | 297 | 6.8% |
| Will County | | | | | | | | | | | |
| Florence | 712 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0% |
| Wesley | 2,540 | 0 | 29 | 51 | 19 | 0 | 37 | 38 | 14 | 188 | 7.4% |
| Wilton | 685 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0% |
| Township Totals | 8,991 | 9 | 49 | 106 | 40 | 9 | 82 | 133 | 71 | 499 | 5.5% |
| Will County Alternatives | | | | | | | | | | | |
| Crete | 21,629 | 40 | 124 | 261 | 48 | 53 | 145 | 469 | 85 | 1,225 | 5.7% |
| Monee | 10,817 | 28 | 57 | 216 | 23 | 62 | 58 | 308 | 21 | 773 | 7.1% |
| Washington | 3,751 | 4 | 16 | 8 | 15 | 2 | 4 | 32 | 27 | 108 | 2.9% |
| Will | 1,332 | 0 | 0 | 17 | 0 | 0 | 0 | 6 | 0 | 23 | 1.7% |
| Township Totals | 37,529 | 72 | 197 | 502 | 86 | 117 | 207 | 815 | 133 | 2,129 | 5.7% |

Source: U.S. Bureau of Census, 1990.

Of the four townships that are partially located within the Will County Acquisition Alternative, approximately 5.7 percent of the total population was at or below poverty level in 1990. Women within the 18 to 64 age range living in Crete Township and Monee Township represented the largest groups living in poverty.

In 1989, 11.6 percent of the population in Illinois was below poverty level; in 2000, the percent of population below poverty level had decreased slightly to 11.5 percent (U.S. Census, 2001). In 2000, the U.S. Bureau of Census estimated that 44,246 people or 9.0 percent of the population of Will County were in poverty (Census 2000 Supplemental Survey, U.S. Bureau of Census). In Kankakee County, 13,394 people or 12.9 percent of the population were in poverty (U.S. Census, 2000).

Table 5.3-5 presents the distribution of minority populations throughout the townships that include the Kankakee and Will County Acquisition Alternatives. In 2000, approximately 22.5 percent of both Kankakee and Will County's population were minority. Most of the minority population within the Kankakee Acquisition Alternatives resided in Wesley Township, which had a 9.4 percent minority population in 2000. The total minority population within the Kankakee study area's affected townships was only 6 percent.

TABLE 5.3-5

MINORITY POPULATION DISTRIBUTION BY TOWNSHIP, 2000

| County/ Township | 2000 Population | Number of Minorities by Ethnic Group | | | | | Total Minorities | Percentage of Minorities |
|---------------------------------|--------------------|--------------------------------------|--------------------------|---------------|--------------------|--------------|---------------------|--------------------------------|
| | | African American | Hispanic or Latino | Asian | Native American | Other | | |
| Kankakee Alternatives | | | | | | | | |
| Kankakee County | | | | | | | | |
| Rockville | 786 | 8 | 11 | 8 | 0 | 8 | 35 | 4.5% |
| Manteno | 7,846 | 130 | 235 | 15 | 13 | 41 | 434 | 5.5% |
| Will County | | | | | | | | |
| Florence | 642 | 2 | 12 | 0 | 2 | 4 | 20 | 3.1% |
| Wesley | 2,568 | 143 | 65 | 4 | 17 | 12 | 241 | 9.4% |
| Wilton | 819 | 5 | 14 | 0 | 1 | 10 | 30 | 3.7% |
| Township Totals | 12,661 | 288 | 337 | 27 | 33 | 75 | 760 | 6.0% |
| Will County Alternatives | | | | | | | | |
| Crete | 23,589 | 2,973 | 1,095 | 141 | 40 | 328 | 4,577 | 19.4% |
| Monee | 13,294 | 6,206 | 423 | 78 | 8 | 313 | 7,028 | 52.9% |
| Washington | 3,948 | 4 | 85 | 9 | 4 | 31 | 133 | 3.4% |
| Will | 1,568 | 8 | 33 | 4 | 1 | 21 | 67 | 4.3% |
| Township Totals | 42,399 | 9,191 | 1,636 | 232 | 53 | 693 | 11,805 | 27.8% |
| Kankakee County | 103,833 | 16,065 | 4,959 | 705 | 184 | 1,550 | 23,463 | 22.6% |
| Will County | 502,266 | 52,509 | 43,768 | 11,125 | 1,038 | 6,182 | 114,622 | 22.8% |

Source: U.S. Bureau of Census, 2000.

The majority of Will County residents are Caucasian, although the proportion of African-Americans and other minority groups has been increasing. Between 1980 and 1990, the percentage of minorities increased from 7 to 21 percent within the townships located in the Will County sites. Between 1990 and 2000, the percentage of minorities increased from 21 to 28 percent. Will County's overall minority population was 22.8 percent in 2000.

In 2000, minorities comprised 52.9 percent of the total population of Monee Township. The southern half of Monee Township is sparsely populated and rural in character. The northern half of Monee Township contains the Village of University Park, an urbanized community that is more densely populated than the rest of Monee Township. In 2000, minorities comprised almost 89 percent of the total population in the Village of University Park.

5.3.3.3 Schools and Public Services

Public services such as fire and police protection, schools, hospitals, cultural and recreational facilities, and local roads are provided by the local jurisdictions and the respective counties. The area is currently served by local electric and telephone services. Because there are no public sanitary sewer or water facilities within the area, except for Pheasant Lake Estates, residents rely on private well and septic systems.

Tables 5.3-6, 5.3-7, 5.3-8, and 5.3-9 list the school districts affected by the Kankakee and Will County Acquisition Alternatives, their schools, enrollment and capacity as of March 2001, and the estimated number of school age children by school district included in the acquisition boundaries. The number of

school age children is an estimate derived from the 2000 U.S. Census. The Manteno Community Unit School District (5U) is currently securing land for a new high school to be constructed between 2005 and 2010. Peotone Community Unit School District (207U) will open a new high school in January 2002.

TABLE 5.3-6

**SCHOOL DISTRICT ENROLLMENT AND CAPACITY
KANKAKEE ALTERNATIVES**

| School District/School | Current Enrollment | Estimated Capacity |
|---|--------------------|--------------------|
| Manteno Community Unit School District 5U | | |
| Manteno High School | 409 | 600 |
| Manteno Middle School | 372 | 600 |
| Manteno Elementary School | 582 | 800 |
| Manteno Primary School | 222 | 300 |
| Indian Oaks Academy | 91 | 100 |
| Subtotal | 1,676 | 2,400 |
| Peotone Community Unit School District 207U | | |
| Peotone High School | 573 | 573 |
| Peotone Junior High School | 290 | 290 |
| Peotone Elementary School | 538 | 538 |
| Wilton Center Elementary School | 139 | 139 |
| Green Garden Elementary School | 226 | 400 |
| Subtotal | 1,766 | 1,940 |
| Wilmington Community Unit School District 209U | | |
| Wilmington High School | 502 | 502 |
| Stevens Middle School | 366 | 366 |
| Bruning Elementary School | 253 | 253 |
| Booth Elementary School | 457 | 457 |
| Subtotal | 1,578 | 1,578 |
| TOTALS | 5,020 | 5,918 |

Source: Illinois State Board of Education, April 2001.

TABLE 5.3-7

**ESTIMATED NUMBER OF SCHOOL AGE CHILDREN
KANKAKEE ALTERNATIVES**

| School District | Current Enrollment | Inaugural Alternative | | Ultimate Alternative | |
|--------------------------|--------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|
| | | Estimated School Age Population | Percentage of Enrolled Students | Estimated School Age Population | Percentage of Enrolled Students |
| Kankakee District 5U | 1,676 | 10 | 0.6% | 127 | 7.6% |
| Peotone District 207U | 1,766 | 2 | 0.1% | 43 | 2.4% |
| Wilmington District 209U | 1,578 | 1 | 0.1% | 24 | 1.5% |
| TOTALS | 5,020 | 13 | 0.3% | 194 | 3.9% |

Source: Illinois State Board of Education, April 2001; U.S. Bureau of Census, 2000; TAMS Consultants, Inc., 2001.

TABLE 5.3-8

**SCHOOL DISTRICT ENROLLMENT AND CAPACITY
WILL COUNTY ALTERNATIVES**

| School District/School | Current Enrollment | Estimated Capacity |
|--|---------------------------|---------------------------|
| Beecher Community Unit School District 200U | | |
| Beecher High School | 241 | 309 |
| Beecher Elementary School | 494 | 387 |
| Subtotal | 735 | 696 |
| Crete-Monee Community Unit School District 201U | | |
| Crete-Monee High School | 1,300 | 1,342 |
| Crete-Monee Middle School | 699 | 700 |
| Governor State Charter School | 64 | 69 |
| Crete-Monee Intermediate School | 739 | 740 |
| Crete Elementary School | 719 | 720 |
| Monee Elementary School | 194 | 195 |
| Talala Elementary School | 251 | 255 |
| Hickory Elementary School | 587 | 590 |
| Subtotal | 4,553 | 4,611 |
| Peotone Community Unit School District 207U | | |
| Peotone High School | 573 | 573 |
| Peotone Junior High School | 290 | 290 |
| Peotone Elementary School | 538 | 538 |
| Wilton Center Elementary School | 139 | 139 |
| Green Garden Elementary School | 226 | 400 |
| Subtotal | 1,766 | 1,940 |
| TOTALS | 7,054 | 7,247 |

Source: Illinois State Board of Education, April 2001.

TABLE 5.3-9

**ESTIMATED NUMBER OF SCHOOL AGE CHILDREN
WILL COUNTY ALTERNATIVES**

| School District | Current Enrollment | Inaugural Alternative | | Ultimate Alternative | |
|---------------------------|---------------------------|--|--|--|--|
| | | Estimated School Age Population | Percentage of Enrolled Students | Estimated School Age Population | Percentage of Enrolled Students |
| Beecher District 200U | 735 | 27 | 3.7% | 144 | 19.6% |
| Crete-Monee District 201U | 4,553 | 0 | 0% | 384 | 8.4% |
| Peotone District 207U | 1,766 | 24 | 1.4% | 163 | 9.2% |
| TOTALS | 7,054 | 51 | 0.7% | 691 | 9.8% |

Source: Illinois State Board of Education, April 2001; U.S. Bureau of Census, 2000; TAMS Consultants, Inc., 2001.

5.3.4 DISCUSSION OF IMPACTS

5.3.4.1 No-Action Alternative

Property Acquisition and Relocation Impacts

Under this alternative, the FAA would not give approval for a potential new air carrier airport site in the south suburban area of Chicago. No action would be taken to expand the aviation capacity of the greater Chicago region beyond what is included in the approved plans of existing airports and FAA programs. In February 2001, the State of Illinois announced that it would begin, and subsequently began, to acquire land from willing sellers prior to an FAA determination regarding site approval.

Although the State of Illinois is proceeding to acquire land, it is assumed for comparison purposes and in order to provide a baseline for the No-Action Alternative, that no property acquisition and relocation would take place. The potential impacts of state land acquisition and relocation will be disclosed in the acquisition alternatives. In February 2001, the State of Illinois announced that it would begin, and subsequently began to acquire land prior to an FAA determination regarding site approval. In January and February 2002, the State also announced that it may acquire property through the use of eminent domain. The State of Illinois' property acquisition policy requires owner/occupants to vacate the property 90 days after the sale has been completed. IDOT will be flexible in giving notice to vacate to property owners and will allow leasing on a long-term basis to occur, except when the acquisition is a hardship acquisition.¹ Subsequent to the sale the property may become available for lease. The State of Illinois has stated that its policy does not allow incumbent residents who have received relocation assistance to lease back the property, which has been acquired (see [Appendix C](#)). Farmland and outbuildings will be leased on a competitive basis. Under the state's policy the existing land use will not change until such time as the need for an additional air carrier airport is determined.

If, after the land is purchased, the decision is made at some point in the future not to build an airport at the site, Section 76 of the Illinois Aeronautics Act (620 ILCS 5/76) states that the IDOT can only dispose of airport property to another person or entity for aeronautical purposes or purposes incidental thereto. If the IDOT determines that the property is surplus property, then they must follow the provisions of the State Property Control Act (30 ILCS 605). Section 7.1 of this Act governs the disposal of surplus real property. Under this Section, surplus real property is defined as: "...any real property to which the State holds fee simple title or lesser interest, and is vacant, unoccupied or unused and which has no foreseeable use by the owning agency."

Every year, each agency of State government must list which property meets this definition and inform the Director of the Department of Central Management Services. The Director, in turn, must inform other State agencies of the surplus property so that they can submit a request to have the property transferred to them.

¹ Owners who can show that they have made a good faith effort to sell their property but have not been able to receive a fair price because of the proposed airport development can apply for a hardship acquisition. These owners will need to show that their property has been listed for sale either with or without a licensed real estate broker for a 120-day period during the previous six months and that during that time there has been no valid offer to purchase or the offers have been unrealistically low.

The Director may transfer the property to an agency that requests it or may sell the property. If the property is sold, the local municipalities and county have the right to pay appraised value before the property is offered to the general public.

Demographics and Environmental Justice Impacts

Because a potential future airport site would not be selected at either the Kankakee or the Will County sites, changes to the demographic characteristics of the proposed project area under the No-Action Alternative would not be altered. Any changes that occur in the demographics of the area most likely would occur as urbanization or development increases and employment changes occur in the area.

Impacts to Established Communities

No disruption to established communities would occur under the No-Action Alternative.

Local Employment Impacts

Table 5.3-10 presents the estimated employment projections for Kankakee and Will counties through 2020 under the No-Action Alternative. To gain a better perspective of the impacts of the No-Action Alternative, employment projections have been compared with employment figures for 1990. (Employment figures do not correspond with U.S. Census figures due to a difference in accounting). No changes to existing or projected local employment would occur as a result of the No-Action Alternative.

TABLE 5.3-10

TOWNSHIP EMPLOYMENT PROJECTIONS FOR KANKAKEE AND WILL COUNTY ALTERNATIVES

| County/Township | 1990 | 2001 | 2010 | 2020 |
|---------------------------------|-------------|-------------|-------------|-------------|
| Kankakee Alternatives | | | | |
| Kankakee County | 46,392 | 49,739 | 55,417 | 61,319 |
| Rockville | 188 | 262 | 375 | 460 |
| Manteno | 1,175 | 2,172 | 4,107 | 5,455 |
| Will County | 124,324 | 143,335 | 169,609 | 191,114 |
| Florence | 0 | 10 | 100 | 101 |
| Wesley | 44 | 65 | 100 | 101 |
| Wilton | 0 | 10 | 100 | 101 |
| Township Totals | 1,407 | 2,519 | 4,782 | 6,218 |
| Will County Alternatives | | | | |
| Will County | 124,324 | 143,335 | 169,609 | 191,114 |
| Crete | 2,242 | 2,454 | 2,708 | 3,058 |
| Monee | 5,612 | 6,141 | 6,772 | 8,150 |
| Washington | 725 | 987 | 1,354 | 1,641 |
| Will | 73 | 86 | 100 | 101 |
| Township Totals | 8,652 | 9,668 | 10,934 | 12,950 |

Source: The al Chalabi Group, 1997, Northeastern Illinois Planning Commission, 1995, 1997.

Local Property Tax Impacts

Implementation of the No-Action Alternative would have no direct impacts on the property tax base on or in the vicinity of the proposed Acquisition Alternatives. The long-term suburbanization of the proposed Acquisition Alternatives would most likely continue, gradually raising the equalized assessed valuation (EAV) of the area.

Schools and Public Services

Local authorities will maintain existing public services and provide for growth as the need occurs. Public services such as fire and police protection, schools, hospitals, cultural and recreational facilities, and local roads are provided by the local jurisdictions and the respective counties. Implementation of the No-Action Alternative would have no direct impacts on police, fire, health services, ambulance services, cultural and recreational facilities, or roads.

5.3.4.2 Kankakee Acquisition Alternatives

Property Acquisition and Relocation Impacts

Acquisition of property can be accomplished through purchase or condemnation. It is anticipated that the majority of the property to be acquired for a potential new airport site would be acquired through fee simple purchase of property. A relocation plan is being developed by IDOT to identify the housing needs of persons, farmers, and businesses displaced by the proposed action and identify availability of comparable replacement housing in the area.

Per IDOT's land acquisition policy (see [Appendix C](#)), although all properties would be acquired, existing land uses contained within the acquisition boundaries would be maintained. Existing residences and active farmland would be leased at rates based on fair market rent. IDOT would be responsible for maintaining the housing stock, subsurface drainage systems for existing farmland, and local roads within the acquisition boundaries. A Phase I environmental survey of each parcel would be conducted prior to acquisition to ascertain the presence of underground or aboveground storage tanks, potential hazardous waste, asbestos, lead-based paint, etc., and to determine the condition of any structures on-site. All structures will be examined to determine if they conform to existing building codes and if residences meet decent safe and sanitary standards. If structures need to be removed for safety reasons, all necessary permits will be obtained prior to demolition and removal.

For purposes of this analysis, it was assumed that land acquisition in the inaugural acquisition boundary would occur within years 0 - 5 of the project. Land acquisition within the ultimate acquisition boundary would occur within years 0 - 10 of the project. Some additional areas outside of the inaugural boundary, but within the ultimate boundary, would also be acquired within the first five years due to hardship cases and the need to protect properties from land use changes that would interfere with airport development.

Once a parcel is acquired, the Illinois Department of Transportation, Division of Aeronautics, will file an exemption notice with the appropriate county. The county tax assessor may determine that the leasehold

is taxable and subsequently tax the leaseholders. Both Kankakee and Will County currently tax leaseholds at the same rate as private property. Tax impacts are discussed in greater detail later in this section.

All property would be acquired within the Inaugural Acquisition Alternative boundaries through fee simple acquisition. Approximately 4,240 acres of land for a potential future airport would be acquired under this alternative. Of this total, approximately 100 acres are residential and 3,808 acres are agricultural. All properties located within the site would be acquired by fee simple acquisition (see [Figure 5.3-1](#)).

Thirty-five households and 19 farm operations within the Kankakee Inaugural Acquisition boundary would ultimately be acquired (see [Figure 5.3-2](#)). All of the 35 households are single-family residences, 19 of which are also farm residences. These residential acquisitions include approximately 93 people. No schools, churches, or hospitals exist within the acquisition boundaries; therefore, none would be acquired under this alternative.

[Table 5.3-11](#) identifies all the properties within the Kankakee Inaugural Acquisition site that would be acquired. The acquisition boundaries were drawn to prevent the creation of uneconomic remnants, which are remnants of a parcel that, due to their size or shape, cannot be economically used for any type of development including agriculture.

TABLE 5.3-11

**PROPOSED PROPERTY ACQUISITION AND RELOCATIONS
KANKAKEE INAUGURAL ACQUISITION ALTERNATIVE**

| Property Type | Number of Relocations | Total Property Impacted Acres |
|------------------------------|--|--------------------------------------|
| Residential | 14 single-family 2 manufactured 19 farm residences Total 35 households; estimated 93 residents | 100 |
| Business/Commercial | 0 | 0 |
| Farm Operations ¹ | 19 | 3,808 |
| Other Land ² | 0 | 332 |
| TOTAL | 54 | 4,240 |

Source: TAMS, 2000.

¹ Includes active cropland, fallow cropland and pasture.

² Includes land dedicated to transportation uses, wetlands, woodlands and fields, etc.

Acquisition of land for a potential future airport at the Kankakee Ultimate Acquisition site would result in the acquisition of approximately 24,521 acres. Of this total, approximately 756 acres are residential, 25 acres are commercial, and approximately 22,422 acres are agricultural. All property would be acquired through fee simple acquisition.

Land acquisition in the Kankakee Ultimate Acquisition Alternative includes 255 households and 140 farm operations (see Figure 5.3-2). All of the 255 households are single-family residences; 153 of them are also farm residences. Approximately 681 people reside in the residences that would be acquired.

No schools, churches, or hospitals exist within the acquisition boundaries; therefore, none would be acquired under this alternative. One small cemetery is located within the proposed acquisition boundaries along the southern edge of the site, but would not be impacted or actually purchased. Public access to the cemetery would be maintained.

Table 5.3-12 identifies all the properties within the Kankakee Ultimate Acquisition site that would be acquired. The acquisition boundaries were drawn to prevent the creation of uneconomic remnants, which are remnants of a parcel that, due to their size or shape, cannot be economically used for any type of development including agriculture.

TABLE 5.3-12

**PROPOSED PROPERTY ACQUISITION AND RELOCATIONS
KANKAKEE ULTIMATE ACQUISITION ALTERNATIVE**

| Property Type | Number of Relocations | Total Property Impacted Acres |
|------------------------------|--|--------------------------------------|
| Residential | 93 single-family 11 manufactured 153 farm residences Total 255 households; estimated 681 residents | 756 |
| Business/Commercial | 2 Summit Seed, Inc (10) Weigt's Auto Body (2) | 25 |
| Farm Operations ¹ | 140 | 22,422 |
| Other Land ² | 0 | 1,318 |
| TOTAL | 396 | 24,521 |

Source: TAMS, 2000.

¹ Includes active cropland, fallow cropland, sod farm, young tree plantation and pasture.

² Includes land dedicated to transportation uses, wetlands, cemetery, woodlands and fields, etc.

Note: Numbers in parenthesis indicate estimated employment of businesses to be acquired.

Based on the assumption that one-third of household income goes towards housing costs (TAMS Consultants, Inc., Response to Comments, May 17, 2001), relocated residents would, on average, have the ability to acquire a \$100,000 home. According to 1990 Census data shown in Table 5.3-1, there were 33,884 units whose value was under \$100,000 in 1990; of these, 1,328 are assumed to have been vacant. For those persons residing in manufactured (Census-defined as "mobile") homes, the average 1990 household income was \$31,725, which indicates an ability to acquire a \$75,000 home. Data presented in Tables 5.3-1 and 5.3-2 indicate that a wide variety of housing is currently available in Kankakee, Will, and South Cook counties to supply replacement dwellings for affected residents.

Impacts to Established Communities

With the exception of the small unincorporated community of Deselm located near the southern boundary of the site, the residents to be relocated under the Kankakee Acquisition Alternatives are not clustered together, but are spread throughout the site. Relocation of these residents would disrupt the rural community structure of the area, and in some cases, where ownership of property has been retained by the same family for a number of years, would have an impact on personal and local history. Residential owners/occupants of properties acquired would be allowed to lease the property, as long as the acquisition is not a hardship acquisition. Incumbent residents who have received relocation assistance would not be allowed to lease back the property that has been acquired (see [Appendix C](#)).

Demographic and Environmental Justice Impacts

The following section addresses the impacts to the minority and low-income populations that are located within the proposed acquisition areas. An analysis of the effects on low-income and minority populations is also presented in accordance with Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations and the DOT Order on Environmental Justice. Executive Order 12898 directs all Federal agencies to achieve environmental justice as part of their mission by identifying and addressing disproportionately high and adverse human health or environmental effects of their activities on minority and low-income populations.

The DOT Order on Environmental Justice, issued in final form on April 15, 1997, by the U.S. Department of Transportation, prescribes requirements and procedures that govern compliance with the Executive Order. The DOT Order identifies measures to offset adverse effects of DOT projects to minority and low-income populations potentially affected by DOT projects.

The DOT Order defines “minority” as a person who is Black, Hispanic, Asian American, American Indian, or Alaskan Native. “Low-income” is defined by the median household income level that is at or below the Department of Health and Human Services (HHS) poverty guidelines. The term “*Disproportionately high and adverse effect on minority and low-income populations*” is defined as an adverse effect that 1) is predominantly borne by a minority population and/or a low-income population, or 2) would be affected by the minority population and/or low-income population and is appreciably more severe or greater in magnitude than the adverse effects that would be suffered by the non-minority population and/or non-low-income population.

The proposed Kankakee sites are located in portions of Kankakee and Will counties, Illinois. The focus of the impacts to these sites would be on the affected area, which encompasses portions of five townships in two counties: Manteno and Rockville Townships in Kankakee County; and Florence, Wesley, and Wilton Townships in Will County.

In 1989, 11.6 percent of the population in Illinois was below poverty level; in 1999, the percent of population below poverty level had decreased to 10 percent (U.S. Census, 2000). The U.S. Census Bureau estimated that in 1997, 12,938 people within Kankakee County or 12.9 percent of the population were in poverty. In Will County, the U.S. Census Bureau estimated that in 1997, 29,709 or 6.5 percent of the population were in poverty. According to data presented in [Table 5.3-4](#), the percentage of persons within the Kankakee

Acquisition Alternative townships below poverty level was below that for Kankakee and Will counties and the State of Illinois. The data presented indicates no disproportionate impacts to low-income populations in the area.

As shown in [Tables 5.3-4](#) and [5.3-5](#), most of the minority population with the Kankakee Acquisition Area resided in Wesley Township, which had a 94 percent minority population in 2000. The total minority population within the Kankakee area's affected townships was only 6 percent.

Based on the demographic data presented in [Table 5.3-3](#), it was concluded that no disproportionate impacts to low-income or minority populations would occur as a result of selecting either of the Kankakee alternatives for a potential future airport. An analysis of census block information indicates that approximately 5 people out of the 93 people living within the Inaugural Acquisition boundaries are minorities, or about 5.6 percent of the population. Within the Ultimate Acquisition boundaries, approximately 27 out of 681 are minorities, or about 4 percent of the population. These percentages do not indicate a disproportionate impact on minority populations

Local Employment Impacts

As shown in the Property Acquisitions and Relocations section of this chapter, [Table 5.3-12](#), two businesses would be acquired under this alternative with an estimated employment of 12. Business owners/occupants of properties acquired would be allowed to lease the property, as long as the acquisition is not a hardship acquisition. Business owners/occupants who have received relocation assistance would not be allowed to lease back the property that has been acquired (see [Appendix C](#)). Employment in and immediately around the proposed project area is expected to remain predominantly agricultural.

Local Property Tax Impacts

The IDOT Division of Aeronautics intends to buy all property in fee simple title. As property is purchased, IDOT will file an exemption notice with the county. IDOT will continue to lease each property under its current use. The county tax assessor may determine that the leasehold is taxable and treat it as such. If the county tax assessors tax the leaseholds, then the tax property impact to the affected taxing districts would be minimal. However, if the county tax assessors do not assess taxes on the leaseholds then a loss in tax receipts would occur in each affected taxing district. Both counties currently do tax leaseholds; however, neither the Kankakee nor the Will County tax assessor has indicated whether the leaseholds would be taxed in the event that one of the four alternative sites is chosen as a potential new future airport.

Equalized assessed valuation (EAV) data from 1999 for all parcels to be acquired for the proposed airport sites was obtained in 2000. The EAV of affected parcels and relevant tax rate was compared to the overall EAV and taxes affected in each taxing district. [Table 5.3-13](#) presents the 1999 taxes and estimated percentage of taxes that would be affected by the removal of property from the tax rolls at the proposed Kankakee Inaugural Acquisition site. Rockville Township, Rockville Township Joint Bridge, and Rockville Township Road & Bridge tax districts would have over 10 percent of their tax base within the site. Over 16 percent of the Kankakee County portion of Community College District 525 and 100 percent of the Kankakee County portion of School District 207-U is also located within the acquisition boundaries. Tax

impacts under the Kankakee Inaugural Acquisition Alternative are not anticipated since Kankakee and Will counties both tax leaseholds at the same rate as private property.

Table 5.3-14 presents the EAV and taxes that would be affected by the removal of property from the tax rolls at the proposed Kankakee Ultimate Acquisition Alternative. Tax impacts under the Kankakee Ultimate Acquisition Alternative are not anticipated since Kankakee and Will counties both tax leaseholds at the same rate as private property. Large portions of several taxing districts would be located within the acquisition boundaries. These districts with the percentage affected are shown below.

- School District 207-U (Kankakee County portion – 100%)
- Rockville Township (54%)
- Rockville Township Joint Bridge (54%)
- Rockville Township Road & Bridge (54%)
- Manteno Public Library District (Will County portion - 36%)
- School District 5-U (Will County portion - 33%)
- Community College District 520 (Will County portion – 33%)
- Wilton Township (24%)
- Wilton Township Community Build (24%)
- Wilton Township Road (24%)
- Community College District 525 (Kankakee County portion – 16%)
- Florence-Wilton Multi-Township Assessment District (15%)

Schools and Public Services

An evaluation of the impacts on public services includes services such as schools, local road maintenance, public safety and health, as well as cultural and recreational facilities. The Kankakee Alternative sites are served by school districts 5, 207, and 209. There are no churches, hospitals, or schools located within the boundaries of the proposed Kankakee Alternative sites. However, the relocation of residents within the acquisition boundaries could result in varying levels of impacts to neighboring school districts, depending on relocations.

TABLE 5.3-13

ESTIMATED EAV AND TAXES POTENTIALLY AFFECTED
KANKAKEE INAUGURAL ACQUISITION ALTERNATIVE

| Taxing District | 1999 Tax Rate | 1999 District EAV | 1999 District Tax | 1999 EAV Affected | 1999 Tax Affected | Percent Tax Affected |
|------------------------------------|---------------|-------------------|-------------------|-------------------|-------------------|----------------------|
| Kankakee County | 0.863 | \$1,201,856,633 | \$10,372,022 | \$2,137,752 | \$18,449 | 0.2% |
| Corporate Manteno | 0.818 | \$90,907,411 | \$743,623 | \$495,088 | \$4,050 | 0.5% |
| Comm. College 520 | 0.208 | \$1,201,415,396 | \$2,498,944 | \$2,065,905 | \$4,297 | 0.2% |
| Comm. College 525 | 0.223 | \$441,237 | \$984 | \$71,847 | \$160 | 16.3% |
| Manteno Fire | 0.608 | \$154,119,566 | \$937,047 | \$2,137,752 | \$12,998 | 1.4% |
| Manteno Library | 0.133 | \$151,899,052 | \$202,026 | \$2,065,905 | \$2,748 | 1.4% |
| Manteno Township | 0.118 | \$132,390,098 | \$156,220 | \$495,088 | \$584 | 0.4% |
| Manteno Township Permanent Road | 0.167 | \$132,390,098 | \$221,091 | \$495,088 | \$827 | 0.4% |
| Manteno Township Road & Bridge | 0.173 | \$132,390,098 | \$229,035 | \$495,088 | \$857 | 0.4% |
| Multi-Township Assessment | 0.051 | \$147,861,789 | \$75,410 | \$2,137,752 | \$1,090 | 1.5% |
| Rockville Township | 0.173 | \$15,471,691 | \$26,766 | \$1,642,664 | \$2,842 | 10.6% |
| Rockville Township Joint Bridge | 0.035 | \$15,471,691 | \$5,415 | \$1,642,664 | \$575 | 10.6% |
| Rockville Township Road & Bridge | 0.253 | \$15,471,691 | \$39,143 | \$1,642,664 | \$4,156 | 10.6% |
| School District 5 | 3.430 | \$151,879,198 | \$5,209,456 | \$2,065,905 | \$70,861 | 1.4% |
| School District 207 | 3.234 | \$71,847 | \$2,324 | \$71,847 | \$2,324 | 100% |
| Will County | 0.5718 | \$8,720,099,594 | \$49,861,529 | \$321,331 | \$1,837 | 0.0% |
| Comm. College 525 | 0.2190 | \$7,055,125,305 | \$15,450,724 | \$321,331 | \$704 | 0.0% |
| Florence Township Road | 0.5569 | \$12,236,985 | \$68,148 | \$92,409 | \$515 | 0.8% |
| Florence Township | 0.2188 | \$12,236,985 | \$26,775 | \$92,409 | \$202 | 0.8% |
| Florence-Wilton Multi-Township | 0.0354 | \$27,830,536 | \$9,852 | \$235,498 | \$83 | 0.8% |
| Forest Preserve District | 0.1394 | \$8,720,099,594 | \$12,155,819 | \$321,331 | \$448 | 0.0% |
| Manhattan Fire | 0.3477 | \$118,718,173 | \$412,783 | \$143,089 | \$498 | 0.1% |
| Peotone Library | 0.0925 | \$230,781,641 | \$213,473 | \$143,089 | \$132 | 0.1% |
| School District 207 | 3.2331 | \$176,953,478 | \$5,721,083 | \$143,089 | \$4,626 | 0.1% |
| School District 209 | 3.1552 | \$129,229,180 | \$4,077,439 | \$178,242 | \$5,624 | 0.1% |
| Wesley Township Road | 0.2392 | \$31,686,582 | \$75,794 | \$85,833 | \$205 | 0.3% |
| Wesley Township | 0.1305 | \$31,686,582 | \$41,351 | \$85,833 | \$112 | 0.3% |
| Will County Building Commission | 0.0583 | \$8,720,099,594 | \$5,083,818 | \$321,331 | \$187 | 0.0% |
| Wilmington Fire | 0.2435 | \$128,353,660 | \$312,541 | \$178,242 | \$434 | 0.1% |
| Wilmington Library | 0.2755 | \$127,584,156 | \$351,494 | \$178,242 | \$491 | 0.1% |
| Wilton Township Community Building | 0.0372 | \$15,593,551 | \$5,801 | \$143,089 | \$53 | 0.9% |
| Wilton Township Road | 0.4397 | \$15,593,551 | \$68,565 | \$143,089 | \$629 | 0.9% |
| Wilton Township | 0.1574 | \$15,593,551 | \$24,544 | \$143,089 | \$225 | 0.9% |

Source: Kankakee County, Treasurer's Office and Will County, Treasurer's Office, 2001; TAMS, 2001.

¹ EAV was calculated based on 1999 assessment.

TABLE 5.3-14

ESTIMATED EAV AND TAXES POTENTIALLY AFFECTED
KANKAKEE ULTIMATE ACQUISITION ALTERNATIVE

| Taxing District | 1999 Tax Rate | 1999 District EAV | 1999 District Tax | 1999 EAV Affected | 1999 Tax Affected | Percent Tax Affected |
|---|---------------|-------------------|-------------------|-------------------|-------------------|----------------------|
| Kankakee County | 0.863 | \$1,201,856,633 | \$10,372,023 | \$9,146,324 | \$78,933 | 0.8% |
| Corporate Manteno | 0.818 | \$90,907,411 | \$743,623 | \$730,476 | \$5,975 | 0.8% |
| Comm. College 520 | 0.208 | \$1,201,415,396 | \$2,498,944 | \$9,074,477 | \$18,875 | 0.8% |
| Comm. College 525 | 0.223 | \$441,237 | \$984 | \$71,847 | \$160 | 16.3% |
| Manteno Fire | 0.608 | \$154,119,566 | \$937,047 | \$9,146,324 | \$55,610 | 5.9% |
| Manteno Library | 0.133 | \$151,899,052 | \$202,026 | \$9,074,477 | \$12,069 | 6.0% |
| Manteno Township | 0.118 | \$132,390,098 | \$156,220 | \$730,476 | \$862 | 0.6% |
| Manteno Township Permanent Road | 0.167 | \$132,390,098 | \$221,091 | \$730,476 | \$1,220 | 0.6% |
| Manteno Township Road & Bridge | 0.173 | \$132,390,098 | \$229,035 | \$730,476 | \$1,264 | 0.6% |
| Multi-Township Assessment | 0.051 | \$147,861,789 | \$75,410 | \$8,415,848 | \$4,292 | 5.7% |
| Rockville Township | 0.173 | \$15,471,691 | \$26,766 | \$8,415,848 | \$14,559 | 54.4% |
| Rockville Township Joint Bridge | 0.035 | \$15,471,691 | \$5,415 | \$8,415,848 | \$2,946 | 54.4% |
| Rockville Township Road & Bridge | 0.253 | \$15,471,691 | \$39,143 | \$8,415,848 | \$21,292 | 54.4% |
| School District 5-U | 3.430 | \$151,879,198 | \$5,209,456 | \$9,074,477 | \$311,255 | 6.0% |
| School District 207-U | 3.234 | \$71,847 | \$2,324 | \$71,847 | \$2,324 | 100% |
| Will County | 0.5718 | \$8,720,099,594 | \$49,861,529 | \$5,635,494 | \$32,224 | 0.1% |
| Comm. College 520 | 0.2108 | \$823,912 | \$1,737 | \$273,186 | \$576 | 33.2% |
| Comm. College 525 | 0.2190 | \$7,055,125,305 | \$15,450,724 | \$5,362,308 | \$11,743 | 0.1% |
| Florence Township Road | 0.5569 | \$12,236,985 | \$68,148 | \$353,078 | \$1,966 | 2.9% |
| Florence Township | 0.2188 | \$12,236,985 | \$26,775 | \$353,078 | \$773 | 2.9% |
| Florence-Wilton Multi-Township Assessment | 0.0354 | \$27,830,536 | \$9,852 | \$4,141,933 | \$1,466 | 14.9% |
| Forest Preserve District | 0.1394 | \$8,720,099,594 | \$12,155,819 | \$5,635,494 | \$7,856 | 0.1% |
| Manhattan Fire | 0.3477 | \$118,718,173 | \$412,783 | \$3,190,990 | \$11,095 | 2.7% |
| Manteno Library | 0.1460 | \$769,504 | \$1,123 | \$273,186 | \$399 | 35.5% |
| Peotone Fire | 0.4694 | \$101,160,460 | \$474,847 | \$597,865 | \$2,806 | 0.6% |
| Peotone Library | 0.0925 | \$230,781,641 | \$213,473 | \$3,788,855 | \$3,505 | 1.6% |
| School District 5-U | 3.6452 | \$823,912 | \$30,033 | \$273,186 | \$9,958 | 33.2% |
| School District 207-U | 3.2331 | \$176,953,478 | \$5,721,083 | \$3,788,855 | \$122,497 | 2.1% |
| School District 209-U | 3.1552 | \$129,229,180 | \$4,077,439 | \$1,573,453 | \$49,646 | 1.2% |
| Wesley Township Road | 0.2392 | \$31,686,582 | \$75,794 | \$1,493,561 | \$3,573 | 4.7% |
| Wesley Township | 0.1305 | \$31,686,582 | \$41,351 | \$1,493,561 | \$1,949 | 4.7% |
| Will County Building Commission | 0.0583 | \$8,720,099,594 | \$5,083,818 | \$5,635,494 | \$3,285 | 0.1% |
| Wilmington Fire | 0.2435 | \$128,353,660 | \$312,541 | \$1,846,639 | \$4,497 | 1.4% |
| Wilmington Library | 0.2755 | \$127,584,156 | \$351,494 | \$1,573,453 | \$4,335 | 1.2% |
| Wilton Township Community Building | 0.0372 | \$15,593,551 | \$5,801 | \$3,788,855 | \$1,409 | 24.3% |
| Wilton Township Road | 0.4397 | \$15,593,551 | \$68,565 | \$3,788,855 | \$16,660 | 24.3% |
| Wilton Township | 0.1574 | \$15,593,551 | \$24,544 | \$3,788,855 | \$5,964 | 24.3% |

Source: Kankakee County, Treasurer's Office and Will County, Treasurer's Office, 2001; TAMS, 2001.

¹ EAV was calculated based on 1999 assessment.

[Table 5.3-7](#) shows the estimated number of school age children by school district, located within the acquisition boundaries. These numbers indicate the maximum impact that would likely occur to each school district under the Kankakee Acquisition Alternatives. According to IDOT land acquisition policy (see [Appendix C](#)), land and buildings located in the acquisition areas will be leased to existing and/or new residents. The household characteristics of new residents is anticipated to reflect the existing household make-up, therefore, no changes in school attendance are anticipated.

Area residents are currently served by local electric and telephone services. Because there are currently no public water or sanitary sewer facilities within the area, residents rely on private well and septic systems. No changes in land use or transportation infrastructure would occur if either of the Kankakee alternatives were selected. IDOT would provide for the appropriate maintenance of facilities within the acquisition boundaries. Thus, no changes to public services are anticipated.

5.3.4.3 Will County Acquisition Alternatives

Property Acquisition and Relocation Impacts

Property acquisition policies and procedures that will be used by IDOT are discussed under the Kankakee Acquisition Alternatives in the Discussion of Impacts portion of this section and apply to the Will County Acquisition Alternatives.

[Table 5.3-15](#) identifies all the properties within the Will County Inaugural Acquisition site that would be acquired. The acquisition boundaries were drawn to prevent the creation of landlocked parcels and uneconomic remnants, which are remnants of a parcel that, due to their size or shape, cannot be economically used for any type of development including agriculture.

Selection of the Will County Inaugural Acquisition site would result in the acquisition of approximately 3,883 acres. Of this total, approximately 232 acres are residential, 17 acres are commercial, and approximately 3,108 acres are agricultural. All properties located within the site would be acquired through fee simple acquisition (see [Figure 5.3-3](#)).

Seventy-six households and 19 farm operations within the proposed boundaries would ultimately be relocated (see [Figure 5.3-4](#)). These households include approximately 202 people. All of the 76 households are single-family residences; 21 of which are also farm residences. No schools, churches, or hospitals exist within the acquisition boundaries; therefore, none would be acquired under this alternative.

Sanger Airport, a privately owned general aviation facility with 78-based aircraft, is located within the Inaugural Acquisition boundaries. The Sponsor would purchase the airport and may hire a Fixed Base Operator (FBO) to operate the airport.

TABLE 5.3-15

**PROPOSED PROPERTY ACQUISITION AND RELOCATIONS
WILL COUNTY INAUGURAL ACQUISITION ALTERNATIVE**

| Property Type | Number of Relocations | Total Property Impacted Acres |
|------------------------------|---|--------------------------------------|
| Residential | 51 single-family 4 manufactured 21 farm residences Total 76 households; estimated 202 residents | 232 |
| Business/Commercial | 0 (rest areas) | 17 |
| Farm Operations ¹ | 19 | 3,108 |
| Other Land ² | 0 | 526 |
| TOTAL | 97 | 3,883 |

Source: TAMS, 2000.

¹ Includes active cropland, fallow cropland, tree plantations, pasture and sod farm.

² Includes land dedicated to transportation uses, wetlands, woodlands and fields, etc.

Selection of the Will County Ultimate Acquisition Alternative would result in the acquisition of approximately 23,492 acres of land. Of this total, approximately 1,901 acres are residential, 42 acres are commercial, and approximately 18,089 acres are agricultural. All property would be acquired through fee simple acquisition.

Table 5.3-16 identifies all the properties within the Will County Ultimate Acquisition site that would be acquired. The acquisition boundaries were drawn to prevent the creation of landlocked parcels and uneconomic remnants, which are remnants of a parcel that, due to their size or shape, cannot be economically used for any type of development including agriculture. Table 5.3-17 lists the businesses and approximate number of employees for each business located within the acquisition boundaries.

The proposed Will County Ultimate Acquisition site would require the acquisition of 1,232 households, 16 businesses, and 129 farm operations (see Figure 5.3-4). All of the 1,232 households are single-family residences, 128 of which are also farm residences. These households include approximately 2,985 people. Affected households also include Pheasant Lake Estates, a neighborhood situated in the northeast corner of the site containing 424 manufactured homes. No schools, churches, or hospitals exist within the acquisition boundaries; therefore, none would be acquired under this alternative. Two small cemeteries are located within the proposed acquisition boundaries. The Trinity Evangelical Lutheran Church Cemetery, located at the northern edge of the site, is not expected to be impacted or actually purchased. Public access to this cemetery would be maintained. The First Presbyterian Church of Will Township Cemetery contains burials dating from 1854 and must be treated under the Human Skeletal Remains Protection Act. Once acquired by the state, a suitable site for relocation of the remains would be found in coordination with the living family members of the deceased and the owner of the cemetery.

TABLE 5.3-16

**PROPOSED PROPERTY ACQUISITION AND RELOCATIONS
WILL COUNTY ULTIMATE ACQUISITION ALTERNATIVE**

| Property Type | Number of Relocations | Total Property Impacted Acres |
|------------------------------|--|--------------------------------------|
| Residential | 617 single-family 487 manufactured 128 farm residences Total 1,232 households; estimated 2,985 residents | 1,901 |
| Business/Commercial | 16 | 42 |
| Farm Operations ¹ | 129 | 18,089 |
| Other Land ² | 0 | 3,460 |
| TOTAL | 1,370 | 23,492 |

Source: TAMS, 2000.

¹ Includes active cropland, fallow cropland, tree plantations, pasture and sod farm.

² Includes land dedicated to transportation uses, wetlands, woodlands and fields, etc.

TABLE 5.3-17

**BUSINESSES LOCATED WITHIN THE
WILL COUNTY ULTIMATE ACQUISITION ALTERNATIVE**

| Name | Location | Number of Employees |
|--|----------------------------|----------------------------|
| Bowman's Maintenance and Repair | 25621 Dixie Highway | 1-2 |
| Bruns Newberry Sanitary, Inc. | Old Monee Rd/Dixie Highway | 5-10 |
| Burnett's Engineering | Round House Road | 4-6 |
| Charlie's Car Care | 25621 Dixie Highway | 1-2 |
| Cooper Equipment | Old Monee Rd/Dixie Highway | 5-10 |
| Cresto Construction Remodeling Company | Old Monee Rd/Dixie Highway | 5-10 |
| Crete Self-Storage & Propane Supply | 25608 Dixie Highway | 4-5 |
| Custom World Vettes | Pauling Road/IL Route 50 | 2-3 |
| Fessco Fire Equipment | Old Monee Rd/Dixie Highway | 5-10 |
| Gates Excavating & Trailer Sales | IL Route 50/Pauling Road | 5-10 |
| Maui Racing | 25621 Dixie Highway | 1-2 |
| Residential Glass & Mirrors | Old Monee Rd/Dixie Highway | 5-10 |
| R.M. Auto Rebuilders | Old Monee Rd/Dixie Highway | 5-10 |
| RR Welding & Fabrication | Pauling Road/IL Route 50 | 2-3 |
| Sandifer Auto Repair | 25621 Dixie Highway | 1-2 |
| Zia Tek Systems | 25621 Dixie Highway | 1-2 |
| Total | | 51-97 |

Source: TAMS Consultants, Inc., 2001.

Based on the assumption that one-third of household income goes towards housing costs (TAMS Consultants, Inc., Response to Comments, May 17, 2001), relocated residents would, on average, have the ability to acquire a \$100,000 home. There were 33,884 units whose value was under \$100,000 in 1990; of these, 1,328 are assumed to have been vacant. For those persons residing in manufactured

(Census-defined as “mobile”) homes, the average 1990 household income was \$31,725, which indicates an ability to acquire a \$75,000 home. As shown in [Table 5.3-3](#), in 1990 there were 900 vacant units under \$75,000 available in southern Cook and southeastern Will counties. Data presented in [Tables 5.3-1 and 5.3-2](#) indicate that a wide variety of housing is currently available in Kankakee, Will, and South Cook counties to supply replacement dwellings for affected residents.

Impacts to Established Communities

There are two established neighborhoods within the boundaries of the Will County Ultimate Acquisition Alternative. One is the manufactured home community of Pheasant Lake Estates, located in the northeast corner of the site, and the other is part of a subdivision called Heatherbrook Estates. Selection of this alternative would result in the acquisition of Pheasant Lake Estates and a portion of Heatherbrook Estates.

The owner of the manufactured home park would receive relocation assistance as specified in the Uniform Relocation Assistance and Real Properties Acquisition Policies Act. Residential occupants of Pheasant Lake Estates would be allowed to continue leasing the property upon which their manufactured home is located. Incumbent residents who have received relocation assistance would not be allowed to lease back the property that has been acquired (see [Appendix C](#)).

A portion of Heatherbrook Estates, approximately 60 houses and 35 vacant lots, would be acquired under this alternative. No mitigation, beyond following the provisions of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, is proposed for the residents of this neighborhood. Residential owners/occupants of properties acquired would be allowed to lease the property, as long as the acquisition is not a hardship acquisition. Incumbent residents who have received relocation assistance would not be allowed to lease back the property that has been acquired (see [Appendix C](#)).

Demographic and Environmental Justice Impacts

The Will County sites comprise portions of four townships in Will County: Crete, Monee, Washington, and Will. Overall, these townships have shown substantial growth in population between 1970 and 2000 with a 34 to 109 percent growth. In 2000, Will County had 502,266 residents, up from 247,826 in 1970.

In Will County, the U.S. Census Bureau estimated that in 1997, 29,709 or 6.5 percent of the population were in poverty. According to data presented in [Table 5.3-4](#), the percentage of persons within the Will County Acquisition Alternative townships below poverty level is below that for Kankakee and Will counties and the State of Illinois. The data presented indicates no disproportionate impacts to low-income populations in the area.

Based on 2000 U.S. Census data, the ethnic background of people living within the affected area of the proposed Will County sites is 28 percent minority. [Table 5.3-5](#) shows that 52.9 percent of the 2000 population for Monee Township was minority, followed by the Township of Crete, which had a minority population of 19.4 percent.

An analysis of 2000 U.S. Census block information indicates that approximately 9 people out of the 202 people residing within the Inaugural Acquisition site are minorities, or 4.3 percent of the population. Of

the total 2,985 persons residing within the Ultimate Acquisition boundary in 2000, 174 residents, or 5.8 percent of the residents, were minority. Of all the communities within the direct impact area, the Villages of University Park, Monee, and Beecher have larger percentages of residents living at or below poverty. However, there are no communities of low-income or minority populations that would bear a disproportionate share of impacts from this project.

Local Employment Impacts

As shown in [Table 5.3-17](#), 16 businesses would be acquired under this alternative involving between 51 and 97 employees. Business owners/occupants of properties acquired would be allowed to lease the property, as long as the acquisition is not a hardship acquisition. Business owners/occupants who have received relocation assistance would not be allowed to lease back the property that has been acquired (see [Appendix C](#)). Employment in and immediately around the proposed project area is expected to remain predominantly agricultural.

Local Property Tax Impacts

[Table 5.3-18](#) presents the Equalized assessed valuation (EAV) and taxes that would be affected by the removal of property from the tax rolls at the proposed Will County Inaugural Acquisition site. Tax impacts under this alternative are not anticipated since Will County taxes leaseholds at the same rate as private property. The following taxing districts would have a large portion of their tax base located within the acquisition boundaries if this site is selected (percentage in parentheses):

- Will Township Road and Bridge (11%)
- Will Township (11%)

[Table 5.3-19](#) presents the EAV and taxes that would be affected by the removal of property from the tax rolls at the proposed Will County Ultimate Acquisition site. Since Will County taxes leaseholds at the same rate as private property, tax impacts are not anticipated under this alternative. The following taxing districts would have a large portion of their tax base located within the acquisition boundaries if this site is selected (percentage in parentheses):

- Will Township Road and Bridge (46%)
- Will Township (46%)
- Monee Fire Protection District (18%)
- Monee Road and Bridge (15%)
- Monee Township (15%)
- Beecher Unit School District 200 (11%)
- Beecher Fire Protection District (10%)

TABLE 5.3-18

ESTIMATED EAV AND TAXES POTENTIALLY AFFECTED
WILL COUNTY INAUGURAL ACQUISITION ALTERNATIVE

| Taxing District | 1999 Tax Rate | 1999 District EAV | 1999 District Tax | 1999 EAV Affected | 1999 Tax Affected | Percent Tax Affected |
|-------------------------------------|---------------|-------------------|-------------------|-------------------|-------------------|----------------------|
| Will County | 0.5718 | \$8,720,099,594 | \$49,861,529 | \$3,903,667 | \$22,321 | 0.0% |
| Beecher Fire | 0.4516 | \$78,217,028 | \$353,228 | \$2,414,884 | \$10,906 | 3.1% |
| Beecher Library | 0.1358 | \$79,054,467 | \$107,356 | \$2,628,660 | \$3,570 | 3.3% |
| Comm. College 515 | 0.3677 | \$563,707,325 | \$2,072,752 | \$2,704,691 | \$9,945 | 0.5% |
| Comm. College 525 | 0.2190 | \$7,055,125,305 | \$15,450,724 | \$1,198,976 | \$2,626 | 0.0% |
| Forest Preserve District | 0.1394 | \$8,720,099,594 | \$12,155,819 | \$3,903,667 | \$5,442 | 0.0% |
| Monee Fire | 0.3539 | \$88,943,948 | \$314,773 | \$425,091 | \$1,504 | 0.5% |
| Monee Township Road | 0.2743 | \$154,354,727 | \$423,395 | \$76,031 | \$209 | 0.0% |
| Monee Township | 0.1847 | \$154,354,727 | \$285,093 | \$76,031 | \$140 | 0.0% |
| Peotone Fire | 0.4694 | \$101,160,460 | \$474,847 | \$1,063,692 | \$4,993 | 1.1% |
| Peotone Library | 0.0925 | \$230,781,641 | \$213,473 | \$1,275,007 | \$1,179 | 0.6% |
| School District 200-U | 4.6856 | \$79,054,467 | \$3,704,176 | \$2,628,660 | \$123,168 | 3.3% |
| School District 201-U | 5.0511 | \$425,962,658 | \$21,515,800 | \$76,031 | \$3,840 | 0.0% |
| School District 207-U | 3.2331 | \$176,953,478 | \$5,721,083 | \$1,198,976 | \$38,764 | 0.7% |
| Washington Township Community Build | 0.0472 | \$71,694,722 | \$33,840 | \$161,208 | \$76 | 0.2% |
| Washington Township Road | 0.4498 | \$71,694,722 | \$322,483 | \$161,208 | \$725 | 0.2% |
| Washington Township | 0.1436 | \$71,694,722 | \$102,954 | \$161,208 | \$231 | 0.2% |
| Will County Building Commission | 0.0583 | \$8,720,099,594 | \$5,083,818 | \$3,903,667 | \$2,276 | 0.0% |
| Will Township Road | 0.4625 | \$32,152,672 | \$148,706 | \$3,666,428 | \$16,957 | 11.4% |
| Will Township | 0.2221 | \$32,152,672 | \$71,411 | \$3,666,428 | \$8,143 | 11.4% |

Source: Will County, Treasurer's Office, 2001; TAMS, 2001.

¹ EAV was calculated based on 1999 assessment.

Schools and Public Services

An evaluation of the impacts on public services includes services such as schools, local road maintenance, public safety and health, as well as cultural and recreational facilities. The Will County Alternative sites are served by school districts 200, 201 and 207. There are no churches, hospitals, or schools located within the proposed boundaries of the Will County Alternative sites. However, the relocation of residents within the acquisition boundaries could result in varying levels of impacts to neighboring school districts, depending on relocations. Table 5.3-9 shows the estimated number of school age children by school district, located within the acquisition boundaries. These numbers indicate the maximum impact that would likely occur to each school district under the Will County Acquisition Alternatives. According to IDOT land acquisition policy (see Appendix C), land and buildings located in the acquisition areas will be leased to existing and/or new residents. The household characteristics of new residents is anticipated to reflect the existing household make-up; therefore, no changes in school attendance are anticipated.

TABLE 5.3-19

**ESTIMATED EAV AND TAXES POTENTIALLY AFFECTED
WILL COUNTY ULTIMATE ACQUISITION ALTERNATIVE**

| Taxing District | 1999 Tax Rate | 1999 District EAV | 1999 District Tax | 1999 EAV Affected | 1999 Tax Affected | % Tax Affected |
|--|---------------|-------------------|-------------------|-------------------|-------------------|----------------|
| Will County | 0.5718 | \$8,720,099,594 | \$49,861,529 | \$36,276,035 | \$207,426 | 0.4% |
| Beecher Fire | 0.4516 | \$78,217,028 | \$353,228 | \$7,531,995 | \$34,014 | 9.6% |
| Beecher Library | 0.1358 | \$79,054,467 | \$107,356 | \$8,369,434 | \$11,366 | 10.6% |
| Comm. College 515 | 0.3677 | \$563,707,325 | \$2,072,752 | \$26,746,173 | \$98,346 | 4.7% |
| Comm. College 525 | 0.2190 | \$7,055,125,305 | \$15,450,724 | \$9,529,862 | \$20,870 | 0.1% |
| Crete Fire | 0.4745 | \$133,773,813 | \$634,757 | \$4,344,489 | \$20,615 | 3.2% |
| Crete Library | 0.2523 | \$276,495,449 | \$697,598 | \$4,469,878 | \$11,278 | 1.6% |
| Crete Township Rd | 0.3314 | \$330,298,131 | \$1,094,608 | \$4,469,878 | \$14,813 | 1.4% |
| Crete Township | 0.1536 | \$330,298,131 | \$507,338 | \$4,469,878 | \$6,866 | 1.4% |
| Forest Preserve District | 0.1394 | \$8,720,099,594 | \$12,155,819 | \$36,276,035 | \$50,569 | 0.4% |
| Monee Fire | 0.3539 | \$88,943,948 | \$314,773 | \$15,560,867 | \$55,070 | 17.5% |
| Monee Township Rd | 0.2743 | \$154,354,727 | \$423,395 | \$22,620,156 | \$62,047 | 14.7% |
| Monee Township | 0.1847 | \$154,354,727 | \$285,093 | \$22,620,156 | \$41,779 | 14.7% |
| Peotone Fire | 0.4694 | \$101,160,460 | \$474,847 | \$8,713,295 | \$40,900 | 8.6% |
| Peotone Library | 0.0925 | \$230,781,641 | \$213,473 | \$21,754,878 | \$20,123 | 9.4% |
| School District 200-U | 4.6856 | \$79,054,467 | \$3,704,176 | \$8,369,434 | \$392,158 | 10.6% |
| School District 201-U | 5.0511 | \$425,962,658 | \$21,515,800 | \$18,376,739 | \$928,227 | 4.3% |
| School District 207-U | 3.2331 | \$176,953,478 | \$5,721,083 | \$9,529,862 | \$308,110 | 5.4% |
| Village of Crete | 1.1845 | \$122,900,256 | \$1,455,754 | \$78,725 | \$932 | 0.1% |
| Village of Crete Rd & Bridge | 0.1620 | \$122,900,256 | \$199,098 | \$78,725 | \$128 | 0.1% |
| Village of Monee | 0.9117 | \$37,475,057 | \$341,660 | \$168,214 | \$1,534 | 0.4% |
| Village of Monee Rd & Bridge | 0.1225 | \$37,475,057 | \$45,907 | \$168,214 | \$206 | 0.4% |
| Washington Township Community Build | 0.0472 | \$71,694,722 | \$33,840 | \$3,132,374 | \$1,478 | 4.4% |
| Washington Township Rd | 0.4498 | \$71,694,722 | \$322,483 | \$3,132,374 | \$14,089 | 4.4% |
| Washington Township | 0.1436 | \$71,694,722 | \$102,954 | \$3,132,374 | \$4,498 | 4.4% |
| Will Co Bldg Commission | 0.0583 | \$8,720,099,594 | \$5,083,818 | \$36,276,035 | \$21,149 | 0.4% |
| Will Township Rd | 0.4625 | \$32,152,672 | \$148,706 | \$14,766,922 | \$68,297 | 45.9% |
| Will Township | 0.2221 | \$32,152,672 | \$71,411 | \$14,766,922 | \$32,797 | 45.9% |

Source: Will County, Treasurer's Office, 2001; TAMS, 2001.

¹ EAV was calculated based on 1999 assessment.

Area residents are currently served by local electric and telephone services. Because there are currently no public water or sanitary sewer facilities within the area, residents rely on private well and septic systems. No changes in land use or transportation infrastructure would occur if either of the Will County alternatives are selected. IDOT would provide for the appropriate maintenance of facilities within the acquisition boundaries. Thus, no changes to public services are anticipated.

5.3.5 MITIGATION

Acquisition of property under either the Kankakee or Will County Acquisition Alternatives will result in the relocation of residents and businesses. In accordance with procedures established under the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, homeowners, tenants and owners of farms and businesses must be provided relocation assistance and fair market value of their property. The purpose of this act is to ensure that fair and equitable treatment of persons displaced as a result of Federal or federally assisted programs occurs. Currently, the State of Illinois does not have a

comparable property acquisition and relocation assistance provision in its statutes for airport development. The State of Illinois has stated that its policy will allow residential owners/occupants of properties to lease the property as long as the acquisition is not a hardship acquisition. The policy does not allow incumbent residents who have received relocation assistance to lease back the property that has been acquired (see [Appendix C](#)).

When a purchase offer is made to a property owner, the owner/occupants will receive assistance in obtaining comparable housing and apprised of all eligible relocation assistance. Owner/occupants would be given a 90-day notice stating the earliest day by which they would be required to move, but only after comparable decent, safe and sanitary housing has been identified. IDOT will be flexible in giving notice to vacate to property owners and will allow leasing on a long-term basis to occur. Relocation assistance may include a replacement housing payment, payment for moving, closing costs payment and mortgage interest differential. All relocations will be performed in compliance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act.

Businesses, farms, and nonprofit organizations located within the acquisition boundaries may be eligible to receive assistance in obtaining and becoming established in a suitable replacement location. They would also receive information regarding availability, purchase price and rental costs of suitable replacement properties, information of Federal, state and local programs offering further assistance, and information on all eligible relocation assistance under the Uniform Relocation and Real Property Acquisition Policies Act.

5.4 INDUCED SOCIOECONOMIC IMPACTS

5.4.1 OVERVIEW OF IMPACTS

The No-Action Alternative would not create shifts in population growth and movement, changes in public service demands or changes in business and economic activity. Projected population and employment growth will create a greater demand for public facilities and services. However, this additional development will create associated increases in tax revenue, which will be used to meet increased public service demand. Similarly, no changes to projected business and economic activity would occur.

The Kankakee and Will County Inaugural and Ultimate Acquisition Alternatives would induce shifts in population growth and movement to the extent that future population growth predicted to occur within the acquisition boundaries would be shifted to the Secondary Impact Areas. However, sufficient available land exists to accommodate any anticipated development that would have otherwise occurred within the acquisition boundaries.

The projected shift in population and employment growth to the Secondary Impact Area would create a greater demand for public facilities and services. No impacts are anticipated, however, as additional development will create associated increases in tax revenue, which will be used to meet increased public service demand. Economic and employment growth that would otherwise occur within the acquisition alternatives would be shifted to the portions of the Primary Impact Area townships not included in the acquisition boundaries and to the Secondary Impact Areas. Sufficient available land in the Secondary Impact Area exists to accommodate any anticipated business and economic development activity.

5.4.2 METHODOLOGY

This section evaluates the induced or secondary impacts that would result from the proposed action with regard to potential shifts in population growth and movement, changes in public service demands, or changes in business and economic activity. Demographic data and projections were used to determine the potential induced impacts of site approval and land acquisition.

For the purposes of analyzing induced socioeconomic impacts, two impact areas were defined: the Primary Impact Area, comprised of the land area within the proposed acquisition boundaries and the Secondary Impact Area, which includes that area outside of the acquisition boundaries.

The Primary Impact Area for the Kankakee Acquisition Alternatives comprises approximately 4,200 acres under the Inaugural Acquisition Alternative and 24,500 acres under the Ultimate Acquisition Alternative. Portions of five townships comprise the acquisition alternatives of this site. They are: Manteno and Rockville Townships in Kankakee County, and Florence, Wesley and Wilton Townships in Will County. However, the Townships of Rockville and Wilton constitute the majority of the Kankakee Acquisition Alternatives. The Primary Impact Area for the Kankakee Acquisition Alternatives is shown in [Figure 5.4-1](#).

The Secondary Impact Area for the Kankakee Acquisition Alternatives is a 10-township area including the airport sites (see [Figure 5.4-2](#)). The townships located in the Secondary Impact Area are:

- Kankakee County, Illinois - Bourbonnais, Manteno, and Rockville; and
- Will County, Illinois - Florence, Green Garden, Jackson, Manhattan, Peotone, Wesley, and Wilton.

The Primary Impact Area for the Will County site is approximately 4,000 acres under the Inaugural Acquisition Alternative and 23,500 acres under the Ultimate Acquisition Alternative (see [Figure 5.4-3](#)). Portions of Monee, Washington, Will, and Crete Townships comprise the Will County Acquisition Alternatives. The greater portion of the acquisition alternatives lie within Will and Monee Townships.

The Secondary Impact Area is a nine-township area including and surrounding the proposed airport sites. The townships located in the Secondary Impact Area are shown in [Figure 5.4-2](#) and include the following townships:

- Kankakee County, Illinois - Manteno, Sumner and Yellowhead; and
- Will County, Illinois - Crete, Green Garden, Monee, Peotone, Washington, and Will.

Shifts in population growth or movement, changes in public service demands and changes in business and economic activity were determined by assuming that the growth projected to occur within the Primary Impact Area would instead shift to the Secondary Impact Areas as a result of implementing the acquisition alternatives. Land acquisition for the Inaugural and Ultimate Acquisition Alternatives would occur within 0 to 5 years and 0 to 10 years, respectively. Because of the limited availability of demographic data and considering the low existing and future population densities forecast within the acquisition alternatives, analyses of the Inaugural Acquisition Alternatives are not presented. However, the evaluation of induced socioeconomic impacts for the Ultimate Acquisition Alternatives, which represents a worst-case scenario, is based on the socioeconomic forecasts produced as part of the Phase I Engineering Study, which used 1990 census data, and projected to 2001 and 2010. The forecasts were disaggregated into smaller units called traffic analysis zones (TAZ), which are used to estimate the growth within the Primary Impact Areas between 2001 and 2010. The growth forecasted to occur within the Primary Impact Areas is compared against the growth projected for the Secondary Impact Areas to determine the affect, if any, of shifts in population, households, and employment that would be induced from the proposed action.

For purposes of demographic forecasting, Wesley Township and part of Custer Township, which are divided by the Kankakee River, were combined into an area equal in size to the other townships. Therefore, references to the “Wesley-Custer” Township as referenced in this document include all of Wesley Township, and the southeast portion of Custer Township.

5.4.3 EXISTING CONDITIONS

5.4.3.1 Affected Population

Both the Kankakee and Will County Alternatives are in rural agricultural areas having low densities of population, households, and employment. However, even though the demographic numbers are low, the rate of growth in the area is relatively high. Because development is encroaching from the north, the Will County Alternatives contain higher densities and subsequently have a higher growth rate than the Kankakee Alternatives.

In September 2000, approximately 618 people lived in the Kankakee Primary Impact Area, which also contained 255 households and one commercial business employing an estimated 12 people. Approximately 2,985 people lived in the Will County Primary Impact Area, which contained 1,232 households and nine commercial businesses employing an estimated 100 people. [Chapter 4.0](#), Affected Environment, and [Section 5.3](#), Social Impacts, further describe the existing population and employment of the surrounding municipalities and the greater Chicago region.

Primary Impact Areas

This section focuses specifically on the population changes that are predicted to occur in the Primary Impact Areas immediately surrounding the proposed airport sites.

Population growth was projected for the Primary Impact Areas in the 10-year span between 2000 and 2010. Following the current pattern, continued infill from north to south would most likely occur in the Primary Impact Areas. For example, the townships of Monee, and Crete are expected to become more densely developed as Manteno, Peotone, Will, and Washington townships become more suburban.

The Kankakee Primary Impact Area is projected to experience a growth rate of approximately 15 percent, with approximately 102 new residents moving into the area by 2010. The Will County Primary Impact Area is projected to experience a significantly higher growth rate of approximately 60 percent, with approximately 1,790 new residents moving into the area by 2010.

Secondary Impact Areas

The Kankakee Secondary Impact Area is projected to experience a 4 percent growth rate overall, with approximately 2,070 new residents moving into the area by 2010. The Will County Secondary Impact Area is projected to experience an 8 percent growth rate, with approximately 4,497 new residents moving into the area by 2010 ([Tables 5.4-1](#) and [5.4-2](#)).

TABLE 5.4-1

POPULATION PROJECTIONS FOR KANKAKEE ACQUISITION ALTERNATIVES
SECONDARY IMPACT AREA

| County/Township | 1990 | 2001 | 2010 |
|-------------------------|---------------|---------------|---------------|
| Kankakee County Portion | | | |
| Bourbonnais | 28,780 | 29,673 | 30,424 |
| Manteno | 4,362 | 5,140 | 5,879 |
| Rockville | 692 | 847 | 1,000 |
| Subtotal | 33,834 | 35,660 | 37,303 |
| Will County Portion | | | |
| Florence | 723 | 735 | 731 |
| Green Garden | 1,714 | 1,770 | 1,788 |
| Jackson | 2,719 | 2,827 | 2,874 |
| Manhattan | 3,981 | 4,409 | 4,768 |
| Peotone | 3,632 | 3,730 | 3,748 |
| Wesley-Custer | 1,497 | 1,527 | 1,526 |
| Wilton | 686 | 692 | 685 |
| Subtotal | 14,952 | 15,690 | 16,120 |
| Grand Total | 48,786 | 51,350 | 53,420 |

Source: The al Chalabi Group, 1995; 1997.

TABLE 5.4-2

POPULATION PROJECTIONS WILL COUNTY ACQUISITION ALTERNATIVES
SECONDARY IMPACT AREA

| County/Township | 1990 | 2001 | 2010 |
|-------------------------|---------------|---------------|---------------|
| Kankakee County Portion | | | |
| Manteno | 4,362 | 5,140 | 5,879 |
| Sumner | 888 | 1,041 | 1,185 |
| Yellowhead | 2,290 | 2,353 | 2,405 |
| Subtotal | 7,540 | 8,534 | 9,469 |
| Will County Portion | | | |
| Crete | 21,629 | 23,876 | 25,735 |
| Green Garden | 1,714 | 1,770 | 1,788 |
| Monee | 10,817 | 12,480 | 14,036 |
| Peotone | 3,632 | 3,730 | 3,748 |
| Washington | 3,751 | 3,907 | 3,982 |
| Will | 1,332 | 1,397 | 1,433 |
| Subtotal | 42,875 | 47,160 | 50,722 |
| Grand Total | 50,415 | 55,694 | 60,191 |

Source: The al Chalabi Group, 1995.

5.4.3.2 Households

Primary Impact Areas

The number of households within the Primary Impact Area for the Kankakee Acquisition Alternatives is expected to increase by approximately 15 percent or approximately 38 households by 2010. The number of households within the Will County Primary Impact Area is projected to increase by approximately 650 households (53 percent) to 1,822 by 2010.

Secondary Impact Areas

The townships that comprise the Kankakee Secondary Impact Area would experience a combined growth rate of approximately 7 percent (1,354 households) in the number of households from 2001 to 2010 (Table 5.4-3). The number of households within townships that comprise the Will County Secondary Impact Area is projected to grow by approximately 8 percent (1,657 household) by 2010 (Table 5.4-4).

TABLE 5.4-3

**HOUSEHOLD PROJECTIONS FOR KANKAKEE ACQUISITION ALTERNATIVES
SECONDARY IMPACT AREA**

| County/Township | 1990 | 2001 | 2010 |
|--------------------------------|---------------|---------------|---------------|
| Kankakee County Portion | | | |
| Bourbonnais | 10,020 | 10,937 | 11,750 |
| Manteno | 1,428 | 1,726 | 2,016 |
| Rockville | 228 | 265 | 300 |
| Subtotal | 11,676 | 12,928 | 14,066 |
| Will County Portion | | | |
| Florence | 227 | 233 | 233 |
| Green Garden | 551 | 574 | 583 |
| Jackson | 931 | 983 | 1,012 |
| Manhattan | 1,299 | 1,479 | 1,633 |
| Peotone | 1,316 | 1,353 | 1,359 |
| Wesley-Custer | 491 | 501 | 501 |
| Will | 464 | 492 | 510 |
| Subtotal | 5,279 | 5,615 | 5,831 |
| Grand Total | 16,955 | 18,543 | 19,897 |

Source: The al Chalabi Group, 1995; 1997.

TABLE 5.4-4

**HOUSEHOLD PROJECTIONS FOR WILL COUNTY ACQUISITION ALTERNATIVES
SECONDARY IMPACT AREA**

| County/Township | 1990 | 2001 | 2010 |
|--------------------------------|---------------|---------------|---------------|
| Kankakee County Portion | | | |
| Manteno | 1,428 | 1,726 | 2,016 |
| Sumner | 308 | 348 | 385 |
| Yellowhead | 799 | 850 | 894 |
| Subtotal | 2,535 | 2,924 | 3,295 |
| Will County Portion | | | |
| Crete | 7,992 | 8,836 | 9,531 |
| Green Garden | 551 | 574 | 583 |
| Monee | 3,761 | 4,332 | 4,862 |
| Peotone | 1,316 | 1,353 | 1,359 |
| Washington | 1,312 | 1,372 | 1,400 |
| Will | 464 | 492 | 510 |
| Subtotal | 15,396 | 16,959 | 18,245 |
| Grand Total | 17,931 | 19,883 | 21,540 |

Source: The al Chalabi Group, 1995.

5.4.3.3 Employment

Primary Impact Areas

With the low number of existing commercial businesses and the trend of increasing suburbanization within the Primary Impact Areas, economic growth is expected to occur within both the Kankakee and Will County Alternatives. Employment within the Kankakee Primary Impact Area is anticipated to grow from 12 to as much 100 people by 2010. In the Will County Primary Impact Area, employment is expected to grow by 650 people between 2001 and 2010.

Secondary Impact Areas

The number of jobs in the Kankakee Secondary Impact Area is forecast to grow by approximately 28 percent (3,401) from 2001 to 2010. Most of the growth in the Kankakee Secondary Impact Area would occur in Manteno Township, primarily due to the continued development of industry. Employment projections for the Will County Alternative's Secondary Impact Area show the number of jobs growing by approximately 26 percent (3,692) from 2001 to 2010. Employment projections are shown in [Tables 5.4-5](#) and [5.4-6](#).

TABLE 5.4-5

EMPLOYMENT PROJECTIONS FOR KANKAKEE ACQUISITION ALTERNATIVES
SECONDARY IMPACT AREA

| County/Township | 1990 | 2001 | 2010 |
|-------------------------|--------|--------|--------|
| Kankakee County Portion | | | |
| Bourbonnais | 6,658 | 7,365 | 8,335 |
| Manteno | 1,175 | 2,172 | 4,107 |
| Rockville | 188 | 262 | 375 |
| Subtotal | 8,208 | 9,920 | 12,842 |
| Will County Portion | | | |
| Florence | 0 | 10 | 100 |
| Green Garden | 123 | 132 | 141 |
| Jackson | 324 | 388 | 468 |
| Manhattan | 598 | 607 | 623 |
| Peotone | 878 | 1,065 | 1,300 |
| Wesley-Custer | 44 | 65 | 100 |
| Will | 73 | 86 | 100 |
| Subtotal | 2,040 | 2,353 | 2,832 |
| Grand Total | 10,248 | 12,273 | 15,674 |

Source: The al Chalabi Group, 1995; 1997.

TABLE 5.4-6

EMPLOYMENT PROJECTIONS FOR WILL COUNTY ACQUISITION ALTERNATIVES
SECONDARY IMPACT AREA

| County/Township | 1990 | 2001 | 2010 |
|-------------------------|--------|--------|--------|
| Kankakee County Portion | | | |
| Manteno | 1,175 | 2,172 | 4,107 |
| Sumner | 256 | 349 | 487 |
| Yellowhead | 658 | 739 | 848 |
| Subtotal | 2,089 | 3,260 | 5,442 |
| Will County Portion | | | |
| Crete | 2,242 | 2,454 | 2,708 |
| Green Garden | 123 | 132 | 141 |
| Monee | 5,612 | 6,141 | 6,772 |
| Peotone | 878 | 1,065 | 1,300 |
| Washington | 725 | 987 | 1,354 |
| Will | 73 | 86 | 100 |
| Subtotal | 9,653 | 10,865 | 12,375 |
| Grand Total | 11,742 | 14,125 | 17,817 |

Source: The al Chalabi Group, 1995.

5.4.3.4 Public Facilities and Services

Induced secondary economic impacts on public facilities were assessed for the region. Public facilities and services include parks and recreation facilities, utilities such as water, sewage and electrical transmission services as well as hospitals, fire and police stations. Public facilities and services for both the Kankakee and Will County Alternatives are identified in [Chapter 4.0, Affected Environment](#) and [Section 5.3, Social Impacts](#).

5.4.4 DISCUSSION OF IMPACTS

5.4.4.1 No-Action Alternative

Shifts in Population Movement and Growth

Population growth is projected to occur as a result of continued development in the region and will involve infill of existing developed and undeveloped areas. These changes are projected to occur regardless of land acquisition. Under the No-Action Alternative, projected growth will occur throughout the Primary and Secondary Impact Areas identified under the acquisition alternatives. Local communities in the area have planned for projected growth by adopting growth plans that identify areas for development. This planning does not imply, however, that these communities support the proposed action. No changes in projected population growth would occur as a result of the No-Action Alternative.

Changes in Public Service Demand

As a result of continued development in the region, increases in public service demand will occur. Projected development will occur within the acquisition boundaries identified for the acquisition alternatives. Projected population and employment growth will create a greater demand for public facilities and services. Under the No-Action Alternative, no impacts would occur, as additional development will create associated increases in tax revenue, which will be used to meet increased public service demand.

Changes in Business and Economic Activity

Business and economic growth is projected to occur in the area under the No-Action Alternative as a result of continued development in the region. Growth in employment will occur in the Primary and Secondary Impact Areas identified under the acquisition alternatives. Sufficient available land exists to accommodate anticipated economic development. No changes to projected business and economic activity would occur as a result of the No-Action Alternative.

5.4.4.2 Kankakee Acquisition Alternatives

Shifts in Population Movement and Growth

Population growth in the Kankakee Secondary Impact Area will occur as a result of continued development in the region and will involve infill of existing developed and undeveloped areas. No new development will occur within the acquisition boundaries. Population growth projected to occur within the Primary Impact Areas between 2001 and 2010 would shift approximately 102 people and 38 households to the surrounding Secondary Impact Area. This shift in population growth is 5 percent of the population and 2 percent of the household growth forecast to occur within the Secondary Impact Area. Given the rural nature of the surrounding townships, this shift in population could be easily absorbed because there is sufficient vacant land to accommodate the development that would have otherwise occurred within the acquisition boundaries under the No-Action Alternative.

Changes in Public Service Demand

As a result of continued development in the region, increases in public service demand will occur. No development will occur within the acquisition boundaries for the Kankakee Acquisition Alternatives due to land acquisition. Projected population and employment growth will be experienced in the Secondary Impact Area, creating a greater demand for public facilities and services. No impacts are anticipated, as additional development will create associated increases in tax revenue, which will be used to meet increased public service demand in the Secondary Impact Area.

Changes in Business and Economic Activity

Employment growth is projected to occur in the Primary and Secondary Impact Areas between 1990 and 2010. Employment growth will occur as a result of continued development in the region. Under the Kankakee Acquisition Alternatives, the estimated employment growth of approximately 88 employees would not occur within the Primary Impact Area but would instead be shifted to occur within the Secondary Impact area. This growth would be shifted to the Secondary Impact Area and would represent approximately 3 percent of the employment growth forecast for the townships of the Secondary Impact Area. Sufficient available land in the Secondary Impact Area exists to accommodate any anticipated development that would have otherwise occurred within the acquisition boundaries under the No-Action Alternative.

5.4.4.3 Will County Acquisition Alternatives

Shifts in Population Movement and Growth

Population growth in the Will County Secondary Impact Area will occur as a result of continued development in the region and will involve infill of existing developed and undeveloped areas. No new development will occur within the acquisition boundaries. Population growth projected to occur within the Primary Impact Areas between 2001 and 2010 would shift approximately 1,790 people and 650 households to the surrounding Secondary Impact Area. This shift in population growth is 40 percent of the population and 14 percent of the household growth forecast to occur within the Secondary Impact Area. Given the rural nature

of the surrounding townships, this shift in population could be easily absorbed because there is sufficient vacant land to accommodate the development that would have otherwise occurred within the acquisition boundaries under the No-Action Alternative.

Changes in Public Service Demand

As a result of continued development in the region, increases in public service demand will occur. No development will occur within the acquisition boundaries for the Will County Acquisition Alternatives due to land acquisition. Projected population and employment growth will be experienced in the Secondary Impact Area, creating a greater demand for public facilities and services. No impacts are anticipated, as additional development will create associated increases in tax revenue, which will be used to meet increased public service demand in the Secondary Impact Area.

Changes in Business and Economic Activity

Employment growth is projected to occur in the Primary and Secondary Impact Areas between 1990 and 2010. Employment growth will occur as a result of continued development in the region. Under the Will County Acquisition Alternatives, the projected employment growth of 650 employees would not occur within the Primary Impact Area but would instead be shifted to occur within the Secondary Impact Area. This growth would be shifted to the Secondary Impact Area and would represent approximately 18 percent of the employment growth forecast for the Townships of the Secondary Impact Area. Sufficient available land in the Secondary Impact Area exists to accommodate any anticipated development that would have otherwise occurred within the acquisition boundaries under the No-Action Alternative.

5.4.5 *MITIGATION*

The acquisition alternatives would not induce significant shifts in population growth or movement, public service demands, or changes in business and economic activity. Therefore, no mitigation is warranted.

5.5 AIR QUALITY

5.5.1 OVERVIEW OF IMPACTS

Since no land use changes or construction are proposed as part of the alternatives, no air quality impacts exceeding the National Ambient Air Quality Standards would occur and mitigation measures are not considered necessary. Accordingly, neither a General nor Transportation Conformity Determination is required for either the Sponsor's proposed action or alternatives.

5.5.2 METHODOLOGY

5.5.2.1 Regulations

National Ambient Air Quality Standards

The U.S. Environmental Protection Agency (USEPA), in accordance with the requirements of the Clean Air Act (CAA), established primary and secondary standards for ambient (i.e., "outdoor") air pollutants, which are known as the National Ambient Air Quality Standards (NAAQS) (Table 5.5-1). The primary standards are intended to protect the public health. The secondary standards are intended to protect the nation's welfare and account for air pollutant effects on soil, water, visibility, materials, vegetation, etc. The NAAQS were established for six criteria pollutants (i.e., carbon monoxide, sulfur dioxide, nitrogen dioxide, ozone, particulate matter, and lead), that are further discussed below:

TABLE 5.5-1

NATIONAL AND STATE AMBIENT AIR QUALITY STANDARDS

| Pollutant | Averaging Time | Standards | |
|--|----------------|------------------------|------------------------|
| | | Primary | Secondary |
| Carbon Monoxide | 1-hour | 35 ppm | 35 ppm |
| | 8-hour | 9 ppm | 9 ppm |
| Ozone | 1-hour/day | 0.12 ppm | 0.12 ppm |
| | 8-hour/day | 0.08 ppm | 0.08 ppm |
| Nitrogen Dioxide | 1-year | 0.053 ppm | 0.053 ppm |
| Lead | 3-month | 1.5 ug/m ³ | 1.5 ug/m ³ |
| Particulate Matter 10 micrometers (PM ₁₀) | 1-year | 50 ug/m ³ | 50 ug/m ³ |
| | 24-hour | 150 ug/m ³ | 150 ug/m ³ |
| Particulate Matter 2.5 micrometers (PM _{2.5}) | 1-year | 15.0 ug/m ³ | 15.0 ug/m ³ |
| | 24-hour | 65 ug/m ³ | 65 ug/m ³ |
| Sulfur Dioxide | 1-year | 0.03 ppm | None |
| | 24-hour | 0.14 ppm | None |
| | 3-hour | None | 0.5 ppm |

Source: USEPA, IEPA, 2000.

Notes: All maximum values are standards not to be exceeded more than once a year, except the ozone standard, which is not to be exceeded more than one day per year. The State of Illinois has not adopted the PM_{2.5} or 8-hour ozone standards at this time.

ppm = parts per million

ug/m³ = micrograms per cubic meter

- Carbon monoxide (CO) is a colorless, odorless gas. The major source of CO in an urban area is the incomplete combustion of fuels used to power motor vehicles, heat buildings, process raw materials and from the burning of refuse. CO is a site-specific pollutant and the highest concentrations are often found close to the source, such as heavily congested roadways and intersections. The health effect associated with CO-contaminated air is reduced transport of oxygen by the blood stream, a consequence of CO displacing oxygen in hemoglobin. Exposures to very high levels of CO are potentially lethal, and exposures to high levels for a short duration can cause headaches, drowsiness, or loss of equilibrium.
- Sulfur dioxide (SO₂) is emitted into the atmosphere from the combustion of sulfur-bearing fuels, primarily from power plants and large industrial sources. The use of low sulfur fuels for space heating has reduced the amount of SO₂ emitted from these sources and the combustion of gasoline and diesel fuels in motor vehicles accounts for a very small percent of the total SO₂ emitted. Respiratory illness and damage to the respiratory tract are the health effects most commonly associated with inhalation of SO₂ emissions.
- Nitrogen dioxide (NO₂) is a yellowish brown, highly reactive gas, commonly present in an urban environment. Major sources of NO₂ and other nitrogen oxide emissions (NO_x) include fuel combustion associated with electric utilities and industrial facilities as well as a variety of mobile sources (i.e., motor vehicles, aircraft, ships, etc.). NO_x oxidizes in the atmosphere to form NO₂, which can cause irritation to the lungs, bronchitis and pneumonia, and lowered resistance to respiratory infections. NO_x is also considered one of the precursors to the formation of ozone.
- Ozone (O₃) is a photochemical oxidant and a major constituent of smog. Hydrocarbons (also known as volatile organic compounds (VOCs) and NO_x are precursor pollutants to the formation of O₃. VOCs and NO_x react in the presence of sunlight to form O₃. This reaction is time dependent and usually takes place far downwind from the site where the precursors were originally emitted. High concentrations of O₃ are a major health and environmental concern in many urban environments. For example, O₃ is a principal cause of lung and eye irritation.
- Particulate matter in an urban environment typically occurs as a result of incomplete fuel combustion and the erosion of earthen materials. Particulate matter includes dust, dirt, soot, smoke, and liquid droplets emitted into the air by sources such as factories, power plants, cars, construction activity, and fires. Diesel fuel compared to gasoline contributes more particulates to the atmosphere. An inhalable particulate is defined as a particulate that is less than 10 microns (PM₁₀) in diameter. The major health effect caused by the inhalation of PM₁₀ is damage to the respiratory organs.
- Lead (Pb) is a bluish-gray metal, usually found in small quantities in the earth's crust. The most significant contributors of lead emissions to the atmosphere are gasoline additives, iron and steel production, and alkyl lead manufacturing. Other sources of lead include combustion of solid waste, windblown dust from weathering of lead-based paint, and cigarette smoke. The use of lead-free gasoline has considerably reduced the lead levels in the urban environment. Exposure to lead is dangerous for the fetus and results in pre-term birth. Other health effects associated with lead exposure are decreased intelligence quotient (IQ) for infants and small children, increased blood pressure in middle-aged men, and brain and kidney damage in adults and children.

Attainment/Non-Attainment Designations

Under the CAA, each state is required to submit a State Implementation Plan (SIP) that specifies the manner in which primary and secondary NAAQS will be achieved and maintained within each air quality control region (AQCR). Attainment status designations are made for each AQCR or parts thereof for each air pollutant. An area not meeting the NAAQS is designated as “non-attainment”, as “not classified” if available data are insufficient, or as “attainment” if the air quality is better than the NAAQS.

The proposed Kankakee Acquisition Alternatives are located in Kankakee and Will Counties, Illinois. The proposed Will County Acquisition Alternatives are located in Will County, Illinois. Will County has been designated as severe non-attainment for ozone and attainment for the other criteria pollutants. Kankakee County has been designated as in attainment for all criteria pollutants.

5.5.2.2 Air Pollutant Emission Analysis

The determination of the future year (2010 and 2020) emissions considered the following emission source groups:

- Mobile sources such as motor vehicles using US EPA's Mobile5a and CAL3QHC computer emissions model;
- Stationary sources, which include permitted point sources identified in the Illinois emission point source computer inventories, such as boilers, incinerators, and industrial processes; and
- Area sources, which include minor point sources not included in the emission point source inventories, such as residential, commercial, and industrial boilers for space heating and hot water usage, and fugitive dust emissions from agricultural tilling.

Since CO is a site-specific pollutant, with the highest concentrations generally found immediately adjacent to roadways and intersections, it is usually of concern on a local or microscale basis. Therefore, the assessment of air quality conditions as a result of project-generated traffic is typically evaluated through a microscale analysis of traffic-related CO levels.

The microscale CO air quality analysis for mobile sources in the study area evaluated existing condition receptor sites located along the roadways that are expected to experience the greatest change in traffic volumes if an airport were constructed at any of the acquisition alternatives. It should be noted that data developed for 1990 were used for the existing condition analyses presented in this report due to the availability of traffic data for that year. Should it be decided that a new air carrier airport is needed in the south suburban area, traffic data would be updated for future air quality analysis.

Based on the preliminary review of trip generation and assignments, together with aerial photography and future roadway plans, intersections were selected at the Kankakee Acquisition Alternatives (Figure 5.5-1) and at the Will County Acquisition Alternatives (Figure 5.5-2) that were subjected to CO modeling analysis. The Mobile5a emission model and the CAL3QHC dispersion model were used with the same conditions and options utilized for the intersection CO modeling.

5.5.3 EXISTING AIR QUALITY CONDITIONS

The information presented in the following section provides a brief overview of existing air quality conditions in the study area based on available monitoring data and modeling results as well as a discussion of the existing sources of air emissions in the study area.

5.5.3.1 Air Quality Monitoring Data

This discussion of existing air quality monitoring information is based on data from the Illinois Environmental Protection Agency (IEPA). Table 5.5-2 presents a summary of air monitoring data for 1994 and 1999. Data is presented for those monitoring locations that are the closest to, or most representative of current conditions near, the acquisition alternatives. Notably, there is a scarcity of existing air quality data for the study area with the closest monitoring sites being approximately 20 miles away. These monitoring sites are closer to the urbanized area of Chicago, reflecting background data that are conservatively high for the airport sites. Interpretation of the data is presented below.

TABLE 5.5-2

AMBIENT MONITORING DATA - KANKAKEE AND WILL COUNTY ACQUISITION ALTERNATIVES

| Pollutant | Averaging Period | NAAQS Standards | 1994 | | 1999 |
|-------------------|------------------|-----------------------|------------------------|----------------------|------------------------|
| | | | Maximum | 90th Percentile | Maximum |
| Carbon Monoxide | 1-hour | 35 ppm | 7.6 ppm | 1.4 ppm | 5.2 ppm |
| | 8-hour | 9 ppm | 6.3 ppm | 1.3 ppm | 4.5 ppm |
| Ozone | 1-hour | 0.12 ppm | 0.130 ppm | -- | 0.110 ppm |
| | 8-hour | 0.08 ppm | * | * | 0.093 ppm |
| Nitrogen Dioxide | Annual | 0.053 ppm | 0.024 ppm | -- | 0.024 ppm |
| Lead | 3-month | 1.5 ug/m ³ | 0.02 ug/m ³ | -- | 0.02 ug/m ³ |
| PM ₁₀ | Annual | 50 ug/m ³ | 25 ug/m ³ | -- | 23 ug/m ³ |
| | 24-hour | 150 ug/m ³ | 124 ug/m ³ | 41 ug/m ³ | 57 ug/m ³ |
| PM _{2.5} | Annual | 15 ug/m ³ | * | * | 15.5 ug/m ³ |
| | 24-hour | 65 ug/m ³ | * | * | 44.3 ug/m ³ |
| Sulfur Dioxide | Annual | 0.03 ppm | 0.005 ppm | -- | 0.009 ppm |
| | 24-hour | 0.14 ppm | 0.011 ppm | 0.011 ppm | 0.038 ppm |
| | 3-hour | 0.50 ppm | 0.012 ppm | 0.012 ppm | 0.104 ppm |

Source: IEPA, 1994, 2000.

Notes:

1. The maximum data were obtained from the Illinois Annual Air Quality Report (IEPA, 1994b; 2000).
2. 90th percentile data (90% of data were below this level) were obtained from IEPA monitoring data (IEPA, 1995).
3. The monitoring sites selected are:

Alsip (Cook County) – Lead (1999)

Calumet City (Cook County) - CO, NO_x and SO₂;

Joliet (Will County) - Lead (1994), PM₁₀ and PM_{2.5};

South Lockport (Will County) - Ozone.

* Data not measured at that time.

5.5.3.2 Carbon Monoxide Levels

Kankakee Acquisition Alternatives

Twenty-one intersections near the proposed Kankakee Acquisition Alternatives were selected for traffic and CO modeling analysis. The location of these intersections is presented in [Figure 5.5-1](#). The results of the computer modeling for these intersections are presented in [Table 5.5-3](#) (a detailed discussion of the modeling approach is included in *Air Quality Technical Report*, TAMS, 1997c). The results indicate that there are currently no violations of the one-hour CO standard of 35 ppm and eight-hour standard of 9 ppm at these locations.

Will County Acquisition Alternatives

Twenty-nine intersections were selected for traffic and CO modeling analysis. The location of these intersections is presented in [Figure 5.5-2](#).

The results of the modeling for these intersections are presented in [Table 5.5-4](#). The results indicate that there are currently no violations of the one-hour CO standard of 35 ppm; but the eight-hour CO standard of 9 ppm is potentially exceeded at three locations. However, it must be noted that these modeling results are based on worst-case assumptions that produced conservatively high results.

5.5.3.3 Ozone Levels

The highest one-hour O₃ levels exceeded the NAAQS in 1994 but there were no exceedances in 1999. Similarly, the highest eight-hour O₃ levels in 1999 did not exceed this standard.

5.5.3.4 Other Criteria Pollutants

The highest NO₂ levels recorded in both 1994 and 1999 were well within the NAAQS for this pollutant. Similarly, the highest annual average, 24-hour and 3-hour SO₂ concentrations remain below the NAAQS.

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

5.5.4 EXISTING EMISSION SOURCES

Sources of air pollution are typically characterized into three broad categories of emission sources: 1) mobile sources such as aircraft, automobiles, trucks, buses and taxis; 2) stationary sources such as boilers, incinerators, industrial processes; and 3) area sources such as agricultural fields and undeveloped land.

TABLE 5.5-3

EXISTING CARBON MONOXIDE LEVELS - KANKAKEE ACQUISITION ALTERNATIVES

| Intersection | | 1-hour (ppm) | 8-hour (ppm) |
|--------------|--|-----------------|-----------------|
| Int. # | Description | | |
| 1 | US 45/Manhattan-Monee Road | 3.1 | 2.5 |
| 2 | US 45/Wilmington-Peotone Road | 5.1 | 2.9 |
| 3 | I-57/Wilmington-Peotone Road (West) | 3.9 | 3.1 |
| 4 | I-57/Wilmington-Peotone Road (East) | 4.4 | 3.4 |
| 5 | IL 50/Wilmington-Peotone Road | 2.5 | 2.1 |
| 6 | Harlem/Manhattan-Monee Road | 2.7 | 2.2 |
| 7 | IL 50/Manteno Road | 4.7 | 3.6 |
| 8 | I-57/Manteno Road (East) | 3.7 | 2.9 |
| 9 | I-57/Manteno Road (West) | 4.4 | 3.4 |
| 10 | US 45 & 52/Manteno Road | 3.2 | 2.6 |
| 11 | I-57/IL 50 (East) | 8.5 | 6.3 |
| 12 | I-57/IL 50 (West) | 8.5 | 6.3 |
| 13 | US 45 & 52/Armour Road | 8.4 | 6.2 |
| 14 | IL 102/Deselm Road | 2.1 | 1.8 |
| 15 | Warner Bridge Road/Manteno Road | 3.3 | 2.6 |
| 16 | IL 53/Wilmington-Peotone Road | 4.0 | 3.1 |
| 17 | US 52/(Wilton Center Road)/Joliet Road | 2.8 | 2.3 |
| 18 | US 45 & 52/Airport Access Road (North) | N/A | N/A |
| 19 | US 45 & 52 / Airport Access Road (South) | N/A | N/A |
| 20 | I-57/Airport Access Road (East) | N/A | N/A |
| 21 | I-57/Airport Access Road (West) | N/A | N/A |

Source: TAMS, 1997c.

Notes: Levels include the background values of 1.4 ppm for the 1-hour and 1.3 ppm for 8-hour averages.

N/A = not applicable for existing conditions.

With respect to existing conditions, there are no current airport-related sources of air pollutants at, or in the vicinities of, the alternatives. Consequently, the following material primarily addresses non-airport sources (i.e., motor vehicles as mobile sources, a variety of stationary sources, of which there are very few, and area sources).

5.5.4.1 Mobile Sources

As a means of establishing the baseline air quality impacts of motor vehicles operating on the existing roadway system, an emissions inventory was conducted. The traffic data were provided by CATS. A computer simulation program was then used to estimate and determine the traffic data network for the greater Chicago region surrounding both acquisition alternatives. The traffic network was divided into traffic zones covering 157 townships; vehicle miles of travel (VMT) for two roadway classes (expressway and non-expressway) were then calculated. Emissions were calculated using the USEPA's Mobile5a computer emissions model.

Emissions calculated in this model vary according to a variety of input parameters such as vehicular speed, ambient temperature, percentage of cars with catalytic converters, and implementation of vehicle inspection/maintenance programs. The results of this analysis are presented in [Table 5.5-5](#), which shows the estimates of VMT and the resulting pollutant emissions in tons per year (tpy).

TABLE 5.5-4

EXISTING CARBON MONOXIDE LEVELS - WILL COUNTY ACQUISITION ALTERNATIVES

| Intersection | | 1-hour | 8-hour |
|--------------|---|--------|--------|
| Int. # | Description | (ppm) | (ppm) |
| 1 | US 45/Manhattan-Monee Road | 3.1 | 2.5 |
| 2 | US 45/Wilmington-Peotone Road | 5.1 | 3.9 |
| 3 | I-57/Wilmington-Peotone Road (West) | 3.9 | 3.1 |
| 4 | I-57/Wilmington-Peotone Road (East) | 4.4 | 3.4 |
| 5 | IL 50/Wilmington-Peotone Road | 2.5 | 2.1 |
| 6 | Harlem/Manhattan-Monee Road | 2.7 | 2.2 |
| 7 | I-57/Manhattan-Monee Road (West) | 4.4 | 3.4 |
| 8 | I-57/Manhattan-Monee Road (East) | 4.8 | 3.7 |
| 9 | IL 50/Crete-Monee Road | 3.2 | 2.6 |
| 10 | IL 50/Exchange Road | 3.1 | 2.5 |
| 11 | IL 50/Sauk Trail | 14.2 | 10.3 |
| 12 | Governors Hwy/Sauk Trail | 9.7 | 7.1 |
| 13 | Western Avenue/Sauk Trail | 15.0 | 10.8 |
| 14 | Western Avenue/Exchange Road | 10.3 | 7.4 |
| 15 | IL 394/Indiana Avenue | 6.6 | 4.9 |
| 16 | IL 394/East-West Airport Connector Road | 3.8 | 3.0 |
| 17 | IL 394/Goodenow (West) | 2.8 | 2.3 |
| 18 | IL 394/Goodenow (East) | 3.4 | 2.7 |
| 19 | IL 1/East-West Airport Connector Rd (North) | 2.9 | 2.4 |
| 20 | IL 1/East-West Airport Connector Rd (South) | N/A | N/A |
| 21 | IL 1/Exchange Road | 11.7 | 8.5 |
| 22 | IL 1/Steger Road | 11.2 | 8.2 |
| 23 | IL 394/Exchange Road | 8.3 | 6.1 |
| 24 | Eliminated from traffic network | -- | -- |
| 25 | IL 394/Sauk Trail (East) | 14.4 | 10.4 |
| 26 | IL 394/Sauk Trail (West) | N/A | N/A |
| 27 | IL 394/Glenwood-Dyer Road (West) | 8.0 | 5.9 |
| 28 | IL 394/Glenwood-Dyer Road (East) | 6.4 | 4.8 |
| 29 | Lincoln Hwy/Torrence Avenue | 10.3 | 7.5 |
| 30 | US 41/US 231 | 10.2 | 7.5 |

Source: TAMS, 1996e.

Note: Levels include the background values of 1.4 ppm for the 1-hour and 1.3 ppm for 8-hour averages.

N/A = not applicable for existing conditions.

TABLE 5.5-5

EXISTING REGIONAL VMT RELATED EMISSIONS

| Road Type | Daily VMT | VOC (tpy) | NO_x (tpy) | CO (tpy) |
|------------------|------------------|------------------|-----------------------------|-----------------|
| Arterial | 75,805,700 | 122,692 | 87,916 | 1,056,760 |
| Freeway | 28,269,000 | 31,682 | 35,106 | 252,884 |
| Totals | 104,074,700 | 154,374 | 123,022 | 1,309,644 |

Source: TAMS, 1996e.

Note: For conservativeness, VMT was assumed to be same as passenger miles traveled.

5.5.4.2 Stationary Sources

The IEPA computerized inventory of point sources provides specific details on permitted sources including such data as geographic coordinates, emission rates, stack height and diameter, and other parameters related to the dispersion of air pollutants. The IEPA was provided with the proposed airport layout plan and was asked to identify any appropriate source listings. As would be expected, given the level of existing development in the area, there are no major point sources of air pollution at the acquisition alternative or within 10 kilometers (6.2 miles) of the acquisition alternatives that need to be addressed in this study. (There are, however, other point sources of air pollution within Will County.)

5.5.4.3 Area Sources

An area source analysis was also performed to quantify the emissions from groups of small sources (i.e., area sources). There are only a few minor combustion sources (e.g., single family homes) at the acquisition alternatives that would have negligible emissions. However, an estimate was made of particulate emissions from agricultural practices using AP-42 emission factors; these are based on two planting seasons, a 60 percent silt content of the soil and the number of acres being tilled.

Kankakee Acquisition Alternatives

There are approximately 22,489 acres of active agricultural land within the site. Approximately 260 tons of PM₁₀ emissions are generated from agricultural practices.

Will County Acquisition Alternatives

There are approximately 16,666 acres of active agricultural land within the site. Approximately 200 tons of PM₁₀ emissions are generated from agricultural practices.

5.5.5 DISCUSSION OF IMPACTS

5.5.5.1 No-Action Alternative

Under the No-Action Alternative, growth and development trends, as described in Sections 5.3, Social Impacts, and 5.4, Socioeconomic Impacts, would continue. Therefore, regional traffic levels would change due to growth and development as described Sections 5.3 and 5.4.

The results of the computer modeling are presented in Table 5.5-6 for the intersections studied at the Kankakee site and Table 5.5-7 for the Will County site. Year 2010 and 2020 concentrations under the No-Action Alternative are lower than existing concentrations due to per vehicle emission reductions resulting from federal and state vehicle emission control programs.

TABLE 5.5-6

**NO-ACTION PROJECTED 2010 AND 2020 MAXIMUM CARBON MONOXIDE LEVELS
KANKAKEE ACQUISITION ALTERNATIVES STUDY AREA**

| Intersection | | No-Action 2010 (ppm) | | No-Action 2020 (ppm) | |
|--------------|--|-------------------------|--------|-------------------------|--------|
| Int # | Description | 1-hour | 8-hour | 1-hour | 8-hour |
| 1 | US 45/Manhattan-Monee Road | 2.4 | 2.0 | 2.5 | 2.1 |
| 2 | US 45/Wilmington-Peotone Road | 2.9 | 2.4 | 2.5 | 2.1 |
| 3 | I-57/Wilmington-Peotone Road (West) | 2.7 | 2.2 | 3.0 | 2.4 |
| 4 | I-57/Wilmington-Peotone Road (East) | 2.4 | 2.0 | 2.7 | 2.2 |
| 5 | IL 50/Wilmington-Peotone Road | 2.0 | 1.7 | 2.2 | 1.9 |
| 6 | Harlem/Manhattan-Monee Road | 2.3 | 1.9 | 2.3 | 1.9 |
| 7 | IL 50/Manteno Road | 2.8 | 2.3 | 3.1 | 2.5 |
| 8 | I 57/Manteno Road (East) | 2.6 | 2.1 | 8.1 | 6.0 |
| 9 | I 57/Manteno Road (West) | 2.8 | 2.3 | 2.8 | 2.3 |
| 10 | US 45 & 52/Manteno Road | 2.2 | 1.9 | 2.3 | 1.9 |
| 11 | I 57/IL 50 (East) | 3.5 | 2.8 | 3.2 | 2.6 |
| 12 | I 57/IL 50 (West) | 3.5 | 2.8 | 3.2 | 2.6 |
| 13 | US 45 & 52/Armour Road | 3.3 | 2.6 | 3.4 | 2.7 |
| 14 | IL 102/Deselm Road | 1.7 | 1.5 | 1.7 | 1.5 |
| 15 | Warner Bridge Road/Manteno Road | 2.4 | 2.0 | 2.5 | 2.1 |
| 16 | IL 53/Wilmington-Peotone Road | 2.4 | 2.0 | 2.6 | 2.1 |
| 17 | US 52/(Wilton Center Road)/Joliet Road | 2.2 | 1.9 | 2.4 | 2.0 |

Source: TAMS, 1997c.

Note: Levels include background concentrations of 1.4 ppm (1-hour) and 1.3 ppm (8-hour)

TABLE 5.5-7

NO-ACTION PROJECTED 2010 AND 2020 MAXIMUM CARBON MONOXIDE LEVELS
WILL COUNTY ACQUISITION ALTERNATIVES STUDY AREA

| Intersection | | No-Action 2010 (ppm) | | No-Action 2020 (ppm) | |
|--------------|---|-------------------------|--------|-------------------------|--------|
| Int # | Description | 1-hour | 8-hour | 1-hour | 8-hour |
| 1 | US 45/Manhattan-Monee Road | 2.4 | 2.0 | 2.5 | 2.1 |
| 2 | US 45/Wilmington-Peotone Road | 2.9 | 2.4 | 2.5 | 2.1 |
| 3 | I-57/Wilmington-Peotone Road (West) | 2.7 | 2.2 | 3.0 | 2.4 |
| 4 | I-57/Wilmington-Peotone Road (East) | 2.4 | 2.0 | 2.7 | 2.2 |
| 5 | IL 50/Wilmington-Peotone Road | 2.0 | 1.7 | 2.2 | 1.9 |
| 6 | Harlem/Manhattan-Monee Road | 2.3 | 1.9 | 2.3 | 1.9 |
| 7 | I-57/Manhattan-Monee Road (West) | 2.9 | 2.4 | 2.9 | 2.4 |
| 8 | I-57/Manhattan-Monee Road (East) | 2.8 | 2.3 | 2.7 | 2.2 |
| 9 | IL 50/Crete-Monee Road | 1.9 | 1.7 | 2.3 | 1.9 |
| 10 | IL 50/Exchange Road | 5.5 | 4.2 | 5.4 | 4.1 |
| 11 | IL 50/Sauk Trail | 5.9 | 4.5 | 5.9 | 4.5 |
| 12 | Governors Hwy/Sauk Trail | 6.6 | 4.9 | 6.8 | 5.1 |
| 13 | Western Avenue/Sauk Trail | 9.4 | 6.9 | 9.5 | 7.0 |
| 14 | Western Avenue/Exchange Road | 4.3 | 3.3 | 4.3 | 3.3 |
| 15 | IL 394/Indiana Avenue | 2.8 | 2.3 | 3.1 | 2.5 |
| 16 | IL 394/East-West Airport Connector Road | 2.4 | 2.0 | 2.4 | 2.0 |
| 17 | IL 394/Goodenow (West) | 2.0 | 1.7 | 2.0 | 1.7 |
| 18 | IL 394/Goodenow (East) | 2.3 | 1.9 | 2.4 | 2.0 |
| 19 | IL 1/East-West Airport Connector Road (North) | 2.0 | 1.7 | 2.0 | 1.7 |
| 20 | IL 1/East-West Airport Connector Road (South) | N/A | N/A | N/A | N/A |
| 21 | IL 1/Exchange Road | 4.4 | 3.4 | 4.0 | 3.1 |
| 22 | IL 1/Steger Road | 4.2 | 3.3 | 4.2 | 3.3 |
| 23 | IL 394/Exchange Road | 3.3 | 2.6 | 3.7 | 2.9 |
| 24 | Eliminated from traffic network | -- | -- | -- | -- |
| 25 | IL 394/Sauk Trail (East) | 6.1 | 4.6 | 6.9 | 5.2 |
| 26 | IL 394/Sauk Trail (West) | N/A | N/A | N/A | N/A |
| 27 | IL 394/Glenwood-Dyer Road (West) | 3.8 | 3.0 | 3.8 | 3.0 |
| 28 | IL 394/Glenwood-Dyer Road (East) | 3.3 | 2.6 | 3.2 | 2.6 |
| 29 | Lincoln Hwy/Torrence Avenue | 3.8 | 3.0 | 4.0 | 3.1 |
| 30 | US 41/US-231 | 3.8 | 3.0 | 4.0 | 3.1 |
| 51 | Touhy/Mannheim Road | 4.0 | 3.1 | 3.9 | 3.1 |
| 52 | Irving Park/York Road | 5.5 | 4.2 | 5.2 | 4.0 |
| 53 | Irving Park/Mannheim Road | 5.8 | 4.4 | 5.8 | 4.4 |
| 54 | Touhy/Elmhurst Road | 5.8 | 4.4 | 5.7 | 4.3 |

Source: TAMS, 1996e.

Note: Levels include background concentrations of 1.4 ppm (1-hour) and 1.3 ppm (8-hour).

5.5.5.2 Acquisition Alternatives

No construction or land use changes are proposed under this alternative and no impacts to air quality beyond those described for the No-Action Alternative are anticipated. However, the acquisition of land under this alternative may cause some land speculation to occur outside of the acquisition boundary. This speculation could spur the development of residential, commercial, and light industrial facilities.

5.5.6 MITIGATION

No construction or land use changes are proposed in any of the alternatives evaluated in this Tier 1 FEIS and no impacts to air quality are anticipated under any of the alternatives. Therefore, no mitigation would be required.

5.5.7 GENERAL AND TRANSPORTATION CONFORMITY

Under the CAA, each state is required to submit to the USEPA a State Implementation Plan (SIP) that specifies the manner in which the NAAQS will be achieved and maintained within each AQCR. The CAA also requires Federal agencies to ensure that their actions conform to the appropriate SIP. Conformity to a SIP means conforming to a SIP's purpose of reducing the severity and number of violations of the NAAQS or to achieve the timely attainment of such standards. The Federal agency responsible for the proposed action is required to determine if its action conforms to the applicable SIP. In the case of airport-related actions, the Federal agency is the FAA under the General Conformity Rule and in the case of roadway projects it is the Federal Highway Administration (FHWA) under the Transportation Conformity Rule.

As a means of determining whether or not the General Conformity Rule applies to a specific action or project, the USEPA has established de minimis levels for the criteria air pollutants, which are based on an area's attainment/non-attainment status. Because the Will County portion of the study area is currently designated as a severe non-attainment area for ozone, the de minimis levels for this area are 25 tons/year for either NO_x or VOCs; both considered as precursors to the formation of ozone. Because no construction is proposed under any of the project alternatives and no impacts to air quality are anticipated, the emissions are within the de minimis levels and the General Conformity Rule does not apply.

Under the Transportation Conformity Rule, roadway projects are shown to conform to the SIP by being included in a conforming regional Transportation Plan. Again, because no roadway construction is proposed under any of the project alternatives, no emissions are anticipated, and the Transportation Conformity Rule does not apply to this action.

5.5.8 GOVERNOR'S LETTER OF ASSURANCE

The State of Illinois has previously obtained a Governor's Certification of Air and Water Quality in the processing of the 1998 Environmental Assessment. On January 22, 2002, a Governor's Certification of Air and Water Quality was issued for the South Suburban Airport. A copy of the Governor's Certification is provided in [Appendix M](#).

5.6 WATER QUALITY

5.6.1 OVERVIEW OF IMPACTS

Under the No-Action Alternative, impacts to water quality and groundwater would increase with increased residential and commercial growth within the alternative sites. The Kankakee Inaugural and Ultimate Acquisition Alternatives and the Will County Inaugural and Ultimate Acquisition Alternatives propose site approval and acquisition of property. Under the state's proposal for land acquisition, no land use changes or construction are proposed as part of the alternatives; therefore, no direct impacts to water quality would occur.

5.6.2 METHODOLOGY

The Federal Water Pollution Control Act, as amended by the Clean Water Act (CWA) of 1977, establishes water quality standards, controls discharges into surface and subsurface waters, develops waste treatment management plans and practices, and authorizes permits for discharges (Section 402) and for dredged or fill material (Section 404).

In Illinois, the Illinois Environmental Protection Agency (IEPA) has been designated by Section 4(l) of the Illinois Environmental Protection Act as the "water pollution agency for the State for all purposes of the CWA." Within the study area, two sets of water quality standards apply: General Use, and Public and Food Processing Water Supply. General Use designations "provide for the protection of indigenous aquatic life, primary (e.g., swimming) and secondary (e.g., boating) contact recreation, agricultural and industrial uses." Public and Food Processing Water Supply designations "provide for the protection of potable water supplies and water used for food processing purposes. These waters have a somewhat stricter set of water quality standards that apply at any point from which water is withdrawn from these uses." All streams within the acquisition alternatives are under the General Use designation. The Kankakee River is under the Public and Food Processing Water Supply designation (IEPA, 2000).

Physical and chemical measurements at stream sampling stations within the alternative airport sites were conducted in October 1990 and May 1991. Both water and sediment samples were taken. Water quality analyses performed during the IRAP Site Selection Study in 1990 and 1991 are 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 at the Will County sites in the summer of 1994. [Appendix E](#) contains complete results of this sampling effort. Stream and aquatic habitat sampling are discussed in [Section 5.9](#) of this FEIS. The Governor's Air and Water Quality Certificate was issued on December 2, 1997 (see [Appendix B](#)) during the State of Illinois' review process of the *South Suburban Airport Environmental Assessment* (IDOT, 1998).

5.6.3 SURFACE WATER HYDROLOGY AND QUALITY

5.6.3.1 Kankakee Acquisition Alternatives

The Kankakee River lies approximately 2 miles southwest of the Kankakee Inaugural and Ultimate Acquisition Alternatives. Several tributary streams to the Kankakee River cut across these acquisition alternatives (Figure 5.6-1). These are Forked Creek, the South Branch of Forked Creek, and Rock Creek. In general, these are perennial streams but they may be intermittent in their upper reaches. All of these tributaries are of stream order 2 (stream width of about 23 feet). A smaller stream, Rayns Creek, originates in the southwest corner of the sites and also flows to the Kankakee River. The entirety of the Kankakee Acquisition Alternatives lie within the Mississippi River drainage basin.

Historically, the natural drainage in the study area was extremely poor, causing it to be marshy and subject to frequent flooding. However, this has been modified by past activities such as ditching and straightening sections of tributary streams in order to drain the area and open it up for agriculture. These drained lowlands are, however, still subject to frequent flooding as a result of the large drainage area and very low stream gradients.

Rock Creek

Rock Creek was the most significant stream sampled in terms of its volume, discharge, and velocity. Its mean width was nearly double that of the next widest stream (Forked Creek); its discharge along with that of Forked Creek far exceeded the other streams as well. Discharge increased markedly between the upstream and downstream station (see Figure 5.6-2). For instance, during spring sampling, the flow rate was 15.9 cubic feet per second (cfs) at the upstream station compared to 94.3 cfs at the downstream station. Other limnological and water quality characteristics were similar at both the upstream and downstream stations during both the fall and spring sampling.

Dissolved oxygen (DO) was the highest experienced among the stations sampled. This was expected due to the high stream velocity and turbulence of this creek. Mean percent saturation was 110 percent, a slightly supersaturated condition likely caused by lag warming of surface water, robust primary production, and high turbulence. The pH was circum-neutral and within ranges expected for streams of this area, as were alkalinities, specific conductance, and temperature.

Nutrient levels in Rock Creek were generally high, indicative of the eutrophic conditions of this stream. Phosphates and nitrates were the second highest among the sampled stations with means of 1.03 and 4.25 ppm, respectively. Both readings indicate a highly enriched environment. It is not known whether the origin of these nutrients arise from domestic waste or non-point agricultural sources. In contrast, ammonia nitrogen and total organic carbon were among the lowest encountered in the stream studies, while sulfates were relatively higher in concentration. Relatively moderate levels of total coliforms and biological oxygen demand (BOD) combined with light municipal development within the watershed indicate the source of nitrogen and phosphorous in the stream to be non-point cropland sources.

Rock Creek is a highly eutrophic stream, as evidenced by high nitrogen and phosphorous levels. Consequently, the stream's plant production is high, affording a large quantity of animal life. High habitat diversity especially in the downstream station favors a rich and varied flora and fauna in both the riffle and pool communities. High oxygen content and heterogeneity of sediment type helps support a diverse fish community. Other water quality parameters are within the range expected for streams included in the study. The downstream site is also one of the more aesthetic streams in the study. Bordering trees screen most nearby human activity from view, and the fast-flowing stream lies within a natural bedrock and cobble channel, a rare visual experience in the greater Chicago region.

Rock Creek was evaluated as an overall use stream providing full support for aquatic life resources under the General Use designation by IEPA (IEPA, 2000). Water quality is thus considered to be generally good. Fecal coliform bacteria were higher than State standards for safe swimming in both October 1990 and May 1991. Index of Biotic Integrity (IBI) scores ranged between 32 and 48, rating Rock Creek as a moderate to highly valued resource. Macroinvertebrate Biotic Index (MBI) scores for Rock Creek ranged from 5.1 to 8.2, rating it a limited to highly valued resource. See [Section 5.9](#) for more discussion on IBI and MBI ratings.

Forked Creek

Flow characteristics of Forked Creek are that of a fast moving stream (average of 183.5 cubic feet per second) of moderate depth (average of 11.8 inches).

Dissolved oxygen of Forked Creek was consistently high, undoubtedly due to its fast flow and turbulence. The oxygen saturation level was 112 percent, slightly supersaturated due to turbulence, high primary production, and temperature lag against oxygen equilibria. Alkalinity, pH, specific conductance, and hardness were well within normal limits for the study area. Coliform bacteria was the lowest of the streams sampled. Biological oxygen demand was also relatively low, as were total organic carbon, sediment organics, and sediment nitrogen.

In general, Forked Creek is a high-energy stream with a generally cobble bottom, high nutrient content, and dissolved oxygen. Its eutrophic condition and fast stream velocity favor high biological metabolism and production. Habitat heterogeneity of both riffles and pools and high primary production favor high animal and plant diversity. The stream does not show evidence of contamination from heavy metals, fecal material, or erosion. Aside from high enrichment of nitrogen and phosphorous, water quality parameters suggest that it is among the most environmentally fit of the streams studied.

Forked Creek (both north and south branches) was evaluated as an overall use stream providing full support for aquatic life resources under the General Use designation by IEPA (IEPA, 2000). Water quality is thus considered to be generally good. Fecal coliform bacteria readings were higher than State standards for swimmable waters in both October 1990 and May 1991. IBI scores ranged between 34 and 56 for Forked Creek (both branches), rating it as a moderate to unique aquatic resource. MBI scores for Forked Creek (both branches) ranged from 4.0 to 8.4, rating it as a limited to unique aquatic resource.

The Illinois Department of Natural Resources (IDNR) surveyed two sites on Forked Creek in 1994. One location was located approximately 1 mile downstream of the proposed Kankakee Ultimate Acquisition Alternative. This site had an IBI score of 44, giving it a “B” rating by the Illinois Biological Streams Characterization (BSC). The other location, 5 miles downstream, received an IBI score of 56, which is an “A” rating by the BSC (IDNR, 1997).

Rayns Creek

Rayns Creek originates in the southwestern corner of the Kankakee Acquisition Alternatives and flows west and southwest through Kankakee River State Park and into the Kankakee River. No water quality sampling was done in this stream. The upper portions have been channelized and flow through predominantly agricultural areas. The lowermost reaches, which flow through sand savanna in the State park, retain a natural channel with alternating gravel and cobble-bottomed riffles and shallow pools. An IBI score of 36, based on a sample just above the State park boundary, indicates a moderate aquatic resource. Sensitive fish, amphibian, and reptile species (silver redhorse, *Moxostoma anisurum*; southern two-lined salamander, *Eurycea cirrigera*; queen snake, *Regina septemvittata*) present in the lower reaches of the stream imply that water quality is at least fairly good.

Rayns Creek was evaluated as an overall use stream providing full support for aquatic life resources under the general use designation by IEPA (IEPA, 2000).

Stormwater Drainage

The Kankakee Acquisition Alternatives are drained by several small creeks and streams flowing through cropland generally from the northeast to the southwest and into the Kankakee River. Forked Creek, including several tributaries, is the major drainage. Forked Creek and its tributaries drain approximately 64 square miles of land upstream of the project site. Rock Creek and Rayns Creek drain smaller portions of the sites.

Wastewater

Within the Kankakee Acquisition Alternatives, wastewater is presently disposed of through the use of individual septic systems and holding tanks.

5.6.3.2 Will County Acquisition Alternatives

The proposed Will County Acquisition Alternatives are located at the intersection of two major regional drainage basins, the Mississippi River Basin and the Great Lakes Basin. Average annual precipitation is about 33 inches. Surface water runoff from the sites eventually drains into one of the five drainage features discussed below.

The gently rolling topography of the Will County sites provides sufficient gradients for surface runoff to drain into existing culverts. There are six surficial drainage features of significance within the proposed acquisition alternatives: Rock Creek, the South Branch of Rock Creek, Black Walnut Creek, Exline Slough, Marshall Slough and Plum Creek (as shown in [Figure 5.6-3](#)). In general, these features are intermittent streams within the sites. Rock Creek, Plum Creek, Marshall Slough, and Black Walnut Creek are first order streams (width of 16 to 20 feet), and the South Branch of Rock Creek and Exline Slough are second order streams (width of 23 feet).

Rock Creek, the South Branch of Rock Creek, Exline Slough, Marshall Slough, and Black Walnut Creek are part of the Kankakee River drainage basin that flows into the Mississippi River drainage basin. Northeastern portions of the Ultimate Acquisition Alternative lie in the Great Lakes drainage basin where the headwaters of Plum Creek are located. Segments of the streams are believed to have originally been marshy lowlands, and in fact, parts of the upper reaches of Exline Slough are still wetland. However, most such areas were eliminated many years ago when the streams were altered (widened, straightened, and deepened) to improve agricultural practices.

Black Walnut Creek

Because Black Walnut Creek flows through the middle of the Will County Acquisition Alternatives, water quality samples were taken at four different locations. In 1990-91, water quality samples were taken from Black Walnut Creek at Eagle Lake Road in the center of the sites, and just above the confluence with the South Branch of Rock Creek, downstream of the sites. In 1994, samples were taken at Pauling Road, near the stream headwaters and at Egyptian Trail, near the southwest corner of the Will County sites (refer to [Figure 5.6-4](#)).

Results of the sampling showed that Black Walnut Creek is a mildly eutrophic stream fairly typical of agricultural sites. It has a relatively high dissolved oxygen content (6.4-10.2 mg/l) and oxygen demand. Most readings were well above the levels required to support sport and non-sport fish and generally approached saturation. However, the presence of low oxygen tolerant benthic macroinvertebrates at the upstream station suggests occasional episodes of oxygen depletion. Nitrogen and phosphorus levels were low, and ammonia and sulfates were significantly higher. The latter chemicals probably do not adversely affect the stream, given the lower concentration of nitrogen and phosphorus. Bacteria counts were elevated.

Heavy metal analysis of the waters of Black Walnut Creek did not reveal any contamination, except for iron, which slightly exceeded standards at Pauling Road. Sediment metals were also generally low and within expected ranges for the area, except for high mercury and copper levels found near car parts and refrigerators. Metal content of these sediments, apparently limited to the immediate vicinity of the metal objects, are not expected to adversely affect the benthic biota of the stream.

The Pauling Road, Egyptian Trail, and downstream (confluence with the South Branch of Rock Creek) sample stations are degraded and strongly influenced by ditching, agricultural erosion, and runoff. The straight ditching and homogenous habitat of these stations provide very few aquatic niches for stream biota and affect stream flow, temperature, and turbidity.

The Eagle Lake Road station is in the higher gradient mid-reaches of the stream and has much higher biological diversity due to its rocky riffle habitat and the presence of a riparian buffer zone made up of successional trees and submerged vegetation.

The upstream station at Pauling Road is often impounded by deposited silts and debris, and is seasonally stagnant. Ammonia nitrogen at this station was moderately high to high, nearly exceeding State pH adjusted standards and potentially harmful to fish. High fecal coliform bacteria readings, exceeding State standards, suggest domestic or animal fecal contamination at this location.

The Egyptian Trail sample station had high levels of ammonia, nitrogen, and sulfate. Fecal coliform bacteria readings at this location were the highest obtained during the study, greatly exceeding State standards for swimmable waters. Index of Biotic Integrity (IBI) scores ranged from 28 to 42, rating it a moderate aquatic resource. Macroinvertebrate Biotic Index (MBI) scores for this stream ranged from 6.4 to 10.0, which resulted in a moderate to poor aquatic resource rating. Black Walnut Creek was evaluated as not supporting overall use or aquatic life resources under the general use designation by IEPA (IEPA, 2000).

Exline Slough

Water quality samples were taken at two locations during 1990-1991 (see [Figure 5.6-4](#)). Differences in the stream discharge characteristics between the upstream and downstream stations of Exline Slough were marked. Stream width upstream was between 5 and 18 feet versus 20.3 to 29.5 feet downstream. Consequently, mean flow rate varied between 8.5 cfs at the upstream site and 23.3 cfs at the downstream site. Exline Slough's dissolved oxygen varied from 7.0 ppm at the upstream station in the spring to 11.2 ppm at the downstream station in the fall. The decreased spring dissolved oxygen reading can be largely attributed to higher temperatures, 68°F, during that sampling date. However, the dissolved oxygen remained high enough to support most aquatic fauna. The pH was nearly neutral which appears characteristic of the sites. Alkalinity was also within the ranges of other streams included in the study.

The waters of Exline Slough have average alkalinities, hardness, chloride, potassium, and sodium relative to the other stations sampled. Turbidity and color were moderate. None of the parameters tested were outside USEPA criteria for ambient water quality, as expressed by effluent standards.

Exline Slough is a small to medium stream with high variation in flow and habitat. It has been degraded by ditching and agricultural and livestock runoff. Sediments are highly enriched with organics and nutrients. Although fecal coliform bacteria were high, the microbes are not believed to be derived from human sources. Heavy metal content was not excessive, and was similar to other nearby sample sites. From the water quality data gathered, a high diversity of animals in the waters or sediments of Exline Slough would not be expected.

Exline Slough was evaluated by IEPA for full overall use, providing full support of aquatic life resources under the General Use designation. Water quality is thus considered generally good (IEPA, 2000). State water quality standards, except for coliform for swimmable waters, were not exceeded in any of the samples taken. IBI scores ranged from 34 to 46, rating it as a moderate to highly valued aquatic resource. MBI scores ranged from 5.9 to 6.9, also rating the stream as a moderate to highly valued aquatic resource.

Rock Creek

Rock Creek was sampled in 1994 within the boundaries of Raccoon Grove Nature Preserve (see [Figure 5.6-4](#)). The waters at this location were essentially neutral in pH, moderately hard, and low in suspended and dissolved solids. Nitrogen content was moderate to moderately high. Dissolved metal content in the stream was relatively low and did not exceed State standards. Sediments were very high in organic content, consistent with the low dissolved oxygen, high biological oxygen demand and increased ammonia levels at this sample location. Most of these readings can be attributed to organically rich silts deposited in this stagnant pond, leaf fall from overhanging trees, and the trapped aquatic biota restricted to this pool. Iron content was high, but not uncharacteristic for the fine aquatic sediments of this area. Mercury, copper, chromium, nickel, and zinc sediment concentrations were low.

Rock Creek at Raccoon Grove is an intermittent stream with heavy organic, coliform bacteria and nutrient input. It is not certain whether organic and nutrient loading is due to animal or human sources, although observations suggest natural, non-human causes for the high numbers. Heavy metal content of the overlying water is low; only iron was high in sediments.

Rock Creek was evaluated as an overall use stream providing full support for aquatic life resources under the General Use designation by IEPA (IEPA, 2000). Water quality is thus considered to be generally good. Coliform bacteria readings were higher than State standards for swimmable waters in August 1994, while total dissolved oxygen was below State standards in June 1994. An IBI score of 44 was determined in 1994, rating Rock Creek as a highly valued resource. An MBI score of 9.4 was also determined in 1994, rating the stream as a restricted aquatic resource.

South Branch of Rock Creek

The South Branch of Rock Creek was sampled in the summer of 1994 ([Figure 5.6-4](#)). Water quality parameters indicated that the creek is high in dissolved oxygen, low in biological oxygen demand and low in phosphate content. Nitrogen analysis concentrations varied in both June and August. Very high fecal coliform bacteria readings were collected in this creek in August 1994. This may have been due to the use of upstream areas for cattle grazing, and the abundant rainfall just prior to sampling.

Sediments collected from the South Branch of Rock Creek were high in organic matter, and relatively high in nitrogen. Higher organics and nitrogen were probably due to agricultural runoff from surrounding fields and by dense bottom fauna and algae at the sampling location. Heavy metal content was relatively low, although copper and chromium levels were higher than expected. Nickel was only slightly higher.

Like many of the bridge crossings in the area, the sampling station had trash dumped into it, which could account for the copper and chromium residues found at this station. Except for copper, heavy metal content within the sediment samples was not high enough to be toxic to biota. The toxicity of the copper would depend on its availability to the bottom fauna.

The South Branch of Rock Creek has been monitored by IEPA, and received a full overall use, providing full support for aquatic life resources. It is designated as a General Use stream, having generally good water quality (IEPA, 2000). The South Branch received an MBI score of 5.8 from IEPA, rating it as a highly valued aquatic resource. Except for coliform bacteria for swimmable waters, no State standards were exceeded in the water quality samples examined. MBI scores calculated as part of the aquatic studies ranged from 6.4 to 10.3, rating it as a moderate to restricted aquatic resource. IBI scores ranged from 38 to 42, receiving a moderate to highly valued aquatic resource rating.

Marshall Slough

The headwaters of Marshall Slough are located near the southern boundary of the Will County Acquisition Alternatives. No water quality sampling was done in this stream, which has been channelized for agricultural drainage purposes. However, one of the water quality sampling stations for Black Walnut Creek is located just below the confluence of Marshall Slough, the South Branch of Rock Creek, and Black Walnut Creek. The upper reaches of the stream are intermittent.

IEPA has not evaluated or monitored Marshall Slough, but since it has similar watershed characteristics to Rock Creek and the South Branch of Rock Creek, it can be assumed that Marshall Slough would be rated in a similar manner.

Plum Creek

Plum Creek is an ephemeral headwater stream within the eastern portion of the sites. It originates in Beecher Marsh and then flows northeast into the Little Calumet River. Historically, the Little Calumet River emptied into Lake Michigan; however, today, most of its flow is diverted into the Cal-Sag Channel, which drains into the Illinois River and eventually into the Mississippi River. After leaving the Will County Acquisition Alternatives, Plum Creek flows through the Beecher Landfill, then enters Goodenow Grove Nature Preserve and Middle Plum Preserve.

Plum Creek has been evaluated as a full overall use stream, providing full support for aquatic resources. It has a General Use designation from IEPA (IEPA, 2000). The stream received an IBI score of 36 and rated as a moderate aquatic resource; it received an MBI score of 5.2, rated as a highly valued aquatic resource.

Stormwater Drainage

The Will County Acquisition Alternatives are in the headwaters of several streams flowing through cropland in south central Will County (see [Figure 5.6-3](#)). In the northeastern corner of the sites there is a drainage divide which separates runoff to the north and east into the Lake Michigan drainage system and to the south and west into the Kankakee River and ultimately into the Mississippi Basin.

Most of the area is drained by Black Walnut Creek and the South Branch of Rock Creek. Marshall Slough and Exline Slough drain the southern edge of the sites, while the extreme eastern portions are drained by the headwaters of Plum Creek.

A preliminary drainage study was conducted, concentrating on the two major drainages, Black Walnut Creek and the South Branch of Rock Creek. The objective of the drainage study was to determine the existing Creek's flow rates. A hydrological model was developed for the Black Walnut Creek and South Branch of Rock Creek catchment areas that included surface area, flow patterns, rainfall data and a runoff curve number. The runoff curve number was based on soil infiltration characteristics, soil strata, ratio of paved to unpaved areas and vegetative cover. The results of the analysis showed that at the outfall points of Black Walnut Creek and the South Branch of Rock Creek (the points at which they leave the proposed airport site), the existing flows were 5,370 cfs and 2,860 cfs for the 100-year storm event, respectively (see [Appendix E](#)).

Wastewater Treatment

Within the Will County Acquisition Alternatives, wastewater is presently disposed of through the use of individual septic systems and holding tanks.

5.6.4 GROUNDWATER HYDROLOGY AND QUALITY

No sole source aquifers, as defined by Section 1424(e) of the Safe Drinking Water Act, exist within Illinois (Smith, E., 1997). In general, there are four types of aquifer systems in northeastern Illinois: 1) sand and gravel deposits in glacial drift (unconsolidated aquifer); 2) shallow dolomite limestone formations (Silurian); 3) Cambrian - Ordovician or deep sandstone aquifer; and 4) the Mt. Simon aquifer. [Appendix E](#) contains more detailed information on the geology and hydrology of the area.

The subsurface in the vicinity of the proposed airport sites is best considered with respect to three hydrogeologic systems: (1) the unconsolidated system, (2) the shallow bedrock system, and (3) the deep bedrock system. Each differs in depth, development potential, and water quality and there is little, if any, direct hydraulic connection among the three systems. In Will County, 11 percent of the total public water supply is obtained from the sands and gravels of the Wheaton Aquifer, 39 percent from the Silurian dolomite, and 50 percent from combinations of the Cambrian-Ordovician aquifer system (Woller, 1983). The majority of the groundwater pumped in Kankakee County is from the shallow bedrock system (Silurian dolomites).

5.6.4.1 Kankakee Acquisition Alternatives

Unconsolidated Aquifers

The Kankakee Acquisition Alternatives straddle two distinct physiographic provinces; the following discussion treats each province separately.

Kankakee Aquifer

The aquifer in the Kankakee Plain (Kankakee Aquifer) is an unconfined water table aquifer, extending southwest from the Wheaton morainal country to the Kankakee River. The aquifer thins in a southwesterly direction and is exposed at the surface over much of its spatial extent. It is a heterogeneous aquifer composed primarily of sand with some gravel, underlain by a clayey till. However, the aquifer does contain random, discontinuous silt and clay lenses.

The Kankakee Aquifer is hydraulically connected to and partially recharged by the Wheaton Aquifer to the northeast. The southern margin of the Kankakee Aquifer lies along the Kankakee River, and the degree of hydraulic connection to the river is dependent upon the permeability of the streambed. During extended dry periods and periods of heavy irrigation, the aquifer is recharged by the river. In periods of high groundwater, the situation reverses and the aquifer discharges into the Kankakee River.

The top of the zone of saturation in the area generally ranges from 5 to 25 feet deep. Data from the five exploratory soil borings at the proposed Kankakee sites indicated that the water table lies between 5 and 10 feet deep.

Wheaton Aquifer

The Wheaton Aquifer is in part a water table aquifer and in part an artesian aquifer (Hartke et al., 1975). The Wheaton Aquifer consists of both a confined heterogeneous layer of sand and gravel with intermixed clay and silt lenses lying on and covered by glacial till, as well as discrete lenses of sand and gravel interbedded within the glacial tills. The main sand and gravel layer is hydraulically connected to the Kankakee Aquifer, which lies to the south and southwest of the Wheaton Aquifer, and may display artesian conditions. Overall, the aquifer ranges from 10 to 90 feet thick. Recharge to the aquifer is primarily through infiltration.

The potential for contamination in the Wheaton Aquifer is not as great as the Kankakee Aquifer. Unlike the Kankakee Aquifer, the Wheaton Aquifer is a confined aquifer and the overlying tills may act as a filter to remove a portion of the potential contaminants. The filtering action would be most effective in the near surface unsaturated zone. An exception to this is the area surrounding the surficial drainages on the sites. The potential for aquifer contamination is higher in these areas, as these drainages act as local zones of recharge to the groundwater.

Bedrock Aquifers

Shallow Bedrock System

The shallow bedrock system is composed of Silurian and Devonian limestone, dolomite and shale. The depth to the shallow bedrock system ranges from approximately 10 to 75 feet in the vicinity of the Kankakee sites.

Wells in the shallow Silurian limestone and dolomite, with joints, fractures and solution features, may produce as much as 200 gallons per minute; however, predicting area of solution features is difficult, meaning the production rate of wells in the carbonate rocks is highly variable. Water quality from this aquifer is largely determined by the overlying glacial deposits, but is generally good.

Deep Bedrock System

Three sandstone units, at depths exceeding 1,300 feet below the surface, make up the deep bedrock aquifer. These include St. Peter Sandstone (1,300 feet below the surface); the Galesville Sandstone (1,700 feet below the surface); and a sandstone horizon at the top of the Mount Simon Sandstone and the lower Eau Claire Formation (the top of the Mount Simon Sandstone lying between 2,100 and 2,700 feet below the surface).

In the vicinity of the Kankakee sites, these sandstones are generally not utilized as a groundwater source as they are too deep. Water from the Mt. Simon aquifer is also problematic because it often contains high concentrations of chloride. Water derived from this aquifer often does not meet water quality standards for either municipal or industrial use.

Primary recharge for this aquifer is believed to occur in an outcrop area of northern Illinois and southern Wisconsin. Very little recharge takes place due to the nearly impermeable shales, which cap the sandstones.

Contamination Potential

The Illinois contamination potential rating for the proposed Kankakee sites is characterized by two ratings for the susceptibility of aquifers to contamination from surface and near-surface wastes (such as fuel leaks or spills): 1) AX -- Alluvium, a mixture of gravel, sand, silt, and clay along streams, variable in composition and thickness; and 2) D2 -- Uniform, relatively impermeable silty clayey till at least 20 feet thick with no evidence of interbedded sand and gravel (Berg, et al., 1984).

These ratings indicate that in areas along existing drainages (Forked Creek, Rock Creek, and Rayns Creek) there is a higher potential for surface and groundwater contamination.

5.6.4.2 Will County Acquisition Alternatives

Unconsolidated Aquifer

The Wheaton Aquifer is, in part, a water table aquifer and an artesian aquifer (Hartke et al., 1975). The main sand and gravel layer is hydraulically connected to the Kankakee Aquifer that lies to the south and southwest of the Wheaton Aquifer, and may display artesian conditions. Overall, the aquifer ranges from 10 to 90 feet thick. Recharge to the aquifer is primarily through infiltration.

The top of the zone of saturation in the area generally ranges from 20 to 40 feet deep. Data from five exploratory soil borings at the Will County sites indicate that the water table lies between 15 to 20 feet deep. The depth to the outwash sand layer between the upper and lower tills in the Wheaton Aquifer is approximately 25 feet, but at the Will County Acquisition Alternatives, this zone is most likely deeper. Water quality in the Wheaton Aquifer is poorer than in the Kankakee Aquifer, to which it is hydraulically connected.

The potential for contamination in the Wheaton Aquifer is not as great as that for the Chicago Aquifer to the northeast or the Kankakee Aquifer to the southwest. Unlike the other two, the Wheaton is a confined aquifer and overlying tills may act as a filter to remove a portion of the potential contaminants. The filtering action is most effective in the near surface unsaturated zone. An exception to this is the area surrounding the surficial drainages on the sites. The potential for aquifer contamination is higher in these areas, as these drainages act as local zones of recharge to the groundwater.

Bedrock Aquifers

Shallow Bedrock Aquifer

The shallow bedrock system is composed of Silurian and Devonian limestone, dolomite and shale. The depth of the shallow bedrock system ranges from approximately 150 to 200 feet in the vicinity of the Will County sites.

Wells in shallow limestone and dolomite may produce as much as 200 gallons per minute of water. However, the production rate of wells in the carbonate rocks is highly variable. Wells screened in the shale areas produce water only from joints and fractures and are generally useful for domestic supply. A maximum production of 20 gallons per minute is expected from wells in the shale. Water quality from this aquifer is largely determined by the overlying till, and is generally good.

Deep Bedrock System

Three sandstone units, at depths exceeding 1,400 feet below the surface, make up the deep bedrock aquifer. These units include the St. Peter Sandstone (1,400 feet below the surface); the Galesville Sandstone (1,800 feet below the surface); and a sandstone horizon at the top of the Mount Simon Sandstone and lower Eau Claire Formation (the top of the Mount Simon Sandstone lying between 2,200 and 2,800 feet below the surface).

Of the three aquifers mentioned above, the Galesville aquifer is the most consistent and productive. Yields exceeding 500 gpm are commonly reported in northern Illinois. Most high-capacity wells in the greater Chicago region draw primarily from this aquifer. Smaller quantities of water are also taken from the Ancell aquifer (St. Peter Sandstone), but wells from this aquifer typically yield less than 200 gpm (ISWS, 1997).

Primary recharge for this aquifer is believed to occur in an outcrop area of northern Illinois and southern Wisconsin. Very little vertical recharge takes place due to the nearly impermeable shales that cap the sandstones.

Contamination Potential

The Illinois contamination potential rating for the Will County Acquisition Alternatives is characterized by two ratings for the susceptibility of aquifers to contamination from surface and near-surface wastes (such as fuel leaks or spills): 1) AX – Alluvium, a mixture of gravel, sand, silt, and clay along streams, variable in composition and thickness; and 2) D2 – Uniform, relatively impermeable silty clayey till at 20 feet thick with no evidence of interbedded sand and gravel (Berg, et al. 1984).

These ratings indicate that in areas along existing drainages (Black Walnut Creek, Rock Creek, South Branch of Rock Creek and Marshall and Exline Sloughs), there is a higher potential for surface and groundwater contamination. Throughout the remainder of the sites, there is a lower potential for groundwater contamination.

5.6.5 WATER SUPPLY

Existing public water supply sources in the vicinity of the proposed Kankakee and Will County Acquisition Alternatives are shown in [Table 5.6-1](#). The eastern Will County villages of Monee, Crete, Beecher, and Peotone primarily draw on shallow aquifer wells for public water supplies. The western Will County townships of Joliet and Lockport rely on a combination of shallow and deep bedrock wells. Public water supplies within Bradley, Bourbonnais, and the City of Kankakee, are drawn almost exclusively from the Kankakee River and delivered by Consumers Illinois Water Company (CIWC). Withdrawing water at a rate of 11.4 mgd from the Kankakee River, CIWC is the primary user of surface water within the Illinois portion of the Kankakee River basin. Withdrawal of surface water by CIWC may be expanded if a proposal to construct a 17.9-mile pipeline through Manteno and eastern Will County is approved. The proposed pipeline would augment water resources in University Park, Manteno, Peotone, Crete, and Monee. Projected capacity of the proposed pipeline is approximately 20 mgpd. Preliminary engineering plans and cost estimates for the project have been completed; however, funding for the project has not yet been secured (CIWC, 2001). The Village of Manteno has constructed two new wells that they hope to have added to their water system by summer 2001. These wells would increase capacity by 0.9 mgpd.

5.6.5.1 Kankakee Acquisition Alternatives

In April 1997, a private and public water search of the Kankakee Acquisition Alternatives was conducted by the Illinois State Water Survey. The data from the Private Well Inventory Database and the PICS Database (public wells) is a listing of private, municipal, and large industrial and commercial wells, which are known to the Illinois State Water Survey. According to the data search, approximately 128 private water wells and one active public water supply well exist in and around the vicinity of the sites. A database search conducted in 2000 listed 710 wells in the townships surrounding the sites.

In Kankakee County, the majority of the groundwater is obtained from the Silurian dolomites. The production potential of the Kankakee Aquifer is limited because it is a surface aquifer ranging only from 10 to 50 feet thick, meaning there may not be enough head in storage to provide a high sustained yield. The current water quality in this aquifer is generally good. Deep bedrock aquifer sandstones are generally not utilized as a groundwater source as they are too deep and the water quality of the aquifer is marginal to poor. Water from this aquifer also has a very high mineral content.

TABLE 5.6-1

EXISTING PUBLIC WATER SUPPLY SOURCES

| Major Water Sources | Pumping Capacity (mgd) | Average Daily Consumption (mgd) | Source of Supply |
|---------------------|------------------------|---------------------------------|---|
| Crete | 2.34 | 0.60 | Limestone Wells (5) |
| Monee | 1.38 | 0.17 | Limestone Wells (2) |
| University Park | 4.89 | 1.38 | Limestone Wells (4) |
| Beecher | 3.7 | 0.25 | Limestone Wells (4) |
| Peotone | 4.32 | 0.49 | Limestone Wells (3) |
| Manteno | 1.4 | 0.64 | Limestone Wells (5) |
| Grant Park | 0.90 | 0.12 | Limestone Wells (2) |
| Joliet | 16.1 | 11.35 | 13 Deep Aquifer and 5 Shallow Aquifer Wells |
| Kankakee | 18.0 | 12.0 | Kankakee River |
| Total: | 53.03 | 27.08 | |

mgd = millions of gallons per day

Sources: City of Joliet, Public Works & Utilities; Eastern Will County Regional Council, 1995; City of Kankakee; Consumers Illinois Water Co., 1999; Village of Manteno, 2001; Illinois State Water Survey, 2001.

Based on the State Water Well Survey of the sites, a total of 82 private wells exist in Kankakee County, with the wells ranging in depth from 45 to 220 feet. The one production well that exists in Kankakee County is 285 feet deep. Water Use statistics indicate a total of 17.31 mgd were pumped from Kankakee County wells in 1995: 2.22 mgd were pumped from public supply wells, 2.79 mgd were pumped from self-supplied wells for domestic use, and another 11.89 mgd were used for irrigation (Table 5.6-2).

Surface water is the primary source of public water supply in Kankakee County (11.66 mgd). Groundwater is the sole source of water used for irrigation. Overall, 40 percent of total water use is derived from surface water, while 60 percent is derived from aquifers.

Future development is expected to increase water use in the affected areas. As groundwater sources are limited, increased use of surface water to meet those demands is being considered. Proposals to meet future water supply demands in Will and Kankakee Counties by increasing withdrawal of surface water from the Kankakee River has been met with some resistance. The Illinois Department of Natural Resources (IDNR) has expressed concern that increased use of surface water could affect high and low stream flows, and consequently impact aquatic life within the river. Of special concern are impacts to high quality "smallmouth bass and walleye fisheries as well as ... populations of six endangered and threatened animals" (IDNR, 1997).

The U.S. Fish and Wildlife Service (USFWS) has also expressed concern over the use of the Kankakee River for additional water supply because of potential impacts on aquatic life from "draw down" of river levels, particularly during low flow conditions (Nelson, 1990).

However, streamflow data do not as of yet, show any negative effect of municipal and industrial water use on stream flow within the Illinois portion of the Kankakee River. In fact, it has been suggested that the net impact of water use on the Kankakee River has been to slightly increase streamflow. Recent data indicate that effluent return flows (in part from wastewater treatment facilities) actually exceed current withdrawals. Natural streamflows (>2000 cfs) far exceed either the level of water withdrawal (18 cfs) or return flow (35 cfs). Overall trends in annual streamflow are most closely correlated to annual precipitation. Since the 1960's, streamflows in the Kankakee River have shown a trend toward increasing high, medium, and low streamflows, reflecting trends of increasing average annual precipitation (IDNR, 2000).

TABLE 5.6-2

1995 WATER USE STATISTICS FOR KANKAKEE AND WILL COUNTIES

| Water Use | Kankakee County | | | Will County | | |
|----------------------|-----------------|----------|-------------|-------------|----------|-------------|
| | GW (mgd) | SW (mgd) | Total (mgd) | GW (mgd) | SW (mgd) | Total (mgd) |
| Public Supply | 2.22 | 11.66 | 13.88 | 36.86 | 0.63 | 37.49 |
| Commercial | 0 | 0 | 0 | 0.42 | 0 | 0.42 |
| Domestic | 2.79 | 0 | 2.79 | 11.9 | 0 | 11.9 |
| Industrial | 0.18 | 0 | 0.18 | 8.66 | 6.63 | 15.29 |
| Thermoelectric Power | 0 | 0 | 0 | 1.15 | 3836.83 | 3837.98 |
| Mining | 0 | 0 | 0 | 0 | 1.18 | 1.18 |
| Livestock | 0.23 | 0 | 0.23 | 0.21 | 0.06 | 0.27 |
| Irrigation | 11.89 | 0 | 11.89 | 3.33 | 0 | 3.33 |
| Total: | 17.31 | 11.66 | 28.97 | 62.53 | 3845.33 | 3907.86 |

*GW = ground water, SW = surface water, mgd = millions of gallons per day
Source: USGS National Water-Use data files, 1995.

According to the Joliet Director of Public Works, withdrawals are only a concern during the 7-day, 10-year low flow of 440 cfs. During that period, regional water companies can switch to deep well withdrawal.

5.6.5.2 Will County Acquisition Alternatives

In 1995, the total public water supply pumpage from the aquifers in Will County was about 36.86 mgd. Of this total, approximately 40 percent was obtained from deep bedrock aquifers. The remainder was pumped from the Wheaton or shallow bedrock aquifers. An additional 11.9 mgd were pumped from self-supplied wells for domestic use and 13.77 mgd of groundwater were withdrawn for commercial/industrial and agricultural applications (Table 5.6-2). Use of surface water for public water supplies is small, accounting for less than 2 percent (0.63 mgd). However, 98 percent of total water withdrawals in Will County (3,845.33 mgd) are taken from surface water sources. Almost all surface water withdrawals are used for thermoelectric power.

The four villages that surround the Will County airport site use public water wells for their water supply. The following village pumpage rates were reported by the Illinois State Waters Survey (2001): Beecher, 0.25 mgd; Crete, 0.68 mgd; Monee, 0.17 mgd; and Peotone, 0.49 mgd. Each village has two or more active or back-up water wells (Monee - 2 wells, Crete - 5 wells, Beecher - 4 wells, and Peotone - 3 wells). All 14 of these wells are limestone wells. Residents outside of the village boundaries and within the airport site boundaries obtain their water from privately drilled wells. The Illinois State Water Survey's Private Well Inventory identified approximately 1,701 private water wells in and around the vicinity of the Will County site in 2000. In anticipation of future growth, the municipalities of University Park, Manteno, Peotone, Crete, and Monee are considering a proposal to augment water supplies by piping water from the Kankakee River. As of March 2001, the project was still in a developmental phase; funding had not been secured.

5.6.6 DISCUSSION OF IMPACTS

5.6.6.1 No-Action Alternative

Under the No-Action Alternative impacts to groundwater would increase with increased residential and commercial growth within the acquisition alternatives as described in [Section 5.3](#), Social Impacts, and [Section 5.4](#), Socioeconomic Impacts, as residents would continue to withdraw water from the aquifer through wells. Groundwater quality of the Wheaton and Silurian dolomite aquifers is a composite of both the natural groundwater quality and human influences associated with urban development and agriculture. Negative human influences may be magnified or minimized, depending on the hydrogeologic conditions of a given area.

Possible features or conditions that have the potential to influence local groundwater quality include:

- Infiltration of fertilizers, herbicides and other agricultural products;
- Underground storage tanks;
- Beecher Landfill;
- Equipment maintenance activities; and
- Well injection (if any).

5.6.6.2 Kankakee Acquisition Alternatives

No land use changes or construction is proposed under this alternative; therefore, no impacts to water resources or water supply would occur. Additionally, no construction of impervious surfaces is proposed; thus, there is no need for the treatment of stormwater.

5.6.6.3 Will County Acquisition Alternatives

No land use changes or construction is proposed under this alternative; therefore, no impacts to water resources or water supply would occur. Additionally, no construction of impervious surfaces is proposed; thus, there is no need for the treatment of stormwater.

5.6.7 MITIGATION

While the No-Action Alternative would increase groundwater use over time and potentially degrade water quality as development continues, the Kankakee and Will County Inaugural and Ultimate Acquisition Alternatives do not propose either land use changes or construction. Therefore, no impacts to water resources or water supply are anticipated under any of the alternatives that warrant mitigation. Therefore, no mitigation will be required to mitigate water quality impacts.

5.6.8 GOVERNOR'S LETTER OF ASSURANCE

The State of Illinois has previously obtained a Governor's Certification of Air and Water Quality in the processing of the 1998 Environmental Assessment. On January 22, 2002, a Governor's Certification of Air and Water Quality was issued for the South Suburban Airport. A copy of the Governor's Certification is provided in [Appendix M](#).

5.7 DOT SECTION 303(c) AND SECTION 6(f) LANDS

5.7.1 OVERVIEW OF IMPACTS

No direct or indirect impacts to DOT Section 303(c), formerly known as Section 4(f), or Section 6(f) properties would occur under any of the alternatives evaluated in this Tier 1 FEIS. The Kankakee Inaugural Acquisition Alternative, the Kankakee Ultimate Acquisition Alternative, the Will County Inaugural Acquisition Alternative, and the Will County Ultimate Acquisition Alternative propose acquisition of property for a potential, future airport site. However, no construction is proposed as a part of any of these alternatives.

The Illinois Department of Natural Resources, the Illinois Nature Preserves Commission, and the Forest Preserve District of Will County are concerned about the effect that secondary and cumulative impacts would have on DOT Section 303(c) lands surrounding the acquisition alternatives. However, both the Illinois Department of Natural Resources and the Illinois Nature Preserves Commission believe that selection of either of the Will County Acquisition Alternatives would be preferable to selection of either of the Kankakee Acquisition Alternatives. The Forest Preserve District of Will County is concerned that “constructive use” of DOT Section 303(c) lands adjacent to the Will County Acquisition Alternatives may occur in the future if an airport is constructed. This issue is discussed in [Section 5.23](#), Cumulative impacts.

5.7.2 METHODOLOGY

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). Refer to [Section 5.8](#), for a discussion on Historic, Architectural, Archaeological, and Cultural Resources. As part of the DOT Section 303(c) evaluation, coordination with the Forest Preserve District of Will County, the USDA Forest Service, the National Park Service, Illinois Department of Natural Resources, the Villages of Beecher, Crete, Manteno, Monee, Peotone, and University Park, and the Illinois Nature Preserves Commission was conducted. Concerns or comments prepared by these agencies can be found in [Appendix B](#).

Airport development can involve direct effects to the resource, in terms of “use,” and/or the “constructive use” of DOT Section 303(c) lands. A “use” of a DOT Section 303(c) property occurs:

- “(i) When land is permanently incorporated into a transportation facility;
- “(ii) When there is a temporary occupancy of land that is adverse in terms of the statute’s preservationist purposes as determined by the criteria; or
- “(iii) When there is a constructive use of land.”

A “constructive use” occurs when the transportation project does not incorporate land from a Section 303(c) resource, but the project’s proximity impacts are so severe that the protected activities, features, or attributes that qualify a resource for protection under Section 303(c) are substantially impaired. Substantial impairment occurs only when the protected activities, features, or attributes of the resource are substantially diminished” (23 CFR 771.135, Federal Highway Administration).

“Constructive use” may include:

- Increased noise impacts resulting from aircraft operations or increased ground traffic;
- Increased air quality impacts;
- Visual and aesthetic impacts;
- Access impacts;
- Secondary development encroachment; and
- Ecological intrusion.

In addition, the increased development on the surrounding area that substantially affects the quality and the intended use of the land is considered.

FAA Order 5050.4A, paragraph 47e(7)(b) states that “When there is no physical taking but there is the possibility of use of or adverse impacts to Section 303(c) land, the FAA must determine if the activity associated with the proposal conflicts with or is compatible with the normal activity associated with this land. The proposed action is compatible if it would not affect the normal activity or aesthetic value of a public park, recreation area, refuge, or historic site. When so construed, the action would not constitute use and would not, therefore, involve Section 303(c) of the DOT Act.”

Lands funded by the Land and Water Conservation Fund Act of 1965 (16 U.S.C. 460I-460I-11) (LAWCON), commonly referred to as Section 6(f), and Federal Aid in Wildlife Restoration Act (16 U.S.C 791a-825r) (Pittman-Robertson) and Federal Aid in Fish Restoration Act (16 U.S.C. 777-777k) (Dingell-Johnson/Wallop-Breaux) funds must also be considered. When proposed improvements affect lands purchased or developed using LAWCON funds, as administered by the U.S. Department of the Interior (DOI), changes in use to other than public outdoor recreation at assisted sites may only be made with the prior approval of the Secretary of the Interior and converted properties must be replaced by substitute properties of at least equal fair market value and of reasonably equivalent location and usefulness.

U.S. Geological Survey (USGS) quadrangle maps were used to initially identify public parks, recreation areas and nature preserves. An on-site field inspection of the DOT Section 303(c) lands was conducted. All potentially affected lands that met the criteria established under DOT Section 303(c) of the DOT Act and Section 6(f) of LAWCON were inventoried.

Coordination with the National Park Service, Midwest Region, in Omaha, Nebraska, the USDA Forest Service and with local jurisdictions, including the Metropolitan Water Reclamation District of Greater Chicago, the Illinois Nature Preserves Commission, and the Forest Preserve District of Will County, was conducted.

Analyses of “constructive uses,” such as noise, air quality, visual and aesthetic changes, access, secondary development, and ecological intrusion, were considered. However, since the proposed action consists of site approval and land acquisition and given that under the state's land acquisition policy, (see [Appendix C](#)), existing land uses would continue and no additional development would occur within the acquisition alternatives constructive use impacts to Section 303(c) and 6(f) properties are unlikely. Therefore, detailed study of these constructive uses is not warranted in this Tier 1 FEIS.

5.7.3 EXISTING CONDITIONS

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.

Information pertaining to historic, cultural, and archeological sites at the acquisition alternatives is presented in [Section 5.8](#), Historic, Architectural, Archaeological and Cultural Resources. A discussion of the Kankakee River, sections of which have been designated as having outstanding recreational values on the Nationwide Rivers Inventory (NRI), is presented in [Section 5.14](#), Wild and Scenic Rivers.

5.7.3.1 Kankakee Acquisition Alternatives

[Table 5.7-1](#) identifies the Section 303(c) lands and their uses within the immediate vicinity of the Kankakee Acquisition Alternatives. [Figure 5.7-1](#) illustrates the location of these lands in relation to the proposed Kankakee site. In addition to those lands listed, which are designated parks, recreation areas, or preserves, the Forest Preserve District of Will County has identified the following lands that have been included in their 1996 Preservation Plan for proposed acquisition. A description of these areas and maps identifying their locations can be found in [Appendix B](#).

- Forsythe Expansion/Forked Creek Preserve
- Forsythe Woods-Forked Creek Preserve/Wauponsee Glacial Trail Link
- Wauponsee Glacial Trail
- Goodwin Grove
- Donahue Grove
- Forked Valley
- Lughton East Buffer
- Ce-Na-Ge-Wine Access, North Buffer
- Graveyard Buffer
- Southwest Buffer
- Huyck’s Grove South Branch Valley
- Wayne Lehnert Expansion
- Joliet to Kankakee Trail/Grand Illinois Trail Spur

The Illinois Nature Preserves Commission has also identified several nature preserves within the vicinity of this site. The Kankakee River Nature Preserve is located within the Kankakee River State Park about 2 miles south of the acquisition boundary of the Ultimate Acquisition Alternative. Grant Creek Prairie Nature Preserve lies west of the Midewin National Tallgrass Prairie, which is located about 3 miles northwest of the ultimate acquisition boundary. Other nature preserves identified by the Illinois Nature Preserves Commission include:

- Braidwood Dunes and Savanna Nature Preserve;
- Sand Ridge Savanna Nature Preserve; and
- Wilmington Scrub Prairie Nature Preserve.

The Illinois Department of Natural Resources (IDNR) has expressed concern regarding the Des Plaines State Fish and Wildlife Area and the Wilmington Shrub Prairie Nature Preserve, managed by the IDNR. Letters and maps from the Illinois Nature Preserves Commission and the IDNR showing the locations of the areas are presented in [Appendix B](#).

The IDNR has also initiated a lodge feasibility study for Kankakee River State Park. Preliminary planning has begun for a 100-room lodge, with a full-service restaurant, meeting rooms, and support facilities.

The Kankakee River State Park has received Land and Water Conservation Act funds since 1992 and Pittman-Robertson funds since 1979; therefore it is protected under Section 6(f). Also protected under the auspices of Section 6(f) are Braidwood Dunes and Savanna Nature Preserve and Midewin National Tallgrass Prairie. None of the lands listed in the table are identified by the National Park Service as Urban Park and Recreation Recovery Act sites, Surplus Federal Property sites or National Natural Landmarks. Refer to [Chapter 5, Section 14](#) for more information on the Kankakee River.

TABLE 5.7-1

EXISTING SECTION 303(C) AND 6(f) LANDS, KANKAKEE ALTERNATIVES

| Section 303(c) Lands | Ownership | Public Uses | Year Established | Size | Avg. Annual Visitors | Federal Funds |
|--|---|---|------------------|--------------|---|--------------------------|
| Des Plaines State Fish and Wildlife Area | Illinois Dept. of Natural Resources | Boating, fishing, camping, hiking, horseback riding, hunting, picnicking | 1948 | 5,012 acres | Over 350,000 | No |
| Forsythe Woods Preserve/ Forked Creek Preserve | Forest Preserve District of Will County | Picnicking, horseshoes, fishing, camping, cross country skiing, bird watching, special use permits | 1974 | 114 acres | 865+ ² | No |
| Laughton Preserve | Forest Preserve District of Will County | Picnicking, fishing, special use permits, bird watching, hiking (development plan not complete) | 1931 | 585 acres | 190+ ² | No |
| Monee Reservoir | Forest Preserve District of Will County | Fishing, boating, hiking, biking, educational programs, picnicking, skating, dog sledding, cross country skiing, special use permits | 1988 | 195 acres | 86,199+ ² | Dingell-Johnson |
| Peotone Park | Peotone Park District | Ballparks, playground | Unknown | 25 acres | 20,000 | No |
| Raccoon Grove Nature Preserve | Forest Preserve District of Will County | Bird watching, hiking, picnicking, educational programs, scientific monitoring and research programs, special use permits, critical habitat | 1937 | 210 acres | Unknown | No |
| Sand Ridge Savanna Nature Preserve | Forest Preserve District of Will County | Special use permits, scientific monitoring and research programs, critical habitat | 1989 | 228 acres | Unknown | No |
| Wauponsee Glacial Trail | Forest Preserve District of Will County | Not open to public yet | 2002 (est.) | Unknown | N/A | ISTEA |
| Wayne Lehnert Preserve | Forest Preserve District of Will County | Special use permits (development plan not started) | 1971 | 80 acres | Unknown | No |
| Wilmington-Shrub Prairie Nature Preserve | Illinois Dept. of Natural Resources | Nature walks, hiking, bird watching | 1989 | 146 acres | Unknown | No |
| Section 6(f) Lands | Ownership | Public Uses | Year Established | Size | Avg. Annual Visitors | Federal Funds |
| Braidwood Dunes and Savanna Nature Preserve | Forest Preserve District of Will County | Special use permits, hiking, bird watching, educational programs, scientific monitoring & research programs, critical habitat | 1980 | 320 acres | Unknown | LAWCON |
| Kankakee River State Park ¹ | Illinois Dept. of Natural Resources | Camping, fishing, horseback riding, canoeing, interpretive programs, nature center, hunting | 1938 | 4,000 acres | >1.5 million | LAWCON Pittman-Robertson |
| Midwin National Tallgrass Prairie | USDA-Forest Service and Illinois Dept. of Natural Resources | Hiking, biking, horseback riding, hunting, picnicking, environmental education | 1996 | 19,000 acres | Currently being prepared for public use | LAWCON |

Source: TAMS, 1997, 2001; Illinois Dept. of Natural Resources, 1997, 2001; Forest Preserve District of Will County, 1997, 2001; and USDA-Forest Service, 1997.

¹ The Illinois Department of Natural Resources' outdoor recreation plan does not address functional classifications for State parks.

² Number does not include casual daily users that do not require a permit or registration.

N/A = Not Applicable

5.7.3.2 Will County Acquisition Alternatives

Table 5.7-2 identifies the Section 303(c) properties, their ownership and their public uses within the immediate vicinity of the Will County Acquisition Alternatives. Figure 5.7-2 identifies the location of the Section 303(c) lands in relation to the proposed Will County Acquisition Alternatives. There are no Section 6(f) lands in the vicinity of the proposed Will County Acquisition Alternatives.

In addition to those lands listed, which are designated parks, recreation areas or preserves, the Forest Preserve District of Will County has identified the following lands that have been included in their Preservation Plan for proposed acquisition. A description of these areas and maps identifying their locations can be found in Appendix B.

- Laughton East Buffer
- Wayne Lehnert Expansion
- Black Walnut Creek Headwaters
- Deer Creek/Thorn Creek Link
- Deer Run
- Exline Slough Expansion of Plum Creek Preserves
- Beecher Marsh
- Buffers of Raccoon Grove and Monee Reservoir
- Expansion of Thorn Creek Preserves

Thorn Creek Woods Nature Preserve, jointly owned by the Villages of Park Forest and University Park, the Forest Preserve District of Will County and the Illinois Department of Natural Resources, is located on 825 acres in Park Forest, north of the proposed Will County Acquisition Alternatives. This preserve has also received funds through Illinois' Open Space Land Acquisition and Development (OSLAD) program.

TABLE 5.7-2

EXISTING SECTION 303(C) LANDS, WILL COUNTY ALTERNATIVES

| 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 + 239 acres of rec. area | 27,811+ ¹ | No |
| Laughton Preserve | Forest Preserve District of Will County | Fishing, bird watching, hiking, picnicking, special use permits | 1931 | 585 acres | 190+ ¹ | 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 Will County | Fishing, picnicking, boating, hiking, biking, special use permits, educational programs, skating, dog sledding, cross country skiing | 1988 | 195 acres | 86,199+ ¹ | 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 miles | 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 | 2600 ¹ | No |
| Plum Valley Preserve | Cook County Forest Preserve | Hiking, bird watching | Unknown | 1,068 acres | Unknown | Unknown |

TABLE 5.7-2 (CONTINUED)

EXISTING SECTION 303(C) LANDS, WILL COUNTY ALTERNATIVES

| Section 303(c) Lands | Ownership | Public Uses | Year Established | Size | Average Annual Visitors | Federal Funds |
|-------------------------------|---|---|-------------------------|-------------|--------------------------------|----------------------|
| | District | | | | | |
| 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+ ¹ | No |
| Sauk Trail Woods | Cook County Forest Preserve District | Hiking, bird watching, biking | Unknown | 246 acres | Unknown | Unknown |
| Thorn Creek Nature Preserve | Forest Preserve District of Will County, Illinois Dept. of Natural Resources, Park Forest, Univ. Park | Hiking, educational programs, educational trails, museum, bird watching, scientific monitoring and research programs | 1974 | 825 acres | 11,158+ ¹ | 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.

¹ Number does not include casual daily users that do not require a permit or registration.

5.7.4 DISCUSSION OF IMPACTS

5.7.4.1 No-Action Alternative

Under the No-Action Alternative, existing and projected development occurring near the Kankakee and Will County Acquisition Alternatives would most likely continue to encroach from the north, supporting a larger and closer population base that would generate more users of these resources. Additional ground traffic caused by growth in the area and rail noise would continue. No direct or significant indirect impacts to Section 303(c) or Section 6(f) properties are anticipated to occur.

5.7.4.2 Kankakee Inaugural Acquisition Alternative

No changes in land use or construction is proposed under this alternative and no impacts to DOT Section 303(c) or DOI 6(f) properties would occur under this alternative. Thus, there would be no direct or indirect impacts to the DOT Section 303(c) or DOI 6(f) properties associated with the Kankakee Inaugural Acquisition Alternative.

Acquisition of land at the Kankakee Inaugural Acquisition site may, however, affect or alter the planned acquisition of additional forest preserves, as identified by the Forest Preserve District of Will County (refer to [Appendix B](#)). However, to date, these lands have only been recommended as additions in the Forest Preserve's Plan and have not been designated or budgeted.

The Illinois Department of Natural Resources (IDNR) and the Illinois Nature Preserves Commission remain concerned about the effects of ancillary development and potential noise impacts of future arriving and departing aircraft on the Kankakee River State Park, Midewin National Tallgrass Prairie, Laughton Preserve, Des Plaines State Fish and Wildlife Area, Wilmington Shrub Prairie Nature Preserve, Braidwood Dunes and Savanna Nature Preserve and Sand Ridge Nature Preserve if this site is selected for future construction of an airport (see [Appendix B](#)). In particular, IDNR believes that an airport at the Kankakee Acquisition Alternatives would have a significant negative impact on the natural resources and recreational uses of the Kankakee River State Park (IDNR, 1997). They also stated in a letter dated September 12, 2000, that "Locating the South Suburban Airport at the Kankakee site would be incompatible with the State's future investment in a lodge at Kankakee River State Park" (see [Appendix B](#)).

Because the proposed acquisition would not interrupt the intended uses or purposes of the DOT Section 303(c) or DOI Section 6(f) properties associated with the Kankakee Inaugural Acquisition Alternative, it has been determined that this action would not cause significant impacts under the definition of "constructive use" to these resources.

5.7.4.3 Kankakee Ultimate Acquisition Alternative

No changes in land use or construction is proposed under this alternative and no impacts to DOT Section 303(c) or DOI 6(f) properties would occur under this alternative. Thus, there would be no direct or indirect impacts to the DOT Section 303(c) or DOI 6(f) properties associated with the Kankakee Ultimate Acquisition Alternative.

Acquisition of land at the Kankakee Ultimate Acquisition site may, however, affect or alter the planned acquisition of additional forest preserves, as identified by the Forest Preserve District of Will County (refer to [Appendix B](#)). However, to date, these lands have only been recommended as additions in the Forest Preserve's Plan and have not been designated or budgeted.

The IDNR and the Illinois Nature Preserves Commission remain concerned about the effects of ancillary development and potential noise impacts of future arriving and departing aircraft on the Kankakee River State Park, Midewin National Tallgrass Prairie, Laughton Preserve, Des Plaines State Fish and Wildlife Area, Wilmington Shrub Prairie Nature Preserve, Braidwood Dunes and Savanna Nature Preserve and Sand Ridge

Nature Preserve if this site is selected for future construction of an airport (see [Appendix B](#)). In particular, IDNR believes that an airport at the Kankakee Acquisition Alternatives would have a significant negative impact on the natural resources and recreational uses of the Kankakee River State Park (IDNR, 1997). They also stated in a letter dated September 12, 2000, that “Locating the South Suburban Airport at the Kankakee site would be incompatible with the State’s future investment in a lodge at Kankakee River State Park” (see [Appendix B](#)).

Because the proposed acquisition would not interrupt the intended uses or purposes of the DOT Section 303(c) or DOI Section 6(f) properties associated with the Kankakee Ultimate Acquisition Alternative, it has been determined that this action would not cause significant impacts under the definition of “constructive use” to these resources.

5.7.4.4 Will County Inaugural Acquisition Alternative

No changes in land use or construction is proposed under this alternative and no impacts to DOT Section 303(c) would occur under this alternative. Thus, there would be no direct or indirect impacts to the DOT Section 303(c) properties associated with the Will County Inaugural Acquisition Alternative. Acquisition of land at the Will County Inaugural Acquisition site may, however, affect or alter the planned acquisition of additional forest preserves, as identified by the Forest Preserve District of Will County (refer to [Appendix B](#)). As previously noted, there are no Section 6(f) properties located in the vicinity of the Will County site. Therefore, there will be no impacts to Section 6(f) properties.

The IDNR, Illinois Nature Preserves Commission, and Forest Preserve District of Will County are concerned about the potential effects a future airport may have on Raccoon Grove Nature Preserve, Monee Reservoir, Goodenow Grove Nature Preserve, and Middle Plum Creek Preserve. However, both the IDNR and the Illinois Nature Preserves Commission agree that impacts of siting an airport at either of the Will County Acquisition Alternatives would be less than those associated with the Kankakee Acquisition Alternatives (see [Appendix B](#)). The Forest Preserve District of Will County believes that if an airport is constructed at this site, “constructive use” of Monee Reservoir and Raccoon Grove Monee Reservoir and Raccoon Grove Nature Preserve may occur in the future (see [Appendix B](#)). Any such constructive uses would be addressed in a potential subsequent environmental documentation.

No temporary or permanent direct impacts are expected, nor any interference with or disruption to the recreational activities occurring at the Monee Reservoir and Raccoon Grove Nature Preserve under this action. Because this action is not expected to interrupt the intended uses or purposes of the DOT Section 303(c) properties associated with the Will County Inaugural Acquisition Alternative, it has been determined that this action would not cause significant impacts under the definition of “constructive use” to these resources.

5.7.4.5 Will County Ultimate Acquisition Alternative

No changes in land use or construction is proposed under this alternative and no impacts to DOT Section 303(c) or Section 6(f) properties would occur under this alternative. Thus, there would be no direct or indirect impacts to the DOT Section 303(c) properties associated with the Will County Ultimate Acquisition Alternative. Acquisition of land at the Will County Ultimate Acquisition site may, however, affect or alter the planned acquisition of additional forest preserves, as identified by the Forest Preserve District of Will County (refer to [Appendix B](#)).

The IDNR, Illinois Nature Preserves Commission, and Forest Preserve District of Will County are concerned about the potential effects a future airport may have on Raccoon Grove Nature Preserve, Monee Reservoir, Goodenow Grove Nature Preserve and Middle Plum Creek Preserve. However, both the IDNR and the Illinois Nature Preserves Commission agree that impacts of siting an airport at either of the Will County Acquisition Alternatives would be less than those associated with the Kankakee Acquisition Alternatives (see [Appendix B](#)). The Forest Preserve District of Will County believes that if an airport is constructed at this site, “constructive use” of Monee Reservoir and Raccoon Grove Monee Reservoir and Raccoon Grove Nature Preserve may occur in the future (see [Appendix B](#)). Any such constructive uses would be addressed in a potential Tier 2 environmental document.

No temporary or permanent direct impacts are expected, nor any interference with or disruption to the recreational activities occurring at the Monee Reservoir and Raccoon Grove Nature Preserve under this action. Because this action is not expected to interrupt the intended uses or purposes of the DOT Section 303(c) or DOI Section 6(f) properties associated with the Will County Ultimate Acquisition Alternative, it has been determined that this action would not cause significant impacts under the definition of “constructive use” to these resources.

5.7.5 MITIGATION

5.7.5.1 Kankakee Acquisition Alternatives

Under the Kankakee Acquisition Alternatives, there would be no direct or indirect impacts to Section 303(c) or Section 6(f) properties, and, therefore, no mitigation would be required.

5.7.5.2 Will County Acquisition Alternatives

Under the Will County Acquisition Alternatives, there would be no direct or indirect impacts to Section 303(c) or Section 6(f) properties, and, therefore, no mitigation would be required.

There are no Section 303(c) or Section 6(f) impacts that would require mitigation. Although access would be maintained, Monee Reservoir, like Raccoon Grove, would be surrounded by IDOT property. To offset this impact, the Sponsor has agreed to acquire an additional 697 acres as a buffer and expansion area to the north, east and south of the existing Raccoon Grove Nature Preserve, which would essentially quadruple its size. The purpose of this mitigation is to protect these resources from impacts resulting from adjacent and surrounding future development.

The Sponsor is also proposing to maintain another 477 acres buffer and expansion area to the north, west and south of Monee Reservoir, more than tripling its effective size (see [Figure 5.7-3](#)). Mitigation measures in the Raccoon Grove expansion area may include the restoration of an oak savanna plant community in the north and the restoration of a prairie community in the south. Similarly, mitigation activities in the Monee Reservoir expansion area may include the planting of native herbaceous prairie species. Details of the mitigation planned in these areas will be worked out with the Forest Preserve District of Will County.

If one of the Will County alternatives is selected, the Forest Preserve District of Will County (FPDWC) is concerned that future aircraft noise over Raccoon Grove Nature Preserve and Monee Reservoir will have an impact on the recreational use of these properties and/or the wildlife utilizing them. They are also concerned that ancillary development induced by the proposed airport could overwhelm their facility. IDOT has agreed to cooperate with the Forest Preserve District in formulating a methodology to determine when and if impacts caused by the airport raise to a level of significance that would require compensation due to “constructive use.” A letter of understanding has been signed by IDOT and the Forest Preserve District of Will County committing IDOT to hold meetings on a regular basis with the FPDWC as the project progresses to evaluate impacts on these properties (see [Appendix B](#)).

An intergovernmental agreement between IDOT and the FPDWC was executed on May 11, 2000. This agreement stated that IDOT and the FPDWC will continue to meet on a periodic basis to discuss the pending purchase or development of land that may be needed for construction of an airport and/or for the mitigation of potential adverse environmental impacts. The agreement also states conditions for reimbursement of funds for any future acquisition of parcels within the proposed Will County Ultimate Acquisition Boundary, if the FPDWC needs to purchase property to protect its existing holdings. The agreement also recognizes that land purchased by IDOT within the Will County Ultimate Acquisition boundary may be utilized by the FPDWC when appropriate.

The Project Sponsor and the FPDWC are currently working on a Memorandum of Agreement (MOA) that will establish the methodology to determine existing uses of Section 303(c) properties adjacent to the Will County Acquisition Alternatives and future mitigation/compensation if “constructive use” of Section 303(c) lands is found to occur due to future airport activities. The agreement is anticipated to include the following items:

- Agreement on category(s) of impacts that are going to be the basis for monitoring and mitigation/compensation.
- Agreement on which existing public uses at which forest preserve facilities are affected by the impact category.
- Agreement on information sharing and monitoring to determine the extent of the affected public uses.
- Agreement on how to establish a baseline of impacts to the affected public uses (the No-Action scenario) so that the increment added by development phases of the airport can be measured.
- Agreement on how to establish the increment, which will trigger mitigation/compensation.

Other concerns of the Forest Preserve District include possible conflicts with the operation of the airport and the management goals and objectives of FPDWC properties. For example, the FPDWC is concerned that prescribed burning at Raccoon Grove Nature Preserve may interfere with the operation of the airport. In conversations with the FAA, they indicated that as long as the prescribed burns were coordinated with the control tower, they would not interfere with airport operations. Another concern of the FPDWC is the possibility that the deer population within Raccoon Grove Nature Preserve and the proposed expansion area might grow beyond the carrying capacity of the preserve. A wildlife management plan will need to be formulated in conjunction with the USDA's Animal Damage Control office, for operation of the airport. IDOT is proposing to include Raccoon Grove Nature Preserve and the proposed expansion areas, as part of this management plan. This plan would be coordinated with FPDWC staff to ensure that their management goals and objectives are met and not compromised.

Any agreement between the Sponsor and the Forest Preserve District regarding potential impacts would not be binding on the FAA and would be subject to later review.

Based on AC 150/5200-33, "Hazardous Wildlife Attractants on or Near Airports," FAA recommends separations when siting any wildlife attractants or when planning new airport development projects to accommodate aircraft movement. The distance between an airport's aircraft movement areas, loading ramps, or aircraft parking areas and the wildlife attractant should be 10,000 feet from airports serving turbine-powered aircraft. It is recognized that the proposed expansion areas may attract wildlife and could pose a hazard to future aircraft. However, the Project Sponsor would coordinate with the USDA, Animal Damage Control office in developing the mitigation to be performed, and develop a wildlife management plan to minimize attractants to wildlife.

5.8 HISTORIC, ARCHITECTURAL, ARCHAEOLOGICAL, AND CULTURAL RESOURCES

5.8.1 OVERVIEW OF IMPACTS

No construction or land use change is proposed as a part of any of the alternatives evaluated in this Tier 1 FEIS and there will be no direct affect on historic properties included in or eligible for inclusion in the National Register of Historic Properties. The FAA has prepared, in consultation with the State Historic Preservation Officer (SHPO), a draft Programmatic Agreement that stipulates the procedures for addressing the potential of future airport construction to affect historic properties (i.e., resources listed in or eligible for listing in the National Register of Historic Places). The FAA has forwarded this draft PA to the Advisory Council for Historic Preservation and has initiated consultation with them. A copy of the draft PA is provided in [Appendix O](#).

5.8.2 METHODOLOGY

Pursuant to the National Historic Preservation Act of 1966, as amended, studies have been conducted for the Kankakee and Will County Acquisition Alternatives. These studies, conducted in cooperation with the Illinois SHPO, were designed to identify the types of historic properties present in the study area. In terms of archaeological resources, these studies included extensive background research on the archaeology of the acquisition alternatives and a Phase I archaeological inventory of the Will County Acquisition Alternatives. The results of the Will County Acquisition Alternatives Phase I survey can be extrapolated to the Kankakee Acquisition Alternatives in terms of archaeological sensitivity and the potential locations of National Register-eligible archaeological resources. The FAA and IDOT used the results of the background research and the Will County Acquisition Alternatives Phase I survey to assess the potential impact of the proposed action on National Register-eligible archaeological resources. No additional archaeological field investigations were conducted, as sufficient data are available to assess the impacts of the proposed acquisition alternatives discussed in the Tier 1 FEIS.

The FAA and IDOT also conducted a historic architectural assessment and survey of the acquisition alternatives. The Illinois SHPO reviewed the results of this study and recommended further study of particular architectural building types.

Historic records indicate that a portion of the acquisition alternatives was settled briefly by the Potawatomi tribe. Coordination with bands of the Potawatomi tribe with ancestral claims in this area has been completed. The bands of the Potawatomi tribe provided no comments on the proposed actions associated with the Tier 1 FEIS.

The FAA and IDOT consulted with the Illinois SHPO that, given the nature of the current undertaking, the above methodology is a reasonable and good faith effort to evaluate the effects of the undertaking on potential National Register-eligible archaeological and historic architectural resources. The Illinois SHPO concurred with this methodology (see letter in [Appendix B](#)). In addition, the FAA and IDOT consulted with the SHPO and the FAA has initiated consultation with the Advisory Council on Historic Preservation (ACHP) concerning the manner in which future archaeological and historic architectural considerations

would be addressed when an airport is actually proposed for construction within an FAA approved site. The procedures for addressing future archaeological and historic architectural considerations have been stipulated in a draft Programmatic Agreement among the project's consulting parties, pursuant to 36 CFR 800.14(b) (see [Section 5.23.8](#)).

5.8.3 EXISTING CONDITIONS

Since the proposed acquisition alternatives are in proximity, share natural landforms, and have similar cultural histories, these areas have been, for cultural resource purposes, combined into a single study area. Pedestrian archaeological and architectural surveys have been undertaken by professional personnel from the University of Illinois - Urbana/Champaign, under contract to the IDOT, in the nearly 49,000+ acres of the project study area. On-site visits have been made by Illinois SHPO staff. Results of these studies have been reviewed by the Illinois SHPO and their recommendations have been applied to the findings outlined herein.

Surveys conducted within the study area have yielded evidence of settlement during the Early Holocene Period, beginning 10,000 years ago. During this time, the relatively flat to slightly rolling landscape was blanketed by a temperate forest consisting largely of elm, ash, oak, and hickory. Mobile residential campsites of hunter-gatherers were established on high ground near streams, and hunting stations were used in areas near wetlands and in marginal zones near stream divides. As the climate became warmer and more arid, beginning 8,000 years ago, prairies expanded as forested areas declined. After the Middle Holocene period, the study area consisted largely of open prairie broken by ribbons of forested streams.

Prehistoric settlement of Late Holocene (modern climates and vegetation, beginning around 5,000 years ago) Illinois upland prairies, like those found in the study area, were used by small mobile work parties in hunting and gathering activities. Villages and large residential base camps were established in the Illinois River valley to the west of the project area. Therefore, based on extensive prior archaeological studies in the former prairies of northern Illinois, a model of prehistoric settlement was formulated and field-tested for this project.

The testing and application of this model for prehistoric settlement was based on the basic division of the study area into zones of high and low probability for finding archaeological sites. The Illinois SHPO, in cooperation with the Illinois State Museum, has established criteria for high probability zones for archaeological sites based upon such variables as distance from streams, stream size, and the association of particular soil types (this system has been codified in 20 ILCS 3420/4j and is applied to all cultural resource surveys statewide). These data have been digitized in a geographical information system (GIS) format and served as the basis for the on-ground survey.

Over 16,000 acres of the study area have been surveyed to date (this excludes areas which were disturbed, wetlands, and properties where access was denied). Prehistoric site density varies from 2 sites per 100 acres in high probability zones to 1 site per 400 acres in low probability zones. The acquisition alternatives each contain similar areas of high probability - 8,000 acres for the Will County Acquisition Alternatives and 7,500 acres for the Kankakee Acquisition Alternatives.

Of over 500 prehistoric sites recorded during the survey, 80 percent are small scatters of lithic materials without diagnostic artifacts and are not significant. The remaining sites consist largely of more intensive lithic scatters with diagnostic artifacts, most commonly Early Holocene projectile points. These survey data confirm the results of the prehistoric settlement model for upland prairie: the sites found are the remains of short-term campsites used seasonally by groups of mobile hunter-gathers or horticulturists during forays out of the major river valleys to the west and north. Previous investigations of such sites in former prairie uplands indicate that the likelihood of intact subsurface deposits is small and artifacts are generally confined to the disturbed plowzone. No prehistoric mounds or cemeteries are located in the study area. All of the sites which merit further evaluation may be eligible for listing on the National Register of Historic Places due to the data that they may yield concerning prehistoric life-ways in the region as stated in National Register Criteria D, "the potential to provide important information in prehistory and/or history."

The wet prairies of this region were settled by Euro-Americans in the late 19th century. The economy of the region is overwhelmingly agrarian and the architecture recorded during the inventory reflects this observation. There are no historic properties in either the Kankakee or Will County Acquisition Alternatives currently listed in the National Register of Historic Places. Of the nearly 1,000 buildings identified during the surveys, the majority consists of common farmhouses and related outbuildings. The Kankakee and Will County Acquisition Alternatives each has two small- to medium-size 19th and 20th century Euro-American cemeteries.

5.8.4 DISCUSSION OF IMPACTS

5.8.4.1 No-Action Alternative

The No-Action Alternative does not propose site approval or the construction of any airport facilities. No impacts to historic properties would occur under this alternative.

5.8.4.2 Kankakee Inaugural Acquisition Alternative

The Kankakee Inaugural Acquisition proposes to acquire approximately 4,200 acres of land for a potential, future, initial airport development site. No construction or land use change is proposed as a part of any of the alternatives evaluated in this Tier 1 FEIS and there will be no direct affect on historic properties included in or eligible for inclusion in the National Register of Historic Properties. The FAA has prepared, in consultation with the SHPO, a draft Programmatic Agreement that stipulates the procedures for addressing the potential of future airport construction to affect historic properties (i.e., resources listed in or eligible for listing in the National Register of Historic Places). The FAA has forwarded this draft PA to the Advisory Council for Historic Preservation and has initiated consultation with them. A copy of the draft PA is provided in [Appendix O](#).

5.8.4.3 Kankakee Ultimate Acquisition Alternative

The Kankakee Ultimate Acquisition Alternative proposes to acquire approximately 24,500 acres of land for potential, future, ultimate airport development site. No construction or land use change is proposed as a

part of any of the alternatives evaluated in this Tier 1 FEIS and there will be no direct affect on historic properties included in or eligible for inclusion in the National Register of Historic Properties. The FAA has prepared, in consultation with the SHPO, a draft Programmatic Agreement that stipulates the procedures for addressing the potential of future airport construction to affect historic properties (i.e., resources listed in or eligible for listing in the National Register of Historic Places). The FAA has forwarded this draft PA to the Advisory Council for Historic Preservation and has initiated consultation with them. A copy of the draft PA is provided in [Appendix O](#).

5.8.4.4 *Will County Inaugural Acquisition Alternative*

The Will Country Inaugural Acquisition Alternative proposes to acquire approximately 4,000 acres of land for a potential, future, initial airport development site. No construction or land use change is proposed as a part of any of the alternatives evaluated in this Tier 1 FEIS and there will be no direct affect on historic properties included in or eligible for inclusion in the National Register of Historic Properties. The FAA has prepared, in consultation with the SHPO, a draft Programmatic Agreement that stipulates the procedures for addressing the potential of future airport construction to affect historic properties (i.e., resources listed in or eligible for listing in the National Register of Historic Places). The FAA has forwarded this draft PA to the Advisory Council for Historic Preservation and has initiated consultation with them. A copy of the draft PA is provided in [Appendix O](#).

5.8.4.5 *Will County Ultimate Acquisition Alternative*

The Will Country Ultimate Acquisition Alternative proposes to acquire approximately 23,500 acres of land for potential, ultimate airport development site. No construction or land use change is proposed as a part of any of the alternatives evaluated in this Tier 1 FEIS and there will be no direct affect on historic properties included in or eligible for inclusion in the National Register of Historic Properties. The FAA has prepared, in consultation with the SHPO, a draft Programmatic Agreement that stipulates the procedures for addressing the potential of future airport construction to affect historic properties (i.e., resources listed in or eligible for listing in the National Register of Historic Places). The FAA has forwarded this draft PA to the Advisory Council for Historic Preservation and has initiated consultation with them. A copy of the draft PA is provided in [Appendix O](#).

5.8.5 *MITIGATION*

The Programmatic Agreement developed among the project's consulting parties stipulates the procedures for resolving any adverse effects on historic properties that may result from the future construction of an airport within any of the acquisition alternatives. These procedures describe measures that avoid, minimize, or mitigate any adverse effects on historic properties.

5.9 BIOTIC COMMUNITIES

5.9.1 OVERVIEW OF IMPACTS

No changes in land use or construction would occur with the implementation of any of the alternatives evaluated in this Tier 1 FEIS; therefore, no loss or change in habitat would result from either the No-Action Alternative or the Kankakee and Will County Acquisition Alternatives.

The Illinois Department of Natural Resources (IDNR) and the Illinois Nature Preserves Commission (INPC) have expressed concern about the potential cumulative impacts to the biological resources of the Kankakee River, Kankakee River State Park, Midewin National Tallgrass Prairie, Braidwood Dunes and Savannah Nature Preserve, Sand Ridge Savannah Nature Preserve, and Wilmington Shrub Prairie with respect to Kankakee Acquisition Alternatives and the Raccoon Grove Nature Preserve, Goodenow Grove Nature Preserve and other natural areas with respect to the Will County Acquisition Alternatives. Both IDNR and INPC have indicated that approval of either of the Will County Alternatives is preferred over the Kankakee Alternatives (see [Appendix B](#)).

5.9.2 METHODOLOGY

In January 1993, the President's Council on Environmental Quality, in conjunction with the U.S. Environmental Protection Agency (USEPA), published guidelines for incorporating biodiversity considerations into environmental impact analysis under NEPA. Conservation of biological diversity is a national goal and its loss is recognized as a national concern. Biodiversity is defined as "the variety and variability of life" or "the diversity of genes, species, and ecosystems." Reduction of diversity at any level will have effects at other levels (CEQ, 1993).

A full biological inventory of the proposed acquisition alternatives was conducted from March 1990 to September 1991. The areas investigated, each encompassing over 40,000 acres, including the "Kankakee Search Area" and the "Peotone Search Area" (the Will County site), were much larger than the current proposed acquisition boundaries. The large size of the search areas allowed for the identification of known sensitive or unique natural areas on a regional basis; it also enabled some analysis of indirect or induced impacts.

Detailed field sampling provided the information to compile species lists and relative abundance of plants, mammals, birds, reptiles, amphibians, fish, and benthic macroinvertebrates. A review of the literature and discussions with resource agencies and experts provided historical information. See *Technical Paper No. 7, Biotic Communities, Appendix E, Volume II of the I-IRAP Site Selection Report-Abstract* for a detailed discussion and complete species lists for the Kankakee and Will County Acquisition Alternatives. [Appendix F](#) contains additional resource information on the Will County Acquisition Alternatives, gathered since 1992.

Three primary sampling stations, each covering 2.6 square kilometers (one square mile), were established at the Kankakee Acquisition Alternatives and at the Will County (Peotone) Acquisition Alternatives in 1990.

An effort was made to include all or most of the major plant communities present in the search areas within the boundaries of the sampling stations. Higher quality natural areas occurring in the area were included in the sampling stations, along with representative samples of disturbed communities.

These sampling stations were utilized for plant, mammal, bird, reptile, and amphibian data collection throughout the site selection study. Supplemental data were gathered at numerous other locations on a less regular basis.

5.9.3 EXISTING CONDITIONS

Existing biotic communities described include habitat and vegetation, floristic quality, and terrestrial and aquatic biota.

5.9.3.1 Landscape Setting

Kankakee Acquisition Alternative

The Kankakee Acquisition Alternatives are located entirely within the Grand Prairie Section of the Grand Prairie Natural Division (Swink and Wilhelm, 1994). The northern part of the acquisition alternatives include low, gently rolling moraine and ground moraine, while the remainder is on nearly level lacustrine deposits associated with glacial Lake Waubesa. Small, localized dolomite exposures are present along parts of Forked Creek within the acquisition boundaries, and are more common to the south along the Kankakee River and Rock Creek. Aeolian sand deposits are present just southwest of the acquisition alternatives. Soils within the acquisition alternatives are predominantly silt, silty clay, and silty clay loam. Most of the area was originally tallgrass prairie, with small and isolated oak groves in locations sheltered from fire. Huyck's Grove, in the northeastern part of the Kankakee Ultimate Acquisition site, is perhaps the best remaining example of a bur oak grove within the acquisition boundary. Almost all of the acquisition alternatives are in agricultural production today.

Will County Alternatives

The Will County Acquisition Alternatives are located entirely within the Western Morainal Section of the Morainal Natural Division (Swink and Wilhelm, 1994). They are characterized by rolling topography associated with end moraines deposited by Wisconsinan glaciers. 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 (Swink and Wilhelm, 1994). In the project area, oak groves were once present north and northwest of the acquisition alternatives, 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 today.

5.9.3.2 Habitat and Vegetation

The overall objectives of the vegetation assessment included: 1) the production of cover type maps using aerial photography and field verification; 2) characterization of the plant communities present; 3) inventory of

plant species at representative sampling stations within the site; and 4) evaluation of the relative natural area quality of the stations using a numerical rating system.

An initial land use and vegetation cover type survey was conducted during the HRAP Site Selection Study, based on topographic maps and 1990 aerial photography. Maps were produced by delineating cover types of land use or natural communities. Field inventories of vegetation emphasized woodland, prairie, savanna and wetland community types, plus selected cultural and urban community classes.

In the HRAP Site Selection Study cultural and natural land uses were mapped separately, using a slightly modified version of the Illinois Natural Areas Inventory community classification (White, 1978) for the undeveloped parts of the acquisition alternatives. At the request of the Illinois Department of Natural Resources, Division of Natural Heritage, all cover type mapping has been combined for this report, using a standardized land use and land cover classification (Anderson et al., 1976). This classification system is hierarchical, using standardized Level I and Level II categories and a Level III classification designed to address specific project conditions.

Kankakee Acquisition Alternatives

The land use and land cover map for the Kankakee Alternatives, presented in [Figure 5.9-1](#), was updated from the HRAP Site Selection Study mapping through interpretation of 1990 aerial photography, additional ground truthing in 1997 and 2000 and the merging of National Wetland Inventory (NWI) jurisdictional wetlands data.

The most important changes in the study area since cover typing was performed for the HRAP Site Selection Study involved the treatment of jurisdictional wetlands. The 1991 study used community classifications such as marsh, pond, etc., based strictly on photo interpretation. The present mapping relies on National Wetland Inventory (NWI) classifications and uses NWI wetland boundaries. [Table 5.9-1](#) summarizes the area for each of the land uses and land cover classes identified within the boundaries of the Kankakee Acquisition Alternatives.

Will County Acquisition Alternatives

The land use and land cover map for the Will County Alternatives, presented in [Figure 5.9-2](#), was generated through interpretation of 1mm=20m black-and-white aerial photography flown on April 4, 1994, and larger scale stereo photopairs flown on May 6, 1993. Limited ground-truthing was conducted during the spring of 1995, mostly to differentiate fallow fields and recently planted tree plantations from successional fields. Additional ground truthing was conducted in 2000 to identify changes in land use and land cover since 1995.

The land use and land cover map for the Will County Alternatives used photo and field-determined wetland boundaries. [Table 5.9-2](#) summarizes the area for each of the land uses and land cover classes identified within the boundaries of the Will County Acquisition Alternatives.

**TABLE 5.9-1
LAND USE AND LAND COVER SUMMARY -KANKAKEE ALTERNATIVES**

| Land Use Classification | Inaugural Acquisition Alternative | | Ultimate Acquisition Alternative | |
|----------------------------------|-----------------------------------|-----------------|----------------------------------|-----------------|
| | Acres | Percent of Area | Acres | Percent of Area |
| Institutional | 0 | 0 | 2.5 | 0.01% |
| Residential or Farm | 100 | 2.4% | 756 | 3.1% |
| Commercial | 0 | 0 | 25 | 0.1% |
| Highways, Roads and Railroads | 154 | 3.6% | 544 | 2.2% |
| Cropland | 3758 | 88.6% | 21,965 | 89.5% |
| Fallow Cropland | 8 | 0.2% | 49 | 0.2% |
| Pasture | 42 | 1.0% | 331 | 1.4% |
| Hedgerow | 0.5 | 0.01% | 17 | 0.07% |
| Herbaceous Successional Field | 79 | 1.9% | 198 | 0.8% |
| Shrub Successional Field | 41 | 1.0% | 124 | 0.5% |
| Deciduous Woodland | 0 | 0 | 114 | 0.5% |
| Palustrine Forested Wetland | 26 | 0.6% | 190 | 0.8% |
| Palustrine Scrub-Shrub Wetland | 3 | 0.06% | 22 | 0.09% |
| Palustrine Emergent Wetland | 17 | 0.4% | 79 | 0.3% |
| Palustrine Unconsolidated Bottom | 0 | 0 | 0.5 | 0.00% |
| Palustrine Open Water | 0 | 0 | 2 | 0.01% |
| Sod Farm | 0 | 0 | 72 | 0.3% |
| Young Tree Plantation | 0 | 0 | 5 | 0.02% |
| Wetland Complex | 11 | 0.2% | 25 | 0.1% |
| Totals | 4,240 | 100% | 24,521 | 100% |

Source: TAMS, 2000

Note: Numbers may not add exactly due to rounding.

**TABLE 5.9-2
LAND USE AND LAND COVER SUMMARY - WILL COUNTY ALTERNATIVES**

| Land Use Classification | Inaugural Acquisition Alternative | | Ultimate Acquisition Alternative | |
|--------------------------------|-----------------------------------|-----------------|----------------------------------|-----------------|
| | Acres | Percent of Area | Acres | Percent of Area |
| Residential or Farm | 232 | 6.0% | 1,901 | 8.1% |
| Abandoned/Vacant | 5 | 0.1% | 24 | 0.1% |
| Commercial | 17 | 0.4% | 42 | 0.2% |
| Institutional | 0 | 0 | 4 | 0.0% |
| Airports | 22 | 0.6% | 23 | 0.1% |
| Highways, Roads and Railroads | 99 | 2.5% | 652 | 2.8% |
| Cropland | 2,552 | 65.7% | 15,844 | 67.4% |
| Fallow Cropland | 54 | 1.4% | 660 | 2.8% |
| Pasture | 18 | 0.5% | 431 | 1.8% |
| Young Tree Plantation | 477 | 12.3% | 768 | 3.3% |
| Hedgerow | 27 | 0.7% | 207 | 0.9% |
| Sod Farm | 0 | 0 | 286 | 1.2% |
| Prairie | 0 | 0 | 62 | 0.3% |
| Herbaceous Successional Field | 188 | 4.8% | 1,432 | 6.1% |
| Shrub Successional Field | 10 | 0.2% | 51 | 0.2% |
| Deciduous Woodland | 54 | 1.4% | 457 | 1.9% |
| Evergreen Plantation | 7 | 0.2% | 100 | 0.4% |
| Creek | 15 | 0.4% | 75 | 0.3% |
| Palustrine Forested Wetland | 2.5 | 0.1% | 38 | 0.2% |
| Palustrine Scrub-Shrub Wetland | 0.5 | 0.0% | 4 | 0.0% |
| Palustrine Emergent Wetland | 84 | 2.2% | 317 | 1.4% |
| Palustrine Open Water | 12 | 0.3% | 36 | 0.2% |
| Wetland Complex | 7 | 0.2% | 78 | 0.3% |
| Totals | 3,883 | 100% | 23,492 | 100% |

Source: TAMS, 2000

Note: Numbers may not add exactly due to rounding.

5.9.3.3 Floristic Quality Assessment

During the HRAP Site Selection Study, detailed vegetation studies were conducted at all of the permanent sample stations and at several additional locations of potentially significant natural areas. Data gathered were used to verify the accuracy of the cover type maps, to help characterize the various natural community types, and to evaluate the quality of specific natural areas.

The Floristic Quality Assessment methodology (Swink and Wilhelm, 1994) enables an evaluation of the relative health, quality or significance of a site when compared with other natural areas within the greater Chicago region. Swink and Wilhelm (1979) and Wilhelm and Ladd (1988) referred to this assessment system as the Natural Area Rating Index. The methodology is now referred to as a Floristic Quality Assessment because natural areas can also be evaluated based upon natural features and biota other than vegetation. This methodology, and similar earlier versions, has been used extensively in the greater Chicago region for evaluating natural quality and environmental integrity based on the flora of an area. The methodology is described and documented by Swink and Wilhelm (1994), Wilhelm (1977, 1978, 1990, 1991) and Wilhelm and Ladd (1988).

The Floristic Quality Assessment method is based on the relative conservatism of each species in the greater Chicago region flora. Conservatism pertains to a plant's preference for a specific habitat. The basic tool of the method is an evaluation checklist of the plants of the greater Chicago region. Each native species on the checklist has been given a coefficient of conservatism (*C value*), ranging from 0 - 10 (with 10 representing most conservative). The floristic quality of an area is reflected by its richness in conservative species. The system enables the calculation of a Native Floristic Quality Index (Native FQI) value. The Native FQI is derived by multiplying the average of the *C values* by the square root of the total number of native species found during a botanical inventory of a site. Areas with Native FQI values higher than 35 possess sufficient conservatism and richness to be of significance from a regional perspective. Areas registering in the 50's and higher are extremely rare and are of paramount importance; they represent less than 0.5 percent of the land in the greater Chicago region (Swink and Wilhelm, 1994).

Much of the remaining vegetated land in the greater Chicago region bears little resemblance to presettlement 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 these sample areas is low, with Native FQI values less than 20. Land cover classes containing plant communities such as fallow cropland, pasture, and herbaceous successional field, as described in this study, often rate in the 0-20 range. Such areas are essentially of no natural area significance from a floristic quality perspective, and are replaceable (Wilhelm and Ladd, 1988). In contrast, the few remnants of pre-settlement natural communities in the region often rate quite high from a floristic quality perspective. These tracts have significant components of floristic conservatism and can be separated out from the more degraded areas using the Floristic Quality Assessment method.

5.9.3.4 Conservation Reserve Program

The Conservation Reserve Program (CRP) is a program originally authorized by the Food Security Act of 1985 to set aside farmland to reduce erosion and provide habitat for wildlife. It is administered by the U.S. Department of Agriculture's Commodity Credit Corporation (CCC) through the Farm Service Agency (FSA), and program technical assistance is provided by the Natural Resources Conservation Service (NRCS).

The CRP encourages farmers to voluntarily plant permanent areas of grass and trees on land that needs protection from erosion, to act as windbreaks, or in places where vegetation can improve water quality or provide food and habitat for wildlife. The CRP also encourages farmers to return wetlands now being farmed to their natural state.

Eligible farmers are either land owners or operators that have owned or leased the acreage for at least one year. Farmers enter into contracts with the CCC for 10 to 15 years. In return, they receive annual rental payments, and cost-share assistance to establish the protective vegetation.

There are two types of programs, a Scheduled Sign-up and a Continuous Sign-up. The Scheduled Sign-up is an annual national competition, which specifically targets highly erodible land (HEL) as determined by NRCS criteria. Applications are ranked by using an Environmental Benefits Index (EBI) which gives certain points for specific practices such as planting trees and grasses, providing wildlife habitat, wetland restoration, and for certain landscape conditions such as proximity to a water source or presence of endangered or threatened species. All applications with points above the cut off are accepted.

The purpose of the Continuous Sign-up program is to provide management flexibility to farmers and ranchers who implement certain conservation practices on their cropland. In previous years, a landowner could only apply to participate in the CRP during announced sign-up periods. Since September 1996, however, owners have been able to sign up for the program any time for certain high-priority conservation practices. If it is found that the practice is feasible, the applicant is accepted into the program.

The following are eligible practices and the length of contracts:

- Filter Strips 10 to 15 years
- Riparian Buffers 10 to 15 years
- Field Windbreaks 10 to 15 years
- Grass Waterways 10 years
- Shallow Water Areas for Wildlife 10 years
- Contour Strips 10 years
- Riparian Buffers 10 to 15 years
- Cross-Wind Trap Strip 10 years

5.9.3.5 Illinois Forestry Development Act

The Illinois Forestry Development Act (525 ILCS 15/5) was established in September 1983 to provide monetary assistance and technical support for reforestation practices throughout the state through the Illinois Department of Natural Resources (IDNR), Division of Forest Resources. Participants in the program agree to follow an approved forestry management plan for their property, and to pay back all cost-share funds received over the previous ten years if the land use is changed or if the land is sold and the subsequent owner does not follow the provisions of the management plan.

Kankakee Acquisition Alternatives

Almost all of the land within the Kankakee Alternatives was prairie in presettlement times, with a few small and isolated oak groves. No remnants of high quality natural land are known to exist within the site boundaries. One oak grove, called Huyck's Grove by local residents, is located at the northeastern corner of the Kankakee Ultimate Acquisition boundary. It retains numerous large bur oaks, but has been heavily impacted by grazing and other human activities over the years (Figure 5.9-1). The site is presently of relatively low natural quality but does have some long-term restoration potential with a native FQI of 18.8. Another woodland grove is located along Forked Creek at the southwestern edge of the alternatives.

As described in Section 5.15, Farmland, current land use is overwhelmingly agricultural with more than 90 percent of the acquisition alternatives in cropland. Other important land uses include residential (mostly farm residences and associated structures) and pasture (Table 5.9-1). As of early 1998, no land within the Kankakee Acquisition Alternatives was enrolled in either the CRP or the IDNR reforestation program (NRCS, 1998a, 1998b; IDNR, 1998).

Areas of high natural quality do exist within the nearby Kankakee River State Park, and at several slightly more distant Nature Preserves, including Braidwood Dune and Savanna Nature Preserve, Sand Ridge Savanna Nature Preserve, and Wilmington Scrub Prairie Nature Preserve. Midewin National Tallgrass Prairie, located northwest of the Kankakee Acquisition Alternatives, also includes remnant natural areas.

Will County Acquisition Alternatives

Most of the land within the Will County Acquisition Alternatives was prairie in presettlement time, with scattered oak groves in the northern portion. Only two small prairie remnants are known to exist within the proposed project area (Figure 5.9-2). These remnants consist of a small prairie along the Illinois Central Gulf railroad tracks south of the Village of Peotone, and the "Beecher Prairie" located south of Church Road and west of Ashland Avenue within the southeast corner of the Ultimate Will County site. As described in Section 5.15, Farmland, land use within the proposed airport acquisition alternatives is predominantly agricultural (Table 5.9-2). Cropland and developed areas (farms, single family residences, roads, etc.) comprise 76 percent of the coverage within the proposed acquisition boundaries. Additional land cover classes include fallow cropland and young tree plantation, as described earlier.

Based on figures provided by the Will County NRCS, in 2000 there were 963 acres in the CRP under the Scheduled Sign-up program and 18 acres under the Continuous Sign-up program. In the Scheduled Sign-up

Program, 65 acres were being utilized for wildlife habitat, 320 acres are planted in grasses and 578 acres were planted in trees. In the Continuous Sign-up Program, 4.6 acres are grassed waterways and 13.4 acres are filter strips.

Of the Scheduled Sign-up acreage currently under contract, 18 acres will expire in 2001, 260 acres in 2002, 355 acres in 2007, 116.5 acres in 2008, 123 acres in 2009, 4.5 acres in 2010, and 86 acres in 2014. Under the Continuous Sign-up program, 4.5 acres will expire in 2007, 9 acres in 2010 and 4.6 acres expires in 2014. New acreage is added each year in both programs. (NRCS, 2000).

Within the boundaries of the Will County Acquisition Alternatives, the IDNR has provided a total of \$62,028 to 14 landowners for forest tree plantings on 786 acres, which includes the 686 acres of tree plantings enrolled under the CRP's Continuous Sign-up Program (IDNR, 1998a - see [Appendix B](#) for correspondence).

Beecher Marsh and the headwaters of Exline Slough, located in the southeast corner of the Will County Ultimate Acquisition Alternative, includes a prairie remnant and wetland complex. This area was one of the sampling stations during the IIRAP Site Selection Study. The Native FQI for the prairie, sedge meadow and successional field portions of the sampling station is 40. Thus, this prairie remnant and associated sedge meadow and successional field is of sufficient floristic quality to be considered regionally significant, containing characteristics of a presettlement prairie community.

Raccoon Grove Nature Preserve is owned and managed by the Forest Preserve District of Will County. Portions of Raccoon Grove received Illinois Nature Preserve status in 1988. Raccoon Grove would not be acquired, but under the Ultimate Acquisition Alternative would be buffered by management areas (see [Section 5.7](#), Section 303(c) Lands, for a discussion of potential impacts to this property). Existing roads into Raccoon Grove Nature Preserve and the adjacent Monee Reservoir would remain open, and site access would be maintained. With a Native FQI of 68, Raccoon Grove is the highest quality natural area within the vicinity of the Will County Alternatives and can be considered of paramount regional importance. Extensive vegetation inventories have been conducted by the Forest Preserve District of Will County (Strucinski, 1986; Forest Preserve District of Will County, 1988). Also, portions of Goodenow Grove Preserve, located east of the Ultimate Acquisition Boundaries, have been designated as an Illinois Nature Preserve. A Floristic Quality Assessment of delineated wetlands was performed during the 1995 wetland delineation of the Will County Acquisition Alternatives (see [Section 5.11](#), Wetlands, for a discussion of these results).

5.9.3.6 Terrestrial Biota

Mammals

Mammals were thoroughly inventoried at each of the terrestrial sampling stations. These locations included representative examples of most habitat types present within the study areas. Small mammals were sampled with baited snap traps and Sherman traps, and with pitfall traps. Larger mammals were noted through observation of animals or their tracks or other sign, with a limited amount of live trapping.

There are relatively few literature and museum records of mammals available on the acquisition alternatives. Available distribution records are summarized by Hoffmeister (1989). All species reported for the study area still occur there, but the range of a few species may have slightly changed.

Kankakee Acquisition Alternatives

Twenty-five species of mammals are known from the Kankakee Acquisition Alternatives and surrounding areas, the highest species richness of any search area examined in the IIRAP Site Selection Study. Some of these are restricted to the Kankakee River State Park, but 13 species are known to occur within the updated acquisition boundaries and others are likely present. The nearby State Park provides a refuge for more mobile mammals, which may range into surrounding cropland to forage. Two unusual species are present near the Kankakee Acquisition Alternatives. The red squirrel (*Tamiasciurus hudsonicus*), known from only a few Illinois localities, is often seen in the State Park and is present along Rock Creek at least as far north as the Deselm Road bridge, about 1.5 miles south of the Ultimate Acquisition Boundary.

The long-tailed weasel (*Mustela frenata*) was observed at two Kankakee sample stations, both within the acquisition boundaries. Most of the Kankakee Acquisition Alternatives consist of former grassland converted to agricultural use. Common mammals include thirteen-lined ground squirrels (*Spermophilus tridecemlineatus*), often seen along grassy roadsides, deer mice (*Peromyscus maniculatus*), and striped skunks (*Mephitis mephitis*). Where grassy fields persist along stream corridors, eastern cottontails (*Sylvilagus floridanus*) and meadow voles (*Microtus pennsylvanicus*) are common. Huyck's Grove, one of the few oak groves within the Ultimate Acquisition Boundary, supports populations of masked shrews (*Sorex cinereus*), short-tailed shrews (*Blarina brevicauda*) and white-footed mice (*Peromyscus leucopus*). The same species are often present in fields invaded by successional shrubs.

Will County Acquisition Alternatives

Nearly all of the mammals trapped or observed during this study were common species or edge species tolerant of habitat modification. A total of 21 mammals are known to occur within the Will County Acquisition Alternatives. Most are common and widespread in the region. The prairie vole (*Microtus ochrogaster*), pine vole (*Microtus pinetorum*), and meadow jumping mouse (*Zapus hudsonius*), are relatively uncommon in the study area, but all are common in other parts of Illinois and Indiana. Each is known from single specimens collected in the area.

Most of the Will County study area 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 boundaries of the acquisition alternatives. 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 acquisition alternatives, but have not yet over-populated the area. Only deer mice were trapped in active cropland, although thirteen-lined ground squirrels were commonly observed on adjacent grassy roadside strips.

Birds

Birds were monitored at the sampling stations established during the HRAP Site Selection Study over a period of 16 months. A transect was established at each station incorporating all covertypes occurring at that station. Transects ranged between 0.5 and 2 miles long depending on the availability of habitat. A biologist walked each transect once a month, alternating between morning and evening time periods. A time allotment of up to four hours was allowed for each transect each month.

In addition to the established transects, random surveys were conducted to develop a census of habitat classifications not occurring at the sampling stations; to confirm sightings of threatened and endangered species; to document unusual occurrences of species; and to confirm breeding species within the area. The same information recorded for transects was recorded for each random observation. The main objectives of bird monitoring were to determine which birds were present at the acquisition alternatives throughout the year, which species were breeding, and the habitats utilized by the birds. The birds were divided into four avian groups: waterbirds, nonpasserine land birds, open country passerines and woodland passerines (passerines are perching birds). These groups are generally composed of the following birds:

- Waterbirds - loons, grebes, cormorants, swans, geese, ducks, mergansers, coots, gallinules, gulls, terns, herons, bitterns, cranes, rails, plovers, sandpipers, snipe and phalaropes;
- Nonpasserine Land Birds - pheasants, quail, partridges, eagles, hawks, ospreys, vultures, falcons, owls, pigeons, doves, cuckoos, nightjars, hummingbirds, kingfishers, woodpeckers and swifts;
- Open Country Passerines - larks, pipits, swallows, crows, mimic thrushes, starlings, weavers, buntings and sparrows;
- Woodland Passerines - jays, titmice, chickadees, nuthatches, creepers, wrens, vireos, wood warblers, and tanagers.

Kankakee Acquisition Alternatives

Approximately 10,000 individual birds representing 137 species were observed within the Kankakee site search area in 1991 (TAMS, 1991s). Open country passerines comprised the largest avian group in terms of numbers with 53 percent of the individuals observed. The second largest group of individuals was woodland passerines with 32 percent. This group also had the highest percentage of species (44.5 percent), followed by the open country passerines (30 percent). Thirty-one avian species were confirmed to be breeding and another 34 species were observed to be probably breeding within the Kankakee search area.

Will County Acquisition Alternatives

Over 15,000 individual birds from 156 species were observed within and around the acquisition alternatives during the 16-month HRAP sampling period. 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 Will County search area.

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 erythrophthalmus*), 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

Most reptile and amphibian inventory work took place at the terrestrial sampling stations. Drift fences were installed at each sampling station; these acted as a barrier, directing animals into funnel traps placed at each end of the fence, or into a bucket which was buried flush with the surface of the ground at the center of the fence, acting as a pitfall trap.

A variety of random search methods were also used. Walking through wetland margins and other areas of suitable habitat often resulted in capture or observation of reptiles or amphibians. Open water areas and potential basking platforms were scanned with binoculars to search for frogs and turtles. Frogs were identified by their distinctive calls during the breeding season. Boards, pieces of metal, tarpaper, and other debris were turned over and animals hiding underneath were captured.

Reptiles and amphibians were also captured or observed in the course of other work. Frogs, tadpoles, and turtles were regularly caught in seines during fish sampling. Field personnel conducting mammal, bird and vegetation sampling also occasionally reported reptile or amphibian sightings.

Some historical information is available for the study area. Smith (1961) mapped a few records. Many of the records cited by this author are based on specimens in museum collections. Mierzwa (1988) compiled all amphibian and reptile locality data existing at that time for Will County. Mauger (1987, 1988) listed amphibian records for several forest preserves in Will County. Mierzwa (1989) discussed Kankakee River localities for a few species. The IRAP study added extensive new locality data to the existing information base. A special effort was made to sample wetlands in the Raccoon Grove Nature Preserve in 1994.

Some species of amphibians and reptiles have undergone noticeable declines in recent years. At least one species, the cricket frog (*Acris crepitans*), is believed to have disappeared from the Will County Acquisition Alternatives and from much of northern Illinois within the past 25 years. Many theories have been advanced to explain these declines, but habitat destruction, especially loss of wetlands, is certainly one factor. Few wetlands remain in the area; most streams have been channelized and drain tiles have been installed in many fields.

Kankakee Acquisition Alternatives

Eleven amphibian and reptile species were observed within or near the Kankakee search area during the IRAP Site Selection Study. Five species are known to occur within the current proposed acquisition boundaries, mostly species characteristic of disturbed habitat. Narrow riparian strips and successional fields are inhabited by common and tolerant species such as American toads (*Bufo americanus*), western chorus frogs (*Pseudacris triseriata*), and common garter snakes (*Thamnophis sirtalis*). Bullfrogs (*Rana catesbeiana*) and softshell turtles (*Apalone spinifera*) occur in Forked Creek.

The nearby Kankakee River State Park supports populations of several unusual species, including a few at the limit of their Illinois range. Some of these occur within 3.2 kilometers (2 miles) of the ultimate acquisition site boundary. Two semi-aquatic species, the southern two-lined salamander (*Eurycea cirrigera*) and the queen snake (*Regina septemvittata*), are present in Rayns Creek downstream of the acquisition alternatives. More than 20 species of amphibians and reptiles are known from Midewin National Tallgrass Prairie (M. Redmer, pers. comm.), and the eastern half of that site probably supports a species assemblage similar to what would have been inhabiting the Kankakee site prior to intensive agricultural use.

Will County Acquisition Alternatives

Thirteen species of amphibians and reptiles are known to occur in the immediate vicinity of the proposed acquisition alternatives. 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 that run through the acquisition alternatives. Only toads and fox snakes have been seen in intensively cultivated areas of the acquisition alternatives.

A more diverse herpetofauna occurs northeast of the acquisition alternatives near Plum Creek, especially at Goodenow Grove Nature Preserve, and Middle and Lower Plum Preserves. These sites are unusual because eastern forest species such as the spotted salamander (*Ambystoma maculatum*) and spring peeper (*Pseudacris crucifer*) are found not far from the grassland species listed above. Several rare or unusual species are known from these preserves including the four-toed salamander (*Hemidactylium scutatum*), Kirtland's snake (*Clonophis kirtlandii*), and massasauga (*Sistrurus catenatus*). Thorn Creek Woods Nature Preserve also supports relatively high densities of eastern forest amphibian species.

5.9.3.7 Aquatic Biota

Methodology

Sampling efforts were concentrated in the small streams of the search areas, where little aquatic monitoring has been conducted in the past. Aquatic sampling stations were chosen on most of the major and minor streams within the alternative study areas. Candidate stations were chosen by examining aerial photographs and selecting areas which appeared to be representative of nearby stream reaches. Each location of interest was then field checked and accepted or rejected based on criteria that included the type and quality of habitat present and the relative ease of access. Stations were chosen early in the study, before the precise location of the proposed acquisition alternatives had been determined; thus, some sampling stations are located farther downstream. Since disturbances such as pollution and sedimentation can affect areas farther downstream from the source of the disturbance, all but a few of these stations were maintained even after the acquisition boundaries had been determined. Most stations were used for both fish and benthic macroinvertebrate analyses; many were used for water quality sampling as well.

TAMS biologists sampled fish at the Kankakee and Will County Acquisition Alternatives in 1990 and 1991, with additional samples collected at the Will County Acquisition Alternatives in 1995. Samples were collected with seines of various sizes. This technique was effective in the relatively shallow headwater streams typical throughout most of the acquisition alternatives, but may have been less effective in the deeper and more complex downstream locations at the Kankakee Acquisition Alternatives. For this reason, data collected by the IDNR as part of a 1994 Kankakee River Basin Survey was used to supplement analyses of the downstream Rock Creek and Forked Creek sites. The IDNR data was collected with electric seines or boat electrofishing, depending on the location.

Index of Biotic Integrity

The Index of Biotic Integrity (IBI) was developed by Karr (1981) as a biotic means of assessing water quality. According to Karr, et al., (1986) "the strength of IBI is its ability to integrate information from individual, population, community, zoogeographic, and ecosystem levels into a single ecologically based index of the

quality of a water resource." IBI uses 12 metrics to evaluate the species composition, trophic composition, and relative abundance and condition of the fish community at each location sampled. Because IBI was developed in Illinois, and has been used in drainages not far from the study area, scoring ranges have been thoroughly tested (Hite and Bertrand, 1989). Index of Biotic Integrity scores were calculated separately for each sample. Because scoring criteria were developed from single site/single day collections, Karr et al. (1986) advised against combining samples. [Table 5.9-3](#) describes IBI scores, integrity classes, and attributes of those classes.

An alternative rating method is the Biological Stream Characterization (BSC) of Hite and Bertrand (1989). This method is perhaps somewhat less stringent than the IBI system of Karr, et al., (1986). Both ratings are provided for each fish sampling station in [Tables 5.9-4](#) and [5.9-5](#). The results of the BSC ratings are also shown in [Table 5.9-4](#).

Physical stream habitat was also measured at the 1990-91 sample sites, using the Qualitative Habitat Evaluation Index (QHEI) developed by Ohio EPA. QHEI evaluates the instream habitat structure, amount of cover, degree of siltation, adjoining terrestrial land uses, stream gradient and other stream habitat attributes. The resulting numerical value provides a relative measure of aquatic habitat quality. All stream sites were evaluated by the same individual to ensure consistent application. QHEI values are included in [Tables 5.9-4](#) and [5.9-5](#).

TABLE 5.9-3

TOTAL IBI SCORES, INTEGRITY CLASSES, AND CLASS ATTRIBUTES

| Total IBI Score (sum of the 12 metric ratings) | Integrity Class | Attributes |
|--|--------------------|---|
| 58-60 | Excellent | Comparable to the best situations without human disturbance; all regionally expected species for the habitat and stream size, including the most intolerant forms, are present with a full array of age (size) classes; balanced trophic structure. |
| 48-52 | Good | Species richness somewhat below expectation, especially due to the loss of the most intolerant forms; some species are present with less than optimal abundance or size distributions; trophic structure shows some signs of stress. |
| 40-44 | Fair | Signs of additional deterioration include loss of intolerant forms, fewer species, highly skewed trophic structure (e.g., increasing frequency of omnivores and green sunfish or other tolerant species); older age classes of top predators may be rare. |
| 28-34 | Poor | Dominated by omnivores, tolerant forms, and habitat generalists; few top carnivores; growth rates and condition factors commonly depressed; hybrids and diseased fish often present. |
| 12-22 | Very poor | Few fish present, mostly introduced or tolerant forms; hybrids common; disease, parasites, fin damage, and other anomalies are regular occurrences. |
| No Score | No fish | Repeated sampling finds no fish. |

Source: Karr, et al. 1986.

TABLE 5.9-4

**QUANTITATIVE HABITAT EVALUATION INDEX (QHEI), INDEX OF BIOTIC INTEGRITY (IBI) SCORES
AND BIOLOGICAL STREAM CHARACTERIZATION (BSC) RATINGS
KANKAKEE ACQUISITION ALTERNATIVES**

| Stream | QHEI | IBI Scores | | | Integrity Class | BSC Rating |
|---|------|------------|------|------|-----------------|---------------|
| | | 1990 | 1991 | 1994 | | |
| Rock Creek at Kennedy Road ¹ | 28.5 | 38 | 32 | -- | Fair | Moderate |
| Rock Creek at Deselm Road ¹ | 78.5 | 36 | 38 | -- | Fair | Moderate |
| Rock Creek, Kankakee River State Park ² | -- | -- | -- | 48 | Good | Highly Valued |
| South Branch Rock Creek at County Rd. 1000W ² | -- | -- | -- | 44 | Fair | Highly Valued |
| South Branch Forked Creek at Huyck's Grove ¹ | 66.5 | 38 | 38 | -- | Fair | Moderate |
| Forked Creek at Old Chicago Road ¹ | 78.5 | 36 | 34 | -- | Fair | Moderate |
| Forked Creek at Leasure Road ² | -- | -- | -- | 56 | Excellent | Unique |
| Forked Creek at Ballou Road. ² | -- | -- | -- | 44 | Fair | Highly Valued |
| North Branch Forked Creek at Wilmington-Peotone Road ¹ | 75.0 | -- | 40 | -- | Fair | Highly Valued |
| Rayns Creek at Rt. 102 ¹ | 54.0 | -- | 36 | -- | Fair | Moderate |
| Kankakee River at Will/Kankakee County Line ² | -- | -- | -- | 50 | Good | Unique |
| Kankakee River at Custer Park ² | -- | -- | -- | 50 | Good | Unique |

Source: ¹ TAMS field work (1990-94), ² IDNR (1994).

TABLE 5.9-5

**QUANTITATIVE HABITAT EVALUATION INDEX (QHEI), INDEX OF BIOTIC INTEGRITY (IBI) SCORES
AND BIOLOGICAL STREAM CHARACTERIZATION (BSC) RATINGS
WILL COUNTY ACQUISITION ALTERNATIVES**

| Stream | QHEI | IBI Scores | | | Integrity Class | BSC Rating |
|--|------|------------|------|------|-----------------|---------------|
| | | 1990 | 1991 | 1994 | | |
| Rock Creek at Raccoon Grove | -- | -- | -- | 44 | Fair | Highly Valued |
| Black Walnut Creek at Pauling Rd. | -- | -- | -- | 28 | Poor | Limited |
| Black Walnut Creek at Crawford Ave. | -- | -- | -- | 32 | Poor | Moderate |
| Black Walnut Creek at Eagle Lake Rd. | 67.0 | 44 | -- | -- | Fair | Highly Valued |
| Black Walnut Creek at Egyptian Trail | -- | -- | -- | 42 | Fair | Moderate |
| Black Walnut Creek at Rock Creek Confluence | 30.0 | 38 | -- | -- | Poor | Moderate |
| South Branch Rock Creek at Kennedy Rd. | 40.0 | -- | 38 | -- | Poor | Moderate |
| South Branch Rock Creek at County Line | -- | -- | -- | 42 | Fair | Highly Valued |
| South Branch Rock Creek 1 mile S County Line | 54.0 | -- | 40 | -- | Fair | Highly Valued |
| Exline Slough at Corning Rd. | 47.5 | 40 | 42 | 46 | Fair | Highly Valued |
| Exline Slough 4 miles S County Line | 58.5 | 34 | 38 | -- | Poor | Moderate |

Source: All data from TAMS field work (1990-94).

Fish

The smaller streams in rural Illinois, including some of those found in the vicinity of the proposed acquisition alternatives, have 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.

Kankakee Acquisition Alternatives

Rock Creek flows through the southeastern part of the Kankakee Acquisition Alternatives. The portion within the acquisition boundaries is entirely channelized and has experienced siltation. Downstream of the acquisition alternatives, below Deselm Road, Rock Creek flows first over a dolomite cobble bed, and then over a low waterfall and through a large dolomite canyon within Kankakee River State Park.

At a sample station upstream of the acquisition alternatives, 1990 IBI scores were fair (38) but were lower in 1991 after this stream segment was dredged. The IBI score dropped to 32 after dredging occurred. At a second sample station downstream of the acquisition alternatives at Deselm Road, habitat quality was much better but IBI scores remained in the fair class (36-38). A few sensitive species, including rosyface shiners (*Notropis rubellus*) and rock bass (*Ambloplites rupestris*), were present at the downstream location, and redhorse (*Moxostoma sp.*) were observed spawning further downstream in Rock Creek Canyon. IDNR sampled Rock Creek within the State park in 1994 and obtained an IBI of 48. Numerous smallmouth bass were present in the IDNR sample.

Forked Creek is a more diverse stream. Although the upper reaches of the stream have been channelized, small local dolomite outcrops are present near the upstream and downstream acquisition boundaries. Other areas have developed sand and gravel bars within the stream. As Forked Creek leaves the Kankakee Acquisition Alternatives it flows on a dolomite cobble bottom, and shoreline rock outcrops are relatively common.

Fish were sampled at three Forked Creek locations. IBI scores ranged from 34 to 40, with the highest score just downstream of the Kankakee Acquisition Alternatives. Several game species, including smallmouth bass (*Micropterus dolomieu*), rock bass (*Ambloplites rupestris*), and bluegill (*Lepomis macrochirus*) were present, and the sensitive rosyface shiner (*Notropis rubellus*) was relatively common (Table 5.9-4).

IDNR identified portions of Forked Creek downstream of the Kankakee Acquisition Alternatives as highly valued and unique aquatic resources. The IDNR basin survey achieved Index of Biotic Integrity scores of 44 and 56 on sample reaches 1 mile and 5 miles, respectively, downstream of the Ultimate Acquisition Boundary.

Several unusual or sensitive species were present including northern hogsucker (*Hypentelium nigricans*), black redhorse (*Moxostoma duquesnei*), stonecat (*Noturus flavus*), and banded darter (*Etheostoma zonale*). Game species, including rock bass (*Ambloplites rupestris*), smallmouth bass (*Micropterus dolomieu*), and various sunfish (*Lepomis sp.*) were relatively common.

Rayns Creek is a small stream originating in the southwestern part of the Kankakee Acquisition Alternatives. The upper reaches are channelized but the lower segment retains a natural channel. A single sample taken in 1991 resulted in an IBI score of 36 (fair) but unusual species were captured, including grass pickerel (*Esox americanus*), southern redbelly dace (*Phoxinus erythrogaster*), and silver redhorse (*Moxostoma anisurum*). The Kankakee River, only about 2 miles from the Ultimate Acquisition Boundary, is an important recreational resource and is noted for a diverse and high quality smallmouth bass and walleye fishery. Several rare species of fish are also known to occur in the river. A total of 87 species of fish have been collected from the Kankakee River, making it an unusually diverse aquatic resource. The Kankakee River and its tributaries are part of the Smallmouth Bass Management Program initiated by the IDNR in 1997 (IDNR, 1997).

Will County Acquisition Alternatives

Black Walnut Creek is a small headwater stream. Fish diversity was poor and IBI scores were low (28-32) 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 at the middle sites of this stream included southern redbelly dace (*Phoxinus erythrogaster*) and fantail darters (*Etheostoma flabellare*). The IBI scores were above average for these sites (42-44). 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, resulting in an IBI score of 38.

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. IBI scores ranged from 38-42, and habitat quality was low (Table 5.9-5).

Exline Slough was of less than optimal habitat quality at both sampling stations. Grass pickerel (*Esox americanus*) and pirate perch (*Aphredoderus sayanus*) were consistently captured at the upstream station. A gravel bottomed riffle at the downstream station produced the only rainbow darters (*Etheostoma caeruleum*) collected during this study; banded darters (*Etheostoma zonale*) were more common here than elsewhere. IBI scores were fair (40-42) in 1990-91 and good (46) in 1994 at the upstream station, which appears to be subject to occasional pulses of excessive nutrients. IBI scores at the downstream station were fair to poor (34-38).

Benthic Macroinvertebrates

Quantitative macroinvertebrate samples were collected from shallow water stream stations. Macroinvertebrate samples were collected at the Kankakee and Will County Acquisition Alternatives during four sample periods - July and November 1990, and May and July 1991. Sampling was also conducted at the Will County Acquisition Alternatives in May 1994. Community structure was evaluated by examining species richness (number of taxa), the number of individuals, species diversity, and equitability at each station (all reviewed in USEPA, 1973); the three replicates at each station were pooled and the number of taxa and individuals were tabulated from this pooled raw data. Species diversity was determined using the Shannon-Wiener function.

Another approach used to assess the macroinvertebrate communities at each station was the Macroinvertebrate Biotic Index (MBI), as described by the Illinois EPA (1989). This index assigns a pollution tolerance value to macroinvertebrate species based on studies relating indigenous fauna to water quality. The MBI provides an average of tolerance values assigned to each taxon collected and is weighted by their abundance. The MBI index is on a 0 - 11 scale, where low values indicate good water quality and high values indicate degraded water quality. [Table 5.9-6](#) provides water quality rankings and IEPA stream classifications for MBI scores, as per Hite (1988).

TABLE 5.9-6

**ILLINOIS STREAM ASSESSMENT BASED UPON
MACROINVERTEBRATE BIOTIC INDEX (MBI) SCORES**

| MBI | Water Quality | IEPA Stream Classification |
|------------|----------------------|-----------------------------------|
| < 5.0 | Excellent | Unique Aquatic Resource |
| 5.0 - 6.0 | Very Good | Highly Valued Resource |
| 6.0 - 7.5 | Fair-Good | Moderate Resource |
| 7.5 - 10.0 | Poor | Limited Resource |
| > 10.0 | Very Poor | Restricted Resource |

Source: Hite, 1988.

Diversity and equitability are also used as indicators of water quality. USEPA reports that in unpolluted waters, diversity is generally between 3.0 and 4.0, whereas in polluted water, diversity was generally less than 1.0. USEPA (1973) indicates that where degradation is at slight to moderate levels, diversity lacks the sensitivity to demonstrate differences. Equitability, on the contrary, has been found to be very sensitive to even slight levels of degradation. In streams known to be unaffected by oxygen-demanding wastes, equitability generally ranges between 0.6 and 0.8. Even slight levels of degradation have been found to reduce equitability below 0.5, and generally to a range of 0.0 to 0.3.

Kankakee Acquisition Alternatives

A total of 43 macroinvertebrate taxa were collected from stream stations within the Kankakee search area. [Table 5.9-7](#) presents the species richness, number of individuals, species diversity, equitability, and MBI scores for the stream stations in July 1990, November 1990 and May 1991.

TABLE 5.9-7

MACROINVERTEBRATES - KANKAKEE ACQUISITION ALTERNATIVES

| Station/Date | Species Richness (No. of Taxa) | No. of Individuals | Species Diversity | Equitability | Macro-invertebrate Biotic Index (MBI) |
|---|-----------------------------------|-----------------------|----------------------|--------------|--|
| 5U=Rock Creek at Kennedy Road | | | | | |
| July, 1990 | 13 | 260 | 2.7 | 0.7 | 8.2 |
| November, 1990 | 17 | 168 | 2.5 | 0.5 | 8.2 |
| May, 1991 | 6 | 25* | 1.4* | 0.5* | 6.0 |
| 5D=Rock Creek at Deselm Road | | | | | |
| July, 1990 | 14 | 664 | 2.8 | 0.7 | 6.3 |
| November, 1990 | 12 | 64* | 2.5* | 0.7* | 5.2 |
| May, 1991 | 14 | 341 | 1.9 | 0.4 | 5.1 |
| 6U=South Branch Forked Creek at Huyck's Grove | | | | | |
| July, 1990 | 9 | 23* | 2.7* | 1.0* | 8.4 |
| November, 1990 | 14 | 78* | 3.0* | 0.8* | 5.1 |
| May, 1991 | 9 | 78* | 2.6* | 0.9* | 4.0 |
| 6D=Forked Creek at Old Chicago Road | | | | | |
| July, 1990 | 9 | 62* | 2.2* | 0.7* | 4.8 |
| November, 1990 | 8 | 78* | 2.8* | 1.3* | 5.0 |
| May, 1991 | 9 | 14* | 2.8* | 1.1* | 5.2 |
| 6A=North Branch Forked Creek at Kennedy Road | | | | | |
| May, 1991 | 7 | 17* | 2.5* | 1.1* | 7.8 |

Source: All data from TAMS fieldwork (1990-1991).

* According to USEPA 1973, estimate of equitability improves with increased sample size and samples containing less than 100 specimens should be evaluated with caution.

With respect to MBI, the Forked Creek stations (6U, 6D) and the downstream Rock Creek station (5D) generally exhibited very good water quality conditions. The relative number of intolerant taxa (mayflies, caddisflies, stoneflies) compared to tolerant taxa accounted for the high MBI scores. The Rock Creek upstream station (5U) had poor water quality (high MBI scores as a result of a high number of tolerant taxa such as oligochaetes and midges), except in May 1991 when the MBI score was 6.0.

Diversity and equitability at the Kankakee stream stations were generally high, indicating good water quality conditions. However, it should be noted that for several samples (including all of the Forked Creek samples) the number of individuals observed was quite low (less than 80 individuals). USEPA (1973) indicates that estimates of diversity and equitability improve with sample size, and samples containing less than 100 specimens should be evaluated with caution. It is not clear why the number of individuals was so low. However, because the taxa present represented fairly intolerant taxa, the low number of individuals observed is probably not due to poor water quality.

Will County Acquisition Alternatives

A total of 45 macroinvertebrate taxa were collected from stream stations within these acquisition alternatives. [Table 5.9-8](#) presents the species richness, number of individuals, species diversity, equitability, and MBI scores for the stream stations in July and November 1990, May 1991 and May 1994.

MBI scores fluctuated at the stream stations between the three sample periods. In general, however, stream quality (based upon the MBI scores) ranged from poor to fair-good. The one exception was the downstream station on Exline Slough where, in May 1991, the MBI score (5.9) reflected very good water quality.

Review of [Table 5.9-8](#) reveals that species diversity and equitability were generally high at Exline Slough (Stations 4U and 4D), which is indicative of good water quality conditions; however, some fluctuation was evident. Most of the remaining stream samples featured low diversity and equitability, indicating impacted water quality conditions. [Appendix F](#) contains more detailed information from studies performed at the Will County Acquisition Alternatives since 1992.

TABLE 5.9-8

MACROINVERTEBRATES - WILL COUNTY ACQUISITION ALTERNATIVES

| Station/Date | Species Richness (No. of Taxa) | No. of Individuals | Species Diversity | Equitability | Macro-invertebrate Biotic Index (MBI) |
|---|-----------------------------------|-----------------------|----------------------|--------------|--|
| Rock Creek at Raccoon Grove | | | | | |
| May 1994 | 13 | 543 | 1.3 | 0.3 | 9.4 |
| Black Walnut Creek at Pauling Rd. | | | | | |
| May 1994 | 9 | 224 | 2.0 | 0.5 | 6.6 |
| Black Walnut Creek at Crawford Ave. | | | | | |
| May 1994 | 8 | 239 | 1.8 | 0.6 | 7.1 |
| 3U = Black Walnut Creek at Eagle Lake Rd. | | | | | |
| July 1990 | 12 | 235 | 2.8 | 0.8 | 7.3 |
| Nov. 1990 | 7 | 98 | 1.3 | 0.4 | 7.2 |
| May 1991 | 10 | 516 | 1.7 | 0.4 | 10.0 |
| Black Walnut Creek at Egyptian Trail | | | | | |
| May 1994 | 7 | 81 | 1.6 | 0.5 | 8.7 |
| 3D=Black Walnut Creek at confluence | | | | | |
| July 1990 | 11 | 444 | 2.2 | 0.5 | 9.8 |
| Nov. 1990 | 12 | 2042 | 0.1 | 0.2 | 9.5 |
| May 1991 | 13 | 208 | 2.3 | 0.5 | 6.4 |
| 3A=South Branch Rock Creek at Corning Rd. | | | | | |
| May 1991 | 8 | 52 | 1.4* | 0.4* | 6.4 |
| South Branch Rock Creek at County Line | | | | | |
| May 1994 | 12 | 171 | 1.4 | 0.3 | 10.3 |
| 4U = Exline Slough at Corning Rd. | | | | | |
| July 1990 | 13 | 56 | 3.1* | 0.9* | 8.3 |
| Nov. 1990 | 12 | 61 | 2.8* | 0.8* | 7.7 |
| May 1991 | 15 | 223 | 2.2 | 0.4 | 8.3 |
| May 1994 | 9 | 236 | 1.1 | 0.3 | 10.5 |
| 4D = Exline Slough Downstream | | | | | |
| July 1990 | 13 | 269 | 2.7 | 0.7 | 6.9 |
| Nov. 1990 | 21 | 532 | 2.8 | 0.5 | 6.5 |
| May 1991 | 22 | 298 | 3.4 | 0.7 | 5.9 |

Source: All data from TAMS field work (1990-1994).

* According to USEPA (1973), estimate of equitability improves with increased sample size and samples containing less than 100 specimens should be evaluated with caution.

5.9.4 DISCUSSION OF IMPACTS

5.9.4.1 No-Action Alternative

Growth and development as described in [Section 5.3](#), Social Impacts, and [5.4](#), Socioeconomic Impact, would continue under the No-Action Alternative. Over time, as residential and commercial development increases in the area, the biotic composition of the acquisition alternatives would gradually change from species tolerant of agricultural activities to those tolerant of suburban land uses.

5.9.4.2 Kankakee Acquisition Alternatives

According to the state's land acquisition policy (see [Appendix C](#)), the state plans to lease residences and property it purchases and maintain the existing land uses. Therefore, no impacts to biotic communities would result from these alternatives.

The IDNR and the Illinois Nature Preserves Commission (INPC) are concerned about the future impact of an airport at this site, particularly on the aquatic resources of Forked Creek, Rock Creek and the Kankakee River and the biologic resources of Kankakee River State Park, Midwin National Tallgrass Prairie and other nature preserves nearby. Forked Creek and Rock Creek are important spawning and nursery areas for Kankakee River fishes, including smallmouth bass. IDNR and INPC believe that siting of an airport at this location would be detrimental to these resources ([Appendix B](#)).

5.9.4.3 Will County Acquisition Alternatives

According to the state's land acquisition policy (see [Appendix C](#)), the state plans to lease residences and property it purchases and maintain the existing land uses. Therefore, no impacts to biotic communities would result from these alternatives.

The IDNR and the INPC are concerned about the future impact of an airport at this site, particularly on the biologic resources of Raccoon Grove Nature Preserve and Goodenow Grove Nature Preserve ([Appendix B](#)). However, these agencies believe that the potential exists to minimize the impacts on these resources through the establishment of protective zones (see [Section 5.7](#)).

5.9.5 MITIGATION

No impacts to biotic communities are anticipated under any of the acquisition alternatives; therefore, no mitigation would be required.

5.10 ENDANGERED AND THREATENED SPECIES

5.10.1 OVERVIEW OF IMPACTS

No impacts to federally or state-protected species or to habitats critical to their survival would result from any of the alternatives evaluated in this Tier 1 FEIS. No construction or changes in land use are proposed by the Kankakee or Will County Acquisition Alternatives; therefore, no loss or change in habitat would result from FAA approval of either alternative.

5.10.2 METHODOLOGY

The U.S. Department of the Interior, U.S. Fish and Wildlife Service (USFWS), and the Illinois Department of Natural Resources (IDNR) have designated certain rare or declining species of animals and plants as endangered or threatened. These species receive varying levels of legal protection, depending on the jurisdiction and listing status.

On August 29, 1995, the USFWS forwarded a letter to IDOT stating that no threatened or endangered species would be harmed as a result of the proposed supplemental airport. This letter can be found in [Appendix B](#).

Federally endangered species (LE) "means any species which is in danger of extinction throughout all or a significant portion of its range..." Federally threatened species (LT) "means any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range." The heading "species at risk" (formerly Category 2) describes species which have been proposed for possible addition to the list of endangered and threatened wildlife. Although these species do not currently receive protection, "the (U.S. Fish and Wildlife) Service does, however, encourage federal agencies and other appropriate parties to take these taxa into account in environmental planning. Category 3 species (subcategory 3C) includes "taxa that are now considered to be more abundant and/or widespread than previously thought" and are no longer under consideration for federal listing. (50 CFR Part 17).

The Illinois Endangered Species Protection Board publishes a list of state-endangered and threatened animals and plants. A state-endangered species (SE) is defined as "any species which is in danger of extinction as a breeding species in Illinois." A state-threatened species (ST) is defined as "any breeding species which is likely to become a state endangered species within the foreseeable future in Illinois." (Illinois Endangered Species Protection Board, 2000).

The Illinois Endangered Species Protection Act states that a consultation process with IDNR is required if actions are planned that would jeopardize the continued existence of state-listed species or would destroy or modify essential habitat of such species (520 ILCS 10/11(b)). Consultation procedures with IDNR were initiated on September 5, 1995 and are ongoing.

Letters of inquiry were sent to the USFWS and the Illinois Department of Natural Resources (IDNR) to determine if any known endangered or threatened species occurred within the acquisition alternatives.

Consultation with the USFWS under Section 7 of the Endangered Species Act was completed on August 29, 1995, for the Will County Acquisition Alternatives. Additional comments on the Kankakee Acquisition Alternatives were received on April 8, 1997. No federally endangered or threatened species or critical habitat is believed to exist within either the Kankakee or Will County Acquisition Alternatives. Consultation with the IDNR is ongoing. Relevant letters of correspondence with both agencies are provided in [Appendix B](#).

As part of the general biotic inventory, special efforts were made to confirm the presence or absence of previously reported endangered and threatened species. In addition, a survey for Indiana bats was designed and implemented by the Illinois Natural History Survey. For each species thought to occur in the area, whether previously confirmed or not, areas with suitable habitat were surveyed. Some endangered, threatened, and rare species were observed at locations outside the development boundaries. Further information on these sightings follows.

5.10.3 EXISTING CONDITIONS

Impacts to endangered and threatened species are the same for both the Inaugural and Ultimate Acquisition Alternatives at each site. Therefore, the discussion of endangered and threatened species provided in the following paragraphs applies to both the Inaugural and Ultimate Acquisition Alternatives.

5.10.3.1 Kankakee Acquisition Alternatives

Results of initial coordination with USFWS showed that the federally endangered Indiana bat (*Myotis sodalis*) was known to occur in Kankakee County (USFWS, 1990a). Results of initial coordination with IDNR showed that four state-listed endangered or threatened species are known to occur in the Kankakee River. These are the endangered northern brook lamprey (*chthyomyzon fossor*), the threatened river redhorse (*Moxostoma carinatum*), the threatened slippershell (*Alasmidonta viridis*), and the endangered sheepsnose (*Plethobasus cyphus*). The first two species are fish; the last two are mussels.

The number of federal and state endangered, threatened, and rare species observed within the proposed Kankakee Acquisition Alternatives is summarized in [Table 5.10-1](#). Five state-listed bird species were observed within the vicinity of the Kankakee Acquisition Alternatives and are identified and discussed later in this section. No other federal or state-listed species were verified within the Kankakee Acquisition Alternatives.

Species documented to occur within the acquisition boundaries, or documented to occur within 2 miles of the acquisition boundaries and for which suitable habitat exists within the acquisition boundaries are listed. Other endangered and threatened species occur outside the acquisition boundaries. Since some of these may be affected by induced development, they are also discussed in the following sections.

TABLE 5.10-1

ENDANGERED AND THREATENED SPECIES OBSERVED
KANKAKEE ACQUISITION ALTERNATIVES

| Taxonomic Group | Federally Listed | | | State Listed | |
|---------------------|------------------|----|-----------------|--------------|-----|
| | LE | LT | Species at Risk | SE | ST |
| Mammals | - | - | - | - | - |
| Birds | - | - | - | 0/2 | 0/3 |
| Reptiles/amphibians | - | - | - | - | - |
| Fish | - | - | - | - | - |
| Invertebrates | - | - | - | - | - |
| Plants | - | - | - | - | - |

Source: TAMS, 1991; 1997; 2000.

5.10.3.2 Will County Acquisition Alternatives

Results of the initial coordination with the USFWS showed that the federally endangered Indiana bat (*Myotis sodalis*), the federally threatened (formerly endangered) Bald Eagle (*Haliaeetus leucocephalus*), and the federally threatened lakeside daisy (*Hymenoxys acaulis* var. *glabra*) were known to occur in Will County (USFWS, 1990a). IDNR had no listing of endangered or threatened species for the Will County Acquisition Alternatives. The number of federal and state endangered, threatened, and rare species observed within the proposed Will County Acquisition Alternatives is summarized in [Table 5.10-2](#). Species documented to occur within the proposed boundary, or documented to occur within 2 miles of the acquisition boundaries and for which suitable habitat exists within the proposed boundaries are listed.

Other endangered and threatened species occur outside the acquisition boundaries. Since some of these may be affected by induced development, they are also discussed in the following sections. No other occurrences of endangered or threatened species were verified within the proposed acquisition areas of the Will County Acquisition Alternatives.

The following federal or state-listed species were observed in and near the Will County Acquisition Alternatives in the early 1990s: 10 state-listed birds, of which one is a federally listed species at risk; 3 state-listed reptiles which are also federally listed species at risk; and a state-listed amphibian.

A more detailed discussion of the endangered, threatened and rare species for the acquisition alternatives can be found in *Technical Paper No. 8, Threatened and Endangered Species, Appendix E, Volume III of the I-IRAP Site Selection Report-Abstract*. The Cooper's Hawk (*Accipiter cooperii*) was de-listed from the state-endangered list in March, 1997; the Great Egret (*Casmerodius albus*), the Sharp-shinned Hawk (*Accipiter striatus*), the Veery (*Catharus fuscescens*), the western sand darter (*Etheostoma clarum*) and the pallid shiner (*Notropis amnis*) were de-listed from the state list in 1999; thus, no reference to these species are made in this section. [Appendix F](#) also contains more detailed information.

TABLE 5.10-2

ENDANGERED AND THREATENED SPECIES OBSERVED
WILL COUNTY ACQUISITION ALTERNATIVES

| Taxonomic Group | Federally Listed | | | State-Listed | |
|---------------------|------------------|----|-----------------|--------------|-----|
| | LE | LT | Species at Risk | SE | ST |
| Mammals | - | - | - | - | - |
| Birds | - | - | 0/1 | 0/6 | 0/4 |
| Reptiles/amphibians | - | - | 3 | 1 | 3 |
| Fish | - | - | - | - | - |
| Invertebrates | - | - | - | - | - |
| Plants | - | - | - | - | - |

Source: TAMS, 1991; 1995; 2000.

Notes for [Tables 5.10-1](#) and [5.10-2](#):

LE = Federal Endangered; LT = Federal Threatened;

SE = State Endangered; ST = State Threatened

Figures given indicate the number of species observed; a dash (-) means none were seen.

For birds, the first number represents species confirmed to be nesting on site. The second number represents species observed on site but not confirmed to nest there. For example, 1/2 means that one species was observed nesting, and two additional species were observed but not confirmed to nest there.

5.10.3.3 Mammals

Kankakee Acquisition Alternatives

No federal or state-listed mammals occur within the proposed Kankakee Acquisition Alternatives. The proposed Kankakee Acquisition Alternative were inventoried for potential Indiana bat (*Myotis sodalis*) habitat in 1991 by the Illinois Natural History Survey and TAMS. Mist net sampling was conducted at Laughton Preserve, 2 miles north of the acquisition alternatives; however, only common bat species were captured. No potential Indiana bat habitat was identified within the acquisition alternatives' boundaries.

Will County Acquisition Alternatives

No federal or state-listed mammals occur within the proposed Will County Acquisition Alternatives. Indiana bat sampling was conducted along Plum Creek northeast of the Will County Acquisition Alternatives in 1991; only common bat species were captured. No potential Indiana bat habitat was identified within the acquisition alternatives' boundaries.

5.10.3.4 Birds

Kankakee Acquisition Alternatives

[Table 5.10-3](#) lists the endangered and threatened birds observed within the Kankakee Acquisition Alternatives in 1990 and 1991. These sightings were made while biologists were walking transects at the sampling stations, through random sightings while performing other field work and during surveys conducted specifically to identify the occurrence of endangered or threatened species. [Appendix F](#) contains a

description of each species along with habitat preferences, current status, and distribution within the project area.

TABLE 5.10-3

**ENDANGERED AND THREATENED AVIAN SPECIES
IDENTIFIED AT THE KANKAKEE ACQUISITION ALTERNATIVES, 1990-1991**

| Common Name | Scientific Name | Number Observed | Breeding Evidence | Status |
|---------------------|--------------------------|-----------------|-------------------|--------|
| Osprey | <i>Pandion haliaetus</i> | 1 | | SE |
| Northern Harrier | <i>Circus cyaneus</i> | 5 | | SE |
| Red-shouldered Hawk | <i>Buteo lineatus</i> | 2 | | ST |
| Sandhill Crane | <i>Grus canadensis</i> | 17 | | ST |
| Brown Creeper | <i>Certhia americana</i> | 23 | | ST |

Source: TAMS, 1991.

The Osprey is a bird of prey that feeds almost exclusively on fish and nests along large bodies of water. The Osprey observed at the Kankakee Acquisition Alternatives was seen during migration along Rock Creek within the Kankakee River State Park.

Northern Harriers are birds of prey that prefer open grassland habitat for nesting and feeding. All but one of the harriers observed within the Kankakee Acquisition Alternatives were seen during spring migration; the other was seen in August flying over the Acquisition Alternatives. Northern Harriers are known to nest within the boundaries of the Midewin National Tallgrass Prairie

Red-shouldered Hawks also nest in forested habitat, generally in floodplain forest. The Red-shouldered Hawks were observed during migration. The Sandhill Cranes and Brown Creepers were all observed during migration.

Will County Acquisition Alternatives

Table 5.10-4 lists the endangered and threatened avian species observed within the proposed Will County Acquisition Alternatives in 1990, 1991, and 1994. These sightings were made while biologists were walking transects at the sampling stations, through random sightings while performing other field work, and during surveys specifically targeted for identifying the presence or absence of endangered or threatened species. Appendix F contains a description of each species along with habitat preferences, current status and distribution within the project area.

TABLE 5.10-4

ENDANGERED AND THREATENED AVIAN SPECIES
IDENTIFIED AT THE WILL COUNTY ACQUISITION ALTERNATIVES, 1990, 1991, 1994

| Common Name | Scientific Name | Number Observed | Breeding Evidence | Status |
|---------------------------|------------------------------|-----------------|-------------------|--------|
| Pied-billed Grebe | <i>Podilymbus podiceps</i> | 5 | Probable | ST |
| American Bittern | <i>Botaurus lentiginosus</i> | 1 | | SE |
| Black-crowned Night-Heron | <i>Nycticorax nycticorax</i> | 3 | | SE |
| Northern Harrier | <i>Circus cyaneus</i> | 30 | Possible | SE |
| King Rail | <i>Rallus elegans</i> | 1 | | SE |
| Sandhill Crane | <i>Grus Canadensis</i> | 35 | | ST |
| Upland Sandpiper | <i>Bartramia longicauda</i> | 6 | Probable | SE |
| Short-eared Owl | <i>Asio flammeus</i> | 1 | | SE |
| Brown Creeper | <i>Certhia Americana</i> | 10 | | ST |
| Loggerhead Shrike | <i>Lanius ludovicianus</i> | 1 | | ST, C2 |

Sources: TAMS, 1991; 1995.

Notes for Tables 5.10-3 and 5.10-4: Number observed refers to total number observed during the study period. Breeding evidence refers to highest level of breeding behavior observed. Status codes are as follows: C2 = Federal Category 2 (species at risk),

SE = Illinois State Endangered, ST = Illinois State Threatened.

American Bitterns and King Rails are attracted to emergent/scrub-shrub marshes with little open water and plenty of cover. Pied-billed Grebes prefer emergent marshes with plenty of cover, but also need open water to take-off. Almost all of the sightings of these species occurred at Beecher Marsh, located in the southeast corner of the Will County Ultimate Acquisition Alternative. While some of these birds were observed during migration and probably nest within the marsh, it is primarily a cattail marsh with areas of scrub-shrub.

Black-crowned Night-Herons were occasionally seen foraging in emergent marshes north of the acquisition alternatives, at Monee Reservoir and at Goodenow Grove. These birds probably nest in the Lake Calumet area, where the closest breeding colonies are known to exist.

The wooded areas of Raccoon Grove Nature Preserve and Goodenow Grove are known to attract Brown Creepers during migration. Successional field areas at the proposed Will County Acquisition Alternatives provides habitat for Northern Harriers, Upland Sandpipers and Short-eared Owls. These species require grassland or prairie habitat with medium-height grasses. The Forest Preserve District of Will County reports that Short-eared Owls have been observed during the nesting season in old field habitat adjacent to Raccoon Grove Nature Preserve.

Loggerhead Shrikes, a federally listed species at risk and a state-threatened species, used to be common in the area surrounding the Village of Peotone (Eaton, 1978). The destruction of hedgerows and conversion

of small tracts of cropland to large tracts adapted for modern farming equipment have eliminated much of their habitat in the state.

Sandhill Cranes

Sandhill Cranes migrate through the Chicago area on their way to and from breeding grounds to the north. The majority of migrants fly east of the acquisition alternatives, over Gary and Hammond, Indiana. However, some of these birds do fly over the Will County acquisition alternatives during spring and fall migration.

Sandhill Cranes are heavy bodied, long-necked birds of open grasslands and freshwater marshes. Adults stand about 4 feet tall, with wing spans of 6.5 feet (Tacha, et al, 1992). Sandhill Cranes begin migration by gathering in increasingly larger flocks at staging areas close to the breeding or wintering grounds. They then migrate to a traditional stopover area via a series of daily flights. After a stay of variable length at the stopover area (usually several weeks), they continue on to the breeding or wintering grounds via another series of daily flights. (Melvin & Temple, 1981).

Sandhill Cranes that migrate through the Chicago region breed primarily in Wisconsin, Minnesota and Michigan and winter in Florida (Tacha, et al, 1992; Melvin & Temple, 1981). These birds use the Jasper-Pulaski Fish and Wildlife Area in northwestern Indiana as a stopover area, congregating in numbers in excess of 20,000 during spring and fall migration. Jasper-Pulaski Fish and Wildlife Area is located approximately 60 miles southeast of the Chicago CBD and 40 miles east-southeast of the Will County acquisition alternatives.

The IDNR and the Indiana Department of Natural Resources were contacted to determine if any occurrences of Sandhill Cranes breeding in Will County (Illinois) or Lake and Porter Counties (Indiana), have been recorded. No records exist of Sandhill Cranes breeding in this area (IDNR, INDNR, 2000). A review of breeding survey records of *Meadowlark, a Journal of Illinois Birds*, the quarterly journal of the Illinois Ornithological Society, from 1991 through 1999 found observations of Sandhill Cranes during breeding season within or near Will County, but no pairs, young or nests were observed. [Table 5.10-5](#) summarizes the observations of Sandhill Cranes recorded in the *Meadowlark* during this time period.

Another source, the International Crane Foundation located in Baraboo, Wisconsin, reported 20 nesting pairs in Lake County, Illinois and 1 nesting pair in McHenry County, Illinois in 2000. They did not perform any surveys in Will County.

[Table 5.10-5](#) also lists the fall and spring migration counts of Sandhill Cranes observed from 1991-1999. No migration flyovers were reported from Will County. However, during field work conducted as part of the *Illinois-Indiana Regional Airport Site Selection Study*, Sandhill Cranes were observed in small numbers flying over both the Kankakee and Will County Acquisition Alternatives. On two separate occasions, Sandhill Cranes were observed foraging in Beecher Marsh (located in the southeast corner of the Will County acquisition alternatives). The majority of the Sandhill Crane observations during this study were over Gary, Indiana and Lake Calumet, Illinois.

TABLE 5.10-5

SANDHILL CRANE OBSERVATIONS

| Period | Date Observed | Number Observed | Location Observed | Comments (from Field Notes) |
|-------------------|-----------------------|-----------------|---------------------------------|--------------------------------|
| Breeding (summer) | May 7, 1991 | 1 | Joliet Arsenal (Will Co.) | |
| | June-July 1993 | 1 | University Park (Will Co.) | Stained plumage |
| | June 5-Aug 15, 1993 | 1 | Palos (Cook Co.) | |
| | June 26, 1994 | 1 | Frankfort (Will Co.) | Adult (injured wing?) |
| | June 10, 1997 | 1 | Goose Lake Prairie (Grundy Co.) | |
| | May 22 & June 4, 1996 | 1 | Goose Lake Prairie (Grundy Co.) | Likely nesting |
| Fall Migration | November 4, 1991 | 525 | Lake Calumet (Cook Co.) | |
| | September 24, 1993 | 500+ | Palos (Cook Co.) | |
| | October 30, 1996 | 35 | Chicago | |
| | November 10, 1997 | 2,000 | DuPage Co. | |
| | November 12, 1998 | 4,346 | Villa Park (DuPage Co.) | |
| | November 23, 1998 | 5,063 | Villa Park (DuPage Co.) | |
| | November 23, 1998 | 1,165 | Lake Calumet (Cook Co.) | |
| | November 14, 1999 | 750 | Morton Arboretum (DuPage Co.) | |
| Spring Migration | March 2, 1992 | 40 | Alsip (Cook Co.) | |
| | March 21, 1992 | 600 | Palos (Cook Co.) | |
| | March 9, 1993 | 50 | Harvey (Cook Co.) | |
| | March 28, 1993 | 200 | Morton Arboretum (DuPage Co.) | |
| | March 12, 1994 | 1,280 | Lake Calumet (Cook Co.) | |
| | March 17, 1995 | 343 | South DuPage Co. | |
| | March 24, 1995 | 730 | South DuPage Co. | |
| | May 19, 1995 | 2 | Goose Lake Prairie (Grundy Co.) | Adult and 1 st year |
| | February 9, 1996 | 9 | DuPage Co. | Early arrival |
| | March 12, 1996 | 817 | Palatine (Cook Co.) | |
| | March 12, 1997 | 2,110 | Palos (Cook Co.) | |
| | March 13, 1997 | 1,200+ | Orland Park (Cook Co.) | |
| | March 12, 1998 | 200 | Palos (Cook Co.) | |
| | May 23, 1998 | 33 | Goose Lake Prairie (Grundy Co.) | |
| | February 7, 1999 | 105 | Chicago | |
| | March 20, 1999 | 4,650 | Westchester (Cook Co.) | |

Source: *Meadowlark*, Field Notes, 1991-1999.

According to Doug Stotz, Ornithologist and Conservation Ecologist with the Field Museum of Natural History, fall migration movements of Sandhill Cranes through the Chicago area are governed by strong winds from the north and northwest which take the cranes through northeastern Illinois, usually just west of Chicago. The cranes typically travel in a southeasterly direction, veering toward the east into Indiana across DuPage and southern Cook County. Spring migration movements tend to be more dispersed, but generally follow the same pattern, going north with strong southerly winds. Sandhill Cranes avoid flying over the open water of Lake Michigan, although some have been observed flying just offshore along the lake front.

The U.S. Fish & Wildlife Service (USFWS) announced in March of 2001 that is proposing to reintroduce a wild population of the federally endangered Whooping Crane (*Grus americana*) that would migrate annually between Wisconsin and Florida. The USFWS led a flock of Sandhill Cranes from Wisconsin to Florida in the fall 2000 using ultralight aircraft in an attempt to imprint on them a specific migratory route that avoids people. This route, proposed to be used by the reintroduced flock of Whooping Cranes, lies west of Chicago and swings south of the proposed Will County acquisition alternatives before heading east to Indiana. The USFWS circulated a draft EA in March 2001 and began reintroduction efforts through the release of an experimental flock in the fall of 2001.

5.10.3.5 Reptiles and Amphibians

Kankakee Acquisition Alternatives

No federal or state-listed reptiles or amphibians are known from the proposed Kankakee Acquisition Alternatives or the immediate surrounding area.

Will County Acquisition Alternatives

No federal or state-listed species have been documented within the acquisition areas of the Will County Acquisition Alternatives. The Blanding's turtle (*Emydoidea blandingii*), a federally listed species at risk and a state-threatened species, is known to occur at Raccoon Grove Nature Preserve, immediately adjacent to the acquisition boundary. The state-endangered eastern massasauga (*Sistrurus catenatus*) and the state-threatened Kirtland's snake (*Clonophis kirtlandii*), both also federal species at risk, occur at Goodenow Grove Nature Preserve and at various locations near Plum Creek, just east of the acquisition alternatives. The state-threatened four-toed salamander (*Hemidactylium scutatum*) was recently discovered northeast of the acquisition alternatives, near Plum Creek.

5.10.3.6 Fish

Kankakee Acquisition Alternatives

No federal or state-listed fish species are known to occur within the boundaries of the proposed Kankakee Acquisition Alternatives. However, two state-listed species occur in the nearby Kankakee River. The state-endangered northern brook lamprey (*Ichthyomyzon fossor*) prefers gravel riffles. The state-threatened river redhorse (*Moxostoma carinatum*) inhabits deep, fast-flowing riffles. Both species are believed to be intolerant of siltation or pollution. Suitable habitat for these species is present in portions of the Kankakee River not far from the proposed acquisition alternatives.

Will County Acquisition Alternatives

No federal or state-listed fish species are known to occur from within or adjacent to the boundaries of the proposed Will County Acquisition Alternatives.

5.10.3.7 Invertebrates

Kankakee Acquisition Alternatives

No federal or state-listed species are known to occur within the boundaries of the proposed Kankakee Acquisition Alternatives. However, two state-listed mussel species have been reported from the Kankakee River relatively recently. The state-threatened slippershell (*Alasmidonta viridis*) prefers sandy substrates while the state endangered sheepsnose (*Plethobasus cyphus*) is more typical of mud or gravel bottoms.

Will County Acquisition Alternatives

No federal or state-listed invertebrate species are known to occur within or adjacent to the boundaries of the proposed Will County Acquisition Alternatives.

5.10.3.8 Plants

Kankakee Acquisition Alternatives

No federal or state-listed plants are known to occur within the boundaries of the proposed Kankakee Acquisition Alternatives. However, the federally listed species at risk and state-endangered Kankakee mallow (*Iliamna remota*) occurs on a dolomite island within the nearby Kankakee River State Park.

Will County Acquisition Alternatives

No federal or state-listed plants are known to occur within or adjacent to the boundaries of the proposed Will County Acquisition Alternatives.

5.10.3.9 Habitat for Listed Species

The majority of both the Kankakee and Will County Acquisition Alternatives are currently agricultural. The only significant natural areas are outside the proposed acquisition areas.

There have been no critical habitat areas identified by the USFWS for endangered species at any of the proposed acquisition alternatives, although a few state-listed avian species probably nest on-site (USFWS, 1995; 1997; copies of correspondence are contained in [Appendix B](#)). No federally listed endangered species occur within the proposed acquisition boundaries. No critical habitat, as defined by the Endangered Species Act, has been designated in any of proposed acquisition alternatives or vicinity.

5.10.4 DISCUSSION OF IMPACTS

5.10.4.1 No-Action Alternative

Growth and development as described in [Section 5.3](#), Social Impacts, and [5.4](#), Socioeconomic Impact, would continue under the No-Action Alternative. Over time, as residential and commercial development increases in the area, the quality of natural habitats that support protected species would potentially decline.

5.10.4.2 Kankakee Acquisition Alternatives

No changes in land use or construction is proposed under these alternatives and no impacts to endangered or threatened species or to habitats critical to their survival would occur from either the Inaugural or Ultimate Acquisition Alternative. In addition, no impacts to migratory birds or migration patterns would occur.

5.10.4.3 Will County Acquisition Alternatives

No changes in land use or construction is proposed under these alternatives and no impacts to endangered or threatened species or to habitats critical to their survival would from either the Inaugural or Ultimate Acquisition Alternative. In addition, no impacts to migratory birds or migration patterns would occur.

5.10.5 MITIGATION

No impacts to endangered or threatened species are anticipated under any of the aforementioned alternatives. Therefore, no mitigation will be required to mitigate impacts to endangered and threatened species.

5.11 WETLANDS

5.11.1 OVERVIEW OF IMPACTS

The Kankakee Inaugural Acquisition Alternative would acquire 41.1 acres of NWI-mapped wetlands, and the Kankakee Ultimate Acquisition Alternative would acquire 347.2 acres of NWI-mapped wetlands. The Will County Inaugural Acquisition Alternative would acquire 57.1 acres of NWI-mapped wetlands, and the Will County Ultimate Acquisition Alternative would acquire 364.4 acres of NWI-mapped wetlands. However, no land use changes or construction would occur under the acquisition alternatives; therefore, these alternatives would not result in impacts to wetlands.

5.11.2 METHODOLOGY

DOT Order 5660.1A implementing Executive Order 11990, and the Illinois Interagency Wetlands Policy Act of 1989 (20 ILCS 830), state that wetlands should first be avoided when planning and constructing Federal or state projects. If wetland impacts are unavoidable, they then should be minimized, and then mitigated. Pursuant to Section 404 of the Clean Water Act (CWA) of 1977, and subsequent amendments, a U.S. Army Corps of Engineers permit would be required prior to any impacts to wetlands and other waters of the U.S. due to the proposed project. A Memorandum of Understanding (MOU) between the Illinois Department of Natural Resources and the Illinois Department of Transportation has been signed and provides the procedures for compliance with the Illinois Interagency Wetlands Policy Act.

Preliminary agency coordination on wetlands issues was conducted throughout the site selection and Phase I Engineering process conducted by the Sponsor prior to the FAA undertaking this Tier I FEIS study. The U.S. Army Corps of Engineers, U.S. Environmental Protection Agency, U.S. Fish and Wildlife Service, and the Illinois Department of Natural Resources (formerly Department of Conservation) were participants in the project's Technical Committee.

As part of the site selection process for a new airport in the greater Chicago region, a Wetlands Inventory report was prepared in October 1991 (refer to *Working Paper No. 20A, Appendix E, Volume I* of the *Illinois-Indiana Regional Airport Site Selection Report-Abstract* (TAMS, 1991q). Preliminary estimates of wetland acreage, acreage of other waters of the U.S. and wetland classifications were based on National Wetland Inventory (NWI) maps, 1993-94 aerial photography, and on-site visual observations.

5.11.3 EXISTING CONDITIONS

5.11.3.1 Kankakee Inaugural Acquisition Alternative

The NWI-mapped wetlands and other waters of the U.S. within the Kankakee Acquisition Alternatives are depicted in [Figure 5.11-1](#). The most common type of wetland found within the Inaugural Acquisition Alternative is palustrine emergent (PEM) wetland, followed by palustrine forested wetland (PFO), and palustrine scrub-shrub (PSS) wetland. Riverine (R2OWH/Hx) habitat comprises the other waters of the U.S. within the site (see [Table 5.11-1](#)).

TABLE 5.11-1

NWI-MAPPED WETLANDS AND OTHER WATERS OF THE U.S.
KANKAKEE INAUGURAL ACQUISITION ALTERNATIVE

| NWI Wetland Classification | Acres |
|--|-------------|
| Palustrine Emergent (PEM) | 27.0 |
| Palustrine Forested (PFO) | 7.3 |
| Palustrine Open Water (POW) | 0 |
| Palustrine Scrub-Shrub (PSS) | 2.8 |
| Palustrine Unconsolidated Bottom (PUB) | 0 |
| Riverine (R2OWHx) | 4.0 |
| Totals | 41.1 |

Source: TAMS, 1997.

Palustrine emergent (PEM) wetlands are found scattered throughout the site, generally occurring in low lying areas within farm fields or pastures. PEM wetlands are also found along Forked Creek and the South Branch of Forked Creek, as well as along tributaries to these creeks. The emergent wetlands are typically dominated by a variety of herbaceous, hydrophytic vegetation, including reed canary grass (*Phalaris arundinacea*), wild golden glow (*Rudbeckia laciniata*), grass-leaved goldenrod (*Solidago graminifolia*), prairie cordgrass (*Spartina pectinata*), cattails (*Typha* spp.), bulrushes (*Scirpus* spp.), and sedges (*Carex* spp.).

The palustrine forested (PFO) wetland classification includes wetlands characterized by deciduous trees in the canopy layer. These wetlands are typically found along flooded, swampy stream margins where the adjacent hydrology has not been altered due to stream channelization. Within the Kankakee site, PFO wetlands are found along Forked Creek, the South Branch of Forked Creek, and the tributaries to these creeks. Typical dominant tree species within this wetland type include box elder (*Acer negundo*), red maple (*Acer rubrum*), silver maple (*Acer saccharinum*), hackberry (*Celtis occidentalis*), green ash (*Fraxinus pennsylvanica*), Eastern cottonwood (*Populus deltoides*), black willow (*Salix nigra*), American elm (*Ulmus americana*), sycamore (*Platanus occidentalis*), river birch (*Betula nigra*), and red elm (*Ulmus rubra*).

The palustrine scrub-shrub (PSS) wetlands within the Inaugural Acquisition Alternative are located along the South Branch of Forked Creek, and are dominated by low-growing woody vegetation including red-osier dogwood (*Cornus stolonifera*), downy hawthorn (*Crataegus mollis*), multiflora rose (*Rosa multiflora*), and sandbar willow (*Salix interior*).

The jurisdictional waters of the U.S. within this site, classified by the NWI as riverine (R2OWH/Hx), include Forked Creek, the South Branch of Forked Creek, Rock Creek, and several unnamed tributaries to these creeks. Portions of these creeks and their tributaries have been channelized.

The primary value of these wetlands is as wildlife habitat. Though altered by drainage and other agricultural activities, the wetlands provide some diversity and interspersions of cover types in a landscape otherwise

dominated by crops and pasture. The forested wetland corridors provide habitat for migratory birds. The ponds provide general habitat for fish, amphibians, and some species of waterfowl and wading birds.

Wetlands adjacent to streams and ditches also provide some water quality improvement by trapping sediment in runoff before it enters drainageways. Isolated wetlands provide some flood attenuation capacity by collecting and detaining overland runoff. However, channelization and other drainage activities have reduced the flood attenuation value of these wetlands by changing the hydraulic gradient and their capacity to detain runoff and floodwaters.

5.11.3.2 Kankakee Ultimate Acquisition Alternative

The NWI-mapped wetlands and other waters of the U.S. within the Kankakee Acquisition Alternatives are depicted in [Figure 5.11-1](#). The most common type of wetland found within the ultimate acquisition site is palustrine forested wetland (PFO), followed by palustrine emergent (PEM) wetland, palustrine scrub-shrub (PSS) wetland, and wetland complexes. Riverine (R2OWH/Hx) habitat, palustrine open water (POW) and ponds (PUB) comprise the other waters of the U.S. within the site (see [Table 5.11-2](#)).

TABLE 5.11-2

**NWI-MAPPED WETLANDS AND OTHER WATERS OF THE U.S.
KANKAKEE ULTIMATE ACQUISITION ALTERNATIVE**

| NWI Wetland Classification | Acres |
|--|--------------|
| Palustrine Emergent (PEM) | 77.6 |
| Palustrine Forested (PFO) | 131.4 |
| Palustrine Open Water (POW) | 1.4 |
| Palustrine Scrub-Shrub (PSS) | 21.7 |
| Palustrine Emergent/Forested/Scrub-Shrub Complex (PEM/PFO/PSS) | 9.8 |
| Palustrine Unconsolidated Bottom (PUB) - Pond | 0.5 |
| Riverine (R2OWH/Hx/R2UBH) | 104.8 |
| Totals | 347.2 |

Source: TAMS, 1997.

The palustrine forested (PFO) wetland classification includes wetlands characterized by deciduous trees in the canopy layer. These wetlands are typically found along flooded, swampy stream margins where the adjacent hydrology has not been altered due to stream channelization. Within the Kankakee Ultimate Acquisition Alternative, PFO wetlands are concentrated in the southwestern portion of the site, at and near the confluence of Forked Creek and the South Branch of Forked Creek. Additional PFO wetlands are found along the tributaries to these creeks. Typical dominant tree species within this wetland type include box elder (*Acer negundo*), red maple (*Acer rubrum*), silver maple (*Acer saccharinum*), hackberry (*Celtis occidentalis*), green ash (*Fraxinus pennsylvanica*), Eastern cottonwood (*Populus deltoides*), black willow (*Salix nigra*), American elm (*Ulmus americana*), sycamore (*Platanus occidentalis*), river birch (*Betula nigra*) and red elm (*Ulmus rubra*).

PEM wetland is the next most common wetland type within the Kankakee Ultimate Acquisition Alternative. PEM wetlands are found scattered throughout the site, generally occurring in low lying areas within farm

fields or pastures. PEM wetlands are also found along Forked Creek and the South Branch of Forked Creek, as well as along tributaries to these creeks. The emergent wetlands are typically dominated by a variety of herbaceous, hydrophytic vegetation, including reed canary grass (*Phalarus arundinacea*), wild golden glow (*Rudbeckia laciniata*), grass-leaved goldenrod (*Solidago graminifolia*), prairie cordgrass (*Spartina pectinata*), cattails (*Typha* spp.), bulrushes (*Scirpus* spp.), and sedges (*Carex* spp.).

The palustrine scrub-shrub (PSS) wetlands within the Kankakee Ultimate Acquisition Alternative are located along the South Branch of Forked Creek, and are dominated by low-growing woody vegetation including red-osier dogwood (*Cornus stolonifera*), downy hawthorn (*Crataegus mollis*), multiflora rose (*Rosa multiflora*), and sandbar willow (*Salix interior*).

The jurisdictional waters of the U.S. within this site, classified by the NWI as riverine (R2OWH/Hx/R2UBH), include Forked Creek, the South Branch of Forked Creek, Rock Creek, Rayns Creek, and several unnamed tributaries to these creeks. Portions of these creeks and their tributaries have been channelized.

Additional waters of the U.S. within the Kankakee Ultimate Acquisition site include a few small areas of palustrine open water (POW) habitat and pond (PUB) habitat. These are mainly a result of excavation activities, such as construction of borrow pits, residential landscaping, or livestock watering ponds. Additionally, naturally occurring ponds may also be present within palustrine wetland complexes, being associated with emergent, scrub-shrub and/or forested wetland types. Their acreage is included within the acreage identified as wetlands.

Palustrine wetland complexes include a combination of wetland types, where interspersions are 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. There is one wetland complex within this site, located along Forked Creek. The primary value of these wetlands is as wildlife habitat. Though altered by drainage and other agricultural activities, the wetlands provide some diversity and interspersions of cover types in a landscape otherwise dominated by crops and pasture. The forested wetland corridors provide habitat for migratory birds. The ponds provide general habitat for fish, amphibians, and some species of waterfowl and wading birds.

Wetlands adjacent to streams and ditches also provide some water quality improvement by trapping sediment in runoff before it enters drainageways. Isolated wetlands provide some flood attenuation capacity by collecting and detaining overland runoff. However, channelization and other drainage activities have reduced the flood attenuation value of these wetlands by changing the hydraulic gradient and their capacity to detain runoff and floodwaters.

5.11.3.3 Will County Inaugural Acquisition Alternative

The NWI wetlands and other waters of the U.S. within the Will County Inaugural Acquisition Alternative are identified in [Figure 5.11-2](#). The most common type of wetland found within the site is palustrine emergent wetland (PEM), followed by palustrine forested (PFO) wetland, and palustrine scrub-shrub (PSS) wetland.

Palustrine open water (POW) and ponds (PUB) comprise the other waters of the U.S. within the site (see [Table 5.11-3](#)).

TABLE 5.11-3

**NWI-MAPPED WETLANDS AND OTHER WATERS OF THE U.S.
WILL COUNTY INAUGURAL ACQUISITION ALTERNATIVE**

| NWI Wetland Classification | Acres |
|---|--------------|
| Palustrine Emergent (PEM) | 39.0 |
| Palustrine Forested (PFO) | 3.1 |
| Palustrine Open Water (POW) | 9.1 |
| Palustrine Scrub-Shrub (PSS) | 5.9 |
| Palustrine Emergent/ Forested/Scrub-Shrub Complex (PEM/PFO/PSS) | 0 |
| Riverine (R2OWHx) | 0 |
| Totals | 57.1 |

Source: TAMS, 1997.

The emergent wetlands (PEM) within the Will County Inaugural Acquisition 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 crus-galli*), and pinkweed (*Polygonum pennsylvanicum*).

The palustrine forested wetland (PFO) designation includes wetlands characterized by deciduous trees in the canopy layer. Forested wetlands within the 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 palustrine scrub-shrub wetlands (PSS) are dominated by low-growing woody vegetation such as sandbar willow (*Salix interior*) and red-osier dogwood (*Cornus stolonifera*). Scrub-shrub wetlands are generally associated with emergent and/or forested wetlands (wetland complexes) within the Will County Inaugural Acquisition site.

Waters of the U.S. within the site also include palustrine open water (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 the site are found in association with emergent, scrub-shrub or forested wetland types. Their acreage is included within the wetland complex category.

As with the Kankakee sites, wildlife habitat is the primary value of the wetlands and other waters of the U.S. within this 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.

5.11.3.4 Will County Ultimate Acquisition Alternative

The NWI wetlands and other waters of the U.S. within the Will County Ultimate Acquisition Alternative are identified in [Figure 5.11-2](#). The most common type of wetland found within the 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 (see [Table 5.11-4](#)).

TABLE 5.11-4

**NWI-MAPPED WETLANDS AND OTHER WATERS OF THE U.S.
WILL COUNTY ULTIMATE ACQUISITION ALTERNATIVE**

| NWI Wetland Classification | Acres |
|---|--------------|
| Palustrine Emergent (PEM) | 202.3 |
| Palustrine Forested (PFO) | 41.9 |
| Palustrine Open Water (POW) | 25.5 |
| Palustrine Scrub-Shrub (PSS) | 3.1 |
| Palustrine Emergent/ Forested/Scrub-Shrub Complex (PEM/PFO/PSS) | 11.1 |
| Riverine (R2OWHx) | 80.5 |
| Totals | 364.4 |

Source: TAMS, 1997.

The emergent wetlands (PEM) within the 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 crus-galli*) and pinkweed (*Polygonum pensylvanicum*).

The palustrine forested wetland (PFO) designation includes wetlands characterized by deciduous trees in the canopy layer. Forested wetlands within the Will County Ultimate Acquisition Alternative 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 palustrine scrub-shrub wetlands (PSS) are dominated by low-growing woody vegetation such as sandbar willow (*Salix interior*) and red-osier dogwood (*Cornus stolonifera*). Scrub-shrub wetlands are generally associated with emergent and/or forested wetlands (wetland complexes) within this site.

Palustrine wetland complexes include a combination of wetland types, where interspersions are 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 this 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*). Constructed ditches are not considered waters of the U.S. under USACOE and USEPA jurisdiction, if they were originally excavated from upland.

Waters of the U.S. within the Will County Ultimate Acquisition site also include palustrine open water (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.

As with the Kankakee Acquisition Alternatives, wildlife habitat is the primary value of the wetlands and other waters of the U.S. within this 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.

5.11.4 DISCUSSION OF IMPACTS

5.11.4.1 No-Action Alternative

As residential and commercial development continues to occur in the study area as described in [Sections 5.3](#), Social Impacts, and [5.4](#), Induced Socioeconomic Impacts, potential impacts to existing wetlands could occur. Any proposed future impacts to wetlands would require coordination under Section 404 of the CWA between developers and permitting agencies.

5.11.4.2 Kankakee Inaugural Acquisition Alternative

Within the Inaugural Acquisition Alternative, there are 41.1 acres of NWI-mapped wetlands. No construction or changes in land use are proposed under this alternative; therefore, no impacts to existing wetlands or waters of the U.S. would occur.

The IDNR and the USEPA are concerned about the cumulative impacts to wetlands and aquatic resources if a site for a new airport is selected and subsequently a new airport is constructed. [Section 5.23](#) discusses potential cumulative impacts in more detail.

5.11.4.3 Kankakee Ultimate Acquisition Alternative

Within the Ultimate Acquisition Alternative there are 347.2 acres of NWI-mapped wetlands. No construction or changes in land use are proposed under this alternative; therefore, no impacts to existing wetlands or waters of the U.S. would occur.

The IDNR and the USEPA are concerned about the cumulative impacts to wetlands and aquatic resources if a site for a new airport is selected and subsequently a new airport is constructed. [Section 5.23](#) discusses potential cumulative impacts in more detail.

5.11.4.4 Will County Inaugural Acquisition Alternative

Within the Inaugural Acquisition Alternative there are 57.1 acres of NWI-mapped wetlands. No construction or changes in land use are proposed under this alternative; therefore, no impacts to existing wetlands or waters of the U.S. would occur.

The IDNR and the USEPA are concerned about the cumulative impacts to wetlands and aquatic resources if a site for a new airport is selected and subsequently a new airport is constructed. [Section 5.23](#) discusses potential cumulative impacts in more detail.

5.11.4.5 Will County Ultimate Acquisition Alternative

Within the Ultimate Acquisition Alternative there are 364.4 acres of NWI-mapped wetlands. No construction or changes in land use are proposed under this alternative; therefore, no impacts to existing wetlands or waters of the U.S. would occur.

The IDNR and the USEPA are concerned about the cumulative impacts to wetlands and aquatic resources if a site for a new airport is selected and subsequently a new airport is constructed. [Section 5.23](#) discusses potential cumulative impacts in more detail.

5.11.5 MITIGATION

The No-Action Alternative and the Kankakee and Will County Inaugural and Ultimate Acquisition Alternatives propose either no site approval or site approval and acquisition of property. No construction or land use changes are proposed in any of the alternatives evaluated in this Tier 1 FEIS. No impacts to existing wetlands or waters of the U.S. are anticipated under any of the aforementioned alternatives. Therefore, mitigation measures are not warranted.

5.12 FLOODPLAINS

5.12.1 OVERVIEW OF IMPACTS

The No-Action Alternative will not have any direct impacts to floodplain areas; however, with the projected growth in the area, incremental floodplain encroachments could occur. Under the proposed alternatives evaluated in this Tier 1 FEIS, no construction or alteration of land use is proposed; therefore, no impacts to floodplains would result from either the Kankakee or Will County Acquisition Alternatives.

5.12.2 METHODOLOGY

Floodplains are a valuable natural resource serving many functions, including stormwater storage, erosion and sediment control, and wildlife support. Floodplains help alleviate the impact of flooding downstream. As stormwater tops the banks of a river or stream and spreads out over the floodplain, the flow velocity decreases and the storm peak is reduced. With the flow velocity decreased, the amount of bank erosion also decreases. Some of the sediments carried by storm waters are deposited in the floodplain rather than being carried further downstream.

Floodplains also provide nesting and foraging habitat and cover for wildlife. Vegetation and organic matter within the floodplain are often picked up by receding floodwaters and carried downstream, contributing to the foundation of the natural food chain. For these reasons, government agencies protect floodplains from encroachment and unnecessary development.

FAA Order 5050.4A, *Airport Environmental Handbook*, requires an airport sponsor to consider the impacts of proposed airport developments on floodplains. One hundred-year floodplains are defined in Executive Order 11988, Floodplain Management, as *"that area subject to a one percent or greater chance of flooding in any given year;"* i.e., the area that would be inundated by a 100-year flood.

The 100-year floodplain consists of two parts, the floodway and the flood fringe. The floodway, as determined by the Federal Emergency Management Agency (FEMA), Illinois Department of Natural Resources, Office of Water Resources (OWR) or other regulatory agency, is that portion of the floodplain adjacent to a stream which is needed to convey the existing 100-year frequency flood discharge. The floodway is a high-risk area where land use controls should be used to prevent development so as to avoid flood damages and to permit the free passage of floodwater. Activities that are generally not acceptable in floodways include construction or placement of new structures, fill, building additions, fencing and storage of materials.

Flood fringes are those portions of the floodplain outside the floodway where floodwaters are shallow and slow moving. They are low-risk areas where development may be permitted if reasonable precautions are taken, such as elevating and filling, and provided that the capacity of the floodplain to store and convey floodwater is preserved. Development in and/or the filling of flood fringes are not permitted without protecting against the 100-year frequency flood and providing compensatory storage.

The Kankakee and Will County Acquisition Alternatives are primarily located in the Kankakee River watershed (see [Figure 5.12-1](#)). The Kankakee Acquisition Alternatives are located approximately 2 miles north of the Kankakee River. The Will County Acquisition Alternatives are located in the headwaters, or upper limits, of the Kankakee River watershed, approximately 14 miles from the river. The streams that drain the sites are similar to most tributaries that drain to the Kankakee River. The stream channels are deeply cut with steep side slopes and the associated floodplains are narrower in the headwaters and broader closer to the Kankakee River.

Streams and watershed boundaries for each alternative site were identified using published maps from the U.S. Geological Survey. The designated 100-year flood boundaries at the Kankakee and Will County sites were identified using Flood Insurance Rate maps prepared under the National Flood Insurance Program for the FEMA. The information was added to a geographic information system (GIS) database for each site. The length of stream/river channel and the area of designated 100-year floodplain within each acquisition area were estimated by overlaying the acquisition boundaries with the waterway, floodplain and site topographic mapping.

5.12.3 EXISTING CONDITIONS

This section provides an inventory of the waterways and associated floodplains within the Kankakee and Will County Acquisition Alternatives. Flooding at each site is currently limited to agricultural fields along the creeks draining the sites, and to some rural roads crossing these creeks. The depth of flooding at each site during a 100-year flood event ranges from 1-inch to approximately 3 feet. There are no designated floodways identified on the FEMA Flood Insurance Rate Maps for the alternative sites. However, construction activities in the non-designated floodways, if the stream drains 1 square mile or greater, are still regulated by the IDNR, Office of Water Resources and county governments. In Will and Kankakee counties, the floodplain is regulated as two zones: floodway and flood fringe.

5.12.4 WATERSHED DESCRIPTIONS

5.12.4.1 Kankakee Inaugural Acquisition Alternative

The Kankakee Inaugural Acquisition Alternative is drained by several streams that flow through cropland in southwestern Will County and northeastern Kankakee County (see [Figures 5.12-2](#) and [5.12-3](#)). Many reaches of these streams have been ditched, 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.

A total of approximately 11 miles of stream channels drain through this site. Associated with these stream channels are about 1,408 acres of designated 100-year floodplains within the study area (see [Figure 5.12-4](#)). This entire site drains to the south and southwest into the Kankakee River.

Forked Creek and its tributaries drain the northern and western portions of the site, collecting water from intermittent farm ditches. This creek flows through open, flat cropland with generally forested banks. Forked Creek and its tributaries flow southwest through the site consisting of approximately 4 miles of channel emptying into the Kankakee River. All of Forked Creek and its tributaries within the site have designated 100-year floodplains varying in width from 151 to 2,640 feet.

The other main drainage system in the Kankakee Inaugural Acquisition Alternative is 6.5 miles of the South Branch of Forked Creek, draining the northeastern and southern portions of the site. It flows through open, flat cropland with a mix of forested and cleared banks. All of the South Branch of Forked Creek and its tributaries in the site have 100-year floodplains varying in width from 138 to 4,224 feet.

Several tributaries of Rock Creek flow partially through the east side of the site, including a small portion of the main channel. The main channel (500 feet) flows through the extreme east side of the site. The tributary (1,500 feet) is generally channelized and flows intermittently through cropland. Rock Creek and its tributary have 100-year floodplains varying in width from 2,112 to 2,640 feet. The Will County portion of Rock Creek is contained in the Rock Creek Drainage District, reactivated in the summer of 1997 to alleviate flooding problems in the Village of Peotone.

5.12.4.2 Kankakee Ultimate Acquisition Alternative

The Kankakee Ultimate Acquisition Alternative is drained by several streams that flow through cropland in southwestern Will County and northeastern Kankakee County (see [Figures 5.12-2](#) and [5.12-3](#)). Many reaches of these streams have been ditched, 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.

A total of approximately 53 miles of stream channels drain through this site. Associated with these are about 5,888 acres of designated 100-year floodplains within the study area (see [Figure 5.12-4](#)). This entire site drains to the south and southwest into the Kankakee River.

Forked Creek and its tributaries drain the northern and western portions of the site, collecting water from intermittent farm ditches. The creek flows through open, flat cropland with generally forested banks. Forked Creek and its tributaries flow southwest through the site consisting of approximately 14 miles of channel emptying into the Kankakee River. All of Forked Creek and its tributaries in the site have designated 100-year floodplains varying in width from 151 to 4,190 feet.

The other main drainage system in the Kankakee site is the South Branch of Forked Creek. This stream and its tributaries consist of approximately 21 miles of stream channel, draining the eastern and southern portions of the site. It flows through open, flat cropland with a mix of forested and cleared banks. The main channel of the South Branch of Forked Creek joins with Forked Creek in the southwest corner of the site. All of the South Branch of Forked Creek and its tributaries in the site have 100-year floodplains varying in width from 138 to 5,256 feet.

Several tributaries of Rock Creek flow partially through the southeast corner of the site, including a small portion of the main channel. The main channel (0.6 miles) flows through the extreme east side of the site. The tributaries (7 miles) are generally channelized and flow intermittently through cropland. Rock Creek and its tributaries have 100-year floodplains varying in width from 709 to 6,772 feet. The Will County portion of Rock Creek is contained in the Rock Creek Drainage District, reactivated in the summer of 1997 to alleviate flooding problems in the Village of Peotone.

The headwaters of Rayns Creek begin in the southwest corner of the site. The portion located within the site is intermittent and flows through cropland. It joins the main channel of Rayns Creek approximately 6 miles southwest of the site. There are no designated 100-year floodplains associated with these headwaters.

5.12.4.3 Will County Inaugural Acquisition Alternative

The Will County Inaugural Acquisition Alternative is drained by several headwater streams that flow through cropland in eastern Will County (see [Figure 5.12-5](#)). Many reaches of these streams have been ditched, 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.

A total of approximately 7 miles of stream channels run through the site (see [Figure 5.12-6](#)). Associated with these channels are about 340 acres of designated, 100-year floodplains within the site boundary (see [Figure 5.12-7](#)).

The extreme eastern portion of the proposed Will County site drains to the northeast towards Lake Michigan, as part of the Calumet River drainage. A 1,400-foot-long section of a headwater tributary of Plum Creek flows northeast from the site toward Illinois Route 1, to the east. Within the site, this intermittent farm channel drains a very small area (<0.25 square miles) of cropland. This tributary joins another tributary, approximately 2 miles northeast of the site to form the main channel of Plum Creek. There are designated 100-year floodplains, approximately 150 feet 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 to the southwest across the west half of the site, draining approximately 2.5 square miles. It flows through open cropland with some forested banks. Black Walnut Creek flows southwest for approximately 5 miles before joining with the South Branch of Rock Creek, which is a tributary of the Kankakee River. There are designated 100-year floodplains associated with Black Walnut Creek varying from approximately 100 to 1,320 feet in width.

A 3,000-foot-long section of the South Branch of Rock Creek drains approximately 0.5 square miles of cropland in the south-central portion of the site. The South Branch of Rock Creek flows south for approximately 5 miles before joining with Rock Creek, which empties into the Kankakee River. There is a 100-year floodplain associated with the South Branch of Rock Creek approximately 100 feet in width.

Rock Creek and a tributary drain approximately 1 square mile at the extreme western side of the site. The main channel flows through the area between the site and Interstate 57, to the west. The tributary is an intermittent farm ditch located to the northwest of the main channel. Both Rock Creek and its tributary flows through open cropland. The designated 100-year floodplain for Rock Creek is approximately 2,100 feet wide, and its tributary is approximately 400 feet 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.

5.12.4.4 Will County Ultimate Acquisition Alternative

The Will County Ultimate Acquisition Alternative is drained by several headwater streams that flow through cropland in eastern Will County (see [Figure 5.12-5](#)). Many reaches of these streams have been ditched, 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.

A total of approximately 38 miles of stream channels run through the site (see [Figure 5.12-6](#)). Associated with these channels are about 1,704 acres of designated, 100-year floodplains within the proposed airport boundary (see [Figure 5.12-7](#)).

The extreme northern and eastern portions of the proposed 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 2 miles northeast of the site to form the main channel of Plum Creek. There are designated 100-year floodplains, approximately 150 feet 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 site, draining approximately 11.7 square miles. It flows through open cropland with some forested banks. Black Walnut Creek flows southwest for approximately 5 miles before joining with the South Branch of Rock Creek, which is a tributary of the Kankakee River. There are designated 100-year floodplains associated with Black Walnut Creek varying from approximately 100 to 1,400 feet in width.

The headwaters of Marshall Slough are located in the extreme southwest portion of the site. Marshall Slough drains approximately 2 square miles of the property site. It is an intermittent stream, mostly ditched, flowing through cropland. It joins with Black Walnut Creek and the South Branch of Rock Creek approximately 6 miles southwest of the site. The designated 100-year floodplain is approximately 200 feet wide.

The headwaters of the South Branch of Rock Creek drain approximately 5.4 square miles in the central and southern portions of the site. These are mainly intermittent farm ditches draining cropland. The South Branch of Rock Creek flows south for approximately 5 miles before joining with Rock Creek, which empties into the Kankakee River. There are 100-year floodplains associated with the South Branch of Rock Creek varying from approximately 100 to 2,300 feet in width.

Rock Creek and its tributaries drain approximately 6.8 square miles at the extreme western side of the site. The main channel flows through the area between the site and Interstate 57, to the west. The tributaries are intermittent farm ditches 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 feet wide, and its tributaries vary from approximately 250 to 400 feet 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 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 feet.

Deer Creek's headwaters are located in the extreme northern portion of the site, draining approximately 0.9 square miles. A further 0.2 square miles would be crossed by the proposed East-West Airport Connector Road link to Illinois Route 394. Neither of these areas directly impacts Deer Creek or its associated floodplain, since the stream begins north of the proposed site.

5.12.5 DISCUSSION OF IMPACTS

Table 5.12-1 presents a summary of the stream length and floodplain areas proposed to be acquired under the various Kankakee and Will County Acquisition Alternatives.

**TABLE 5.12-1
COMPARATIVE SUMMARY OF TOTAL STREAM LENGTH AND
100-YEAR FLOODPLAIN TO BE ACQUIRED**

| Acquisition Alternative | Stream Length to be Acquired (feet) | 100-Year Floodplain to be Acquired (acres) |
|--------------------------------|--|---|
| No-Action | N/A | N/A |
| Kankakee Inaugural | 56,038 | 1,408 |
| Kankakee Ultimate | 280,192 | 5,888 |
| Will County Inaugural | 37,453 | 340 |
| Will County Ultimate | 198,568 | 1,704 |

Source: TAMS, 1995; 1997.

5.12.5.1 No-Action Alternative

There would be no streams relocated under the No-Action Alternative, nor would there be any construction. Therefore, there are no impacts to floodplains under this alternative.

5.12.5.2 Kankakee Inaugural Acquisition Alternative

The Kankakee Inaugural Acquisition Alternative proposes the approval of acquisition of approximately 4,200 acres of land. Within the Inaugural Acquisition Alternative, approximately 11 miles of stream channel and 1,408 acres of 100-year floodplain would be acquired. However, since no land use changes and no construction is proposed under this alternative, no impacts to existing streams or floodplains would occur.

5.12.5.3 Kankakee Ultimate Acquisition Alternative

The Kankakee Ultimate Acquisition Alternative proposes the approval of acquisition of approximately 24,500 acres of land. Within the Ultimate Acquisition Alternative, approximately 53 miles of stream channel and 5,888 acres of 100-year floodplain would be acquired. However, since no land use changes and no construction is proposed under this alternative, no impacts to existing streams or floodplains would occur.

5.12.5.4 Will County Inaugural Acquisition Alternative

The Will County Inaugural Acquisition Alternative proposes the approval of acquisition of approximately 4,000 acres of land. Within the Inaugural Acquisition Alternative, approximately 7 miles of stream channel and 340 acres of 100-year floodplain would be acquired. However, since no land use changes and no construction is proposed under this alternative, no impacts to existing streams or floodplains would occur.

5.12.5.5 Will County Ultimate Acquisition Alternative

The Will County Ultimate Acquisition Alternative proposes the approval of acquisition of approximately 23,500 acres of land for a potential future airport site. Within the Ultimate Acquisition Alternative, approximately 38 miles of stream channel and 1,704 acres of 100-year floodplain would be acquired. However, since no land use changes and no construction is proposed under this alternative, no impacts to existing streams or floodplains would occur.

5.12.6 MITIGATION

The No-Action Alternative and the Kankakee and Will County Inaugural and Ultimate Acquisition Alternatives propose either no site approval or site approval and acquisition of property. No land use changes and no construction is proposed for any of the alternatives evaluated in this Tier 1 FEIS; therefore, no impacts to existing streams or floodplains would occur under any of the alternatives, and no mitigation is warranted.

5.13 COASTAL ZONE MANAGEMENT AND COASTAL BARRIERS

5.13.1 OVERVIEW OF IMPACTS

There are no areas in Illinois subject to the Coastal Zone Management Act of 1972, as amended. Also, there are no coastal barriers in Illinois subject to the Coastal Barrier Resources Act of 1982, as amended. Therefore, none of the alternatives would result in impacts to coastal zone management areas or coastal barriers.

5.13.2 METHODOLOGY

The Coastal Zone Management Act of 1972, as amended, provides for preservation, protection, development and, where feasible, restoration of the nation's coastal zone. The Coastal Barrier Resources Act of 1982 requires that no new Federal expenditures or financial assistance may be made available for construction projects within the boundaries of the Coastal Barriers Resource System (CBRS). This act was amended in 1990 by the Coastal Barrier Improvement Act to include underlying coastal barriers along the shores of the Great Lakes.

According to the Coastal Programs Division with the National Oceanographic and Atmospheric Administration, the State of Illinois is listed as having an inactive Coastal Zone Management Program and therefore does not have areas subject to the Coastal Zone Management Act. To identify CBRSs within the State of Illinois, the Federal Emergency Management Agency's (FEMA) National Flood Insurance Program (NFIP) web site (www.fema.nfip) was reviewed. The State of Illinois is not listed as having a CBRS.

5.13.3 DISCUSSION OF IMPACTS - ALL ALTERNATIVES

Since there are no areas within the State of Illinois that are subject to the provisions of either the Coastal Zone Management Act of 1972, as amended, or the Coastal Barrier Resources Act of 1982, as amended, none of the alternatives would result in impacts to those resources.

5.14 WILD AND SCENIC RIVERS

5.14.1 OVERVIEW OF IMPACTS

None of the alternatives would require the purchase of property on, or adjacent to, any designated Wild and Scenic Rivers. Therefore, no impacts to Wild and Scenic Rivers would occur under any of the proposed alternatives evaluated in this Tier 1 FEIS.

5.14.2 METHODOLOGY

The Wild and Scenic Rivers Act (PL90-542 as amended) provides protection for river areas that are free flowing and possess "...outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural or other similar values." The United States Department of Interior is charged with the responsibility of identifying and inventorying rivers or river segments that could be potential candidates for inclusion in the National Wild and Scenic Rivers System. The Nationwide Rivers Inventory (NRI) was compiled as a comprehensive source of consistent data on the nation's significant free-flowing streams. The NRI lists rivers based on the degree to which they are free-flowing, the degree to which the rivers and their corridors are undeveloped, and the outstanding natural and cultural characteristics of the rivers and their immediate environs.

In 1979, the President issued a directive to strengthen the National Wild and Scenic Rivers System and to take particular care not to harm those rivers that may qualify for inclusion in this system. The directive was issued to Federal agencies through the Council on Environmental Quality and stated that:

Each Federal agency shall, as part of its normal planning and environmental review process, take care to avoid or mitigate adverse effects on rivers identified in the Nationwide Inventory prepared by the [National Park Service] Department of the Interior. Agencies shall, as part of their normal environmental review process, consult with the [National Park Service] prior to taking actions which could effectively foreclose wild, scenic, or recreational river status on rivers in the Inventory.

The methodology used in this document to evaluate potential impacts to the Wild and Scenic Rivers was based on the "Procedures for Interagency Consultation to Avoid or Mitigate Adverse Effects on Rivers in the Nationwide Inventory." The following items identify these procedures and link the appropriate elements of the normal environmental analysis process with the directive "to take care to avoid or mitigate adverse effects on rivers identified in the Nationwide Inventory."

- Determine whether the proposed action could affect an NRI river.
- Determine whether the proposed action could have an adverse effect on the natural, cultural, and recreational values of the Inventory segment of the river.
- Determine whether the proposed action could foreclose options to classify any portion of the Inventory segment as wild, scenic or recreational river areas.
- Incorporate measures to avoid or mitigate adverse impacts into the proposed action to maximum extent feasible within the agency's authority.

The “Guide for Identifying Potential Adverse Effects” was further used to define “recreational river areas” and to further evaluate criteria used in evaluating impacts. The Kankakee River is not designated as a Wild and Scenic River; however, it is designated as a river with outstanding recreational values. Recreational river areas, as defined in these guidelines, are “those rivers or sections of rivers that are readily accessible by road or railroad, that may have some development along their shorelines, and that may have undergone some impoundment or diversion in the past” (16 U.S.C. 1273 (b)).

5.14.3 EXISTING CONDITIONS

The nearest designated National Wild and Scenic River to the alternatives under evaluation is the Middle Fork of the Vermilion River. It is located in Vermilion County, Illinois, more than 60 miles south of both the Kankakee and Will County Acquisition Alternatives.

The Kankakee River is listed on the NRI as a river with outstanding recreational value. The Kankakee River is located approximately 2 miles south of the Kankakee Acquisition Alternatives and about 18 miles south of the Will County Acquisition Alternatives. The Kankakee River flows westward 148 miles from its source in northwest Indiana, until it reaches its confluence with the Des Plaines River. The Kankakee Acquisition Alternatives are drained by several surface streams flowing generally from the northeast to the southwest through cropland into the Kankakee River. Forked Creek, including several tributaries, is the major drainage feature that drains approximately 64 square miles of land upstream of the project site. Rock Creek and Rayns Creek drain smaller portions of the acquisition alternatives (see [Section 5.6, Water Quality](#)).

At Wilmington, Illinois, near the mouth of the river, the mean annual discharge is 381 cubic feet per second. A 25-mile reach of the lower river flows through Kankakee, Will, and Grundy counties in northeast Illinois. Sections of the Kankakee River, directly south of the proposed Kankakee Acquisition Alternatives, flow through the Kankakee River State Park. This river is used by visitors for boating, fishing, relaxation and solitude, nature study, and other recreational activities. Numerous public and private roads adjacent to both banks provide good access. The Kankakee River is located near the major metropolitan area of Chicago and is intensively used for recreational activities (Illinois Department of Energy and Natural Resources, 1984). Many smaller metropolitan areas are located within proximity of the river.

The river’s diverse habitats, high water quality, and accessibility account for its importance as a recreational fishing stream. Channel catfish, smallmouth bass, and walleye, as well as carp, white bass, and northern pike are caught in the Kankakee River (Illinois Department of Energy and Natural Resources, 1984). In a fishing survey conducted in 1978 and 1979, the lower Kankakee River attracted 6,156 hours of fishing per mile of water during the fishing season. When surveyed on the primary purpose of visiting the Kankakee River, fishing and escape from pressure were the two primary reasons cited. Overall, enjoyment of the total outdoor experience seemed to be the prime reason cited. The most popular period for fishing ranged from mid-March through early August, especially during the spring (Illinois Department of Energy and Natural Resources, 1984).

In 1991, coordination was initiated by the State of Illinois with the National Park Service, Midwest Region, regarding a proposed supplemental airport to determine if any rivers designated under the Wild and Scenic Rivers System or listed in the NRI existed within the vicinity of the study area. The Kankakee River is listed in the NRI as a river with outstanding recreational values, but it is not listed as a Wild and Scenic River pursuant to Public Law 90-542, as amended. The NRI identifies the Kankakee River as "...an eastern Illinois stream flowing through an area of intensive agriculture. Has a generally wooded corridor, but is farmed to waters edge in some places. A good recreational stream used for canoeing and fishing. Flows through Kankakee River State Park."

The segment listed on the NRI extends 22 miles from just south of the Village of Wilmington to the Indiana State line (see [Figure 5-14.1](#)). On March 11, 1997, coordination was re-initiated by the State of Illinois with the National Park Service, Midwest Region, requesting supplemental comments on both the Will County Alternatives and the Kankakee Alternatives. Based on a preliminary response submitted on April 1, 1997, the National Park Service responded that it had no comments. The National Park Service subsequently indicated that it will provide more thorough comments on the effects of the proposed project on the Kankakee River after it has an opportunity to review the EIS (see [Appendix B](#) for correspondence).

The Will County Acquisition Alternatives are located in the headwaters of several streams flowing through cropland in south-central Will County. In the northeastern corner of the acquisition alternatives, there is a drainage divide which separates runoff to the north and east into the Lake Michigan drainage system and to the south and west into the Kankakee River and ultimately into the Mississippi Basin (see [Section 5.6, Water Quality](#)).

In 1999, the U.S. Fish and Wildlife Service approved creation of a 30,000-acre National Wildlife Refuge along the Kankakee River from South Bend, Indiana to Momence, Illinois. Thus far, no land has been acquired for the refuge. The U.S. Army Corps of Engineers is proposing to restore aquatic habitat along the Kankakee River near the Illinois-Indiana state line.

5.14.4 DISCUSSION OF IMPACTS

5.14.4.1 No-Action Alternative

No direct or indirect impacts to Wild and Scenic Rivers would occur under this alternative. Under this alternative, current development trends described in [Section 5.3, Social Impacts](#), and [Section 5.4, Induced Socioeconomic Impacts](#), are expected to continue. As development and population increases in the surrounding area, recreational use of the Kankakee River would also increase. Possible impacts to the Kankakee River could include increased stormwater runoff, degradation of water quality, and increased noise.

5.14.4.2 Acquisition Alternatives

No areas subject to the Wild and Scenic Rivers Act would be affected by any of the Kankakee or Will County Acquisition Alternatives. Therefore, no direct or indirect impacts to Wild and Scenic Rivers would occur under any of the acquisition alternatives.

5.14.5 MITIGATION

Since none of the alternatives would impact areas subject to the Wild and Scenic Rivers Act, no mitigation would be required.

5.15 FARMLAND

5.15.1 OVERVIEW OF IMPACTS

No direct impacts to farmland are anticipated under any of the alternatives evaluated in this Tier 1 FEIS. The Kankakee Inaugural and Ultimate Acquisition Alternatives have 3,800 and 22,373 acres of active farmland and 8 and 49 acres of inactive farmland, respectively. The Will County Inaugural and Ultimate Acquisition Alternatives have 3,054 and 17,429 acres of active farmland and 54 and 660 acres of inactive farmland, respectively. Under the state's land acquisition policy (see [Appendix C](#)), existing land uses would continue and no additional development would occur within the Acquisition Alternatives. Therefore, all land currently in agricultural production would remain in agricultural production.

5.15.2 METHODOLOGY

The purpose of the Federal Farmland Protection Policy Act (7 U.S.C. 4201-4209) is to “minimize the extent to which Federal programs contribute to the unnecessary and irreversible conversion of farmland to nonagricultural uses, and to assure that Federal programs are administered in a manner that, to the extent practicable, will be compatible with state, unit of local government, and private programs and policies to protect farmland.”

As required by the Farmland Protection Policy Act (the Act), Federal agencies, such as the FAA, are to “(a) use criteria to identify and take into account the adverse effects of their programs on the preservation of farmland, (b) consider alternative actions, as appropriate, that could lessen adverse effects, and (c) to ensure that their programs, to the extent practicable, are compatible with state and units of local government and private programs and policies to protect farmland”.

The Illinois Farmland Preservation Act (505 ILCS 75/1-8) states: “The importance of preserving our agricultural land base has been recognized by the Illinois Rural Planning Council, the Task Force on the Future of Illinois, and in the state’s “Comprehensive Growth and Resource Conservation Policies.” Each of these efforts recommends that the state minimize the conversion of prime farmland that results from the direct or indirect effects of state programs and also encourages the achievement of related goals, such as reducing the loss of soil through erosion.”

In order to foster interagency cooperation, the Illinois Farmland Preservation Act requires the creation of an interagency committee on farmland preservation. The Illinois Department of Transportation (IDOT) is one of several cooperating agencies. All cooperating agencies are required to develop a policy statement specifying the agency’s policy toward farmland preservation. In accordance with the Illinois Farmland Preservation Act and Executive Order 80-4, IDOT has prepared an Agricultural Land Preservation Policy and Cooperative Working Agreement, dated August 27, 1993 (see [Appendix G](#)).

The IDOT farmland policy statement is as follows:

“Recognizing that its transportation objectives must be in concert with the overall goals of the state, it is the policy of the DOT, in its programs, procedures, and operations, to preserve Illinois farmland to the extent practicable and feasible, giving appropriate consideration to the state’s social, economic, and environmental goals.”

IDOT is committed to conducting planning studies for transportation or water resources projects that includes an early determination of the potential for farmland impacts. In such studies, IDOT carefully considers the impacts of farmland conversion on the agricultural economy of the state. Planning studies for transportation and water resources projects include coordination between IDOT and the Illinois Department of Agriculture, and when appropriate, other agricultural representatives.

Prime farmland is defined in the Act as “land that has the best combination of physical and chemical characteristics for producing food, feed, fiber, oilseed, and other agricultural crops with minimum inputs of fuel, fertilizer, pesticides, and labor, and without intolerable soil erosion, as determined by the Secretary [of Agriculture]. Prime farmland [also] includes land that possesses the above characteristics but is being used currently to produce livestock and timber. It does not include land already in or committed to urban development or water usage.”

Unique farmland is defined by the Act as land other than prime farmland that is used for production of specific high-value food and fiber crops, including citrus, tree nuts, olives, cranberries, fruits, and vegetables. The USDA Natural Resources Conservation Service (formerly the Soil Conservation Service) has determined that there are no “unique” farmlands in Illinois.

The Act defines *important farmland* as land other than prime or unique farmland that is of statewide or local importance for the production of food, feed, fiber, forage, or oilseed crops. Important farmland can economically produce high yields of crops when treated and managed according to acceptable farming methods, and may be able to produce as high a yield as prime farmland if conditions are favorable.

The Illinois Department of Agriculture has requested that the Project Sponsor, the Illinois Department of Transportation (IDOT), consider and evaluate prime and important farmland as a natural resource and not merely a “land use”. The IDOT considers areas designated as prime and important farmland to involve both natural resource and land use components. Soils, geology, and hydrology are natural resource factors that determine the suitability of a acquisition alternative for agriculture, which constitutes the land use. In IDOT environmental documents, the natural resource component of agriculture is addressed in the quantification of a project’s anticipated impacts to land suitable for farming. Even though this information typically is included in the part of the document addressing impacts to agriculture, rather than in the section on natural resource impacts, it does not mean that IDOT is disregarding the natural resource component of agriculture (i.e., the land).

The soils within the Kankakee and Will County Acquisition Alternatives have been broken down into land capability classes, as defined by the U.S. Department of Agriculture Land Capability Classification System. The relationship between land capability classes and prime and important farmland is that Prime farmland typically includes Class I, Class II and some Class III soils. Prime farmland soils, which are not

adequately drained to support a high yield of crops are classified as Additional Farmland of Statewide Importance or Other Lands. Class I through Class VIII lands within the acquisition alternative were determined from soil survey data and from geographic information system (GIS) mapping. These soil classes are described as follows:

- CLASS I - Soils with few limitations that restrict their use.
- CLASS II - Soils with some limitations that reduce the choice of plans or require moderate conservation practice.
- CLASS III - Soils with serious limitations that reduce the choice of plants or require special conservation practices, or both.
- CLASS IV - Soils with very severe limitations that restrict the choice of plants or, require special conservation practices with careful management, or both.
- CLASS V - Soils with limitations impractical to remove without major reclamation. Use limited largely to pasture, woodland, or wildlife.
- CLASS VI - Soils with very severe limitations that make them generally unsuited for cultivation. Generally suited to pasture, woodland or wildlife.
- CLASS VII - Soils with extreme limitations. Restrictions to woodland, wildlife, or specially managed pasture.
- CLASS VIII - Soils with landforms that are suited only for wildlife, recreation, water supply, or aesthetic purposes.

Soils were digitized and entered into the GIS for analysis. The U.S. Department of Agriculture, Natural Resources Conservation Service's (NRCS) County Soil Surveys were used as the source for the soil data.

The Illinois Department of Agriculture designates farms that have been owned by the same family for at least 100-years as Centennial Farms. Certification is voluntary and occurs after the landowner submits suitable documentation proving that ownership has been retained by the same family over the last 100 years. However, once a farm has been certified as a Centennial Farm, the Illinois Department of Agriculture does not maintain records on current ownership.

5.15.3 EXISTING CONDITIONS

5.15.3.1 Kankakee Inaugural Acquisition Alternative

Figure 5.9-1 provides a map of the current land use and land cover within the Kankakee Inaugural Acquisition Alternative and Table 5.9-1 presents the area of each land cover. The total area contained within the proposed Kankakee Inaugural Acquisition Alternative is 4,240 acres.

Within the Inaugural Acquisition Alternative, there are 3,800 acres of active farmland and 8 acres of inactive farmland. The balance of the acquisition alternative is not farmland. The predominant soil types are Ashkum silty clay loam, Selma loam, Elliott silt loam, Darrock silt loam, Plattville silt loam, Beecher silt loam, Andres silt loam and Reddick clay loam. There are 32 different soil mapping units within the acquisition alternative (Table 5.15-1). Of these soil mapping units, 4,234 acres are prime farmland soils and 6 acres are important farmland soils (Table 5.15-2 and Figure 5.15-1). There are 3,796 acres of prime farmland soils and 4 acres of important farmland soils currently being used as active farmland. Active farmland includes the following land use and land cover categories: cropland and pasture. Inactive (fallow cropland) farmland exists on 8 acres of prime farmland soils (Table 5.15-2). About 86 percent of the active farmland occurs on hydric soils or non-hydric soils with hydric inclusions (Table 5.15-3).

The areas of land capability classes by land use and land cover category are summarized in Table 5.15-4. The total amount of active farmland located on Class I soils is 791 acres. The greatest amount of active farmland within the proposed acquisition boundary is located on Class II soils, totaling 3,004 acres. There are 8 acres of inactive farmland on Class II soils. Class III soils contain 5 acres of active farmland. There are no Class IV, V, or VI soils within the Inaugural Acquisition Alternative.

Less than 1 percent of the land within the Kankakee Inaugural Acquisition Alternative is classified as eroded soil and none is classified as severely eroded. The remaining 99 percent of the land area (4,238 acres) is classified as non-eroded. Active farmland occurs on 4 acres of eroded soil and the remaining 3,796 acres of active farmland (99.9 percent) are non-eroded soils (Table 5.15-5). The erosion-prone land within the Inaugural Acquisition Alternative is illustrated in Figure 5.15-2. Inactive farmland occurs on 8 acres of non-eroded soils.

There are three farms within the Inaugural Acquisition Alternative acquisition alternative that have been certified as Centennial Farms by the Illinois Department of Agriculture. Two are located within Rockville Township (the Allers farm and the Kiedaisch farm, certification dates unknown); the other farm is located in Manteno Township (the Shipp farm, certified in 1990). Approximately one-fourth of the Shipp farm is located within the Inaugural Acquisition Alternative.

Farm Economy

In 1999, Kankakee County had 344,900 acres and Will County had 269,000 acres of land in agricultural production. The primary crops were corn and soybeans (97 percent in Kankakee County; 93 percent in Will County) with small amounts of wheat, oats, and hay. The total value of crops in 1999 was \$102.7 million in Kankakee County and \$78.9 million in Will County (Illinois Agricultural Statistics Service, 2000).

TABLE 5.15-1

**SOIL MAPPING UNITS
KANKAKEE INAUGURAL ACQUISITION ALTERNATIVE**

| Soil Symbol | Soil Name | Category | Capability Class | Acres | Proportional Extent |
|---------------|--|----------|------------------|--------------|---------------------|
| 69 | Milford silty clay loam | P2 | IW | 143 | 3.4% |
| 100 | Palms muck | I | IIW | 2 | 0.1% |
| 107 | Sawmill silty clay loam | P5 | IW | 209 | 4.9% |
| 125 | Selma loam | P2 | IW | 993 | 23.4% |
| 146A | Elliott silt loam, 0 to 2 percent slopes | P | IW | 12 | 0.3% |
| 148B | Proctor silt loam, 2 to 4 percent slopes | P | IIE | 21 | 0.5% |
| 149A | Brenton silt loam, 0 to 2 percent slopes | P | I | 56 | 1.3% |
| 150B | Onarga fine sandy loam, 2 to 4 percent slopes | P | IIE | 9 | 0.2% |
| 152 | Drummer silty clay loam | P2 | IW | 176 | 4.1% |
| 172 | Hoopeston fine sandy loam | P | IIS | 2 | 0.1% |
| 188 | Beardstown silt loam | P2 | IW | 15 | 0.3% |
| 189 | Martinton silt loam | P | IW | 13 | 0.3% |
| 223B | Varna silt loam, 1 to 4 percent slopes | P | IIIE | 1 | 0.1% |
| 223C2 | Varna silt loam, 4 to 7 percent slopes, eroded | I | IIIE | 5 | 0.1% |
| 232 | Ashkum silty clay loam | P2 | IW | 552 | 13.1% |
| 240A | Plattville silt loam, 0 to 2 percent slopes | P | I | 321 | 7.6% |
| 240B | Plattville silt loam, 2 to 4 percent slopes | P | IIE | 5 | 0.1% |
| 293 | Andres silt loam | P | I | 313 | 7.4% |
| 293A | Andres silt loam, 0 to 2 percent slopes | P | I | 46 | 1.1% |
| 293B | Andres silt loam, 2 to 4 percent slopes | P | IIE | 11 | 0.2% |
| 294A | Symerton silt loam, 0 to 2 percent slopes | P | I | 52 | 1.2% |
| 294B | Symerton silt loam, 2 to 4 percent slopes | P | IIE | 64 | 1.5% |
| 298A | Beecher silt loam, 0 to 2 percent slopes | P2 | IW | 315 | 7.4% |
| 298B | Beecher silt loam, 2 to 4 percent slopes | P | IIE | 7 | 0.2% |
| 330 | Peotone silty clay loam | P2 | IW | 18 | 0.4% |
| 440A | Jasper silt loam, 0 to 2 percent slopes | P | I | 77 | 1.8% |
| 440B | Jasper silt loam, 2 to 4 percent slopes | P | IIE | 45 | 1.0% |
| 451 | Lawson silt loam, occasionally flooded | P | IW | 13 | 0.3% |
| 503 | Rockton loam, 0 to 2 percent slopes | P | | 5 | 0.1% |
| 503B | Rockton loam, 2 to 4 percent slopes | P | IIE | 3 | 0.1% |
| 594 | Reddick clay loam | P2 | IW | 291 | 6.9% |
| 740 | Darrock silt loam | P | IW | 445 | 10.5% |
| Totals | | | | 4,240 | 100% |

Source: NRCS, 1990; TAMS, 2000.

Category: P=Prime; P2=Prime, if drained; I=Important

Note: Numbers may not add up due to rounding.

TABLE 5.15-2

**PRIME AND IMPORTANT FARMLAND SOILS BY LAND USE AND LAND COVER CATEGORY
KANKAKEE INAUGURAL ACQUISITION ALTERNATIVE**

| Land Code No. | Description | Prime | Important | Other | Totals |
|-------------------------------------|--------------------------------|--------------|-----------|----------|--------------|
| 111 | Residential | 100 | | | 100 |
| 142 | Highways, Roads and Railroads | 154 | | | 154 |
| 211 | Cropland* | 3,754 | 4 | | 3,758 |
| 212 | Fallow Cropland | 8 | | | 8 |
| 213 | Pasture* | 42 | | | 42 |
| 241 | Hedgerow | 0.5 | | | 0.5 |
| 312 | Herbaceous Successional Field | 79 | | | 79 |
| 322 | Shrub Successional Field | 41 | | | 41 |
| 611 | Palustrine Forested Wetland | 26 | | | 26 |
| 621 | Palustrine Scrub-Shrub Wetland | 3 | | | 3 |
| 622 | Palustrine Emergent Wetland | 15 | 2 | | 17 |
| 626 | Wetland Complex | 11 | | | 11 |
| Totals | | 4,234 | 6 | 0 | 4,240 |
| *Active Farmland | | 3,796 | 4 | 0 | 3,800 |
| Inactive Farmland (fallow cropland) | | 8 | 0 | 00 | 8 |

Sources: NRCS, 1990; TAMS, 2000.

Note: Numbers shown in acres and may not add up due to rounding.

TABLE 5.15-3

**HYDRIC AND NON-HYDRIC SOILS WITH HYDRIC INCLUSIONS BY LAND USE
AND LAND COVER CATEGORY
KANKAKEE INAUGURAL ACQUISITION ALTERNATIVE**

| Land Code No. | Description | Hydric Soil | Non-Hydric Soils with Hydric Inclusions | Non-Hydric Soil | Totals |
|-------------------------------------|--------------------------------|--------------|---|-----------------|--------------|
| 111 | Residential | 40 | 33 | 27 | 100 |
| 142 | Highways, Roads and Railroads | 70 | 64 | 20 | 154 |
| 211 | Cropland* | 1,922 | 1,292 | 544 | 3,758 |
| 212 | Fallow Cropland | | 7 | 1 | 8 |
| 213 | Pasture* | 27 | 8 | 7 | 42 |
| 241 | Hedgerow | 0.5 | | | 0.5 |
| 312 | Herbaceous Successional Field | 64 | 10 | 5 | 79 |
| 322 | Shrub Successional Field | 36 | 4 | 1 | 41 |
| 611 | Palustrine Forested Wetland | 25 | 1 | | 26 |
| 621 | Palustrine Scrub-Shrub Wetland | 3 | | | 3 |
| 622 | Palustrine Emergent Wetland | 14 | 2 | 1 | 17 |
| 626 | Wetland Complex | 6 | 4 | 1 | 11 |
| Totals | | 2,208 | 1,425 | 607 | 4,240 |
| *Active Farmland | | 1,949 | 1,300 | 551 | 3,800 |
| Inactive Farmland (fallow cropland) | | 0 | 7 | 1 | 8 |

Sources: NRCS, 1990; TAMS, 2000.

Note: Numbers shown in acres and may not add up due to rounding.

TABLE 5.15-4

LAND CAPABILITY CLASSES BY LAND USE AND LAND COVER
KANKAKEE INAUGURAL ACQUISITION ALTERNATIVE

| Land Code No. | Description | Class I | Class II | Class III | Totals |
|-------------------------------------|--------------------------------|------------|--------------|-----------|--------------|
| 111 | Residential | 34 | 66 | | 100 |
| 142 | Highways, Roads and Railroads | 32 | 122 | | 154 |
| 211 | Cropland* | 788 | 2,965 | 5 | 3,758 |
| 212 | Fallow Cropland | | 8 | | 8 |
| 213 | Pasture* | 3 | 39 | | 42 |
| 241 | Hedgerow | | 0.5 | | 0.5 |
| 312 | Herbaceous Successional Field | 3 | 76 | | 79 |
| 322 | Shrub Successional Field | 5 | 36 | | 41 |
| 611 | Palustrine Forested Wetland | | 26 | | 26 |
| 621 | Palustrine Scrub-Shrub Wetland | | 3 | | 3 |
| 622 | Palustrine Emergent Wetland | 1 | 14 | 2 | 17 |
| 626 | Wetland Complex | | 11 | | 11 |
| Totals | | 866 | 3,367 | 7 | 4,240 |
| *Active Farmland | | 791 | 3,004 | 5 | 3,800 |
| Inactive Farmland (fallow cropland) | | 0 | 8 | 0 | 8 |

Source: NRCS, 1990; TAMS, 2000.

Note: Numbers shown in acres and may not add up due to rounding.

TABLE 5.15-5

EROSION-PRONE LAND BY LAND USE AND LAND COVER CATEGORY
KANKAKEE INAUGURAL ACQUISITION ALTERNATIVE

| Land Code No. | Description | Eroded | Severely Eroded | Non-Eroded | Totals |
|-------------------------------------|--------------------------------|----------|-----------------|--------------|--------------|
| 111 | Residential | | | 100 | 100 |
| 142 | Highways, Roads and Railroads | | | 154 | 154 |
| 211 | Cropland* | 4 | | 3,754 | 3,758 |
| 212 | Fallow Cropland | | | 8 | 8 |
| 213 | Pasture* | | | 42 | 42 |
| 241 | Hedgerow | | | 0.5 | 0.5 |
| 312 | Herbaceous Successional Field | | | 79 | 79 |
| 322 | Shrub Successional Field | | | 41 | 41 |
| 611 | Palustrine Forested Wetland | | | 26 | 26 |
| 621 | Palustrine Scrub-Shrub Wetland | | | 3 | 3 |
| 622 | Palustrine Emergent Wetland | | | 17 | 17 |
| 626 | Wetland Complex | | | 11 | 11 |
| Totals | | 4 | 0 | 4,238 | 4,240 |
| *Active Farmland | | 4 | 0 | 3,796 | 3,800 |
| Inactive Farmland (fallow cropland) | | 0 | 0 | 8 | 8 |

Sources: NRCS, 1990; TAMS, 2000.

Note: Numbers shown in acres and may not add up due to rounding.

Table 5.15-6 presents the crops, total production, and value of agriculture within the Kankakee Inaugural Acquisition Alternative for 1999. Total values for corn, soybean, wheat, and hay production were calculated as a percentage of total crop values in each county, based on percentage of cropland acreage. The total value of crops in 1999 within the Kankakee Inaugural Acquisition Alternative, assuming all available farmland was in production, was \$0.9 million. This represented 0.5 percent of the total value of crops for both counties. Statistics for crops that have less than 405 hectares (1,000 acres) in production in a county are not published. However, based on field visits and discussions with the Kankakee and Will County Farm Bureaus, no other crops of significance are located within the Kankakee Inaugural Acquisition Alternative. Also, no significant livestock operations or grain elevators are contained within the proposed Inaugural Acquisition Alternative.

Livestock Watering

Due to potential impacts to water quality if a proposed new air carrier airport is constructed, research was conducted downstream of the proposed Inaugural Acquisition Alternative to determine where livestock may have access to streams within 5 miles of the proposed acquisition boundaries. Field observations were made and agricultural land adjacent to the streams was noted on a map. Special attention was given to areas with farm residences and buildings next to streams. Where livestock was not actually observed, the presence or absence of fenced pens, pastures, and barns was noted. In most areas, the height (6-10 plus feet) and steepness (60 to 90 percent) of the stream banks would probably exclude most livestock from using the streams for drinking water.

TABLE 5.15-6

**PRODUCTION AND VALUE OF AGRICULTURAL CROPS, 1999
KANKAKEE INAUGURAL ACQUISITION ALTERNATIVE**

| Crop | Acres | Total Production (bushels) | Total Value (dollars) |
|---------------|--------------|-----------------------------------|------------------------------|
| Corn | 1,995 | 267,330 | \$546,957 |
| Hay | 38 | 112* | \$8,736 |
| Soybeans | 1,672 | 65,208 | \$327,083 |
| Wheat | 95 | 7,315 | \$15,749 |
| Totals | 3,800 | 339,965 | \$898,525 |

Source: Illinois Agricultural Statistics Service, 2000; TAMS, 2000.

*Tons

Five instances of actual or potential livestock access to streams were observed within 5 miles downstream of the proposed Inaugural Acquisition Alternative. Fenced and actively grazed pastures adjacent to streams, without actual animals were also noted. Other livestock operations were separated from the stream by roads and cultivated fields. In these cases, no evidence of livestock access or use was observed.

Three streams flow through the proposed Inaugural Acquisition Alternative: Forked Creek, Rock Creek, and the South Branch of Forked Creek. All of the creeks flow into the Kankakee River, which is part of the Mississippi River watershed.

Forked Creek

Forked Creek is located in the southern part of Wesley Township in Will County. This stream drains the western portion of the acquisition area and areas north, west, and south of the acquisition alternative. The central drainage has two adjacent pastures: one active pasture with no livestock and the other with a horse pasture adjacent to the creek. Both pastures were fenced.

South Branch Forked Creek

The South Branch Forked Creek originates in Will Township, Section 11, and flows southwest, where it is joined by Marshall Slough and Black Walnut Creek. The South Branch Forked Creek drains the majority of the acquisition alternative. The forks of this stream flow west and southwest before joining east of the City of Kankakee, then emptying into the Kankakee River. There are two empty but active pastures along this creek: one horse pasture and one cow pasture adjacent to the creek. A single cow in a small pasture and two empty but actively grazed pastures are located within this watershed. All three are separated from the creek by roads or cultivated fields.

Rock Creek

This stream originates in Monee Township, Section 28. The Rock Creek watershed within the proposed Inaugural Acquisition Alternative is located in Manteno and Rockville townships.

An indoor operation with a large active pasture, occupying the west side of Rockville Township Section 27, borders the main creek and two tributaries. It was difficult to observe if the livestock had access to the creek because the bridge was out and the property line was wooded. Two properties located in Section 27, adjacent to the creek, have horses. Another residence, in Section 24, has a cow that is pastured adjacent to the creek. These animals are excluded from the creek with fencing.

5.15.3.2 Kankakee Ultimate Acquisition Alternative

Figure 5.9-1 provides a map of the current land use and land cover within the Kankakee Acquisition Alternatives and Table 5.9-1 presents the area of each land cover. The total area contained within the proposed Kankakee Ultimate Acquisition Alternative is 24,521 acres.

Within the proposed Ultimate Acquisition Alternative, there are 22,373 acres of active farmland and 49 acres of inactive farmland. The predominant soil types are Ashkum silty clay loam, Selma loam, Elliott silt loam, Andres silt loam, and Reddick clay loam. There are 63 different soil mapping units within the acquisition alternative (Table 5.15-7). Of these soil mapping units, 24,184 acres are prime farmland soils and 313 acres are important farmland soils (Table 5.15-8 and Figure 5.15-1). There are 22,147 acres of prime farmland soils and 217 acres of important farmland soils currently being used as active farmland. Active farmland includes the following land use and land cover categories: cropland, pasture, young tree plantation, and sod farm. Inactive farmland exists on 49 acres of prime farmland soils (Table 5.15-8). About 79 percent of the active farmland occurs on hydric soils or non-hydric soils with hydric inclusions (Table 5.15-9).

The areas of land capability classes by land use and land cover category are summarized in [Table 5.15-10](#). The total amount of active farmland located on Class I soils is 3,777 acres. The greatest amount of active farmland within the proposed Ultimate Acquisition Alternative is located on Class II soils, totaling 18,196 acres. There are 49 acres of inactive farmland on Class II soils. Class III soils contain 332 acres of active farmland. There are 64 acres of active farmland on Class IV soils. There are no Class V soils within the Acquisition Alternative boundary. There are 4 acres of active farmland on Class VI soils.

Less than 2 percent of the land within the proposed Kankakee Ultimate Acquisition Alternative is classified as eroded soil and essentially none is severely eroded. The remaining 98 percent of the land area (24,129 acres) is classified as non-eroded. Active farmland occurs on 5 acres of severely eroded soil; 287 acres of active farmland are eroded soils; and the remaining 22,081 acres of active farmland (98.7 percent) are non-eroded soils ([Table 5.15-11](#)). The erosion-prone land within the proposed airport boundary is illustrated in [Figure 5.15-2](#). Inactive farmland occurs on 49 acres of non-eroded soils.

TABLE 5.15-7

SOIL MAPPING UNITS - KANKAKEE ULTIMATE ACQUISITION ALTERNATIVE

| Soil Symbol | Soil Name | Category | Capability Class | Acres | Proportional Extent |
|-------------|---|----------|------------------|-------|---------------------|
| 23B | Blount silt loam, 2 to 4 percent slopes | P | IIE | 71 | 0.29% |
| 25D3 | Hennepin silty clay loam, 7 to 12 percent slopes, severely eroded | - | VIE | 4 | 0.02% |
| 67 | Harpster silty clay loam | P2 | IIV | 8 | 0.03% |
| 69 | Milford silty clay loam | P2 | IIV | 1,287 | 5.25% |
| 93B | Ade loamy fine sand, 1 to 5 percent slopes | I | IIIE | 4 | 0.02% |
| 100 | Palms muck | I | IIIV | 2 | 0.01% |
| 107 | Sawmill silty clay loam | P5 | IIV | 356 | 1.45% |
| 125 | Selma loam | P2 | IIV | 2,843 | 11.59% |
| 131B | Alvin fine sandy loam, 1 to 4 percent slopes | P | IIE | 13 | 0.05% |
| 131D2 | Alvin fine sandy loam, 7 to 18 percent slopes, eroded | I | IIIE | 10 | 0.04% |
| 132 | Starks silt loam | P2 | IIV | 3 | 0.01% |
| 134A | Camden silt loam, 0 to 2 percent slopes | P | I | 17 | 0.07% |
| 134B | Camden silt loam, 2 to 4 percent slopes | P | IIE | 47 | 0.19% |
| 146A | Elliott silt loam, 0 to 2 percent slopes | P | IIV | 1,155 | 4.71% |
| 146B | Elliott silt loam, 2 to 4 percent slopes | P | IIE | 2,326 | 9.49% |
| 146B2 | Elliott silt loam, 2 to 4 percent slopes, eroded | P | IIE | 62 | 0.25% |
| 148A | Proctor silt loam, 0 to 2 percent slopes | P | I | 12 | 0.05% |
| 148B | Proctor silt loam, 2 to 4 percent slopes | P | IIE | 194 | 0.79% |
| 148C2 | Proctor silt loam, 4 to 7 percent slopes, eroded | P | IIE | 9 | 0.04% |
| 149A | Brenton silt loam, 0 to 2 percent slopes | P | I | 348 | 1.42% |
| 149B | Brenton silt loam, 2 to 4 percent slopes | P | IIE | 81 | 0.33% |
| 150A | Onarga fine sandy loam, 0 to 2 percent slopes | P | IIS | 8 | 0.03% |
| 150B | Onarga fine sandy loam, 2 to 4 percent slopes | P | IIE | 140 | 0.57% |
| 152 | Drummer silty clay loam | P2 | IIV | 1,102 | 4.49% |
| 157A | Symerton loam, 0 to 2 percent slopes | P | I | 13 | 0.05% |
| 157B | Symerton loam, 2 to 4 percent slopes | P | IIE | 35 | 0.14% |
| 157C2 | Symerton loam, 4 to 7 percent slopes, eroded | P | IIIE | 2 | 0.01% |
| 172 | Hoopston fine sandy loam | P | IIS | 59 | 0.24% |
| 188 | Beardstown silt loam | P2 | IIV | 73 | 0.30% |
| 189 | Martinton silt loam | P | IIV | 140 | 0.57% |
| 190B | Onarga fine sandy loam, 1 to 4 percent slopes | P | IIE | 14 | 0.06% |
| 190C2 | Onarga fine sandy loam, 4 to 7 percent slopes, eroded | P | IIIE | 2 | 0.01% |
| 194C2 | Morley silt loam, 4 to 7 percent slopes, eroded | I | IIIE | 89 | 0.36% |

TABLE 5.15-7 (CONTINUED)

SOIL MAPPING UNITS - KANKAKEE ULTIMATE ACQUISITION ALTERNATIVE

| Soil Symbol | Soil Name | Category | Capability Class | Acres | Proportional Extent |
|---------------|--|----------|------------------|---------------|---------------------|
| 194C3 | Morley silty clay loam, 4 to 7 percent slopes, severely eroded | I | IVE | 5 | 0.02% |
| 194D2 | Morley silt loam, 7 to 12 percent slopes, eroded | I | IIIE | 12 | 0.05% |
| 194E2 | Morley silt loam, 12 to 18 percent slopes, eroded | - | IVE | 17 | 0.07% |
| 194F2 | Morley silt loam, 18 to 30 percent slopes, eroded | - | VIIE | 2 | 0.01% |
| 219 | Millbrook silt loam | P2 | I | 2 | 0.01% |
| 223B | Varna silt loam, 1 to 4 percent slopes | P | IIIE | 190 | 0.77% |
| 223C2 | Varna silt loam, 4 to 7 percent slopes, eroded | I | IIIE | 114 | 0.46% |
| 223C3 | Varna soils, 4 to 7 percent slopes, severely eroded | I | IVE | 56 | 0.23% |
| 232 | Ashkum silty clay loam | P2 | IIW | 4,289 | 17.49% |
| 240A | Plattville silt loam, 0 to 2 percent slopes | P | I | 677 | 2.76% |
| 240B | Plattville silt loam, 2 to 4 percent slopes | P | IIIE | 16 | 0.07% |
| 293 | Andres silt loam | P | I | 2,051 | 8.36% |
| 293A | Andres silt loam, 0 to 2 percent slopes | P | I | 604 | 2.46% |
| 293B | Andres silt loam, 2 to 4 percent slopes | P | IIIE | 89 | 0.36% |
| 294A | Symerton silt loam, 0 to 2 percent slopes | P | I | 105 | 0.43% |
| 294B | Symerton silt loam, 2 to 4 percent slopes | P | IIIE | 751 | 3.06% |
| 294C2 | Symerton silt loam, 4 to 7 percent slopes, eroded | P | IIIE | 4 | 0.02% |
| 298A | Beecher silt loam, 0 to 2 percent slopes | P2 | IIW | 973 | 3.97% |
| 298B | Beecher silt loam, 2 to 4 percent slopes | P | IIIE | 154 | 0.63% |
| 314 | Joliet silty clay loam | I | IVW | 15 | 0.06% |
| 330 | Peotone silty clay loam | P2 | IIW | 65 | 0.27% |
| 440A | Jasper silt loam, 0 to 2 percent slopes | P | I | 171 | 0.70% |
| 440B | Jasper silt loam, 2 to 4 percent slopes | P | IIIE | 200 | 0.82% |
| 451 | Lawson silt loam, occasionally flooded | P | IIW | 372 | 1.52% |
| 503B | Rockton loam, 2 to 4 percent slopes | P | IIIE | 48 | 0.20% |
| 509B | Whalan loam, 2 to 4 percent slopes | P | IIIE | 10 | 0.04% |
| 531D2 | Markham silt loam, 7 to 12 percent slopes, eroded | I | IIIE | 6 | 0.02% |
| 594 | Reddick clay loam | P2 | IIW | 1,524 | 6.22% |
| 740 | Darrock silt loam | P | IIW | 1,299 | 5.30% |
| R125 | Selma loam, bedrock substratum | P2 | IIW | 170 | 0.69% |
| W | Water | | | 1 | 0.00% |
| Totals | | | | 24,521 | |

Source: NRCS, 1990; TAMS, 1997.

Category: P=Prime; P2=Prime, if drained; I=Important

Note: Numbers shown in acres and may not add up due to rounding.

TABLE 5.15-8

**PRIME AND IMPORTANT FARMLAND SOILS BY LAND USE AND LAND COVER CATEGORY
KANKAKEE ULTIMATE ACQUISITION ALTERNATIVE**

| Land Code No. | Description | Prime | Important | Other | Totals |
|-------------------------------------|----------------------------------|---------------|------------|-----------|---------------|
| 111 | Residential | 738 | 16 | 2 | 756 |
| 121 | Commercial | 25 | | | 25 |
| 122 | Institutional | 2.5 | | | 2.5 |
| 142 | Highways, Roads and Railroads | 539 | 5 | | 544 |
| 211 | Cropland* | 21,755 | 205 | 5 | 21,965 |
| 212 | Fallow Cropland | 49 | | | 49 |
| 213 | Pasture* | 315 | 12 | 4 | 331 |
| 221 | Young Tree Plantation* | 5 | | | 5 |
| 241 | Hedgerow | 17 | | | 17 |
| 242 | Sod Farm* | 72 | | | 72 |
| 312 | Herbaceous Successional Field | 190 | 7 | 1 | 198 |
| 322 | Shrub Successional Field | 109 | 10 | 5 | 124 |
| 411 | Deciduous Woodland | 72 | 40 | 2 | 114 |
| 611 | Palustrine Forested Wetland | 170 | 16 | 4 | 190 |
| 621 | Palustrine Scrub-Shrub Wetland | 22 | | | 22 |
| 622 | Palustrine Emergent Wetland | 77 | 2 | | 79 |
| 623 | Palustrine Unconsolidated Bottom | 0.2 | 0.3 | | 0.5 |
| 625 | Palustrine Open Water | 2 | | | 2 |
| 626 | Wetland Complex | 24 | | 1 | 25 |
| Totals | | 24,184 | 313 | 24 | 24,521 |
| *Active Farmland | | 22,147 | 217 | 9 | 22,373 |
| Inactive Farmland (fallow cropland) | | 49 | 0 | 0 | 49 |

Sources: NRCS, 1990; TAMS, 2000.

Note: Numbers shown in acres and may not add up due to rounding.

TABLE 5.15-9

**HYDRIC AND NON-HYDRIC SOILS WITH HYDRIC INCLUSIONS BY LAND USE AND
LAND COVER CATEGORY - KANKAKEE ULTIMATE ACQUISITION ALTERNATIVE**

| Land Code No. | Description | Hydric Soil | Non-Hydric Soils with Hydric Inclusions | Non-Hydric Soil | Totals |
|-------------------------------------|----------------------------------|---------------|---|-----------------|---------------|
| 111 | Residential | 215 | 252 | 289 | 756 |
| 121 | Commercial | 15 | 7 | 3 | 25 |
| 122 | Institutional | | | 2.5 | 2.5 |
| 142 | Highways, Roads and Railroads | 225 | 205 | 114 | 544 |
| 211 | Cropland* | 9,629 | 7,621 | 4,715 | 21,965 |
| 212 | Fallow Cropland | | 47 | 2 | 49 |
| 213 | Pasture* | 137 | 117 | 77 | 331 |
| 221 | Young Tree Plantation* | 5 | | | 5 |
| 241 | Hedgerow | 8 | 5 | 4 | 17 |
| 242 | Sod Farm* | 57 | 13 | 2 | 72 |
| 312 | Herbaceous Successional Field | 86 | 81 | 31 | 198 |
| 322 | Shrub Successional Field | 37 | 55 | 32 | 124 |
| 411 | Deciduous Woodland | 15 | 42 | 57 | 114 |
| 611 | Palustrine Forested Wetland | 53 | 98 | 39 | 190 |
| 621 | Palustrine Scrub-Shrub Wetland | 16 | 2 | 4 | 22 |
| 622 | Palustrine Emergent Wetland | 49 | 17 | 13 | 79 |
| 623 | Palustrine Unconsolidated Bottom | | 0.2 | 0.3 | 0.5 |
| 625 | Palustrine Open Water | | | 2 | 2 |
| 626 | Wetland Complex | 5 | 15 | 5 | 25 |
| Totals | | 10,552 | 8,577 | 5,392 | 24,521 |
| *Active Farmland | | 9,828 | 7,751 | 4,794 | 22,373 |
| Inactive Farmland (fallow cropland) | | 0 | 47 | 2 | 49 |

Sources: NRCS, 1990; TAMS, 2000.

Note: Numbers shown in acres and may not add up due to rounding.

TABLE 5.15-10

**LAND CAPABILITY CLASSES BY LAND USE AND LAND COVER
KANKAKEE ULTIMATE ACQUISITION ALTERNATIVE**

| Land Code No. | Description | Class I | Class II | Class III | Class IV | Class VI | Totals |
|-------------------------------------|----------------------------------|--------------|---------------|------------|---------------|-----------|----------|
| 111 | Residential | 112 | 613 | 27 | 4 | | 756 |
| 121 | Commercial | | 23 | 2 | | | 25 |
| 122 | Institutional | | 2.5 | | | | 2.5 |
| 142 | Highways, Roads and Railroads | 88 | 446 | 7 | 3 | | 544 |
| 211 | Cropland* | 3,763 | 17,818 | 321 | 59 | 4 | 21,965 |
| 212 | Fallow Cropland | | 49 | | | | 49 |
| 213 | Pasture* | 14 | 301 | 11 | 5 | | 331 |
| 221 | Young Tree Plantation* | | 5 | | | | 5 |
| 241 | Hedgerow | 3 | 14 | | | | 17 |
| 242 | Sod Farm* | | 72 | | | | 72 |
| 312 | Herbaceous Successional Field | 5 | 187 | 3 | 3 | | 198 |
| 322 | Shrub Successional Field | 5 | 106 | 9 | 1 | 3 | 124 |
| 411 | Deciduous Woodland | 3 | 69 | 32 | 9 | 1 | 114 |
| 611 | Palustrine Forested Wetland | 3 | 167 | 14 | 6 | | 190 |
| 621 | Palustrine Scrub-Shrub Wetland | 4 | 18 | | | | 22 |
| 622 | Palustrine Emergent Wetland | 2 | 75 | 2 | | | 79 |
| 623 | Palustrine Unconsolidated Bottom | | 0.2 | 0.3 | | | 0.5 |
| 625 | Palustrine Open Water | 1 | 1 | | | | 2 |
| 626 | Wetland Complex | | 25 | | | | 25 |
| Totals | | 4,003 | 19,992 | 428 | 24,521 | 90 | 8 |
| *Active Farmland | | 3,777 | 18,196 | 332 | 22,373 | 64 | 4 |
| Inactive Farmland (fallow cropland) | | 0 | 49 | 0 | 49 | 0 | 0 |

Source: NRCS, 1990; TAMS, 2000.

Note: Numbers shown in acres and may not add up due to rounding.

TABLE 5.15-11

**EROSION-PRONE LAND BY LAND USE AND LAND COVER CATEGORY
KANKAKEE ULTIMATE ACQUISITION ALTERNATIVE**

| Land Code No. | Description | Non-Eroded | Eroded | Severely Eroded | Totals |
|-------------------------------------|----------------------------------|---------------|------------|-----------------|---------------|
| 111 | Residential | 734 | 22 | | 756 |
| 121 | Commercial | 25 | | | 25 |
| 122 | Institutional | 2.5 | | | 2.5 |
| 142 | Highways, Roads and Railroads | 537 | 7 | | 544 |
| 211 | Cropland* | 21,693 | 267 | 5 | 21,965 |
| 212 | Fallow Cropland | 49 | | | 49 |
| 213 | Pasture* | 311 | 20 | | 331 |
| 221 | Young Tree Plantation* | 5 | | | 5 |
| 241 | Hedgerow | 17 | | | 17 |
| 242 | Sod Farm* | 72 | | | 72 |
| 312 | Herbaceous Successional Field | 193 | 5 | | 198 |
| 322 | Shrub Successional Field | 110 | 14 | | 124 |
| 411 | Deciduous Woodland | 79 | 35 | | 114 |
| 611 | Palustrine Forested Wetland | 173 | 17 | | 190 |
| 621 | Palustrine Scrub-Shrub Wetland | 22 | | | 22 |
| 622 | Palustrine Emergent Wetland | 79 | | | 79 |
| 623 | Palustrine Unconsolidated Bottom | 0.2 | 0.3 | | 0.5 |
| 625 | Palustrine Open Water | 2 | | | 2 |
| 626 | Wetland Complex | 25 | | | 25 |
| Totals | | 24,129 | 387 | 5 | 24,521 |
| *Active Farmland | | 22,081 | 287 | 5 | 22,373 |
| Inactive Farmland (fallow cropland) | | 49 | 0 | 0 | 49 |

Sources: NRCS, 1990; TAMS, 2000.

Note: Numbers shown in acres and may not add up due to rounding.

There are eight farms within the Kankakee Ultimate Acquisition Alternative that have been certified as Centennial Farms by the Illinois Department of Agriculture. Six are located within Rockville Township: the Allers farm, the Fairchild farm and the Kiedaisch farm, certification dates unknown; the Keigher farm and the Bell farm, both certified in 1972; and the Moran farm certified in 1992. The other two farms (Salzman and Shipp farms) are located in Manteno Township. Approximately one-third of the Salzman farm, certified as a Centennial Farm in 2000, and one-half of the Shipp farm, certified in 1990, are located within the Ultimate Acquisition Alternative.

Farm Economy

In 1999, Kankakee County had 344,900 acres and Will County had 269,000 acres of land in agricultural production. The primary crops were corn and soybeans (97 percent in Kankakee County; 93 percent in Will County) with small amounts of wheat, oats, and hay. The total value of crops in 1999 was \$102.7 million in Kankakee County and \$78.9 million in Will County (Illinois Agricultural Statistics Service, 2000).

Table 5.15-12 presents the crops, total production, and value of agriculture within the Kankakee Ultimate Acquisition Alternative for 1999. Total values for corn, soybean, wheat, and hay production were calculated as a percentage of total crop values in each county, based on percentage of cropland acreage. The total value of crops in 1999 within the Kankakee Ultimate Acquisition Alternative, assuming all available farmland was in production, was \$5.3 million. This represented less than 3 percent of the total value of crops for both counties combined. Statistics for crops that have less than 1,000 acres in production in a county are not published. However, based on field visits and discussions with the Kankakee and Will County Farm Bureaus, no other crops of significance are located within the Kankakee Ultimate Acquisition Alternative. Also, no significant livestock operations or grain elevators are contained within the acquisition boundaries.

TABLE 5.15-12

**PRODUCTION AND VALUE OF AGRICULTURAL CROPS, 1999
KANKAKEE ULTIMATE ACQUISITION ALTERNATIVE**

| Crop | Acres | Total Production (bushels) | Total Value (dollars) |
|---------------|---------------|-----------------------------------|------------------------------|
| Corn | 11,746 | 1,573,964 | \$3,220,330 |
| Hay | 224 | 659* | \$51,402 |
| Soybeans | 9,844 | 383,916 | \$1,925,723 |
| Wheat | 559 | 43,043 | \$92,672 |
| Totals | 22,373 | 2,001,582 | \$5,290,127 |

Source: Illinois Agricultural Statistics Service, 2000; TAMS, 2000.
*Tons

Livestock Watering

Due to potential impacts to water quality if a proposed airport is constructed, a search was conducted downstream of the proposed acquisition alternative to determine where livestock may have access to streams within 5 miles of the proposed acquisition boundaries. Observations were made from the road by car. Agricultural land adjacent to the streams was noted on a map. Special attention was given to areas with farm residences and buildings next to streams. Where livestock was not actually observed, the presence or absence of fenced pens, pastures, and barns was noted. In most areas, the height (6-10 plus feet) and steepness (60 to 90 percent) of the stream banks would probably exclude most livestock from using the streams for drinking water.

Eight instances of actual or potential livestock access to streams were observed within 5 miles downstream of the proposed acquisition boundaries. Fenced and actively grazed pastures adjacent to streams, without actual animals were also noted. Other livestock operations were separated from the stream by roads and cultivated fields. In these cases, no evidence of livestock access or use was observed.

Four streams flow through the proposed Ultimate Acquisition Alternative: Forked Creek, Rayns Creek, Rock Creek, and the South Branch Forked Creek. All of the creeks flow into the Kankakee River, which is part of the Mississippi River watershed.

Forked Creek

Forked Creek is located in the southern part of Wesley Township in Will County. This stream drains the western portion of the Ultimate Acquisition area and areas north, west, and south of the proposed acquisition alternative. The central drainage has two adjacent pastures: one active pasture had no livestock and the other had a horse pasture adjacent to the creek. Both pastures were fenced.

Rayns Creek

Rayns Creek is located in the southern part of Wesley and Rockville Townships. This creek drains the southwest corner of the proposed acquisition alternative. One tributary originates within the proposed acquisition alternative. There are three pastures and two farms, one with a single cow and the other with a small herd of cows adjacent to this creek. The three pastures and two cattle pens are isolated from the creek. One residence has a horse but it is excluded from the waterway by the fenced road. The pig farmer living on Route 102 would be unaffected by any changes in Rayns Creek drainage.

Rock Creek

This stream originates in Monee Township, Section 28. One tributary originates in the southern portion of the acquisition alternative, while the main channel of the creek is located southeast of the acquisition alternative in Rockville township.

An indoor operation with a large active pasture, occupying the west side of Rockville Township, Section 27, borders the main creek and two tributaries. It was difficult to observe if the livestock had access to the creek because the bridge was out and the property line was wooded. Two properties located in Section 27, adjacent to the creek, have horses. Another residence, in Section 24, has a cow that is pastured adjacent to the creek. These animals are excluded from the creek with fencing.

There are four feeder streams that originate to the south and flow northwest into Rock Creek. These are unaffected by runoff from the north. Three residences have horses and two each have a cow in this area.

South Branch Forked Creek

The South Branch Forked Creek originates in Will Township, Section 11, and flows southwest, where it is joined by Marshall Slough and Black Walnut Creek. The South Branch Forked Creek drains the center of the proposed acquisition alternative. The forks of this stream flow west and southwest before joining east of the City of Kankakee, then flowing into the Kankakee River. There are two empty but active pastures along this creek: one horse pasture and one cow pasture adjacent to the creek. A single cow in a small pasture and two empty but actively grazed pastures are located within this watershed. All three are separated from the creek by roads or cultivated fields.

5.15.3.3 Will County Inaugural Acquisition Alternative

Figure 5.9-2 provides a map of the current land use and land cover within the Will County Acquisition Alternatives. Table 5.9-2 presents the area of each land cover. The total area contained within the proposed Will County Inaugural Acquisition Alternative is 3,883 acres.

Within the proposed Inaugural Acquisition Alternatives, there are 3,054 acres of active farmland and 54 acres of inactive farmland. Figure 5.15-3 presents the active and inactive farmland to be acquired within the acquisition alternative boundary classified as prime, important or other. The predominant soil types are Ashkum silty clay loam, Markham silt loam, Beecher silt loam and Drummer silty clay loam. There are 27 different soil mapping units within the acquisition alternative (Table 5.15-13). Of these soil mapping units, 2,442 acres are prime farmland soils and 1,399 acres are important farmland soils (Table 5.15-14). There are 1,960 acres of prime farmland soils and 1,065 acres of important farmland soils currently being used as active farmland. Active farmland includes the following land use and land cover categories: cropland, pasture, young tree plantation and evergreen plantation. Inactive farmland exists on 15 acres of prime farmland soils and on 39 acres of important farmland soils (Table 5.15-14). About 61 percent of the active farmland occurs on hydric soils or non-hydric soils with hydric inclusions (Table 5.15-15).

The soils within the proposed Will County Inaugural Acquisition Alternative have been broken down into land capability classes, as defined by the U.S. Department of Agriculture Land Capability Classification System. The relationship between land capability classes and prime and important farmland is that Prime farmland typically includes Class I, Class II and some Class III soils. Prime farmland soils, which are not adequately drained to support a high yield of crops, are classified as Additional Farmland of Statewide Importance or Other Lands. Class I through Class VIII lands within the proposed Inaugural Acquisition

Alternative were determined from soil survey data and from geographic information system (GIS) mapping. A description of each class of soil can be found under the Kankakee Alternative discussion.

The areas of land capability classes by land use and land cover category are summarized in [Table 5.15-16](#). The total amount of active farmland located on Class I soils is 11 acres. The greatest amount of active farmland within the proposed Inaugural Acquisition Alternative is located on Class II soils, totaling 1,970 acres. There are 15 acres of inactive farmland on Class II soils. Class III soils contain 920 acres of active farmland and 39 acres of inactive farmland. There are 127 acres of active farmland on Class IV soils. Other soil classifications (Class V or higher) within the acquisition alternative contain 26 acres of active farmland.

Approximately one-third (35 percent) of the land within the proposed Inaugural Acquisition Alternative is classified as eroded soil and 4 percent is severely eroded. The remaining 61 percent of the land area (2,371 acres) is classified as non-eroded. Active farmland occurs on 1,035 acres of eroded soil; 124 acres of active farmland occur on severely eroded soils; and the remaining 1,895 acres of active farmland (62 percent) occur on non-eroded soils ([Table 5.15-17](#)). The erosion-prone land within the proposed Inaugural Acquisition Alternative is illustrated in [Figure 5.15-4](#). Inactive farmland occurs on 42 acres of eroded soils and 12 acres of non-eroded soils.

There are no farms within the Will County Inaugural Acquisition Alternative that have been certified as Centennial Farms by the Illinois Department of Agriculture (2001).

TABLE 5.15-13

SOIL MAPPING UNITS - WILL COUNTY INAUGURAL ACQUISITION ALTERNATIVE

| Soil Symbol | Soil Name | Category | Capability Class | Acres | Proportional Extent |
|---------------|--|----------|------------------|--------------|---------------------|
| 103 | Houghton muck | I | IIIW | 25 | 0.64% |
| 134B | Camden silt loam, 2-4 % slope | P | IIIE | 3 | 0.06% |
| 134C2 | Camden silt loam, 4-7 % slope, eroded | I | IIIE | 5 | 0.13% |
| 146B | Elliott silt loam, 2-4% slope | P | IIIE | 68 | 1.78% |
| 148B | Proctor silt loam, 2-4% slope | P | IIIE | 40 | 1.02% |
| 148C2 | Proctor silt loam, 4-7% slope, eroded | P | IIIE | 57 | 1.46% |
| 148D2 | Proctor silt loam, 7-12% slope, eroded | I | IIIE | 3 | 0.06% |
| 149A | Brenton silt loam, 0-2% slope | P | I | 12 | 0.32% |
| 149B | Brenton silt loam, 2-4% slope | P | IIIE | 25 | 0.64% |
| 152 | Drummer silty clay loam | P2 | IIW | 399 | 10.24% |
| 194C2 | Morley silt loam, 4-7% slope, eroded | I | IIIE | 260 | 6.68% |
| 194C3 | Morley silty clay loam, 4-7% slope, severely eroded | I | IVE | 20 | 0.51% |
| 194D2 | Morley silt loam, 7-12% slope, eroded | I | IIIE | 12 | 0.32% |
| 194D3 | Morley silty clay loam, 7-12% slope, severely eroded | I | IVE | 125 | 3.24% |
| 194E2 | Morley silt loam, 12-18% slope, eroded | - | IVE | 5 | 0.13% |
| 223C2 | Varna silt loam, 4-7% slope | P | IIIE | 5 | 0.13% |
| 232 | Ashkum silty clay loam | P2 | IIW | 947 | 24.41% |
| 23B | Blount silt loam, 2-4% slope | P | IIIE | 27 | 0.70% |
| 293B | Andres silt loam, 2-4% slope | P | IIIE | 12 | 0.32% |
| 294B | Symerton silt loam, 2-4% slope | P | IIIE | 7 | 0.19% |
| 294C2 | Symerton silt loam, 4-7% slope, eroded | I | IIIE | 24 | 0.64% |
| 298A | Beecher silt loam, 0-2% slope | P2 | IIW | 3 | 0.06% |
| 298B | Beecher silt loam 2-4% slope | P | IIIE | 771 | 19.83% |
| 298B2 | Beecher silt loam 2-4% slope, eroded | P | IIIE | 14 | 0.38% |
| 298C2 | Beecher silt loam 4-7% slope, eroded | - | 0 | 29 | 0.76% |
| 330 | Peotone silty clay loam | P2 | IIW | 20 | 0.51% |
| 531C2 | Markham silt loam, 4-7% slope, eroded | I | IIIE | 960 | 24.73% |
| W | Water | - | - | 5 | 0.13% |
| Totals | | | | 3,883 | 100% |

Source: USDA, Soil Conservation Service, 1962; TAMS, 2000.

Category: P=Prime; P2=Prime, if drained; I=Important

Note: Numbers may not add up due to rounding.

TABLE 5.15-14

**PRIME AND IMPORTANT FARMLAND SOILS BY LAND USE AND LAND COVER CATEGORY
WILL COUNTY INAUGURAL ACQUISITION ALTERNATIVE**

| Land Code No. | Description | Prime | Important | Other | Totals |
|-------------------------------------|--------------------------------|--------------|--------------|-----------|--------------|
| 111 | Residential | 112 | 116 | 4 | 232 |
| 112 | Abandoned/Vacant | 2 | 3 | | 5 |
| 121 | Commercial | 9 | 8 | | 17 |
| 141 | Airports | 7 | 15 | | 22 |
| 142 | Highways, Roads and Railroads | 61 | 37 | 1 | 99 |
| 211 | Cropland* | 1,683 | 841 | 28 | 2,552 |
| 212 | Fallow Cropland | 15 | 39 | | 54 |
| 213 | Pasture* | 9 | 9 | | 18 |
| 221 | Young Tree Plantation* | 266 | 210 | 1 | 477 |
| 241 | Hedgerow | 18 | 7 | 2 | 27 |
| 312 | Herbaceous Successional Field | 100 | 86 | 2 | 188 |
| 322 | Shrub Successional Field | 6 | 4 | | 10 |
| 411 | Deciduous Woodland | 43 | 11 | | 54 |
| 421 | Evergreen Plantation* | 2 | 5 | | 7 |
| 511 | Creek | 14 | 1 | | 15 |
| 611 | Palustrine Forested Wetland | 2.5 | | | 2.5 |
| 621 | Palustrine Scrub-Shrub Wetland | 0.5 | | | 0.5 |
| 622 | Palustrine Emergent Wetland | 82 | | 2 | 84 |
| 625 | Palustrine Open Water | 6 | 5 | 1 | 12 |
| 626 | Wetland Complex | 4 | 1.5 | 1.3 | 7 |
| Totals | | 2,442 | 1,399 | 42 | 3,883 |
| *Active Farmland | | 1,960 | 1,065 | 29 | 3,054 |
| Inactive Farmland (fallow cropland) | | 15 | 39 | 0 | 54 |

Sources: USDA, Soil Conservation Service, 1962; TAMS, 2000.

Note: Numbers shown in acres and may not add up due to rounding.

TABLE 5.15-15

**HYDRIC AND NON-HYDRIC SOILS WITH HYDRIC INCLUSIONS BY LAND USE AND
LAND COVER CATEGORY - WILL COUNTY INAUGURAL ACQUISITION ALTERNATIVE**

| Land Code No. | Description | Hydric Soil | Non-Hydric Soils with Hydric Inclusions | Non-Hydric Soil | Totals |
|-------------------------------------|--------------------------------|--------------|---|-----------------|--------------|
| 111 | Residential | 56 | 58 | 118 | 232 |
| 112 | Abandoned/Vacant | 1 | | 4 | 5 |
| 121 | Commercial | | 9 | 8 | 17 |
| 141 | Airports | 3 | 3 | 16 | 22 |
| 142 | Highways, Roads and Railroads | 34 | 24 | 41 | 99 |
| 211 | Cropland* | 971 | 640 | 941 | 2,552 |
| 212 | Fallow Cropland | 5 | 10 | 39 | 54 |
| 213 | Pasture* | 9 | 2 | 7 | 18 |
| 221 | Young Tree Plantation* | 108 | 151 | 218 | 477 |
| 241 | Hedgerow | 8 | 12 | 7 | 27 |
| 312 | Herbaceous Successional Field | 56 | 43 | 89 | 188 |
| 322 | Shrub Successional Field | 3 | 3 | 4 | 10 |
| 411 | Deciduous Woodland | 41 | 1 | 12 | 54 |
| 421 | Evergreen Plantation* | | 1 | 6 | 7 |
| 511 | Creek | 13 | | 2 | 15 |
| 611 | Palustrine Forested Wetland | 2.5 | | | 2.5 |
| 621 | Palustrine Scrub-Shrub Wetland | 0.2 | 0.3 | | 0.5 |
| 622 | Palustrine Emergent Wetland | 72 | 7 | 5 | 84 |
| 625 | Palustrine Open Water | 5 | | 7 | 12 |
| 626 | Wetland Complex | 4 | | 3 | 7 |
| Totals | | 1,392 | 964 | 1,527 | 3,883 |
| *Active Farmland | | 1,088 | 794 | 1172 | 3,054 |
| Inactive Farmland (fallow cropland) | | 5 | 10 | 39 | 54 |

Source: USDA, Soil Conservation Service, 1962; TAMS, 2000.

Note: Numbers may not add up due to rounding.

TABLE 5.15-16

**LAND CAPABILITY CLASSES BY LAND USE AND LAND COVER
WILL COUNTY INAUGURAL ACQUISITION ALTERNATIVE**

| Land Code No. | Description | Class I | Class II | Class III | Class IV | Other | Totals |
|-------------------------------------|--------------------------------|-----------|--------------|--------------|--------------|------------|-----------|
| 111 | Residential | | 112 | 109 | 7 | 4 | 232 |
| 112 | Abandoned/Vacant | | 2 | 3 | | | 5 |
| 121 | Commercial | | 9 | 8 | | | 17 |
| 141 | Airports | | 7 | 15 | | | 22 |
| 142 | Highways, Roads and Railroads | | 61 | 35 | 2 | 1 | 99 |
| 211 | Cropland* | 11 | 1,692 | 726 | 98 | 25 | 2,552 |
| 212 | Fallow Cropland | | 15 | 39 | | | 54 |
| 213 | Pasture* | | 10 | 5 | 3 | | 18 |
| 221 | Young Tree Plantation* | | 266 | 186 | 24 | 1 | 477 |
| 241 | Hedgerow | | 18 | 6 | 1 | 2 | 27 |
| 312 | Herbaceous Successional Field | | 101 | 79 | 8 | | 188 |
| 322 | Shrub Successional Field | | 10 | | | | 10 |
| 411 | Deciduous Woodland | | 43 | 10 | 1 | | 54 |
| 421 | Evergreen Plantation* | | 2 | 3 | 2 | | 7 |
| 511 | Creek | | 14 | 1 | | | 15 |
| 611 | Palustrine Forested Wetland | | 2.5 | | | | 2.5 |
| 621 | Palustrine Scrub-Shrub Wetland | | 0.5 | | | | 0.5 |
| 622 | Palustrine Emergent Wetland | 1 | 52 | 28 | 2 | 1 | 84 |
| 625 | Palustrine Open Water | | 6 | 5 | | 1 | 12 |
| 626 | Wetland Complex | | 4 | 2 | | 1 | 7 |
| Totals | | 12 | 2,428 | 1,260 | 3,883 | 148 | 35 |
| *Active Farmland | | 11 | 1,970 | 920 | 3,054 | 127 | 26 |
| Inactive Farmland (fallow cropland) | | 0 | 15 | 39 | 54 | 0 | 0 |

Sources: USDA, Soil Conservation Service, 1962; TAMS, 2000.

Note: Numbers shown in acres and may not add up due to rounding.

TABLE 5.15-17

**EROSION-PRONE LAND BY LAND USE AND LAND COVER CATEGORY
WILL COUNTY INAUGURAL ACQUISITION ALTERNATIVE**

| Land Code No. | Description | Eroded | Severely Eroded | Non-Eroded | Totals |
|-------------------------------------|--------------------------------|--------------|-----------------|--------------|--------------|
| 111 | Residential | 112 | 7 | 113 | 232 |
| 112 | Abandoned/Vacant | 4 | | 1 | 5 |
| 121 | Commercial | 8 | | 9 | 17 |
| 141 | Airports | 15 | | 7 | 22 |
| 142 | Highways, Roads and Railroads | 35 | 2 | 62 | 99 |
| 211 | Cropland* | 828 | 94 | 1,630 | 2,552 |
| 212 | Fallow Cropland | 42 | | 12 | 54 |
| 213 | Pasture* | 6 | 3 | 9 | 18 |
| 221 | Young Tree Plantation* | 198 | 25 | 254 | 477 |
| 241 | Hedgerow | 8 | 1 | 18 | 27 |
| 312 | Herbaceous Successional Field | 81 | 7 | 100 | 188 |
| 322 | Shrub Successional Field | 5 | | 5 | 10 |
| 411 | Deciduous Woodland | 11 | 1 | 42 | 54 |
| 421 | Evergreen Plantation* | 3 | 2 | 2 | 7 |
| 511 | Creek | 2 | | 13 | 15 |
| 611 | Palustrine Forested Wetland | | | 2.5 | 2.5 |
| 621 | Palustrine Scrub-Shrub Wetland | | | 0.5 | 0.5 |
| 622 | Palustrine Emergent Wetland | 4 | 1 | 77 | 84 |
| 625 | Palustrine Open Water | 5 | | 7 | 12 |
| 626 | Wetland Complex | 2 | | 5 | 7 |
| Totals | | 1,369 | 143 | 2,371 | 3,883 |
| *Active Farmland | | 1,035 | 124 | 1,895 | 3,054 |
| Inactive Farmland (fallow cropland) | | 42 | 0 | 12 | 54 |

Source: USDA, Soil Conservation Service, 1962; TAMS, 2000.

Note: Numbers shown in acres and may not add up due to rounding.

Farm Economy

In 1999, Will County had 109,227 hectares (269,000 acres) of land in agricultural production. The primary crops were corn (47 percent) and soybeans (46 percent) with small amounts of wheat, oats, and hay. The total value of crops in 1999 was \$78.9 million in Will County (Illinois Agricultural Statistics Service, 2000). [Table 5.15-18](#) presents the crops, total production, and value of agriculture within the Will County Inaugural Acquisition Alternative for 1999. Total values for corn, soybean, wheat, and hay production were calculated as a percentage of total crop values in the county, based on percentage of cropland acreage. The total value of crops in 1999 within the Will County Inaugural Acquisition Alternative was \$0.7 million. This represented less than 1 percent of the total value of crops for Will County. Statistics for crops that have less than 405 hectares (1,000 acres) in production in a county are not published. However, based on field visits and discussions with the Will County Farm Bureau, no other crops of significance are located within the Will County Inaugural Acquisition Alternative. Also, no significant livestock operations or grain elevators are contained within the acquisition alternative.

TABLE 5.15-18

**PRODUCTION AND VALUE OF AGRICULTURAL CROPS, 1999
WILL COUNTY INAUGURAL ACQUISITION ALTERNATIVE**

| Crop | Acres | Total Production (bushels) | Total Value (dollars) |
|---------------|--------------|---------------------------------------|----------------------------------|
| Corn | 1,435 | 190,855 | \$392,970 |
| Hay | 92 | 271* | \$21,138 |
| Soybeans | 1,405 | 53,390 | \$260,864 |
| Wheat | 122 | 9,516 | \$18,214 |
| Totals | 3,054 | 254,032 | \$693,186 |

Source: Illinois Agricultural Statistics Service, 2000; TAMS, 2000.

*Tons

Livestock Watering

Due to potential impacts to water quality if a proposed new air carrier airport is constructed, research was conducted downstream of the proposed Inaugural Acquisition Alternative acquisition alternative to determine where livestock may have access to streams within 5 miles of the proposed acquisition boundaries. Field observations were conducted and agricultural land adjacent to the streams was noted on a map. Special attention was given to areas with farm residences and buildings next to streams. Where livestock was not actually observed, the presence or absence of fenced pens, pastures and barns was noted. In most areas, the height (6-10 plus feet) and steepness (60 to 90 percent) of the stream banks would probably exclude most livestock from using the streams for drinking water.

Three instances of actual or potential livestock access to streams were observed. One access is where Rock Creek runs adjacent to a pasture sheep graze. The second access to Rock Creek is adjacent to a thoroughbred horse farm (no pastures were observed near the creek). The third access is on Plum Creek where horses were observed to have direct access to the stream or to water diverted from the stream.

Other livestock operations were separated from the stream by roads and cultivated fields. In these cases, no evidence of livestock access or use was observed.

Four streams originate within or flow through the proposed Inaugural Acquisition Alternative: Rock Creek, Black Walnut Creek, South Branch of Rock Creek, and Plum Creek. A watershed divide between the Lake Michigan and Mississippi River drainages is located in the northeast corner of the proposed Inaugural Acquisition Alternative. Plum Creek is the only stream within the study area that flows to the northeast toward Lake Michigan. The other streams flow southwest to the Kankakee River.

Rock Creek

This stream originates in Monee Township, Section 28, just north of the proposed Inaugural Acquisition Alternative. It flows southwest through Raccoon Grove Nature Preserve and Monee Reservoir, crosses under Illinois Route 50 three times, and then continues southwest from Will Township to Peotone Township. Field observations began in Will Township, Section 6, and continued to Wesley Line Road, in Peotone Township, Section 33. Five farms with livestock operations were observed within this stretch of the stream. Only two were adjacent to the stream: a sheep pasture southeast of 295th (Joliet Road) and 8000W; and a thoroughbred horse farm, Church Farm, Inc., near the northwest corner of Center and Wesley Line Roads, where no pastures were observed next to the stream.

Black Walnut Creek

This stream originates about 2 miles north of the proposed Inaugural Acquisition Alternative in Monee Township, Section 19, and flows southwest through the western portion of the acquisition alternative. It joins the channel of the South Branch of Rock Creek in Manteno Township, Section 11. An active livestock operation, Calmey Farms, Calvin Meyer and Sons, is located a half-mile east of the creek (southwest of Harlem and Wesley Line Roads), but is surrounded by cultivated fields with no evidence of livestock access to the creek.

Marshall Slough

This stream originates 2 miles south of the proposed Inaugural Acquisition Alternative in Will Township, Section 21, and flows southwest to Manteno Township, Section 12, where it joins the channel of the South Branch of Rock Creek, about a quarter-mile north of the confluence of Black Walnut Creek. An indoor livestock operation is located in Will Township, Section 32, on the northwest side of the creek, but no evidence of outdoor pens or creek access was observed.

South Branch Rock Creek

This stream originates in the center of the proposed Inaugural Acquisition Alternative in Will Township, Section 11, and flows southwest, where it is joined by Marshall Slough and Black Walnut Creek about 6 miles south of the acquisition alternative. One livestock operation, D & M Acres, was observed in Will Township, Section 32, west of Central Avenue. It is nearly a quarter-mile north of the creek and surrounded by cultivated fields. A two-acre pasture is located along the road with no livestock access to the stream.

Exline Slough

This stream originates just south of the proposed Inaugural Acquisition Alternative in Will Township, Section 12. A farm adjacent to the stream just south of Kennedy Road has a barn and hay, but no fences, livestock, or creek access was observed.

Plum Creek

This stream originates within the proposed Inaugural Acquisition Alternative at Beecher Marsh, in Washington Township, Section 7. It flows northeast through Beecher Landfill, under Illinois Route 394, then through Plum Grove and Goodenow Grove Forest Preserves. The terrain is rugged and wooded with many ravines. Most of the area is forest preserve or private residential property. Potential livestock use along this stretch of the stream is by horses kept on residential property or ridden on trails through the forest preserve. Horses were observed in pastures with direct access to the creek, and to water diverted from the creek in a residential area north of Exchange Road in Crete Township, Section 13. This was the only observation of livestock along Plum Creek.

5.15.3.4 Will County Ultimate Acquisition Alternative

[Figure 5.9-2](#) provides a map of the current land use and land cover within the Will County Ultimate Acquisition Alternative. [Table 5.9-2](#) presents the area of each land cover. The total area contained within the proposed Will County Ultimate Acquisition Alternative is 23,492 acres.

Within the proposed Ultimate Acquisition Alternative, there are 17,429 acres of active farmland and 660 acres of inactive farmland. [Figure 5.15-3](#) presents the active and inactive farmland to be acquired within the Will County Ultimate Acquisition Alternative classified as prime, important or other. The predominant soil types are Ashkum silty clay loam, Markham silt loam, Beecher silt loam, Elliott silt loam and Drummer silty clay loam. There are 56 different soil mapping units within the acquisition alternative ([Table 5.15-19](#)). Of these soil mapping units, 16,835 acres are prime farmland soils and 6,512 acres are important farmland soils ([Table 5.15-20](#)). There are 12,947 acres of prime farmland soils and 4,383 acres of important farmland soils currently being used as active farmland. Active farmland includes the following land use and land cover categories: cropland, pasture, young tree plantation, sod farm, and evergreen plantation. Inactive farmland exists on 450 acres of prime farmland soils and on 205 acres of important farmland soils ([Table 5.15-20](#)). About 67 percent of the active farmland occurs on hydric soils or non-hydric soils with hydric inclusions ([Table 5.15-21](#)).

TABLE 5.15-19

SOIL MAPPING UNITS - WILL COUNTY ULTIMATE ACQUISITION ALTERNATIVE

| Soil Symbol | Soil Name | Category | Capability Class | Acres | Proportional Extent |
|---------------|--|----------|------------------|---------------|---------------------|
| 103 | Houghton muck | I | IIIV | 94 | 0.40% |
| 134B | Camden silt loam, 2-4 % slope | P | IIE | 14 | 0.06% |
| 134C2 | Camden silt loam, 4-7 % slope, eroded | I | IIE | 8 | 0.03% |
| 134D2 | Camden silt loam, 7-12% slope, eroded | I | IIIE | 3 | 0.01% |
| 146A | Elliott silt loam, 0-2% slope | P | IIIV | 58 | 0.25% |
| 146B | Elliott silt loam, 2-4% slope | P | IIE | 2,372 | 10.10% |
| 146B2 | Elliott silt loam, 2-4% slope, eroded | P | IIE | 363 | 1.55% |
| 146C2 | Elliott silt loam, 4-7% slope, eroded | P | IIE | 18 | 0.08 |
| 148A | Proctor silt loam, 0-2% slope | P | I | 4 | 0.02% |
| 148B | Proctor silt loam, 2-4% slope | P | IIE | 236 | 1.00% |
| 148B2 | Proctor silt loam, 2-4% slope, eroded | P | IIE | 37 | 0.16% |
| 148C2 | Proctor silt loam, 4-7% slope, eroded | P | IIE | 112 | 0.48% |
| 148D2 | Proctor silt loam, 7-12% slope, eroded | I | IIIE | 1 | 0.00% |
| 149A | Brenton silt loam, 0-2% slope | P | I | 50 | 0.21% |
| 149B | Brenton silt loam, 2-4% slope | P | IIE | 87 | 0.37% |
| 152 | Drummer silty clay loam | P2 | IIIV | 2,009 | 8.55% |
| 190B | Onarga fine sandy loam, 1-4% slope | P | IIE | 13 | 0.06% |
| 194B3 | Morley silt loam, 4-12% slope | I | IIE | 4 | 0.02% |
| 194C2 | Morley silt loam, 4-7% slope, eroded | I | IIIE | 800 | 3.41% |
| 194C3 | Morley silty clay loam, 4-7% slope, severely eroded | I | IVE | 193 | 0.82% |
| 194D | Morley silt loam, 7-15 % slope | I | IVE | 6 | 0.03% |
| 194D2 | Morley silt loam, 7-12% slope, eroded | I | IIIE | 208 | 0.89% |
| 194D3 | Morley silty clay loam, 7-12% slope, severely eroded | I | IVE | 504 | 2.15% |
| 194E | Morley silt loam, 12-25% slope | - | IVE | 0 | 0.00% |
| 194E2 | Morley silt loam, 12-18% slope, eroded | - | IVE | 9 | 0.04% |
| 194E3 | Morley silty clay loam, 12-25% slope, severely eroded | - | VIE | 8 | 0.03% |
| 194F2 | Morley silt loam, 18-30% slope, eroded | - | VIE | 5 | 0.02% |
| 198B2 | Elburn silt loam, 2-5%, eroded | P | IIE | 2 | 0.01% |
| 206 | Thorp silt loam | P2 | IIIV | 3 | 0.01% |
| 223C2 | Varna silt loam, 4-7% slope | P | IIIE | 1,110 | 4.73% |
| 223D2 | Varna silt loam, 7-12% slope, eroded | I | IIIE | 16 | 0.07% |
| 228B | Nappanee silt loam, 2-4% slope | P | IIIE | 4 | 0.02% |
| 228C2 | Nappanee silt loam, 4-7% slope, eroded | I | IIIE | 6 | 0.03% |
| 228C3 | Nappanee silt loam, 4 to 7% slope, severely eroded | I | IVE | 44 | 0.19% |
| 232 | Ashkum silty clay loam | P2 | IIIV | 5,342 | 22.74% |
| 235 | Bryce silty clay | P2 | IIIV | 241 | 1.03% |
| 238 | Rantoul silty clay | I | IIIV | 7 | 0.03% |
| 23B | Blount silt loam, 2-4% slope | P | IIE | 174 | 0.74% |
| 241D3 | Chatsworth silty clay, 5 to 12% slope, severely eroded | - | VIII | 43 | 0.18% |
| 241E3 | Chatsworth silty clay, 12-30% slope, severely eroded | - | VIII | 12 | 0.05% |
| 293B | Andres silt loam, 2-4% slope | P | IIE | 179 | 0.76% |
| 294B | Symerton silt loam, 2-4% slope | P | IIE | 91 | 0.39% |
| 294C2 | Symerton silt loam, 4-7% slope, eroded | I | IIE | 89 | 0.39% |
| 295B2 | Mckena silt loam, 2-4% slope, eroded | P | IIE | 1 | 0.00% |
| 298 | Beecher silt loam | P2 | IIIV | 19 | 0.08% |
| 298A | Beecher silt loam, 0-2% slope | P2 | IIIV | 18 | 0.08% |
| 298B | Beecher silt loam 2-4% slope | P | IIE | 3,730 | 15.88% |
| 298B2 | Beecher silt loam 2-4% slope, eroded | P | IIE | 139 | 0.59% |
| 298C2 | Beecher silt loam 4-7% slope, eroded | - | 0 | 29 | 0.12% |
| 320B | Frankfort silt loam, 2 to 4% slope, eroded | P | IIIE | 236 | 1.00% |
| 320B2 | Frankfort silt loam, 2-4% slope, eroded | P | IIIE | 33 | 0.14% |
| 320C2 | Frankfort silt loam, 4 to 7% slope, eroded | I | IIIE | 399 | 1.70% |
| 330 | Peotone silty clay loam | P2 | IIIV | 137 | 0.58% |
| 451 | Lawson silt loam | P | IIIV | 25 | 0.11% |
| 531C2 | Markham silt loam, 4-7% slope, eroded | I | IIIE | 4,104 | 17.47% |
| 531D2 | Markham silt loam, 7-12% slope, eroded | I | IIIE | 29 | 0.12% |
| W | Water | - | - | 14 | 0.06% |
| Totals | | | | 23,492 | 100% |

Source: USDA, Soil Conservation Service, 1962; TAMS, 1998.

Category: P=Prime; P2=Prime, if drained; I=Important

Note: Numbers may not add up due to rounding.

TABLE 5.15-20

**PRIME AND IMPORTANT FARMLAND SOILS BY LAND USE AND LAND COVER CATEGORY
WILL COUNTY ULTIMATE ACQUISITION ALTERNATIVE**

| Land Code No. | Description | Prime | Important | Other | Totals |
|-------------------------------------|--------------------------------|---------------|--------------|------------|---------------|
| 111 | Residential | 1,212 | 683 | 6 | 1,901 |
| 112 | Abandoned/Vacant | 17 | 7 | | 24 |
| 121 | Commercial | 22 | 20 | | 42 |
| 122 | Institutional | 1 | 3 | | 4 |
| 141 | Airports | 7 | 16 | | 23 |
| 142 | Highways, Roads and Railroads | 467 | 182 | 3 | 652 |
| 211 | Cropland* | 11,926 | 3,820 | 98 | 15,844 |
| 212 | Fallow Cropland | 450 | 205 | 5 | 660 |
| 213 | Pasture* | 260 | 171 | | 431 |
| 221 | Young Tree Plantation* | 406 | 362 | | 768 |
| 241 | Hedgerow | 135 | 70 | 2 | 207 |
| 242 | Sod Farm* | 286 | | | 286 |
| 311 | Prairie | 22 | 37 | 3 | 62 |
| 312 | Herbaceous Successional Field | 840 | 584 | 8 | 1,432 |
| 322 | Shrub Successional Field | 17 | 33 | 1 | 51 |
| 411 | Deciduous Woodland | 306 | 139 | 12 | 457 |
| 421 | Evergreen Plantation* | 69 | 30 | 1 | 100 |
| 511 | Creek | 66 | 9 | | 75 |
| 611 | Palustrine Forested Wetland | 28 | 10 | | 38 |
| 621 | Palustrine Scrub-Shrub Wetland | 3 | 1 | | 4 |
| 622 | Palustrine Emergent Wetland | 216 | 99 | 2 | 317 |
| 625 | Palustrine Open Water | 21 | 13 | 2 | 36 |
| 626 | Wetland Complex | 58 | 18 | 2 | 78 |
| Totals | | 16,835 | 6,512 | 145 | 23,492 |
| *Active Farmland | | 12,947 | 4,383 | 99 | 17,429 |
| Inactive Farmland (fallow cropland) | | 450 | 205 | 5 | 660 |

Sources: USDA, Soil Conservation Service, 1962; TAMS, 2000.

Note: Numbers shown in acres and may not add up due to rounding.

TABLE 5.15-21

**HYDRIC AND NON-HYDRIC SOILS WITH HYDRIC INCLUSIONS BY LAND USE AND
LAND COVER CATEGORY
WILL COUNTY ULTIMATE ACQUISITION ALTERNATIVE**

| Land Code No. | Description | Hydric Soil | Non-Hydric Soils with Hydric Inclusions | Non-Hydric Soil | Totals |
|-------------------------------------|--------------------------------|--------------|---|-----------------|---------------|
| 111 | Residential | 492 | 601 | 808 | 1,901 |
| 112 | Abandoned/Vacant | 8 | 9 | 7 | 24 |
| 121 | Commercial | 2 | 21 | 19 | 42 |
| 122 | Institutional | 1 | | 3 | 4 |
| 141 | Airports | 3 | 4 | 16 | 23 |
| 142 | Highways, Roads and Railroads | 215 | 214 | 223 | 652 |
| 211 | Cropland* | 5,279 | 5,687 | 4,878 | 15,844 |
| 212 | Fallow Cropland | 163 | 218 | 279 | 660 |
| 213 | Pasture* | 149 | 84 | 198 | 431 |
| 221 | Young Tree Plantation* | 166 | 229 | 373 | 768 |
| 241 | Hedgerow | 60 | 73 | 74 | 207 |
| 242 | Sod Farm* | 142 | 109 | 35 | 286 |
| 311 | Prairie | 12 | 24 | 26 | 62 |
| 312 | Herbaceous Successional Field | 478 | 472 | 482 | 1,432 |
| 322 | Shrub Successional Field | 13 | 4 | 34 | 51 |
| 411 | Deciduous Woodland | 208 | 82 | 167 | 457 |
| 421 | Evergreen Plantation* | 26 | 47 | 27 | 100 |
| 511 | Creek | 58 | 4 | 13 | 75 |
| 611 | Palustrine Forested Wetland | 25 | 3 | 10 | 38 |
| 621 | Palustrine Scrub-Shrub Wetland | 3 | 1 | | 4 |
| 622 | Palustrine Emergent Wetland | 253 | 37 | 27 | 317 |
| 625 | Palustrine Open Water | 18 | 3 | 15 | 36 |
| 626 | Wetland Complex | 56 | 7 | 15 | 78 |
| Totals | | 7,830 | 7,933 | 7,729 | 23,492 |
| *Active Farmland | | 5,762 | 6,156 | 5,511 | 17,429 |
| Inactive Farmland (fallow cropland) | | 163 | 218 | 279 | 660 |

Source: USDA, Soil Conservation Service, 1962; TAMS, 2000.

Note: Numbers shown in acres and may not add up due to rounding.

The areas of land capability classes by land use and land cover category are summarized in [Table 5.15-22](#). The total amount of active farmland located on Class I soils is 47 acres. The greatest amount of active farmland within the proposed Ultimate Acquisition Alternative is located on Class II soils, totaling 11,938 acres. There are 366 acres of inactive farmland on Class II soils. Class III soils contain 4,892 acres of active farmland and 252 acres of inactive farmland. There are 481 acres of active farmland and 37 acres of inactive farmland on Class IV soils. There are no Class V soils within the proposed acquisition boundaries. There are 8 acres of active farmland on Class VI soils. The Class VII soils contain 32 acres of active farmland and approximately 3 acres of inactive farmland.

TABLE 5.15-22

**LAND CAPABILITY CLASSES BY LAND USE AND LAND COVER
WILL COUNTY ULTIMATE ACQUISITION ALTERNATIVE**

| Land Code No. | Description | Class I | Class II | Class III | Class IV | Class VI | Class VII | Other | Totals |
|-------------------------------------|--------------------------------|-----------|---------------|--------------|------------|---------------|-----------|-----------|-----------|
| 111 | Residential | | 1,114 | 738 | 43 | 1 | 1 | 4 | 1,901 |
| 112 | Abandoned/Vacant | | 17 | 7 | | | | | 24 |
| 121 | Commercial | | 22 | 19 | 1 | | | | 42 |
| 122 | Institutional | | 1 | 3 | | | | | 4 |
| 141 | Airports | | 7 | 15 | 1 | | | | 23 |
| 142 | Highways, Roads and Railroads | 1 | 433 | 201 | 14 | | 1 | 2 | 652 |
| 211 | Cropland* | 47 | 10,957 | 4,361 | 410 | 7 | 32 | 30 | 15,844 |
| 212 | Fallow Cropland | | 366 | 252 | 37 | | 3 | 2 | 660 |
| 213 | Pasture* | | 238 | 167 | 26 | | | | 431 |
| 221 | Young Tree Plantation* | | 406 | 326 | 35 | | | 1 | 768 |
| 241 | Hedgerow | 1 | 124 | 71 | 9 | | | 2 | 207 |
| 242 | Sod Farm* | | 269 | 17 | | | | | 286 |
| 311 | Prairie | | 18 | 27 | 13 | | 4 | | 62 |
| 312 | Herbaceous Successional Field | | 771 | 529 | 124 | 1 | 5 | 2 | 1,432 |
| 322 | Shrub Successional Field | | 21 | 23 | 6 | | 1 | | 51 |
| 411 | Deciduous Woodland | 1 | 304 | 127 | 14 | 3 | 6 | 2 | 457 |
| 421 | Evergreen Plantation* | | 68 | 21 | 10 | 1 | | | 100 |
| 511 | Creek | | 65 | 7 | 3 | | | | 75 |
| 611 | Palustrine Forested Wetland | | 28 | 7 | 3 | | | | 38 |
| 621 | Palustrine Scrub-Shrub Wetland | | 3 | 1 | | | | | 4 |
| 622 | Palustrine Emergent Wetland | 1 | 215 | 93 | 6 | | 1 | 1 | 317 |
| 625 | Palustrine Open Water | | 21 | 11 | 2 | | | 2 | 36 |
| 626 | Wetland Complex | | 58 | 17 | 1 | | 1 | 1 | 78 |
| Totals | | 51 | 15,526 | 7,040 | 758 | 23,492 | 13 | 55 | 49 |
| *Active Farmland | | 47 | 11,938 | 4,892 | 481 | 17,429 | 8 | 32 | 31 |
| Inactive Farmland (fallow cropland) | | 0 | 366 | 252 | 37 | 660 | 0 | 3 | 2 |

Sources: USDA, Soil Conservation Service, 1962; TAMS, 2000.

Note: Numbers shown in acres and may not add up due to rounding.

One-third (33 percent) of the land within the proposed Ultimate Acquisition Alternative is classified as eroded soil and 3 percent is severely eroded. The remaining 64 percent of the land area (14,932 acres) is classified as non-eroded. Active farmland occurs on 5,529 acres of eroded soil; 509 acres of active farmland are severely eroded soils; and the remaining 11,391 acres of active farmland (65 percent) are non-eroded soils (Table 5.15-23). The erosion-prone land within the proposed Ultimate Acquisition Alternative is illustrated in Figure 5.15-4. Inactive farmland occurs on 271 acres of eroded soils, 40 acres of severely eroded soils, and 349 acres of non-eroded soils.

TABLE 5.15-23

**EROSION-PRONE LAND BY LAND USE AND LAND COVER CATEGORY
WILL COUNTY ULTIMATE ACQUISITION ALTERNATIVE**

| Land Code No. | Description | Eroded | Severely Eroded | Non-Eroded | Totals |
|-------------------------------------|--------------------------------|--------------|-----------------|---------------|---------------|
| 111 | Residential | 808 | 46 | 1,047 | 1,901 |
| 112 | Abandoned/Vacant | 7 | | 17 | 24 |
| 121 | Commercial | 19 | 1 | 22 | 42 |
| 122 | Institutional | 3 | | 1 | 4 |
| 141 | Airports | 15 | 1 | 7 | 23 |
| 142 | Highways, Roads and Railroads | 211 | 13 | 428 | 652 |
| 211 | Cropland* | 4,951 | 438 | 10,455 | 15,844 |
| 212 | Fallow Cropland | 271 | 40 | 349 | 660 |
| 213 | Pasture* | 175 | 26 | 230 | 431 |
| 221 | Young Tree Plantation* | 337 | 35 | 396 | 768 |
| 241 | Hedgerow | 73 | 10 | 124 | 207 |
| 242 | Sod Farm* | 44 | | 242 | 286 |
| 311 | Prairie | 33 | 17 | 12 | 62 |
| 312 | Herbaceous Successional Field | 557 | 129 | 746 | 1,432 |
| 322 | Shrub Successional Field | 27 | 6 | 18 | 51 |
| 411 | Deciduous Woodland | 134 | 19 | 304 | 457 |
| 421 | Evergreen Plantation* | 22 | 10 | 68 | 100 |
| 511 | Creek | 9 | 2 | 64 | 75 |
| 611 | Palustrine Forested Wetland | 5 | 3 | 30 | 38 |
| 621 | Palustrine Scrub-Shrub Wetland | 1 | | 3 | 4 |
| 622 | Palustrine Emergent Wetland | 28 | 6 | 283 | 317 |
| 625 | Palustrine Open Water | 11 | 2 | 23 | 36 |
| 626 | Wetland Complex | 13 | 2 | 63 | 78 |
| Totals | | 7,754 | 806 | 14,932 | 23,492 |
| *Active Farmland | | 5,529 | 509 | 11,391 | 17,429 |
| Inactive Farmland (fallow cropland) | | 271 | 40 | 349 | 660 |

Source: USDA, Soil Conservation Service, 1962; TAMS, 2000.

Note: Numbers shown in aces and may not add up due to rounding

There are five farms within the Will County Ultimate Acquisition Alternative that have been certified as Centennial Farms by the Illinois Department of Agriculture. Two are located within Monee Township, the Cellarius farm and the Deutsche farm, both certified in 1972. The other three farms are located in Will Township. These are the Albers farm, certified in 1980; the Fette farm, certified in 1997 and the Norbert farm, also certified in 1997.

Farm Economy

Table 5.15-24 presents the crops, total production, and value of agriculture within the Will County Ultimate Acquisition Alternative for 1999. Total values for corn, soybean, wheat, and hay production were calculated as a percentage of total crop values in each county, based on percentage of cropland acreage. The total value of crops in 1999 within the Will County Ultimate Acquisition Alternative was \$4.0 million. This represented approximately 5 percent of the total value of crops for Will County. Statistics for crops that have less than 1,000 acres in production in a county are not published. However, based on field visits and discussions with the Will County Farm Bureau, no other crops of significance are located within the Will County Ultimate Acquisition Alternative. Also, no significant livestock operations and no grain elevators are contained within the acquisition alternative.

TABLE 5.15-24

**PRODUCTION AND VALUE OF AGRICULTURAL CROPS, 1996
WILL COUNTY ULTIMATE ACQUISITION ALTERNATIVE**

| Crop | Acres | Total Production (bushels) | Total Value (dollars) |
|---------------|---------------|---------------------------------------|----------------------------------|
| Corn | 8,192 | 1,089,536 | \$2,243,355 |
| Hay | 523 | 1,538 | \$119,964 |
| Soybeans | 8,017 | 304,646 | \$1,488,500 |
| Wheat | 697 | 54,366 | \$104,057 |
| Totals | 17,429 | 1,450,086 | \$3,955,876 |

Source: Illinois Agricultural Statistics Service, 2000; TAMS, 2000.

*Tons

Livestock Watering

Three instances of actual or potential livestock access to streams were observed. One access is where Rock Creek runs adjacent to a pasture sheep graze. The second access to Rock Creek is adjacent to a thoroughbred horse farm (no pastures were observed near the creek). The third access is on Plum Creek where horses were observed to have direct access to the stream or to water diverted from the stream. Other livestock operations were separated from the stream by roads and cultivated fields. In these cases, no evidence of livestock access or use was observed. Six streams originate within or flow through the proposed Ultimate Acquisition Alternative: Rock Creek, Black Walnut Creek, Marshall Slough, South Branch Rock Creek, Exline Slough and Plum Creek. A watershed divide between the Lake Michigan and Mississippi River drainages is located in the northeast corner of the proposed acquisition boundary. Plum Creek is the only stream within the study area that flows to the northeast toward Lake Michigan. The other streams flow southwest to the Kankakee River.

Rock Creek

This stream originates in Monee Township, Section 28, within the proposed acquisition boundary. It flows southwest through Raccoon Grove Nature Preserve and Monee Reservoir, crosses under Illinois Route 50 three times, and then continues southwest from Will Township to Peotone Township. Observations began at the proposed acquisition boundary in Will Township, Section 6, and continued to

Wesley Line Road, in Peotone Township, Section 33. Five farms with livestock operations were observed within this stretch of the stream. Only two were adjacent to the stream: a sheep pasture southeast of 295th (Joliet Road) and 8000W; and a thoroughbred horse farm, Church Farm, Inc., near the northwest corner of Center and Wesley Line Roads, where no pastures were observed next to the stream.

Black Walnut Creek

This stream originates just north of the proposed Ultimate Acquisition Alternative in Monee Township, Section 19, and flows across the entire length of the acquisition alternative. It joins the channel of the South Branch of Rock Creek in Manteno Township, Section 11. A farm with a barn and adjacent fenced paddock are located less than a quarter-mile west of this confluence, but is separated from the stream by cultivated fields. The paddock is adjacent to a farm access road that crosses the Rock Creek channel about a quarter mile south, but no livestock was observed; the barn appeared unoccupied and the pasture vegetation was tall and untrampled.

An active livestock operation, Calmey Farms, Calvin Meyer and Sons, is located a halfmile east of the creek (southwest of Harlem and Wesley Line Roads), but is surrounded by cultivated fields with no evidence of livestock access to the creek.

Marshall Slough

This stream originates at the south end of the proposed acquisition boundary in Will Township, Section 21, and flows southwest to Manteno Township, Section 12, where it joins the channel of the South Branch of Rock Creek, about a quarter-mile north of the confluence of Black Walnut Creek. An indoor livestock operation is located in Will Township, Section 32, on the northwest side of the creek, but no evidence of outdoor pens or creek access was observed.

South Branch Rock Creek

This stream originates in the center of the proposed Ultimate Acquisition Alternative in Will Township, Section 11, and flows southwest, where it is joined by Marshall Slough and Black Walnut Creek about 4 miles south of the acquisition alternative. Field observations began in Manteno Township, Section 14 at Manteno Road and continued north to Will Township, Section 27. One livestock operation, D & M Acres, was observed in Will Township, Section 32, west of Central Avenue. It is nearly a quarter-mile north of the creek and surrounded by cultivated fields. A 2acre pasture is located along the road with no livestock access to the stream.

Exline Slough

This stream originates within the proposed Ultimate Acquisition Alternative in Will Township, Section 12. Observations began in Will Township, Section 24, and continued south to Sumner Township, Section 17, ending at Manteno Road. Livestock were observed at two farms along 10,000N, less than a quarter-mile east of the stream, but these are separated from the slough by a road (7000E) and cultivated fields. No livestock access to the creek was observed. A large cattle farm with a fenced pasture is located along the east side of 8000E, nearly a halfmile west of the stream. Although surrounded by cultivated fields

there is a tractor access road that leads to the creek. Access may be possible, but was not observed and is unlikely considering the distance from the stream. A farm adjacent to the stream just south of Kennedy Road has a barn and hay, but no fences, livestock, or creek access was observed.

Plum Creek

This stream originates within the proposed Ultimate Acquisition Alternative at Beecher Marsh, in Washington Township, Section 7. It flows northeast through Beecher Landfill, under Illinois Route 394, then through Plum Grove and Goodenow Grove Forest Preserves. The terrain is rugged and wooded with many ravines. Most of the area is forest preserve or private residential property. Observations began north of Goodenow Road, Crete Township, Section 33, and continued northeast to Richton Road, Crete Township, Section 7. Potential livestock use along this stretch of the stream is by horses kept on residential property or ridden on trails through the forest preserve. Horses were observed in pastures with direct access to the creek, and to water diverted from the creek in a residential area north of Exchange Road in Crete Township, Section 13. This was the only observation of livestock along Plum Creek.

5.15.4 DISCUSSION OF IMPACTS

5.15.4.1 No-Action Alternative

Under the No-Action Alternative, no impacts to farmland would occur. However, as more and more growth and development encroaches on rural agricultural areas, the existing farmland within the acquisition alternatives would come under increasing pressure to convert to non-agricultural uses.

5.15.4.2 Kankakee Inaugural Acquisition Alternative

Within the Inaugural Acquisition Alternative, there are 3,800 acres of active farmland and 8 acres of inactive farmland. No land use changes or construction is proposed under this alternative and no impacts to farmland are anticipated under this alternative. Under the state's land acquisition policy, (see [Appendix C](#)), existing land uses would continue and no additional development would occur within the acquisition alternative. Therefore, all land currently in agricultural production would remain in agricultural production.

5.15.4.3 Kankakee Ultimate Acquisition Alternative

Within the Ultimate Acquisition Alternative, there are 22,373 acres of active farmland and 49 acres of inactive farmland. No land use changes or construction is proposed under this alternative and no impacts to farmland are anticipated under this alternative. Under the state's land acquisition policy, (see [Appendix C](#)), existing land uses would continue and no additional development would occur within the acquisition alternative. Therefore, all land currently in agricultural production would remain in agricultural production.

5.15.4.4 Will County Inaugural Acquisition Alternative

Within the Inaugural Acquisition Alternative, there are 3,054 acres of active farmland and 54 acres of inactive farmland. No land use changes or construction is proposed under this alternative and no impacts to farmland are anticipated under this alternative. Under the state's land acquisition policy, (see [Appendix C](#)), existing land uses would continue and no additional development would occur within the acquisition alternative. Therefore, all land currently in agricultural production would remain in agricultural production.

5.15.4.5 Will County Ultimate Acquisition Alternative

Within the Ultimate Acquisition Alternative, there are 17,429 acres of active farmland and 660 acres of inactive farmland. No land use changes or construction is proposed under this alternative and no impacts to farmland are anticipated under this alternative. Under the state's land acquisition policy, (see [Appendix C](#)), existing land uses would continue and no additional development would occur within the acquisition alternative. Therefore, all land currently in agricultural production would remain in agricultural production.

5.15.5 MITIGATION

In order to comply with the Federal Farmland Preservation Act, the Illinois Farmland Preservation Act, and the LESA evaluation scores received by the two alternative airport acquisition alternatives the Sponsor has examined ways to minimize farmland impacts.

As described previously in [Chapter 3.0, Alternatives](#), the acquisition alternatives were chosen to allow proposed new air carrier airport facilities and runways to be constructed that minimize off-airport impacts, while impacting the least amount of land. All existing farmland would be leased to farmers and allowed to remain in agriculture, until such time that this land may be needed for airport purposes, which would be examined in detail in subsequent environmental actions.

The Illinois Department of Transportation is currently considering the request of the Illinois Department of Agriculture to place areas within the acquisition alternative into an agricultural area. The IDOT would work with the Illinois Department of Agriculture to establish feasible agricultural areas.

The property identified to be acquired for the proposed new air carrier airport acquisition alternatives was selected based on the proposed airport facility and runway requirements, the need for environmental mitigation areas, and minimization of community impacts, especially noise. Where practicable, the proposed acquisition alternative followed property lines to minimize severed parcels. However, in some areas, primarily around the proposed future access roads, only partial pieces of property would be acquired. In some cases, these severed parcels would result in adverse travel for the current farmers of these properties. In this case, the entire property, or portions of property that would be uneconomical for farming, could be purchased in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended. [Section 5.3, Social Impacts](#), and [Section 5.4, Socioeconomic Impacts](#), provide an analysis of the social and socioeconomic impacts of the project.

5.16 ENERGY SUPPLY AND NATURAL RESOURCES

5.16.1 OVERVIEW OF IMPACTS

The No-Action Alternative would result in an increased demand on energy supplies and natural resources consistent with anticipated residential and commercial growth rates and would not have a significant impact on energy supplies and natural resources. The Kankakee and Will County Inaugural and Ultimate Acquisition Alternatives would not result in impacts to existing or future sources of energy-bearing resources or to energy supplies.

5.16.2 METHODOLOGY

Both the U.S. Department of the Interior (DOI), Bureau of Land Management (BLM), and the State of Illinois Geologic Survey (IGS) report that there are no known scarce or extractable mineral resources within the alternative sites ([Appendix B](#), personal communication with DOI, BLM, 1997 and IGS, 1997). The U.S. Department of the Interior, Bureau of Land Management, reports that the United States did not reserve any mineral rights when the land comprising the site was patented, nor have any rights been acquired or returned to the U.S. Government since the original patents (USDIO, BLM, 1997). Correspondence with the BLM and IGS can be found in [Appendix B](#).

Utility providers maintaining utility lines and services within the alternative study areas were contacted to determine the location of utility lines and the extent and type of service provided within the Kankakee and Will County Acquisition Alternatives. Additionally, the locations of these utilities were noted during field surveys.

Each alternative was evaluated based on its potential to increase the demand on locally available energy supplies and natural resources. This evaluation considered the alternatives and their potential effect on existing and future growth and development trends and the available energy supplies within the respective study areas.

5.16.3 EXISTING CONDITIONS

5.16.3.1 Kankakee Acquisition Alternatives

Several utility lines cross the proposed Kankakee Acquisition Alternatives. These are described below and shown on [Figure 5.16-1](#).

- Amoco Oil Company - 16-inch-diameter petroleum line that traverses the northwest corner of the site;
- Peoples Gas, Light and Coke Company - Two parallel 30-inch-diameter natural gas pipelines that traverse the northwestern corner of the site;

- Chicago Pipeline Company - 26-inch-diameter petroleum pipeline that traverses the western side of the site;
- Amoco Oil Company - 22-inch-diameter petroleum Cushing-Chicago pipeline that extends southwest-northeast through the site; and
- Commonwealth Edison - Maintains a high voltage transmission line that runs along a portion of the eastern boundary of the site.

Existing electrical service consists of a secondary distribution system that feeds directly to the homes and farms throughout the acquisition alternatives. Electricity, propane gas, and/or natural gas currently heat the homes and farms within the alternative sites. New homes under construction within the sites require the consumption of construction materials such as lumber, cement, aggregates, steel, piping, wire, etc. Farming operations within the sites consume petroleum-based fuels and lubricants, and use fertilizers, pesticides, and herbicides.

5.16.3.2 Will County Acquisition Alternatives

Several utility lines cross the Will County Acquisition Alternatives and are described below and shown on [Figure 5.16-2](#).

- Atlantic Richfield Company (ARCO) - 22-inch-diameter petroleum line that traverses the site from the southwest to the northeast;
- Northern Illinois Gas Company - 8-inch-diameter natural gas pipeline that extends north and south through the eastern portion of the site;
- Shell Oil Company - 14-inch-diameter petroleum pipeline located in the southeast corner of the site;
- Texas Eastern - 14-inch-diameter petroleum pipeline located in the northeast corner of the site;
- Natural Gas Pipeline Company of America (NGPL) - Maintains a 36-inch pipeline that extends southwest-northeast through the southeast section of the site;
- Explorer Petroleum - Pipeline that extends through the southeast corner of the site;
- Phillips Petroleum - Pipeline that extends through the southeast corner of the site;
- Wolverine - 18-inch-diameter natural gas pipeline, Amoco Petroleum - 12", 14", 2-19", and 24" petroleum pipelines that run along the northern portion of the site;
- AT&T - Fiber optics cable that extends east-west through the site; and
- Ameritech - Maintains a coaxial cable that extends east-west through the site.

Existing electrical service consists of a secondary distribution system that feeds directly to the homes and farms throughout the acquisition alternatives. Electricity, propane gas, and/or natural gas currently heat the homes and farms within the acquisition alternatives. New homes under construction within the site

require the consumption of construction materials such as lumber, cement, aggregates, steel, piping, wire, etc.

Farming operations within the sites consume petroleum-based fuels and lubricants, and use fertilizers, pesticides and herbicides.

5.16.4 DISCUSSION OF IMPACTS

5.16.4.1 No-Action Alternative

Under this alternative, residents would continue to live within the proposed sites and farming operations would continue. Current trends of land development within the proposed acquisition boundaries would continue throughout the planning period. Conversion of farmland to residential and commercial uses would most likely continue, as well as the existing patterns of using locally available common construction materials and energy resources. New homes and businesses would require the consumption of additional energy resources, such as electricity, propane or natural gas, and heating oils. Therefore, the No-Action Alternative would increase the demand on energy supplies and natural resources; however, this increase would be gradual and occur in proportion with development and population trends presented in [Section 5.3](#), Social Impacts, and [Section 5.4](#), Induced Socioeconomic Impacts.

5.16.4.2 Acquisition Alternatives

Under the state's land acquisition policy (see [Appendix Q](#)), existing land uses would continue and no additional development would occur within the Acquisition Alternative. Therefore, the acquisition alternatives would not result in an increased demand on energy supplies or natural resources.

5.16.5 MITIGATION

The No-Action Alternative would result in an increased demand on energy and natural resources; however, this increase is expected to be consistent with anticipated growth rates and would not have a significant impact on energy supplies and natural resources. The Kankakee and Will County Inaugural and Ultimate Acquisition Alternatives would not impact energy supplies or natural resources. Therefore, no mitigation measures are warranted for any of the alternatives.

5.17 LIGHT EMISSIONS

5.17.1 OVERVIEW OF IMPACTS

Neither the No-Action Alternative nor the Kankakee or Will County Acquisition Alternatives evaluated in this Tier 1 FEIS would result in the construction or development of new facilities and their associated light sources. Therefore, none of these alternatives would introduce significant light emissions or result in impacts to sensitive land uses.

5.17.2 METHODOLOGY

FAA Order 5050.4A, *Airport Environmental Handbook*, states that “the extent to which any lighting associated with an airport action will create an annoyance among people in the vicinity of the installation” shall be examined. Any light emissions analysis must include the site location or lights or light systems, describe the light system’s purpose, installation, beam angle, intensity, color, flashing sequence (if applicable) and pertinent characteristics of the lighting system. If necessary, measures to lessen any annoyance, such as shielding or angular adjustments, should also be considered. Furthermore, FAA Order 5050.4A states that only in unusual circumstances, such as when high intensity strobe lights would shine directly into peoples' homes, will the impact of light emissions be considered sufficient to warrant more detailed examination in an EIS. Each of the alternatives was evaluated based on these criteria.

5.17.3 EXISTING CONDITIONS

As discussed in [Section 5.15](#), Farmlands, the majority of the land use in the Kankakee Acquisition Alternatives is intense farming operations that produce relatively low light emissions. Few residential communities are near enough to the alternative sites to produce significant light emissions. The Kankakee River State Park to the south and the Midewin National Tallgrass Prairie to the northwest produce limited light emissions. Similarly, the Will County Acquisition Alternatives consist mostly of farmland lying in a rural setting. Sources of existing light emissions are generally limited to residential structures and farm structures. However, suburban growth is approaching the northern limits of the alternative sites. In the vicinity of the Will County Ultimate Acquisition Alternative's perimeter, light emission sources are concentrated in the population centers of Monee and University Park to the northwest, Crete to the northeast, Peotone to the southwest, and Beecher to the southeast. In these communities, light emission sources consist of residential and commercial structures, and street lights. Light industrial uses along I-57, to the west of the proposed site, and Balmoral Race Track, to the east on Illinois Route 1, are additional sources of light emissions.

5.17.4 DISCUSSION OF IMPACTS

5.17.4.1 No-Action Alternative

No site approval would occur under the No-Action Alternative; however, light emissions would increase as development of residential and commercial land uses continues in the future, as described in [Section 5.3](#), Social Impacts, and [Section 5.4](#), Induced Socioeconomic Impacts.

5.17.4.2 Acquisition Alternatives

No construction, including the installation of lighting facilities, is proposed under the Acquisition Alternatives; therefore, no impacts caused by light emissions would occur.

5.17.5 MITIGATION

The No-Action Alternative and the Kankakee and Will County Inaugural and Ultimate Acquisition Alternatives propose either no site approval or site approval and the acquisition of property. Since no construction, including lighting facilities is proposed in any of the alternatives evaluated in this Tier 1 FEIS, no light emission impacts would result under any of the alternatives. Therefore, mitigation for light emissions is not warranted.

5.18 SOLID WASTE

5.18.1 OVERVIEW OF IMPACTS

None of the alternatives evaluated in this Tier 1 FEIS would generate amounts of municipal solid waste (MSW) such that the capacity of solid waste facilities would be exceeded. The Kankakee and Will County Acquisition Alternatives could potentially produce construction waste from upgrading residences or the demolition of residences where upgrading is not practicable. However, preliminary surveys of the structures within the proposed acquisition alternatives indicate that the number of homes that would require construction or demolition would be minimal and would not result in significant impacts to the solid waste capacity of the IEPA, Division of Land Pollution Control, Region 2. None of the alternatives are located near an active landfill that would create an increased bird strike potential, should it be decided in the future to build an air carrier airport on either Kankakee or Will County Acquisition Alternative sites.

5.18.2 METHODOLOGY

Disposal facilities servicing the vicinities of the proposed acquisition alternatives were identified and the potential impact of the alternatives on the capacity of these facilities was evaluated. Specifically, consideration was given to the potential of the alternatives to exceed the capacity of available disposal facilities.

Consideration was also given to the location of the acquisition alternative that may violate any local, state, or Federal regulations in the future. The FAA has established guidelines relating to sanitary landfills on or near airports. According to FAA Advisory Circular 150/5200-33, *Hazardous Wildlife Attractants On or Near Airports*, waste disposal sites that have the potential to attract birds are considered incompatible if located within approximately 9,843 feet of any runway end used or planned to be used by turbine-powered aircraft or located within a 5-mile radius of a runway that attracts or sustains hazardous bird movements into or across the runways and/or approach and departure patterns of aircraft.

The study of solid waste impacts also evaluated the potential for short-term generation of solid wastes due to demolition and construction activities. According to the state's land acquisition policy (see [Appendix C](#)), the state plans to lease residences and property it purchases, thereby maintaining the existing land uses. It may be necessary, in rare circumstances, to upgrade residences to meet decent, safe, and sanitary standards or demolish residences if it is cost prohibitive to upgrade. Detailed inspection of each structure within the boundaries of the acquisition alternatives has not been conducted, but preliminary exterior surveys were conducted in 2001.

5.18.3 EXISTING CONDITIONS

Region 2 of the Illinois Environmental Protection Agency (IEPA), Division of Land Pollution Control permits utilities and regulates the disposal of solid waste within a nine-county region that includes Kankakee and Will counties. As of January 1, 2000, Region 2 had an available landfill capacity of 101,503,000 cubic

yards. In 1999, 15.8 million cubic yards of solid waste were generated in Region 2, consisting of approximately 7.0 million tons of solid waste (IEPA, 2001). Presently, the solid wastes generated at the proposed alternative sites are collected and deposited in local landfills.

Kankakee County has one landfill, the Kankakee Recycling and Disposal Facility (RDF) located in Chebanse, which is approximately 15 miles south of the Kankakee Alternatives. This facility accommodates municipal/special waste. Only special waste (consisting largely of pollution control and industrial process wastes) generated within Kankakee County is received at this facility. As of January 1, 2000, this landfill had an existing remaining capacity of 2.3 million cubic yards. This landfill is scheduled to close in 2007. In 1999, Kankakee County landfilled 342,247 cubic yards of solid waste, composted 24 tons, and recycled 71,086 tons.

According to the Will County Solid Waste Department, Will County has one active landfill, the Wheatland Prairie RDF in Plainfield, which is more than 30 miles north/northwest of the Kankakee and Will County Alternatives. This landfill is only accepting special waste (bioremediated soils, petroleum-contaminated soils, construction/demolition debris, slag, etc.) until it closes in 2002 or 2003. Will County landfilled 2.5 million cubic yards of solid waste, composted 61,539 tons of landscape waste, and recycled 125,673 tons in 1999 (IEPA, 2001). [Table 5.18-1](#) presents the existing and projected landfills in the area and their projected capacities.

Region 2 permits and regulates the disposal of solid waste within the nine-county region. However, licensing, siting, and inspection responsibilities lie with the counties in which the disposal facility is located. Because existing landfills in the region, particularly in Kankakee and Will counties, are reaching capacity, Will County is currently siting a new landfill within the boundaries of the former Joliet Arsenal. This landfill, the Prairie View RDF, will be sited on 425 acres contiguous to a proposed industrial park and the newly designated Midewin National Tallgrass Prairie (see [Figure 5.18-1](#)). The landfill will be located approximately 3 miles from the northwest corner of the proposed Kankakee Ultimate Acquisition Alternative boundary. It is projected to accept a maximum of 30 million cubic yards of waste over a 23-year period. The proposed facility is in the planning phases of development. Kankakee County has not identified future plans for new solid waste disposal facilities.

TABLE 5.18-1

EXISTING AND PROJECTED SOLID WASTE CAPACITY

| Solid Waste Facilities | Projected Capacity |
|--------------------------------------|--|
| Wheatland Prairie RDF | Only accepting special waste until closure in 2002 or 2003 |
| Kankakee RDF | 2.3 million cubic yards |
| Prairie View RDF (Wilmington, IL) | Projected life of 23 years, accepting a maximum volume of 22.8 million cubic meters (30 million cubic yards). Permit application is on hold until 7/13/2001. |

Source: TAMS, 1997; IEPA, 2001; IEPA, 2001.

Beecher Landfill, a privately owned and operated sanitary landfill, is located adjacent to the proposed eastern boundary of the Will County Ultimate Acquisition Alternative (Figure 5.18-2). Beecher Landfill had received more than 8.7 million cubic yards of waste as of 1995. In the past, the landfill accepted hazardous waste; however, most recently, it only received municipal solid waste and special waste. The landfill reported a projected capacity of 1.6 million cubic yards in 1999; however, the landfill has not accepted waste since July 1996 and is now closed. A clay cap has been applied and the surface is now re-vegetated.

5.18.4 DISCUSSION OF IMPACTS

5.18.4.1 No-Action Alternative

Under this alternative, residential and commercial development trends in the study area would continue as described in Section 5.3, Social Impacts, and Section 5.4, Induced Socioeconomic Impacts, for the 10-year planning period, and the solid wastes generated would be composted, recycled, landfilled, or possibly disposed of in an approved incineration plant. The anticipated growth within the area was used in projecting the solid waste capacity and planning for future solid waste facility needs within Region 2 of IEPA's Division of Land Pollution Control. Therefore, the No-Action Alternative would not impact the solid waste capacity of Region 2.

5.18.4.2 Kankakee Acquisition Alternatives

According to the state's land acquisition policy (see Appendix C), the present land uses would be maintained and, as with the No-Action Alternative, the solid wastes generated would be composted, recycled, landfilled, or possibly disposed of in an approved incineration plant. The amounts of municipal solid waste generated over the 10-year planning period would be similar to, or even slightly less than, that of the No-Action Alternative and, therefore, would not impact the solid waste capacity of Region 2.

While it is the state's policy to lease residences and property it purchases, it may be necessary, in rare circumstances, to upgrade residences to meet decent, safe, and sanitary standards or demolish residences if it is cost-prohibitive to upgrade. Detailed inspection of each structure within the boundaries of the acquisition alternatives has not been conducted, but preliminary exterior surveys were conducted in 2001. The majority of residences and structures within the alternatives appear to be in good condition. Therefore, it is anticipated that solid waste generated from construction required to upgrade residences or demolition of structures would be minimal and would not result in significant impacts to the solid waste capacity of Region 2.

This alternative is not currently located near an active landfill. However, the planned Prairie View RDF would be slightly less than 5 miles from the western boundary of the Ultimate Acquisition Alternative and just over 5 miles from the western boundary of the Inaugural Acquisition Alternative. The location of the Prairie View RDF will need to be considered in light of FAA Advisory Circular 150/5200-33 and recent amendments to the Federal Aviation Act (AIR-21) if this site is approved for land acquisition and if a decision is made in the future to build an airport at this location.

5.18.4.3 Will County Acquisition Alternatives

According to the state's land acquisition policy (see [Appendix C](#)), the present land uses would be maintained and, as with the No-Action Alternative, the solid wastes generated would be composted, recycled, landfilled or possibly disposed of in an approved incineration plant. The amounts of municipal solid waste generated would be similar to, or even slightly less than, that of the No-Action Alternative and therefore would not impact the solid waste capacity of Region 2.

While it is the state's policy to lease residences and property it purchases, it may be necessary, in rare circumstances, to upgrade residences to meet decent, safe, and sanitary standards or demolish residences if it is cost-prohibitive to upgrade. Detailed inspection of each structure within the boundaries of the acquisition alternatives has not been conducted, but preliminary exterior surveys were conducted in 2001. The majority of residences and structures within the alternatives appear to be in good condition. Therefore, it is anticipated that solid waste generated from construction required to upgrade residences or demolition of structures would be minimal and would not result in significant impacts to the solid waste capacity of Region 2.

Since the Beecher Landfill is now closed (IEPA, 2001), this alternative would not be located near an active landfill that would create an increased bird strike potential if this site is approved for land acquisition and if a decision is made in the future to build an airport at this location.

5.18.5 MITIGATION

No substantial increase in solid waste generation rates that would exceed the capacity of the Division of Land Pollution Control, Region 2 would result from the alternatives. Some construction waste, however, may be generated from upgrading or the demolition of residences. Recycling construction and demolition debris where possible could reduce the amount of construction waste to be landfilled.

5.19 HAZARDOUS WASTE

5.19.1 OVERVIEW OF IMPACTS

The No-Action Alternative will not result in any impacts to sites or facilities containing hazardous waste, environmental contamination, or other regulated substances. The Kankakee Inaugural and Ultimate Acquisition Alternatives as well as the Will County Inaugural and Ultimate Acquisition Alternatives propose the acquisition of property. However, no land use changes or construction is planned as a part of these alternatives. Therefore, no impacts to hazardous waste sites would occur nor is the use of hazardous substances anticipated.

5.19.2 METHODOLOGY

The Resource Conservation and Recovery Act (RCRA) of 1976 (42 U.S.C. 6901), as amended, was established to regulate the management and disposal of hazardous materials and wastes. The Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) (42 U.S.C. 9601), [1985], known as Superfund, authorizes government funds for clean-up of abandoned hazardous waste sites, and the emergency response to transportation incidents involving chemical releases and hazardous substances. The Superfund Amendment and Re-Authorization Act (SARA), passed in 1986, safeguards the safety and health of workers and the community. Two databases have been established under these acts: 1) the Comprehensive Environmental Response, Compensation, and Liability Act Information System (CERCLIS) database used by the USEPA to track sites of potential environmental contamination, and 2) the National Priorities List (NPL) database identifies confirmed contaminated sites eligible for clean up under Superfund.

For this evaluation, information and data pertaining to hazardous wastes, environmental contamination and other regulated materials located in the vicinity of the alternatives study area were obtained from searches of these EPA and other databases, regulatory agency files, and in-the-field visual surveys.

5.19.2.1 Database Surveys

Conducted in 1991 and 1994, the electronic database searches assessed Federal, state, and local computer records regarding landfills; known or suspected waste sites; treatment, storage, and disposal (TSD) facilities; and other generators of hazardous materials. For a description of these databases, refer to *Site Contamination and Hazardous Waste* (TAMS, 1996a) and the *Illinois-Indiana Regional Airport Site Selection Report-Abstract* (TAMS, 1991r).

The database search areas for the Kankakee and Will County Acquisition Alternatives were consistent with the minimum search distances specified in the *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process* (ASTM E1527-94). For each alternative site, this included those areas that might be considered for acquisition under varying airport layouts. In general, this area also encompasses a 2mile radius around the acquisition alternatives with smaller search radii for source-specific parameters.

Although the use of the ASTM guideline represents "good commercial and customary practice" for conducting Environmental Site Assessments (ESA), this initial survey does not fully conform to ASTM guidelines. Rather, this initial assessment was prepared primarily for early site identification and planning purposes. ESAs that conform to ASTM guidelines would be conducted in the course of due diligence on each parcel to be acquired.

5.19.2.2 Interviews

In 1994, the Illinois Office of the State Fire Marshal, Division of Petroleum and Chemical Safety, was contacted to obtain information pertaining to underground storage tanks (USTs) in the study area. Other local agencies including fire departments, police departments, zoning departments, health departments, and farm bureaus were similarly contacted. Persons with knowledge of the study area's former land use, ownership, sites of solid or hazardous waste utilization, aboveground storage tanks (ASTs), USTs, landfills, asbestos, or other pertinent environmental information were also contacted and interviewed.

5.19.2.3 Field Surveys

Field surveys of the proposed Kankakee and Will County Acquisition Alternatives were conducted in 1991, 1994, and/or 1997 to:

- Confirm the data obtained from the literature and computerized agency databases for the alternatives;
- Become familiar with the alternatives and their particular environmental concerns;
- Locate other obvious potential waste problems that were not otherwise documented;
- Verify and update (where necessary) the findings of the 1991 study;
- Conduct a survey for areas within the Ultimate Acquisition Alternatives' boundaries; and
- Conduct a survey for areas within approximately 1 mile of the current boundaries of the Ultimate Acquisition Alternatives.

These surveys consisted of visual inspections of the study area and individual sites identified from the database survey. No sampling of waste materials, soils, surface or groundwater, or any other media was conducted nor were any subsurface investigations performed.

Based on the results of the database surveys; field inspections; inquiries to Federal, state and local agencies; and other sources of information pertaining to hazardous wastes, environmental contamination and regulated materials, the existing conditions are summarized below, by alternative. Brief discussions of the area's geology, topography, and hydrology are also provided.

5.19.3 EXISTING CONDITIONS

5.19.3.1 Kankakee Acquisition Alternatives

The Kankakee Acquisition Alternatives are located in a rural, agricultural setting. The population centers are Manteno to the east, Peotone to the northeast, and Bradley and Bourbonnais to the southeast. The Acquisition Alternatives lie in generally flat terrain with elevations ranging from 625 to 640 feet above sea level. In the northern portion of the Ultimate Acquisition Alternative site, a more rolling topography exists with elevations ranging from 640 feet to 685 feet. The main surficial features within the boundaries of the alternatives include Rock Creek, Rayns Creek, the South Branch of Forked Creek, and Forked Creek (Figure 5.19-1).

Consolidated rocks beneath the Kankakee Acquisition Alternatives include more than 4,000 feet of Cambrian to Devonian age limestone, dolomite, sandstone, and shale, which rest unconformably upon a granitic Precambrian basement (Hartke et al., 1975). Depths to bedrock range from approximately 30 to 50 feet below the surface. Five exploratory soil borings completed at the Kankakee Acquisition Alternatives found bedrock between 19.5 and 24.5 feet below the surface.

Nearly all of the water supplies in the area are from groundwater sources. The majority of groundwater pumped in Kankakee County is from the Silurian System (dolomites), which ranges from approximately 10 to 75 feet below the surface. The surficial aquifers in the Kankakee Acquisition Alternatives are the Kankakee Aquifer and the Wheaton Aquifer (see Section 5.6, Water Quality). The shallow bedrock system is composed of Silurian and Devonian limestone, dolomite, and shale. The depth to the shallow bedrock system ranges from approximately 10 to 75 feet.

Wells in the shallow Silurian limestone and dolomite, with joints, fractures and solution features, may produce as much as 200 gallons per minute; however, predicting area of solution features is difficult, meaning the production rate of wells in the carbonate rocks is highly variable. Water quality from this aquifer is generally good.

Descriptions of the geology and hydrology of the Kankakee Acquisition Alternatives and surrounding area are provided in Section 5.6, Water Quality, of this Tier 1 FEIS.

5.19.3.2 Will County Acquisition Alternatives

The Will County Acquisition Alternatives are located in a rural, agricultural setting. The population centers of Beecher, Crete, Goodenow, Monee, Peotone, and University Park are located outside of the Ultimate Acquisition Alternative boundary. Surface elevations in the area range from 690 to 800 feet above sea level. The gently rolling topography of the area provides sufficient gradients for runoff into established drainage culverts. The main surficial drainage features within the boundaries of the alternatives include the South Branch of Rock Creek, Black Walnut Creek, Rock Creek, Marshall Slough, Plum Creek, and Exline Slough (Figure 5.19-2).

The consolidated rocks beneath the Will County Acquisition Alternatives include more than 4,000 feet of Cambrian to Silurian age limestone, dolomite, sandstone and shale, which rest unconformably upon a granitic Precambrian basement (Hartke, et al, 1975). Based on well logs from the area, depth to bedrock ranges from approximately 125 to 150 feet below the present ground surface.

Nearly all of the water supplies in the area are derived from groundwater sources. Depths to groundwater range from about 15 to 20 feet below the surface. The surficial aquifer in the area is the Wheaton aquifer, which consists of a confined layer of sand and gravel with intermixed clay and silt lenses. The Wheaton aquifer ranges from 10 to 90 feet thick. Water derived from this aquifer is generally of poor quality, with moderate to high levels of sulfate, hardness, and iron.

The shallow bedrock aquifer system, which ranges from 150 to 200 feet below the ground surface, is composed of Silurian dolomite and dolomitic limestone. Wells in the shallow limestone and dolomite that intercept fractures and solution features may yield up to 1,000 gallons per minute; however, predicting the location of solution features is difficult and, therefore, well yields in these rocks vary.

Descriptions of the geology and hydrology of the Will County Acquisition Alternatives and surrounding area are provided in [Section 5.6](#), Water Quality, of this Tier 1 DEIS.

5.19.4 DATABASE INFORMATION

5.19.4.1 Kankakee Acquisition Alternatives

At the time of the initial database search in 1991, sufficient information to identify known hazardous waste sites or USTs did not exist for this area. Rather, lists of USTs and other information pertaining to wastes sites were obtained in connection with the other data gathering techniques of the investigation and verified in the field. Based on this information, there are no known sites of environmental concern within the Kankakee Acquisition Alternatives that were identified.

5.19.4.2 Will County Acquisition Alternatives

The results of the database search for this area did not identify any sites of environmental concern located within the boundaries of the acquisition alternatives. However, the database search did reveal 29 sites within a 1-mile radius of the proposed Ultimate Acquisition Alternative boundary. These sites, described in [Table 5.19-1](#), include 10 UST sites, 2 RCRA Small Quantity Generator Sites, 2 CERCLIS Sites, 2 Illinois land-based disposal sites (LBDS), and 13 Federal Reporting Data System (FRDS) sites, including public water supply wells and treatment systems (see [Figure 5.19-3](#)). No NPL sites were identified in the study area.

TABLE 5.19-1

**DATABASE SITES WITHIN 1-MILE RADIUS OF THE WILL COUNTY
ULTIMATE ACQUISITION ALTERNATIVE BOUNDARY**

| Map Reference Number ¹ | Facility Name/Property Owner | Database | ASTM Phase I Guidelines | |
|-----------------------------------|---|--------------|---|--|
| | | | Within Limits - Requiring Further Study | Outside Limits - Not Requiring Further Study |
| 3076 | Beecher Landfill (Sexton) | LBDS/CERCLIS | <1/2 mile | |
| 3054 | Latino, Norman | LBDS | | >1/2 mile |
| 71 | Kochel, Mamie M. | UST | | >1/2 mile |
| 77 | Smith, Mary V. | UST | | >1/2 mile |
| 9262 | Speedway 7544 | RCRIS-SG | | Adjacent |
| 9372 | University Park - Village of | UST | | >1/2 mile |
| 9099 | Vancom Management Service Inc. | UST | <1/2 mile | |
| 172 | American Auto Mach. | RCRIS-SG | Adjacent | |
| 9077 | Bloomquist Oil Co. | UST | <1/2 mile | |
| 9084 | Crete Township Fire Prot. Dist. | UST | | >1/2 mile |
| 1318 | Illiana Scrap Co. | CERCLIS | <1/2 mile | |
| 9082 | Crete Township Hwy Dept. | UST | Adjacent | |
| 772 | W5N of Marring Road, W. of Florena Ave. | FRDS | | Outside access road corridor |
| 774 | W5N of Marring Road, W. of Florena Ave. | FRDS | | Outside access road corridor |
| 773 | W7 N side, Lockview Dr. W of Baley | FRDS | | Outside access road corridor |
| 4410 | HWD W1 S. of Concord Pl. | FRDS | | Outside access road corridor |
| 4411 | HWD W3 95 Mantuckett | FRDS | | Outside access road corridor |
| 913 | Well 1 | FRDS | | Outside access road corridor |
| 912 | Well 3 | FRDS | | Outside access road corridor |
| 4409 | HND W2 Es. 76 Mantuckett | FRDS | | Outside access road corridor |
| 873 | N2 E Side Mantuckett Dr. S. of Walt | FRDS | | >1/2 mile |
| 9092 | Mortell Management Co. | UST | | >1/2 mile |
| 1900 | Beecher, Village of | UST | | >1/2 mile |
| 1902 | Bernard Welding Equipment Co. | UST | | >1/2 mile |
| 3056 | Peotone Gravel Company | LBDS | <1/2 mile | |
| 903 | Well 2 SE of 91 st | FRDS | | ≥1/4 mile |
| 904 | Well 7-N End of Ivy Lane | FRDS | | ≥1/4 mile |
| 4408 | Rosewood Well 1 N End of Ivy Lane | FRDS | | ≥1/4 mile |
| 4407 | Rosewood W2SE of 91 St. and Caredenhill Rd. | FRDS | | ≥1/4 mile |

Sources: ERIIS; TAMS, 1995.

¹ Refer to [Figure 5.19-3](#)

CERCLIS - Comprehensive Environmental Response, Compensation, and Liability Act Information System.

LBDS - Illinois Land Based Disposal Sites

RCRIS-SG - Resource Conservation and Recovery Act Information System - Small Quantity Generator.

UST - Underground Storage Tank

FRDS - Federal Reporting Data System

Seven of these sites are located within the ASTM ESA guidelines for follow-up investigations (e.g., Phase I/II ESAs) and are shown on [Figure 5.19-4](#). These include two Illinois (Land-Based Disposal Sites) LBDS, three underground storage tank sites, one RCRA small-quantity generator site, and two CERCLIS sites. One site (3076) is listed as a LBDS and a CERCLIS site. Database information for these sites is provided in [Table 5.19-2](#). The field team attempted to verify the location of these sites and observe the current condition of each site and surrounding areas. Some sites were not found as operating facilities, but as offices, during the field survey.

Database information indicates that the two LBDS sites are landfills. One of these landfills has been closed and capped. The landfill had received non-hazardous waste, including incinerator ash and demolition debris. The second LBDS is the Beecher Landfill in Goodenow, Illinois, located to the east of the proposed airport boundary. This landfill is also listed as a CERCLIS site; it closed in 1997. The remaining four sites are all located within 0.5-miles of the proposed highway corridor that exits the northeast corner of the Will County Ultimate Acquisition Alternative and intersects with Illinois Routes 1 and 394.

Database information indicates that one RCRA Small Quantity Generator (RCRIS-SG) and one UST facility are located on Illinois Route 1 (Dixie Highway). The field team could not locate either of these facilities during the survey. Database information indicates that the UST facility has four active underground tanks and that the RCRIS-SG facility generates spent solvent wastes.

The other two sites are located at the Crete Highway Department, an UST facility, and the Illiana Scrap Company, reportedly a CERCLIS facility. Both of these sites are located on State Street, north of the proposed highway alignment. The field crew observed motor fuel pumping stations on the Crete Highway Department property, which suggest the presence of USTs. The field crew could not positively identify the location of the Illiana Scrap Company. However, the crew did observe a number of waste piles, metal scrap piles, and demolition debris piles associated with a towing company property (TMW Towing), which may have been the former location of the Illiana Scrap Company.

5.19.5 ABOVEGROUND STORAGE TANKS (ASTs)

During the field survey, numerous ASTs were observed on farms within the Kankakee and Will County Acquisition Alternatives. Some large farms had two or three ASTs ranging in size from 250- to 1,000-gallon capacity. These ASTs likely contain either diesel fuel or gasoline, depending on the type of equipment used by the farmer. Other uses of farm ASTs may be for lubricating or waste engine oils, but this is unlikely. It is possible that some of the soil surrounding the ASTs, particularly around the discharge hoses, contain elevated levels of petroleum hydrocarbons, which have accumulated over the years from minor spills during deliveries or refueling operations.

TABLE 5.19-2

**DATABASE SITES ASSESSED DURING THE FIELD SURVEY –
WILL COUNTY ACQUISITION ALTERNATIVES**

| Map Reference Number | Facility Name | Municipality | Facility Address | Database* | Status/Remarks |
|----------------------|---------------------------------|--------------|----------------------|------------------|--|
| 3076 | Beecher Landfill (Sexton) | Beecher | Goodenow Road | LBDS/ CERCLIS | Closed, not on the National Priorities List |
| 9077 | Bloomquist Oil Co., Inc. | Crete | 2000 Dixie Hwy. | UST | Four active USTs; site not found. |
| 9082 | Crete Highway Dept. | Crete | 1755 State Street | UST | One active UST; observed fuel pump. |
| 172 | American Auto Machine | Crete | 1806 S. Dixie Hwy. | RCRIS-SG | RCRA Listed Wastes F001 & F002 (halogenated Solvents); site not found. |
| 3056 | Peotone Gravel Company | Peotone | None | LBDS | Closed final cover; permitted; wastes: ash, debris, non-haz; site not found. |
| 1318 | Illiana Scrap Co. | Crete | 1722 State Street | CERCLIS | PA 7/91/ SI 9/92; Site is not on NPL; Site not found, may be TMW towing |
| 9099 | Vancom Management Services Inc. | Crete | 817 W. New Monee Rd. | UST | One active UST |

Sources: ERIIS; TAMS, 1995.

CERCLIS - Comprehensive Environmental Response, Compensation, and Liability Act Information System.

FRDS - Federal Reporting Data System.

LBDS - Illinois Land Based Disposal Sites.

NPL - National Priorities List.

PA - Preliminary Assessment (USEPA).

RCRIS-SG - Resource Conservation and Recovery Act Information System - Small Quantity Generator.

UST - Underground Storage Tank.

5.19.5.1 Kankakee Acquisition Alternatives

During the field survey, 19 current and former farming operations and approximately 17 ASTs (excluding propane tanks) were observed within the Kankakee Inaugural Acquisition Alternative and 164 current and former farming operations and approximately 121 ASTs (excluding propane tanks) were observed within the Ultimate Acquisition Alternative. The majority of ASTs found within the Kankakee Acquisition Alternatives were associated with farms.

5.19.5.2 Will County Acquisition Alternatives

During the field survey, approximately 34 existing and former farming operations and 32 ASTs (excluding propane tanks) were observed within the Will County Inaugural Acquisition Alternative and 276 existing and former farming operations and 217 ASTs (excluding propane tanks) were observed in the

Will County Ultimate Acquisition Alternative. Discussions with local officials about farm operations in the area indicate that ASTs are typically used to store farm motor fuels.

5.19.6 PROPANE FUEL TANKS

During the survey, propane tanks were observed at most of the farm houses, at many of the grain silos, and at many of the single-family homes within the acquisition alternatives. However, residences within and adjacent to Peotone, Beecher, Monee, Goodenow, and Crete and small communities within the Kankakee Acquisition Alternatives typically use natural gas supplied by a local utility company via underground pipelines.

Discussions with local officials indicated that outside of these population centers, propane was the predominant fuel used for residential heating. It was estimated that only about 2 percent of the homes are heated with fuel oil and that approximately 40 percent of all residences (houses and farm houses) within the acquisition alternatives use propane fuel.

Most propane tanks in the area are leased from propane suppliers. When a lease is terminated, the propane tank is either leased to the new resident or returned to the leasing agent.

5.19.7 UNDERGROUND STORAGE TANKS (USTs)

Field observations did not reveal significant numbers of USTs at the Kankakee or Will County Acquisition Alternatives. Typically, pumps and hoses associated with USTs are placed behind buildings, making them difficult to observe from the road. Occasionally, pump islands or vent pipes were observed which indicated that one or more USTs were probably present.

Conversations with local officials indicated that only about 2 percent of the area residences (including farms) have USTs for heating oil storage and approximately 2 percent of farms have USTs for motor fuel storage. The low percentage of underground heating oil tanks is consistent with the high percentage of homes observed in the farm areas that are heated by propane fuel or utility-supplied natural gas. Field observations concluded that most farms use ASTs for motor fuel storage.

5.19.8 ASBESTOS CONTAINING MATERIAL (ACM)

Asbestos Containing Material (ACM) is any material or product that contains more than 1 percent asbestos. Asbestos is a naturally occurring fibrous material that is strong and incombustible. Because of these characteristics, asbestos was used in the manufacture of a variety of commercial products, including insulation (pipe lagging); roofing, flooring, and siding materials; and wall board and ceiling materials.

In the 1991 survey, a local building inspector reported that asbestos was not present in houses located in the vicinity of the Kankakee or Will County Acquisition Alternatives. Conversations with local officials during the 1994 survey indicated that less than 1 percent of area homes have asbestos in them. Asbestos was usually used around hot water heating systems for insulation and fire retardation. However, this type of heating system is rarely used in this area.

Roof and siding shingles on some of the older buildings may contain asbestos; however, this could not be determined by visual observation of buildings during the survey. Buildings would have to be investigated on an individual basis during land acquisition to determine if they contain asbestos. Overall, it does not appear that the structures in the Kankakee or Will County Acquisition Alternatives contain significant quantities of asbestos.

The renovation or demolition of buildings containing ACM is regulated under the national emission standards for Hazardous Air Pollutants (40 CFR Part 61).

5.19.9 OTHER AREAS OF POTENTIAL CONCERN

5.19.9.1 Kankakee Acquisition Alternatives

Dumping/Land Disposal - During the 1997 field survey, full, rusted 1 gallon paint cans and tires were observed alongside a road adjacent to a stream in a wooded area. Upon further investigation, it was discovered that there were a few mounds approximately 10 to 20 cubic yards in size containing car parts, car batteries and household trash, which indicated that there is random dumping within the acquisition alternative. Concrete debris was also observed at one location. Concrete debris is being used as rip-rap along some of the streams within the Kankakee Acquisition Alternatives. Some trash was also observed; however, none appeared to be of a hazardous nature and was not significant.

Road Oiling - Conversations with local officials indicated that waste motor oil was often sprayed on local dirt roads for dust control. The quantity and exact locations of oil disposed in this manner are unknown and the specific areas that were oiled are unknown.

5.19.9.2 Will County Acquisition Alternatives

During the field survey, a number of small dumping areas were noted on various properties. Materials observed in piles or disposal areas included wood, scrap metal, construction and demolition debris, soil, junk cars, and trailer trucks. There was no visual evidence that hazardous wastes were associated with these areas, although small areas of soil contamination may be associated with minor amounts of automotive fluids (e.g., oil, gasoline, etc.) leaking from the abandoned vehicles.

Beecher Landfill - Beecher Landfill is privately owned and operated, and is adjacent to the eastern boundary of the Will County Ultimate Acquisition Alternative. This landfill has received over 7,900,000 cubic yards of waste as of 1994. During past operations, the landfill accepted hazardous waste.

The Beecher Landfill consists of three units, which have received a variety of waste types. Unit I is approximately 9 acres in size, is unlined, and received hazardous waste from 1971 to 1980. The average depth of waste in this unit is about 25 feet. Leachate is collected by a perimeter gravity collection system that discharges to a single dump. The collected leachate is hauled to an off-site facility for disposal.

There are four passive landfill gas wells with individual flares and six groundwater monitoring wells installed in Unit I. This unit was closed in 1988. Final cover consists of 4 feet of compacted clay and 6 inches of topsoil. The exact nature of the wastes disposed of in this unit is unknown.

Unit II is approximately 90 acres in size and received municipal and commercial solid waste from 1971 to 1991. The average depth of the waste in this unit is 50 feet. Approximately two-thirds of the unit is clay lined; the remaining area is unlined. Leachate collected along the western side of the landfill is pumped to a central collection point and transferred by tank truck to an off-site treatment facility. Unit II, which is currently closed, is covered by a minimum of 2 feet of clay and 6 inches of topsoil. Landfill gas is extracted by both active and passive landfill gas systems. The landfill gas is flared to the atmosphere. There are nine groundwater monitoring wells associated with Unit II. IEPA records do not indicate that any hazardous wastes were disposed of in Unit II.

Unit III is approximately 44 acres in area and was approved to accept nonhazardous residential, industrial, and commercial waste; demolition and construction debris; and some special and bulky refuse. Unit III is lined, and is now closed. The depth of the waste in Unit III is approximately 50 feet. This area is underlain by a compacted clay liner and has a leachate collection system. Leachate is conveyed to a central point where it is extracted by a tanker truck and hauled to an off-site facility for treatment. There are 17 groundwater monitoring wells associated with Unit III.

An IEPA inspection conducted at the Beecher Landfill on January 13, 1995, found the site to be in general compliance with its permits. No permit violations were noted during the inspection. It does not appear at this time that the Beecher Landfill has impacted the adjacent areas. All three units, which have been closed, are currently being maintained. Recent requests to modify the leachate collection and gas extraction systems have been approved by IEPA. A series of monitoring wells is also in place adjacent to the landfill.

Although this landfill appears to be in regulatory compliance, there is no assurance that groundwater contamination would not migrate onto adjacent property. The Sponsor would regularly review the monitoring reports to protect the acquired property and its groundwater quality.

Road Oiling - Conversations with local officials indicated that waste motor oil was often sprayed on local dirt roads for dust control. The quantity of oil disposed in this manner is unknown and the specific areas that were oiled are unknown.

Sanger Field - Field observation at Sanger Field, a privately owned, public airstrip within the boundaries of the Will County Acquisition Alternatives, revealed fuel pumps near the airport offices. The number, quantity, and content of pumps could not be confirmed. A search of UST databases revealed that USTs are registered to Mr. Sanger of Monee. However, it could not be confirmed if the registered tanks were located at the airport.

Wastewater Treatment Plant - One small wastewater treatment plant located near Goodenow was observed within the Will County Ultimate Acquisition Alternative boundaries. This facility currently serves Pheasant Lake Estates, a manufactured home community.

5.19.10 DISCUSSION OF IMPACTS

5.19.10.1 No-Action Alternative

The No-Action Alternative does not propose site approval nor the construction of airport facilities. No hazardous waste impacts are anticipated under this alternative. The No-Action Alternative will not have any cumulative hazardous waste impacts.

5.19.10.2 Kankakee Inaugural Acquisition Alternative

The Kankakee Inaugural Acquisition Alternative proposes to acquire approximately 4,200 acres of land. There are approximately 5 fuel USTs and 17 ASTs located within the Kankakee Inaugural Acquisition Alternative boundary. If any of these tanks are leaking or corroded, they would be replaced or removed prior to the Sponsor receiving title to the land. If any structures contain ACM, they would also be remediated prior to the Sponsor receiving title.

5.19.10.3 Kankakee Ultimate Acquisition Alternative

The Kankakee Ultimate Acquisition Alternative proposes to acquire approximately 24,500 acres of land. There are approximately 30 USTs and 121 ASTs located within the Kankakee Ultimate Acquisition Alternative boundary. If any of these tanks are leaking or corroded, they would be replaced prior to the Sponsor receiving title to the land. If any structures contain ACM, they would also be remediated prior to the Sponsor receiving title.

5.19.10.4 Will County Inaugural Acquisition Alternative

The Will County Inaugural Acquisition Alternative proposes to acquire approximately 4,000 acres of land. There are approximately 2 USTs and 32 ASTs located within the Will County Inaugural Acquisition Alternative boundary. If any of these tanks are leaking or corroded, they would be replaced or removed prior to the Sponsor receiving title to the land. If any structures contain ACM, they would also be remediated prior to the Sponsor receiving title.

5.19.10.5 Will County Ultimate Acquisition Alternative

The Will County Ultimate Acquisition Alternative proposes to acquire approximately 23,500 acres of land. There are approximately 10 USTs and 217 ASTs located within the Will County Ultimate Acquisition Alternative boundary. If any of these tanks are leaking or corroded, they would be replaced or removed prior to the Sponsor receiving title to the land. If any structures contain ACM, they would also be remediated prior to the Sponsor receiving title.

5.19.11 MITIGATION

No land changes or construction is proposed under the alternatives considered. Remediation activities that could be undertaken during land acquisition under any of the proposed alternatives could include asbestos abatement and UST/AST removal. Asbestos abatement would occur if any structures to be acquired contain ACM.

Diesel fuel or gasoline has been and currently is stored in ASTs and USTs on various farmsteads within the proposed acquisition boundaries. If these tanks are found to be leaking or corroded, they would be replaced or removed prior to the Sponsor receiving title to the land.

5.20 CONSTRUCTION IMPACTS

5.20.1 OVERVIEW OF IMPACTS

No adverse impacts to the local economy, air quality, water quality, or ambient noise levels would result from any of the alternatives evaluated in this Tier 1 FEIS. Existing development trends are expected to continue under the No-Action Alternative, but this development is anticipated to be gradual and would not generate adverse construction impacts. While no construction of facilities is proposed under either the Kankakee or Will County Acquisition Alternatives, it is possible that minor construction activities may be necessary to upgrade residences to meet decent, safe and sanitary standards or to demolish residences if it is cost prohibitive to upgrade them. Should these short-term activities be necessary, potential impacts can be minimized through the establishment and utilization of environmental controls and Best Management Practices.

5.20.2 METHODOLOGY

Construction activities were evaluated to determine their potential to result in adverse impacts to the local economy, air quality, water quality, and ambient noise levels. FAA Advisory Circular 150/5370-10A, *Standards for Specifying Construction of Airports, Item P-156, Temporary Air and Water Pollution, Soil Erosion and Siltation Control*, as well as any pertinent state and local laws governing activities such as burning debris and erosion control would be used to mitigate these impacts.

5.20.3 DISCUSSION OF IMPACTS

5.20.3.1 No-Action Alternative

The No-Action Alternative would not involve site approval or construction activities; however, as described in [Section 5.3](#), Social Impacts, and [Section 5.4](#), Induced Socioeconomic Impacts, residential and commercial development trends within the study areas are expected to continue. This development would be gradual and regulated by local jurisdictions and is not expected to have adverse construction-related impacts on the local economy, air quality, or ambient noise levels.

5.20.3.2 Acquisition Alternatives

No construction is proposed under any of the acquisition alternatives, and no significant impacts caused by construction activities are anticipated. According to the state's land acquisition policy (see [Appendix C](#)), the state plans to lease residences and property it purchases and maintain the existing land uses. It may be necessary, in rare circumstances, to upgrade residences to meet decent, safe, and sanitary standards or demolish residences if it is cost prohibitive to upgrade. It is anticipated that very few homes, if any, would require construction or demolition and that no adverse impacts to the local economy, air quality, or ambient noise levels would result from the acquisition alternatives.

The acquisition of land under the acquisition alternatives may cause some land speculation to occur outside of the acquisition boundary in anticipation of the construction and operation of a future airport at this location. Since it has not been decided to build an airport, however, it is unlikely that speculation alone could spur significant residential, commercial, and light industrial development within the 5 to 10-year planning period evaluated in this Tier 1 FEIS such that significant construction impacts would occur.

5.20.4 *MITIGATION*

No adverse construction impacts are anticipated from any of the acquisition alternative. However, should the demolition of unsafe structures be required as a result of land acquisition, Best Management Practices consistent with FAA Advisory Circular 150/5370-10A, *Standards for Specifying Construction of Airports, Item P-156, Temporary Air and Water Pollution, Soil Erosion and Siltation Control*, and pertinent state and local laws governing activities such as burning debris and erosion control would be used to avoid, minimize, and mitigate potential impacts.

5.21 SURFACE TRANSPORTATION

5.21.1 OVERVIEW OF IMPACTS

Existing traffic patterns would continue under all of the alternatives evaluated in this Tier 1 FEIS. No construction, changes in land use, or changes to surface transportation are proposed by the alternatives evaluated. Therefore, no adverse impacts to surface transportation would occur from any of the alternatives.

5.21.2 METHODOLOGY

Traffic data used in this analysis were obtained from the Chicago Area Transportation Study (CATS) and IDOT/COMSIS. These data included: the 1990 existing traffic volumes and 2010 and 2020 forecasted data for the No-Action Alternative, and the Initial and Ultimate Acquisition Alternatives at both the Kankakee and Will County Acquisition Alternatives. Traffic data for intermediate time horizons were not available, as information was based on the CATS long-range transportation plan. Analyses indicated that the existing roadway network has the capacity to handle the traffic volume anticipated through 2020. An Intersection Analysis, which examines future conditions at numerous intersections within each of the acquisition alternatives, is presented in [Appendix H](#). Expansion of roadway facilities would be handled through the normal regional transportation planning process.

The 1990 data were based on traffic surveys, traffic counts, and associated analyses conducted by CATS in the Chicago area. Data for future years (2010 and 2020) are traffic volumes (expressed as vehicle equivalents) obtained from the CATS sub-regional transportation planning model and the University of Illinois' SMART transportation planning model, based on forecasts of total regional growth (The Al Chalabi Group, 1994, 1995a, 1997).

5.21.3 EXISTING CONDITIONS

5.21.3.1 Existing Roadway System

Kankakee Inaugural Acquisition Alternative

This acquisition alternative includes approximately 15 miles of two-lane paved roads and 4 miles of unimproved roads and is roughly bounded by Martin Long Road to the west, Ballou Road to the south, Kahler Road to the north, and U.S. Routes 45 and 52 and I57 to the east. [Figure 5.21-1](#) shows the Inaugural Acquisition boundary and existing roadway system. The following is a description of the existing roads within this area:

- Wesley Line Road from 0.7 miles east of Martin Long Road to 0.6 miles west of Green Garden-Manhattan Road;

- Kahler Road from 0.25 miles east of Martin Long Road to Warner Bridge Road;
- Ballou Road from 0.9 miles east of Warner Bridge Road to the interchange at I-57;
- Warner Bridge Road from Kahler Road to 0.5 miles south of Wesley Line Road;
- Gouger Road (6000W) from Wesley Line Road to Ballou Road;
- Eastern Avenue (5000W) from Kahler Road to Ballou Road; and
- Road 3500W from Wesley Line Road to Ballou Road.

Kankakee Ultimate Acquisition Alternative

Under this alternative, approximately 24,500 acres of land would be acquired. The Ultimate Acquisition Alternative boundary and existing roadway system are illustrated on [Figure 5.21-1](#). The following is a description of the existing roads within this area:

- Wilmington-Peotone Road from Warner Bridge Road to 128th Avenue;
- Kennedy Road from Warner Bridge Road to 128th Avenue;
- Kahler Road from Martin Long Road to Warner Bridge Road;
- Wesley Line Road from Martin Long Road to 1500W;
- Ballou Road from 0.2 miles east of Symerton Road to I-57;
- Lake Road from Warner Bridge Road to 0.5 miles east of Green Garden-Manhattan Road;
- Manteno Road from Warner Bridge Road to .5 miles east of Road 3500W;
- West Bell Road from 0.2 miles east of Symerton Road to Warner Bridge Road;
- Martin Long Road from Wesley Line Road to West Bell Road;
- Warner Bridge Road from Kennedy Road to Manteno Road;
- Gouger Road (6000W) from Wilmington-Peotone Road to 0.5 miles south of Manteno Road;
- Eastern Avenue from Wilmington-Peotone Road to 0.5 miles south of Manteno Road;
- Wilton Center Road from Wilmington-Peotone Road to Wesley Line Road;
- Road 4500W from Lake Road to 0.5 miles south of Manteno Road;
- Road 3500W from Wesley Line Road to Manteno Road;
- 128th Avenue from Wilmington-Peotone Road to Wesley Line Road;
- Road 1500W from Wesley Line Road to Lake Road;
- U.S. Routes 45 and 52 from 0.4 miles north of Ballou Road to Ballou Road;

- Road 1000E from 0.4 miles north of Ballou Road to Ballou Road; and
- Road 2000E from 0.4 miles north of Ballou Road to Ballou Road.

Will County Inaugural Acquisition Alternative

The existing roadway network within the proposed acquisition boundaries of this alternative (shown in [Figure 5.21-2](#)) includes approximately 9.5 miles of roads, laid out primarily in a grid system.

The major population centers are located on arterial roads on the acquisition alternative's periphery. Travel between communities generally occurs along the main roads outside this area: Peotone-Beecher Road, Pauling Road, Crete-Monee Road, Illinois Route 1, and I-57.

The following roadway segments are included within the proposed Will County Inaugural Acquisition Alternative boundaries:

- Offner Road from 0.2 miles west of I-57 to 0.1 miles east of Illinois Route 50;
- Eagle Lake Road from Central Avenue to 0.5 miles west of Western Avenue;
- I-57 from 0.25 miles south of Offner Road to 0.75 miles north of Offner Road;
- Illinois Route 50 from 0.5 miles south of Offner Road to Offner Road;
- Central Avenue from 0.4 miles south of Eagle Lake Road to 0.2 miles south of Offner Road;
- Will Center Road from 0.5 miles north of North Peotone Road to 0.5 miles south of Offner Road;
- Crawford Avenue from 0.5 miles north of North Peotone Road to 0.3 miles south of Offner Road;
- Kedzie Avenue from 0.5 miles north of North Peotone Road to 0.3 miles south of Offner Road;
- Western Avenue from 0.5 miles north of North Peotone Road to 0.3 miles south of Offner Road; and
- Ashland Avenue from 0.5 miles north of North Peotone Road to Eagle Lake Road.

Will County Ultimate Acquisition Alternative

This acquisition alternative would acquire land in the area roughly bounded by I57 to the west, Ashland Avenue to the east, Bruns Road to the north, and Corning Road/311th Street to the south as shown on [Figure 5.21-2](#). The following roadway segments are located within the acquisition boundaries of this alternative:

- Bruns Road from Kuersten Road to Highland Avenue;
- Pauling Road from I-57 to 0.5 miles east of Ashland Avenue;
- Offner Road from 0.2 miles west of I-57 to 0.25 miles east of Ashland Avenue;
- Eagle Lake Road from Illinois Route 50 to 0.6 miles west of Illinois Route 1;
- North Peotone Road from Ridgeland Avenue to Ashland Avenue;
- Peotone-Beecher Road from Ridgeland Avenue to 0.5 miles west of Kedzie Avenue;
- I-57 from 0.25 miles south of Offner Road to 0.75 miles north of Offner Road;
- Ridgeland Avenue from North Peotone Road to Pauling Road;
- Central Avenue from Corning Road/311th Street to 0.5 miles north of Pauling Road;
- Will Center Road from Corning Road/311th Street to 0.5 miles south of Crete-Monee Road;
- Crawford Avenue from Corning Road /311th Street to Pauling Road;
- Kedzie Avenue from Peotone-Beecher Road to Pauling Road;
- Western Avenue from Peotone-Beecher Road to Offner Road;
- Ashland Avenue from 0.2 miles south of Church Road to Pauling Road; and
- Illinois Route 1 from Goodenow Road to 0.5 miles south of Goodenow Road.

5.21.3.2 Emergency Vehicle Routes

Kankakee Acquisition Alternative

Figure 5.21-3 shows the location of existing local police, fire, and ambulance stations in the vicinity of the Kankakee Acquisition Alternatives and the approximate boundaries of existing Fire Protection Districts.

The Kankakee County Sheriff's Department and the Will County Sheriff's Department currently provide police protection for the Kankakee Acquisition Alternatives.

Will County Acquisition Alternatives

Figure 5.21-4 shows the location of existing local police, fire and ambulance stations in the vicinity of the Will County Acquisition Alternatives and the boundaries of existing Fire Protection Districts.

Police protection for the proposed Will County Acquisition Alternatives is currently provided by the Will County Sheriff's Department in unincorporated areas and by the Monee Police Department within the Monee municipal boundaries.

5.21.3.3 School Bus Routes

School bus routes are present within each of the acquisition alternative boundaries

5.21.4 DISCUSSION OF IMPACTS

5.21.4.1 No-Action Alternative

Under the No-Action Alternative, growth and development within the acquisition alternatives would continue as described in [Sections 5.3](#), Social Impacts, and [5.4](#), Socioeconomic Impacts. The Intersection Analysis presented in [Appendix H](#) examined the future conditions under the No-Action Alternative and shows that changes in traffic volumes would be relatively small and within the average annual growth range predicted by the regional/transportation planning agencies.

5.21.4.2 Kankakee Acquisition Alternatives

Since no construction, changes in land use, or changes in surface transportation are proposed under these alternatives, there would be no impacts to the existing roadway system or to emergency services or to school bus routes.

5.21.4.3 Will County Acquisition Alternatives

Since no construction, changes in land use, or changes in surface transportation are proposed under these alternatives, there would be no impacts to the existing roadway system, to emergency services, or to school bus routes.

5.21.5 MITIGATION

No mitigation/improvements of intersections due to increased traffic would be warranted by any of the alternatives evaluated.

5.22 VISUAL IMPACTS

5.22.1 OVERVIEW OF IMPACTS

No visual impacts would occur under any of the alternatives evaluated in this Tier 1 FEIS. Under the No-Action Alternative, the visual and aesthetic environment will change over time with land development; however, this gradual development would not result in significant changes in the visual character and aesthetic environment. Likewise, the actions proposed under the Kankakee and Will County Inaugural and Ultimate Acquisition Alternatives would not change the visual character or impact the aesthetic environment in the vicinity of these alternative sites.

5.22.2 METHODOLOGY

FAA Order 5050.4A, *Airport Environmental Handbook* states that an "Environmental Impact Statement will normally include appropriate discussion(s) of the application of design, art, and architecture in mitigating adverse visual and other environmental impacts and encouraging enhancement of the environment." Visual impact considerations are applicable to airport actions involving airport location, extensive earthmoving, or other disruption of the natural environment. These impacts may also be applicable to those developments that affect the aesthetic integrity of an area, terminal, and access road development, and to any improvement that may affect sensitive locations such as parks, historic sites, or other public use areas.

This section describes the vicinity of the alternative acquisition areas in terms of the visual impacts that could occur throughout the study period. View points were selected for each acquisition alternative to represent many different vistas of the areas around the proposed alternative acquisition areas. Eleven view points were selected for the Kankakee Acquisition Alternatives and 12 were selected for the Will County Acquisition Alternatives. These scenes represent communities, parks, and rural vantages found within the vicinity of each alternative. These view points ranged from inside the proposed acquisition alternative boundaries to 8 to 10 miles beyond the alternative acquisition boundaries.

5.22.3 EXISTING CONDITIONS

5.22.3.1 Kankakee Acquisition Alternatives

[Figure 5.22-1](#) shows the location of the 11 view points selected for the Kankakee Acquisition Alternatives. [Table 5.22-1](#) discusses existing conditions at each of these view points. Photographs of the 11 view points for this site, showing existing conditions, are in [Appendix I](#).

TABLE 5.22-1

**DESCRIPTION OF VIEW POINTS, EXISTING CONDITIONS–
KANKAKEE ACQUISITION ALTERNATIVES**

| View Point | Location | Direction of View | Existing Conditions, Description of View and Land Uses |
|-------------------|---|--------------------------|---|
| 1 | Manteno/ Merchants Park | West | Merchants Park is an open area buffering the shops of Manteno from the Illinois Central Railroad. To the north is a set of several large grain silos. Looking west a strip of shops and restaurants are present. |
| 2 | Center Road/ Ballou Road | West | On this gravel interchange an overpass is visible to the south and to the north are distant farm houses standing in a grove of trees. The sounds of Interstate traffic can be heard from behind while looking west at an open expanse of farmland. This expanse is interrupted by a house on the southwest side of the intersection and a far off farmhouse with silos. A row of trees can also be seen on the horizon. |
| 3 | Deselm at Manteno Road/ Eastern Avenue | North | Looking north through Deselm, many residential houses are observed. A large microwave tower stands on the edge of the community surrounded by farm fields. |
| 4 | Kankakee River State Park/suspension bridge over Rock Creek | North | The Kankakee River is seen to the south with picnic areas to the east and hiking trails to the west. Facing north, a picturesque scene is visible with 30-foot limestone cliffs dipping into Rock Creek on the west bank and a steep bank covered in trees on the east. The Illinois Route 102 bridge stands upstream. |
| 5 | The Warner Bridge Road bridge | North | On both sides of this bridge are small parking turn outs for access to Kankakee River State Park. Heading north across this bridge one notices the Kankakee River with several stone outcroppings and an old abandoned bridge foundation to the west. A slight incline rises in the distance with forest on both sides of the road. |
| 6 | The bridge over Forked Creek on Martin Long Road | East | Several farm houses are in the vicinity of the bridge. Much of the land is covered in trees along Forked Creek. Several pastures for horses are present. The land rises gradually from the creek stretching out into cropland. |
| 7 | Martin Long Road/ Kennedy Road | Southeast | The land is flat and farmed in all directions. Several farm houses can be seen in the distance. |
| 8 | Midewin National Tallgrass Prairie, Gate 27 | Southeast | From this location a few trees and distant buildings can be seen inside the gate at Midewin National Tallgrass Prairie. Looking southwest the land slowly rises with cropped fields. A few houses can be seen in Symerton and several large silos are present. |
| 9 | Laughton Preserve Picnic area | South | At this entrance to the preserve, there is a picnic area with a small shelter. A foundation for a new home is present directly south, across the street from the picnic area. Other new home construction is evident to the west. |
| 10 | Wilmington-Peotone Road/Wilton Road | Southwest | To the southwest the farmed land rises to the horizon. A few farms are noticeable along Wilmington-Peotone Road. Wilton Road is tree-lined to the north. |
| 11 | Peotone | Southwest | From the crossing on the Illinois Central Railroad in the center of Peotone, several shops and businesses are present in the area. |

Source: TAMS, 1997.

5.22.3.2 Will County Acquisition Alternatives

Figure 5.22-2 shows the location of the 12 view points assessed for the Will County Acquisition Alternatives. Table 5.22-2 discusses existing conditions at each of the view points. Photographs of the 12 view points analyzed for these sites, showing existing conditions, are in Appendix I.

5.22.4 DISCUSSION OF IMPACTS

5.22.4.1 No-Action Alternative

Very little change to existing vistas and to the general visual character is anticipated to occur in the Kankakee Acquisition Alternative areas over existing conditions. Additional residential and commercial development in the vicinity of the alternatives would occur primarily around the towns of Manteno and Peotone and along the I-57 and Route 50 corridors, to the east. As plans for the former Joliet Arsenal are gradually implemented, increased construction and traffic activity may be noticeable, particularly around the new landfill and industrial park being established in the southern portion of the former arsenal. Restoration efforts at the Midewin National Tallgrass Prairie (MNTP) are in progress; however, the Final MNTP Land and Resource Management Plan is still in the development phase. Two 1.5-mile trails were opened to the public in March 2001, but significant recreational activity at this park is not anticipated to occur until after implementation of the Final MNTP Land and Resource Management Plan.

Scattered residential development is anticipated to continue throughout the Will County Acquisition Alternative areas. More rapid and concentrated residential and commercial development would most likely occur in the Villages of Crete, Monee, and University Park located north of the site, while less intense development would probably occur in the Villages of Beecher and Peotone located south of the alternatives. The anticipated development in the vicinity of the acquisition alternatives under the No-Action Alternative is not expected to significantly change the visual character or impact the aesthetic nature of the study area.

5.22.4.2 Acquisition Alternatives

According to the state's land use policy (see Appendix C), no land use changes would occur within the acquisition alternative boundaries, though land ownership would change from private to public. Therefore, since the state has committed to maintaining existing land uses until such time that it is decided a new airport is to be constructed, no changes to the existing visual character or impact to the aesthetic environment would result from the acquisition alternatives.

5.22.5 MITIGATION

No construction or changes in land use that would cause changes to the existing visual character or impact the aesthetic environment are proposed in any of the alternatives evaluated in this Tier 1 FEIS. Therefore, no mitigation would be required.

TABLE 5.22-2

**DESCRIPTION OF VIEW POINTS, EXISTING CONDITIONS–
WILL COUNTY ACQUISITION ALTERNATIVES**

| View Point | Location | Direction of View | Existing Conditions, Description of View and Land Uses |
|-------------------|--|--------------------------|---|
| 1 | Village Woods Retirement Center/ Goodenow Grove Nature Preserve | West | Looking to the west, the entrance to the Village Woods Retirement Center and Illinois Route 394 are visible. Land opposite Route 394 is wooded. Single-story accommodations surround a detention basin to the southwest. A parking lot and multi-story care facility sit upon a hill to the east. A golf course is present to the north and south. |
| 2 | Illinois Route 1 Between Burville Road and Crete-Monee Road | Southwest | Looking to the southwest, an open field and small swale are present in the foreground. Commercial buildings are in view to the west and southwest. A stand of trees abut the western edge of the commercial property. |
| 3 | Pauling Road/ Will Center Road | South | This area is one of rolling grasslands with rural residential and farm homes readily visible. On the southeast corner, a home is surrounded by evergreen trees. To the northwest is the developing Heatherbrook Estates in an open field. |
| 4 | Monee Reservoir | East | At the reservoir entrance road upon a rise, there is the reservoir in the forefront with a finger of land separating segments of the lake. To the southeast, there is a shelter and to the northeast, there is a parking lot by the community building. Numerous picnic tables are visible. |
| 5 | Margaret Street/ Will Center Road | Southeast | A house and farm buildings are directly east of Will Center Road, with adjacent untilled farm fields in view to the southeast. On the south side of Margaret Street, there is a large open field. The north side of Margaret Street is lined with homes. A new housing development is in view to the far west and southwest. |
| 6 | Peotone-Beecher Road/ Ridgeland Road | Northeast | To the northeast are rolling green fields with irrigation equipment. To the north, there is a residence sitting upon a noticeable rise in a large stand of trees. |
| 7 | Corning Road/ 311th St. and Egyptian Trail | North | There is a sod farm to the northwest and cornfields to the northeast. Also to the northwest, there is a barn surrounded by trees sitting upon a rise. To the east, there is a hedgerow of young trees. |
| 8 | Illinois Route 1 at southern edge of Beecher Landfill | West | To the west, hedgerows form an extended line across the horizon. In the foreground, the Union Pacific Railroad track is clearly visible, as is the ridge formed by the Beecher Landfill. |
| 9 | Illinois Route 1/ Church Road | West | A convenience service station, car wash, and pharmacy occupy the northwest, northeast and southeast corners of Route 1 and Church Rd. A business occupies the southwest corner. To the west, mini-warehouses and a new distribution warehouse are visible, as are open fields and small stands of trees. There are croplands and farms to the east and northeast. |
| 10 | Peotone-Beecher Road/ Ashland Avenue | Northwest | To the northwest a substantial number of trees are visible. At this corner location, there are soybeans and cornfields. To the east, a Beecher water storage tank is visible. |
| 11 | Halfway Between Offner Road/ Will Center Road | East | In this gently rolling area, a small tree plantation, farm fields and a few farm homes are visible. |
| 12(a) & (b) | North of Sanger Field along Offner Road | North/ South | Cropland is present in the foreground to the north and south. To the north, there are rural residences and farms. Isolated trees and small stands of trees are visible on the horizon. To the south, some farm buildings are visible adjacent to a continuous tree line at the horizon. |

Source: TAMS, 2001.

5.23 CUMULATIVE IMPACTS

5.23.1 INTRODUCTION

Cumulative effects are defined by the Council on Environmental Quality (CEQ) in 40 CFR 1508.7 as:

“impacts on the environment which result from the incremental impacts of the action when added to other past, present and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions.”

The CEQ regulations also state that the cumulative impacts addressed should not be limited to those from actual proposals, but must include impacts from actions being contemplated or that are reasonably foreseeable. The CEQ regulations further require that NEPA environmental analyses analyze connected, cumulative and similar actions in the same document (40 CFR 1508.25). This requirement prohibits segmentation of the project into smaller components to avoid required environmental analysis.

CEQ suggests analyzing only those resources that are incrementally affected by the proposed action and other actions within the same geographic area and time period. The FAA and the State of Illinois discussed the cumulative impacts analysis approach for this Tier 1 FEIS with the US Environmental Protection Agency (USEPA), Illinois Department of Natural Resources (IDNR), Illinois Department of Agriculture (ILAG), Illinois Historic Preservation Agency (IHPA), Illinois Environmental Protection Agency (IEPA), Northeastern Illinois Planning Commission (NIPC), and Northwestern Indiana Regional Planning Commission (NIRPC). The purpose of these discussions was to determine the past, present and reasonably foreseeable future actions, the resources to be potentially impacted, the geographic study area and the period to be considered for the Tier 1 FEIS evaluation of potential cumulative impacts. For purposes of this cumulative impacts analysis the geographic study area is discussed in [Section 5.23.1.3](#). The time period considered in determining reasonably foreseeable actions in the geographic study area is 20 years (see [Section 5.23.1.4](#)).

While the need for the planning, construction and operation of a new air carrier airport in the south suburban area of Chicago has not been determined, the possibility of such an action at the Kankakee or Will County Acquisition Alternatives has been considered in this cumulative impacts section. In addition to the reasonably foreseeable projects contained in published reports and plans, this section also addresses potential impacts of both inaugural and ultimate development facilities as described by IDOT at both of the sites under consideration. The facilities described for the inaugural or ultimate air carrier airport are conceptual. Therefore, it is difficult to forecast activity levels and in this instance the FAA is uncertain about how much of IDOT's forecast of regional demand would be attracted to a new site. This will depend on a number of factors, including how much traffic can be accommodated at existing airports in the region and whether there is a further shift of connecting traffic away from the region.

Assumptions used in the sections that follow are speculative and are used only as an illustration of aircraft operations and passenger enplanements that could occur if the Sponsor's (IDOT's) marketing strategy is successful. Based on historical patterns of airport development, the FAA believes these goals to be optimistic and therefore, the impacts described in this section both beneficial and adverse may be overstated. The impacts set forth represent the greatest level of impacts that could be reasonably

assumed to occur based on the assumptions for inaugural and ultimate airport development. The FAA views this as a reasonable basis for comparison of the potential cumulative impacts.

The discussion of cumulative impacts presented in this section is provided for disclosure purposes. If a decision is made in the future to proceed with the planning, construction and operation of an air carrier airport at the selected site, a detailed analysis of all environmental impacts associated with the construction and operation of an air carrier airport will be prepared in a Tier 2 EIS. Conceptual mitigation will be proposed for any impacts identified in the Tier 2 EIS.

5.23.1.1 Past, Present and Reasonably Foreseeable Actions

The past and present actions that have shaped and are shaping the south suburban area of Chicago and impacting both natural and cultural resources have primarily involved the conversion of land from agricultural use to residential and commercial uses. With this conversion has also come the need for transportation improvements.

To identify and describe reasonably foreseeable actions, CEQ suggests the use of the best available information. For this analysis, the FAA considered development projects contained in the following published reports and plans:

- Destination 2020 Regional Transportation Plan 2000 Edition
- Vision 2020 Northwest Indiana Regional Transportation Plan
- Will County 2020 Transportation Framework Plan
- 1999 Long-Range Transportation Plan Update for the Kankakee Urbanized Area
- West Lake County Corridor Major Investment Study
- Interstate 57 Economic Development Plan
- Future Agenda for Suburban Transportation (Metra/Pace)
- Will County Land Resource Management Plan
- Kankakee County Comprehensive Plan
- Kankakee County Land Resource Management Plan Addendum with Airport Scenario
- Land Use Plan for the Eastern Will County Area
- Development Policy Plan for the Eastern Will County Regional Council Area
- Cumulative Effects of the Land Use Plan for Eastern Will County Area
- Northeastern Illinois Regional Greenways Plan
- Environmental Assessment, Grand Kankakee Marsh National Wildlife Refuge

The major surface transportation improvements contained in the above-listed published reports and plans are shown on [Figure 5.23.1-1](#). Other reasonably foreseeable future development projects planned to occur in the geographic study area are limited. Based upon the best available information, planned development projects include only the ongoing industrial and commercial development on 3,000 acres of the former Joliet Arsenal. Two industrial parks are planned for this land: Deer Run, currently under construction, will include light manufacturing, warehouses, and a rail-truck transfer station; and Island City Industrial Park, which is in the early planning stages. Additionally, a 425-acre landfill is planned adjacent to the Midewin National Tallgrass Prairie and the planned industrial parks in the former Joliet Arsenal.

Impacts disclosed in this tiered EIS would result only from property acquisition undertaken by the State of Illinois. Potential future airport development impacts would be analyzed and disclosed as part of subsequent tiered EIS documents. With respect to proposed project impacts at other airports in the greater Chicago Region (e.g., Chicago-O'Hare, Gary, etc.), while those projects/concepts may cause environmental impacts in the immediate vicinity of their respective airports they will not result in impacts associated with this Tier 1 EIS due to distance.

In addition to the proposed reasonably foreseeable projects contained in the above-listed published reports and plans, the cumulative impacts analysis section also addresses potential cumulative impacts should the need for planning, constructing and operating a new air carrier airport in the south suburban area of Chicago be determined in the future. Therefore, this section includes inaugural and ultimate airport facilities, as envisioned by IDOT, at the Kankakee and Will County Acquisition Alternative sites. The facilities for an inaugural or ultimate air carrier airport are conceptual and are the same for both alternative sites, but in different locations. Unlike concepts discussed and dismissed from further analysis in [Chapter 3.0, Alternatives](#), the Sponsor's concepts have been the subject of extensive review and analysis within their 1998 South Suburban Airport Environmental Assessment. Although they are not evaluated for approval within this document, they may be the subject of subsequent analysis. Therefore, it is reasonable to analyze them for cumulative impact within this section. A description of these facilities follows.

Conceptual Inaugural Airport Facilities

- One commercial service (air carrier/air cargo) runway, Runway 09-27 (12,140 feet x 200 feet)
- Complete parallel taxiway system
- Category I Precision instrument navigation aids, approach lighting and Standard Instruction Approach Procedures (SIAP) to both runway ends
- 19-gate passenger terminal (12 gates at Date of Beneficial Occupancy)
- Access to Interstate 57 and State Routes
- Air Cargo Facilities
- General Aviation Facilities
- On-airport navigational aids including Airport Surveillance Radar (ASR)

- Airport Traffic Control Tower (ATCT)
- Acquisition of approximately 4,000 acres of land in fee simple title

Conceptual Ultimate Airport Facilities

- Six primary parallel runways: Four 10,171 x 200 feet, Runways 08L-26R, 08C-26C, 09C-27C and 09R-27R. Two 12,140 x 200 feet, Runways 08R-26L and 09L-27R.
- One commuter/general aviation crosswind Runway 14-32, 5,100 x 75 feet
- Non-Precision instrument navigation aids, approach lighting and Standard Instruction Approach Procedures to the following runways: Runways 08C-26C, 09C-27C and 32. Runway 14 will have a visual approach
- Category III Precision instrument navigation aids, approach lighting and Standard Instruction Approach Procedures (SIAP) to the following runways: Runways 08L-26R, 8R-26L, 9L-27R and 9R-27L.
- Complete parallel taxiway system on all runways
- 120 gate air passenger terminal
- Access to Interstate 57 and State Routes
- Air Cargo Facilities
- General Aviation Facilities
- On-airport navigational aids including Airport Surveillance Radar (ASR)
- Airport Traffic Control Tower (ATCT)
- Acquisition of approximately 24,000 acres of land in fee simple title

Figure 5.23.1-2 depicts the conceptual inaugural airport facilities for the Kankakee Inaugural Alternative. Figure 5.23.1-3 depicts the conceptual inaugural airport facilities for the Will County Inaugural Alternative. Figure 5.23.1-4 depicts the conceptual ultimate airport facilities for the Kankakee Ultimate Acquisition Alternative, and Figure 5.23.1-5 depicts the same for the Will County Ultimate Acquisition Alternative.

Assumed operational levels for the Inaugural and Ultimate scenarios were forecast by IDOT. Table 5.23.1-1 shows the assumed enplanements and operations used in the cumulative impacts analysis for the Kankakee and Will Inaugural and Ultimate Acquisition Alternatives. For purposes of this analysis, there is no difference in the assumed enplanement and operation levels between the respective Kankakee and Will County Acquisition Alternatives.

The forecasts presented in Table 5.23.1-1 have not been approved by the FAA. They are being used for the assessment of cumulative impacts because there is no FAA Terminal Area Forecast for a proposed airport in the south suburban area of Chicago.

TABLE 5.23.1-1

ASSUMED ENPLANEMENTS AND OPERATIONS

| Alternative | Enplanements | Operations | | | |
|-------------|--------------|------------|--------|------------------|---------|
| | | Passengers | Cargo | General Aviation | Total |
| Inaugural | 2,986,000 | 100,300 | 5,800 | 19,200 | 125,300 |
| Ultimate | 30,700,000 | 734,000 | 18,000 | 23,000 | 775,000 |

Source: TAMS Consultants, Inc., 1998.

5.23.1.2 Resources to be Potentially Impacted

Since this cumulative impacts analysis includes examining the impacts of planning, constructing and operating an air carrier airport at four separate acquisition alternatives, all environmental resource categories examined previously in [Chapter 5.0](#) are also considered in this section.

5.23.1.3 Geographic Study Area

The geographic limits for this cumulative impacts analysis have been expanded beyond the secondary impact areas examined in [Chapter 5.0](#). The inaugural Cumulative Impact Study Area includes those townships that are projected to experience greater than 10 percent growth in population or employment that would result from construction of an airport at the respective sites over a period of 20 years. The Kankakee and Will County alternatives were initially considered separately. The resulting study areas for the two alternatives were only different for two townships: Monee and Bourbonnais. Monee Township was included in the study area for the Will County Inaugural Acquisition Alternative but not for the Kankakee Inaugural Acquisition Alternative. Bourbonnais was included in the study area for the Kankakee Inaugural Acquisition Alternative but not the Will County study area. Because the study areas were so similar, only one inaugural cumulative impact study area has been defined for analysis by adding the Monee and Bourbonnais Townships to the secondary impact areas.

Similarly, the Ultimate Cumulative Impact Study Areas were defined by those townships that were projected to experience greater than 10 percent growth in population or employment that would result from construction of an airport at the respective sites over a period of 20 years. Since the area to be considered was similar for both the Kankakee and Will County Ultimate Acquisition Alternatives, the geographic limits used for each alternative are the same. [Figure 5.23.1-6](#) depicts the alternative acquisition alternatives and the geographic area utilized in the cumulative impacts analysis. The Inaugural Acquisition Cumulative Impact Study Area includes five townships in Kankakee County and 12 townships in Will County, Illinois, as well as one township in Lake County, Indiana. The Ultimate Cumulative Impact Study Area includes 10 townships in southeastern Cook County and all of Kankakee and Will Counties, Illinois, as well as all of Lake County, Indiana.

5.23.1.4 Time Period to be Considered

Since the planning, construction and operation of a new air carrier airport in the south suburban area of Chicago has not been determined, it is impossible to predict when or if there will be a new air

carrier airport and when or if it would become operational. Thus, assumed levels of passenger enplanements and aircraft movements are used in this analysis to predict the anticipated growth in population, households and employment if an air carrier airport is planned, constructed and operated. References to regional plans and expected growth in the areas surrounding the acquisition alternatives (without an airport) will also be included. Most of these regional plans cover a 20-year time period and provide socioeconomic and transportation data for the region through 2020. Thus, the No-Action Alternative reflects the development and growth in population predicted to occur within the cumulative impact study areas by 2020. The acquisition alternatives that assume planning, construction and operation of an air carrier airport, discuss the growth expected to occur due to the planning, construction and operation of a conceptual airport within the 20-year time frame and how that growth may cumulatively affect the study area.

5.23.2 NOISE

5.23.2.1 Potential Airport-Related Impacts

For purposes of predicting potential cumulative noise impacts should another air carrier airport be planned, constructed and operated in the south suburban area of Chicago, assumed aircraft operations at the acquisition alternatives were estimated using the FAA airport noise computer model known as the Integrated Noise Model (INM). This program calculates the effects of 107 different types of aircraft flying user-defined flight tracks during various wind directions, aircraft climb and descent profiles, and engine power settings.

Estimated aircraft noise levels were calculated for the same locations where ambient existing condition noise measurements were made (see [Chapter 5.0, Section 1](#)). From this information, lines of equal noise called noise contours were developed for the acquisition alternatives. Noise contours of DNL 60, 65, 70 and 75 dBA were produced using the FAA's INM.

The noise analysis was conducted using INM version 6.0b. The noise analysis incorporates conceptual flight tracks, aircraft fleets, schedule and runway usage developed for a SIMMOD (Airspace and Airport Simulation Model) analysis conducted separately for the Sponsor.

No-Action Alternative

Under the No-Action Alternative, no aircraft noise would be generated as there would be no site approval by the FAA at either the Kankakee or the Will County acquisition alternatives. Thus, no airport-related noise impacts would occur; however, there would be noise associated with future traffic levels on existing roads. Intersections of key arterial roads surrounding both sites were examined to determine which would most likely be impacted by vehicular traffic. Future traffic volumes were then developed based on the projected growth in the area, without an airport (see [Section 5.23.21](#) for more details). [Figures 5.1-5](#) and [5.1-6](#), previously presented, show the predicted 2020 traffic noise for the major arterials surrounding the Kankakee and Will County Acquisition Alternatives, respectively.

Kankakee Inaugural Acquisition Alternative

Based on the assumed aircraft activity levels, and conceptual flight tracks, runway utilization and airfield configuration, noise contours were calculated for the Kankakee Inaugural Acquisition Alternative with a conceptual inaugural airport, as shown on [Figure 5.23.2-1](#). Almost all of the DNL 65 dBA noise contour would be contained within the acquisition alternative. Those portions of the DNL 65 dBA contour that would be outside the acquisition alternative boundary would affect undeveloped or agricultural land uses. Thus, no significant noise impacts would be experienced by homeowners, businesses or community facilities due to aircraft-generated noise. [Table 5.23.2-1](#) summarizes the area covered by each contour and the total area covered, for the Inaugural Acquisition Alternatives. The assumed increase in traffic predicted for the Inaugural Acquisition Alternative with the conceptual inaugural airport is minimal and should not increase the traffic noise contours shown in [Figure 5.1-5](#).

The Kankakee Inaugural Acquisition Alternative with the conceptual inaugural airport would induce population increases of approximately 12,900 people and household increases of approximately 4,700 throughout the Inaugural Cumulative Impact Study Area. This predicted increase in population and households and associated ancillary development would create additional sources of noise and cause an increase in vehicular traffic, thereby increasing noise levels along existing and new roads.

Kankakee Ultimate Acquisition Alternative

Based on the assumed aircraft activity levels, and conceptual flight tracks, runway utilization and airfield configuration, noise contours were calculated for the Kankakee Ultimate Acquisition Alternative with the conceptual ultimate airport, as shown on [Figure 5.23.2-2](#). All of the DNL 65 dBA noise contour would be contained within the acquisition alternative boundary. Thus, no significant noise impacts would be experienced by homeowners, businesses or community facilities due to aircraft-generated noise. [Table 5.23.2-2](#) summarizes the area covered by each noise contour and the total area covered, for the ultimate acquisition alternative.

TABLE 5.23.2-1

**AREA COVERED BY AIRCRAFT NOISE CONTOURS
INAUGURAL ACQUISITION ALTERNATIVES**

| Contour Interval | Approximate Area Covered Square Miles |
|-------------------------|--|
| 60-65 | 3.1 |
| 65-70 | 1.5 |
| 70-75 | 0.5 |
| 75+ | 0.5 |
| Totals | 5.6 |

Source: FAA's INM Version 5.2; TAMS Consultants, Inc., 1998.

TABLE 5.23.2-2

**AREA COVERED BY AIRCRAFT NOISE CONTOURS
KANKAKEE ULTIMATE ACQUISITION ALTERNATIVE**

| Contour Interval | Approximate Area Covered Square Miles |
|-------------------------|--|
| 60-65 | 13.5 |
| 65-70 | 5.7 |
| 70-75 | 2.9 |
| 75+ | 2.1 |
| Totals | 24.2 |

Source: FAA's INM Version 4.11; TAMS Consultants, Inc., 1997.

The Kankakee Ultimate Acquisition Alternative with the conceptual ultimate airport would induce population increases by approximately 556,000 people and households increase by approximately 188,000 throughout the Ultimate Cumulative Impact Study Area. This predicted increase in population and households and associated ancillary development would create additional sources of noise and thereby cause an increase in vehicular traffic, increasing noise levels along existing and new roads.

The Kankakee Ultimate Acquisition Alternative with conceptual ultimate airport would cause a significant increase in traffic on the arterial roads surrounding the acquisition alternative. [Figure 5.23.2-3](#) shows the traffic noise contours expected for these roads if this acquisition alternative is approved and an ultimate air carrier airport is planned, constructed and operated.

Will County Inaugural Acquisition Alternative

Based on the assumed aircraft activity levels, and conceptual flight tracks, runway utilization and airfield configuration, aircraft noise contours were calculated for the Will County Inaugural Acquisition Alternative with the conceptual inaugural airport, as shown on [Figure 5.23.2-4](#). All of the DNL 65 dBA noise contour would be contained within the acquisition alternative boundary or on airport-compatible land use; thus no significant impacts would be experienced by homeowners, businesses or community facilities due to aircraft-generated noise. [Table 5.23.2-1](#) summarizes the area covered by each contour and the total area covered, for the Inaugural Acquisition Alternatives. The anticipated increase in traffic expected for the Inaugural Acquisition Alternative with the conceptual inaugural airport is minimal and should not increase the traffic noise contours shown in [Figure 5.1-6](#).

The Will County Inaugural Acquisition Alternative with the conceptual inaugural airport would induce population to increase by approximately 12,400 and households to increase by approximately 4,300 throughout the Inaugural Cumulative Impact Study Area. This predicted increase in population and households and associated ancillary development would create additional sources of noise and cause an increase in vehicular traffic, thereby increasing noise levels along existing and new roads.

Will County Ultimate Acquisition Alternative

Based on the assumed aircraft activity levels, and conceptual flight tracks, runway utilization and airfield configuration, noise contours were calculated for the Will County Ultimate Acquisition Alternative with the conceptual ultimate airport, as shown on [Figure 5.23.2-5](#). All of the DNL 65 dBA noise contour would be contained within the acquisition alternative or on airport-compatible land uses; thus no significant noise impacts would be experienced by homeowners, businesses or community facilities due to aircraft-generated noise. The compatible land uses contained within the predicted DNL 65-70 dBA contour are Raccoon Grove Nature Preserve, Monee Reservoir and Beecher Landfill. Under *Federal Aviation Regulations Part 150*, “recreation uses (except spectator sports), nature exhibits, and commercial uses are compatible within the DNL 65-70 contour.” (FAR Part 150, January 18, 1985, Appendix A, Table 1). Current uses of Monee Reservoir, a DOT Section 303(c) resource, are fishing, picnicking and boating (see Section 7, DOT Section 303(c) and Section 6(f) Lands) for more discussion on this property). [Table 5.23.2-3](#) summarizes the area covered by each contour and the total area covered, for the ultimate acquisition alternative with the conceptual ultimate airport.

TABLE 5.23.2-3

**AREA COVERED BY AIRCRAFT NOISE CONTOURS
WILL COUNTY ULTIMATE ACQUISITION ALTERNATIVE**

| Contour Interval | Approximate Area Covered Square Miles |
|-------------------------|--|
| 60-65 | 13.4 |
| 65-70 | 5.2 |
| 70-75 | 3.4 |
| 75+ | 2.0 |
| Totals | 24.0 |

Source: FAA's INM Version 4.11; TAMS Consultants, Inc., 1997.

The Will County Ultimate Acquisition Alternative with the conceptual ultimate airport would induce population increases of approximately 403,000 people and household increases of approximately 147,000 throughout the Ultimate Cumulative Impact Study Area. This predicted increase in population and households and associated ancillary development would create additional sources of noise and cause an increase in vehicular traffic, thereby increasing noise levels along existing and new roads.

The Will County Ultimate Acquisition Alternative with the conceptual ultimate airport would cause a significant increase in traffic on the arterial roads surrounding the acquisition alternative. [Figure 5.23.2-6](#) shows the traffic noise contours expected for these roads if this acquisition alternative is approved and an ultimate air carrier airport is planned, constructed and operated.

5.23.2.2 Non-Airport-Related Cumulative Impacts

Populations for the Inaugural and Ultimate Impact Study Areas are projected by incorporating an overall moderate growth rate in population of approximately 10 percent and 6 percent, respectively, over the next 20 years. In general, under either the No Action Alternative or the Inaugural or Ultimate Acquisition

Alternatives the interstate highways and major local thoroughfares will experience increased vehicular traffic and thus, increased road noise when compared to existing conditions. New sources of noise will be introduced into the cumulative impact study areas by new roads, peaker power plants, industrial, commercial and residential development. Road widenings and expansions will also increase noise impacts along those roadways.

The surface transportation projects shown on [Figure 5.23.1-1](#) will all be new or additional sources of noise, especially if the high-speed rail line is constructed nearby. Additional projects that would add to existing noise levels include construction of the I-355 extension and the South Suburban/East-West Expressway. The widening of Interstates 57, 65, 80, 90 and 94 will also increase noise levels throughout the cumulative impact study area.

5.23.3 LAND USE IMPACTS

5.23.3.1 Potential Airport-Related Impacts

No-Action Alternative

Under the No-Action Alternative, no airport-related impacts to land use would occur as there would be no site approval by the FAA. Existing land use trends would continue, subject to the zoning and planning of the appropriate agencies having jurisdiction in the area. [Figure 5.23.3-1](#) shows the existing land use within the cumulative impact study areas and [Figure 5.23.3-2](#) shows the future land use expected to occur within and around the acquisition alternatives if site approval does not occur. As these figures show, very little change in land use is expected to occur within the Kankakee Acquisition Alternative. The Will County Acquisition Alternative on the other hand is expected to experience increased development, especially in the northern third of the site as the Chicago suburbs continue to expand southward.

Kankakee Acquisition Alternatives

With either an inaugural or ultimate conceptual airport, the land uses contained within acquisition alternative boundaries would change from agricultural and rural residential to airport-related functions. The *Kankakee County Comprehensive Plan* includes planning for a supplemental regional airport within or near the county, but does not specify a location. Similarly, Will County adopted its *Land Resource and Management Plan* in 1990 and released a draft update to that plan in early 2002 that also discusses plans for a proposed airport within Will County. Thus, although neither plan discusses the specific Kankakee Acquisition Alternative location, all recognize that a new airport may be constructed in the area. However, construction of an airport at this location would conflict with the current land use plans for the area which show a continuation of agricultural land use.

The existing land uses within the Kankakee Inaugural and Ultimate Acquisition Alternative with a conceptual airport, as shown in [Table 5.2-1](#), previously presented, would be primarily converted to airport uses. Portions of the sites currently in cropland may remain in cropland, if these areas are not needed for airport uses, but solely for noise mitigation.

Will County Acquisition Alternatives

With either an inaugural or ultimate conceptual airport, the land uses contained within acquisition alternative boundaries would change from agricultural and rural residential to airport-related functions. Will County adopted its *Land Resource and Management Plan* in 1990 that discusses plans for a proposed airport within Will County, but did not specify a location. Will County released a draft Land Resource Management Plan in early 2002 which identifies the general area of the Will County Acquisition Alternatives as the location of a potential South Suburban Airport. The Eastern Will County Regional Council developed the *Land Use Plan for the Eastern Will County Area* which outlines a land use plan and development principles for the area surrounding the Will County site with and without an airport. The existing land uses within the Will County Inaugural and Ultimate Acquisition Alternative sites with a conceptual airport, as shown in [Table 5.2-2](#), would be primarily converted to airport uses. Portions of the sites currently in cropland may remain in cropland, if these areas are not needed for airport uses, but solely for noise mitigation.

5.23.3.2 Potential Induced Cumulative Impacts

No-Action Alternative

Even without FAA site approval, the Inaugural and Ultimate Cumulative Impact Study Areas are projected to realize a moderate growth rate in population of approximately 10 percent and 6 percent, respectively, over the next 20 years. Projected expansion of residential, commercial and industrial development in the south suburbs and northwest Indiana would result in conversion of agricultural land. *The Land Use Plan for the Eastern Will County Area* suggests that growth pressure from the north would continue moving south into eastern Will County impacting New Lenox, Frankfort, Manhattan, Monee, Crete and Green Garden townships (compare [Figures 5.23.3-1 and 5.23.3-2](#)). In-fill development would continue in south Cook County in Orland, Rich and Bloom townships. Further south, growth would primarily occur along major transportation corridors and in and around the communities of Beecher, Peotone, Manteno and Grant Park.

Agriculture with scattered rural residences would continue to be the predominant land use throughout the remainder of eastern and southern Will County. In Kankakee County, growth would occur primarily due to the expansion of existing community centers with significant growth occurring in Manteno, Grant Park, Bradley and Bourbonnais. Growth would be similar in Lake County, Indiana with infill development occurring primarily in Calumet, St. John, Ross and Center townships.

Transportation improvements (see [Figure 5.23.1-1](#)) are proposed in each of these counties to accommodate this projected growth.

Kankakee Inaugural Acquisition Alternative

The Kankakee Inaugural Acquisition Alternative with the conceptual inaugural airport would induce population increases of approximately 12,900 people and household increases of approximately 4,600 throughout the Inaugural Cumulative Impact Study Area. Projected land use patterns with the conceptual inaugural airport would essentially be the same as future land use without an airport (see [Figure 5.23.3-2](#)). Additional development may occur along I-57 and in Peotone and Manteno Townships as support services and businesses reliant on air access establish a presence in the area. Predicted growth would primarily occur along major transportation corridors in areas adjacent to the south suburbs of Chicago (Crete, Monee and Green Garden Townships). Growth would also be expected in and around the communities of Beecher and Grant Park.

Agriculture with scattered rural residences would continue to be the predominant land use throughout the remainder of the Inaugural Cumulative Impact Study Area. Transportation improvements (see [Figure 5.23.1-1](#)) are proposed in each of these counties to accommodate this projected growth.

Kankakee Ultimate Acquisition Alternative

The Kankakee Ultimate Acquisition Alternative with the conceptual ultimate airport would induce population increases of approximately 556,000 people and household increases of approximately 188,000 throughout the Ultimate Cumulative Impact Study Area (see [Section 5.23.1.5](#)). Projected expansion of residential, commercial and industrial development in the south suburbs and northwest Indiana would result in the conversion of agricultural land. The conceptual ultimate airport would accelerate the development of a corridor stretching from the south suburbs of Chicago moving south along I-57 to the city of Kankakee. This would have major land use impacts on New Lenox, Frankfort, Monee, Green Garden, Peotone, Rockville, Manteno, Sumner, Florence and Bourbonnais townships (compare [Figures 5.23.3-1 and 5.23.3-3](#)). In-fill development would continue in south Cook County in Orland, Rich and Bloom townships.

In Kankakee County, predicted growth would occur primarily due to the expansion of existing community centers with significant growth occurring in Manteno, Grant Park, Bradley, Bourbonnais and Kankakee. Projected growth would be similar in Lake County, Indiana with infill development occurring primarily in Calumet, St. John, Ross and Center townships.

Transportation improvements (see [Figure 5.23.1-1](#)) are proposed in each of these counties to accommodate this projected growth.

Will County Inaugural Acquisition Alternative

The Will County Inaugural Acquisition Alternative with the conceptual inaugural airport would induce population increases of approximately 12,400 people and household increases of approximately 4,300 throughout the Inaugural Cumulative Impact Study Area. Land use patterns with a conceptual inaugural airport would essentially be the same as future land use without an airport (see [Figure 5.23.3-2](#)). Additional development may occur along I-57 and in Monee, Peotone, Will, Washington and Manteno Townships as support services and businesses reliant on air access establish a presence in the area.

Projected growth would primarily occur along major transportation corridors in areas adjacent to the south suburbs of Chicago (Crete, Monee and Green Garden Townships). Growth would also be expected in and around the community of Grant Park.

Agriculture with scattered rural residences would continue to be the predominant land use throughout the remainder of the Inaugural Cumulative Impact Study Area. Transportation improvements (see [Figure 5.23.1-1](#)) are proposed in each of these counties to accommodate this projected growth.

Will County Ultimate Acquisition Alternative

The Will County Ultimate Acquisition Alternative with the conceptual ultimate airport would induce population to increase by approximately 403,000 and households to increase by approximately 147,000 throughout the Ultimate Cumulative Impact Study Area (see [Section 5.23.1.5](#)). Projected expansion of residential, commercial and industrial development in the south suburbs and northwest Indiana would come with the conversion of agricultural land. The conceptual inaugural airport would accelerate the expansion of the south suburbs to the Will County-Kankakee County line. This would have major land use impacts on New Lenox, Frankfort, Monee, Green Garden, Peotone, Manteno, Will, Washington and Bourbonnais townships (compare [Figures 5.23.3-1 and 5.23.3-4](#)). In-fill development would continue in south Cook County in Orland, Rich and Bloom townships.

Agriculture with scattered rural residences would continue to be the predominant land use throughout the remainder of eastern and southern Will County. Transportation improvements (see [Figure 5.23.1-1](#)) are proposed that would accommodate the projected growth.

5.23.4 SOCIAL AND INDUCED SOCIOECONOMIC IMPACTS

Population, households and employment projections for the cumulative impact study areas are presented here to lay the framework for the subsequent discussion of cumulative impacts by each environmental impact category. The projected growth in the greater Chicago region will have a substantial affect on social, natural and cultural resources throughout the region. If an airport is constructed at either location, it will induce an even greater increase in population, households and employment than currently forecast. The projections detailed in this section will be used throughout the cumulative impacts analysis as a basis for determining the resources and areas that may experience the greatest impact, with or without the planning, construction and operation of the conceptual airport (either inaugural or ultimate) at the acquisition alternatives.

5.23.4.1 Potential Airport-Related Impacts

No-Action Alternative

Under the No-Action Alternative, portions of the cumulative impact study areas are expected to achieve moderate rates of growth in population between 2000 and 2020, while other areas are expected to experience almost no growth. Table 5.23.4-1 shows both the existing and projected population, number of households (U.S. Census, 2000), and employment (U.S. Census, 1990) in 2020 for the Inaugural Cumulative Impact Study Area under the No-Action Alternative. For purposes of analyzing cumulative social and socioeconomic impacts under the No-Action Alternative, the Inaugural and Ultimate Cumulative Impact Study Areas are the geographic areas being considered by the FAA. Under the No-Action Alternative, the Inaugural Cumulative Impact Study Area is expected to experience a 10 percent increase in population, a 12 percent increase in households and a 68 percent increase in employment. The percent change in employment is higher since the base year is 1990 instead of 2000. U.S. Census data for employment is not expected to be released until the end of 2001.

**TABLE 5.23.4-1
EXISTING AND PROJECTED 2020 DEMOGRAPHIC DATA
FOR THE NO-ACTION ALTERNATIVE
INAUGURAL CUMULATIVE IMPACT STUDY AREA**

| Township | Population | | | Households | | | Employment | | |
|----------------------------------|----------------|----------------|----------------|---------------|---------------|----------------|---------------|---------------|----------------|
| | 2000 | 2020 | Percent Change | 2000 | 2020 | Percent Change | 1990 | 2020 | Percent Change |
| Kankakee County, Illinois | | | | | | | | | |
| Bourbonnais | 33,061 | 32,752 | -0.9 | 12,373 | 12,649 | 2.2 | 6,658 | 9,384 | 40.9 |
| Manteno | 7,846 | 6,724 | -14.3 | 3,066 | 2,306 | -24.8 | 1,175 | 5,455 | 364.3 |
| Rockville | 786 | 1,108 | 41.0 | 265 | 332 | 25.3 | 188 | 460 | 144.7 |
| Sumner | 879 | 1,292 | 47.0 | 298 | 420 | 40.9 | 256 | 619 | 141.8 |
| Yellowhead | 2,567 | 2,534 | -1.3 | 924 | 942 | 1.9 | 658 | 977 | 48.5 |
| Subtotals | 45,139 | 44,410 | -1.6 | 16,926 | 16,649 | -1.6 | 8,935 | 16,895 | 89.1 |
| Lake County, Indiana | | | | | | | | | |
| West Creek | 4,981 | 5,290 | 6.2 | 1,766 | 1,840 | 4.2 | 1,380 | 1,949 | 41.2 |
| Subtotals | 4,981 | 5,290 | 6.2 | 1,766 | 1,840 | 4.2 | 1,380 | 1,949 | 41.2 |
| Will County, Illinois | | | | | | | | | |
| Crete | 23,589 | 29,676 | 25.8 | 9,065 | 11,764 | 29.8 | 2,242 | 3,058 | 36.4 |
| Florence | 642 | 965 | 50.3 | 216 | 318 | 47.2 | 0 | 101 | |
| Green Garden | 2,556 | 2,070 | -19.0 | 811 | 712 | -12.2 | 123 | 177 | 43.9 |
| Manhattan | 5,615 | 5,263 | -6.3 | 1,822 | 1,947 | 6.9 | 598 | 752 | 25.8 |
| Monee | 13,294 | 17,869 | 34.4 | 4,786 | 6,255 | 30.7 | 5,612 | 8,150 | 45.2 |
| Peotone | 3,938 | 4,131 | 4.9 | 1,435 | 1,507 | 5.0 | 878 | 1,490 | 69.7 |
| Reed-Wesley-Custer | 10,082 | 11,183 | 10.9 | 3,475 | 4,041 | 16.3 | 1,768 | 3,195 | 80.7 |
| Washington | 3,948 | 4,651 | 17.8 | 1,438 | 1,711 | 19.0 | 725 | 1,641 | 126.3 |
| Will | 1,568 | 1,596 | 1.8 | 543 | 620 | 14.2 | 73 | 101 | 38.4 |
| Wilton | 819 | 767 | -6.3 | 266 | 272 | 2.3 | 0 | 101 | |
| Subtotals | 66,051 | 78,171 | 18.3 | 23,857 | 29,147 | 22.2 | 12,019 | 18,766 | 56.1 |
| Total | 116,171 | 127,871 | 10.1 | 42,549 | 47,636 | 12.0 | 22,334 | 37,610 | 68.4 |

Source: U.S. Census, 1990, 2000; The al Chalabi Group, 1995; 1997.

Existing and predicted population, household and employment data for the Ultimate Cumulative Impact Study Area under the No-Action Alternative is presented in [Table 5.23.4-2](#). The Ultimate Cumulative Impact Study Area is expected to experience a 6 percent increase in population, an 11 percent increase in households and a 32 percent increase in employment, under the No-Action Alternative. [Figure 5.23.4-1](#) graphically illustrates the existing population density for the cumulative impact study areas, based on 2000 U.S. Census data. The existing population is concentrated in the northern portion of the cumulative impact study area, closer to the urbanized Chicago area. [Figure 5.23.4-2](#) shows the projected 2020 population density of the cumulative impact study areas, under the No-Action Alternative. This figure shows that population growth is expected to remain concentrated in the northern and northwestern portions of the cumulative impact study areas, but will also be expanding southward. This reflects the progression and expansion of the Chicago urbanized area.

TABLE 5.23.4-2

**EXISTING AND PROJECTED 2020 DEMOGRAPHIC DATA
FOR THE NO-ACTION ALTERNATIVE
ULTIMATE CUMULATIVE IMPACT STUDY AREA**

| Township | Population | | | Households | | | Employment | | |
|----------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| | 2000 | 2020 | Percent Change | 2000 | 2020 | Percent Change | 1990 | 2020 | Percent Change |
| Cook County, Illinois | | | | | | | | | |
| Bloom | 93,901 | 95,942 | 2.2 | 32,537 | 34,333 | 5.5 | 37,972 | 45,558 | 20.0 |
| Bremen | 109,575 | 118,827 | 8.4 | 38,654 | 44,815 | 15.9 | 37,123 | 54,620 | 47.1 |
| Lemont | 18,002 | 16,726 | -7.1 | 5,890 | 5,402 | -8.3 | 2,145 | 4,061 | 89.3 |
| Orland | 91,418 | 103,804 | 13.5 | 31,791 | 39,769 | 25.1 | 26,431 | 48,381 | 83.0 |
| Palos | 53,419 | 57,782 | 8.2 | 21,038 | 22,958 | 9.1 | 27,461 | 37,664 | 37.2 |
| Rich | 67,623 | 76,335 | 12.9 | 25,236 | 31,000 | 22.8 | 25,507 | 56,161 | 120.2 |
| Thornton | 180,802 | 192,060 | 6.2 | 64,690 | 72,563 | 12.2 | 84,867 | 100,558 | 18.5 |
| Worth | 190,912 | 190,749 | -0.1 | 71,883 | 73,256 | 1.9 | 98,947 | 115,386 | 16.6 |
| Subtotals | 805,652 | 852,225 | 5.8 | 291,719 | 324,096 | 11.1 | 340,453 | 462,389 | 35.8 |
| Kankakee County, Illinois | | | | | | | | | |
| Aroma | 5,835 | 6,534 | 12.0 | 2,094 | 2,411 | 15.1 | 1,654 | 2,544 | 53.8 |
| Bourbonnais | 33,061 | 32,752 | -0.9 | 12,373 | 12,649 | 2.2 | 6,658 | 9,384 | 40.9 |
| Essex | 1,294 | 1,135 | -12.3 | 462 | 420 | -9.1 | 288 | 341 | 18.4 |
| Ganeer | 3,222 | 3,590 | 11.4 | 1,222 | 1,510 | 23.6 | 999 | 1,520 | 52.2 |
| Kankakee | 28,029 | 30,915 | 10.3 | 10,276 | 13,328 | 29.7 | 27,952 | 32,033 | 14.6 |
| Limestone | 4,659 | 5,210 | 11.8 | 1,652 | 1,931 | 16.9 | 1,286 | 1,753 | 36.3 |
| Manteno | 7,846 | 6,724 | -14.3 | 3,066 | 2,306 | -24.8 | 1,175 | 5,455 | 364.3 |
| Momence | 3,884 | 4,432 | 14.1 | 1,365 | 1,737 | 27.3 | 1,190 | 1,646 | 38.3 |
| Norton | 1,067 | 1,273 | 19.3 | 375 | 474 | 26.4 | 325 | 379 | 16.6 |
| Otto | 2,430 | 2,865 | 17.9 | 909 | 1,086 | 19.5 | 748 | 849 | 13.5 |
| Pembroke | 2,784 | 4,920 | 76.7 | 928 | 1,933 | 108.3 | 1,323 | 1,396 | 5.5 |
| Pilot | 2,065 | 2,094 | 1.4 | 721 | 800 | 11.0 | 548 | 667 | 21.7 |
| Rockville | 786 | 1,108 | 41.0 | 265 | 332 | 25.3 | 188 | 460 | 144.7 |
| Salina | 1,317 | 1,558 | 18.3 | 451 | 603 | 33.7 | 375 | 429 | 14.4 |
| St. Anne | 2,108 | 2,587 | 22.7 | 801 | 1,120 | 39.8 | 769 | 867 | 12.7 |
| Sumner | 879 | 1,292 | 47.0 | 298 | 420 | 40.9 | 256 | 619 | 141.8 |
| Yellowhead | 2,567 | 2,534 | -1.3 | 924 | 942 | 1.9 | 658 | 977 | 48.5 |
| Subtotals | 103,833 | 111,523 | 7.4 | 38,182 | 44,002 | 15.2 | 46,392 | 61,319 | 32.2 |

TABLE 5.23.4-2 (CONTINUED)

EXISTING AND PROJECTED 2020 DEMOGRAPHIC DATA
FOR THE NO-ACTION ALTERNATIVE
ULTIMATE CUMULATIVE IMPACT STUDY AREA

| Township | Population | | | Households | | | Employment | | |
|------------------------------|------------------|------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| | 2000 | 2020 | Percent Change | 2000 | 2020 | Percent Change | 1990 | 2020 | Percent Change |
| Lake County, Indiana | | | | | | | | | |
| Calumet | 127,800 | 135,994 | 6.4 | 47,907 | 49,826 | 4.0 | 53,297 | 45,569 | -14.5 |
| Cedar Creek | 10,649 | 11,110 | 4.3 | 3,767 | 4,175 | 10.8 | 2,695 | 3,298 | 22.4 |
| Center | 26,191 | 27,931 | 6.6 | 9,670 | 10,375 | 7.3 | 12,298 | 17,726 | 44.1 |
| Eagle Creek | 1,695 | 1,648 | -2.8 | 641 | 508 | -20.7 | 774 | 1,071 | 38.4 |
| Hanover | 8,692 | 7,719 | -11.2 | 3,072 | 2,751 | -10.4 | 2,443 | 3,035 | 24.2 |
| Hobart | 39,636 | 39,148 | -1.2 | 15,048 | 15,201 | 1.0 | 16,174 | 21,935 | 35.6 |
| North | 165,656 | 161,675 | -2.4 | 63,551 | 65,909 | 3.7 | 80,717 | 76,253 | -5.5 |
| Ross | 38,685 | 43,515 | 12.5 | 14,755 | 17,383 | 17.8 | 47,198 | 71,147 | 50.7 |
| St. John | 53,701 | 56,612 | 5.4 | 19,226 | 20,679 | 7.6 | 11,309 | 16,575 | 46.6 |
| West Creek | 4,981 | 5,290 | 6.2 | 1,766 | 1,840 | 4.2 | 1,380 | 1,949 | 41.2 |
| Winfield | 6,878 | 5,517 | -19.8 | 2,230 | 1,894 | -15.1 | 1,381 | 2,205 | 59.7 |
| Subtotals | 484,564 | 496,159 | 2.4 | 181,633 | 190,541 | 4.9 | 229,666 | 260,763 | 13.5 |
| Will County, Illinois | | | | | | | | | |
| Channahon | 8,339 | 12,678 | 52.0 | 2,604 | 4,490 | 72.4 | 3,031 | 2,818 | -7.0 |
| Crete | 23,589 | 29,676 | 25.8 | 9,065 | 11,764 | 29.8 | 2,242 | 3,058 | 36.4 |
| DuPage | 71,745 | 96,820 | 35.0 | 22,858 | 37,357 | 63.4 | 13,461 | 39,250 | 191.6 |
| Florence | 642 | 965 | 50.3 | 216 | 318 | 47.2 | 0 | 101 | |
| Frankfort | 41,292 | 46,025 | 11.5 | 13,192 | 14,565 | 10.4 | 8,563 | 16,214 | 89.3 |
| Green Garden | 2,556 | 2,070 | -19.0 | 811 | 712 | -12.2 | 123 | 177 | 43.9 |
| Homer | 28,992 | 46,484 | 60.3 | 9,074 | 14,385 | 58.5 | 1,541 | 4,662 | 202.5 |
| Jackson | 3,541 | 3,339 | -5.7 | 1,294 | 1,139 | -12.0 | 324 | 513 | 58.3 |
| Joliet | 86,468 | 84,358 | -2.4 | 30,370 | 28,847 | -5.0 | 46,455 | 46,072 | -0.8 |
| Lockport | 42,048 | 47,923 | 14.0 | 14,499 | 15,873 | 9.5 | 11,614 | 15,566 | 34.0 |
| Manhattan | 5,615 | 5,263 | -6.3 | 1,822 | 1,947 | 6.9 | 598 | 752 | 25.8 |
| Monee | 13,294 | 17,869 | 34.4 | 4,786 | 6,255 | 30.7 | 5,612 | 8,150 | 45.2 |
| New Lenox | 29,730 | 30,022 | 1.0 | 9,704 | 10,159 | 4.7 | 4,730 | 11,238 | 137.6 |
| Peotone | 3,938 | 4,131 | 4.9 | 1,435 | 1,507 | 5.0 | 878 | 1,490 | 69.7 |
| Plainfield | 45,691 | 33,118 | -27.5 | 14,726 | 11,172 | -24.1 | 7,010 | 10,569 | 50.8 |
| Reed-Wesley-Custer | 10,082 | 11,183 | 10.9 | 3,475 | 4,041 | 16.3 | 1,768 | 3,195 | 80.7 |
| Troy | 27,970 | 35,239 | 26.0 | 9,957 | 12,531 | 25.9 | 10,054 | 13,474 | 34.0 |
| Washington | 3,948 | 4,651 | 17.8 | 1,438 | 1,711 | 19.0 | 725 | 1,641 | 126.3 |
| Wheatland | 44,349 | 36,467 | -17.8 | 13,003 | 13,492 | 3.8 | 2,883 | 9,216 | 219.7 |
| Will | 1,568 | 1,596 | 1.8 | 543 | 620 | 14.2 | 73 | 101 | 38.4 |
| Wilmington | 6,050 | 6,300 | 4.1 | 2,404 | 2,521 | 4.9 | 2,639 | 2,756 | 4.4 |
| Wilton | 819 | 767 | -6.3 | 266 | 272 | 2.3 | 0 | 101 | |
| Subtotals | 502,266 | 556,944 | 10.9 | 167,542 | 195,678 | 16.8 | 124,324 | 191,114 | 53.7 |
| Total | 1,896,315 | 2,016,851 | 6.4 | 679,076 | 754,317 | 11.1 | 740,835 | 975,585 | 31.7 |

Source: U.S. Census, 1990, 2000; The al Chalabi Group, 1995; 1997.

Under the No-Action Alternative, there would be no site approval and therefore, no social impacts related to site approval would occur. Thus, there would be no impacts to the existing population, established communities, property taxes, schools or public services.

Kankakee Inaugural Acquisition Alternative

Demographics

For cumulative impacts analysis purposes, the planning, construction and operation of a conceptual inaugural airport at the Kankakee Acquisition Alternative, would likely cause a shift in population movement and growth. Townships surrounding the acquisition alternative would experience increased population, number of households and jobs induced by an airport. Table 5.23.4-3 shows the predicted growth in these areas. The numbers in the table reflect the incremental growth to the existing population, households and employment base expected to occur if the conceptual inaugural airport were to achieve the assumed operational levels detailed in Table 5.23.1-1. These numbers do not reflect the total population, households and employment for the respective townships, just the additional growth that would be induced should the conceptual inaugural airport be planned, constructed and operated at the acquisition alternative.

TABLE 5.23.4-3

**PROJECTED INDUCED GROWTH
KANKAKEE ACQUISITION ALTERNATIVE
WITH CONCEPTUAL INAUGURAL AIRPORT**

| Township | Population | Households | Employment |
|----------------------------------|-------------------|-------------------|-------------------|
| Kankakee County, Illinois | | | |
| Bourbonnais | 1,855 | 633 | 1,252 |
| Manteno | 3,755 | 1,281 | 1,120 |
| Rockville | 1,048 | 358 | 5,724 |
| Sumner | 260 | 89 | 51 |
| Yellowhead | 349 | 119 | 53 |
| Subtotals | 7,268 | 2,480 | 8,200 |
| Lake County, Indiana | | | |
| West Creek | 129 | 276 | 29 |
| Subtotals | 129 | 276 | 29 |
| Will County, Illinois | | | |
| Crete | 733 | 250 | 334 |
| Florence | 467 | 166 | 9 |
| Green Garden | 770 | 263 | 100 |
| Manhattan | 181 | 62 | 84 |
| Monee | 783 | 267 | 301 |
| Peotone | 980 | 334 | 481 |
| Reed-Wesley-Custer | 16 | 5 | 25 |
| Washington | 303 | 103 | 167 |
| Will | 305 | 104 | 875 |
| Wilton | 959 | 327 | 1,030 |
| Subtotals | 5,517 | 1,883 | 3,403 |
| Total | 12,914 | 4,639 | 11,631 |

Source: The al Chalabi Group, 1997.

The townships surrounding the Kankakee Inaugural Acquisition Alternative with the conceptual airport could expect to see an additional growth of approximately 12,900 people, 4,600 households and 11,600 jobs. [Figure 5.23.4-3](#) graphically illustrates the expected growth in population for the townships in the Inaugural Cumulative Impact Study Area for this alternative.

Business and Economic Impacts

The development of the conceptual inaugural airport would result in the direct creation of jobs including airlines and airline services, government, passenger services and ground transportation. Airline and airline services jobs include, passenger and cargo airlines and freight forwarders; pilots and attendants; aircraft fueling; maintenance and cleaning personnel; in-flight catering; as well as custodial security, baggage, ticketing and sky cap employees. Government employment includes personnel in air traffic control jobs, flight services, maintenance, immigration and customs. Passenger services include jobs in retail, concessions, restaurants, bars, banks, advertising and other business and personal services housed at an airport. Ground transportation includes employees of car rental services, taxi drivers, owners and dispatchers; limousine, bus and van personnel; and private parking facilities. All of these jobs are assumed to be located at the conceptual inaugural airport. [Table 5.23.4-4](#) presents the anticipated number of jobs directly generated by the Kankakee Inaugural Acquisition Alternative with a conceptual airport. The forecast of direct employment is based on the projected enplanements, as shown in [Table 5.23.1-1](#).

TABLE 5.23.4-4

**DIRECT EMPLOYMENT FORECASTS
KANKAKEE ACQUISITION ALTERNATIVE
WITH A CONCEPTUAL INAUGURAL AIRPORT**

| Employment Category | Projected Number of Jobs |
|-------------------------------|---------------------------------|
| Airlines and Airline Services | 5,633 |
| Government | 348 |
| Passenger Services | 308 |
| Ground Transportation | 389 |
| Total Direct | 6,678 |

Source: The al Chalabi Group, 1997.

Relocations

Approximately 100 people residing in 35 single-family residences would be displaced under the Kankakee Inaugural Acquisition Alternative with a conceptual airport. In addition, 19 farm operations would be impacted. The existing residences are scattered throughout the 4,240 acres within the Kankakee Inaugural Acquisition Alternative; thus, no impacts to established communities are anticipated.

Environmental Justice

Depending upon the demographic profile of the leaseholders within the Kankakee Inaugural Acquisition Alternative after acquisition by the state, there may or may not be a disproportionate impact on minority or low-income populations. If the existing demographic profile is maintained after the land is acquired, then no disproportionate cumulative impact to minority or low-income populations would occur as a result of the planning, construction and operation of a conceptual inaugural airport at the Kankakee Inaugural Acquisition Alternative. The demographics of this area are described in [Section 5.3.3.2](#). All required environmental justice analyses and appropriate mitigation measures would be addressed in subsequent environmental documentation.

Community Impacts

There are no churches, hospitals or schools located within the Kankakee Inaugural Acquisition Alternative. The relocation of leaseholders within the acquisition alternative should the conceptual inaugural airport be planned, constructed and operated could result in varying levels of cumulative impacts to neighboring school districts, depending on where leaseholders relocate.

Assuming the planning, construction and operation of a conceptual inaugural airport, it is not expected to have substantial cumulative impacts on local public safety resources. A special airport security force to protect airport property would be established. Fire protection and rescue service would also be provided by the airport authority, either by airport employees or by contract. An Airport Rescue and Firefighting Facility (ARFF) would be constructed on airport property and operated by trained personnel. First-aid services and an emergency services center, including ambulances, would be located on-airport. Persons with more serious emergency health problems or the victims of accidents would be transported to the nearest hospital facility. The conceptual inaugural airport cumulative impacts scenario, would necessitate the closure or termination of several local roads, bounded by Wesley Line Road on the north, Interstate 57 on the east, Ballou Road on the south and Warner Bridge Road on the west (see [Figure 5.23.1-2](#)). Such potential impacts to travel patterns for residents and emergency services would be appropriately evaluated in subsequent environmental documentation.

Finally, under the conceptual inaugural airport cumulative impacts scenario, once all leaseholders are relocated, taxes from leaseholders could be affected. [Table 5.3-13](#), previously presented, details the potentially affected tax revenue. However, under the conceptual inaugural airport cumulative impacts scenario, it is predicted that lost revenue would be replaced by future revenue that would be generated by airport-induced commercial, industrial, and residential growth in the vicinity of an airport. Again, if necessary, appropriate cumulative impact analysis would be conducted in subsequent environmental documentation.

Kankakee Ultimate Acquisition Alternative

Demographics

Table 5.23.4-5 shows the predicted growth in the cumulative impact study area induced by the assumed planning, construction and operation of a conceptual ultimate airport at the Kankakee Acquisition Alternative. The numbers in the table reflect the incremental growth to the existing population, households and employment base expected to occur if the conceptual ultimate airport were to achieve the assumed operational levels detailed in Table 5.23.1-1. These numbers do not reflect the total population, households and employment for the respective townships, just the additional growth that would be induced should the conceptual ultimate airport be planned, constructed and operated at the acquisition alternative.

The townships surrounding the Kankakee Ultimate Acquisition Alternative with the conceptual airport could expect to see an additional growth of approximately 556,000 people, 188,000 households and 340,000 jobs. Figure 5.23.4-4 graphically illustrates the expected growth in population for the townships in the Ultimate Cumulative Impact Study Area for this alternative. As this figure illustrates, a large part of the population growth would occur in the townships immediately adjacent to and to the north of the Kankakee Ultimate Acquisition Alternative.

Business and Economic Development

The type of business and economic development that could result from planning, construction and operation of the conceptual ultimate airport at the Kankakee Acquisition Alternative would be the same as that described above for the conceptual inaugural airport. However, the number businesses and employment would be greater. Table 5.23.4-6 presents the anticipated direct jobs for the Kankakee Acquisition Alternative with a conceptual ultimate airport.

Relocations

Approximately 681 people residing in 255 single-family residences would be displaced under the Kankakee Ultimate Acquisition Alternative with a conceptual airport. In addition, 140 farm operations and 2 businesses would be impacted. The existing residences are scattered throughout the 24,521 acres within the Kankakee Ultimate Acquisition Alternative, except for a small concentration of houses in the unincorporated community of Deselm. Should a conceptual ultimate airport be developed, appropriate impact and mitigation analyses would be conducted in a subsequent environmental documentation.

TABLE 5.23.4-5

PROJECTED INDUCED GROWTH
KANKAKEE ULTIMATE ACQUISITION ALTERNATIVE
WITH THE CONCEPTUAL ULTIMATE AIRPORT

| Township | Population | Households | Employment |
|----------------------------------|----------------|---------------|----------------|
| Cook County, Illinois | | | |
| Bloom | 13,268 | 4,314 | 5,297 |
| Bremen | 14,140 | 4,849 | 6,281 |
| Lemont | 6,621 | 1,944 | 45 |
| Orland | 10,194 | 3,550 | 2,851 |
| Palos | 6,868 | 2,480 | 2,374 |
| Rich | 16,645 | 6,144 | 19,065 |
| Thornton | 15,885 | 3,784 | 5,269 |
| Worth | 6,945 | 2,951 | 3,805 |
| Subtotals | 90,566 | 30,016 | 44,987 |
| Kankakee County, Illinois | | | |
| Aroma | 11,626 | 3,891 | 2,038 |
| Bourbonnais | 20,321 | 8,798 | 19,147 |
| Essex | 3,689 | 1,238 | 6 |
| Ganeer | 8,358 | 3,186 | 3,027 |
| Kankakee | 8,033 | 3,140 | 5,589 |
| Limestone | 12,933 | 4,395 | 533 |
| Manteno | 25,135 | 7,813 | 27,886 |
| Momence | 5,776 | 2,052 | 1,027 |
| Norton | 1,843 | 623 | 7 |
| Otto | 9,266 | 3,185 | 16 |
| Pembroke | 2,258 | 805 | 27 |
| Pilot | 4,652 | 1,612 | 11 |
| Rockville | 12,016 | 3,486 | 57,324 |
| Salina | 10,549 | 3,699 | 8 |
| St. Anne | 2,941 | 1,154 | 16 |
| Sumner | 17,388 | 5,124 | 4,013 |
| Yellowhead | 6,474 | 2,182 | 1,016 |
| Subtotals | 163,258 | 56,383 | 121,691 |
| Lake County, Indiana | | | |
| Calumet | 14,161 | 4,707 | 3,109 |
| Cedar Creek | 1,715 | 584 | 56 |
| Center | 4,815 | 1,621 | 756 |
| Eagle Creek | 1,014 | 283 | 17 |
| Hanover | 4,364 | 1,410 | 2,055 |
| Hobart | 2,224 | 782 | 586 |
| North | 12,657 | 4,678 | 5,431 |
| Ross | 7,215 | 2,613 | 6,489 |
| St. John | 7,536 | 2,494 | 6,745 |
| West Creek | 2,584 | 814 | 529 |
| Winfield | 1,498 | 467 | 29 |
| Subtotals | 59,783 | 20,453 | 25,802 |
| Will County, Illinois | | | |
| Channahon | 6,281 | 2,021 | 1,566 |
| Crete | 14,326 | 5,119 | 4,052 |
| DuPage | 6,415 | 2,252 | 2,533 |

TABLE 5.23.4-5 (CONTINUED)

**PROJECTED INDUCED GROWTH
KANKAKEE ULTIMATE ACQUISITION ALTERNATIVE
WITH THE CONCEPTUAL ULTIMATE AIRPORT**

| Township | Population | Households | Employment |
|---------------------|-------------------|-------------------|-------------------|
| Florence | 24,282 | 7,341 | 8,012 |
| Frankfort | 13,591 | 3,912 | 2,682 |
| Green Garden | 21,916 | 6,399 | 8,268 |
| Homer | 7,605 | 2,138 | 1,533 |
| Jackson | 3,312 | 1,027 | 7 |
| Joliet | 10,841 | 2,184 | 10,482 |
| Lockport | 5,959 | 1,833 | 1,744 |
| Manhattan | 9,292 | 4,957 | 4,776 |
| Monee | 18,827 | 5,982 | 15,143 |
| New Lenox | 15,171 | 4,665 | 4,105 |
| Peotone | 20,580 | 6,743 | 24,763 |
| Plainfield | 1,664 | 1,005 | 847 |
| Reed-Wesley -Custer | 14,571 | 6,954 | 2,747 |
| Troy | 1,535 | 928 | 1,411 |
| Washington | 10,963 | 3,728 | 4,523 |
| Wheatland | 5,980 | 1,205 | 260 |
| Will | 10,867 | 4,398 | 14,029 |
| Wilmington | 6,807 | 2,477 | 55 |
| Wilton | 11,879 | 3,853 | 33,560 |
| Subtotals | 242,664 | 81,121 | 147,098 |
| Total | 556,271 | 187,973 | 339,578 |

Source: The al Chalabi Group, 1997.

TABLE 5.23.4-6

**DIRECT EMPLOYMENT FORECASTS
KANKAKEE ULTIMATE ACQUISITION ALTERNATIVE
WITH THE CONCEPTUAL ULTIMATE AIRPORT**

| Employment Category | Projected Number of Jobs |
|-------------------------------|---------------------------------|
| Airlines and Airline Services | 44,338 |
| Government | 3,292 |
| Passenger Services | 3,278 |
| Ground Transportation | 4,242 |
| Total Direct | 54,950 |

Source: The al Chalabi Group, 1997.

Environmental Justice

Depending upon the demographic profile of the leaseholders within the Kankakee Ultimate Acquisition Alternative after acquisition by the state, there may or may not be disproportionate cumulative impacts on minority or low-income populations. If the existing demographic profile is maintained after the land is acquired, then no disproportionate impact to minority or low-income populations would occur as result of the planning, construction and operation of a conceptual ultimate airport at the Kankakee Acquisition

Alternative. Current demographic conditions are the same as described above for the Kankakee Acquisition Alternative with a conceptual inaugural airport. All required environmental justice analyses and appropriate mitigation measures would be addressed subsequent environmental documentation.

Community Impacts

Under the conceptual ultimate airport cumulative impacts scenario, the community of Deselm would be impacted since all leaseholders would be relocated. No impacts to existing community services would occur, as there are no churches, hospitals or schools located within the Kankakee Acquisition Alternative. The relocation of leaseholders within the acquisition alternative should the conceptual ultimate airport be planned, constructed and operated could result in varying levels of impacts to neighboring school districts, depending on where leaseholders relocate. As described under the under the conceptual inaugural airport cumulative impacts scenario, a special airport security force to protect airport property would be established. Fire protection and rescue service would also be provided by the airport authority, either by airport employees or by contract. An Airport Rescue and Firefighting Facility (ARFF) would be constructed on airport property and operated by trained personnel. First-aid services and an emergency services center, including ambulances, would be located on-airport. Persons with more serious emergency health problems or the victims of accidents would be transported to the nearest hospital facility. Therefore, development and operation of a conceptual ultimate airport is not expected to have any significant impact on local public safety resources.

Should a conceptual ultimate airport be constructed, it would necessitate the closure or termination of several local roads, bounded by Wilmington-Peotone Road on the north, Illinois Route 50 on the east, Manteno-Deselm Road on the south and Martin Long Road on the west (see [Figure 5.23.1-4](#)). Impacts to travel patterns for residents and emergency services would be fully evaluated in subsequent environmental documentation. There are no public water or sanitary sewer facilities within the acquisition alternative that would be impacted.

Finally, under the conceptual ultimate airport cumulative impacts scenario, once all leaseholders are relocated, taxes from leaseholders could be affected. [Table 5.3-14](#), previously presented, details the potentially affected tax revenue. However, it is predicted that lost revenue would be replaced by future revenue that would be generated by airport-induced commercial, industrial, and residential growth in the vicinity of an airport. Again, appropriate analysis would be conducted in subsequent environmental documentation, if necessary.

Will County Inaugural Acquisition Alternative

Demographics

For cumulative impacts analysis purposes, the planning, construction and operation of a conceptual inaugural airport at the Will County Inaugural Acquisition Alternative would likely cause increased population, number of households and jobs in the surrounding townships. [Table 5.23.4-7](#) shows the predicted growth in these areas induced by the presence of a conceptual inaugural airport. The numbers in the table reflect the incremental growth to the existing population, households and employment base

expected to occur if an airport achieves the assumed operational levels detailed in [Table 5.23.1-1](#). These numbers do not reflect the total population, households and employment for the respective townships, just the additional growth that would be induced should the conceptual inaugural airport be planned, constructed and operated at the acquisition alternative.

The townships surrounding the Will County Inaugural Acquisition Alternative could expect to see an additional growth of approximately 12,400 people, 4,300 households and 12,100 jobs. [Figure 5.23.4-5](#) graphically illustrates the expected growth in population for the townships in the Inaugural Cumulative Impact Study Area for this alternative.

TABLE 5.23.4-7

**PROJECTED INDUCED GROWTH
WILL COUNTY INAUGURAL ACQUISITION ALTERNATIVE
WITH THE CONCEPTUAL INAUGURAL AIRPORT**

| Township | Population | Households | Employment |
|----------------------------------|-------------------|-------------------|-------------------|
| Kankakee County, Illinois | | | |
| Bourbonnais | 1,020 | 376 | 252 |
| Manteno | 1,841 | 618 | 270 |
| Rockville | 368 | 115 | 47 |
| Sumner | 256 | 86 | 51 |
| Yellowhead | 337 | 122 | 53 |
| Subtotals | 3,821 | 1,316 | 673 |
| Lake County, Indiana | | | |
| West Creek | 129 | 43 | 29 |
| Subtotals | 129 | 43 | 29 |
| Will County, Illinois | | | |
| Crete | 1,713 | 633 | 334 |
| Florence | 67 | 21 | 9 |
| Green Garden | 1,489 | 483 | 200 |
| Manhattan | 605 | 203 | 84 |
| Monee | 2,200 | 763 | 2,551 |
| Peotone | 615 | 223 | 1,231 |
| Reed-Wesley-Custer | 176 | 58 | 25 |
| Washington | 665 | 233 | 167 |
| Will | 715 | 252 | 6,799 |
| Wilton | 211 | 71 | 30 |
| Subtotals | 8,453 | 2,937 | 11,427 |
| Total | 12,403 | 4,296 | 12,128 |

Source: The al Chalabi Group, 1995.

Business and Economic Impacts

The type of business and economic development that would result on and off the conceptual airport is described above for the conceptual inaugural airport for the Kankakee Inaugural Acquisition Alternative and would be the same for the Will County conceptual inaugural airport. [Table 5.23.4-8](#) presents the anticipated direct jobs for the Will County Inaugural Acquisition Alternative with a conceptual airport.

Relocations

Approximately 202 people residing in 76 single-family residences would be displaced under the Will County Inaugural Acquisition Alternative with a conceptual inaugural airport. In addition, 19 farm operations and Sanger Field would be impacted. The existing residences are scattered throughout the 3,883 acres within the Will County Inaugural Acquisition Alternative.

Environmental Justice

Depending upon the demographic profile of the leaseholders within the Will County Inaugural Acquisition Alternative after acquisition by the state, there may or may not be disproportionate cumulative impacts on minority or low-income populations. If the existing demographic profile is maintained after the land is acquired, then no disproportionate impact to minority or low-income populations would occur as a result of the planning, construction and operation of a conceptual inaugural airport at the Will County Acquisition Alternative. Current demographic conditions are the same as described above for the Kankakee Inaugural Acquisition Alternative with a conceptual inaugural airport. Again, should the demographic profile change, all required environmental justice analyses and appropriate mitigation measures would be addressed in subsequent environmental documentation.

TABLE 5.23.4-8

**DIRECT EMPLOYMENT FORECASTS
WILL COUNTY INAUGURAL ACQUISITION ALTERNATIVE
WITH THE CONCEPTUAL INAUGURAL AIRPORT**

| Employment Category | Projected Number of Jobs |
|-------------------------------|---------------------------------|
| Airlines and Airline Services | 5,711 |
| Government | 353 |
| Passenger Services | 312 |
| Ground Transportation | 394 |
| Total Direct | 6,770 |

Source: The al Chalabi Group, 1995.

Community Impacts

No impacts to established communities are anticipated under the conceptual inaugural airport cumulative impacts scenario. There are no churches, hospitals or schools located within the Will County Inaugural Acquisition Alternative. The relocation of leaseholders within the acquisition alternative could result in varying levels of impacts to neighboring school districts, depending on where leaseholders relocate.

A special airport security force to protect airport property would be established. Fire protection and rescue service would also be provided by the airport authority, either by airport employees or by contract. An Airport Rescue and Firefighting Facility (ARFF) would be constructed on airport property and operated by trained personnel. First-aid services and an emergency services center, including ambulances, would be located on-airport. Persons with more serious emergency health problems or the victims of accidents

would be transported to the nearest hospital facility. Therefore, development and operation of the conceptual inaugural airport is not expected to have any significant cumulative impact on local public safety resources.

Under the conceptual inaugural airport cumulative impacts scenario, construction of an airport would necessitate the closure or termination of several local roads, bounded by Offner Road on the north, Illinois Route 1 on the east, Church Road on the south and Interstate 57 on the west (see [Figure 5.23.1-3](#)). Impacts to travel patterns for residents and emergency services would be fully evaluated subsequent environmental documentation. There are no public water or sanitary sewer facilities within the Will County Inaugural Acquisition Alternative that would be impacted.

Finally, under the conceptual inaugural airport cumulative impacts scenario, once all leaseholders are relocated, taxes from leaseholders could be affected. [Table 5.3-18](#), previously presented, details the potentially affected tax revenue. However, it is predicted that lost revenue would be replaced by future revenue that would be generated by airport-induced commercial, industrial, and residential growth in the vicinity of an airport. Again, appropriate analyses would be conducted in subsequent environmental documentation, if necessary.

Will County Ultimate Acquisition Alternative

Demographics

[Table 5.23.4-9](#) shows the predicted growth in the cumulative impact study area that will likely be induced by the planning, construction and operation of a conceptual ultimate airport at the Will County Ultimate Acquisition Alternative. The numbers in the table reflect the incremental growth to the existing population, households and employment base expected to occur if the conceptual ultimate airport were to achieve the assumed operational levels detailed in [Table 5.23.1-1](#). These numbers do not reflect the total population, households and employment for the respective townships, just the additional growth that would be induced should the conceptual ultimate airport be planned, constructed and operated at the acquisition alternative.

TABLE 5.23.4-9

**PROJECTED INDUCED GROWTH
WILL COUNTY ULTIMATE ACQUISITION ALTERNATIVE
WITH THE CONCEPTUAL ULTIMATE AIRPORT**

| Township | Population | Households | Employment |
|----------------------------------|-------------------|-------------------|-------------------|
| Cook County, Illinois | | | |
| Bloom | 15,169 | 5,443 | 16,347 |
| Bremen | 16,341 | 6,179 | 6,733 |
| Lemont | 5,188 | 1,680 | 432 |
| Orland | 16,738 | 6,429 | 3,393 |
| Palos | 5,644 | 2,248 | 2,416 |
| Rich | 23,995 | 9,770 | 34,204 |
| Thornton | 6,889 | 2,609 | 6,343 |
| Worth | 4,445 | 1,712 | 1,914 |
| Subtotals | 94,409 | 36,070 | 71,782 |
| Kankakee County, Illinois | | | |
| Aroma | 2,579 | 952 | 311 |
| Bourbonnais | 12,517 | 4,834 | 5,002 |
| Essex | 208 | 77 | 25 |
| Ganeer | 1,358 | 571 | 184 |
| Kankakee | 5,987 | 2,581 | 1,677 |
| Limestone | 1,462 | 542 | 176 |
| Manteno | 22,041 | 7,559 | 3,537 |
| Momence | 2,003 | 785 | 252 |
| Norton | 126 | 47 | 17 |
| Otto | 1,529 | 580 | 180 |
| Pembroke | 636 | 250 | 121 |
| Pilot | 272 | 104 | 47 |
| Rockville | 4,786 | 1,434 | 927 |
| Salina | 499 | 193 | 61 |
| St. Anne | 490 | 212 | 70 |
| Sumner | 3,384 | 1,100 | 1,067 |
| Yellowhead | 4,048 | 1,505 | 968 |
| Subtotals | 63,925 | 23,326 | 14,622 |
| Lake County, Indiana | | | |
| Calumet | 13,462 | 4,932 | 6,158 |
| Cedar Creek | 1,461 | 549 | 172 |
| Center | 6,480 | 2,407 | 2,641 |
| Eagle Creek | 827 | 255 | 97 |
| Hanover | 4,964 | 1,769 | 14,751 |
| Hobart | 3,021 | 1,173 | 1,715 |
| North | 10,452 | 4,261 | 9,654 |
| Ross | 5,788 | 2,312 | 13,990 |
| St. John | 9,793 | 3,577 | 20,133 |
| West Creek | 1,636 | 569 | 239 |
| Winfield | 1,054 | 362 | 146 |
| Subtotals | 58,938 | 22,166 | 69,696 |
| Will County, Illinois | | | |
| Channahon | 2,170 | 770 | 901 |
| Crete | 21,633 | 8,598 | 26,341 |
| DuPage | 11,563 | 4,473 | 2,106 |

TABLE 5.23.4-9 (CONTINUED)

**WILL COUNTY ULTIMATE ACQUISITION ALTERNATIVE
WITH THE CONCEPTUAL ULTIMATE AIRPORT**

| Township | Population | Households | Employment |
|-------------------------|-------------------|-------------------|-------------------|
| Florence | 891 | 295 | 93 |
| Frankfort | 18,968 | 6,017 | 4,912 |
| Green Garden | 19,090 | 6,579 | 14,962 |
| Homer | 8,513 | 2,640 | 1,699 |
| Jackson | 944 | 323 | 114 |
| Joliet | 3,650 | 1,252 | 9,411 |
| Lockport | 5,032 | 1,670 | 623 |
| Manhattan | 7,941 | 2,946 | 1,377 |
| Monee | 28,196 | 9,894 | 34,045 |
| New Lenox | 12,005 | 4,073 | 4,743 |
| Peotone | 7,636 | 2,793 | 23,752 |
| Plainfield | 4,251 | 1,437 | 353 |
| Reed-Wesley - Custer | 2,832 | 864 | 303 |
| Troy | 4,132 | 1,473 | 415 |
| Washington | 7,844 | 2,894 | 14,777 |
| Wheatland | 6,910 | 2,563 | 338 |
| Will | 8,231 | 3,204 | 60,780 |
| Wilmington | 224 | 90 | 90 |
| Wilton | 2,635 | 938 | 283 |
| Subtotals | 185,291 | 65,786 | 202,418 |
| Total | 402,563 | 147,348 | 358,518 |

Source: The al Chalabi Group, 1997.

The townships surrounding the Will County Ultimate Acquisition Alternative with the conceptual airport could expect to see an additional growth of approximately 403,000 people, 147,000 households and 359,000 jobs. [Figure 5.23.4-6](#) graphically illustrates the expected growth in population for the townships in the Ultimate Cumulative Impact Study Area for this alternative. As this figure illustrates, a large part of the population growth would be expected to occur in the townships immediately adjacent and to the north of the Will County Ultimate Acquisition Alternative.

Business and Economic Impact

The type of business and economic development that would result on and off-the conceptual ultimate airport is described above for the Kankakee Inaugural Acquisition Alternative with the conceptual airport and would be the same for a conceptual ultimate airport at the Will County Ultimate Acquisition Alternative. However, the number of businesses and employment would be greater. [Table 5.23.4-10](#) presents the anticipated direct jobs for the Will County Ultimate Acquisition Alternative with a conceptual ultimate airport.

TABLE 5.23.4-10

**DIRECT EMPLOYMENT FORECASTS
WILL COUNTY ULTIMATE ACQUISITION ALTERNATIVE
WITH THE CONCEPTUAL ULTIMATE AIRPORT**

| Employment Category | Projected Number of Jobs |
|-------------------------------|---------------------------------|
| Airlines and Airline Services | 44,440 |
| Government | 3,299 |
| Passenger Services | 3,282 |
| Ground Transportation | 4,054 |
| Total Direct | 55,075 |

Source: The al Chalabi Group, 1995.

Relocations

Approximately 2,985 people residing in 1,232 single-family residences would be displaced under the Will County Ultimate Acquisition Alternative with a conceptual airport. In addition, 129 farm operations and 16 businesses, along with Sanger Field, would be cumulatively impacted. The existing residences are scattered throughout the 23,492 acres within the Will County Ultimate Acquisition Alternative, except for a concentration of manufactured homes in Pheasant Lake Estates and single-family homes located in a portion of Heatherbrook Estates in the northwest corner of the site.

Environmental Justice

Depending upon the demographic profile of the leaseholders within the Will County Ultimate Acquisition Alternative site after acquisition by the state, there may or may not be disproportionate cumulative impacts on minority or low-income populations. If the existing demographic profile is maintained after the land is acquired, then no disproportionate impact to minority or low-income populations would occur as a result of the planning, construction and operation of a conceptual ultimate airport at the Will County Acquisition Alternative. Current demographic conditions are the same as described above for the Kankakee Acquisition Alternative with a conceptual inaugural airport. All required environmental justice analyses and appropriate mitigation measures would be addressed in subsequent environmental documentation.

Community Impacts

Under the conceptual ultimate airport cumulative impacts scenario, the neighborhoods of Pheasant Lake Estates and Heatherbrook Estates would be cumulatively impacted since all leaseholders would need to be relocated. Several alternative have been identified to relocate the Pheasant Lake Estates manufactured home park residents including: 1) adequate land for a new manufactured home park could be purchased and residents could choose to be relocated to that location; 2) individual manufactured homes could be moved to new sites purchased or rented by the manufactured home owners; or 3) the manufactured homes could be purchased outright. There are no churches, hospitals or schools located within the Will County Ultimate Acquisition Alternative. The relocation of leaseholders within the acquisition alternative should the conceptual ultimate airport be planned, constructed and operated could

result in varying levels of impacts to neighboring school districts, depending on where leaseholders relocate.

A special airport security force to protect airport property would be established. Fire protection and rescue service would also be provided by the airport authority, either by airport employees or by contract. An Airport Rescue and Firefighting Facility (ARFF) would be constructed on airport property and operated by trained personnel. First-aid services and an emergency services center, including ambulances, would be located on-airport. Persons with more serious emergency health problems or the victims of accidents would be transported to the nearest hospital facility. Therefore, development and operation of a conceptual ultimate airport at the Will County Ultimate Acquisition Alternative is not expected to have any significant cumulative impacts on local public safety resources.

Under the conceptual ultimate airport cumulative impacts scenario, construction would necessitate the closure or termination of several local roads, bounded by Crete-Monee Road on the north, Illinois Route 1 on the east, Corning Road/311th Street on the south and Interstate 57 on the west (see [Figure 5.23.1-5](#)). Impacts to travel patterns for residents and emergency services would be fully evaluated in subsequent environmental documentation. There are no public water or sanitary sewer facilities within the acquisition alternative that would be impacted.

Finally, under the conceptual ultimate airport cumulative impacts scenario, once all leaseholders are relocated, taxes from leaseholders could be affected. [Table 5.3-19](#), previously presented, details the potentially affected tax revenue.

5.23.4.2 Potential Induced Cumulative Impacts

No-Action Alternative

Under the No-Action Alternative, population growth is expected to continue throughout the cumulative impact study areas, as shown by comparing [Figures 5.23.4-1](#) and [5.23.4-2](#). Most of the population growth is expected to occur in the townships located in the northern and northwestern sections of the study areas, closer to the greater Chicago region business centers. A majority of the local communities in the area have planned for population increases by adopting growth plans that identify areas for development. This development will spur an increase in demand for public facilities and services. In most cases the additional development should also result in an associated increase in tax revenue that would be used to meet the increased demand for public services.

Kankakee Inaugural Acquisition Alternative

The planning, construction and operation of a conceptual inaugural airport at the Kankakee Inaugural Acquisition Alternative would cause an additional increase in population throughout the Inaugural Cumulative Impact Study Area, as shown in [Table 5.23.4-3](#) and [Figure 5.23.4-3](#). This predicted population growth would have a cumulative impact on public facilities and services including public schools, public safety facilities, health care services and cultural facilities. Currently, there is little capacity

for additional students in most schools surrounding the acquisition alternative. As population increases, additional schools would need to be constructed.

The need for public safety services would vary throughout the cumulative impact study area. Those townships closest to the acquisition alternative would likely experience a higher combined growth in population and employment, and consequently, would require additional fire and police services to serve these people.

There are limited numbers of health care facilities located in the Inaugural Cumulative Impact Study Area, due to the predominantly rural nature of the townships located there. The predicted increases in population due to a conceptual inaugural airport may necessitate or justify the establishment of new health care facilities in this area.

The planning, construction and operation of a conceptual inaugural airport at this acquisition alternative would not directly impact any existing cultural facilities, nor should it impact the ability of these facilities to expand in the future. For example, induced population growth could stimulate expansion of existing cultural centers, such as the Center for Performing Arts located at Governors State University.

Under the conceptual inaugural airport scenario, Manteno, Bourbonnais and Rockville Townships would experience the largest increase in population and thus would need to be most concerned about the capacity of schools, public safety, health care facilities and cultural facilities.

A large portion of the cumulative impacts that the increase in population would have on local governments would be offset by the projected increase in wages, expenditures and taxes that would result from potential development of an airport. The likely economic impacts of earnings, expenditures and total output would provide revenue to state and local governments enabling them to supply services (highways, local roads, utilities, police and emergency services, schools) to their increased population. Revenue sources include State income taxes, sales taxes and hotel and rental car taxes. Table 5.23.4-11 shows the jobs and wages expected to be generated by a Kankakee Inaugural Acquisition Alternative through direct (on-airport), indirect (off-airport visitor expenditures), induced (multiplier effect of direct and indirect jobs), and access-related jobs (those attracted by the accessibility that an airport would provide to the region).

TABLE 5.23.4-11

**WAGES AND OUTPUT GENERATED BY DIRECT, INDIRECT, INDUCED AND PROXIMATE ACCESS JOBS
KANKAKEE INAUGURAL ACQUISITION ALTERNATIVE**

| Category | Direct | Indirect | Induced | Proximate Access |
|-----------------|---------------|-----------------|----------------|-------------------------|
| Jobs | 6,678 | 4,389 | 13,265 | 4,000 |
| Wages | 237.1 | 73.3 | 228.6 | 86.1 |

Source: The al Chalabi Group, 1995; 1997.

Note: Wages are expressed in 1994 million dollars. Jobs were forecast for a larger area than the Inaugural Cumulative Impact Study Area.

The number of visitors annually is expected to be approximately 415,000, generating \$259 million (1994 dollars) in expenditures. Predicted annual total output, which includes wages and salaries, retained profits, depreciation allowances on fixed assets, interest paid on borrowed capital and industry taxes, induced by a conceptual inaugural airport would be approximately \$1.8 billion (1991 dollars). This would result in a tax revenue increase of approximately \$39 million (1994 dollars). (The al Chalabi Group, 1995; 1997).

Kankakee Ultimate Acquisition Alternative

The planning, construction and operation of a conceptual ultimate airport at the Kankakee Ultimate Acquisition Alternative would likely cause an additional increase in population throughout the Ultimate Cumulative Impact Study Area, as shown in [Table 5.23.4-5](#) and [Figure 5.23.4-4](#). This induced population growth would have an impact on public facilities and services including public schools, public safety facilities, health care services and cultural facilities. Currently, there is little capacity for additional students in most schools surrounding the potential future airport location. As population increases, additional schools would need to be constructed.

The need for public safety services would vary throughout the Ultimate Cumulative Impact Study Area. Those townships closest to the acquisition alternative would experience a higher combined growth in population and employment, and consequently, would require additional fire and police services to serve these people.

There are a number of health care facilities located within the Ultimate Cumulative Impact Study Area, especially in the townships located in the northern sections where population is concentrated and in the City of Kankakee. However, the expected increases in population due to an ultimate airport may necessitate or justify the establishment of new health care facilities closer to the acquisition alternative where a large increase in population would occur.

The planning, construction and operation of a conceptual ultimate airport at this site would not directly impact any existing cultural facilities, nor should it impact the ability of these facilities to expand in the future. For example, induced population growth could stimulate expansion of existing cultural centers, such as the Center for Performing Arts located at Governors State University or the Tweeter Center (formerly the World Music Theater) in Tinley Park.

Manteno, Bourbonnais, Florence, Green Garden and Peotone Townships would experience the largest increase in population (as shown on [Figure 5.23.4-4](#)) and thus would need to be most concerned about the capacity of schools, public safety, health care facilities and cultural facilities.

A large portion of the impacts increased population would have on local governments would be offset by the projected increase in wages, expenditures and taxes that would result from development of an airport. The economic impacts of earnings, expenditures and total output would provide revenue to state and local governments enabling them to supply services (highways, local roads, utilities, police and emergency services, schools) to their increased population. Revenue sources include State income taxes, sales taxes and hotel and rental car taxes. [Table 5.23.4-12](#) shows the jobs and wages expected to

be generated by a conceptual ultimate airport through direct (on-airport), indirect (off-airport visitor expenditures), induced (multiplier effect of direct and indirect jobs), and access-related jobs (those attracted by accessibility airport provides to the region).

TABLE 5.23.4-12

**WAGES AND OUTPUT GENERATED BY DIRECT, INDIRECT, INDUCED AND
PROXIMATE ACCESS JOBS
KANKAKEE ULTIMATE ACQUISITION ALTERNATIVE**

| Category | Direct | Indirect | Induced | Proximate Access |
|-----------------|---------------|-----------------|----------------|-------------------------|
| Jobs | 54,950 | 53,876 | 119,960 | 110,000 |
| Wages | 1,1951.4 | 895.2 | 2,100.2 | 2,367.8 |

Source: The al Chalabi Group, 1995; 1997.

Note: Wages are expressed in 1994 million dollars. Jobs were forecast for a larger area than the Ultimate Cumulative Impact Study Area.

The number of visitors annually is expected to be approximately 2.5 million, generating \$3.1 billion (1994 dollars) in expenditures. Annual total output, which includes wages and salaries, retained profits, depreciation allowances on fixed assets, interest paid on borrowed capital and industry taxes, induced by a conceptual ultimate airport would approximate \$16.2 billion (1991 dollars). This would result in a tax revenue increase of approximately \$368 million (1994 dollars). (The al Chalabi Group, 1995; 1997).

Will County Inaugural Acquisition Alternative

The planning, construction and operation of an inaugural airport at the Will County site would cause an additional increase in population throughout the Inaugural Cumulative Impact Study Area, as shown in [Table 5.23.4-7](#) and [Figure 5.23.4-5](#). This induced population growth would have an impact on public facilities and services including public schools, public safety facilities, health care services and cultural facilities. Currently, there is little capacity for additional students in most schools surrounding the acquisition alternative. As population increases, additional schools would need to be constructed.

The need for public safety services would vary throughout the Inaugural Cumulative Impact Study Area. Those townships closest to the acquisition alternative would experience a higher combined growth in population and employment, and consequently, would require additional fire and police services to serve these people.

There are limited numbers of health care facilities located in the Inaugural Cumulative Impact Study Area, due to the predominantly rural nature of the townships located here. The expected increases in population due to an inaugural airport may necessitate or justify the establishment of new health care facilities in this area.

The planning, construction and operation of a conceptual inaugural airport at this site would not directly impact any existing cultural facilities, nor should it impact the ability of these facilities to expand in the future. For example, induced population growth could stimulate expansion of existing cultural centers, such as the Center for Performing Arts located at Governors State University.

Monee, Crete, Green Garden, Manteno and Bourbonnais Townships would experience the largest increase in population and thus would need to be most concerned about the capacity of schools, public safety, health care facilities and cultural facilities.

A large portion of the impacts increased population would have on local governments would be offset by the projected increase in wages, expenditures and taxes that would result from development of an airport. The economic impacts of earnings, expenditures and total output would provide revenue to State and local governments enabling them to supply services (highways, local roads, utilities, police and emergency services, schools) to their increased population. Revenue sources include state income taxes, sales taxes and hotel and rental car taxes. Table 5.23.4-13 shows the jobs and wages expected to be generated by a conceptual inaugural airport through direct (on-airport), indirect (off-airport visitor expenditures), induced (multiplier effect of direct and indirect jobs), and access-related jobs (those attracted by accessibility airport provides to the region).

The number of visitors annually is expected to be approximately 584,000, generating \$319 million (1994 dollars) in expenditures. Annual total output, which includes wages and salaries, retained profits, depreciation allowances on fixed assets, interest paid on borrowed capital and industry taxes, induced by an inaugural airport at this location would approximate \$1.9 billion (1991 dollars). This would result in a tax revenue increase of approximately \$41 million (1994 dollars). (The al Chalabi Group, 1995; 1997.)

TABLE 5.23.4-13

**WAGES AND OUTPUT GENERATED BY DIRECT, INDIRECT, INDUCED AND PROXIMATE ACCESS JOBS
WILL COUNTY INAUGURAL ACQUISITION ALTERNATIVE**

| Category | Direct | Indirect | Induced | Proximate Access |
|-----------------|---------------|-----------------|----------------|-------------------------|
| Jobs | 6,770 | 5,603 | 14,132 | 5,000 |
| Wages | 240.4 | 93.6 | 243.5 | 107.7 |

Source: The al Chalabi Group, 1995.

Note: Wages are expressed in 1994 million dollars. Jobs were forecast for a larger area than the Inaugural Cumulative Impact Study Area.

Will County Ultimate Acquisition Alternative

The planning, construction and operation of a conceptual ultimate airport at the Will County Ultimate Acquisition Alternative would cause an additional increase in population throughout the Ultimate Cumulative Impact Study Area, as shown in Table 5.23.4-9 and Figure 5.23.4-6. This induced population growth would have an impact on public facilities and services including public schools, public safety facilities, health care services and cultural facilities. Currently, there is little capacity for additional

students in most schools surrounding the acquisition alternative. As population increases, additional schools would need to be constructed.

The need for public safety services would vary throughout the Ultimate Cumulative Impact Study Area. Those townships closest to the acquisition alternative would experience a higher combined growth in population and employment, and consequently, would require additional fire and police services to serve these people.

There are a number of health care facilities located within the Ultimate Cumulative Impact Study Area, especially in the townships located in the northern sections where population is concentrated and in the city of Kankakee. However, the expected increases in population due to an ultimate airport may necessitate or justify the establishment of new health care facilities closer to the acquisition alternative where a large increase in population would occur.

The planning, construction and operation of a conceptual ultimate airport at this site would not directly impact any existing cultural facilities, nor should it impact the ability of these facilities to expand in the future. For example, induced population growth could stimulate expansion of existing cultural centers, such as the Center for Performing Arts located at Governors State University or the Tweeter Center (formerly the World Music Theater) in Tinley Park.

Crete, Manteno, Monee and Rich Townships would experience the largest increase in population (as shown on [Figure 5.23.4-6](#)) and thus would need to be most concerned about the capacity of schools, public safety, health care facilities and cultural facilities.

A large portion of the impacts increased population would have on local governments would be offset by the projected increase in wages, expenditures and taxes that would result from development of an airport. The economic impacts of earnings, expenditures and total output would provide revenue to state and local governments enabling them to supply services (highways, local roads, utilities, police and emergency services, schools) to their increased population. Revenue sources include state income taxes, sales taxes and hotel and rental car taxes. [Table 5.23.4-14](#) shows the jobs and wages expected to be generated by a conceptual ultimate airport through direct (on-airport), indirect (off-airport visitor expenditures), induced (multiplier effect of direct and indirect jobs), and access-related jobs (those attracted by accessibility airport provides to the region).

TABLE 5.23.4-14

**WAGES AND OUTPUT GENERATED BY DIRECT, INDIRECT, INDUCED AND
PROXIMATE ACCESS JOBS
WILL COUNTY ULTIMATE ACQUISITION ALTERNATIVE**

| Category | Direct | Indirect | Induced | Proximate Access |
|-----------------|---------------|-----------------|----------------|-------------------------|
| Jobs | 55,075 | 58,815 | 122,637 | 125,000 |
| Wages | 1,955.8 | 977.3 | 2,151.9 | 2,690.7 |

Source: The al Chalabi Group, 1995.

Note: Wages are expressed in 1994 million dollars. Jobs were forecast for a larger area than the Ultimate Cumulative Impact Study Area.

The number of visitors annually is expected to be approximately 5.8 million, generating \$3.4 billion (1994 dollars) in expenditures. Annual total output, which includes wages and salaries, retained profits, depreciation allowances on fixed assets, interest paid on borrowed capital and industry taxes, induced by an ultimate airport would approximate \$16.3 billion (1991 dollars). This would result in a tax revenue increase of approximately \$368 million (1994 dollars). (The al Chalabi Group, 1995; 1997.)

5.23.5 AIR QUALITY

5.23.5.1 Potential Airport-Related Impacts

The impact of new airport operations was determined through the use of the USEPA recommended Emissions and Dispersion Modeling System (EDMS) model developed by the Federal Aviation Administration (FAA). On July 20, 1993, the USEPA accepted the EDMS model as a formal USEPA "Preferred Guideline" model for use at civil airports and military bases. The FAA is now requiring the use of this model in Environmental Assessment reports and Environmental Impact Statements for airport actions (FAA, 1994d). The model calculates emissions for a variety of emission types, as follows:

- The modeling of aircraft sources requires runway geometry and location and extent of aircraft departure queues. The number of operations per hour and the length of time each type of aircraft spends in the queue was modeled based on projected fleet mix and activity levels. The EDMS model identifies aircraft departure and idle or delay operational modes as the primary factors that affect the amount of air pollutants. Departure delays result in aircraft queues that increase the time that aircraft engines must operate on the ground. The EDMS model includes emission factors calculated for the whole cycle of landing and takeoff, which includes taxi in and out, runway queue, takeoff, and climbout up to, and approach from, 3,000 feet.
- Every aircraft flight operation requires many ground support services, that involve engine emissions emitted from various types of motorized equipment and ground vehicles.
- The EDMS analysis includes consideration of all motor vehicles operating within the site boundaries including private automobiles, rental cars, taxis, limousines, and buses. The analysis considered traffic volumes and movements within the terminal area and surrounding airport area. The on-site sources included roadways and parking facilities within the site as well as airport access roads and interchanges which are included within the site boundaries. In addition to roadway sources, all airport-related parking facilities were modeled, including the main terminal parking garages, an airport employee parking lot and a rental car parking lot.
- There will be several types of stationary sources at the conceptual airport including heating and cooling facilities, training fires, petroleum storage and maintenance facilities.

Emissions were calculated for conceptual airport activity forecast as shown in [Table 5.23.1-1](#) using the EDMS model. Projected peak hour aircraft operations and peak daily operations were used in the modeling of aircraft emissions.

Detailed EDMS modeling was undertaken, based on the following assumptions:

- Meteorological Data - Refined EDMS modeling was conducted with one worst year (1988) of meteorological data consisting of surface observations from the National Weather Service station at O'Hare International Airport in Chicago, Illinois. This worst year was determined based on an Industrial Source Complex (ISC) screening modeling analysis using five consecutive years (1987 to 1991) of meteorological data for the conceptual airport.
- Receptor Locations - The determination of receptor locations was based on the following considerations: model limitations, dominant source elevations, the potential distances between sources and receptors and ISC screening results from the worst meteorological data analysis. Airport dominant emission sources will be aircraft and motor vehicles; these sources are all treated as ground-level sources in EDMS. Because the EDMS model does not consider terrain effects (and the actual terrain is flat), the receptors close to airport sources would have higher impacts.
- Background Data - The conventional approach to the selection of appropriate background air quality data for dispersion modeling studies is to obtain the data for the nearest and most representative State monitoring stations. The use of such "representative" data means selection of monitoring data for an area that is similar in the type and intensity of land development and air pollution sources to the area under study. However, the use of background air quality data that is representative of the rural nature of the Kankakee site and the Will County site would not reflect the fact that this area would become much more developed over time as an airport develops. Therefore, background air quality values were selected to reflect what would become a more developed area in the future. These background values were obtained from the most recent three-year (1998 to 2000) Illinois Annual Air Quality Report. The representative monitoring sites were selected in consultation with IEPA and they include: Calumet City for CO and NO_x and Joliet for PM₁₀ and SO₂.

CO modeling for off-airport mobile sources was not performed for the Inaugural Airport Alternatives. CO modeling will need to be performed for future environmental documentation in order to determine if traffic generated by a conceptual airport would cause violations of the CO standards.

The Sponsor conducted a general conformity analysis for the proposed South Suburban Airport in 1995 as part of the South Suburban Airport Environmental Assessment (TAMS, 1998). The analysis conducted in 1995 assumed a Phase I airport consisting of two parallel runways, a 40-gate terminal, and 7 million annual passenger enplanements and a Phase III airport that corresponds with the conceptual ultimate airport discussed at the beginning of [Section 5.23](#). The IEPA committed at the time of the Environmental Assessment to allocate a level of emissions through the conceptual ultimate airport construction and operation within its ozone attainment and maintenance SIPs. This commitment is detailed in a letter from IEPA to USEPA, Region V (dated September 1, 1995) and is included in the *General Conformity Analysis* (TAMS, 1995c) (see [Appendix B](#)). Should an airport be proposed for construction and operation, air quality analyses will be performed. Subsequent to the Sponsor's 1998 Environmental Assessment, IDOT presented a conceptual inaugural airport, which assumes one runway, a 19-gate terminal, and 3 million annual passenger enplanements. For purposes of the air quality analysis presented in this cumulative impacts discussion, the conceptual inaugural airport presented in this Tier 1 FEIS would generate approximately half the emissions of the Phase I concept presented in the Sponsor's 1998 Environmental Assessment (see [Appendix L](#)).

As a result of the change in the conceptual inaugural airport, additional air emission modeling was conducted for the Inaugural Acquisition Alternatives in July 2001 using the current version of EDMS. The Ultimate Acquisition Alternatives were not re-modeled because they did not change.

Construction period emissions will result from the following types of sources:

- Use of fossil fuel powered equipment such as dump trucks and bulldozers;
- Paving of roadways, parking lots, and other surfaces with asphalt (there will be no on-site asphalt plant);
- Stripe painting of airfield, roadway and parking lot surfaces;
- Automobiles that are used by construction workers traveling within an airport construction site; and
- Fugitive dust emissions from earthmoving activities and operation of mobile equipment on unpaved surfaces.

No-Action Alternative

Under the No-Action Alternative, no airport would be constructed in the study area and the acquisition alternatives would remain primarily in agricultural use as it is today. There would be no new air pollution sources on site. Thus, no impacts to air quality would occur.

Kankakee Inaugural Acquisition Alternative

A summary of the total emissions due to operation of a conceptual airport at the Kankakee Inaugural Acquisition Alternative is presented in [Table 5.23.5-1](#). The results presented in [Table 5.23.5-1](#) indicate that the aircraft source emissions would be less than half than those predicted for the Phase I conceptual airport described in the Sponsor's 1998 Environmental Assessment. The motor vehicle source emissions would be slightly more than half and stationary source emissions would be the same.

Area source emissions from existing sources within the site would be eliminated, resulting in minor emissions reductions of PM₁₀ of 50 tons per year from agricultural practices. The refined EDMS modeling analysis utilized two discrete points that represent airport terminal sensitive receptors. These are labeled as "A" receptors in [Figure 5.23.5-1](#). Another 20 receptor points (labeled "B" receptors) were placed at the Inaugural Acquisition Alternative boundary. Another 15 receptor locations (labeled "N" receptors) were placed at nearby parks and other sensitive locations in the towns of Peotone and Manteno in order to evaluate the impacts from the conceptual inaugural airport on these off-site sensitive areas. The results of refined modeling runs are presented in [Table 5.23.5-2](#). The table shows the maximum concentration for each of three types of receptor locations: on-airport, property boundary line and neighborhood. The modeling results plus background are below the NAAQS.

Construction period emissions were estimated for construction of a conceptual inaugural airport, including airport access roads, as shown in [Table 5.23.5-3](#).

TABLE 5.23.5-1

**AIRPORT OPERATIONAL EMISSIONS
KANKAKEE INAUGURAL ACQUISITION ALTERNATIVE**

| Source | VOCs | | CO (tpy) | NO _x (tpy) | PM ₁₀ (tpy) | SO ₂ (tpy) |
|-----------------------|------------|------------|--------------|--------------------------|---------------------------|--------------------------|
| | (tpy) | (tpd) | | | | |
| Aircraft Sources | 152 | 0.4 | 889 | 824 | 5 | 73 |
| Motor Vehicle Sources | 239 | 0.7 | 1,603 | 222 | 10 | 12 |
| Stationary Sources | 8 | 0.0 | 5 | 20 | 0 | 0 |
| Total | 399 | 1.1 | 2,497 | 1,066 | 15 | 85 |

Source: TAMS, 2001.

Notes:

1. TPD for VOCs are presented for a typical summer weekday to address ozone nonattainment in the region and general conformity.
2. Totals may not add exactly due to rounding.
3. Aircraft sources in this table include the aircraft and ground support equipment.

TABLE 5.23.5-2

**PROJECTED MAXIMUM POLLUTANT CONCENTRATIONS
KANKAKEE INAUGURAL ACQUISITION ALTERNATIVE**

| Pollutant | Averaging Period | Standard (ug/m3) | Projected Conc. (ug/m3) | Background Conc. (ug/m3) | Total (ug/m3) | Receptor |
|--|------------------|------------------|-------------------------|--------------------------|---------------|----------|
| On-Airport Concentrations | | | | | | |
| Carbon Monoxide | 1-hour | 40,000 | 13,059 | 5,839 | 18,898 | A1 |
| | 8-hour | 10,000 | 2,401 | 4,122 | 6,523 | A1 |
| Sulfur Dioxide | 3-hour | 1,300 | 20 | 180 | 200 | A1 |
| | 24-hour | 365 | 4 | 59 | 63 | A1 |
| | Annual | 80 | 1 | 13 | 14 | A1 |
| Particulates | 24-hour | 150 | 3 | 59 | 62 | A1 |
| | Annual | 50 | 1 | 24 | 25 | A1 |
| Nitrogen Dioxide | Annual | 100 | 14 | 46 | 60 | A1 |
| Boundary (Airport Property Line) Concentrations | | | | | | |
| Carbon Monoxide | 1-hour | 40,000 | 5,489 | 5,839 | 11,328 | B2 |
| | 8-hour | 10,000 | 1,056 | 4,122 | 5,178 | B7 |
| Sulfur Dioxide | 3-hour | 1,300 | 57 | 180 | 237 | B2 |
| | 24-hour | 365 | 8 | 59 | 67 | B2 |
| | Annual | 80 | 1 | 13 | 14 | B8 |
| Particulates | 24-hour | 150 | 5 | 59 | 64 | B8 |
| | Annual | 50 | 0 | 24 | 24 | B8 |
| Nitrogen Dioxide | Annual | 100 | 9 | 46 | 55 | B8 |
| Neighborhood Concentrations | | | | | | |
| Carbon Monoxide | 1-hour | 40,000 | 545 | 5,839 | 6,384 | N8 |
| | 8-hour | 10,000 | 124 | 4,122 | 4,246 | N8 |
| Sulfur Dioxide | 3-hour | 1,300 | 6 | 180 | 186 | N8 |
| | 24-hour | 365 | 1 | 59 | 60 | N8 |
| | Annual | 80 | 0 | 13 | 13 | N8 |
| Particulates | 24-hour | 150 | 0 | 59 | 59 | N8 |
| | Annual | 50 | 0 | 24 | 24 | N8 |
| Nitrogen Dioxide | Annual | 100 | 0 | 46 | 46 | N8 |

Source: TAMS, 2001.

TABLE 5.23.5-3

**TOTAL CONSTRUCTION PERIOD EMISSIONS
KANKAKEE AND WILL COUNTY INAUGURAL ACQUISITION ALTERNATIVES**

| Source | VOCs | | CO (tpy) | NO _x (tpy) | PM ₁₀ (tpy) | SO ₂ (tpy) |
|-----------------------|------------|-------------|-------------|--------------------------|---------------------------|--------------------------|
| | (tpy) | (tpd) | | | | |
| Motorized Equipment | 30 | 0.17 | 104 | 394 | 28 | 36 |
| Asphalt Paving | 200 | 0.37 | -- | -- | -- | -- |
| Stripe Painting | 4 | 0.04 | | | | |
| Construction Vehicles | 3 | 0.02 | 32 | 5 | -- | -- |
| Fugitive Dust | -- | -- | -- | -- | 55 | -- |
| Total | 237 | 0.60 | 136 | 399 | 83 | 36 |

Source: TAMS, 2001

Note: tpy = tons per year; tpd = tons per day (typical summer day)

Kankakee Ultimate Acquisition Alternative

A summary of the total emissions due to operation of a conceptual airport at the Kankakee Ultimate Acquisition Alternative is presented in [Table 5.23.5-4](#). Area source emissions from existing sources within the acquisition alternative would be eliminated, resulting in minor emissions reductions of PM₁₀ of 264 tons per year from agricultural practices.

The refined EDMS modeling analysis utilized two discrete points that represent airport terminal sensitive receptors. These are labeled as “A” receptors in [Figure 5.23.5-2](#). Another eight receptor points (labeled “B” receptors) were placed at the Ultimate Acquisition Alternative boundary near the heavily traveled airport access roadways in order to evaluate the worst air quality impacts from a conceptual ultimate airport. Another 15 receptor locations (labeled “N” receptors) were placed at nearby parks and other sensitive locations in the towns of Peotone and Manteno in order to evaluate the impacts from the conceptual ultimate airport on these off-site sensitive areas. The results of refined modeling runs are presented in [Table 5.23.5-5](#). The table shows the maximum concentration for each of three types of receptor locations: on-airport, property boundary line and neighborhood. The modeling results plus background are below the NAAQS for the year 2020.

Roadway intersection sites were selected where the project would be expected to produce its maximum CO impacts and at locations where violations of NAAQS may occur. The largest ground traffic impacts from a conceptual ultimate airport would be at locations near an airport, as traffic would disperse when it moves away from the Ultimate Acquisition Alternative. CO violations would be most likely to occur where a large number of vehicles are idling (i.e., at congested intersections).

Based on the preliminary review of trip generation and assignments, together with aerial photography and future roadway plans, intersections were selected (see [Figure 5.5-1](#)) at the Kankakee Ultimate Acquisition Alternative that were subjected to CO modeling analysis.

TABLE 5.23.5-4

**AIRPORT OPERATIONAL EMISSIONS
KANKAKEE ULTIMATE ACQUISITION ALTERNATIVE**

| Source | VOCs | | CO (tpy) | NO _x (tpy) | PM ₁₀ (tpy) | SO ₂ (tpy) |
|-----------------------|-------|-------|-------------|--------------------------|---------------------------|--------------------------|
| | (tpy) | (tpd) | | | | |
| Aircraft Sources | 1,124 | 3.1 | 5,308 | 5,968 | 23 | 210 |
| Motor Vehicle Sources | 468 | 1.3 | 4,951 | 929 | 5 | 1 |
| Stationary Sources | 26 | 0.1 | 20 | 221 | 1 | 2 |
| Total | 1,618 | 4.5 | 10,279 | 7,118 | 29 | 213 |

Source: TAMS, 1996e.

Notes:

1. TPD for VOCs are presented for a typical summer weekday to address ozone nonattainment in the region and general conformity.
2. Totals may not add exactly due to rounding.
3. Aircraft sources in this table include the aircraft and ground support equipment.

TABLE 5.23.5-5

**PROJECTED MAXIMUM POLLUTANT CONCENTRATIONS
KANKAKEE ULTIMATE ACQUISITION ALTERNATIVE**

| Pollutant | Averaging Period | Standard (ug/m3) | Projected Conc. (ug/m3) | Background Conc. (ug/m3) | Total (ug/m3) | Receptor |
|--|------------------|------------------|-------------------------|--------------------------|---------------|----------|
| On-Airport Concentrations | | | | | | |
| Carbon Monoxide | 1-hour | 40,000 | 2,179 | 5,839 | 8,018 | A1 |
| | 8-hour | 10,000 | 816 | 4,122 | 4,938 | A1 |
| Sulfur Dioxide | 3-hour | 1,300 | 15.5 | 180 | 196 | A1 |
| | 24-hour | 365 | 7.0 | 59 | 66 | A1 |
| | Annual | 80 | 0.5 | 13 | 14 | A2 |
| Particulates | 24-hour | 150 | 0.3 | 59 | 59 | A2 |
| | Annual | 50 | 0.1 | 24 | 24 | A2 |
| Nitrogen Dioxide | Annual | 100 | 29.8 | 46 | 76 | A2 |
| Boundary (Airport Property Line) Concentrations | | | | | | |
| Carbon Monoxide | 1-hour | 40,000 | 3,500 | 5,839 | 9,339 | B5 |
| | 8-hour | 10,000 | 1,354 | 4,122 | 5,476 | B5 |
| Sulfur Dioxide | 3-hour | 1,300 | 10.6 | 180 | 191 | B8 |
| | 24-hour | 365 | 4.8 | 59 | 64 | B8 |
| | Annual | 80 | 0.1 | 13 | 13 | B8 |
| Particulates | 24-hour | 150 | 0.7 | 59 | 60 | B5 |
| | Annual | 50 | 0.3 | 24 | 24 | B5 |
| Nitrogen Dioxide | Annual | 100 | 48.6 | 46 | 95 | B5 |
| Neighborhood Concentrations | | | | | | |
| Carbon Monoxide | 1-hour | 40,000 | 437 | 5,839 | 6,276 | N9 |
| | 8-hour | 10,000 | 181 | 4,122 | 4,303 | N9 |
| Sulfur Dioxide | 3-hour | 1,300 | 4.6 | 180 | 185 | N15 |
| | 24-hour | 365 | 2.1 | 59 | 61 | N15 |
| | Annual | 80 | 0.1 | 13 | 13 | N6 |
| Particulates | 24-hour | 150 | 0.1 | 59 | 59 | N5 |
| | Annual | 50 | 0.1 | 24 | 24 | N9 |
| Nitrogen Dioxide | Annual | 100 | 2.3 | 46 | 48 | N6 |

Source: TAMS, 1996e.

TABLE 5.23.5-6

PROJECTED 2020 MAXIMUM CARBON MONOXIDE LEVELS
KANKAKEE ULTIMATE ACQUISITION ALTERNATIVE

| Intersection | | No Action | | Kankakee Alternative | |
|--------------|--|-----------|--------|----------------------|--------|
| Int # | Description | 1-hour | 8-hour | 1-hour | 8-hour |
| 1 | US 45/Manhattan-Monee Road | 2.5 | 2.1 | 16.1 | 11.6 |
| 2 | US 45/Wilmington-Peotone Road | 2.5 | 2.1 | 22.1 | 15.8 |
| 3 | I-57/Wilmington-Peotone Road (West) | 3.0 | 2.4 | 9.1 | 6.7 |
| 4 | I-57/Wilmington-Peotone Road (East) | 2.7 | 2.2 | 12.6 | 9.1 |
| 5 | IL 50/Wilmington-Peotone Road | 2.2 | 1.9 | 12.2 | 8.9 |
| 6 | Harlem/Manhattan-Monee Road | 2.3 | 1.9 | 7.2 | 5.4 |
| 7 | IL 50/Manteno Road | 3.1 | 2.5 | 11.8 | 8.6 |
| 8 | I-57/Manteno Road (East) | 8.1 | 6.0 | 11.0 | 8.0 |
| 9 | I-57/Manteno Road (West) | 2.8 | 2.3 | 12.3 | 8.9 |
| 10 | US 45 & 52/Manteno Road | 2.3 | 1.9 | 12.4 | 9.0 |
| 11 | I-57/IL 50 (East) | 3.2 | 2.6 | 13.1 | 9.5 |
| 12 | I-57/IL 50 (West) | 3.2 | 2.6 | 13.1 | 9.5 |
| 13 | US 45 & 52/Armour Road | 3.4 | 2.7 | 8.6 | 6.3 |
| 14 | IL-102/Deselm Road | 1.7 | 1.5 | 10.2 | 7.5 |
| 15 | Warner Bridge Road/Manteno Road | 2.5 | 2.1 | 13.7 | 9.9 |
| 16 | IL-53/Wilmington-Peotone Road | 2.6 | 2.1 | 8.0 | 5.9 |
| 17 | US-52/(Wilton Center Road)/Joliet Road | 2.4 | 2.0 | 6.2 | 4.7 |
| 18 | US 45 & 52/Airport Access Road (North) | N/A | N/A | 12.7 | 9.2 |
| 19 | US 45 & 52/Airport Access Road (South) | N/A | N/A | 12.7 | 9.2 |
| 20 | I-57/Airport Access Road (East) | N/A | N/A | 3.6 | 2.8 |
| 21 | I-57/Airport Access Road (West) | N/A | N/A | 4.4 | 3.4 |

Source: TAMS, 1997.

Note: Levels include background concentrations of 1.4 ppm (1-hour) and 1.3 ppm (8-hour).

The results of the computer modeling are presented in [Table 5.23.5-6](#) for the intersections studied at the Kankakee Alternative site. Concentrations under the No-Action Alternative are lower than existing concentrations due to per vehicle emission reductions resulting from Federal and state vehicle emission control programs. No exceedances of the 35 ppm one-hour CO standard were predicted at any of the locations studied. However, exceedances of the 9 ppm eight-hour CO standard were predicted at intersections 1, 2, 4, 11, 12, 15, 18 and 19 in 2020 under the Kankakee Ultimate Acquisition Alternative.

Construction period emissions were estimated for phases of construction for a conceptual ultimate airport, including airport access roads, as shown in [Table 5.23.5-7](#).

TABLE 5.23.5-7

**TOTAL CONSTRUCTION PERIOD EMISSIONS
KANKAKEE AND WILL COUNTY ULTIMATE ACQUISITION ALTERNATIVES**

| | VOCs | | CO (tpy) | NO _x (tpy) | PM ₁₀ (tpy) | SO ₂ (tpy) |
|-------------------------|------------|-------------|-------------|--------------------------|---------------------------|--------------------------|
| | (tpy) | (tpd) | | | | |
| Phase I Source | | | | | | |
| Motorized Equipment | 60 | 0.17 | 208 | 788 | 56 | 71 |
| Asphalt Paving | 401 | 0.37 | -- | -- | -- | -- |
| Stripe Painting | 8 | 0.04 | | | | |
| Construction Vehicles | 5 | 0.02 | 63 | 10 | -- | -- |
| Fugitive Dust | -- | -- | -- | -- | 109 | -- |
| Total | 474 | 0.60 | 271 | 798 | 165 | 71 |
| Phase II Source | | | | | | |
| Motorized Equipment | 29 | 0.08 | 99 | 376 | 27 | 34 |
| Asphalt Paving | 323 | 1.69 | -- | -- | -- | -- |
| Stripe Painting | 5 | 0.05 | | | | |
| Construction Vehicles | 2 | 0.01 | 23 | 4 | -- | -- |
| Fugitive Dust | -- | -- | -- | -- | 26 | -- |
| Total | 359 | 1.83 | 122 | 380 | 53 | 34 |
| Phase III Source | | | | | | |
| Motorized Equipment | 29 | 0.08 | 99 | 376 | 27 | 34 |
| Asphalt Paving | 363 | 1.90 | -- | -- | -- | -- |
| Stripe Painting | 6 | 0.04 | | | | |
| Construction Vehicles | 2 | 0.01 | 23 | 4 | -- | -- |
| Fugitive Dust | -- | -- | -- | -- | 84 | -- |
| Total | 400 | 2.03 | 122 | 380 | 111 | 34 |

Source: TAMS, 1997c

Note: tpy = tons per year; tpd = tons per day.

Will County Inaugural Acquisition Alternative

A summary of the total emissions due to operation of a conceptual airport at the Will County Inaugural Acquisition Alternative is presented in [Table 5.23.5-8](#). The results presented in [Table 5.23.5-8](#) indicate that the aircraft source emissions would be less than half than those predicted for the Phase I conceptual airport described in the Sponsor's 1998 Environmental Assessment. The motor vehicle source emissions would be slightly less than half and stationary source emissions would be the same.

Area source emissions from existing sources within the site would be eliminated, resulting in minor emissions reductions of PM₁₀ of 46 tons per year from agricultural practices.

The refined EDMS modeling analysis utilized two discrete points that represent airport terminal sensitive receptors. These are labeled as "A" receptors in [Figure 5.23.5-3](#). Another 20 receptor points (labeled "B" receptors) were placed at the Inaugural Acquisition Alternative boundary. Another 17 receptor locations (labeled "N" receptors) were placed at nearby parks and other sensitive locations in the towns of Peotone, Monee and Beecher in order to evaluate the impacts from the conceptual inaugural airport on these off-site sensitive areas. The results of refined modeling runs are presented in [Table 5.23.5-9](#). The table shows the maximum concentration for each of three types of receptor locations: on-airport, property boundary line and neighborhood. The modeling results plus background are below the NAAQS.

Construction period emissions were estimated for construction of a conceptual inaugural airport, including airport access roads, as shown in [Table 5.23.5-3](#).

TABLE 5.23.5-8

**AIRPORT OPERATIONAL EMISSIONS
WILL COUNTY INAUGURAL ACQUISITION ALTERNATIVE**

| Sources | VOCs | | CO (tpy) | NO _x (tpy) | PM10 (tpy) | SO ₂ (tpy) |
|-----------------------|------------|------------|--------------|--------------------------|---------------|--------------------------|
| | (tpy) | (tpd) | | | | |
| Aircraft Sources | 152 | 0.4 | 889 | 824 | 5 | 73 |
| Motor Vehicle Sources | 123 | 0.3 | 852 | 109 | 5 | 6 |
| Stationary Sources | 8 | 0.0 | 5 | 20 | 0 | 0 |
| Total | 283 | 0.7 | 1,746 | 954 | 10 | 79 |

Source: TAMS, 2001.

Notes:

1. TPD for VOCs are presented for a typical summer weekday to address ozone nonattainment in the region and general conformity.
2. Totals may not add exactly due to rounding.
3. Aircraft sources in this table include the aircraft and ground support equipment.

TABLE 5.23.5-9

**PROJECTED MAXIMUM POLLUTANT CONCENTRATIONS
WILL COUNTY INAUGURAL ACQUISITION ALTERNATIVE**

| Pollutant | Averaging Period | Standard (ug/m3) | Projected Conc. (ug/m3) | Background Conc. (ug/m3) | Total (ug/m3) | Receptor |
|--|------------------|------------------|-------------------------|--------------------------|---------------|----------|
| On-Airport Concentrations | | | | | | |
| Carbon Monoxide | 1-hour | 40,000 | 12,003 | 5,839 | 17,842 | A2 |
| | 8-hour | 10,000 | 2,010 | 4,122 | 6,132 | A2 |
| Sulfur Dioxide | 3-hour | 1,300 | 63 | 180 | 243 | A2 |
| | 24-hour | 365 | 10 | 59 | 69 | A2 |
| | Annual | 80 | 1 | 13 | 14 | A2 |
| Particulates | 24-hour | 150 | 3 | 59 | 62 | A2 |
| | Annual | 50 | 1 | 24 | 25 | A2 |
| Nitrogen Dioxide | Annual | 100 | 20 | 46 | 66 | A2 |
| Boundary (Airport Property Line) Concentrations | | | | | | |
| Carbon Monoxide | 1-hour | 40,000 | 5,093 | 5,839 | 10,932 | B20 |
| | 8-hour | 10,000 | 1,357 | 4,122 | 5,479 | B20 |
| Sulfur Dioxide | 3-hour | 1,300 | 87 | 180 | 267 | B20 |
| | 24-hour | 365 | 20 | 59 | 79 | B20 |
| | Annual | 80 | 2 | 13 | 15 | B20 |
| Particulates | 24-hour | 150 | 16 | 59 | 75 | B20 |
| | Annual | 50 | 1 | 24 | 25 | B20 |
| Nitrogen Dioxide | Annual | 100 | 32 | 46 | 78 | B20 |
| Neighborhood Concentrations | | | | | | |
| Carbon Monoxide | 1-hour | 40,000 | 650 | 5,839 | 6,489 | N7 |
| | 8-hour | 10,000 | 100 | 4,122 | 4,222 | N7 |
| Sulfur Dioxide | 3-hour | 1,300 | 10 | 180 | 190 | N7 |
| | 24-hour | 365 | 1 | 59 | 60 | N7 |
| | Annual | 80 | 0 | 13 | 13 | N6 |
| Particulates | 24-hour | 150 | 0 | 59 | 59 | N7 |
| | Annual | 50 | 0 | 24 | 24 | N3 |
| Nitrogen Dioxide | Annual | 100 | 0 | 46 | 46 | N6 |

Source: TAMS, 2001.

Will County Ultimate Acquisition Alternative

A summary of the total emissions due to operation of a conceptual airport at the Will County Ultimate Acquisition Alternative is presented in [Table 5.23.5-10](#). Emissions due to motor vehicles reflected in this table are much higher under the Will County Ultimate Acquisition Alternative when compared to the Kankakee Ultimate Acquisition Alternative due to the location of the East-West Airport Access Road within the acquisition alternative boundary. Area source emissions from existing sources within the acquisition alternative would be eliminated, resulting in minor emissions reductions of PM₁₀ of 204 tons per year from agricultural practices.

The refined EDMS modeling analysis utilized a set of 22 discrete receptor points placed within the acquisition alternative, 38 polar receptor points placed at 10 degree intervals at the Ultimate Acquisition Alternative boundary and 17 receptor locations placed at nearby parks and other sensitive locations in the towns of Peotone, Monee and Beecher. These receptor locations are presented in [Figure 5.23.5-4](#). The results of refined modeling runs are presented in [Table 5.23.5-11](#). The table shows the maximum concentration for each of three types of receptor locations: on-airport, property boundary line and neighborhood. The modeling results plus background are below the NAAQS for the year 2020.

Roadway intersection sites were selected where the project would be expected to produce its maximum CO impacts and at locations where violations of NAAQS may occur. The largest ground traffic impacts from a conceptual airport would be at locations near the airport, as traffic would disperse when it moves away from the site. CO violations would be most likely to occur where a large number of vehicles are idling (i.e., at congested intersections).

Based on the preliminary review of trip generation and assignments, together with aerial photography and future roadway plans, intersections were selected (see [Figure 5.5-2](#)) at the Will County Ultimate Acquisition Alternative that were subjected to CO modeling analysis.

The results of the computer modeling are presented in [Table 5.23.5-12](#) for the intersections studied at the Will County Ultimate Acquisition Alternative. Concentrations under the No-Action Alternative are lower than existing concentrations due to per vehicle emission reductions resulting from Federal and state vehicle emission control programs. No exceedances of the 35 ppm one-hour CO standard were predicted at any of the locations studied. Likewise, no exceedances of the 9 ppm eight-hour standard were predicted at any of the locations studied under the Will County Ultimate Acquisition Alternative.

Since the EDMS model does not allow enough flexibility in choosing emission factor inputs (thus, not permitting a more accurate assessment of vehicle idling emissions), a separate study was undertaken of the terminal area for the Will County Ultimate Acquisition Alternative, which represents the worst-case scenario for traffic impacts at the terminal area. The Mobile5a emission model and the CAL3QHC dispersion model were used with the same conditions and options utilized for the intersection CO modeling. The worst case one-hour CO impact including background) would be 5.1 ppm for 2020. The worst case eight-hour concentration would be 3.9 ppm. Therefore, there are no violations of the NAAQS for CO from ground vehicles at the conceptual terminal area.

Construction period emissions were estimated for construction of a conceptual ultimate airport, including airport access roads, as shown in [Table 5.23.5-7](#).

TABLE 5.23.5-10

**AIRPORT OPERATIONAL EMISSIONS
WILL COUNTY ULTIMATE ACQUISITION ALTERNATIVE**

| Sources | VOCs | | CO (tpy) | NO _x (tpy) | PM10 (tpy) | SO ₂ (tpy) |
|-----------------------|--------------|------------|---------------|--------------------------|---------------|--------------------------|
| | (tpy) | (tpd) | | | | |
| Aircraft Sources | 1,124 | 3.1 | 5,308 | 5,968 | 23 | 210 |
| Motor Vehicle Sources | 1,451 | 4.0 | 14,903 | 2,853 | 15 | 2 |
| Stationary Sources | 26 | 0.1 | 20 | 221 | 1 | 2 |
| Total | 2,600 | 7.2 | 20,232 | 9,042 | 38 | 214 |

Source: TAMS, 1996e.

Notes:

1. TPD for VOCs are presented for a typical summer weekday to address ozone nonattainment in the region and general conformity.
2. Totals may not add exactly due to rounding.
3. Aircraft sources in this table include the aircraft and ground support equipment.

TABLE 5.23.5-11

**PROJECTED MAXIMUM POLLUTANT CONCENTRATIONS
WILL COUNTY ULTIMATE ACQUISITION ALTERNATIVE**

| Pollutant | Averaging Period | Standard (ug/m3) | Projected Conc. (ug/m3) | Background Conc. (ug/m3) | Total (ug/m3) | Receptor |
|--|------------------|------------------|-------------------------|--------------------------|---------------|----------|
| On-Airport Concentrations | | | | | | |
| Carbon Monoxide | 1-hour | 40,000 | 2,810 | 5,839 | 8,649 | A14 |
| | 8-hour | 10,000 | 1,178 | 4,122 | 5,300 | A12 |
| Sulfur Dioxide | 3-hour | 1,300 | 51.5 | 180 | 232 | A2 |
| | 24-hour | 365 | 22.9 | 59 | 82 | A2 |
| | Annual | 80 | 0.4 | 13 | 13 | A19 |
| Particulates | 24-hour | 150 | 0.5 | 59 | 60 | A10 |
| | Annual | 50 | 0.1 | 24 | 24 | A10 |
| Nitrogen Dioxide | Annual | 100 | 35.9 | 46 | 82 | A10 |
| Boundary (Airport Property Line) Concentrations | | | | | | |
| Carbon Monoxide | 1-hour | 40,000 | 4,927 | 5,839 | 10,766 | B2 |
| | 8-hour | 10,000 | 1,956 | 4,122 | 6,078 | B38 |
| Sulfur Dioxide | 3-hour | 1,300 | 16.4 | 180 | 196 | B11 |
| | 24-hour | 365 | 7.3 | 59 | 66 | B11 |
| | Annual | 80 | 0.2 | 13 | 13 | B8 |
| Particulates | 24-hour | 150 | 0.7 | 59 | 60 | B2 |
| | Annual | 50 | 0.2 | 24 | 24 | B2 |
| Nitrogen Dioxide | Annual | 100 | 42.5 | 46 | 89 | B3 |
| Neighborhood Concentrations | | | | | | |
| Carbon Monoxide | 1-hour | 40,000 | 2,074 | 5,839 | 7,913 | N4 |
| | 8-hour | 10,000 | 829 | 4,122 | 4,951 | N15 |
| Sulfur Dioxide | 3-hour | 1,300 | 9.8 | 180 | 190 | N6 |
| | 24-hour | 365 | 4.3 | 59 | 63 | N6 |
| | Annual | 80 | 0.1 | 13 | 13 | N16 |
| Particulates | 24-hour | 150 | 0.2 | 59 | 59 | N15 |
| | Annual | 50 | 0.1 | 24 | 24 | N3 |
| Nitrogen Dioxide | Annual | 100 | 15.9 | 46 | 62 | N3 |

Source: TAMS, 1996e.

TABLE 5.23.5-12

**PROJECTED 2020 MAXIMUM CARBON MONOXIDE LEVELS
WILL COUNTY ULTIMATE ACQUISITION ALTERNATIVE**

| Intersection | | No Action | | Will County Alternative | |
|--------------|---|-----------|--------|-------------------------|--------|
| Int # | Description | 1-hour | 8-hour | 1-hour | 8-hour |
| 1 | US 45/Manhattan-Monee Road | 2.5 | 2.1 | 4.4 | 3.4 |
| 2 | US 45/Wilmington-Peotone Road | 2.5 | 2.1 | 5.7 | 4.3 |
| 3 | I-57/Wilmington-Peotone Road (West) | 3.0 | 2.4 | 8.6 | 6.3 |
| 4 | I-57/Wilmington-Peotone Road (East) | 2.7 | 2.2 | 7.1 | 5.3 |
| 5 | IL 50/Wilmington-Peotone Road | 2.2 | 1.9 | 6.7 | 5.0 |
| 6 | Harlem/Manhattan-Monee Road | 2.3 | 1.9 | 5.9 | 4.5 |
| 7 | I-57/Manhattan-Monee Road (West) | 2.9 | 2.4 | 9.1 | 6.7 |
| 8 | I-57/Manhattan-Monee Road (East) | 2.7 | 2.2 | 6.9 | 5.2 |
| 9 | IL 50/Crete-Monee Road | 2.3 | 1.9 | 7.5 | 5.6 |
| 10 | IL 50/Exchange Road | 5.4 | 4.1 | 6.5 | 4.9 |
| 11 | IL 50/Sauk Trail | 5.9 | 4.5 | 6.9 | 5.2 |
| 12 | Governors Hwy/Sauk Trail | 6.8 | 5.1 | 7.0 | 5.2 |
| 13 | Western Avenue/Sauk Trail | 9.5 | 7.0 | 7.9 | 5.9 |
| 14 | Western Avenue/Exchange Road | 4.3 | 3.3 | 7.3 | 5.4 |
| 15 | IL 394/Indiana Avenue | 3.1 | 2.5 | 3.4 | 2.7 |
| 16 | IL 394/East-West Airport Connector Road | 2.4 | 2.0 | 4.5 | 3.5 |
| 17 | IL 394/Goodenow (West) | 2.0 | 1.7 | 2.9 | 2.4 |
| 18 | IL 394/Goodenow (East) | 2.4 | 2.0 | 3.5 | 2.8 |
| 19 | IL 1/East-West Airport Connector Rd (North) | 2.0 | 1.7 | 6.1 | 4.6 |
| 20 | IL 1/East-West Airport Connector Rd (South) | N/A | N/A | 6.5 | 4.9 |
| 21 | IL 1/Exchange Road | 4.0 | 3.1 | 6.6 | 4.9 |
| 22 | IL 1/Steger Road | 4.2 | 3.3 | 5.7 | 4.3 |
| 23 | IL 394/Exchange Road | 3.7 | 2.9 | N/A | N/A |
| 24 | Eliminated from traffic network | -- | -- | -- | -- |
| 25 | IL 394/Sauk Trail (East) | 6.9 | 5.2 | 5.5 | 4.2 |
| 26 | IL 394/Sauk Trail (West) | N/A | N/A | 5.0 | 3.8 |
| 27 | IL 394/Glenwood-Dyer Road (West) | 3.8 | 3.0 | 5.5 | 4.2 |
| 28 | IL 394/Glenwood-Dyer Road (East) | 3.2 | 2.6 | 4.3 | 3.3 |
| 29 | Lincoln Hwy/Torrence Avenue | 4.0 | 3.1 | 4.8 | 3.7 |
| 30 | US 41/US 231 | 4.0 | 3.1 | 5.1 | 3.9 |

Source: TAMS, 1996e.

Note: Levels include background concentrations of 1.4 ppm (1-hour) and 1.3 ppm (8-hour).

5.23.5.2 Potential Induced Cumulative Impacts

Air quality impacts of secondary development that would be generated by a conceptual supplemental airport was determined in terms of the level of the criteria pollutant emissions from fuel combustion. These emissions were estimated as area sources. The potential airport induced activities include: 1) commercial/institutional fuel combustion activities (for example, heating power plants) and 2) residential fuel combustion activities.

No-Action Alternative

Regional vehicle miles of travel (VMT) related emissions were calculated based on estimated trip length within geographical zones in the Chicago metropolitan region (Cook, Lake, DuPage, Will, Kankakee, Kane and McHenry Counties in Illinois, and Lake and Porter Counties in Indiana). The emissions the attributed to regional VMT-related emissions are shown in [Table 5.23.5-13](#).

Kankakee Inaugural Acquisition Alternative

Regional emissions of secondary development caused by a conceptual inaugural airport were calculated for the Kankakee Inaugural Acquisition Alternative and are shown in [Table 5.23.5.14](#). VMT-related emissions were calculated based on estimated trip length within geographical zones in the Chicago metropolitan region (Cook, Lake, DuPage, Will, Kankakee, Kane and McHenry Counties in Illinois, and Lake and Porter Counties in Indiana). For the Kankakee Inaugural Acquisition Alternative, it was estimated that regional VMTs would increase by 1.2 million VMTs on arterial roads and 350,000 VMTs on freeways.

TABLE 5.23.5-13

**REGIONAL VMT-RELATED EMISSIONS
NO-ACTION ALTERNATIVE (2020)**

| Road Type | Daily VMT | VOC (tpy) | NOx (tpy) | CO (tpy) |
|--------------|--------------------|---------------|---------------|----------------|
| Arterial | 100,144,500 | 32,562 | 62,545 | 532,315 |
| Freeway | 40,180,900 | 8,376 | 26,210 | 102,287 |
| Total | 140,325,400 | 40,938 | 88,755 | 634,602 |

Source: TAMS, 1996e.

TABLE 5.23.5-14

**EMISSIONS SUMMARY
KANKAKEE INAUGURAL ACQUISITION ALTERNATIVE**

| Activity | VOC (tpy) | NOx (tpy) | CO (tpy) | SO ₂ (tpy) | PM ₁₀ (tpy) |
|------------------------|--------------|--------------|--------------|-----------------------|------------------------|
| On-Airport Operation | 399 | 1,066 | 2,497 | 85 | 15 |
| Increased Regional VMT | 479 | 979 | 7,281 | -- | -- |
| Secondary Development | 732 | 438 | 134 | 156 | 53 |
| Agricultural Practices | -- | -- | -- | -- | (50) |
| Total | 1,610 | 2,483 | 9,894 | 241 | 18 |

Source: TAMS, 2001.

Kankakee Ultimate Acquisition Alternative

Regional emissions of secondary development caused by a conceptual ultimate airport were calculated for the Kankakee Ultimate Acquisition Alternative and are shown in [Table 5.23.5.15](#). VMT-related emissions were calculated based on estimated trip length within geographical zones in the Chicago metropolitan region (Cook, Lake, DuPage, Will, Kankakee, Kane and McHenry Counties in Illinois, and Lake and Porter Counties in Indiana). For the Kankakee Ultimate Acquisition Alternative, it was estimated that regional VMTs would increase by 6.2 million VMTs on arterial roads and 2 million VMTs on freeways.

Will County Inaugural Acquisition Alternative

Regional emissions of secondary development caused by a conceptual inaugural airport were calculated for the Will County Inaugural Acquisition Alternative and are shown in [Table 5.23.5.16](#). VMT-related emissions were calculated based on estimated trip length within geographical zones in the Chicago metropolitan region (Cook, Lake, DuPage, Will, Kankakee, Kane and McHenry Counties in Illinois, and Lake and Porter Counties in Indiana). For the Will County Inaugural Acquisition Alternative, it was estimated that regional VMTs would increase by 863,000 VMTs on arterial roads and 230,000 VMTs on freeways.

Will County Ultimate Acquisition Alternative

Regional emissions of secondary development caused by a conceptual ultimate airport were calculated for the Will County Ultimate Acquisition Alternative and are shown in [Table 5.23.5.17](#). VMT-related emissions were calculated based on estimated trip length within geographical zones in the Chicago metropolitan region (Cook, Lake, DuPage, Will, Kankakee, Kane and McHenry Counties in Illinois, and Lake and Porter Counties in Indiana). For the Will County Ultimate Acquisition Alternative, it was estimated that regional VMTs would increase by 4.1 million VMTs on arterial roads and 685,000 VMTs on freeways.

TABLE 5.23.5-15

**EMISSIONS SUMMARY
KANKAKEE ULTIMATE ACQUISITION ALTERNATIVE**

| Activity | VOC (tpy) | NOx (tpy) | CO (tpy) | SO₂ (tpy) | PM10 (tpy) |
|------------------------|----------------------|----------------------|---------------------|---------------------------------|-----------------------|
| On-Airport Operation | 1,618 | 7,118 | 10,279 | 213 | 29 |
| Increased Regional VMT | 2,466 | 5,252 | 38,578 | -- | -- |
| Secondary Development | 5,279 | 3,056 | 954 | 1,083 | 369 |
| Agricultural Practices | -- | -- | -- | -- | (264) |
| Total | 9,363 | 15,426 | 49,811 | 1,296 | 134 |

Source: TAMS, 1996e.

TABLE 5.23.5-16

**EMISSIONS SUMMARY
WILL COUNTY INAUGURAL ACQUISITION ALTERNATIVE**

| Activity | VOC (tpy) | NOx (tpy) | CO (tpy) | SO₂ (tpy) | PM10 (tpy) |
|------------------------|----------------------|----------------------|---------------------|---------------------------------|-----------------------|
| On-Airport Operation | 283 | 954 | 1,746 | 79 | 10 |
| Increased Regional VMT | 345 | 699 | 5,263 | -- | -- |
| Secondary Development | 742 | 443 | 136 | 158 | 53 |
| Agricultural Practices | -- | -- | -- | -- | (46) |
| Total | 1,370 | 2,096 | 7,145 | 237 | 17 |

Source: TAMS, 2001.

TABLE 5.23.5-17

**EMISSIONS SUMMARY
WILL COUNTY ULTIMATE ACQUISITION ALTERNATIVE**

| Activity | VOC (tpy) | NOx (tpy) | CO (tpy) | SO₂ (tpy) | PM10 (tpy) |
|------------------------|----------------------|----------------------|---------------------|---------------------------------|-----------------------|
| On-Airport Operation | 2,600 | 9,042 | 20,232 | 214 | 38 |
| Increased Regional VMT | 1,452 | 2,963 | 23,157 | -- | -- |
| Secondary Development | 5,269 | 3,045 | 950 | 1,080 | 368 |
| Agricultural Practices | -- | -- | -- | -- | (204) |
| Total | 9,321 | 15,050 | 44,339 | 1,294 | 202 |

Source: TAMS, 1996e.

5.23.6 WATER QUALITY AND QUANTITY

5.23.6.1 Potential Airport-Related Impacts

No-Action Alternative

There would be no impact to water resources associated with a conceptual airport under the No-Action Alternative. Under this alternative the existing and future residents would continue to withdraw water from the aquifer through wells, and the aquifer would be recharged. Groundwater quality of the Wheaton and Silurian dolomite aquifers is a composite of both the natural groundwater quality and human influences associated with urban development and agriculture. The human influences may be magnified or minimized, depending on the hydrogeologic conditions of a given area.

Possible features or conditions that would continue to have the potential to influence local groundwater quality include:

- Infiltration of fertilizers, herbicides and other agricultural products;
- Underground storage tanks;
- Beecher Landfill;
- Equipment maintenance activities; and
- Well injection (if any).

Kankakee Inaugural Acquisition Alternative

Surface Water

The conceptual inaugural airport may impact surface water quality during either airport construction or operation. Construction of a conceptual airport would require the relocation of substantial portions of existing streams and tributaries. For the inaugural airport approximately 3,300 feet of Forked Creek and 11,500 feet of the South Branch of Forked Creek would require relocation to accommodate runway and terminal construction. New channels would be constructed "in the dry" and connected to the existing channel. The new channels and any others that remain on the conceptual airport development site, but outside the construction impact area, would be protected by natural vegetative buffers. The primary water quality concerns are erosion and runoff of pollutants and their effects on water quality downstream, especially on the Kankakee River. Runoff from impervious surfaces such as runways and taxiways would be properly treated and/or controlled during construction and operation of the inaugural conceptual airport, prior to discharging into streams. All runoff would meet standards set forth in the IEPA NPDES General Permit for airports. Possible sources of surface water contamination from airport operations are as follows:

- Runoff from de-icing of runways and taxiways;
- Runoff from airport access roads;
- Potential leakage from detention basins and pipelines that contain de-icing chemicals;
- Potential leakage from aboveground jet fuel storage tanks in the tank fuel farm;
- Potential leakage from underground jet fuel distribution lines;
- Aviation fuel spills during jet refueling;
- Aircraft maintenance operations (e.g., jet engine overhaul, aircraft painting, aircraft washing);
- On-site wastewater treatment plant and associated sewer lines;
- Leakage from waste storage/staging areas;
- Other vehicle maintenance activities;
- Power generation facilities; and
- Parking areas.

Industrial wastes generated at an airport are discussed and estimated in [Section 19](#), Hazardous Waste. The development of a conceptual inaugural airport would impact approximately 2,640 acres. Of this area, approximately 750 acres would be paved, greatly increasing the rate of stormwater runoff. This presents several drainage design challenges, particularly at the terminal apron, which would consist of approximately 50 acres of concrete pavement. Only trace amounts of solvents, oils and fuel originating from refueling spills would find their way into the stormwater system since the majority of these wastes

would be captured and containerized or directed into a separation unit that removes solids and oils prior to pretreatment and disposal. The surface runoff from these areas and areas of high ground vehicular traffic (such as parking lots and the aircraft service vehicle movement areas) would be routed through in-pavement grease traps and oil/water separators prior to discharge into the storm drainage system. Those areas where low concentrations of pollutants are anticipated to be generated, such as runways, taxiways and roadways would have runoff partially treated by flow through vegetated filter strips prior to entry into drainage channels.

Groundwater

The construction of a conceptual inaugural airport would have a minimal effect on the groundwater with the exception of potential fuel spills and maintenance activities of construction equipment. The primary groundwater issue is the potential effect on public and private wells due to the operation of an airport facility. Possible sources of groundwater contamination from airport operation are listed above under Surface Water Quality. The increased area of impermeable surfaces would reduce the area available for groundwater recharge. However, it is anticipated that the overall effect on aquifer recharge would be minimal. A groundwater hydrological analysis will be required during the design phase of an inaugural airport, to better determine potential impacts to groundwater.

Consumption

Water supply requirements of a conceptual inaugural airport were estimated from the forecast of enplanements presented at the beginning of this section and by using recent data from Baltimore-Washington International, Logan International, Los Angeles International, Seattle-Tacoma International and Washington National Airports. These airports reported their most recent annual water consumption data and associated enplanements for the corresponding year. From these numbers a water usage per enplanement rate was calculated for each airport; these rates were then averaged to derive a 20-gallon per enplanement water consumption figure. The conceptual inaugural airport would require approximately 225,000 gallons of water per day based on peak month average day consumption. As previously shown in [Table 5.6-1](#), the region surrounding the acquisition alternative currently has approximately 26,000,000 gallons per day in pumping capacity not being consumed.

Wastewater

Sanitary wastewater at an airport would be generated by airline passengers and airport employees utilizing terminal and other airport facilities and would require treatment. Sanitary waste from aircraft chemical toilets would also require treatment. Generally, aircraft toilet wastes receive pretreatment prior to being added to the normal sanitary sewage stream. Airport sewage treatment requirements were estimated using projected water supply requirements. It was assumed that sewage treatment demand would be 85 percent of the water supply demand. Therefore, the conceptual inaugural airport would require the treatment of 190,000 gallons of sanitary wastewater per day. An airport operator would most likely contract with surrounding municipalities for treatment.

Kankakee Ultimate Acquisition Alternative

Surface Water

The conceptual ultimate airport would require approximately 37,900 feet of Forked Creek and 76,200 feet of the South Branch of Forked Creek to be relocated, along with 6,200 feet of Rock Creek to accommodate runway and terminal construction. New channels would be constructed "in the dry" and connected to the existing channel. The new channels and any others that remain on the conceptual ultimate airport development site, but outside the construction impact area, would be protected by natural vegetative buffers. The primary water quality concerns and possible sources of surface water contamination are the same as those presented under the conceptual inaugural airport. Runoff from an airport would be properly treated and/or controlled during construction and operation of the conceptual ultimate airport, prior to discharging into streams. All runoff would meet standards set forth in the IEPA NPDES General Permit for airports.

The conceptual ultimate airport would have a total impacted area of approximately 16,430 acres, of which approximately 2,420 acres would be paved, greatly increasing the rate of stormwater runoff. This presents several drainage design challenges, particularly at the terminal apron, which would consist of approximately 500 acres of concrete pavement. Because of its use as an aircraft parking, loading and fueling area, the potential for oil and grease spillage on the pavement exists. The increased area of impermeable surfaces would reduce the area available for groundwater recharge. However, it is anticipated that the overall effect on aquifer recharge would be minimal. A groundwater hydrological analysis will be required during the design phase of this project, to better determine potential impacts to groundwater.

Groundwater Quality

Potential impacts to groundwater would be similar to those described for the Kankakee Inaugural Acquisition Alternative. However the area of impermeable surfaces would be much greater, thereby reducing the area available for groundwater recharge.

Consumption

Water supply requirements of a conceptual ultimate airport were estimated using the methodology presented under the inaugural airport. The conceptual ultimate airport would require approximately 1,950,000 gallons of water per day based on peak month average day consumption. As previously shown in [Table 5.6-1](#), the region surrounding the acquisition alternative currently has approximately 26,000,000 gallons per day in pumping capacity not being consumed.

Wastewater

Sanitary wastewater at the conceptual ultimate airport would be generated by airline passengers and airport employees utilizing terminal and other airport facilities and would require treatment. Sanitary waste from aircraft chemical toilets would also require treatment. Generally, aircraft toilet wastes receive pretreatment prior to being added to the normal sanitary sewage stream. Airport sewage treatment requirements were estimated using projected water supply requirements. It was assumed that sewage

treatment demand would be 85 percent of the water supply demand. Therefore, the conceptual ultimate airport would require the treatment of 1 million gallons of sanitary wastewater per day. A wastewater treatment plant would be constructed on-site to handle this volume of wastewater.

Will County Inaugural Acquisition Alternative

Surface Water

For the conceptual inaugural airport, approximately 8,200 feet of Black Walnut Creek would require relocation to accommodate runway and terminal construction. New channels would be constructed "in the dry" and connected to the existing channel. The new channels and any others that remain on the conceptual airport development site, but outside the construction impact area, would be protected by natural vegetative buffers. The primary water quality concerns and possible sources of surface water contamination are the same as those presented above under the Kankakee Inaugural Acquisition Alternative. Runoff from the conceptual inaugural airport would be properly treated and/or controlled during construction and operation of the conceptual airport, prior to discharging into streams. All runoff would meet standards set forth in the IEPA NPDES General Permit for airports.

The conceptual airport development area and subsequent stormwater runoff rates would be similar to those of the Kankakee Inaugural Acquisition Alternative.

Groundwater

Potential impacts to groundwater would be the same as those discussed for the Kankakee Inaugural Acquisition Alternative.

Consumption

Water supply requirements of a conceptual inaugural airport were estimated using the methodology presented under the Kankakee Inaugural Acquisition Alternative. The conceptual inaugural airport would require approximately 225,000 gallons of water per day based on peak month average day consumption. As previously shown in [Table 5.6-1](#), the region surrounding an airport acquisition alternative currently has approximately 26,000,000 gallons per day in pumping capacity not being consumed.

Wastewater

Potential impacts to wastewater would be the same as those discussed for the Kankakee Inaugural Acquisition Alternative.

Will County Ultimate Acquisition Alternative

Surface Water

The conceptual ultimate airport would require approximately 40,200 feet of Black Walnut Creek to be relocated. New channels would be constructed "in the dry" and connected to the existing channel. The new channels and any others that remain on the conceptual airport development site, but outside the

construction impact area, would be protected by natural vegetative buffers. The primary water quality concerns and possible sources of surface water contamination are the same as those presented above under the Kankakee Inaugural Acquisition Alternative. Runoff from conceptual airport would be properly treated and/or controlled during construction and operation of conceptual airport, prior to discharging into streams. All runoff would meet standards set forth in the IEPA NPDES General Permit for airports.

The conceptual airport development area and subsequent stormwater runoff rates would be similar to those of the Kankakee Ultimate Acquisition Alternative.

Groundwater

Potential impacts to groundwater would be the same as those discussed for the Kankakee Ultimate Acquisition Alternative.

Consumption

Water supply requirements for the conceptual ultimate airport are the same as those described for the Kankakee Ultimate Acquisition Alternative. As previously shown in [Table 5.6-1](#), the region surrounding the acquisition alternative currently has approximately 26,000,000 gallons per day in pumping capacity not being consumed.

Wastewater

Potential impacts to wastewater would be the same as those discussed for the Kankakee Ultimate Acquisition Alternative.

5.23.6.2 Potential Induced Cumulative Impacts

No-Action Alternative

The Inaugural and Ultimate Cumulative Impact Study Areas are projected to realize a moderate growth rate in population of approximately 10 percent and 6 percent, respectively, over the next 20 years. Without adequate controls at the municipal and county levels, such as stormwater runoff ordinances and water quality protection plans, new development could negatively impact the existing surface and groundwater resources in the area. The major surface water features located within the cumulative impact study areas include the Des Plaines River, the Chicago Sanitary and Ship Canal, the Calumet River, Wolf Lake, Cedar Lake, Monee Reservoir, Iroquois River and the Kankakee River.

The construction of new roads and expansion of existing roads, especially highways, will increase rates of surface runoff. This increase in surface runoff may also potentially cause an increase in automotive and roadway pollutants entering area waterways if proper safeguards are not incorporated into roadway design. Other projects planned for the area include the Grand Kankakee Marsh National Wildlife Refuge, the restoration of Midewin National Tallgrass Prairie and several other initiatives that will act to protect area water quality.

Based on data collected by the U.S. Water Resources Council (1979), the average U.S. citizen consumes 118 gallons of water per day. Thus, the increased population in the Inaugural Impact Study Area would require approximately 820,000 gallons of water per day by 2020. The increased population in the Ultimate Impact Study Area would require approximately 13,750,000 gallons per day by 2020. As shown in [Table 5.6-1](#), there exists adequate reserve capacity to support this population increase.

Sewage treatment requirements (calculated at 85 percent of water supply requirements) would be approximately 700,000 gallons per day within the Inaugural Impact Study Area and 11,700,000 gallons per day within the Ultimate Impact Study Area.

Kankakee Inaugural Acquisition Alternative

Surface Water

A conceptual inaugural airport at the Kankakee Inaugural Acquisition Alternative would induce population to increase by approximately 12,900 and households by approximately 4,600 throughout the Inaugural Impact Study Area. This increase in population and households and the development associated with this population would place additional strain on the quality of surface water resources in the area. Without adequate controls at the municipal and county levels, such as stormwater runoff ordinances and water quality protection plans, new development could adversely impact the existing surface resources.

Increased runoff, sedimentation, and water quality degradation associated with induced development would likely impact the aquatic communities downstream of the development areas. Forked Creek would pass through a retention basin and pollution absorption marsh before leaving the Kankakee Inaugural Acquisition Alternative, removing any airport-related contamination. However, the combination of direct habitat loss through stream relocation and the various effects of induced development would likely result in the gradual, long-term degradation of streams near Inaugural Acquisition Alternative, including portions of the Kankakee River.

The Illinois Department of Natural Resources has determined that Rock Creek and Forked Creek are important spawning and nursery areas for river fishes, including smallmouth bass. IDNR considers the Kankakee River “a premier fishing river, excelling in a smallmouth bass and walleye fisheries, as well as supporting populations of six endangered and threatened animals.” IDNR is concerned that an airport at this site would affect high and low stream flows and the high quality fisheries, particularly in the Kankakee River (IDNR, 1997). See [Section 5.9](#), Biotic Communities, for more discussion on the aquatic ecosystems of this site.

Groundwater

The projected increase in population and development could adversely impact groundwater through:

- Infiltration of fertilizers, herbicides and other agricultural products;
- Fuels spills
- Leaking underground storage tanks;

- Beecher Landfill;
- Improper equipment maintenance activities;
- Well injection (if any); and
- Over withdrawal of groundwater.

Without adequate controls at the municipal and county levels, such as stormwater runoff ordinances and water quality protection plans, hazardous waste permitting and enforcement, new development could adversely impact the existing surface and groundwater resources.

Consumption

This increase in population would require an additional 1.5 million gallons of water per day. The Illinois Department of Natural Resources, Office of Water Resources (OWR), encourages water companies to switch from deep well withdrawals to taking surface waters from the Kankakee River since well withdrawals are undermining the regional aquifer. However, OWR would not object to deep well withdrawals as a back-up, if necessary. The U.S. Fish and Wildlife Service, however, expressed concern over the use of the Kankakee River for additional water supply because of potential impacts on aquatic life caused by "draw down" of river levels, particularly during low flow conditions (Nelson, 1990). According to the Director of Joliet Public Works, such withdrawals would be a concern during the 7-day, 10-year low flow period resulting in 440 cfs. During that period, regional water companies could switch to deep well withdrawal.

Wastewater

The projected increase in population will require sufficient sewage treatment capacity to treat 1.3 million gallons per day. Additional facilities will need to be constructed to handle the project capacity needs.

Kankakee Ultimate Acquisition Alternative

Surface Water

A conceptual ultimate airport at the Kankakee Ultimate Acquisition Alternative would induce population to increase by approximately 556,000 and households by approximately 188,000 throughout the Ultimate Impact Study Area. This increase in population and households and the development associated with this population would place additional strain on surface water resources in the area. Without adequate controls at the municipal and county levels, such as stormwater runoff ordinances and water quality protection plans, new development could negatively impact the existing surface and groundwater resources.

The population increases projected to occur under this alternative would necessitate the expansion and construction of roads, utilities and other support infrastructure, in conjunction with other projects identified on [Figure 5.23.1-1](#). This development would cause an increase in impermeable surfaces, which would in turn cause an increase in the rate of surface water runoff. Without adequate buffering or filtration, this could result in an increase in pollutants entering area waterways.

Groundwater

Potential impacts to groundwater would be the same as those for the Inaugural Acquisition Alternative, but on a larger scale.

Consumption

The projected increase in population would require an additional 65.6 million gallons of water per day. The same concerns expressed for the Kankakee Inaugural Acquisition Alternative also exist for the Kankakee Ultimate Acquisition Alternative.

Wastewater

The projected increase in population would require an additional 55.8 million gallons of sewage treatment capacity per day. Additional facilities will need to be constructed to handle the project capacity needs.

Will County Inaugural Acquisition Alternative

Surface Water

A conceptual inaugural airport at the Will County Inaugural Acquisition Alternative would induce population to increase by approximately 12,400 and households by approximately 4,300 throughout the Inaugural Impact Study Area. This increase in population and households and the development associated with this population would place additional strain on surface water resources in the area. Without adequate controls at the municipal and county levels, such as stormwater runoff ordinances and water quality protection plans, new development could negatively impact the existing surface water resources.

The headwaters of Rock Creek would be located within the proposed Raccoon Grove mitigation area. Cumulative runoff from airport access roads could impact the headwaters of Rock Creek without adequate protection. Although streams south of the Will County Ultimate Acquisition Alternative are degraded to some extent by agricultural runoff, siltation and channelization, care should be exercised to prevent any further decline in quality. Most of the area streams ultimately drain into the Kankakee River, which has excellent water quality with high biodiversity and substantial value as a state and national recreational resource.

Water flowing through Black Walnut Creek and the South Branch of Rock Creek would pass through detention basins and pollution absorption marshes, removing any airport-related contaminants before flowing beyond the Will County Inaugural Acquisition Alternative. Additional development close to streams could incrementally degrade water quality and alter flow rates.

Groundwater

Potential impacts to groundwater would be the same as those for the conceptual inaugural airport, but on a larger scale.

Consumption

The projected increase in population would require an additional 1.4 million gallons of water per day. CIWC of University Park has 3.5 million gallons per day of reserve capacity from four operating wells, which would satisfy the projected need. CIWC has three additional non-operating wells in the area that could be activated to serve future airport needs.

Wastewater

The projected increase in population would require an additional 1.2 million gallons of sewage treatment capacity per day. Additional facilities will need to be constructed to handle the project capacity needs.

Will County Ultimate Acquisition Alternative

Surface Water

A conceptual ultimate airport at the Will County Ultimate Acquisition Alternative would induce population to increase by approximately 403,000 and households by approximately 147,000 throughout the Ultimate Impact Study Area. This increase in population and households and the development associated with this population would place additional strain on surface water resources in the area. Without adequate controls at the municipal and county levels, such as stormwater runoff ordinances and water quality protection plans, new development could negatively impact the existing surface water resources.

The population increases projected to occur under this alternative would necessitate the expansion and construction of roads, utilities and other support infrastructure, in conjunction with other projects identified on [Figure 5.23.1-1](#). This development would cause an increase in impermeable surfaces, which would in turn cause an increase in the rate of surface water runoff. Without adequate buffering or filtration, this could result in an increase in pollutants entering area waterways.

Groundwater

Potential impacts to groundwater would be the same as those for the conceptual inaugural airport, but on a larger scale.

Consumption

The projected increase in population would require an additional 47.6 million gallons of water per day. Additional capacity, beyond that identified under the Will County Inaugural Airport, will be needed to meet future requirements.

Wastewater

The projected increase in population would require an additional 40.4 million gallons of sewage treatment capacity per day. Additional facilities will need to be constructed to handle the project capacity needs.

5.23.7 DOT SECTION 303(c) AND SECTION 6(f) LANDS

5.23.7.1 Potential Airport-Related Impacts

No-Action Alternative

Under the No-Action Alternative, no airport would be constructed, thus no airport-related impacts would occur to any DOT Section 303(c) or Section 6(f) lands.

Kankakee Acquisition Alternatives

The construction of either a conceptual inaugural or ultimate airport at either the Kankakee Inaugural or Ultimate Acquisition Alternatives would not directly impact any Section 303(c) or Section 6(f) land, as shown on [Figure 5.7-1](#), presented previously, and [Figures 5.23.1-2](#) and [5.23.1-4](#), respectively. Although development of an airport would cause the alteration of surface transportation patterns and volumes, the potential impacts are not expected to adversely affect any of the Section 303(c) lands in the vicinity of the site. [Figures 5.23.2-1](#) and [5.23.2-2](#) show the predicted aircraft noise contours for the Kankakee Inaugural and Ultimate Acquisition Alternatives; no Section 303(c) lands occur within the DNL 65 dBA noise contour (the significant noise threshold defined by FAA). Thus, no use or constructive use of Section 303(c) lands would occur under these alternatives.

The Illinois Department of Natural Resources (IDNR) remains concerned about the effects of ancillary development and potential noise impacts of arriving and departing aircraft on the Kankakee River State Park, Midewin National Tallgrass Prairie, Laughton Preserve, Des Plaines State Fish and Wildlife Area, Wilmington Shrub Prairie Nature Preserve, Braidwood Dunes and Savanna Nature Preserve and Sand Ridge Nature Preserve if an airport is constructed at this site. In particular, IDNR believes that an airport at the Kankakee site would have a significant negative impact on the natural resources and recreational uses of the Kankakee River State Park (IDNR, 1997).

Development of an airport at the Ultimate Acquisition Alternative may affect the planned acquisition of additional forest preserves by local governments or the Forest Preserve District of Will County.

Will County Inaugural Acquisition Alternative

The construction a conceptual inaugural airport at the Will County Inaugural Acquisition Alternative would not directly impact any Section 303(c) land, as shown on [Figures 5.7-2](#) and [5.23.1-3](#). Although development of an airport would cause the alteration of surface transportation patterns and volumes, the potential impacts are not expected to adversely affect any of the Section 303(c) lands in the vicinity of the site. [Figure 5.23.2-4](#) shows the predicted aircraft noise contours for the Will County Inaugural Acquisition Alternative; no Section 303(c) lands occur within the DNL 65 dBA or greater noise contour. Thus, no use or constructive use of Section 303(c) lands would occur under this alternative.

Will County Ultimate Acquisition Alternative

The construction a conceptual ultimate airport at the Will County Ultimate Acquisition Alternative would not directly impact any Section 303(c) land, as shown on [Figure 5.7-2](#), presented previously, and [Figure 5.23.1-5](#). However, both Monee Reservoir and Raccoon Grove Nature Preserve would be surrounded by airport property. Monee Reservoir and Raccoon Grove Nature Preserve each currently have only one public point of access. These two parcels are separated by Illinois Route 50 and the Illinois Central Railroad tracks. Access to these two parcels is from Pauling Road. Increasing traffic volumes along Illinois Route 50 may have an effect on the ease of getting in and out of either of these properties. Access would be preserved from Illinois Route 50 onto Pauling Road for both properties. Any future roadway improvements would provide adequate capacity for access.

[Figure 5.23.2-5](#) shows the predicted aircraft noise contours for the Will County Ultimate Acquisition Alternative. Approximately 17.6 percent of Monee Reservoir would be expected to be located within the DNL 65-70 dBA noise contour. This area is located at the extreme southern limit of the reservoir. Approximately 17.4 percent of Raccoon Grove Nature Preserve would also be within the DNL 65 dBA noise contour, and the DNL 70 dBA contour would extend to the eastern edge of the property. This area is currently used for special use permits and educational programs.

Depending on the use of the property and the predicted noise levels, noise impacts can be termed as a “constructive use” of the land. The FAA's land use compatibility guidelines (contained in Appendix A of 14 CFR Part 150, AC 150/5020-1) state that parks, amusements, resorts, public assembly, nature exhibits and group camps are compatible without restriction in areas of DNL 75 dBA or less. No DOT Section 303(c) parcels would be contained in the DNL 70-75 dBA or greater noise contours.

Indirect effects that could occur to Monee Reservoir and Raccoon Grove include airport development surrounding the land; visual and aesthetic changes from development outside the property due to operation of a major airport to the east; and limited ability to expand the facility in the future. Air quality impacts on these lands would not exceed the National Ambient Air Quality Standards under this alternative. Importantly, development of an airport at this site is not expected to interrupt the intended uses of these lands.

No temporary or permanent direct impacts are expected, nor any interference with or disruption to the recreational activities occurring at the reservoir and Raccoon Grove. Because the proposed development is not expected to interrupt the intended uses or purposes of the DOT Section 303(c) properties associated with the Will County Ultimate Acquisition Alternative, it is the FAA's belief that the proposed action would not cause constructive use of these resources.

However, the Forest Preserve District of Will County (FPDWC) is concerned that aircraft noise over Raccoon Grove and Monee Reservoir will have an impact on the recreational use of these properties and/or the wildlife utilizing them. They are also concerned that ancillary development induced by the conceptual ultimate airport could overwhelm their facility. IDOT has agreed to cooperate with the Forest Preserve District to formulate a methodology to determine when and if impacts caused by an airport raise to a level of significance that would require compensation due to “constructive use.” A Memorandum of

Agreement has been proposed in draft form by IDOT and the Forest Preserve District of Will County committing IDOT to hold meetings on a regular basis with the FPDWC during the planning, construction and operational phases of this project to evaluate impacts on these properties (see [Appendix G](#)). Any agreement between the Sponsor and the Forest Preserve District regarding potential impacts would not be binding on the FAA and would be subject to later review.

Other concerns of the Forest Preserve District include possible conflicts with the operation of an airport and the management goals and objectives of FPDWC properties. For example, the FPDWC is concerned that prescribed burning at Raccoon Grove may interfere with the operation of an airport. In conversations with the FAA, they indicated that as long as the prescribed burns were coordinated with the control tower, they would not interfere with airport operations. Another concern of the FPDWC is the possibility that the deer population within Raccoon Grove and the proposed expansion area might grow beyond the carrying capacity of the preserve. A wildlife management plan will need to be formulated in conjunction with the U.S. Department of Agriculture's Animal Damage Control office, for operation of an airport. IDOT is proposing to include Raccoon Grove and the proposed expansion areas, as part of this management plan. This plan would be coordinated with FPDWC staff to ensure that their management goals and objectives are met and not compromised.

5.23.7.2 Potential Induced Cumulative Impacts

The south suburban area of Chicago contains a variety of recreational sites and facilities. A few of the major recreational resources in the area include the Kankakee River State Park, Midewin National Tallgrass Prairie, Des Plaines State Fish & Wildlife Area, Palos/Sag Preserves, Thorn Creek Woods, the Indiana Dunes State Park, the Indiana Dunes National Lakeshore and La Salle State Fish & Wildlife Area (see [Figure 5.23.7-1](#)). Many local parks and recreation areas, such as greenways and hiking trails, also exist in the region.

Both Cook and Will Counties have Forest Preserve Districts with significant holdings. These county Forest Preserve Districts contain a network of nature centers and environmental education centers. Lake County has a park district, also with significant holdings. Kankakee County has formed the Kankakee River Valley Forest Preserve District to preserve open lands within Kankakee Township. However, Kankakee County does not have a Forest Preserve District. Townships also manage and maintain parks and recreational facilities, particularly in the more rural areas to the south. Communities and school districts also maintain local parks and recreational facilities.

General guidelines and policies for open space/recreation sites are established on an individual jurisdictional basis, except for State-mandated school recreation standards. The individual counties, together with NIPC, have assumed the lead in planning and implementing recreational projects on a regional basis. NIPC has extensive plans to expand existing greenways and acquire additional recreational lands. The *Northeastern Illinois Regional Greenways Plan*, the *Land Use Plan for the Eastern Will County Area*, the *Kankakee County Comprehensive Plan* and the *Will County Land Resource Management Plan* provide valuable resources for evaluating the existing conditions and proposed expansion of recreational areas.

No-Action Alternative

Although there would be no impacts resulting from the operation of a conceptual airport to DOT Section 303(c) lands, anticipated development, particularly near the Will County Acquisition Alternatives, would most likely continue to encroach from the north supporting a larger population base that would generate more users of these resources. Additional ground traffic caused by ongoing growth in the area and rail noise would continue.

Compared with constructing a new airport, the No-Action Alternative would result in lower combined noise effects over Section 303(c) lands in the area. Indirect effects resulting from air pollutants caused by ground vehicles and rail service would continue to increase over time. The greatest impact on the existing parks and recreation areas under the No-Action Alternative would be the increase in users as population in the region grows.

Expansion of recreational areas as outlined by the Northeastern Illinois Planning Commission (NIPC), the Northwestern Indiana Regional Planning Commission (NIRPC), Cook, Will and Kankakee Counties and Lake County in Indiana could proceed without additional requirements, since the current regional resources appear to have ample capacity for projected growth rates.

Formal planning efforts to preserve and acquire additional recreational lands, such as those proposed by Will County, Kankakee County and the Northeastern Illinois Planning Commission, primarily focus on watersheds in the townships on the northern and southern edges of the Primary Impact Areas. The Will County Forest Preserve District has established a planned ratio of 30 acres of forest preserve land per 1,000 county residents. To help meet this goal, a land acquisition program was proposed in 1996.

Kankakee County has extensive plans to develop greenways along the Kankakee River and the Iroquois River. The Kankakee River State Park, currently one of the most heavily visited parks in the state, is likely to continue to be enlarged through land acquisition and greenways. The U.S. Fish and Wildlife Service also has plans to acquire land along the Kankakee River in Momence Township as part of the Grand Kankakee Marsh National Wildlife Refuge.

Kankakee Inaugural Acquisition Alternative

Indirect effects, such as visual and aesthetic experiences resulting from new and secondary development in the area, could eventually encroach on existing Section 303(c) and Section 6(f) lands. The Kankakee River State Park would be especially vulnerable, since Rockville and Bourbonnais Townships are expected to experience large increases in population. Construction of the South Suburban/East-West Expressway could increase noise to forest preserves located along Plum Creek in Crete Township. Similarly, if the high speed rail alignment along Illinois Route 50 is selected, this could result in increased noise to DOT Section 303(c) lands located in Monee Township.

Projected population increases would require expanded community level recreation facilities that could be linked to school growth. The larger regional parks and preserves may need to be expanded as part of the plans sponsored by NIPC, NIRPC and individual county greenway plans. The moderate population

increases and recreation needs under this alternative can be accommodated by the combined school district and county/regional resource expansion.

NIPC's *Regional Open Space and Recreation Policy Plan* recommends that 30 acres of "local and regional" open space be provided for every 1000 residents. Thus, under the Kankakee Inaugural Acquisition Alternative, approximately 390 acres of open space would need to be preserved for the projected increase in population.

Kankakee Ultimate Acquisition Alternative

Indirect effects, such as visual and aesthetic experiences resulting from new and secondary development in the area, could eventually encroach on existing Section 303(c) and Section 6(f) lands. The Kankakee River State Park and Midewin National Tallgrass Prairie would be especially vulnerable, since Bourbonnais and Florence Townships are expected to experience large increases in population.

Construction of the South Suburban/East-West Expressway could increase noise to forest preserves located along Plum Creek in Crete Township. Similarly if the high speed rail alignment along Illinois Route 50 is selected, this would result in increased noise to DOT Section 303(c) lands located in Monee Township. The western high speed rail alignment along Illinois Route 53 would result in increased noise to Midewin National Tallgrass Prairie. [Figure 5.23.2-3](#) shows the cumulative noise impacts for the Kankakee Ultimate Acquisition Alternative. Laughton Preserve, Monee Reservoir, Raccoon Grove Nature Preserve, Kankakee River State Park and Sand Ridge Nature Preserve would all experience increased traffic noise as a result of airport-related traffic and induced increases in population.

Projected population increases would require expanded community level recreation facilities that could be linked to school growth. The larger regional parks and preserves may need to be expanded as part of the plans sponsored by NIPC, NIRPC and individual county greenway plans. The population increases and recreation needs under this alternative can be accommodated by the combined school district and county/regional resource expansion.

NIPC's *Regional Open Space and Recreation Policy Plan* recommends that 30 acres of "local and regional" open space be provided for every 1,000 residents. Thus, under the Kankakee Ultimate Acquisition Alternative, approximately 16,700 acres of open space would need to be preserved for the projected increase in population.

Will County Inaugural Alternative

Indirect effects, such as visual and aesthetic experiences resulting from new and secondary development in the area, could eventually encroach on existing Section 303(c) lands. The Monee Reservoir, Raccoon Grove Nature Preserve, Thorn Creek Woods, Goodenow Grove and Kankakee River State Park would be especially vulnerable, since Crete, Monee and Bourbonnais Townships are expected to experience large increases in population. Construction of the South Suburban/East-West Expressway could also increase noise to forest preserves located along Plum Creek in Crete Township. Similarly, if the high speed rail

alignment along Illinois Route 50 is selected, this could result in increased noise to DOT Section 303(c) lands located in Monee Township.

Projected population increases would require expanded community level recreation facilities that could be linked to school growth. The larger regional parks and preserves may need to be expanded as part of the plans sponsored by NIPC, NIRPC and individual county greenway plans. The moderate population increases and recreation needs under this alternative can be accommodated by the combined school district and county/regional resource expansion.

NIPC's *Regional Open Space and Recreation Policy Plan* recommends that 30 acres of "local and regional" open space be provided for every 1,000 residents. Thus, under the Will County Inaugural Alternative, approximately 360 acres of open space would need to be preserved for the projected increase in population.

Will County Ultimate Acquisition Alternative

Indirect effects, such as visual and aesthetic experiences resulting from new and secondary development in the area, could eventually encroach on existing Section 303(c) lands. Monee Reservoir, Raccoon Grove Nature Preserve, Thorn Creek Woods, Hickory Creek Preserves, Tinley Creek Preserves, Goodenow Grove and Plum Creek Preserves would be especially vulnerable, since Bloom, Bremen, Crete, Frankfort, Rich and Monee Townships are expected to experience large increases in population.

Construction of the South Suburban/East-West Expressway could increase noise to forest preserves located along Plum Creek in Crete Township. Similarly if the high speed rail alignment along Illinois Route 50 is selected, this would result in increased noise to DOT Section 303(c) lands located in Monee Township. The western high speed rail alignment along Illinois Route 53 would result in increased noise to Midewin National Tallgrass Prairie. [Figure 5.23.2-6](#) shows the cumulative noise impacts for the Will County Ultimate Acquisition Alternative. Monee Reservoir, Raccoon Grove Nature Preserve, Goodenow Grove Nature Preserve, Middle Plum Preserve, Thorn Creek Nature Preserve and Sauk Trail Woods would all experience increased traffic noise as a result of airport-related traffic and induced increases in population.

Projected population increases would require expanded community level recreation facilities that could be linked to school growth. The larger regional parks and preserves may need to be expanded as part of the plans sponsored by NIPC, NIRPC and individual county greenway plans. The population increases and recreation needs under this alternative can be accommodated by the combined school district and county/regional resource expansion.

NIPC's *Regional Open Space and Recreation Policy Plan* recommends that 30 acres of "local and regional" open space be provided for every 1,000 residents. Thus, under the Will County Ultimate Acquisition Alternative, approximately 12,000 acres of additional open space would need to be preserved for the projected increase in population inside the study area.

5.23.8 HISTORIC, ARCHITECTURAL, ARCHAEOLOGICAL AND CULTURAL RESOURCES

5.23.8.1 Potential Airport-Related Impacts

No-Action Alternative

Under the No-Action Alternative, no airport would be constructed; thus, no airport-related impacts would occur to any historic properties.

Kankakee Acquisition Alternatives

The Kankakee sites contain 7,500 acres of high probability archaeological zone lands. Should either of these alternatives be selected, the archaeological sites contained in the project area will be evaluated in terms of their potential significance under National Register Criteria D (potential to provide important information in prehistory and/or history). The results of a more complete pedestrian survey would be employed to make a determination of National Register eligibility for both archaeological and architectural sites. This documentation would be coordinated with the Illinois State Historic Preservation Officer (SHPO). These efforts, in addition to procedures for evaluating project affects on historic properties and resolving any adverse effects that may result from the selection of these alternatives, are included within a draft Programmatic Agreement (PA) among the FAA, the ACHP, the IDOT, and the SHPO. This draft PA stipulates how and when these procedures are to be implemented in the context of future tiered environmental documents.

Will County Alternatives

Archaeological resources located on the Will County Acquisition Alternatives, like those found in the Kankakee Acquisition Alternatives, consist of the remains of small- to medium-size temporary encampments largely, or wholly, confined to the plow zone. The Will County Acquisition Alternatives contain 8,000 acres of high probability archaeological zone lands. A determination of eligibility for the sites recorded during the survey of this alternative will be submitted under National Register Criteria D (potential to provide important information in prehistory and/or history). Following the Illinois SHPO recommendations (contained in correspondence dated August 26, 1996, [Appendix B](#)), further study of selected architectural sites would be submitted to the SHPO for review and evaluation. These efforts, in addition to procedures for evaluating project affects on historic properties and resolving any adverse effects that may result from the selection of these alternatives, are included within a draft Programmatic Agreement (PA) among the FAA, the ACHP, the IDOT, and the SHPO. This draft PA stipulates how and when these procedures are to be implemented in the context of future tiered environmental documents.

5.23.8.2 Potential Induced Cumulative Impacts

No-Action Alternative

There are 8 properties listed in the National Register of Historic Places within Kankakee County, 29 within Lake County, 25 within Will County and 11 within the Cook County portion of the study area. Only one National Historic Landmark is located within the Ultimate Cumulative Impact Study Area, and that is the Illinois and Michigan Canal Locks and Towpath, located near Joliet, Illinois in Will County.

Development pressure may increase on the few historic, archaeological, architectural and cultural resources located within the study area, as population increases. Proposed state transportation projects would either avoid or mitigate any impacts to these resources as they are designed and constructed. Increased industrial, commercial and residential development may also adversely affect these resources, but normal coordination through the Section 106 process, the Will County Historic Preservation Ordinance (1992, amended 1999) and/or the requirements of the Illinois State Agency Historic Resource Preservation Act (20 ILCS3420) should avoid or minimize these impacts.

Kankakee Inaugural Acquisition Alternative

There are 3 properties listed in the National Register of Historic Places within the Inaugural Cumulative Impact Study Area. These are Point School located in Grant Park (Yellowhead Township), the Windrose Site located in Bourbonnais (Bourbonnais Township) and the H. A. Rathje Mill located in Peotone (Peotone Township). There are no National Historic Landmarks located within the Inaugural Cumulative Impact Study Area. Federal, state, and county agencies responsible for regulating effects to these historic properties, through permitting and approval processes (in conjunction with county planning and zoning processes), would have primary roles in the protection of these resources. These planning and approval processes would help to avoid or minimize future cumulative effects from development that may result from this alternative. Specific methods to avoid and minimize cumulative effects to these resources would be identified during permitting and approval processes of individual projects within the Inaugural Cumulative Impact Study Area.

Kankakee Ultimate Acquisition Alternative

There are 8 properties listed in the National Register of Historic Places within Kankakee County, 29 within Lake County, 25 within Will County and 11 within the Cook County portion of the study area. None are located within the Kankakee Ultimate Acquisition Alternative; almost all are located within village or city limits. Only one National Historic Landmark is located within the Ultimate Cumulative Impact Study Area, and that is the Illinois and Michigan Canal Locks and Towpath, located near Joliet, Illinois in Will County. Federal, state, and county agencies responsible for regulating effects to these historic properties, through permitting and approval processes (in conjunction with county planning and zoning processes), would have primary roles in the protection of these resources. These planning and approval processes would help to avoid or minimize future cumulative effects from development that may result from this alternative. Specific methods to avoid and minimize cumulative effects to these resources would be identified during

permitting and approval processes of individual projects within the Ultimate Cumulative Impact Study Area.

Will County Inaugural Alternative

There are 3 properties listed in the National Register of Historic Places within the Inaugural Cumulative Impact Study Area. These are Point School located in Grant Park (Yellowhead Township), the Windrose Site located in Bourbonnais (Bourbonnais Township) and the H. A Rathje Mill located in Peotone (Peotone Township). There are no National Historic Landmarks located within the Inaugural Cumulative Impact Study Area. Federal, state, and county agencies responsible for regulating effects to these historic properties, through permitting and approval processes (in conjunction with county planning and zoning processes), would have primary roles in the protection of these resources. These planning and approval processes would help to avoid or minimize future cumulative effects from development that may result from this alternative. Specific methods to avoid and minimize cumulative effects to these resources would be identified during permitting and approval processes of individual projects within the Inaugural Cumulative Impact Study Area.

Will County Ultimate Acquisition Alternative

There are 8 properties listed in the National Register of Historic Places within Kankakee County, 29 within Lake County, 25 within Will County and 11 within the Cook County portion of the study area. None are located within the Will County Ultimate Acquisition Alternative; almost all are located within village or city limits. Only one National Historic Landmark is located within the Ultimate Cumulative Impact Study Area, and that is the Illinois and Michigan Canal Locks and Towpath, located near Joliet, Illinois in Will County. Federal, state, and county agencies responsible for regulating effects to these historic properties, through permitting and approval processes (in conjunction with county planning and zoning processes), would have primary roles in the protection of these resources. These planning and approval processes would help to avoid or minimize future cumulative effects from development that may result from this alternative. Specific methods to avoid and minimize cumulative effects to these resources would be identified during permitting and approval processes of individual projects within the Ultimate Cumulative Impact Study Area.

5.23.9 BIOTIC COMMUNITIES

5.23.9.1 Potential Airport-Related Impacts

No-Action Alternative

If an airport were not constructed at either of the two alternative sites, the existing land use and biotic communities would continue. Over time, as residential and commercial development increases in the area, the biotic composition of the sites would gradually change from species tolerant of agricultural activities to those tolerant of suburban land uses.

Kankakee Acquisition Alternatives

The biotic communities present within the Kankakee Acquisition Alternatives primarily consist of those requiring open space (grassland or prairie) and are tolerant of agricultural activities. As development of a conceptual airport progresses, a displacement of terrestrial and aquatic species would occur. Terrestrial species now present would experience temporary impacts, since a large amount of open space would be maintained and preserved within acquisition alternative boundary, and mitigation activities would focus on providing prairie/grassland habitat. Impacts to aquatic communities would be more severe due to the relocation of stream channels and temporary disturbance to substrate. Extensive mitigation and monitoring could be required to ensure that aquatic communities downstream of the Kankakee Acquisition Alternatives are not impacted.

Table 5.23.9-1 details the land use and land cover impacts that would result from construction of the Kankakee Inaugural and Ultimate Airport Alternative. As expected, most of the impacts would be to active cropland. Portions of Forked Creek rated as “highly valued” would be rerouted as part of airport construction, likely resulting in a substantial loss of habitat for smallmouth bass and other species. Impacts to Rock Creek and Rayns Creek would be minimal, and portions within grassland buffers could benefit from reduced siltation. Since all three streams flow into the nearby Kankakee River, any degradation of water quality could have adverse effects on that high quality aquatic resource.

TABLE 5.23.9-1

LAND USE AND LAND COVER IMPACTS KANKAKEE ACQUISITION ALTERNATIVES

| Land Use Classification | Inaugural Airport (Acres) | Ultimate Airport (Acres) |
|----------------------------------|--------------------------------------|-------------------------------------|
| Institutional | 0 | 0 |
| Residential or Farm | 83 | 378 |
| Commercial | 0 | 9 |
| Highways, Roads and Railroads | 126 | 402 |
| Cropland | 2,275 | 14,984 |
| Fallow Cropland | 0 | 5 |
| Pasture | 33 | 216 |
| Hedgerow | 0.5 | 14 |
| Herbaceous Successional Field | 63 | 148 |
| Shrub Successional Field | 13 | 95 |
| Deciduous Woodland | 0 | 74 |
| Palustrine Forested Wetland | 23 | 150 |
| Palustrine Scrub-Shrub Wetland | 3 | 22 |
| Palustrine Emergent Wetland | 17 | 56 |
| Palustrine Unconsolidated Bottom | 0 | 0.5 |
| Palustrine Open Water | 0 | 2 |
| Sod Farm | 0 | 0 |
| Young Tree Plantation | 0 | 5 |
| Wetland Complex | 6 | 10 |
| Totals | 2,643 | 16,571 |

Source: TAMS, 2000

Will County Acquisition Alternatives

The biotic communities existing within the Will County Acquisition Alternatives are a mix of those tolerant of agricultural activity and those most commonly associated with and tolerant of residential land uses. Airport development at this site would change the species composition slightly by providing more open space and grassland habitat than currently exists. Species that are currently utilizing isolated woodlots and hedgerows would decline until mitigation efforts become established. The aquatic communities that would be impacted by airport development at this site are generally less sensitive to disturbance than those found within the Kankakee site. However, extensive mitigation and monitoring could also be required at this site to prevent adverse impacts to downstream aquatic communities.

Table 5.23.9-2 details the land use and land cover impacts that would result from construction of the Will County Inaugural and Ultimate Acquisition Alternatives. As expected, most of the impacts would be to active cropland. Rerouting or modification of Black Walnut Creek would result in a loss of habitat for headwater species, including intolerant species like the southern redbelly dace (*Phoxinus erythrogaster*) and the fantail darter (*Etheostoma flabellare*). It may be possible to mitigate the loss of habitat when constructing a new channel or by restoring portions of a similar stream.

TABLE 5.23.9-2

**LAND USE AND LAND COVER IMPACTS
WILL COUNTY ACQUISITION ALTERNATIVES**

| Land Use Classification | Inaugural Airport (Acres) | Ultimate Airport (Acres) |
|--------------------------------|----------------------------------|---------------------------------|
| Residential or Farm | 167 | 1,130 |
| Abandoned/Vacant | 4 | 24 |
| Commercial | 8 | 30 |
| Institutional | 0 | 4 |
| Airports | 22 | 23 |
| Highways, Roads and Railroads | 73 | 458 |
| Cropland | 1,593 | 10,346 |
| Fallow Cropland | 11 | 650 |
| Pasture | 8 | 226 |
| Young Tree Plantation | 387 | 768 |
| Hedgerow | 15 | 124 |
| Sod Farm | 0 | 125 |
| Prairie | 0 | 4 |
| Herbaceous Successional Field | 128 | 1,237 |
| Shrub Successional Field | 3 | 22 |
| Deciduous Woodland | 52 | 213 |
| Evergreen Plantation | 7 | 26 |
| Creek | 13 | 50 |
| Palustrine Forested Wetland | 0 | 18 |
| Palustrine Scrub-Shrub Wetland | 0 | 2 |
| Palustrine Emergent Wetland | 27 | 119 |
| Palustrine Open Water | 9 | 24 |
| Wetland Complex | 0 | 42 |
| Totals | 2,527 | 15,665 |

Source: TAMS, 2000

5.23.9.2 Potential Induced Cumulative Impacts

No-Action Alternative

The Inaugural and Ultimate Cumulative Impact Study Areas are projected to realize a moderate growth rate in population of approximately 10 percent and 6 percent, respectively, over the next 20 years. New development in this area could negatively affect biotic communities either through conversion of natural land uses to developed land uses or from indirect impacts to air and water quality and increased noise. [Figure 5.23.9-1](#) shows the existing natural areas within the cumulative impact study areas. As can be seen on this drawing, most of the natural areas are concentrated along the main surface water features (Kankakee River, Des Plaines River, Thorn Creek, Plum Creek and the lakeshore) and their tributaries.

The construction of new roads and expansion of existing roads could also have an impact on biotic communities, especially when they bisect existing natural areas. Increases in impervious surfaces will also increase surface runoff rates, potentially introducing pollutants into aquatic communities if proper safeguards are not incorporated into roadway design and site development. Other projects planned for the area include the Grand Kankakee Marsh National Wildlife Refuge and the restoration of Midewin National Tallgrass Prairie, which will restore and protect biotic communities.

The greatest potential impact to biotic communities is habitat fragmentation. A large number of species, especially endangered and threatened species, require large amounts of contiguous habitat. If suitable habitat is not preserved for these species, they will disappear from the area and the existing biotic communities will become less diverse and more monotypic.

Kankakee Inaugural Acquisition Alternative

The Kankakee Inaugural Acquisition Alternative would induce population to increase by approximately 12,900 and households by approximately 4,600 throughout the Inaugural Cumulative Impact Study Area. This increase in population and households and the development associated with this population could negatively affect biotic communities either through conversion of natural land uses to developed land uses or from indirect impacts to air and water quality and increased noise. The townships expected to experience the greatest increase in population are Bourbonnais, Manteno and Rockville. Portions of the Kankakee River State Park are located in Bourbonnais and Rockville Townships (see [Figure 5.23.9-1](#)). Land use controls to protect these areas should be implemented and enforced to prevent additional impacts from occurring. Other townships with relatively large amounts of natural areas include Crete, Florence, Monee, Wesley and West Creek; they also need protection from development pressures.

The construction of new roads and expansion of existing roads (as shown on [Figure 5.23.1-1](#)) could also impact the biotic communities in the area, especially when they bisect existing natural areas. Increases in impervious surfaces will also increase surface runoff rates, potentially introducing pollutants into aquatic communities if proper safeguards are not incorporated into roadway design and site development. Other projects planned for the area include the restoration of Midewin National Tallgrass Prairie, which will also restore and protect biotic communities.

The greatest potential impact to biotic communities is habitat fragmentation. A large number of species, especially endangered and threatened species, require large amounts of contiguous habitat. If suitable habitat is not preserved for these species, they will disappear from the area and the existing biotic communities will become less diverse and more monotypic.

Kankakee Ultimate Acquisition Alternative

The Kankakee Ultimate Acquisition Alternative would induce population to increase by approximately 556,000 and households by approximately 188,000 throughout the Ultimate Cumulative Impact Study Area. This increase in population and households and the development associated with this population could negatively affect biotic communities either through conversion of natural land uses to developed land uses or from indirect impacts to air and water quality and increased noise. The townships expected to experience the greatest increase in population are Bourbonnais, Manteno, Florence, Green Garden and Peotone. A large portion of Midewin National Tallgrass Prairie is located in Florence Township and portions of Kankakee River State Park are located in Bourbonnais Township (see [Figure 5.23.9-1](#)). Other townships with large amounts of natural areas include Bloom, Bremen, Channahon, Crete, Hobart, Momence, Palos, Rich, Thornton and Wilmington. Land use controls to protect these areas should be implemented and enforced to prevent additional impacts from occurring.

Impacts from the construction of new roads and expansion of existing roads for the Ultimate Acquisition Alternative would be similar to impacts described for the Kankakee Inaugural Alternative, except that the total impacts could be greater (see [Figure 5.23.1-1](#)).

The greatest potential impact to biotic communities is habitat fragmentation. A large number of species, especially endangered and threatened species, require large amounts of contiguous habitat. If suitable habitat is not preserved for these species, they will disappear from the area and the existing biotic communities will become less diverse and more monotypic. The potential impact to biotic communities under this alternative is significant, given the expected large increases in population and households expected to occur. Land resource agencies will need to plan for this population increase and determine how to best protect the existing natural areas and their associated biotic communities, if this alternative is selected.

Will County Inaugural Acquisition Alternative

The Will County Inaugural Acquisition Alternative would induce population to increase by approximately 12,400 and households by approximately 4,300 throughout the Inaugural Cumulative Impact Study Area. This increase in population and households and the development associated with this population could negatively affect biotic communities either through conversion of natural land uses to developed land uses or from indirect impacts to air and water quality and increased noise. The townships expected to experience the greatest increase in population are Bourbonnais, Crete, Green Garden, Manteno and Monee. Portions of Kankakee River State Park are located in Bourbonnais Township (see [Figure 5.23.9-1](#)). Significant natural areas are also located in Crete and Monee Townships. Land use controls to protect these areas should be implemented and enforced to prevent additional impacts

from occurring. Other townships within the Inaugural Cumulative Impact Study Area with significant amounts of natural areas include Florence, Rockville, Wesley and West Creek.

Impacts from the construction of new roads and expansion of existing roads (as shown on [Figure 5.23.1-1](#)) could also impact biotic communities, especially when bisecting natural areas. Increases in impervious surfaces will also increase surface runoff rates, potentially introducing pollutants into aquatic communities if proper safeguards are not incorporated into roadway design and site development. Other projects planned for the area include the restoration of Midewin National Tallgrass Prairie, which will restore and protect biotic communities.

The greatest potential impact to biotic communities is habitat fragmentation. A large number of species, especially endangered and threatened species, require large amounts of contiguous habitat. If suitable habitat is not preserved for these species, they will disappear from the area and the existing biotic communities will become less diverse and more monotypic.

Will County Ultimate Acquisition Alternative

The Will County Ultimate Acquisition Alternative would induce population to increase by approximately 403,000 and households by approximately 147,000 throughout the Ultimate Cumulative Impact Study Area. This increase in population and households and the development associated with this population could negatively affect biotic communities either through conversion of natural land uses to developed land uses or from indirect impacts to air and water quality and increased noise. The townships expected to experience the greatest increase in population are Crete, Manteno, Monee and Rich. Crete, Monee and Rich Townships have significant natural areas within their boundaries (see [Figure 5.23.9-1](#)). Other townships with large amounts of natural areas include Bloom, Bourbonnais, Bremen, Channahon, Florence, Hobart, Momence, Palos, Thornton and Wilmington. Land use controls to protect these areas should be implemented and enforced to prevent additional impacts from occurring.

Impacts from the construction of new roads and expansion of existing roads (see [Figure 5.23.1-1](#)) for this alternative will be similar to the impacts described for the Will County Inaugural Acquisition Alternative, except that the total impacts could be greater. Other projects planned for the area include the Grand Kankakee Marsh National Wildlife Refuge and the restoration of Midewin National Tallgrass Prairie, which will restore and protect wetlands.

Habitat fragmentation represent the greatest potential impact to biotic communities is habitat fragmentation. A large number of species, especially endangered and threatened species, require large amounts of contiguous habitat. If suitable habitat is not preserved for these species, they will disappear from the area and the existing biotic communities will become less diverse and more monotypic. The potential impact to biotic communities under this alternative is significant, given the expected large increases in population and households expected to occur. Land resource agencies will need to plan for this population increase and determine how to best protect the existing natural areas and their associated biotic communities, if this alternative is selected.

5.23.10 ENDANGERED AND THREATENED SPECIES

5.23.10.1 Potential Airport-Related Impacts

No-Action Alternative

Under the No-Action Alternative, no airport would be constructed; thus, no impacts to endangered and threatened species would occur.

Kankakee Acquisition Alternatives

Critical habitat for endangered or threatened species does not exist within either of the Kankakee Acquisition Alternatives. Five state-listed birds were observed during migration, but these species should not be affected by airport development. Therefore, no impacts to Federally or state-listed endangered and threatened species are anticipated under this alternative.

Will County Acquisition Alternatives

No Federally endangered or threatened species were observed within the Will County Acquisition Alternatives. Ten state-listed birds, of which one is a Federally listed species at risk, three state-listed reptiles which are also Federally listed species at risk and one state-listed amphibian were observed within or near the Will County Acquisition Alternatives. Three of the bird species were present during breeding season and may be nesting nearby. One state-threatened and Federally listed species at risk reptile is known to occur at Raccoon Grove. The two other listed reptiles occur at Goodenow Grove Nature Preserve and at other locations along Plum Creek. The listed amphibian species also occurs east of the site near Plum Creek. Airport construction could impact these species through loss of habitat or disturbance of nest sites. Consultation under Section 7 of the Endangered Species Act would be conducted as appropriate during subsequent environmental documentation.

5.23.10.2 Potential Induced Cumulative Impacts

No-Action Alternative

The Inaugural and Ultimate Cumulative Impact Study Areas are projected to realize a moderate growth rate in population of approximately 10 percent and 6 percent, respectively, over the next 20 years. New development in this area could negatively affect endangered and threatened species either through conversion of habitat or from indirect impacts to air and water quality and increased noise. [Figure 5.23.10-1](#) shows the element occurrences for endangered and threatened species within the cumulative impact study areas. As can be seen on this drawing, most of the occurrences of endangered and threatened species are associated with natural areas which tend to be concentrated along the main surface water features (Kankakee River, Des Plaines River, Thorn Creek, Plum Creek and the lakeshore) and their tributaries.

The construction of new roads and expansion of existing roads could also have an impact on endangered and threatened species, especially when they bisect existing natural areas. Increases in impervious surfaces will also increase surface runoff rates, potentially introducing pollutants into aquatic communities if proper safeguards are not incorporated into roadway design and site development. Other projects planned for the area include the Grand Kankakee Marsh National Wildlife Refuge and the restoration of Midewin National Tallgrass Prairie, which should help protect endangered and threatened species.

The greatest potential impact to endangered and threatened species is habitat loss due to habitat fragmentation. Endangered and threatened species typically require large amounts of contiguous habitat. If suitable habitat is not preserved for these species, they will disappear from the area and the existing biotic communities will become less diverse and more monotypic.

Kankakee Inaugural Acquisition Alternative

The Kankakee Inaugural Acquisition Alternative would induce population to increase by approximately 12,900 and households to increase by approximately 4,600 throughout the Inaugural Cumulative Impact Study Area. This increase in population and households and the development associated with this population could negatively affect endangered and threatened species either through conversion of habitat or from indirect impacts to air and water quality and increased noise. The townships expected to experience the greatest increase in population are Bourbonnais, Manteno and Rockville. Endangered and threatened species are known to occur within portions of the Kankakee River State Park located in Bourbonnais and Rockville Townships (see [Figure 5.23.10-1](#)). Land use controls to protect these areas should be implemented and enforced to prevent impacts to these endangered and threatened species from occurring. Other townships with relatively large concentrations of endangered and threatened species include Crete, Custer, Monee and Reed; these areas will also require protection from development.

The construction of new roads and expansion of existing roads (as shown on [Figure 5.23.1-1](#)) could also impact the endangered and threatened species in the area, especially when they bisect existing natural areas. Increases in impervious surfaces will also increase surface runoff rates, potentially introducing pollutants into aquatic communities if proper safeguards are not incorporated into roadway design and site development. Other projects planned for the area include the restoration of Midewin National Tallgrass Prairie, which should help provide habitat and protect endangered and threatened species.

The greatest potential impact to endangered and threatened species is loss of habitat due to fragmentation. Endangered and threatened species typically require large amounts of contiguous habitat. If suitable habitat is not preserved for these species, they will disappear from the area and the existing biotic communities will become less diverse and more monotypic.

Kankakee Ultimate Acquisition Alternative

The Kankakee Ultimate Acquisition Alternative would induce population to increase by approximately 556,000 and households to increase by approximately 188,000 throughout the Ultimate Cumulative

Impact Study Area. The potential impacts to threatened and endangered species from this alternative are similar to, but potentially greater than those likely to occur for the Inaugural Alternative. The townships expected to experience the greatest increase in population are Bourbonnais, Manteno, Florence, Green Garden and Peotone. Except for the known occurrences within the Kankakee River State Park in Bourbonnais Township and in Midewin National Tallgrass Prairie in Florence Township (see [Figure 5.23.10-1](#)), these townships have relatively few known occurrences of endangered and threatened species. Other townships with a relatively large concentration of endangered and threatened species include Bremen, Calumet, Channahon, Custer, DuPage, Hobart, Lockport, Momence, Monee, Palos, Reed and Wilmington. Land use controls to protect these areas should be implemented and enforced to prevent additional impacts from occurring.

Impacts from the construction of new roads and expansion of existing roads (see [Figure 5.23.1-1](#)) would be similar to impacts described for the Kankakee Inaugural Alternative, except that the total impacts could be greater. Other projects planned for the area that will help provide habitat and protect endangered and threatened species include the Grand Kankakee Marsh National Wildlife Refuge and the restoration of Midewin National Tallgrass Prairie.

The greatest potential impact to endangered and threatened species is loss of habitat due to fragmentation. Endangered and threatened species typically require large amounts of contiguous habitat. If suitable habitat is not preserved for these species, they will disappear from the area and the existing biotic communities will become less diverse and more monotypic. The potential impact to endangered and threatened species under this alternative is significant, given the expected large increases in population and households expected to occur. Land resource agencies will need to plan for this population increase and determine how to best protect the existing natural areas and their associated endangered and threatened species, if this alternative is selected.

Will County Inaugural Acquisition Alternative

The Will County Inaugural Acquisition Alternative would induce population to increase by approximately 12,400 and households to increase by approximately 4,300 throughout the Inaugural Cumulative Impact Study Area. This increase in population and households and the development associated with this population could negatively affect endangered and threatened species either through habitat conversion or from indirect impacts to air and water quality and increased noise. The townships expected to experience the greatest increase in population are Bourbonnais, Crete, Green Garden, Manteno and Monee. Endangered and threatened species are known to concentrate in the natural areas located in Bourbonnais, Crete and Monee Townships (see [Figure 5.23.10-1](#)). Concentrations of endangered and threatened species also occur in Custer, Reed, Rockville and Wesley Townships. Land use controls to protect these areas should be implemented and enforced to prevent additional impacts from occurring.

The construction of new roads and expansion of existing roads (as shown on [Figure 5.23.1-1](#)) could also impact endangered and threatened species, especially when bisecting natural areas. Increases in impervious surfaces will also increase surface runoff rates, potentially introducing pollutants into aquatic communities if proper safeguards are not incorporated into roadway design and site development. Other

projects planned for the area include the restoration of Midewin National Tallgrass Prairie, which will help provide habitat and protect endangered and threatened species.

The greatest potential impact to endangered and threatened species is habitat fragmentation. Endangered and threatened species typically require large amounts of contiguous habitat. If suitable habitat is not preserved for these species, they will disappear from the area and the existing biotic communities will become less diverse and more monotypic.

Will County Ultimate Acquisition Alternative

The Will County Ultimate Acquisition Alternative would induce population to increase by approximately 403,000 and households by approximately 147,000 throughout the Ultimate Cumulative Impact Study Area. This increase in population and households and the development associated with this population could negatively affect endangered and threatened species either through habitat conversion or from indirect impacts to air and water quality and increased noise. The townships expected to experience the greatest increase in population are Crete, Manteno, Monee and Rich. Crete, Monee and Rich Townships have significant natural areas within their boundaries; associated with these natural areas are a fair number of endangered and threatened species occurrences (see [Figure 5.23.10-1](#)). Other townships with large concentrations of endangered and threatened species include Bremen, Calumet, Channahon, Custer, DuPage, Hobart, Lockport, Momence, Monee, Palos, Reed and Wilmington. Land use controls to protect these areas should be implemented and enforced to prevent additional impacts from occurring.

Impacts associated with the construction of new roads and expansion of existing roads (see [Figure 5.23.1-1](#)) are similar to, but potentially greater than the impacts described for the Will County Inaugural Alternative. Other projects planned for the area include the Grand Kankakee Marsh National Wildlife Refuge and the restoration of Midewin National Tallgrass Prairie, which will help provide habitat and protect endangered and threatened species.

As discussed for the Will County Inaugural Acquisition Alternative, the greatest potential impact to endangered and threatened species from this alternative is habitat fragmentation. The potential impact to endangered and threatened species resulting from the Ultimate Airport Alternative is significant, given the expected large increases in population and households expected to occur. Land resource agencies will need to plan for this population increase and determine how to best protect the existing natural areas and their associated endangered and threatened species, if this alternative is selected.

5.23.11 WETLANDS

5.23.11.1 Potential Airport-Related Impacts

No-Action Alternative

Under the No-Action Alternative, no airport would be constructed, thus no impacts to wetlands would occur.

Kankakee Inaugural Acquisition Alternative

Construction of an airport at the Kankakee Inaugural Acquisition Alternative would impact approximately 28 acres of National Wetland Inventory (NWI) mapped wetlands. Table 5.23.11-1 lists the NWI-mapped wetlands impacted by NWI designation. The majority of wetlands impacted would be palustrine emergent (PEM), followed by palustrine forested (PFO) wetlands. All construction in wetland areas would require coordination under Section 404 of the Clean Water Act and/or the Illinois Interagency Wetland Policy Act.

Kankakee Ultimate Acquisition Alternative

Construction of an airport at the Kankakee Ultimate Acquisition Alternative would impact approximately 267 acres of NWI-mapped wetlands. Table 5.23.11-2 lists the NWI-mapped wetlands impacted by NWI designation. The majority of wetlands impacted would be palustrine forested (PFO), followed by palustrine emergent (PEM) wetlands. All construction in wetland areas would require coordination under Section 404 of the Clean Water Act and/or the Illinois Interagency Wetland Policy Act.

TABLE 5.23.11-1

**IMPACTED NWI-MAPPED WETLANDS AND OTHER WATERS OF THE U.S.
KANKAKEE INAUGURAL ACQUISITION ALTERNATIVE**

| NWI Wetland Classification | Acres Impacted |
|--|-----------------------|
| Palustrine Emergent (PEM) | 17.2 |
| Palustrine Forested (PFO) | 7.3 |
| Palustrine Open Water (POW) | 0 |
| Palustrine Scrub-Shrub (PSS) | 2.6 |
| Palustrine Unconsolidated Bottom (PUB) | 0 |
| Riverine (R20WHx/R2UBH)) | 1.0 |
| Totals | 28.1 |

Source: TAMS, 2000.

TABLE 5.23.11-2

**IMPACTED NWI-MAPPED WETLANDS AND OTHER WATERS OF THE U.S.
KANKAKEE ULTIMATE ACQUISITION ALTERNATIVE**

| NWI Wetland Classification | Acres Impacted |
|--|-----------------------|
| Palustrine Emergent (PEM) | 60.9 |
| Palustrine Forested (PFO) | 112.5 |
| Palustrine Open Water (POW) | 1.4 |
| Palustrine Scrub-Shrub (PSS) | 21.7 |
| Palustrine Emergent/Forested/Scrub-Shrub Complex (PEM/PFO/PSS) | 9.8 |
| Palustrine Unconsolidated Bottom (PUB) | 0.5 |
| Riverine (R20WHx/R2UBH) | 59.7 |
| Totals | 266.5 |

Source: TAMS, 2000.

Will County Inaugural Acquisition Alternative

Construction of an airport at the Will County Inaugural Acquisition Alternative would impact approximately 36 acres of NWI-mapped wetlands. Table 5.23.11-3 lists the NWI-mapped wetlands impacted by NWI designation. The majority of wetlands impacted would be palustrine emergent (PEM), followed by palustrine open water (POW) wetlands. All construction in wetland areas would require coordination under Section 404 of the Clean Water Act and/or the Illinois Interagency Wetland Policy Act.

Will County Ultimate Acquisition Alternative

Construction of an airport at the Will County Ultimate Acquisition Alternative would impact approximately 180 acres of NWI-mapped wetlands. Table 5.23.11-4 lists the NWI-mapped wetlands impacted by NWI designation. The majority of wetlands impacted would be palustrine emergent (PEM), followed by riverine (R20WHx) wetlands. All construction in wetland areas would require coordination under Section 404 of the Clean Water Act and/or the Illinois Interagency Wetland Policy Act.

TABLE 5.23.11-3

**IMPACTED NWI-MAPPED WETLANDS AND OTHER WATERS OF THE U.S.
WILL COUNTY INAUGURAL ACQUISITION ALTERNATIVE**

| NWI Wetland Classification | Acres Impacted |
|--|-----------------------|
| Palustrine Emergent (PEM) | 26.9 |
| Palustrine Forested (PFO) | 0 |
| Palustrine Open Water (POW) | 9.1 |
| Palustrine Scrub-Shrub (PSS) | 0 |
| Palustrine Emergent/Forested/Scrub-Shrub Complex (PEM/PFO/PSS) | 0 |
| Palustrine Unconsolidated Bottom (PUB) | 0 |
| Riverine (R20WHx) | 0 |
| Totals | 36.0 |

Source: TAMS, 2000.

TABLE 5.23.11-4

**IMPACTED NWI-MAPPED WETLANDS AND OTHER WATERS OF THE U.S.
WILL COUNTY ULTIMATE ACQUISITION ALTERNATIVE**

| NWI Wetland Classification | Acres Impacted |
|--|-----------------------|
| Palustrine Emergent (PEM) | 81.5 |
| Palustrine Forested (PFO) | 23.9 |
| Palustrine Open Water (POW) | 18.2 |
| Palustrine Scrub-Shrub (PSS) | 3.1 |
| Palustrine Emergent/Forested/Scrub-Shrub Complex (PEM/PFO/PSS) | 1.7 |
| Palustrine Unconsolidated Bottom (PUB) | 0 |
| Riverine (R20WHx) | 51.8 |
| Totals | 180.2 |

Source: TAMS, 2000.

5.23.11.2 Potential Induced Cumulative Impacts

No-Action Alternative

The Inaugural and Ultimate Cumulative Impact Study Areas are projected to realize a moderate growth rate in population of approximately 10 percent and 6 percent, respectively, over the next 20 years. New development in this area could negatively affect wetland resources either through filling and dredging or from pollutants in surface runoff. [Figure 5.23.11-1](#) shows the existing NWI-mapped wetlands within the cumulative impact study areas. As can be seen, most of the NWI-mapped wetlands are concentrated along the main surface water features (Kankakee River, Des Plaines River, Grand and Little Calumet Rivers) and their tributaries.

The construction of new roads and expansion of existing roads could also impact the wetland resources in the area, especially when crossing surface water features. Increases in impervious surfaces will also increase surface runoff rates, potentially introducing pollutants into wetlands if proper safeguards are not incorporated into roadway design and site development. All construction in wetland areas would require coordination under Section 404 of the Clean Water Act and/or the Illinois Interagency Wetland Policy Act. Other projects planned for the area include the Grand Kankakee Marsh National Wildlife Refuge and the restoration of Midewin National Tallgrass Prairie, which will restore and protect wetlands.

Kankakee Inaugural Acquisition Alternative

The Kankakee Inaugural Acquisition Alternative would induce population to increase by approximately 12,900 and households by approximately 4,600 throughout the Inaugural Cumulative Impact Study Area. This increase in population and households and the development associated with this population would place additional pressure on wetland resources. The townships expected to experience the greatest increase in population are Bourbonnais, Manteno and Rockville, which, when compared with the other townships in the Inaugural Cumulative Impact Study Area, have relatively few NWI-mapped wetlands. Other townships with more wetlands, such as Crete and Monee, would experience moderate growth due to a conceptual inaugural airport.

The construction of new roads and expansion of existing roads (as shown on [Figure 5.23.1-1](#)) could also impact the wetland resources in the area, especially when crossing surface water features. Increases in impervious surfaces will also increase surface runoff rates, potentially introducing pollutants into wetlands if proper safeguards are not incorporated into roadway design and site development. All construction in wetland areas would require coordination under Section 404 of the Clean Water Act and/or the Illinois Interagency Wetland Policy Act. Other projects planned for the area include the restoration of Midewin National Tallgrass Prairie, which will also restore and protect wetlands.

Kankakee Ultimate Acquisition Alternative

The Kankakee Ultimate Acquisition Alternative would induce population to increase by approximately 556,000 and households by approximately 188,000 throughout the Ultimate Cumulative Impact Study

Area. This increase in population and households and the development associated with this population would place additional pressure on wetland resources. The townships expected to experience the greatest increase in population are Bourbonnais, Manteno, Florence, Green Garden and Peotone, which, when compared with the other townships in the Ultimate Cumulative Impact Study Area, have relatively few NWI-mapped wetlands. Other townships with more wetlands, such as Monee, Rich and Thornton, would also experience significant growth due to a conceptual ultimate airport.

The construction of new roads and expansion of existing roads (see [Figure 5.23.1-1](#)) could also impact the wetland resources in the area, especially when crossing surface water features. Increases in impervious surfaces will also increase surface runoff rates, potentially introducing pollutants into wetlands if proper safeguards are not incorporated into roadway design and site development. All construction in wetland areas would require coordination under Section 404 of the Clean Water Act. Other projects planned for the area include the Grand Kankakee Marsh National Wildlife Refuge and the restoration of Midewin National Tallgrass Prairie, which will restore and protect wetlands.

Will County Inaugural Acquisition Alternative

The Will County Inaugural Acquisition Alternative would induce population to increase by approximately 12,400 and households by approximately 4,300 throughout the Inaugural Cumulative Impact Study Area. This increase in population and households and the development associated with this population would place additional pressure on wetland resources. The townships expected to experience the greatest increase in population are Bourbonnais, Crete, Green Garden, Manteno and Monee. Bourbonnais, Green Garden and Manteno Townships have relatively few NWI-mapped wetlands, when compared with the other townships in the Inaugural Cumulative Impact Study Area. Crete and Monee Townships however, have a relatively greater amount of NWI-mapped wetlands. Coordination under Section 404 of the Clean Water Act would be required to ensure that these wetland resources are protected.

The construction of new roads and expansion of existing roads (as shown on [Figure 5.23.1-1](#)) could also impact the wetland resources in the area, especially when crossing surface water features. Increases in impervious surfaces will also increase surface runoff rates, potentially introducing pollutants into wetlands if proper safeguards are not incorporated into roadway design and site development. All construction in wetland areas would require coordination under Section 404 of the Clean Water Act and/or the Illinois Interagency Wetland Policy Act. Other projects planned for the area include the restoration of Midewin National Tallgrass Prairie, which will also restore and protect wetlands.

Will County Ultimate Acquisition Alternative

The Will County Ultimate Acquisition Alternative would induce population to increase by approximately 403,000 and households by approximately 147,000 throughout the Ultimate Cumulative Impact Study Area. This increase in population and households and the development associated with this population would place additional pressure on wetland resources. The townships expected to experience the greatest increase in population are Crete, Manteno, Monee and Rich. Manteno Township has relatively few NWI-mapped wetlands, when compared with the other townships in the Ultimate Cumulative Impact

Study Area. Crete, Monee and Rich Townships, however, have a relatively greater amount of NWI-mapped wetlands. Coordination under Section 404 of the Clean Water Act and/or the Illinois Interagency Wetland Policy Act would be required to ensure that these wetland resources are protected.

The construction of new roads and expansion of existing roads (see [Figure 5.23.1-1](#)) could also impact the wetland resources in the area, especially when crossing surface water features. Increases in impervious surfaces will also increase surface runoff rates, potentially introducing pollutants into wetlands if proper safeguards are not incorporated into roadway design and site development. All construction in wetland areas would require coordination under Section 404 of the Clean Water Act and/or the Illinois Interagency Wetland Policy Act. Other projects planned for the area include the Grand Kankakee Marsh National Wildlife Refuge and the restoration of Midewin National Tallgrass Prairie, which will restore and protect wetlands.

5.23.12 FLOODPLAINS

5.23.12.1 Potential Airport-Related Impacts

No-Action Alternative

Under the No-Action Alternative, no airport would be constructed; thus, no impacts to floodplains would occur as a result of airport development.

Kankakee Inaugural Acquisition Alternative

Construction of a conceptual inaugural airport at the Kankakee Inaugural Acquisition Alternative would impact three waterways and their associated floodplains: Forked Creek and tributaries; South Branch of Forked Creek and tributaries; and tributaries of Rock Creek. Approximately 23,650 linear feet of stream channel would be impacted and 820 acres of floodplain would be filled.

Kankakee Ultimate Acquisition Alternative

Construction of a conceptual ultimate airport at the Kankakee Ultimate Acquisition Alternative would impact three waterways and their associated floodplains: Forked Creek and tributaries; South Branch of Forked Creek and tributaries; and tributaries of Rock Creek. Approximately 123,200 linear feet of stream channel would be impacted and 4,031 acres of floodplain would be filled.

Will County Inaugural Acquisition Alternative

Construction of a conceptual inaugural airport at the Will County Inaugural Alternative would impact three waterways and their associated floodplains: Black Walnut Creek; South Branch of Rock Creek; and Rock Creek and tributaries. Approximately 17,950 linear feet of stream channel would be impacted and 210 acres of floodplain would be filled.

Will County Ultimate Acquisition Alternative

Construction of a conceptual ultimate airport at the Will County Ultimate Acquisition Alternative would impact five waterways and their associated floodplains: Black Walnut Creek; South Branch of Rock Creek and tributaries; Marshall Slough; Exline Slough; and Rock Creek and tributaries. Approximately 70,580 linear feet of stream channel would be impacted and 1,233 acres of floodplain would be filled.

5.23.12.2 *Potential Induced Cumulative Impacts*

No-Action Alternative

The Inaugural and Cumulative Impact Study Areas are projected to realize a moderate growth rate in population of approximately 10 percent and 6 percent, respectively over the next 20 years. New development in this could area could negatively affect floodplains. [Figure 5.23.12-1](#) shows the existing 100-year floodplains for the cumulative impact study areas. The most extensive areas of floodplains are associated with the Kankakee River, especially in Lake County, Indiana, and with the Little Calumet River and Des Plaines River. Part of the impetus for the Grand Kankakee Marsh National Wildlife Refuge is to improve flood control of the Kankakee River.

The construction of new roads and expansion of existing roads could also impact floodplains in the area, especially at surface water crossings. Without adequate floodplain protection, increased development will result in an increase in impervious surfaces, increasing runoff rates and increasing the potential for flooding, especially in downstream areas.

Kankakee Inaugural Acquisition Alternative

The Kankakee Inaugural Acquisition Alternative would induce population to increase by approximately 12,900 and households by approximately 4,600 throughout the Inaugural Cumulative Impact Study Area. This increase in population and households and the development associated with this population would place additional pressure on floodplains. The townships expected to experience the greatest increase in population are Bourbonnais, Manteno and Rockville. Manteno and Rockville have fairly wide floodplains associated with their surface water features (see [Figure 5.23.12-1](#)).

The construction of new roads and expansion of existing roads (as shown on [Figure 5.23.1-1](#)) could also impact floodplains in the area, especially at surface water crossings. Without adequate floodplain protection, increased development will result in an increase in impervious surfaces, increasing runoff rates and increasing the potential for flooding, especially in downstream areas.

Kankakee Ultimate Acquisition Alternative

The Kankakee Ultimate Acquisition Alternative would induce population to increase by approximately 556,000 and households by approximately 188,000 throughout the Ultimate Cumulative Impact Study Area. This increase in population and households and the development associated with this population

would place additional pressure on floodplains. The townships expected to experience the greatest increase in population are Bourbonnais, Manteno, Florence, Green Garden and Peotone. All of these townships have a fairly extensive network of floodplains associated with existing surface water features (see [Figure 5.23.12-1](#)).

The construction of new roads and expansion of existing roads (as shown on [Figure 5.23.1-1](#)) could also impact floodplains in the area, especially at surface water crossings. Without adequate floodplain protection, increased development will result in an increase in impervious surfaces, increasing runoff rates and increasing the potential for flooding, especially in downstream areas.

Will County Inaugural Acquisition Alternative

The Will County Inaugural Acquisition Alternative would induce population to increase by approximately 12,400 and households by approximately 4,300 throughout the Inaugural Cumulative Impact Study Area. This increase in population and households and the development associated with this population would place additional pressure on floodplains. The townships expected to experience the greatest increase in population are Bourbonnais, Crete, Green Garden, Manteno and Monee. Green Garden and Manteno Townships have a relatively large amount of floodplains associated with existing surface water features (see [Figure 5.23.12-1](#)).

The construction of new roads and expansion of existing roads (as shown on [Figure 5.23.1-1](#)) could also impact floodplains in the area, especially at surface water crossings. Without adequate floodplain protection, increased development will result in an increase in impervious surfaces, increasing runoff rates and increasing the potential for flooding, especially in downstream areas.

Will County Ultimate Acquisition Alternative

The Will County Ultimate Acquisition Alternative would induce population to increase by approximately 403,000 and households by approximately 147,000 throughout the Ultimate Cumulative Impact Study Area. This increase in population and households and the development associated with this population would place additional pressure on floodplains. The townships expected to experience the greatest increase in population are Crete, Manteno, Monee and Rich. Of these townships, Manteno has the greatest amount of floodplains present (see [Figure 5.23.12-1](#)).

The construction of new roads and expansion of existing roads (as shown on [Figure 5.23.1-1](#)) could also impact floodplains in the area, especially at surface water crossings. Without adequate floodplain protection, increased development will result in an increase in impervious surfaces, increasing runoff rates and increasing the potential for flooding, especially in downstream areas. Any development proposed to occur within floodplains should adhere to local and state regulations concerning floodplain encroachment.

5.23.13 COASTAL ZONE MANAGEMENT AND COASTAL BARRIERS

5.23.13.1 Potential Airport-Related Impacts

There are no areas within the State of Illinois that are subject to the provisions of either the Coastal Zone Management of 1972, as amended, or the Coastal Barrier Resources Act of 1982, as amended. Thus, none of the alternatives would result in impacts to these resources.

5.23.13.2 Potential Induced Cumulative Impacts

There are no areas within the State of Illinois that are subject to the provisions of either the Coastal Zone Management Act of 1972, as amended, or the Coastal Barrier Resources Act of 1982, as amended. The State of Indiana is in the process of developing the Indiana Coastal Coordination Program and expects to receive Federal approval in the summer of 2002. However, at this time, there are no areas within the State of Indiana that are subject to the provisions of either the Coastal Zone Management Act of 1972, as amended, or the Coastal Barrier Resources Act of 1982, as amended. Thus, none of the alternatives would result in impacts to these resources.

5.23.14 WILD AND SCENIC RIVERS

5.23.14.1 Potential Airport-Related Impacts

No-Action Alternative

No airport would be constructed under the No-Action Alternative, thus, no impacts to Wild and Scenic Rivers would occur under this alternative.

Kankakee Acquisition Alternatives

The nearest designated National Wild and Scenic River is the Middle Fork of the Vermilion River, located more than 60 miles south of this alternative. The Kankakee Inaugural and Ultimate Acquisition Alternatives lie approximately 5 and 2 miles, respectively, north of the Kankakee River (see [Figures 5.23.1-2](#) and [5.23.1-4](#)), which is listed as a river with outstanding recreational values in the Nationwide Rivers Inventory (NRI). Although no direct construction-related or operational impacts would occur to the river as a result of this facility, arriving and departing aircraft are expected to fly over the river. The predicted aircraft noise contours for the Kankakee Inaugural and Ultimate Acquisition Alternatives are shown on [Figures 5.23.2-1](#) and [5.23.2-2](#), respectively. No significant noise levels are predicted to extend over the Kankakee River under these alternatives. Thus, no significant impacts to Wild and Scenic Rivers or rivers listed on the NRI are anticipated under either of these alternatives.

Will County Acquisition Alternatives

The nearest designated National Wild and Scenic River is the Middle Fork of the Vermilion River, located more than 60 miles south of this alternative. The Will County Inaugural and Ultimate Acquisition Alternatives lie approximately 20 and 18 miles, respectively, north of the Kankakee River (see [Figures 5.23.1-3](#) and [5.23.1-5](#)), which is listed as a river with outstanding recreational values in the Nationwide Rivers Inventory (NRI). Although no direct construction-related or operational impacts would occur to the river as a result of this facility, arriving and departing aircraft are expected to fly over the river. The predicted aircraft noise contours for the Will County Inaugural and Ultimate Acquisition Alternatives are shown on [Figures 5.23.2-3](#) and [5.23.2-4](#), respectively. No significant noise levels are predicted to extend over the Kankakee River under these alternatives. Thus, no significant impacts to Wild and Scenic Rivers or rivers listed on the NRI are anticipated under these alternatives.

5.23.14.2 Potential Induced Cumulative Impacts

No-Action Alternative

New development in the cumulative impact study areas could impact the Kankakee River through increased stormwater runoff, degradation of water quality and increased noise. As the population and number of households increase, recreational use of the Kankakee River would also increase. Two of the proposed alignments of the proposed High-Speed Rail line between St. Louis, Missouri and Chicago, Illinois would cross the Kankakee River within the study area. If either are selected, it would increase noise and visual impacts to the Kankakee River.

Kankakee Inaugural Acquisition Alternative

The Kankakee Inaugural Acquisition Alternative would induce population to increase by approximately 12,900 and households by approximately 4,600 throughout the Inaugural Cumulative Impact Study Area. The townships expected to experience the greatest increase in population are Bourbonnais, Manteno and Rockville, two of which border the Kankakee River (see [Figure 5.23.4-3](#)). Local governments will need to plan for growth and ensure that measures are in place to protect this important recreational resource.

Kankakee Ultimate Acquisition Alternative

The Kankakee Ultimate Acquisition Alternative would induce population to increase by approximately 556,000 and households by approximately 188,000 throughout the Ultimate Cumulative Impact Study Area. The townships expected to experience the greatest increase in population are Bourbonnais, Manteno, Florence, Green Garden and Peotone. Bourbonnais Township borders the Kankakee River and Florence Township is located about 1½-miles from the river (see [Figure 5.23.4-4](#)). Local governments will need to plan for growth and ensure that measures are in place to protect this important recreational resource.

Will County Inaugural Acquisition Alternative

The Will County Inaugural Acquisition Alternative would induce population to increase by approximately 12,400 and households by approximately 4,300 throughout the Inaugural Cumulative Impact Study Area. The townships expected to experience the greatest increase in population are Bourbonnais, Crete, Green Garden, Manteno and Monee. Bourbonnais Township borders the Kankakee River (see [Figure 5.23.4-5](#)). Local governments will need to plan for growth and ensure that measures are in place to protect this important recreational resource.

Will County Ultimate Acquisition Alternative

The Will County Ultimate Acquisition Alternative would induce population to increase by approximately 403,000 and households by approximately 147,000 throughout the Ultimate Cumulative Impact Study Area. The townships expected to experience the greatest increase in population are Crete, Manteno, Monee and Rich. The closest of these is Manteno Township, which is located approximately 4 miles northeast of Kankakee River (see [Figure 5.23.4-6](#)). Local governments will need to plan for growth and ensure that measures are in place to protect this important recreational resource.

5.23.15 FARMLAND

5.23.15.1 Potential Airport-related Impacts

No-Action Alternative

If the No-Action Alternative is selected, no impacts to farmland would occur due to airport development. However, as more and more people continue to relocate to more rural areas to escape the urban and suburban environment, the existing farmland within these sites would come under increasing pressure to convert to non-agricultural uses.

Kankakee Inaugural Acquisition Alternative

Almost all of the areas that would be impacted by a conceptual airport at the Kankakee Inaugural Acquisition Alternative consist of prime farmland soils. Of the 2,643 acres that would be converted to airport facilities and access roads, 2,640 acres are prime farmland soils and 3 acres are important farmland soils. Active farmland makes up 2,275 acres of this total area impacted.

Approximately 204,000 bushels of crop production per year would be lost if the conceptual inaugural airport is constructed. Some areas to the east and west of the runway, which would be needed solely for noise mitigation, may be available for continued crop production.

All construction activities associated with the development of the conceptual inaugural airport must meet Illinois Environmental Protection Agency standards for soil erosion control and discharge of sediment into rivers and streams. A soil erosion and sediment control plan would be developed during the final design

stage of the project. Coordination with the Kankakee and Will-South Cook County Soil and Water Conservation Districts and the U.S. Department of Agriculture, Natural Resources Conservation Service, would continue to ensure that damage to nearby farmlands or streams is prevented.

Kankakee Ultimate Acquisition Alternative

Approximately 16,571 acres of land would be impacted by a conceptual ultimate airport and airport-related facilities for the Kankakee Ultimate Acquisition Alternative. Of this total, nearly 99 percent consists of prime farmland soils (16,396 acres). Another 117 acres are classified as important farmland soils. Of the 16,571 acres that would be impacted, 14,984 are active cropland.

Over 1.1 million bushels of crop production per year would be lost if the Kankakee Ultimate Acquisition Alternative is implemented. Some areas to the east and west of the runways, which are needed solely for noise mitigation may be available for continued crop production.

USDA Form AD-1006, Farmland Conversion Impact Rating, for the Kankakee Ultimate Acquisition Alternative is contained in [Appendix K](#). Although the Kankakee Ultimate Acquisition Alternative lies in both Kankakee and Will Counties, the USDA Natural Resources Conservation Service (NRCS) used the Kankakee County Land Evaluation and Site Assessment (LESA) System to evaluate the entire site. The county's LESA System states, "In most cases, the site should be protected for agriculture when the points exceed 200. From 0-200 points, the site has a low rating for protection; from 200-225 points, it has a medium rating for protection; from 225-250 points, the site has a high rating for protection; and from 250-300 points, it has a very high rating for protection. Selecting the site with the lowest total points will generally protect the best farmland located in the most viable areas and maintain and promote the agricultural industry in Kankakee County." (IDOA, 1997). The Kankakee Ultimate Acquisition Alternative received a total value of 270 out of 300, a very high rating for protection.

As discussed with respect to a conceptual inaugural airport at the Kankakee Inaugural Acquisition Alternative, all construction activities associated with the development of the Ultimate airport must meet Illinois Environmental Protection Agency standards for soil erosion control and discharge of sediment into rivers and streams. A soil erosion and sediment control plan would be developed during the final design stage of the project. All planning and agency coordination requirements described for the conceptual inaugural airport would apply.

Will County Inaugural Acquisition Alternative

Greater than 98 percent of the area that would be impacted by a conceptual inaugural airport at the Will County Inaugural Acquisition Alternative consist of prime and important farmland soils. Of the 2,527 acres that would be converted to airport facilities and access roads, 1,544 acres are prime farmland soils and 951 acres are important farmland soils. Active farmland makes up 1,593 acres of the total area that would be impacted.

Approximately 213,000 bushels of crop production per year would be lost if a conceptual inaugural airport at the Will County Inaugural Acquisition Alternative is constructed. Some areas to the east and west of the runway that would be needed solely for noise mitigation may be available for continued crop production.

All construction activities associated with the development of a conceptual inaugural airport must meet Illinois Environmental Protection Agency standards for soil erosion control and discharge of sediment into rivers and streams. A soil erosion and sediment control plan would be developed during the final design stage of the project. Coordination with the Will-South Cook County Soil and Water Conservation Districts and the U.S. Department of Agriculture, Natural Resources Conservation Service, would continue to ensure that damage to nearby farmlands or streams is prevented.

Will County Ultimate Acquisition Alternative

Approximately 15,665 acres of land would be impacted by a conceptual ultimate airport and airport-related facilities at the Will County Ultimate Acquisition Alternatives. Of this total, nearly 72 percent consists of prime farmland soils (11,214 acres). Another 4,381 acres are classified as important farmland soils. Of the 15,665 acres that would be impacted, 10,346 are active cropland.

Approximately 715,000 bushels of crop production per year would be lost if the Will County Ultimate Acquisition Alternative is implemented. Some areas to the east and west of the runways, which would be needed solely for noise mitigation, may be available for continued crop production.

USDA Form AD-1006, Farmland Conversion Impact Rating, was submitted to the NRCS in August of 1995. Will County has their own Land Evaluation Systems (LESA) which rates farmland differently than the Federal system contained in the Act. Thus, the total possible score is higher than the 260 total possible score under the Federal scoring system. Will County's LESA System defines "potential growth and incorporated areas" as sites with scores from 0-149. Sites with scores of 150-184 are considered "countryside areas and productive farmlands." Sites with scores of 185-300 are considered "essential farmland." The Will County site received 232.2 points out of a possible 300. See [Appendix K](#) for a copy of the completed Form AD-1006.

All construction activities associated with the development of the conceptual airport must meet Illinois Environmental Protection Agency standards for soil erosion control and discharge of sediment into rivers and streams. Agency standards and coordination requirements for the conceptual ultimate airport would be the same as those described for the conceptual inaugural airport.

5.23.15.2 Potential Induced Cumulative Impacts

No-Action Alternative

The Inaugural and Ultimate Cumulative Impact Study Areas are projected to realize a moderate growth rate in population of approximately 10 percent and 6 percent, respectively, over the next 20 years. New development in this area could negatively affect farmland either through conversion or from indirect

impacts to air and water quality. [Figure 5.23.15-1](#) shows the generalized prime and important farmland soils within the cumulative impact study areas. As can be seen on this drawing, a large portion of the study area consists of prime farmland soils. Most of the active farmland in the area is contained in southern Will County and throughout Kankakee County. Other portions of the cumulative impact study areas primarily consist of suburban development interspersed with farmland, except for the northeastern section, which consists of primarily urban and suburban development.

The construction of new roads and expansion of existing roads could also have an impact on farmlands, especially when they bisect active cropland. Increases in impervious surfaces would also increase surface runoff rates, potentially introducing pollutants to area waterways that may be used by livestock.

Kankakee Inaugural Acquisition Alternative

A conceptual inaugural airport at the Kankakee Inaugural Acquisition Alternative would induce population to increase by approximately 12,900 and households by approximately 4,600 throughout the Inaugural Cumulative Impact Study Area. This increase in population and households and the development associated with this population could negatively affect farmland either through conversion or from indirect impacts to air and water quality. The townships expected to experience the greatest increase in population are Bourbonnais, Manteno and Rockville. As shown on [Figure 5.23.15-1](#), these townships consist primarily of prime farmland soils. [Figure 5.23.3-1](#) identifies the existing land uses within Manteno and Rockville Townships as primarily agricultural. Other townships with relatively large amounts of farmland include Florence, Peotone, Sumner and Yellowhead. Without adequate protection these areas could experience significant rates of farmland conversion.

The construction of new roads and expansion of existing roads (as shown on [Figure 5.23.1-1](#)) could also impact farmland in the area, especially when they bisect large areas of active cropland. Increases in impervious surfaces would also increase surface runoff rates, potentially introducing pollutants into area waterways that may be used by livestock.

Kankakee Ultimate Acquisition Alternative

A conceptual ultimate airport at the Kankakee Ultimate Acquisition Alternative would induce population to increase by approximately 556,000 and households by approximately 188,000 throughout the Ultimate Cumulative Impact Study Area. Impacts to farmland resulting from this increase in population and housing would be similar to, but greater than those discussed for the Inaugural Acquisition Alternative. The townships expected to experience the greatest increase in population are Bourbonnais, Manteno, Florence, Green Garden and Peotone. Large portions of these townships consist of prime farmland soils (see [Figure 5.23.15-1](#)). The existing land uses within these townships is primarily agricultural, with the exception of Bourbonnais Township (see [Figure 5.23.3-1](#)). Other townships with large amounts of farmland include Jackson, Manhattan, Washington, Will and Wilton Townships in Will County, and all of the remaining townships in Kankakee County. Without adequate protection these areas could experience significant rates of farmland conversion.

Impacts from the construction of new roads and expansion of existing roads (see [Figure 5.23.1-1](#)) would be similar to impacts described for the Kankakee Inaugural Acquisition Alternative, except the total impacts could be greater.

Will County Inaugural Acquisition Alternative

A conceptual inaugural airport at the Will County Inaugural Acquisition Alternative would induce population to increase by approximately 12,400 and households by approximately 4,300 throughout the Inaugural Cumulative Impact Study Area. This increase in population and households and the development associated with this population could negatively affect farmland either through conversion or from indirect impacts to air and water quality. The townships expected to experience the greatest increase in population are Bourbonnais, Crete, Green Garden, Manteno and Monee. As shown on [Figure 5.23.15-1](#), these townships consist primarily of prime farmland soils. [Figure 5.23.3-1](#) identifies the existing land uses within Green Garden and Manteno Townships as primarily agricultural. Other townships with relatively large amounts of active farmland include Florence, Peotone, Rockville, Sumner, Wilton and Yellowhead. Without adequate protection these areas could experience significant rates of farmland conversion.

The construction of new roads and expansion of existing roads (as shown on [Figure 5.23.1-1](#)) could also impact farmland in the area, especially when they bisect large areas of active cropland. Increases in impervious surfaces would also increase surface runoff rates, potentially introducing pollutants into area waterways that may be used by livestock.

Will County Ultimate Acquisition Alternative

A conceptual ultimate airport at the Will County Ultimate Acquisition Alternative would induce population to increase by approximately 403,000 and households by approximately 147,000 throughout the Ultimate Cumulative Impact Study Area. Impacts to farmland resulting from this increase in population and housing would be similar to, but greater than those discussed for the Inaugural Acquisition Alternative. The townships expected to experience the greatest increase in population are Crete, Manteno, Monee and Rich. Large portions of these townships consist of prime farmland soils (see [Figure 5.23.15-1](#)). The existing land use within Manteno Township is primarily agricultural (see [Figure 5.23.3-1](#)). Other townships with large amounts of farmland include Green Garden, Jackson, Manhattan, Peotone, Washington, Will and Wilton Townships in Will County, and all of the remaining townships in Kankakee County. Without adequate protection these areas could experience significant rates of farmland conversion.

New road construction, expansion of existing roads (as shown on [Figure 5.23.1-1](#)), and increases in impervious surfaces could also impact farmland in the area, especially when they bisect large areas of active cropland. The increase in impervious surfaces could increase surface runoff rates, potentially introducing pollutants into area waterways that may be used by livestock.

5.23.16 ENERGY SUPPLY AND NATURAL RESOURCES

5.23.16.1 Potential Airport-Related Impacts

No-Action Alternative

Under the No-Action Alternative, an airport will not be constructed within the study area; thus, no impacts to energy supplies or natural resources would occur.

Kankakee Inaugural Acquisition Alternative

The construction of a conceptual inaugural airport at the Kankakee Inaugural Acquisition Alternative would require the use of construction materials and energy resources, such as electricity and petroleum products. Discussions with suppliers of construction materials, such as Portland Cement Concrete (PCC), bituminous concrete, aggregates, steel, and other metals have confirmed that there is an existing adequate supply of these resources to construct a conceptual inaugural airport without adversely impacting the available supplies within the greater Chicago region (Parsons Brinckerhoff, 1995).

Once a conceptual inaugural airport becomes operational, there would be a demand for electricity and petroleum products to operate the facilities and equipment. Electricity is the primary source of energy that would be used in the terminal and other facilities. Electricity would also be required for lighting runways, navigational aids, roadways and parking facilities.

Commonwealth Edison is the supplier of electricity to northern Illinois and the area surrounding acquisition alternative. There are major transmission lines within close proximity to the Kankakee site, and one or more substations would most likely be constructed on airport property. The Inaugural Airport Alternative would have an electrical demand of 100,000 megawatt hours annually. Commonwealth Edison provided a total of 85 million megawatt hours of electricity to its consumers in 1994 (Commonwealth Edison, 1995). The electrical demand at the conceptual inaugural airport would represent a very small percentage of Commonwealth Edison's total electrical production. As part of the conceptual airport development, Commonwealth Edison distribution lines on airport property would be relocated as required. There are both underground and overhead lines crossing the area. The affected power lines are generally considered to be of medium-to-low voltage. These lines would not be rerouted close to any residential areas that could be affected by electromagnetic field effects. Northern Illinois Gas Company (NIGAS) would be the supplier of natural gas for the conceptual inaugural airport, as well as to the surrounding area. In 1994, NIGAS supplied 500 billion cubic feet of natural gas to the region (NIGAS, 1995). The annual natural gas demand at the Inaugural Acquisition Alternative is estimated to be approximately 100 million cubic feet for heating and cooling.

Based on the estimated aircraft fleet mix, flight schedule and amount of time an aircraft is on the ground at the inaugural conceptual airport, it is estimated that aircraft would consume approximately 22,000 barrels of jet fuel per day.

Ground service vehicles in the gate areas fuel, load and unload aircraft and prepare aircraft for departure. These vehicles include baggage conveyors, tow trucks, fuel trucks and food service trucks, among others. The mix of equipment and the activity level is dependent upon the particular type of aircraft being serviced. Different tenants and airlines may use different pieces of equipment to service the same type of aircraft.

Natural gas is planned as the fuel source for airport service vehicles, based on availability, cost and clean-burning properties. There is an ample supply in the area to meet the demand, according to NIGAS. As aircraft activity increases in the future, service vehicle fuel consumption is also anticipated to increase.

One major utility (the Amoco Oil Company Cushing-Chicago Pipeline) located in and crossing through the Kankakee Inaugural Acquisition Alternative is recommended for relocation. For this relocation, a 6,000-foot section through the utility corridor, along the southern and eastern borders of the Kankakee Acquisition Alternatives would be moved. Relocation of this pipeline would cost approximately \$2.5 million.

Removal, relocation and installation of communication lines throughout the site would also occur. An order of magnitude cost for removal, relocation and installation of communication lines that would also serve the conceptual airport facilities is approximately \$15 million.

Kankakee Ultimate Acquisition Alternative

The construction of a conceptual ultimate airport at the Kankakee Ultimate Acquisition Alternative would require the use of construction materials and energy resources, such as electricity and petroleum products similar to those required for the Kankakee Inaugural Acquisition Alternative. A greater quantity of these resources would be required for the larger Ultimate Airport. There is an existing adequate supply of these resources to construct the conceptual ultimate airport without adversely impacting the available supplies within the greater Chicago region (Parsons Brinckerhoff, 1995).

Once a conceptual ultimate airport becomes operational, there would be a demand for electricity and petroleum products to operate the facilities and equipment similar to that required for the conceptual inaugural airport. Electricity is the primary source of energy that would be used in the terminal and other facilities, as well as for lighting runways, navigational aids, roadways and parking facilities.

A conceptual ultimate airport would have an electrical demand of 420,000 megawatt hours annually. Commonwealth Edison provided a total of 85 million megawatt hours of electricity to its consumers in 1994 (Commonwealth Edison, 1995). The electrical demand at the conceptual ultimate airport would represent less than 0.5 percent of Commonwealth Edison's total electrical production capacity. As part of the conceptual airport development, Commonwealth Edison distribution lines would be relocated on airport property. Relocation of distribution lines will follow procedures similar to those discussed for the Inaugural Acquisition Alternative.

In 1994, NIGAS supplied 500 billion cubic feet of natural gas to the region (NIGAS, 1995). The annual natural gas demand at the conceptual ultimate airport is estimated to be approximately 600 million cubic feet for heating and cooling.

Based on the estimated aircraft fleet mix, flight schedule and amount of time an aircraft is on the ground at the conceptual ultimate airport, it is estimated that aircraft would consume approximately 88,000 barrels of jet fuel per day.

Ground service vehicles and fleet mix will be similar to that for the Inaugural Acquisition Alternative; however, a greater number will be required for the larger airport.

Natural gas is planned as the fuel source for airport service vehicles, based on availability, cost and clean-burning properties. There is an ample supply in the area to meet the demand, according to NIGAS. As aircraft activity increases in the future, service vehicle fuel consumption is also anticipated to increase.

One major utility (the Amoco Oil Company Cushing-Chicago Pipeline) located in and crossing through the Kankakee Ultimate Acquisition Alternative is recommended for relocation (see [Figure 5.16-1](#)). A 17,200-foot section would require relocation through the utility corridor, along the southern and eastern borders of the Kankakee Ultimate Acquisition Alternative. Relocation of this pipeline would cost approximately \$6.9 million.

Removal, relocation and installation of communication lines throughout the site would also occur. An order of magnitude cost for removal, relocation and installation of communication lines that would also serve the conceptual airport facilities is approximately \$45 million.

Will County Inaugural Acquisition Alternative

The construction of a conceptual inaugural airport at the Will County Inaugural Acquisition Alternative would require the use of construction materials and energy resources, such as electricity and petroleum products, similar to that required for construction of the Kankakee Inaugural Alternative. Discussions with suppliers of construction materials have confirmed that there is an existing adequate supply of these resources to construct the conceptual inaugural airport without adversely impacting the available supplies within the greater Chicago region (Parsons Brinckerhoff, 1995).

Once conceptual inaugural airport becomes operational, there would be a demand for electricity and petroleum products to operate the facilities and equipment. Electricity is the primary source of energy that would be used in the terminal and other facilities. Electricity would also be required for lighting runways, navigational aids, roadways and parking facilities.

Commonwealth Edison is the supplier of electricity to northern Illinois and to the area. There are major transmission lines within close proximity to the Will County Acquisition Alternatives, and one or more substations would most likely be constructed on airport property. The conceptual inaugural airport would have an electrical demand of 100,000 megawatt hours annually. Commonwealth Edison provided a total of 85 million megawatt hours of electricity to its consumers in 1994 (Commonwealth Edison, 1995). The

electrical demand at the conceptual inaugural airport would represent a very small percentage of Commonwealth Edison's total electrical production. As part of the conceptual airport development, Commonwealth Edison distribution lines would be relocated on airport property. There are both underground and overhead lines crossing the area. The affected power lines are generally considered to be of medium-to-low voltage. These lines would not be rerouted close to any residential areas that could be affected by electromagnetic field effects.

The annual natural gas demand at a conceptual inaugural airport is estimated to be approximately 100 million cubic feet for heating and cooling. Northern Illinois Gas Company (NIGAS), the supplier of natural gas for the conceptual inaugural airport supplied 500 billion cubic feet of natural gas to the region in 1994 (NIGAS, 1995). Airport natural gas requirements represent only a small fraction of the available supply.

Based on the estimated aircraft fleet mix, flight schedule and amount of time an aircraft is on the ground at the conceptual inaugural airport, it is estimated that aircraft would consume approximately 22,000 barrels of jet fuel per day.

Ground service vehicles in the gate areas fuel, load and unload aircraft and prepare aircraft for departure. These vehicles include baggage conveyors, tow trucks, fuel trucks and food service trucks, among others. The mix of equipment and the activity level is dependent upon the particular type of aircraft being serviced. Different tenants and airlines may use different pieces of equipment to service the same type of aircraft.

Natural gas is planned as the fuel source for airport service vehicles, based on availability, cost and clean-burning properties. There is an ample supply in the area to meet the demand, according to NIGAS. As aircraft activity increases in the future, service vehicle fuel consumption is also anticipated to increase.

There are three major utilities located in and crossing through the Will County Acquisition Alternatives that are recommended for relocation (see [Figure 5.16-2](#)). These are:

Atlantic Richfield (ARCO) Petroleum Pipeline - An 8,000-foot section of the ARCO Petroleum Pipeline would require relocation along the western and northern borders of the acquisition alternative. Relocation of this pipeline would cost approximately \$3.4 million.

Northern Illinois Gas Pipeline - A 3,000-foot section of the Shell Petroleum pipeline extending through the southeastern corner of the site would require relocation. Relocation of the Shell pipeline would cost approximately \$1.4 million.

Shell Petroleum Pipeline - A 3,000-foot section of the Northern Illinois Gas Pipeline would require relocation to the east, adjacent to the utility corridor. This pipeline relocation would also cost approximately \$1.4 million.

Removal, relocation and installation of communication lines throughout the site would also occur. An order of magnitude cost for removal, relocation and installation of communication lines that would also serve the proposed airport facilities is approximately \$15 million.

Will County Ultimate Acquisition Alternative

The construction of a conceptual ultimate airport at the Will County Ultimate Acquisition Alternative would require the use of construction materials and energy resources, such as those discussed for the Will County Inaugural Acquisition Alternative. Due to its larger size, an ultimate airport will require greater quantities of these materials. Discussions with suppliers of construction materials have confirmed that there is an existing adequate supply of these resources to construct a conceptual ultimate airport without adversely impacting the available supplies within the Chicago region (Parsons Brinckerhoff, 1995).

Once a conceptual ultimate airport becomes operational, there would be a demand for electricity and petroleum products to operate the facilities and equipment. The conceptual ultimate airport would have an electrical demand of 420,000 megawatt hours annually. Commonwealth Edison provided a total of 85 million megawatt hours of electricity to its consumers in 1994 (Commonwealth Edison, 1995). The electrical demand at the conceptual ultimate airport would represent a very small percentage of Commonwealth Edison's total electrical production.

In 1994, NIGAS supplied 500 billion cubic feet of natural gas to the region (NIGAS, 1995). The annual natural gas demand at the conceptual ultimate airport is estimated to be approximately 600 million cubic feet for heating and cooling. As part of the development of a conceptual airport, Commonwealth Edison distribution lines would be relocated on airport property. There are both underground and overhead lines crossing the area. The affected power lines are generally considered to be of medium-to-low voltage. These lines would not be rerouted close to any residential areas that could be affected by electromagnetic field effects.

Based on the estimated aircraft fleet mix, flight schedule and amount of time an aircraft is on the ground at the conceptual ultimate airport, it is estimated that aircraft would consume approximately 88,000 barrels of jet fuel per day.

Ground service vehicles required to support airport operations will be similar to those needed for the conceptual inaugural airport. A greater number of vehicles will be required at the conceptual ultimate airport due to its larger size.

Natural gas is planned as the fuel source for airport service vehicles, based on availability, cost and clean-burning properties. There is an ample supply in the area to meet the demand, according to NIGAS. As aircraft activity increases in the future, service vehicle fuel consumption is also anticipated to increase.

The following major utilities located in and crossing through the Will County Acquisition Alternative are recommended for relocation (see [Figure 5.16-2](#)). These are:

Atlantic Richfield (ARCO) Petroleum Pipeline - There are three petroleum pipelines crossing through the site that would be affected by airport development. The ARCO Petroleum line would interfere with the embankments of the three northern runways. A 33,500-foot section would require relocation along the western and northern borders of the acquisition alternative. Relocation of this pipeline would cost approximately \$13.4 million.

Northern Illinois Gas Pipeline - The Northern Illinois Gas Pipeline would be impacted by the embankments for the proposed perimeter taxiways and the cargo area. A 27,000-foot section would require relocation to the east, adjacent to the utility corridor. This pipeline relocation would cost approximately \$4.8 million.

Shell Petroleum Pipeline - A 21,000-foot section of the Shell Petroleum pipeline extending through the southeastern corner of the site would interfere with proposed perimeter taxiways and NAVAID critical areas. This line would require relocation adjacent and parallel to the utility corridor. A 23,000-foot section of the Texas Eastern Petroleum Pipeline running through the northeastern corner of the site would interfere with earthwork for perimeter taxiways and drainage channels. It would be necessary to relocate this line along the proposed utility corridor and the northern boundary of the site. Relocation of the Shell and Texas Eastern pipelines would cost approximately \$8.8 million.

Texas Eastern Petroleum - A 21,000-foot section of the Shell Petroleum pipeline extending through the southeastern corner of the site would interfere with proposed perimeter taxiways and NAVAID critical areas. This line would require relocation adjacent and parallel to the utility corridor. A 23,000-foot section of the Texas Eastern Petroleum Pipeline running through the northeastern corner of the site would interfere with earthwork for perimeter taxiways and drainage channels. It would be necessary to relocate this line along the proposed utility corridor and the northern boundary of the site. Relocation of the Shell and Texas Eastern pipelines would cost approximately \$8.8 million.

NGPL Pipeline - The Natural Gas Pipeline Company of America pipeline that extends southwest-northeast through the southeast section of the site would be affected by perimeter taxiway embankments and NAVAID critical areas. A 26,000-foot portion of this line would require relocation to an area adjacent and parallel to the proposed utility corridor. This pipeline relocation would cost approximately \$4.3 million.

Ameritech Coaxial Cable - The AT&T fiber optics cable running east-west through the site would be affected by the embankment for Runway 09R/27L. A 24,300-foot section would require relocation to the south, adjacent to the proposed utility corridor. A 24,600-foot section of the Ameritech coaxial cable would be affected by the development of Runway 09R/27L. This section of the cable would require relocation to the south, adjacent to the proposed utility corridor.

AT&T Fiber Optics Cable - The AT&T fiber optics cable running east-west through the site would be affected by the embankment for Runway 09R/27L. A 24,300-foot section would require relocation to the south, adjacent to the proposed utility corridor. A 24,600-foot section of the Ameritech coaxial cable would be affected by the development of Runway 09R/27L. This section of the cable would require relocation to the south, adjacent to the proposed utility corridor.

Removal, relocation and installation of communication lines throughout the site would occur in all three phases of airport development. An order of magnitude cost for removal, relocation and installation of communication lines that would also serve the conceptual ultimate airport facilities is approximately \$45 million.

5.23.16.2 Potential Induced Cumulative Impacts

No-Action Alternative

The Inaugural and Ultimate Cumulative Impact Study Areas are projected to realize a moderate growth rate in population of approximately 10 percent and 6 percent, respectively, over the next 20 years. New development in this area will result in the increased consumption of energy resources, such as electricity, propane or natural gas, and heating oils.

The construction of new roads and expansion of existing roads will also cause an increased consumption of energy and natural resources including stone (gravel), gasoline and oil. However, this increase in consumption would be gradual and occur in proportion with development as outlined in [Section 5.23.1.5](#).

Kankakee Inaugural Acquisition Alternative

Construction of a conceptual inaugural airport at the Kankakee Inaugural Alternative would induce population to increase by approximately 12,900 and households by approximately 4,600 throughout the Inaugural Cumulative Impact Study Area. This increase in population and households and the development associated with this population would cause an increase in consumption of energy and natural resources. The townships expected to experience the greatest increase in population are Bourbonnais, Manteno and Rockville. Existing infrastructure may need to be expanded to deliver electricity, natural gas and communication services to these areas.

The construction of new roads and expansion of existing roads (as shown on [Figure 5.23.1-1](#)) would also result in the increased consumption of energy and natural resources including stone (gravel), gasoline and oil.

Kankakee Ultimate Acquisition Alternative

Construction of a conceptual ultimate airport at the Kankakee Ultimate Acquisition Alternative would induce population to increase by approximately 556,000 and households by approximately 188,000 throughout the Ultimate Cumulative Impact Study Area. As with the Inaugural Acquisition Alternative, the consumption of energy and Natural resources would increase in relation to the population growth. The townships expected to experience the greatest increase in population are Bourbonnais, Manteno, Florence, Green Garden and Peotone. Existing infrastructure may need to be expanded to deliver electricity, natural gas and communication services to these areas.

The construction of new roads and expansion of existing roads (as shown on [Figure 5.23.1-1](#)) would also result in the increased consumption of energy and natural resources including stone (gravel), gasoline and oil.

Will County Inaugural Acquisition Alternative

Construction of a conceptual inaugural airport at the Will County Inaugural Acquisition Alternative would induce population to increase by approximately 12,400 and households by approximately 4,300 throughout the Inaugural Cumulative Impact Study Area. This increase in population and households and the development associated with this population would cause an increase in the consumption of energy and natural resources. The townships expected to experience the greatest increase in population are Bourbonnais, Crete, Green Garden, Manteno and Monee. Existing infrastructure may need to be expanded to deliver electricity, natural gas and communication services to these areas.

The construction of new roads and expansion of existing roads (as shown on [Figure 5.23.1-1](#)) would also result in the increased consumption of energy and natural resources including stone (gravel), gasoline and oil.

Will County Ultimate Acquisition Alternative

Construction of a conceptual inaugural airport at the Will County Ultimate Acquisition Alternative would induce population to increase by approximately 403,000 and households by approximately 147,000 throughout the Ultimate Cumulative Impact Study Area. As with the Inaugural Acquisition Alternative, this increase in population and households and the development associated with this population would cause an increase in the consumption of energy and natural resources. The townships expected to experience the greatest increase in population are Crete, Manteno, Monee and Rich. Existing infrastructure may need to be expanded to deliver electricity, natural gas and communication services to these areas.

New road construction and expansion of existing roads (as shown on [Figure 5.23.1-1](#)) would also result in the increased consumption of energy and natural resources including stone (gravel), gasoline and oil.

5.23.17 LIGHT EMISSIONS

5.23.17.1 Potential Airport-Related Impacts

No-Action Alternative

Under the No-Action Alternative, no airport would be constructed, thus, no light emissions associated with an airport would occur.

Acquisition Alternatives

The following is a description of the airfield lighting sources that could be established as part of the construction of a conceptual airport.

High Intensity Approach Lighting System with Sequenced Flashing Lights (ALSF-2) - All runway approaches with Category III (CAT III) landing systems would have high intensity lighting systems with sequenced flashing lights (ALSF-2). All lights in this system are installed perpendicular to the extended runway centerline and are aimed away from the runway threshold. These lights consist of a light bar (approximately 13-1/2 feet long with five equally spaced lights) at each 100-foot interval starting 100 feet from the runway threshold and extending out 2,400 feet. The centerline light bar, located 1,000 feet from the threshold, is supplemented with eight additional lights on either side, forming a light bar 100 feet long with 21 lights. A light bar with four white lights is located on either side of the centerline bar at 500 feet from the runway threshold.

Light bars with three red filtered lights are located on each side of the centerline bars at each light station within the first 900 feet, beginning 100 feet from the runway end. Runway threshold lights consist of a line of green lights located perpendicular to the extended runway centerline at 10 feet from the designated threshold of the runway. This system also has sequenced flashing lights installed at each centerline bar starting 1,000 feet from the threshold out to the end of the system. These lights, which emit a bluish-white light, flash in sequence toward the runway threshold at the rate of two times per second. Flashing lights present the greatest distraction to area residents or to area motorists.

Medium Intensity Approach Lighting System with Runway Alignment Indicator Lights (MALSR) – All runway approaches with Category I (CAT I) landing systems would have medium intensity lighting systems with runway alignment indicator lights (MALSR). All lights in this system are installed perpendicular to the extended runway centerline. These lights consist of a light bar (approximately 13-1/2 feet long with five equally spaced lights) at each 200-foot interval starting 200 feet from the runway threshold and extending out 1,400 feet. At the station 1,000 feet from the runway threshold, two additional bars, each with five steady burning lights, are placed on either side of the centerline bar. All lights in the system emit white light.

The runway alignment indicator lights (RAIL) consists of five sequenced flashers located on the extended runway centerline, the first being located being located 200 feet beyond the approach end of the medium intensity approach lighting system, with successive lights located at each 200-foot interval out to 2,400 feet from the runway threshold. These lights flash in sequence toward the threshold at the rate of twice per second.

Touchdown Zone Lights (TDZ) - The touchdown zone lights (TDZ) consist of unidirectional white lights inserted in the runway pavement at intervals of 100 feet and are located 60 feet to each side of the runway centerline. The lights extend 3,000 feet from the threshold of the runway. All runways installed with CAT III landing systems at the supplemental airport would be equipped with TDZ lights.

Runway Centerline Lights - The runway centerline lights are white inset lights, except for the last 3,000 feet of runway facing the pilot, where they are color-coded. The last 1,000 feet are red, and between 1,000 and 3,000 feet from the end of the runway, they alternate between red and white; the lights are intended for takeoffs. Like the TDZ lights, these lights would be used with all CAT III precision approach runways.

Runway Edge Lights - These lights are used for airports that either operate at night or have precision approaches. High Intensity Runway Lights (HIRLs) would be installed along the edges of all proposed runways at approximately 200-foot intervals. Every light, which is omnidirectional, houses a 50-watt lamp mounted at a maximum height of 24 inches above the ground. The HIRL emit white light except for the last 2,000 feet of an instrument runway, where split amber/white lights designate a caution zone for landing aircraft.

Precision Approach Path Indicators (PAPIs) - PAPIs are visual navigational aids that assist pilots in maintaining a proper glide path to the end of the runway. PAPI are intended for use under visual flight rule (VFR) weather conditions. The location of PAPIs depends upon whether the runway approach zone is equipped with precision instrument approaches. PAPIs are usually installed 1,000 feet inward from the runway threshold on the left side of the runway, as viewed from the approach direction. These lights are directed upward at a 3-degree angle, out of view of any nearby residents or drivers.

Runway End Identifier Lights (REILs) - These lights enable pilots to rapidly identify the runway approach end in order to make a safe descent to the runway. REILs consist of a pair of synchronized flashing lights located on either side of the runway threshold. The runway end or threshold is identified by a two-color, red and green lens. The green half of the lens faces the approaching aircraft and indicates the beginning of the usable runway. The red half of the lens faces the airplane on rollout or takeoff, indicating the end of the usable runway.

Taxiway Centerline Lights - These lights consist of single, semiflush inset lights installed along the taxiway centerline. The lights, which are steady burning green, provide visual ground traffic guidance under low visibility conditions.

Medium-Intensity Taxiway Edge Lighting (MITL) - These lights would be provided along all taxiways and ramps at the conceptual airport. The MITL outlines the edges of a taxiway and provides guidance to pilots during periods of low visibility. The system consists of a series of blue, low-power output (40-watt) light fixtures that emit little illumination beyond a 25-foot radius.

A combination of MITL and taxiway centerline lights, managed with a state-of-the-art computerized surface movement guidance and control system, would provide guidance to pilots illuminating optimal routes from the runway and the terminal, at night and during slow periods of activity.

Airport Beacon - An airport beacon identifies the location of the conceptual airport at night. It consists of a rotating beacon projecting two beams of light, one green and one white, 180 degrees apart with flashes at least every 0.15 seconds.

Apron Lights - These lights are elevated floodlights located at the aircraft gates in order to help pilots maneuver at night and during low visibility. These lights can be placed at the terminal building and/or boarding bridges.

Obstruction Lighting - These red lights are used to mark obstructions that penetrate the airspace, such as poles, towers, or buildings, in or near certain areas of an airport.

Airport Access Road Lighting - The new airport access road would most likely be illuminated with high mast lights. These lights would be directional and could be shielded from impacting surrounding residences.

Kankakee Inaugural Acquisition Alternative

A conceptual inaugural airport at the Kankakee Inaugural Acquisition Alternative is expected to have one 12,140-foot long primary air carrier runway, equipped with CAT I precision instrument systems at both ends.

Lighting equipment and navigational aids associated with the primary runway that would produce light emissions, include MALSR, PAPIs, HIRLs, MITLs and taxiway centerline lights. An airport beacon would also be installed. Depending on the location of a residence or an inhabited structure in relation to certain airfield lights, these homes may or may not be affected by airfield light emissions.

The navigational lighting systems, which use high-intensity, synchronized or sequenced, flashing strobe lights, in particular MALSR, could generate adverse impacts on nearby occupied buildings or on public roads in proximity to the flashers. An airport beacon is another flashing, high intensity light that would be installed at the conceptual airport.

Other lighting sources would include apron, airport buildings and highway lights. However, since all the equipment or devices would be located within airport property and away from any residential and/or commercial areas, no impacts from airfield light emissions are expected.

Kankakee Ultimate Acquisition Alternative

A conceptual ultimate airport at the Kankakee Ultimate Acquisition Alternative is expected to have two 12,140-foot long primary air carrier runways, equipped with CAT III precision instrument systems at both ends of the runways; two 10,171-foot runways equipped with CAT III precision instrument approaches at both ends; and a 5,100-foot general aviation/commuter crosswind runway. Lighting equipment and navigational aids associated with the four primary runways that would produce light emissions include ALSF-II, PAPIs, HIRLs, TDZ and runway centerline lights, MITLs and taxiway centerline lights. The crosswind general aviation runway would be equipped with REILs, PAPIs, HIRLs and runway taxiway centerline lights.

Two additional 10,171-foot primary air carrier runways would be constructed mainly for aircraft departures. These latter two runways would be equipped with non-precision approaches and their lighting equipment would include REILs, PAPIs, HIRLs and runway centerline lights. An airport beacon would also be installed. Depending on the location of a residence or an inhabited structure in relation to certain airfield lights, these homes may or may not be affected by airfield light emissions.

The navigational lighting systems, which use high-intensity, synchronized or sequenced, flashing strobe lights, in particular ALSF-II and REIL, could generate adverse impacts on nearby occupied buildings or on public roads in proximity to the flashers. An airport beacon is another flashing, high intensity light that would be installed at the conceptual airport.

Other lighting sources would include apron, airport buildings and highway lights. However, since all the equipment or devices would be located within airport property and away from any residential and/or commercial areas, no impacts from airfield light emissions are expected.

Will County Inaugural Acquisition Alternative

A conceptual inaugural airport at the Will County Inaugural Acquisition Alternative is expected to have one 12,140-foot long primary air carrier runway, equipped with CAT I precision instrument systems at both ends.

Lighting equipment and navigational aids associated with the primary runway that would produce light emissions, include MALSR, PAPIs, HIRLs, MITLs and taxiway centerline lights. An airport beacon would also be installed. Depending on the location of a residence or an inhabited structure in relation to certain airfield lights, these homes may or may not be affected by airfield light emissions.

The navigational lighting systems, which use high-intensity, synchronized or sequenced, flashing strobe lights, in particular MALSR, could generate adverse impacts on nearby occupied buildings or on public roads in proximity to the flashers. An airport beacon is another flashing, high intensity light that would be installed at the conceptual airport.

Other lighting sources would include apron, airport buildings and highway lights. However, since all the equipment or devices would be located within airport property and away from any residential and/or commercial areas, no impacts from airfield light emissions are expected.

Will County Ultimate Acquisition Alternative

A conceptual ultimate airport at the Will County Ultimate Acquisition Alternative is expected to have two 12,140-foot long primary air carrier runways, equipped with CAT III precision instrument systems at both ends of the runways; two 10,171-foot runways equipped with CAT III precision instrument approaches at both ends; and a 5,100-foot general aviation/commuter crosswind runway. Lighting equipment and navigational aids associated with the four primary runways that would produce light emissions include ALSF-II, PAPIs, HIRLs, TDZ and runway centerline lights, MITLs and taxiway centerline lights. The crosswind general aviation runway would be equipped with REILs, PAPIs, HIRLs and runway taxiway centerline lights.

Two additional 10,171-foot primary air carrier runways would be constructed mainly for aircraft departures. These latter two runways would be equipped with non-precision approaches and their lighting equipment would include REILs, PAPIs, HIRLs and runway centerline lights. An airport beacon

would also be installed. Depending on the location of a residence or an inhabited structure in relation to certain airfield lights, these homes may or may not be affected by airfield light emissions.

The navigational lighting systems, which use high-intensity, synchronized or sequenced, flashing strobe lights, in particular ALSF-II and REIL, could generate adverse impacts on nearby occupied buildings or on public roads in proximity to the flashers. An airport beacon is another flashing, high intensity light that would be installed at the conceptual airport.

Other lighting sources would include apron, airport buildings and highway lights. However, since all the equipment or devices would be located within airport property and away from any residential and/or commercial areas, no impacts from airfield light emissions are expected.

5.23.17.2 Potential Induced Cumulative Impacts

No-Action Alternative

The Inaugural and Ultimate Cumulative Impact Study Areas are projected to realize a moderate growth rate in population of approximately 10 percent and 6 percent, respectively, over the next 20 years. New development in this area will result in increased light emissions from houses, stores, businesses, industry and warehousing.

The construction of new roads and expansion of existing roads will also cause an increase in light emissions, especially along new highway corridors, as shown on [Figure 5.23.1-1](#). However, this increase in light emissions would be gradual and occur in proportion with development as outlined in [Section 5.23.1.5](#).

Kankakee Inaugural Acquisition Alternative

A conceptual inaugural airport at the Kankakee Inaugural Acquisition Alternative would induce population to increase by approximately 12,900 and households by approximately 4,600 throughout the Inaugural Cumulative Impact Study Area. This increase in population and households and the development associated with this population would cause an increase in light emissions. The townships expected to experience the greatest increase in population are Bourbonnais, Manteno and Rockville; subsequently, these townships would also be expected to experience the greatest increase in light emissions.

The construction of new roads and expansion of existing roads will also cause an increase in light emissions, especially along new highway corridors, as shown on [Figure 5.23.1-1](#). However, this increase in light emissions would be gradual and occur in proportion with development as outlined in [Section 5.23.1.5](#).

Kankakee Ultimate Acquisition Alternative

A conceptual ultimate airport at the Kankakee Ultimate Acquisition Alternative would induce population to increase by approximately 556,000 and households by approximately 188,000 throughout the Ultimate Cumulative Impact Study Area. This increase in population and households and the development associated with this population would cause an increase in light emissions. The townships expected to experience the greatest increase in population are Bourbonnais, Manteno, Florence, Green Garden and Peotone; subsequently, these townships would also be expected to experience the greatest increase in light emissions.

The construction of new roads and expansion of existing roads will also cause an increase in light emissions, especially along new highway corridors, as shown on [Figure 5.23.1-1](#). However, this increase in light emissions would be gradual and occur in proportion with development as outlined in [Section 5.23.1.5](#).

Will County Inaugural Acquisition Alternative

A conceptual inaugural airport at the Will County Inaugural Acquisition Alternative would induce population to increase by approximately 12,400 and households by approximately 4,300 throughout the Inaugural Cumulative Impact Study Area. This increase in population and households and the development associated with this population would cause an increase in light emissions. The townships expected to experience the greatest increase in population are Bourbonnais, Crete, Green Garden, Manteno and Monee; subsequently, these townships would also be expected to experience the greatest increase in light emissions.

The construction of new roads and expansion of existing roads will also cause an increase in light emissions, especially along new highway corridors, as shown on [Figure 5.23.1-1](#). However, this increase in light emissions would be gradual and occur in proportion with development as outlined in [Section 5.23.1.5](#).

Will County Ultimate Acquisition Alternative

A conceptual ultimate airport at the Will County Ultimate Acquisition Alternative would induce population to increase by approximately 403,000 and households by approximately 147,000 throughout the Ultimate Cumulative Impact Study Area. This increase in population and households and the development associated with this population would cause an increase in light emissions. The townships expected to experience the greatest increase in population are Crete, Manteno, Monee and Rich; subsequently, these townships would also be expected to experience the greatest increase in light emissions.

The construction of new roads and expansion of existing roads will also cause an increase in light emissions, especially along new highway corridors, as shown on [Figure 5.23.1-1](#). However, this increase in light emissions would be gradual and occur in proportion with development as outlined in [Section 5.23.1.5](#).

5.23.18 SOLID WASTE

5.23.18.1 Potential Airport-Related Impacts

No-Action Alternative

Under the No-Action Alternative, no airport would be constructed, thus, no solid waste impacts would occur.

Kankakee Inaugural Acquisition Alternative

A conceptual inaugural airport at the Kankakee Inaugural Acquisition Alternative, would generate solid waste, such as paper, plastic, metals, and wood by a variety of sources. Airport-generated solid waste would consist of waste attributable to passenger traffic and direct airport employment, including airport employees, airlines, airline services, government, passenger services, and ground transportation. Airport-generated waste rates were estimated using separate factors for enplanements and airport-related employment.

Table 5.23.18-1 provides projected estimates of the solid waste that would be generated by an airport at the Kankakee Inaugural Acquisition Alternative. It is estimate that approximately 7,637 tons of solid waste would be generated annually. Sufficient capacity exists within area landfills to handle this volume of solid waste.

A substantial amount of waste material would also be generated during the site preparation of the landside and airside facilities. Construction of the conceptual inaugural airport would involve demolition or removal of 33 permanent structures, 2 mobile homes and approximately 10 miles of two-lane, paved roads. Clearing and grubbing of 0.5 acres of wooded land would also be necessary.

It is estimated that from demolition and land clearing, 65,400 cubic yards of construction, demolition and landscape solid waste would require off-site disposal. Sufficient capacity exists within area landfills to handle this volume of solid waste.

TABLE 5.23.18-1

**SOLID WASTE GENERATED ANNUALLY
KANKAKEE INAUGURAL ACQUISITION ALTERNATIVE**

| Source of Solid Waste | Generation Rate Per Year | Number of Enplanements or Employees | Solid Waste Generated (tons) |
|------------------------------------|----------------------------|-------------------------------------|------------------------------|
| Origin & Destination Enplanements | 2.5 pounds per enplanement | 2,530,000 enplanements | 3,163 |
| Airport Employees | 1,340 pounds per employee | 6,678 employees | 4,474 |
| Total Solid Waste Generated | | | 7,637 |

Source: TAMS, 1997.

TABLE 5.23.18-2

**SOLID WASTE GENERATED ANNUALLY
KANKAKEE ULTIMATE ACQUISITION ALTERNATIVE**

| Source of Solid Waste | Generation Rate Per Year | Number of Enplanements or Employees | Solid Waste Generated (tons) |
|------------------------------------|---------------------------------|--|-------------------------------------|
| Origin & Destination Enplanements | 2.5 pounds per enplanement | 18,400,000 enplanements | 23,000 |
| Airport Employees | 1,340 pounds per employee | 54,950 employees | 36,817 |
| Total Solid Waste Generated | | | 59,817 |

Source: TAMS, 1997.

Kankakee Ultimate Acquisition Alternative

Table 5.23.18-2 shows the amount of solid waste estimated to be generated by passengers and employees at a conceptual ultimate airport built at the Kankakee Ultimate Acquisition Alternative. The amount of solid waste generated annually is estimated to be 59,817 tons, which would probably be accommodated at the landfill located within the former Joliet Arsenal.

A substantial amount of waste material would also be generated during the site preparation of the landside and airside facilities. Construction of conceptual ultimate airport would involve demolition or removal of 246 permanent structures, 11 mobile homes and approximately 28 miles of two-lane, paved roads. Clearing and grubbing of 93 acres of wooded land would also be necessary.

It is estimated that from demolition and land clearing, 525,000 cubic yards of construction, demolition and landscape solid waste would require off-site disposal. Sufficient capacity exists within area landfills to handle this volume of solid waste.

Will County Inaugural Acquisition Alternative

A conceptual inaugural airport at the Will County Inaugural Acquisition Alternative would generate solid waste, such as paper, plastic, metals, and wood, by a variety of sources. Airport-generated solid waste would consist of waste attributable to passenger traffic and direct airport employment, including airport employees, airlines, airline services, government, passenger services, and ground transportation. Airport-generated waste rates were estimated using separate factors for enplanements and airport-related employment.

Table 5.23.18-3 provides projected estimates of the solid waste that would be generated by an airport at the Will County Inaugural Acquisition Alternative. It is estimate that approximately 7,669 tons of solid waste would be generated annually. Sufficient capacity exists within area landfills to handle this volume of solid waste.

A substantial amount of waste material would also be generated during the site preparation of the landside and airside facilities. Construction of conceptual inaugural airport at the Will County Inaugural Acquisition Alternative would involve demolition or removal of 72 permanent structures, 4 mobile homes and 10 miles of two-lane, paved roads. Clearing and grubbing of 461 acres of wooded land would also be necessary.

It is estimated that from demolition and land clearing, 130,800 cubic yards of construction, demolition and landscape solid waste would require off-site disposal. Sufficient capacity exists within area landfills to handle this volume of solid waste.

TABLE 5.23.18-3

**SOLID WASTE GENERATED ANNUALLY
WILL COUNTY INAUGURAL ACQUISITION ALTERNATIVE**

| Source of Solid Waste | Generation Rate Per Year | Number of Enplanements or Employees | Solid Waste Generated (tons) |
|------------------------------------|---------------------------------|--|-------------------------------------|
| Origin & Destination Enplanements | 2.5 pounds per enplanement | 2,530,000 enplanements | 3,163 |
| Airport Employees | 1,340 pounds per employee | 6,770 employees | 4,536 |
| Total Solid Waste Generated | | | 7,699 |

Source: TAMS, 1997.

TABLE 5.23.18-4

**SOLID WASTE GENERATED ANNUALLY
WILL COUNTY ULTIMATE ACQUISITION ALTERNATIVE**

| Source of Solid Waste | Generation Rate Per Year | Number of Enplanements or Employees | Solid Waste Generated (tons) |
|------------------------------------|---------------------------------|--|-------------------------------------|
| Origin & Destination Enplanements | 2.5 pounds per enplanement | 18,400,000 enplanements | 23,000 |
| Airport Employees | 1,340 pounds per employee | 55,075 employees | 36,900 |
| Total Solid Waste Generated | | | 59,900 |

Source: TAMS, 1997.

Will County Ultimate Acquisition Alternative

Table 5.23.18-4 shows the amount of solid waste estimated to be generated by passengers and employees at a conceptual ultimate airport built at the Will County Ultimate Acquisition Alternative. The amount of solid waste generated annually is estimated to be 59,900 tons, which would probably be accommodated at the landfill located within the former Joliet Arsenal.

A substantial amount of waste material would also be generated during the site preparation of the landside and airside facilities. Construction of a conceptual ultimate airport would involve demolition or removal of 745 permanent structures, 487 mobile homes and approximately 45 miles of two-lane, paved roads. Clearing and grubbing of 1,149 acres of wooded land would also be necessary.

It is estimated that from demolition and land clearing, 961,000 cubic yards of construction, demolition and landscape solid waste would require off-site disposal. Sufficient capacity exists within area landfills to handle this volume of solid waste.

5.23.18.2 Potential Induced Cumulative Impacts

No-Action Alternative

The Inaugural and Ultimate Cumulative Impact Study Areas are projected to realize a moderate growth rate in population of approximately 10 percent and 6 percent, respectively, over the next 20 years. Population growth will result in the increased generation of solid waste that will be disposed of in area landfills as capacity allows. Waste disposal and recycling are the focus of several units of local government. As population continues to grow in these areas, new alternatives and facilities will need to be identified for solid waste disposal and recycling.

Kankakee Inaugural Acquisition Alternative

Construction of a conceptual inaugural airport at the Kankakee Inaugural Acquisition Alternative would induce population to increase by approximately 12,900 and households by approximately 4,600 throughout the Inaugural Cumulative Impact Study Area. This increase in population and households and the development associated with this population would cause an increase in the generation of solid waste. The townships expected to experience the greatest increase in population are Bourbonnais, Manteno and Rockville. Local units of government will need to identify the alternatives and facilities available for solid waste disposal and recycling, as growth occurs.

Kankakee Ultimate Acquisition Alternative

Construction of a conceptual ultimate airport at the Kankakee Ultimate Acquisition Alternative would induce population to increase by approximately 556,000 and households by approximately 188,000 throughout the Ultimate Cumulative Impact Study Area. This increase in population and households and the development associated with this population would cause an increase in the generation of solid waste. The townships expected to experience the greatest increase in population are Bourbonnais, Manteno, Florence, Green Garden and Peotone. Local units of government will need to identify the alternatives and facilities available for solid waste disposal and recycling, as growth occurs.

Will County Inaugural Acquisition Alternative

Construction of a conceptual inaugural airport at the Will County Inaugural Acquisition Alternative would induce population to increase by approximately 12,400 and households by approximately 4,300 throughout the Inaugural Cumulative Impact Study Area. This increase in population and households and the development associated with this population would cause an increase in the generation of solid waste. The townships expected to experience the greatest increase in population are Bourbonnais, Crete, Green Garden, Manteno and Monee. Local units of government will need to identify the alternatives and facilities available for solid waste disposal and recycling, as growth occurs.

Will County Ultimate Acquisition Alternative

Construction of a conceptual ultimate airport at the Will County Ultimate Acquisition Alternative would induce population to increase by approximately 403,000 and households by approximately 147,000 throughout the Ultimate Cumulative Impact Study Area. This increase in population and households and the development associated with this population would cause an increase in the generation of solid waste. The townships expected to experience the greatest increase in population are Crete, Manteno, Monee and Rich. Local units of government will need to identify the alternatives and facilities available for solid waste disposal and recycling, as growth occurs.

5.23.19 HAZARDOUS WASTE

5.23.19.1 Potential Airport-Related Impacts

No-Action Alternative

Under the No-Action Alternative, no airport would be constructed, thus no impacts to sites or facilities containing hazardous waste, environmental contamination or other regulated substances would occur.

Acquisition Alternatives

FAA Advisory Circular 150/5320-15 (February 11, 1991) identifies airport industrial wastes as those wastes resulting from aircraft washing and cleaning, fueling operations, aircraft maintenance and repair work and other waste associated with aircraft daily activities. These wastes are categorized as either industrial wastewaters or hazardous wastes. Industrial wastes fall under Section 303 of the Clean Water Act (CWA), U.S. Environmental Protection Agency (USEPA) and State Water Quality Standards, and are regulated by various Federal and State permits. Special wastes generated at the terminals were included in this estimate, as well. These wastes are sometimes included in general refuse, but because of their nature, have been separated out as industrial waste and hazardous waste.

Hazardous wastes are those wastes regulated under the Resource Conservation and Recovery Act (RCRA). All generators of these wastes are required to follow procedures for handling and disposing of these wastes. The bulk of these wastes are generated by aircraft maintenance facilities and car rental areas.

Literature searches and telephone interviews were conducted to determine the industrial and hazardous wastes to be generated during the operation of an airport. Telephone interviews were conducted with the air transportation industry, Federal and state environmental agencies, rental car agencies and British Airways. The results of these inquiries were compiled. An estimate of waste quantities projected for the conceptual airport during operation was determined.

Areas where wastes were assumed to be primarily generated have been defined as terminal areas, rental car areas and aircraft operation and maintenance areas. Estimates were based on the forecasted number of operations and enplanements for each scenario year. Since the total number of operations and enplanements by scenario year are assumed to be nearly equal for both the Kankakee and Will County sites, the following discussion applies to both alternatives. Refer to *Site Contamination and Hazardous Waste* (TAMS, 1996a).

Terminal Area Wastes

Terminal area wastes are primarily generated by the tenants at terminal buildings. Contributors to this solid waste constituent include trash generated on each aircraft off-loaded at the terminals; passengers waiting to board flights; offices, food, newsstand and other concessions; minor facility maintenance waste by-products and other special wastes.

Based on USEPA Region 8 Fact Sheets prepared on the new Denver Airport and on an article in *Waste Age* (Jan. 1993), it is estimated that 3 percent of the total trash generated at terminals is industrial and hazardous waste. Industrial waste in this instance includes waste motor oil containers, spray cans and hydraulic fluid containers. Hazardous wastes include nonrecyclable batteries, cleaning agents and degreasers.

Another part of the terminal hazardous waste is the medical waste, or red bag, component. These wastes are generated primarily from wastes off-loaded from international flights. The U.S. Department of Agriculture requires the quarantining and incineration of all wastes from international flights. Thus, these wastes are red bagged and transported by a licensed medical waste hauler to a medical waste incineration facility. The projected quantity of medical waste generated through 2020 is presented in [Table 5.23.19-1](#). These quantities have been calculated as a direct proportion of international arrivals to total flights, and the waste component percentages in the total waste stream.

Assuming that each of these wastes represent equivalent proportions of the waste stream by weight, an estimate was prepared ([Table 5.23.19-1](#)). These represent worst-case values for hazardous waste, since batteries will be recycled along with fluorescent tubes. Approximately 300 4-foot fluorescent tubes at the Ultimate Airport per month would be segregated and repackaged in their shipping containers for reclamation of mercury at a reclamation facility.

TABLE 5.23.19-1

**PROJECTED ANNUAL TERMINAL AREA WASTE GENERATED
KANKAKEE AND WILL COUNTY ACQUISITION ALTERNATIVES**

| Alternative | Total Trash (tons) | Industrial Waste (tons) | Hazardous Waste (tons) | Medical Waste (tons) |
|--------------------|---------------------------|--------------------------------|-------------------------------|-----------------------------|
| Inaugural Airport | 7,700 | 116 | 116 | 85 |
| Ultimate Airport | 59,900 | 899 | 899 | 659 |

Source: TAMS, 1995.

Rental Car Area Wastes

Rental car area wastes are not typically associated with airport-generated wastes, nor are they discussed in the FAA Advisory Circular. Many rental car companies maintain their pool of vehicles beyond the airport perimeter. The conceptual airport has a remote area set aside for rental cars.

Based on conversations with a rental car agency at Newark International Airport and on familiarity with other airport facilities, an estimate for industrial and hazardous waste was prepared. Non-hazardous industrial wastes are usually generated at a minimal rate and are inconsequential to this study.

Anti-freeze and spill clean up wastes are generated in very small quantities. Freon is captured and recycled, as required by regulations. Typically, major maintenance is not performed since most vehicles are only kept for six months. Generally, no body work is performed at airports. Minor equipment and parts cleaning is performed in recycling wash tanks. The wastes generated are usually managed under contract with a vendor who replenishes the cleaner and transports the waste off-site for reclamation and or disposal. Waste oil and oil filters generated as a result of oil changes are the principal hazardous wastes. Typically two oil changes over six months are performed per vehicle. Estimated waste oil and oil filters generated per year are presented in [Table 5.23.19-2](#).

Waste oils from rental car agencies are typically sent to waste oil reclamation facilities for reclamation and recycling. No disposal of waste oils would occur on-site. Oil filters are generally drained and crushed and picked up by a waste hauler who transports them to a RCRA facility for proper disposal. Waste oils generated from vehicle washing are included in the waste oil estimate since oil and grease resulting from this activity is relatively minor.

TABLE 5.23.19-2

**ANNUAL RENTAL CAR AREA WASTE GENERATION
KANKAKEE AND WILL COUNTY ACQUISITION ALTERNATIVES**

| Alternative | Waste Oil (gallons) | Oil Filters (number) |
|--------------------|----------------------------|-----------------------------|
| Inaugural Airport | 8,750 | 7,000 |
| Ultimate Airport | 55,000 | 44,000 |

Source: TAMS, 1995.

Airport Operation and Maintenance Area Wastes

Estimates of aircraft operation and maintenance wastes include those wastes generated as a result of routine, major or *ad hoc* maintenance and cleaning of aircraft; wastes from ground support vehicles necessary to attend aircraft; ground support vehicles performing fueling, runway snow removal and runway maintenance; waste paints; flight kitchens; and airport support and security. Refueling spill clean-up and maintenance shop spill clean up wastes were also included.

Major airlines typically select one or two airports to perform their major and routine aircraft maintenance. The conceptual inaugural airport would probably not be used by major airlines for major or routine maintenance during the early phases of airport operations. The majority of wastes anticipated to be generated by most carriers at the conceptual inaugural airport would be from support vehicle maintenance and cleaning operations, and from fuel spills that could occur during refueling operations.

Control of waste discharges has increased over the years and direct discharge of waste materials from maintenance areas is captured. Although minor amounts could be found in the stormwater system, all maintenance wastes, including vehicle washing, would be controlled so that waste materials are either captured and containerized, or are directed into a separation unit that removes solids and oils prior to pretreatment and disposal.

Conversations with airline and airport authority personnel indicate that it is standard practice to containerize all hangar wastes and contract with waste haulers for disposal. Materials that are captured and contained are expected to primarily be sent to reclamation or recycling facilities. Sorbent materials would be used to clean-up fuel spills. Once used, these materials would be drummed and transported to disposal sites. Proper segregation of oils, paints, acids, bases and other waste materials maximizes the ability to recycle and reclaim materials, while minimizing the cost for disposal.

[Table 5.23.19-3](#) presents estimates of aircraft operation and maintenance area waste quantities. The quantities estimated, particularly for aircraft maintenance, were based upon the assumption that this airport would not be used as a primary maintenance facility for any airline, and that all maintenance would be minor. However, if an airline locates a maintenance facility at the conceptual airport, a worst-case analysis is presented in [Table 5.23.19-3](#).

TABLE 5.23.19-3

**ANNUAL AIRCRAFT OPERATION AND MAINTENANCE AREA WASTE GENERATION
KANKAKEE AND WILL COUNTY ACQUISITION ALTERNATIVES**

| Waste Source | Inaugural Airport | Ultimate Airport |
|-------------------------------------|-----------------------|--------------------------|
| Aircraft Washing ¹ | 4,800 gpd | 16,800 gpd |
| Fuel Spill Solid Waste ² | 1,855 gal. | 5,750 gal. |
| Paint Related Materials | 0 | 27,547 gal. ⁴ |
| Support Vehicles Oils ⁵ | 2,900 gal. | 8,900 gal. |
| Flight Kitchen Oils | 525 gal. | 2,270 gal. |
| Engineering Oils | 210 gal. ³ | 12,975 gal. ⁴ |
| Solvents | 50 gal. ³ | 3,020 gal. ⁴ |
| Chemicals (acids/plating compounds) | 50 gal. ³ | 840 gal. ⁴ |
| Metals and Compounds | 230 lbs. ³ | 19,700 lbs. ⁴ |

Source: TAMS, 1995.

- 1 Directed to pretreatment.
- 2 Mixed with sorbent material.
- 3 Assumed 5% of one full service facility.
- 4 Assumed 1 full service facility for 1 airline.
- 5 Airport authority vehicles only. Assume airline vehicles are propane operated.

Note: All materials to be captured and recycled/reclaimed as is practical per operation.

Other material to be collected and disposed of off-site.

gpd = gallons per day

Kankakee Inaugural Acquisition Alternative

Construction of a conceptual inaugural airport at the Kankakee Inaugural Acquisition Alternative would require the removal of approximately 1 fuel underground storage tank (UST) and approximately 17 aboveground storage tanks (ASTs), excluding propane tanks. A limited amount of asbestos would also be removed due to the razing of older houses and structures.

Approximately 4 percent of the waste generated by the conceptual inaugural airport would be industrial, hazardous and medical wastes (see Table 5.23.19-1). In addition, 8,750 gallons of waste oil and 7,000 used oil filters would be generated by rental car agencies. Table 5.23.19-3 presents the amounts of industrial and hazardous waste that could be generated if an airline locates a maintenance facility at a conceptual airport on this acquisition alternative. These materials would need to be handled, stored and disposed of in accordance with applicable Federal, state and local regulations.

Kankakee Ultimate Acquisition Alternative

Construction of a conceptual ultimate airport at the Kankakee Ultimate Acquisition Alternative would require the removal of approximately 5 fuel underground storage tanks (USTs) and approximately 121 aboveground storage tanks (ASTs), excluding propane tanks. A limited amount of asbestos would also be removed due to the razing of older houses and structures.

Approximately 4 percent of the waste generated by the conceptual ultimate airport would be industrial, hazardous and medical wastes (see Table 5.23.19-1). In addition, 55,000 gallons of waste oil and 44,000 used oil filters would be generated by rental car agencies. Table 5.23.19-3 presents the amounts

of industrial and hazardous waste that could be generated if an airline locates a maintenance facility at a conceptual airport at this acquisition alternative. These materials would need to be handled, stored and disposed of in accordance with applicable Federal, state and local regulations.

Will County Inaugural Acquisition Alternative

Construction of a conceptual inaugural airport at the Will County Inaugural Acquisition Alternative would require the removal of approximately 2 fuel underground storage tanks (USTs) and approximately 32 aboveground storage tanks (ASTs), excluding propane tanks. A limited amount of asbestos would also be removed due to the razing of older houses and structures.

Approximately 4 percent of the waste generated by a conceptual inaugural airport would be industrial, hazardous and medical wastes (see [Table 5.23.19-1](#)). In addition, 8,750 gallons of waste oil and 7,000 used oil filters would be generated by rental car agencies. [Table 5.23.19-3](#) presents the amounts of industrial and hazardous waste that could be generated if an airline locates a maintenance facility at a conceptual airport at this acquisition alternative. These materials would need to be handled, stored and disposed of in accordance with applicable Federal, state and local regulations.

Will County Ultimate Acquisition Alternative

Construction of a conceptual ultimate airport at the Will County Ultimate Acquisition Alternative would require the removal of approximately 25 fuel underground storage tanks (USTs) and approximately 217 aboveground storage tanks (ASTs), excluding propane tanks. A limited amount of asbestos would also be removed due to the razing of older houses and structures.

Approximately 4 percent of the waste generated by a conceptual ultimate airport would be industrial, hazardous and medical wastes (see [Table 5.23.19-1](#)). In addition, 55,000 gallons of waste oil and 44,000 used oil filters would be generated by rental car agencies. [Table 5.23.19-3](#) presents the amounts of industrial and hazardous waste that could be generated if an airline locates a maintenance facility at a conceptual airport at this acquisition alternative. These materials would need to be handled, stored and disposed of in accordance with applicable Federal, state and local regulations.

5.23.19.2 *Potential Induced Cumulative Impacts*

No-Action Alternative

The Inaugural and Ultimate Cumulative Impact Study Areas are projected to realize a moderate growth rate in population of approximately 10 percent and 6 percent, respectively, over the next 20 years. Population growth and the development of commercial and industrial areas will result in the increased generation of hazardous and industrial wastes that will need to be disposed of in accordance with Federal, state and local regulations.

Acquisition Alternatives

The induced population and associated development increases projected to occur within the cumulative impact study areas would cause an increase in the generation of hazardous and industrial wastes. These materials would need to be handled, stored and disposed of in accordance with applicable Federal, state and local regulations.

5.23.20 CONSTRUCTION IMPACTS

5.23.20.1 Potential Airport-Related Impacts

No-Action Alternative

Under the No-Action Alternative, an airport would not be constructed in the study area; thus, no construction impacts would occur.

Kankakee Inaugural Acquisition Alternative

[Figure 5.23.1-2](#) shows the development associated with the conceptual inaugural airport at the Kankakee Inaugural Acquisition Alternative that would include the construction of an airport access road and I-57 interchange, a portion of the terminal area roadway system, parking lots, a portion of the air carrier terminal complex and one runway with associated taxiway systems. A major construction item would be the relocation of a portion of Forked Creek and other streams, and the construction of stormwater management ponds in the southwest corner of the acquisition alternative.

Noise impacts from construction would result from on-site construction vehicles and equipment, as well as haul vehicles on designated local haul routes. Noise impacts would vary depending on the phase of construction (site preparation, paving, foundation, erection, finishing, etc.), the amount and type of construction equipment, the percentage of time the equipment operates during the day, and the hours of operation. The range of noise levels to be expected for different construction equipment are shown in [Table 5.23.20-1](#).

Off-airport construction-related noise impacts are anticipated to be minimal because of the distances between the noise source and the remaining residences.

Employees and delivery vehicles would be directed along certain routes to the site. Primary access would be from the east along Illinois Route 45 to Ballou Road until the interchange with I-57 is operational; all traffic would then be directed through that interchange.

Air quality degradation during construction could occur from dust generated by construction operations: excavation and earth moving, grading, clearing and grubbing, movement of construction vehicles along haul roads, wind erosion of soils, and other construction activities. Air pollution impacts would be greatest at airport facility construction sites (runway and taxiways, terminal building, hangars, etc.), and along construction haul roads. A discussion of emissions generated during construction is contained in [Section 5.23.5](#).

The bituminous concrete paving operations of runway/taxiway shoulders and airport access and service roads would cause the emission of volatile organic carbons (VOC). The amount of bituminous concrete that would be used at the conceptual airport has been estimated and analyzed for VOC emissions. This analysis is described in [Section 5.23.5](#) and in the *Air Quality Technical Report* (TAMS, 1997c).

Without proper mitigation, soil erosion can be a significant impact of construction projects. The potential for soil erosion can occur during site preparation of each project area when existing land is cleared. Soil erosion can also occur during excavation to remove existing pavement, trees, vegetation and other obstructions.

TABLE 5.23.20-1

TYPICAL NOISE LEVELS FROM CONSTRUCTION EQUIPMENT (DBA)

| Construction Activity | Estimated Leq | | Types of Equipment | Range of Noise Levels at 50 feet |
|-----------------------|---------------|-------------|--------------------|----------------------------------|
| | At 50 feet | At 200 feet | | |
| Clearing/Grubbing | 83 | 71 | Bulldozer | 77-96 |
| | | | Dump truck | 82-94 |
| Grading | 75-88 | 63-76 | Scraper | 80-93 |
| | | | Bulldozer | 77-96 |
| Paving | 72-88 | 60-76 | Paver | 86-88 |
| | | | Dump Truck | 82-94 |
| Construction | 72-84 | 60-72 | Crane | 75-85 |
| | | | Concrete Mixers | 75-85 |

Source: U.S. Environmental Protection Agency, 1971.

During construction activities, some amount of soil erosion would occur, resulting in temporary increases in suspended sediment concentrations in affected streams. The Illinois Environmental Protection Agency (IEPA) has adopted regulations for the control of soil erosion, the *Illinois Urban Manual: A Technical Manual Designed for Urban Ecosystem Protection and Enhancement* (1995). Adherence to these rules requires the preparation of a soil erosion control plan that specifies measures to be implemented during construction to minimize and mitigate soil erosion. A soil erosion control plan would be prepared under IEPA guidelines and FAA Advisory Circular 150/5370-10A, *Standards for Specifying Construction of Airports, Item P-156, Temporary Air and Water Pollution, Soil Erosion and Siltation Control*, to ensure that no long-term impacts to waterways downstream of the acquisition alternative occur.

The Northeastern Illinois Planning Commission has prepared a *Model Soil Erosion and Sediment Control Ordinance* that will be used as design principles during the design and construction phase of a conceptual inaugural airport.

Construction activities could also impact local water quality due to the rerouting of surface creeks or streams or the filling of wetlands or ponds. Any de-watering or lowering of the water table aquifer needed to construct airport facilities, such as an airport terminal or new bridges or tunnels, could also impact local water quality. There is also the potential for water quality degradation from fuel spills and oil leaks occurring during equipment re-fueling and maintenance.

Efforts would be undertaken during design and construction of a conceptual inaugural airport to ensure that no negative effects upon existing surface and subsurface drainage systems would occur. All waterways would be promptly cleared of falsework, piling, debris, or any other construction materials which may cause the degradation of water sources downstream.

The relocation of Forked Creek would occur at the beginning of the construction period. As part of this relocation, temporary sediment basins would be constructed to trap sediments during earth moving activities. Likewise, temporary sediment basins would be constructed to protect Rock Creek and any other potentially impacted streams.

Surface drainage swales and ditches, water from aggregate washing and other operations containing sediments would be treated, where necessary, and discharged to a retention or settling basin. All runoff in retention basins would be stored and later released at rates compatible with existing conditions. Discharges would be subject to the National Pollution Discharge Elimination System (NPDES) construction permit conditions. Pollutants, such as fuels, lubricants, raw sewage and wash water, would not be discharged to any watercourse or impoundment area.

A NPDES stormwater discharge permit would be required for airport construction. Under the stormwater management regulations, USEPA regulates stormwater discharges from construction sites, including clearing, grading, and excavation activities, if the construction site is 5 acres or greater in size.

An Illinois Department of Natural Resources (IDNR), Office of Water Resources, permit is necessary for construction that affects streams. The Office of Water Resources regulates waterway activities under the authority of the Rivers, Lakes, and Streams Act, as amended. Stream relocations and floodplain encroachments related to airport development would require approval from IDNR. Potential impacts are discussed in detail in [Section 5.23.6](#) and in [Section 5.23.12](#).

Construction of a conceptual inaugural airport would require the relocation of residences and farming operations, as discussed in [Section 5.23.3](#).

Wildlife habitat would be disrupted during airport construction. Existing wildlife in the area is expected to re-establish viable populations in the potential mitigation areas, and other undeveloped areas. Mitigation areas will be established concurrent with construction.

The existing electrical and telephone grid networks within acquisition alternative boundaries would be abandoned and removed. Utilities serving local users would be relocated and disruption in service would be minimal. The existing facilities would be relocated to the periphery of the acquisition alternative as discussed in [Section 5.23.16](#).

Construction activities would generate solid waste. Most of the waste would result from land clearing and some would be generated by the demolition of on-site structures. All construction waste would be disposed of in accordance with applicable state and local regulations. Approximately 65,400 cubic yards of construction, demolition and landscape solid waste would require off-site disposal. Sufficient landfills exist in the area to accommodate projected construction debris. [Section 5.23.18](#) discusses solid waste

disposal in more detail. Every reasonable effort would be made to recycle materials present in construction debris. Uncontaminated construction debris, such as concrete and bituminous concrete, could be recycled for paving or used as fill material.

A local permit for burning debris would be obtained, if burning is required. No burning activities would be allowed when the danger of brush fires are made known by local officials, or when a local air inversion or other prevailing climatic conditions would cause a pall of smoke to overhang any community for an extended period of time. Cleared brush, shrub and trees could be salvaged for commercial uses or chipped and used for mulching purposes.

Kankakee Ultimate Acquisition Alternative

Figure 5.23.1-4 shows the development associated with the construction of a conceptual ultimate airport at the Kankakee Ultimate Acquisition Alternative that would include the construction of an airport access roads and I-57 interchange, the terminal area roadway system, parking lots, the air carrier terminal complex and seven runways with associated taxiway systems. A major construction item would be the relocation of a portion of Forked Creek and the South Branch of Forked Creek, and the construction of stormwater management ponds in the southwest corner of the Ultimate Acquisition Alternative.

Types of construction impacts would be similar to impacts described for the Kankakee Inaugural Acquisition Alternative, except that the total impacts would be considerably greater. Approximately 525,000 cubic yards of construction, demolition and landscape solid waste would require off-site disposal.

Will County Inaugural Acquisition Alternative

Figure 5.23.1-3 shows the development associated with the construction of a conceptual inaugural airport at the Will County Inaugural Acquisition Alternative which would include the construction of the West Airport Access Road and I-57 interchange, a portion of the terminal area roadway system, parking lots, a portion of the air carrier terminal complex and one runway with associated taxiway systems. Also, the East Airport Entrance would be constructed, as well as a portion of the cargo and maintenance facilities on the east side of the Inaugural Acquisition Alternative. A major construction item would be the relocation of Black Walnut Creek and other streams, and the construction of stormwater management ponds in the southwest corner of the Inaugural Acquisition Alternative.

Noise impacts from construction would result from on-site construction vehicles and equipment, as well as haul vehicles on designated local haul routes. Noise impacts would vary depending on the phase of construction (site preparation, paving, foundation, erection, finishing, etc.), the amount and type of construction equipment, the percentage of time the equipment operates during the day, and the hours of operation. The range of noise levels to be expected for different construction equipment are shown in Table 5.23.20-1.

Off-airport construction-related noise impacts are anticipated to be minimal because of the distances between the noise source and the remaining residences.

Employees and delivery vehicles would be directed along certain routes to the site. Eastern access would be along Illinois Route 394 to Eagle Lake Road. West access would be from Illinois Route 50 to Eagle Lake Road until the interchange with I-57 is operational; all traffic would then be directed through that interchange.

Air quality impacts during construction could result from dust generated by construction operations: excavation and earth moving, grading, clearing and grubbing, movement of construction vehicles along haul roads, wind erosion of soils, and other construction activities. Air pollution impacts would be greatest at airport facility construction sites (runways and taxiways, terminal building, hangars, etc.), and along construction haul roads. A discussion of emissions generated during construction is contained in [Section 5.23.5](#), Air Quality.

Without proper mitigation, soil erosion can be a significant consequence of construction projects. The potential for soil erosion can occur during site preparation of each project area when existing land is cleared. Soil erosion can also occur during excavation to remove existing pavement, trees, vegetation and other obstructions. Soil erosion control measures are discussed under the Kankakee Inaugural Acquisition Alternative.

Construction activities could impact local water quality due to the rerouting of surface creeks or streams or the filling of wetlands or ponds. Any de-watering or lowering of the water table aquifer needed to construct airport facilities, such as an airport terminal or new bridges or tunnels, could also impact local water quality. There is also the potential for water quality degradation from fuel spills and oil leaks occurring during equipment re-fueling and maintenance.

Efforts would be undertaken during design and construction of an airport to ensure that no negative effects upon existing surface and subsurface drainage systems would occur. All waterways would be promptly cleared of falsework, piling, debris, or any other construction materials that may cause the degradation of water sources downstream.

The relocation of Black Walnut Creek would occur at the beginning of the construction period. As part of this relocation, temporary sediment basins would be constructed to trap sediments during earth moving activities. Likewise, temporary sediment basins would be constructed to protect Rock Creek, the South Branch of Rock Creek and any other potentially impacted streams. Water quality control measures are discussed under the Kankakee Inaugural Acquisition Alternative.

Stream relocations and floodplain encroachments related to airport development at the Will County Inaugural Acquisition Alternative would require approval and permits from IDNR. Potential impacts are discussed in detail in [Section 5.23.6](#) and in [Section 5.23.12](#).

Construction of an inaugural conceptual airport would require the relocation of residences and farming operations, as discussed in [Section 5.23.3](#).

Wildlife habitat would be disrupted during airport construction. Existing wildlife in the area is expected to re-establish viable populations in the potential mitigation areas, and other undeveloped areas.

The existing electrical and telephone grid networks within the Inaugural Acquisition Alternative boundaries would be abandoned and removed. Utilities serving local users would be relocated and disruption in service would be minimal. The existing facilities would be relocated to the periphery of the Will County Inaugural Acquisition Alternative as discussed in [Section 5.23.16](#).

Construction activities would generate solid waste. Most of the waste would result from land clearing and some would be generated by the demolition of on-site structures. All construction waste would be disposed of in accordance with applicable state and local regulations. Approximately 130,800 cubic yards of construction, demolition and landscape solid waste would require off-site disposal. Sufficient landfills exist in the area to accommodate projected construction debris. Every reasonable effort would be made to recycle materials present in construction debris. Uncontaminated debris, such as concrete and bituminous concrete, could be recycled for paving or used as fill material.

A local permit for burning debris would be obtained, if burning is required. No burning activities would be allowed when the danger of brush fires are made known by local officials, or when a local air inversion or other prevailing climatic conditions would cause a pall of smoke to overhang any community for an extended period of time. Cleared brush, shrub and trees could be salvaged for commercial uses or chipped and used for mulching purposes.

Will County Ultimate Acquisition Alternative

[Figure 5.23.1-5](#) shows the development associated with the construction of a conceptual ultimate airport at the Will County Ultimate Acquisition Alternative which would include the construction of the East-West Airport Access Road, the West Airport Access Road and I-57 interchange, the terminal area roadway system, parking lots, the air carrier terminal complex and seven runways with associated taxiway systems. A major construction item would be the relocation of a portion of Black Walnut Creek and other streams, and the construction of stormwater management ponds in the southwest corner of the Ultimate Acquisition Alternative.

Types of construction impacts would be similar to impacts described for the Will County Inaugural Acquisition Alternative, except that the total impacts would be considerably greater. Approximately 961,000 cubic yards of construction, demolition and landscape solid waste would require off-site disposal.

5.23.20.2 Potential Induced Cumulative Impacts

No-Action Alternative

The Inaugural and Ultimate Cumulative Impact Study Areas are projected to realize a moderate growth rate in population of approximately 10 percent and 6 percent, respectively, over the next 20 years. This growth in population and households will result in the construction of houses, utilities, roads and commercial structures. Local municipalities will need to enforce air quality, water quality and soil erosion control measures to minimize construction impacts.

Kankakee Inaugural Acquisition Alternative

Construction of a conceptual inaugural airport at the Kankakee Inaugural Acquisition Alternative would induce population to increase by approximately 12,900 and households by approximately 4,600 throughout the Inaugural Cumulative Impact Study Area. This increase in population and households and the development associated with this increase would result in the construction of new houses, roads, utilities and commercial structures. The townships expected to experience the greatest increase in population are Bourbonnais, Manteno and Rockville. Existing infrastructure may need to be expanded to deliver electricity, natural gas and communication services to these areas.

The construction of new roads and expansion of existing roads (as shown on [Figure 5.23.1-1](#)) would also result in construction impacts. Local municipalities will need to enforce air quality, water quality and soil erosion control measures to minimize construction impacts.

Kankakee Ultimate Acquisition Alternative

Construction of a conceptual ultimate airport at the Kankakee Ultimate Acquisition Alternative would induce population to increase by approximately 556,000 and households by approximately 188,000 throughout the Ultimate Cumulative Impact Study Area. This increase in population and households and the development associated with this increase would result in the construction of new houses, roads, utilities and commercial structures. The townships expected to experience the greatest increase in population are Bourbonnais, Manteno, Florence, Green Garden and Peotone. Existing infrastructure may need to be expanded to deliver electricity, natural gas and communication services to these areas.

The construction of new roads and expansion of existing roads (as shown on [Figure 5.23.1-1](#)) would also result in construction impacts. Local municipalities will need to enforce air quality, water quality and soil erosion control measures to minimize construction impacts.

Will County Inaugural Acquisition Alternative

Construction of a conceptual inaugural airport at the Will County Inaugural Acquisition Alternative would induce population to increase by approximately 12,400 and households by approximately 4,300 throughout the Inaugural Cumulative Impact Study Area. This increase in population and households and the development associated with this increase would result in the construction of new houses, roads, utilities and commercial structures. The townships expected to experience the greatest increase in population are Bourbonnais, Crete, Green Garden, Manteno and Monee. Existing infrastructure may need to be expanded to deliver electricity, natural gas and communication services to these areas.

The construction of new roads and expansion of existing roads (as shown on [Figure 5.23.1-1](#)) would also result in construction impacts. Local municipalities will need to enforce air quality, water quality and soil erosion control measures to minimize construction impacts.

Will County Ultimate Acquisition Alternative

Construction of a conceptual ultimate airport at the Will County Ultimate Acquisition Alternative would induce population to increase by approximately 403,000 and households by approximately 147,000 throughout the Ultimate Cumulative Impact Study Area. This increase in population and households and the development associated with this increase would result in the construction of new houses, roads, utilities and commercial structures. The townships expected to experience the greatest increase in population are Crete, Manteno, Monee and Rich. Existing infrastructure may need to be expanded to deliver electricity, natural gas and communication services to these areas.

The construction of new roads and expansion of existing roads (as shown on [Figure 5.23.1-1](#)) would also result in construction impacts. Local municipalities will need to enforce air quality, water quality and soil erosion control measures to minimize construction impacts.

5.23.21 SURFACE TRANSPORTATION

5.23.21.1 Potential Airport-related Impacts

No-Action Alternative

Under the No-Action Alternative, no airport would be constructed within the study area. Therefore, no surface transportation impacts would occur.

Kankakee Inaugural Acquisition Alternative

A conceptual inaugural airport at the Kankakee Inaugural Acquisition Alternative would include approximately 15 miles of two-lane paved road and 4 miles of unimproved roads and would be roughly bounded by Martin Long Road to the west, Ballou Road to the south, Kahler Road to the north, and U.S. Route 45 and 52 and I-57 to the east (see [Figure 5.21-1](#) and [Figure 5.23.1-2](#)). The roadway segments identified in [Section 5.21.3.1](#) for the Kankakee Inaugural Acquisition Alternative would be abandoned during construction.

Local traffic patterns would be disrupted, with 15 miles of local, county and township roads being abandoned, severed or improved. Emergency vehicle and school bus routes would need to be redefined and coordinated with the affected agencies, as construction begins. Travel distances for emergency vehicles would be essentially the same since roadway impacts would occur mostly in the northwest corner of Kankakee County and not between service providers and coverage area.

Construction of a conceptual inaugural airport would not substantially increase travel distances. In most cases, travel distances would increase by 1 to 2 miles. Adverse impacts would occur for east-west travel using Wesley Line Road and Ballou Road and for north-south travel using Gouger Road (6000W) and Eastern Avenue (5000W).

There would be two construction access points designated for contractor's use: Interstate 57 at Ballou Road (once constructed) and U.S. Highway 45/52 at Ballou Road. These two points ultimately would be airport entrances.

The proposed access routes to the Kankakee Inaugural Acquisition Alternative would be:

- Northeast - Traffic would travel south along I-57 to an interchange with the Main Airport Access Road. Traffic would travel west on the Main Airport Access Road and into the terminal area;
- North - Traffic would travel south along U.S. Highway 45/52 to an interchange with the Main Airport Access Road, then west into the terminal area;
- West - Traffic would travel east along Wilmington-Peotone Road to U.S. Highway 45/52, then south to an interchange with the Main Airport Access Road. Traffic would then travel west into the terminal area;
- South - Traffic would travel either north on I-57 to an interchange with the Main Airport Access Road or north on U.S. Highway 45/52 to an interchange with the Main Airport Access Road. Traffic would then travel west into the terminal area; and
- East - Traffic would travel west on either Manteno Road or Wilmington-Peotone Road, until coming to U.S. Highway 45/52, then travel north or south, respectively, to an interchange with the Main Airport Access Road. Traffic would then travel west into the terminal area.

Traffic modeling of the Main Airport Access Road was not performed for the Kankakee Inaugural Acquisition Alternative. If this alternative is selected, then a detailed traffic analysis would be required. For purposes of this document, it was assumed that the proposed roadway system would be more than adequate to handle the predicted traffic volumes.

Kankakee Ultimate Acquisition Alternative

A conceptual ultimate airport at the Kankakee Ultimate Acquisition Alternative would include approximately 37 miles of two-lane paved road and 30 miles of unimproved roads and would be roughly bounded by Symerton Road to the west, 8000 N to the south, Wilmington-Peotone Road to the north, and U.S. Route 45 and 52 and I-57 to the east (see [Figure 5.21-1](#) and [Figure 5.23.1-4](#)). The roadway segments identified in [Section 5.21.3.1](#) for the Kankakee Ultimate Acquisition Alternative would be abandoned during construction.

Local traffic patterns would be disrupted, with 67 miles of local, county and township roads being abandoned, severed or improved. Emergency vehicle and school bus routes would need to be redefined and coordinated with the affected agencies, as construction begins. Travel distances for emergency vehicles would be essentially the same since roadway impacts would occur mostly in the northwest corner of Kankakee County and not between service providers and coverage area.

Construction of conceptual ultimate airport should not substantially increase travel distances. In most cases, travel distances would increase by 1 to 2 miles. Adverse impacts would occur for east-west travel using Kennedy Road, Wesley Line Road, Ballou Road and Manteno Road and for north-south travel using Gouger Road (6000W), Eastern Avenue (5000W) and Warner Bridge Road.

There would be two construction access points designated for contractor's use: Interstate 57 at Ballou Road (once constructed) and U.S. Highway 45/52 at Ballou Road. These two points ultimately would be airport entrances.

The proposed access routes to the Kankakee Ultimate Acquisition Alternative Airport would be:

- Northeast - Traffic would travel south along I-57 to an interchange with the Main Airport Access Road. Traffic would travel west on the Main Airport Access Road and into the terminal area;
- North - Traffic would travel south along U.S. Highway 45/52 to an interchange with the Main Airport Access Road, then west into the terminal area;
- West - Traffic would travel east along Wilmington-Peotone Road to the northeast corner of the acquisition alternative where an unimproved county road currently exists. This road would be improved in the future to provide access south to an interchange with the Main Airport Access Road. Traffic would then travel west into the terminal area;
- South - Traffic would travel either north on I-57 to an interchange with the Main Airport Access Road or north on U.S. Highway 45/52 to an interchange with the Main Airport Access Road. Traffic would then travel west into the terminal area; and
- East - Traffic would travel west on either Manteno Road or Wilmington-Peotone Road, until coming to the Northeast Airport Entrance or the Southeast Airport Entrance. Traffic would then travel north or south on an internal airport road to an interchange with the Main Airport Access Road. Traffic would then travel west into the terminal area.

A detailed traffic analysis of airport highway access and on-airport roadway system was conducted for the Will County Ultimate Acquisition Alternative, as part of the design process for conceptual Airport Layout Plan. Since the on-airport roadway system would be essentially the same at the Kankakee Ultimate Acquisition Alternative, additional analysis was not performed. If the Kankakee Ultimate Acquisition Alternative is approved, a similar analysis would be conducted.

Will County Inaugural Acquisition Alternative

A conceptual inaugural airport at the Will County Inaugural Acquisition Alternative would include approximately 10 miles of two-lane paved roads and would be roughly bounded by Illinois Route 50 and I-57 to the west, North Peotone/Church Road to the south, Offner Road to the north, and Illinois Route 1 to the east (see [Figure 5.21-2](#) and [Figure 5.23.1-3](#)). The roadway segments identified in [Section 5.21.3.1](#) for the Will County Inaugural Acquisition Alternative would be abandoned during construction.

Local traffic patterns would be disrupted, with 10 miles of local, county and township roads being abandoned, severed or improved. Emergency vehicle and school bus routes would need to be redefined and coordinated with the affected agencies, as construction begins. Travel distances for emergency vehicles would be essentially the same since roadway impacts would occur mostly in the central portion of eastern Will County and not between service providers and coverage area.

Construction of conceptual inaugural airport would not substantially increase travel distances. In most cases, travel distances would increase by 1 to 3 miles. Adverse impacts would occur for east-west travel using Eagle Lake Road and for north-south travel using Central Avenue, Will Center Road, Crawford Avenue, Kedzie Avenue and Western Avenue.

There would be two construction access points designated for contractors' use. Initial western access would be from Illinois Route 50 along Eagle Lake Road through Monee to the north and Peotone to the south, and eastern access would be from Illinois Route 1 along Eagle Lake Road from Illinois Route 394 to the north and through Beecher from the south.

A new roadway system that would be built as the West Airport Access Road with an interchange on I-57, located south of Raccoon Grove Nature Preserve. Ultimately, major construction deliveries to this acquisition alternative would use the West Airport Access Road rather than Illinois Route 50. Additionally, the two existing railroad freight lines on the east and west sides of the site may be utilized for delivery of bulk construction materials.

The major access routes to the Will County Inaugural Acquisition Alternative would be as follows:

- Northeast - Traffic would travel south along Illinois 394 and Illinois Route 1 to Goodenow Road/Pauling Road. Traffic would travel west on this road to Illinois Route 50, then south to the West Airport Access Road and east into the terminal.
- Northwest - Traffic would travel south on Interstate 57 to the interchange with the West Airport Access Road and travel east into the terminal area.
- West - Traffic would come from several routes including Interstate 80, then down Interstate 57, or across local roads (Wilmington-Peotone Road, Manhattan-Monee Road);
- Southwest - Traffic would use Interstate 57 to the West Airport Access Road;
- Southeast - Traffic would use the Peotone-Beecher Road to Illinois Route 50, then travel north to the West Airport Access Road; and
- East - Traffic would travel either along Goodenow/Pauling Road or along Peotone-Beecher Road to Illinois Route 50 and then south or north to the West Airport Access Road.

Traffic modeling of the West Airport Access Road was not performed for the Will County Inaugural Acquisition Alternative. If this alternative is selected, then a detailed traffic analysis would be required. For purposes of this document, it was assumed that the proposed roadway system would be more than adequate to handle the predicted traffic volumes.

Will County Ultimate Acquisition Alternative

A conceptual ultimate airport at the Will County Ultimate Acquisition Alternative site would include approximately 45 miles of two-lane paved roads and 20 miles of unimproved roads and would be roughly bounded by Illinois Route 50 and I-57 to the west, Corning Road/311th Street to the south, Crete-Monee Road to the north, and Illinois Route 1 to the east (see [Figure 5.21-2](#) and [Figure 5.23.1-5](#)). The roadway segments identified in [Section 5.21.3.1](#) for the Will County Ultimate Acquisition Alternative would be abandoned during construction.

Local traffic patterns would be disrupted, with 65 miles of local, county and township roads being abandoned, severed or improved. Emergency vehicle and school bus routes would need to be redefined and coordinated with the affected agencies, as construction begins. Travel distances for emergency vehicles would be essentially the same since roadway impacts would occur mostly in the central portion of eastern Will County and not between service providers and coverage area. The East-West Airport Connector Road would increase travel distances for emergency vehicles and school buses traveling south from Crete to points beyond the East-West Airport Connector Road.

Construction of a conceptual ultimate airport would not substantially increase travel distances. In most cases, travel distances would increase by 1 to 3 miles. Adverse impacts would occur for east-west travel using Pauling Road, Offner Road, Eagle Lake Road, North Peotone/Church Road and Peotone-Beecher Road and for north-south travel using Central Avenue, Will Center Road, Crawford Avenue, Kedzie Avenue, Western Avenue and Ashland Avenue.

There would be two construction access points designated for contractor's use. Initial western access would be from Illinois Route 50 along Eagle Lake Road through Monee to the north and Peotone to the south, and eastern access would be from Illinois Route 1 along Eagle Lake Road from Illinois Route 394 to the north and through Beecher from the south.

One of the first new roadway systems that would be built is the West Airport Access Road and the interchange on I-57 located south of Raccoon Grove Nature Preserve. Ultimately, major construction deliveries to an airport at this acquisition alternative would use the West Airport Access Road rather than Illinois Route 50. Additionally, the two existing railroad freight lines on the east and west sides of the site may be utilized for delivery of bulk construction materials.

The major access routes to the Will County Ultimate Acquisition Alternative would be as follows:

- Northeast - Traffic would travel south along Illinois 394 to an interchange with the East-West Airport Connector Road located just south of Burrville Road. Traffic would travel west on the East-West Airport Connector Road to the North Airport Access Road and into the terminal area;
- Northwest - Traffic would travel south on Interstate 57 to the interchange with the West Airport Access Road and travel east into the terminal area.
- West - Traffic would come from several routes including Interstate 80, then down Interstate 57, or across local roads (Wilmington-Peotone Road, Manhattan-Monee Road);

- Southwest - Traffic would use Interstate 57 to the West Airport Access Road;
- Southeast - Traffic would use Corning Road/311th Street to the South Airport Entrance; and
- East - Service and cargo vehicles would travel down Illinois Route 1 to the East Airport Access Road. Passenger vehicles would travel either along the East-West Airport Connector Road to the North Access Road, or Corning Road/311th Street to the South Airport Entrance.

A detailed traffic analysis of an airport highway access and on-airport roadway system was conducted for the Will County Ultimate Acquisition Alternative. The analysis showed that the North Airport Access Road reached level of service (LOS) “C” or better, with the exception of the northbound ramp merge points, which would reach LOS “E” for the 1:00 p.m. peak hour. The West Airport Access Road reaches LOS “C” or better on westbound, and LOS “D” on eastbound. LOS “E” is forecast at the eastbound off-ramp to the service road/employee parking area during the 7:00 a.m. peak hour. (LOS “A” represents virtual freeflow conditions, while LOS “E” represents heavily congested traffic conditions.)

For an airport terminal and parking area, the capacity analyses indicate that the travel speeds reach design speeds of at least 40 mph for the roadways entering and leaving the terminal area, and at least 30 mph for the arrivals/departures roadways at the terminal. While some weaving and non-weaving sections show LOS “D” or worse during certain peak periods, the projected speeds are satisfactory.

Capacity analyses were also performed for I-57, the proposed East-West Airport Connector Road, Illinois Route 394 and Wilmington-Peotone Road. The capacity analysis indicates that the segment along I-57 south of the Wilmington-Peotone Road interchange is forecast to decline to LOS “E” due to the heavy traffic from or to the south. There are also numerous merge/diverge areas, which are expected to drop to a LOS “E” or “F.” These areas of marginal operations would be addressed during the detailed design development of an airport roadway system. [Appendix H](#) contains more detailed information on the traffic capacity analysis performed for on-airport road and access road systems.

5.23.21.2 Potential Induced Cumulative Impacts

This section summarizes the surface transportation impacts of regional growth, including the conceptual airport, on the surrounding area. It focuses primarily on the results of the traffic analysis conducted for roads and intersections in the vicinity of the Kankakee and Will County Acquisition Alternatives. Future impacts on the intersections as a result of regional growth with a conceptual ultimate airport or with the No-Action Alternative were considered. The conceptual inaugural airport roadway network provides for a roadway system that would be more than adequate to handle local and airport-generated traffic.

The Sponsor did not specifically identify roadway improvements in the regional network, since this is the responsibility of the regional transportation planning agencies, Chicago Area Transit Study (CATS) and the Northeastern Illinois Planning Commission (NIPC). The regional plans are based on total regional growth, of which a conceptual airport is one element. CATS and NIPC have released a transportation plan that projects the regional roadway system for 2020. This plan includes a scenario for both the conceptual ultimate airport and the No-Action Alternative. Every effort has been made to provide

information about the development of the conceptual airport to assist CATS and NIPC in the development of this regional plan. Specific improvements must remain a local and regional decision.

For purposes of air quality (carbon monoxide) modeling and traffic capacity analyses, a future roadway network was developed in consultation with CATS and IDOT. This was an iterative process involving local, county and state officials. The local land uses and existing roadway network were examined. Using data developed during the site selection phase of the project and the CATS *2010 Transportation System Development Plan*, the roadway network that had the greatest probability of being improved in the future, regardless of whether or not an airport alternative was implemented, was identified.

No-Action Alternative

Since the intersections selected for analysis differ for the two potential future ultimate airport sites, the No-Action Alternative analysis has been combined with the discussion for each of the Ultimate Acquisition Alternatives. This also allows for a better comparison of the impacts associated with airport development.

In general, if an airport is not constructed, the cumulative impact study areas will still realize a 6 to 10-percent increase in population. The surface transportation network shown on [Figure 5.23.1-1](#) would most likely be implemented, resulting in increased traffic throughout the area.

Kankakee Inaugural Acquisition Alternative

The conceptual inaugural airport roadway network provides for a roadway system that is more than adequate to handle airport-generated traffic. There would be a very slight difference in the socioeconomic data between the Kankakee Inaugural Acquisition Alternative and the No-Action Alternative. The Kankakee Inaugural Acquisition Alternative would generate approximately 11,600 more jobs and add 12,000 people to the population in the region. Most of these added jobs (6,678) would be direct jobs located at an airport. Accordingly, almost 75 percent of the additional trips to work under the Kankakee Inaugural Acquisition Alternative would occur on airport access roads. I-57 would handle most of this additional traffic; traffic from the north would be flowing counter to rush-hour traffic. Traffic outside of the immediate vicinity of an airport would be diffused. Thus, no traffic analyses were conducted specifically for the Inaugural Acquisition Alternative. If this alternative is selected, additional analysis will be required.

The surface transportation network shown on [Figure 5.23.1-1](#) would most likely be implemented, resulting in some increased traffic throughout the area.

Kankakee Ultimate Acquisition Alternative

The assumed roadway network for the conceptual ultimate airport at the Kankakee Ultimate Acquisition Alternative was modeled for traffic volumes based on regional socioeconomic forecasts of employment and households. The resultant traffic volumes were then reviewed by IDOT and COMSIS Corporation to determine areas where revisions could be made to improve the overall traffic flow, keeping in mind the

concerns previously expressed by local officials and committee members (refer to Michael Baker, Jr., Inc., 1997).

Analysis of traffic impacts of the future regional development including an airport is based on the University of Illinois' Simplified Method for the Analysis of Regional Travel (SMART) model output, expressed as forecasted vehicle equivalents (VEqs). Inputs to the model include aviation demand forecasts for the future years (international and domestic enplanement forecasts for 2020); future roadway network improvements (CATS *2010 Transportation System Development Plan*, IDOT roadway plans); regional transit ridership forecasts and forecasts of modal splits (prepared by CATS); regional socioeconomic and employment forecasts for an airport direct, indirect and induced employment (The al-Chalabi Group, 1997); airport-related truck traffic; and other assumptions for the definition of certain microscale model parameters.

Twenty-one intersections around the Kankakee Ultimate Acquisition Alternative (including four proposed intersections) were selected based on professional judgment, aerial photography and future roadway plans. In general, sites were selected where the conceptual airport is expected to produce maximum impacts and at locations where the National Ambient Air Quality Standards may be exceeded (see [Figure 5.5-1](#)). For the purposes of this analysis, an intersection is defined as the area where two or more roadway lanes meet; interchanges are considered as two independent intersections on both sides of a grade-separated highway.

The largest traffic impacts resulting from a conceptual ultimate airport would be at locations nearest an airport, resulting from dispersion of traffic going to and from an airport. The most representative intersections and interchanges were selected after a lengthy review process. The chosen intersections were reviewed by IDOT, Highway District 1 and 3, for traffic capacity analysis.

Traffic impact measurements used in this analysis are expressed in terms of peak hour vehicle volumes per lane/movement for all vehicles entering and exiting an intersection. The analysis includes impacts of an airport at the Kankakee Ultimate Acquisition Alternative and the No-Action Alternative for 2020 traffic volumes, in relation to existing conditions (1990) for all intersections analyzed. For purposes of this analysis, 2020 is used as the model year for impacts since socioeconomic projections for the greater Chicago region are only available through 2020.

The percentage increase in peak hour traffic volumes was used to define the relative impacts between scenarios. Traffic impacts on roads are implied within the database by defining the number of lanes at an intersection in the future time horizons, based on standard demand-capacity analysis. Daily traffic volumes, in vehicle equivalents (VEqs) for 1990, were derived from the travel demand model and were converted to peak hour volumes without Average Daily Traffic (ADT) adjustments. The 1990 numbers were compared against actual traffic counts for validation. Exhibits M-9 through M-68 in [Appendix H](#) show existing intersection/interchange configurations and traffic volumes for existing conditions (1990), 2020 No-Action and 2020 Build.

The intersections were modeled in accordance with the *Highway Capacity Manual-Third Edition*, from the Transportation Research Board, Special Report No. 209, using the Federal Highway Administration's Highway Capacity Software (HCS). The results of this modeling effort are published separately, but summarized below (TAMS, 1996e).

Potential Regional And Local Traffic Impacts

Traffic impacts for the No-Action Alternative include the projected "background traffic" for the road network around the Kankakee Ultimate Acquisition Alternative. The No-Action Alternative traffic volumes reflect the natural growth in the region's socioeconomic characteristics, including traffic, if the conceptual airport is not built. Therefore, changes in traffic volumes are relatively small, and within the average annual growth range predicted by the regional/transportation planning agencies, without airport development.

Traffic generated and induced by the development of a conceptual ultimate airport at the Kankakee Ultimate Acquisition Alternative would mostly impact roads and intersections around the acquisition alternative. This traffic includes airport passenger/visitor traffic, airport/airline employees, airport service vehicles and traffic from nearby airport-induced development. Airport-related traffic (passengers, taxis, buses, limousines, airport employees, airport service and supply vehicles, cargo vehicles) impacting the road network would be derived from increased traffic on an airport access roads and related intersections and increased traffic at major intersections in the area due to secondary development.

Projections of total traffic volumes through the selected intersections (in peak hour volumes) for 2020 were conducted by COMSIS Corporation using the SMART model and are shown in [Table 5.23.21-1](#). Total traffic through an intersection is the sum of all approach traffic movements into the intersection (or traffic movements leaving the intersection). This term provides a measure of road traffic volume on the roads prior to (or just after) the intersection.

The impacts are expressed as percentage change in peak hour traffic volumes (in VEq) between the existing condition (1990) and a conceptual ultimate airport at the Kankakee Ultimate Acquisition Alternative for 2020, and between a conceptual ultimate airport at the Kankakee Ultimate Acquisition Alternative and No-Action Alternative for 2020. [Table 5.23.21-2](#) summarizes the 1990 traffic volumes and percentage change for traffic flow through the intersections.

A conceptual ultimate airport at the Kankakee Ultimate Acquisition Alternative would substantially increase traffic on the adjacent road network. These impacts are shown in [Table 5.23.21-2](#). As shown, percent change in traffic volumes between 1990 and 2020 ranges from 194 percent to 3,031 percent. [Table 5.23.21-2](#) also reveals a similar pattern for the difference in traffic volumes between a conceptual ultimate airport at the Kankakee Ultimate Acquisition Alternative and No-Action Alternative, with percentage increases in peak hour traffic at the intersections ranging from 174 percent to 3,398 percent.

TABLE 5.23.21-1

**PROJECTED PEAK HOUR TRAFFIC FLOW THROUGH IMPACTED INTERSECTIONS
1990 AND 2020
NO-ACTION VS. KANKAKEE ULTIMATE ACQUISITION ALTERNATIVE**

| Intersection or Interchange | | Traffic Volume Through Intersections (In or Out, VEQs Volume in Peak Hour) | | |
|-----------------------------|---|---|----------------------------------|---------------------------------|
| | | Existing (1990) | No-Action Alternative 2020 | Kankakee Alternative 2020 |
| No. | Location | | | |
| 1 | US 45/Manhattan-Monee Road Intersection | 608 | 1,068 | 9,265 |
| 2 | US 45/Wilmington-Peotone Road Intersection | 1,032 | 1,643 | 12,904 |
| 3 | I-57/Wilmington-Peotone Road Interchange (West Side Ramp Pair) | 852 | 839 | 9,108 |
| 4 | I-57/Wilmington-Peotone Road Interchange (East Side Ramp Pair) | 609 | 1,106 | 6,637 |
| 5 | IL 50/Wilmington-Peotone Road Interchange | 337 | 738 | 6,029 |
| 6 | Harlem Avenue/Manhattan-Monee Road Intersection | 182 | 258 | 3,588 |
| 7 | IL 50/Manteno Road Intersection | 1,322 | 1,647 | 6,347 |
| 8 | I-57/Manteno Road Interchange (West Side Ramp Pair) | 742 | 1,075 | 6,100 |
| 9 | I-57/Manteno Road Interchange (East Side Ramp Pair) | 1070 | 1,244 | 9,143 |
| 10 | US 45 & 52/Manteno Road Intersection | 938 | 1,289 | 7,506 |
| 11 | I-57/IL 50 Interchange (West Side Ramp Pair) | 973 | 1,169 | 6,188 |
| 12 | I-57/IL 50 Interchange (East Side Ramp Pair) | 936 | 1,125 | 5,426 |
| 13 | US 45 & 52/Armour Road Intersection | 2,205 | 2,373 | 6,491 |
| 14 | IL 102/Deselm Road Intersection | 200 | 179 | 6,261 |
| 15 | Warner Bridge Road/Manteno Road Intersection | 724 | 1,018 | 6,389 |
| 16 | IL 53/Wilmington-Peotone Road Intersection | 1,038 | 1,164 | 3,243 |
| 17 | IL 52 & Joliet Road/Wilton Center Road Intersection | 515 | 946 | 6,594 |

Source: IDOT/COMSIS, 1997.

TABLE 5.23.21-2

**PROJECTED PEAK HOUR TRAFFIC FLOW THROUGH IMPACTED INTERSECTIONS
PERCENT DIFFERENCE
NO-ACTION VS. KANKAKEE ULTIMATE ACQUISITION ALTERNATIVE**

| Intersection or Interchange | | Existing Traffic Volumes (Veqs) (1990) | Percent Difference Between Alternatives | |
|-----------------------------|--|--|---|----------------------------------|
| | | | Kankakee Alternative & Existing | Kankakee Alternative & No-Action |
| No. | Location | | 2020 | 2020 |
| 1 | US 45/Manhattan-Monee Road Intersection | 608 | 1,424% | 768% |
| 2 | US 45/Wilmington-Peotone Road Intersection | 1,032 | 1,150% | 685% |
| 3 | I-57/Wilmington-Peotone Road Interchange (West Side Ramp Pair) | 852 | 969% | 986% |
| 4 | I-57/Wilmington-Peotone Road Interchange (East Side Ramp Pair) | 609 | 999% | 500% |
| 5 | IL 50/Wilmington-Peotone Road Interchange | 337 | 1,689% | 717% |
| 6 | Harlem Avenue/Manhattan-Monee Road Intersection | 182 | 1,871% | 1,291% |
| 7 | IL 50/Manteno Road Intersection | 1,322 | 380% | 285% |
| 8 | I-57/Manteno Road Interchange (West Side Ramp Pair) | 742 | 722% | 467% |
| 9 | I-57/Manteno Road Interchange (East Side Ramp Pair) | 1,070 | 754% | 635% |
| 10 | US 45 & 52/Manteno Road Intersection | 938 | 700% | 482% |
| 11 | I-57/IL 50 Interchange (West Side Ramp Pair) | 973 | 536% | 429% |
| 12 | I-57/IL 50 Interchange (East Side Ramp Pair) | 936 | 480% | 382% |
| 13 | US 45 & 52/Armour Road Intersection | 2,205 | 194% | 174% |
| 14 | IL 102/Deselm Road Intersection | 200 | 3,031% | 3,398% |
| 15 | Warner Bridge Road/Manteno Road Intersection | 724 | 782% | 528% |
| 16 | IL 53/Wilmington-Peotone Road Intersection | 1,038 | 212% | 179% |
| 17 | IL 52 & Joliet Road/Wilton Center Road Intersection | 515 | 1,180% | 597% |

Source: IDOT/COMSIS, 1997.

Intersection Capacity

While many of the percentage increases in peak hour traffic volumes are very large, the increases must be examined relative to the capacity of each intersection. The existing level of service (LOS) (1990) is presented in [Table 5.23.21-3](#). The overall delay at each intersection, based on output of the Highway Capacity Software (HCS), is also shown, where it was able to be determined. In the HCS runs, the capacity of most of the non-signalized intersections was only provided in terms of seconds of delay; thus, no information for overall capacity of these intersections is provided. This study used the operational method for analyzing signalized intersections using standard values regarding geometrics of the intersection and traffic mix. The actual design of future intersections would be determined as part of the normal regional transportation process and undergo standard environmental review.

As shown in [Table 5.23.21-3](#), most of the existing intersections/interchanges are operating favorably, except for intersection 7. In general terms, level of service (LOS) “A-C” corresponds to under capacity, LOS “D” corresponds to near capacity, LOS “E” corresponds to at capacity, and LOS “F” corresponds to over capacity.

TABLE 5.23.21-3

**INTERSECTION/INTERCHANGE CAPACITY - EXISTING CONDITIONS (1990)
KANKAKEE ULTIMATE ACQUISITION ALTERNATIVE**

| Intersection or Interchange | | Signalized Intersect | Delay in Seconds | Volume/Capacity Ratio | LOS |
|-----------------------------|--|----------------------|------------------|-----------------------|-----|
| No. | Location | | | | |
| 1 | US 45/Manhattan-Monee Road Intersection | No | 3.46 | N/A | A |
| 2 | US 45/Wilmington-Peotone Road Intersection | No | 8.09 | N/A | B |
| 3 | I-57/Wilmington-Peotone Road Interchange (East Side Ramp Pair) | No | 1.40 | N/A | A |
| 4 | I-57/Wilmington-Peotone Road Interchange (West Side Ramp Pair) | No | 1.90 | N/A | A |
| 5 | IL 50/Wilmington-Peotone Road Interchange | No | 2.90 | N/A | A |
| 6 | Harlem Avenue/Manhattan-Monee Road Intersection | No | 0.40 | N/A | A |
| 7 | IL 50/Manteno Road Intersection | No | 107.7 | N/A | F |
| 8 | I-57/Manteno Road Interchange (East Side Ramp Pair) | No | 1.40 | N/A | A |
| 9 | I-57/Manteno Road Interchange (West Side Ramp Pair) | No | 6.20 | N/A | B |
| 10 | US 45 & 52/Manteno Road Intersection | No | 9.10 | N/A | B |
| 11 | I-57/IL 50 Interchange (East Side Ramp Pair) | No | 5.20 | 0.238 | B |
| 12 | I-57/IL 50 Interchange (West Side Ramp Pair) | Yes | 5.40 | 0.229 | B |
| 13 | US 45 & 52/Armour Road Intersection | Yes | 6.30 | 0.322 | B |
| 14 | IL 102/Deselm Road Intersection | No | 0.40 | N/A | A |
| 15 | Warner Bridge Road/Manteno Road Intersection | No | 4.10 | N/A | A |
| 16 | IL 53/Wilmington-Peotone Road Intersection | No | 6.40 | N/A | B |
| 17 | IL 52 & Joliet Road/Wilton Center Road Intersection | No | 3.50 | N/A | A |

Sources: IDOT/COMSIS, 1997; TAMS, 1997

Future capacity of the selected intersections/interchanges for the No-Action Alternative and a conceptual ultimate airport at the Kankakee Ultimate Acquisition Alternative are shown in [Table 5.23.21-4](#). Under the No-Action Alternative, the intersections that have capacity shown in terms of seconds of delay would be non-signalized intersections. Intersections that have capacity shown in terms of volume/capacity ratios would be signalized intersections. All of the intersections under the No-Action Alternative in 2020 would be under or near capacity except for intersections 7 and 10.

All of the selected intersections would be signalized with a conceptual ultimate airport at the Kankakee Ultimate Acquisition Alternative. Due to the increased growth in population and employment expected within the Ultimate Cumulative Impact Study Area, under the Kankakee Ultimate Acquisition Alternative, all intersections would be over capacity except intersections 6 and 16.

Will County Inaugural Acquisition Alternative

As discussed for the Kankakee Inaugural Acquisition Alternative, the conceptual inaugural airport roadway network provides for a roadway system that is more than adequate to handle airport-generated traffic. A conceptual inaugural airport at the Will County Inaugural Acquisition Alternative would generate approximately 12,100 more jobs and add 12,400 people to the population in the region. Most of these added jobs (6,770) are direct jobs located at an airport. As with the Kankakee Inaugural Acquisition Alternative, almost 75 percent of the additional trips to work with a conceptual inaugural airport at the Will County Inaugural Acquisition Alternative would occur on airport access roads. I-57 would handle most of this additional traffic. Traffic outside of the immediate vicinity of an airport would be diffused. Thus, no traffic analyses were conducted specifically for the Inaugural Airport. If this alternative is selected, additional analysis will be required.

The surface transportation network shown on [Figure 5.23.1-1](#) would most likely be implemented, resulting in increased traffic throughout the area.

TABLE 5.23.21-4

**INTERSECTION/INTERCHANGE CAPACITY
NO-ACTION VS. KANKAKEE ULTIMATE ACQUISITION ALTERNATIVE**

| Intersection or Interchange | | No-Action Alternative | | | Kankakee Alternative | |
|-----------------------------|---|-----------------------|-----------|-----|----------------------|-----|
| No. | Location | Delay in Sec. | V/C Ratio | LOS | V/C Ratio | LOS |
| 1 | US 45/Manhattan-Monee Road Intersection | 8.4 | - | B | * | * |
| 2 | US 45/Wilmington-Peotone Road Intersection | 25.29 | - | D | * | * |
| 3 | I-57/Wilmington-Peotone Road Interchange (East Side Ramp Pair) | 1.8 | - | A | * | * |
| 4 | I-57/Wilmington-Peotone Road Interchange (West Side Ramp Pair) | 5.5 | - | B | * | * |
| 5 | IL 50/Wilmington-Peotone Road Interchange | 5.6 | - | B | * | * |
| 6 | Harlem Avenue/Manhattan-Monee Road Intersection | 0.5 | - | A | 1.109 | D |
| 7 | IL 50/Manteno Road Intersection | * | - | F | * | * |
| 8 | I-57/Manteno Road Interchange (East Side Ramp Pair) | 1.9 | - | A | * | * |
| 9 | I-57/Manteno Road Interchange (West Side Ramp Pair) | 13.2 | - | B | * | * |
| 10 | US 45 & 52/Manteno Road Intersection | 110.0 | - | F | * | * |
| 11 | I-57/IL 50 Interchange (East Side Ramp Pair) | 5.1 | .285 | B | * | * |
| 12 | I-57/IL 50 Interchange (West Side Ramp Pair) | 5.2 | .281 | B | * | * |
| 13 | US 45 & 52/Armour Road Intersection | 6.4 | .350 | B | * | * |
| 14 | IL 102/Deselm Road Intersection | 0.4 | - | A | * | * |
| 15 | Warner Bridge Road/Manteno Road Intersection | 10.4 | - | B | * | * |
| 16 | IL 53/Wilmington-Peotone Road Intersection | 7.8 | - | B | 0.996 | D |
| 17 | IL 52 & Joliet Road/Wilton Center Road Intersection | 6.4 | - | B | * | * |
| 18 | US 45 & 52/Airport Access Road Intersection (Westbound Direction) | - | - | - | * | * |
| 19 | US 45 & 52/Airport Access Road Intersection (Eastbound Direction) | - | - | - | * | * |
| 20 | I-57 SB to Airport Access Road (Ramp) | - | - | - | N/A | C |
| 21 | Airport Access Road to I-57 SB (Ramp) | - | - | - | N/A | D |

Sources: IDOT/COMSIS, 1997; TAMS, 1997.

Will County Ultimate Acquisition Alternative

Methods of analysis for the Will County Ultimate Acquisition Alternative were consistent with those used for the Kankakee Ultimate Acquisition Alternative Airport analysis.

Twenty-nine intersections around the Will County Ultimate Acquisition Alternative were selected, based on CATS professional judgment, aerial photography and future roadway plans (CATS, 1995a). The basis for selection was consistent with that used for the Kankakee Ultimate Acquisition Alternative (see [Figure 5.5-2](#)).

The intersections were modeled in accordance with the *Highway Capacity Manual-Third Edition*, from the Transportation Research Board, Special Report No. 209, using the Federal Highway Administration's Highway Capacity Software (HCS). The results of this modeling effort are published separately, but summarized below (TAMS, 1996e).

Potential Regional And Local Traffic Impacts

Traffic impacts for the No-Action Alternative include the projected "background traffic" for the road network around the Will County Ultimate Acquisition Alternative. The No-Action Alternative traffic volumes reflect the natural growth in the region's socioeconomic characteristics, including traffic, if the conceptual ultimate airport is not built. Therefore, changes in traffic volumes are relatively small, and within the average annual growth range predicted by the regional/transportation planning agencies, without airport development.

Traffic generated and induced by the development of a conceptual ultimate airport would mostly impact roads and intersections around the Will County Ultimate Acquisition Alternative. The vehicle mix and nature of impact resulting from this traffic is similar to that previously discussed for the Kankakee Ultimate Acquisition Alternative.

Projections of total traffic volumes through the selected intersections (in peak hour VEq) for 2020 were conducted by CATS using the subregional transportation planning model and are shown in [Table 5.23.21-5](#). Total traffic through an intersection is the sum of all approach traffic movements into the intersection (or traffic movements leaving the intersection). This term provides a measure of road traffic volume on the roads prior to (or just after) the intersection.

The CATS model incorporates its own planned road improvement program, which explains the moderate increase, or even reduction, in traffic volumes in some locations and substantial increases in others. Where improvements are planned, significant traffic increase is expected in the future; traffic may be diverted to these areas from other currently congested intersections.

TABLE 5.23.21-5

**PROJECTED PEAK HOUR TRAFFIC FLOW THROUGH IMPACTED INTERSECTIONS
1990 AND 2020
NO-ACTION VS. WILL COUNTY ULTIMATE ACQUISITION ALTERNATIVE**

| Intersection or Interchange | | Traffic Volume Through Intersections (In or Out, VEQs Volume in Peak Hour) | | |
|-----------------------------|--|---|------------------------------------|--------------------------------------|
| | | Existing (1990) | No-Action Alternative (2020) | Will County Alternative (2020) |
| No. | Location | | | |
| 1 | US 45/Manhattan-Monee Road Intersection | 797 | 1254 | 4042 |
| 2 | US 45/Wilmington Peotone Road Intersection | 1688 | 1927 | 4244 |
| 3 | I-57/Wilmington-Peotone Road Interchange (West Side Ramp Pair) | 1005 | 1039 | 4495 |
| 4 | I-57/Wilmington-Peotone Road Interchange (East Side Ramp Pair) | 530 | 764 | 5378 |
| 5 | IL 50/Wilmington-Peotone Road Interchange | 847 | 1258 | 4705 |
| 6 | Harlem/Manhattan-Monee Intersection | 492 | 916 | 3844 |
| 7 | I-57/Manhattan-Monee Interchange (West Side Ramp Pair) | 819 | 1065 | 4122 |
| 8 | I-57/Manhattan-Monee Interchange (East Side Ramp Pair) | 1054 | 1043 | 3681 |
| 9 | IL 50/Crete-Monee Intersection | 673 | 673 | 5213 |
| 10 | IL 50/Exchange Road Intersection | 782 | 1592 | 5891 |
| 11 | IL 50/Sauk Trail Intersection | 3523 | 5380 | 7727 |
| 12 | Governor's Highway/Exchange Road Intersection | 1548 | 2069 | 6065 |
| 13 | Western Avenue/Sauk Trail Road Intersection | 3928 | 3531 | 5680 |
| 14 | Western Avenue/Exchange Road Intersection | 1239 | 994 | 5689 |
| 15 | IL 1/Indiana Avenue Intersection | 896 | 1198 | 1713 |
| 16 | IL 1/East Airport Access Road Intersection | 958 | 1083 | 2239 |
| 17 | IL 1 (IL 394)/Goodenow Rd. Intersection (West Side Ramp Pair) | 433 | 425 | 924 |
| 18 | IL 1 (IL 394)/Goodenow Rd. Intersection (East Side Ramp Pair) | 781 | 967 | 1891 |
| 19 | IL 1/Old Monee Road Intersection (West Side) | 514 | 433 | 3522 |
| 20 | Planned as IL 1/East-West Airport Connector Rd. (North Side Ramp Pair) | N/A | N/A | 2288 |
| 21 | IL 1/Exchange Road Intersection (South Side Ramp Pair) | 1182 | 1233 | 5083 |
| 22 | IL 1/Steger Road Intersection | 1944 | 1489 | 4440 |
| 23 | IL 394/Exchange Road Intersection (Eliminated in Plan by Upgrading IL 394 to Freeway) | 1418 | 2206 | N/A |
| 25 | Planned IL 394/Sauk Trail Interchange (West Side Ramp Pair) | 3604 | 4185 | 2256 |
| 26 | Planned IL 394/Sauk Trail Interchange (East Side Ramp Pair) | N/A | N/A | 1871 |
| 27 | IL 394/Glenwood Dyer Road Interchange (West Side Ramp Pair) | 1808 | 1717 | 4483 |
| 28 | IL 394/Glenwood Dyer Road Interchange (East Side Ramp Pair) | 1952 | 1813 | 4942 |
| 29 | Lincoln Hwy/Torrence Ave. Intersection (East Side Ramp Pair) | 2578 | 2377 | 2705 |
| 30 | US 41/US 231 Intersection (in Indiana) | 1736 | 2631 | 4259 |

Source: TAMS, 1995; CATS, 1995.

N/A = Not Applicable.

The impacts are expressed as percentage change in peak hour traffic volumes (in VEQs) between the existing condition (1990) and a conceptual ultimate airport at the Will County Ultimate Acquisition Alternative, and between a conceptual ultimate airport at the Will County Ultimate Acquisition Alternative and No-Action Alternative. [Table 5.23.21-6](#) summarizes the 1990 traffic volumes and percentage change for traffic flow through intersections (either ingress or egress volumes).

A conceptual ultimate airport at the Will County Ultimate Acquisition Alternative would increase traffic on the adjacent road network. These impacts are shown in [Table 5.23.21-6](#) with up to three-digit percentage increases in traffic volumes at the intersections selected for analysis. As shown, percent change in traffic volumes between 1990 and 2020 ranges from minus 63 percent to plus 915 percent. [Table 5.23.21-6](#) also reveals a similar pattern for the difference in traffic volumes between a conceptual ultimate airport at the Will County Ultimate Acquisition Alternative and the No-Action Alternative in the future, with percentage increases in peak hour traffic at the intersections ranging from minus 46 percent to 713 percent.

Intersection Capacity

While many of the percentage increases in peak hour traffic volumes are very large, the increases must be examined relative to the capacity of each intersection. The existing capacity (1990) expressed in seconds of delay for non-signalized intersections and volume/capacity ratio for signalized intersections is presented in [Table 5.23.21-7](#). The overall capacity of each intersection, based on output of the Highway Capacity Software (HCS), is also shown, where it was able to be determined. In the HCS runs, the capacity of most of the non-signalized intersections was only provided in terms of seconds of delay; thus, no information for overall capacity of these intersections is provided. This study used the planning method for analyzing signalized intersections using standard values regarding geometrics of the intersection and traffic mix. The actual design of future intersections would be determined as part of the normal regional transportation process and undergo standard environmental review.

As shown in [Table 5.23.21-7](#), all of the existing intersections/interchanges are under capacity or have reasonable delay except for intersections 2, 27, 28 and 52. A volume/capacity ratio of 1.0 means an intersection is at capacity. A volume/capacity ratio over 1.0 means an intersection is operating over capacity; a ratio of 0.85 to 0.97 means an intersection is near capacity, while a ratio of less than 0.85 means an intersection is under capacity. In general terms, level of service (LOS) “A-C” corresponds to under capacity, LOS “D” corresponds to near capacity, LOS “E” corresponds to at capacity, and LOS “F” corresponds to over capacity.

Future capacity of the selected intersections/interchanges for the No-Action Alternative and the Will County Ultimate Acquisition Alternative are shown in [Table 5.23.21-8](#). Under the No-Action Alternative, the intersections that have capacity shown in terms of seconds of delay would be non-signalized intersections. Intersections that have capacity shown in terms of volume/capacity ratios would be signalized intersections. All of the intersections under the No-Action Alternative in 2020 would be under capacity or have reasonable delay except for intersections 2, 27 and 28.

All of the selected intersections would be signalized with a conceptual ultimate airport at the Will County Ultimate Acquisition Alternative. Due to the increased growth in population and employment in the south suburbs, under the Will County Alternative, 9 intersections would be near capacity (intersections 9, 10, 12, 14, 19, 22, 28, 52 and 53), 1 intersection would be at capacity (intersection 16) and 3 intersections would be over capacity (intersections 4, 11 and 13).

TABLE 5.23.21-6

**PROJECTED PEAK HOUR TRAFFIC FLOW THROUGH IMPACTED INTERSECTIONS -
PERCENT DIFFERENCE
NO-ACTION VS. WILL COUNTY ULTIMATE ACQUISITION ALTERNATIVE**

| Intersection or Interchange | | Existing Traffic Volumes (VEqs) (1990) | Percent Difference Between Alternatives | |
|-----------------------------|---|--|---|--|
| | | | Will County Alternative & Existing (2020) | Will County Alternative & No Action (2020) |
| No. | Location | | | |
| 1 | US 45/Manhattan-Monee Road Intersection | 797 | 407% | 222% |
| 2 | US 45/Wilmington Peotone Road Intersection | 1688 | 151% | 120% |
| 3 | I-57/Wilmington-Peotone Road Interchange (West Side Ramp Pair) | 1005 | 347% | 332% |
| 4 | I-57/Wilmington-Peotone Road Interchange (East Side Ramp Pair) | 530 | 915% | 604% |
| 5 | IL 50/Wilmington-Peotone Road Interchange | 847 | 455% | 274% |
| 6 | Harlem/Manhattan-Monee Intersection | 492 | 681% | 320% |
| 7 | I-57/Manhattan-Monee Interchange (West Side Ramp Pair) | 819 | 403% | 287% |
| 8 | I-57/Manhattan-Monee Interchange (East Side Ramp Pair) | 1054 | 249% | 253% |
| 9 | IL 50/Crete-Monee Intersection | 673 | 675% | 675% |
| 10 | IL 50/Exchange Road Intersection | 782 | 653% | 270% |
| 11 | IL 50/Sauk Trail Intersection | 3523 | 119% | 44% |
| 12 | Governor's Highway/Exchange Road Intersection | 1548 | 292% | 193% |
| 13 | Western Avenue/Sauk Trail Road Intersection | 3928 | 45% | 61% |
| 14 | Western Avenue/Exchange Road Intersection | 1239 | 359% | 427% |
| 15 | IL 1/Indiana Avenue Intersection | 896 | 91% | 43% |
| 16 | IL 1/East Airport Access Road Intersection | 958 | 134% | 107% |
| 17 | IL 1 (IL 394)/Goodenow Rd. Intersection (West Side Ramp Pair) | 433 | 113% | 117% |
| 18 | IL 1 (IL 394)/Goodenow Rd. Intersection (East Side Ramp Pair) | 781 | 142% | 96% |
| 19 | IL 1/Old Monee Road Intersection (West Side) | 514 | 585% | 713% |
| 20 | Planned as IL 1/East-West Airport Connector Rd. (North Side Ramp Pair) | N/A | N/A | N/A |
| 21 | IL 1/Exchange Road Intersection (South Side Ramp Pair) | 1182 | 330% | 312% |
| 22 | IL 1/Steger Road Intersection | 1944 | 128% | 198% |
| 23 | IL 394/Exchange Road Intersection (Eliminated in Plan by Upgrading IL 394 to Freeway) | 1418 | -37% | -46% |
| 25 | Planned IL 394/Sauk Trail Interchange (West Side Ramp Pair) | 3604 | -63% | -46% |
| 26 | Planned IL 394/Sauk Trail Interchange (East Side Ramp Pair) | N/A | N/A | N/A |
| 27 | IL 394/Glenwood Dyer Road Interchange (West Side Ramp Pair) | 1808 | 148% | 161% |
| 28 | IL 394/Glenwood Dyer Road Interchange (East Side Ramp Pair) | 1952 | 153% | 173% |
| 29 | Lincoln Hwy/Torrence Ave. Intersection (East Side Ramp Pair) | 2578 | 5% | 14% |
| 30 | US 41/US 231 Intersection (in Indiana) | 1736 | 145% | 62% |

Source: TAMS, 1995; CATS, 1995.

N/A = not applicable

TABLE 5.23.21-7

**INTERSECTION/INTERCHANGE CAPACITY - EXISTING CONDITIONS (1990)
WILL COUNTY ULTIMATE ACQUISITION ALTERNATIVE**

| Intersection or Interchange | | Signalized Intersect | Delay in Seconds | Volume/Capacity Ratio | Overall Capacity |
|-----------------------------|---|----------------------|------------------|-----------------------|------------------|
| No. | Location | | | | |
| 1 | U.S. 45/Manhattan-Monee Road Intersection | No | 4.63 | - | Under Capacity |
| 2 | U.S. 45/Wilmington Peotone Road Intersection | No | Overflow | | |
| 3 | I-57/Wilmington-Peotone Road Interchange (West Side Ramp Pair) | No | 2.70 | - | - |
| 4 | I-57/Wilmington-Peotone Road Interchange (East Side Ramp Pair) | No | 1.90 | - | - |
| 5 | IL 50/Wilmington-Peotone Road Interchange | No | 2.90 | - | - |
| 6 | Harlem/Manhattan-Monee Intersection | No | 1.70 | - | - |
| 7 | I-57/Manhattan-Monee Interchange (West Side Ramp Pair) | No | 2.30 | - | - |
| 8 | I-57/Manhattan-Monee Interchange (East Side Ramp Pair) | No | 2.70 | - | - |
| 9 | IL 50/Crete-Monee Intersection | No | 2.80 | - | - |
| 10 | IL 50/Exchange Road Intersection | No | 4.75 | - | Under Capacity |
| 11 | IL 50/Sauk Trail Intersection | Yes | - | 0.64 | Under Capacity |
| 12 | Governor's Highway/Exchange Rd Intersection | Yes | - | 0.44 | Under Capacity |
| 13 | Western Avenue/Sauk Trail Rd Intersection | Yes | - | 0.64 | Under Capacity |
| 14 | Western Avenue/Exchange Rd Intersection | Yes | - | 0.19 | Under Capacity |
| 15 | IL 1/Indiana Avenue Intersection | Yes | - | 0.29 | Under Capacity |
| 16 | IL 1/East Airport Access Road Intersection | No | 0.90 | - | - |
| 17 | IL 1 (IL 394)/Goodenow Rd. Intersection (West Side Ramp Pair) | No | 3.40 | - | Under Capacity |
| 18 | IL 1 (IL 394)/Goodenow Rd. Intersection (East Side Ramp Pair) | No | 3.79 | - | Under Capacity |
| 19 | IL 1/Old Monee Road Intersection (West Side) | No | 0.70 | - | - |
| 20 | Planned as IL 1/East-West Airport Connector Rd. (North Side Ramp Pair) | N/A | N/A | N/A | N/A |
| 21 | IL 1/Exchange Road Intersection (South Side Ramp Pair) | Yes | - | 0.19 | Under Capacity |
| 22 | IL 1/Steger Road Intersection | Yes | - | 0.39 | Under Capacity |
| 23 | IL 394/Exchange Road Intersection (Eliminated in Plan by Upgrading IL 394 to Freeway) | Yes | - | 0.34 | Under Capacity |
| 25 | Planned IL 394/Sauk Trail Interchange (West Side Ramp Pair) | Yes | - | 0.46 | Under Capacity |
| 26 | Planned IL 394 / Sauk Trail Interchange (East Side Ramp Pair) | N/A | N/A | N/A | N/A |
| 27 | IL 394/Glenwood Dyer Road Interchange (West Side Ramp Pair) | No | 176.60 | - | - |
| 28 | IL 394/Glenwood Dyer Road Interchange (East Side Ramp Pair) | No | Overflow | | |
| 29 | Lincoln Hwy/Torrence Ave Intersection (East Side Ramp Pair) | Yes | - | 0.37 | Under Capacity |
| 30 | US 41/US 231 Intersection (in Indiana) | Yes | - | 0.39 | Under Capacity |

Source: TAMS, 1995; CATS, 1995.

N/A = Not Applicable

TABLE 5.23.21-8

**INTERSECTION/INTERCHANGE CAPACITY
NO-ACTION VS. WILL COUNTY ULTIMATE ACQUISITION ALTERNATIVE (2020)**

| Intersection or Interchange | | No-Action Alternative | | | Will County Alternative | |
|-----------------------------|---|-----------------------|-----------------------|------------------|-------------------------|------------------|
| No. | Location | Delay in Seconds | Volume/Capacity Ratio | Overall Capacity | Volume/Capacity Ratio | Overall Capacity |
| 1 | US 45/Manhattan-Monee Road Intersection | 10.90 | - | Under Capacity | 0.77 | Under Capacity |
| 2 | US 45/Wilmington Peotone Road Intersection | 36.63 | - | At Capacity | 0.74 | Under Capacity |
| 3 | I-57/Wilmington-Peotone Road Interchange (West Side Ramp Pair) | 4.00 | - | - | 0.83 | Under Capacity |
| 4 | I-57/Wilmington-Peotone Road Interchange (East Side Ramp Pair) | 1.40 | - | - | 1.28 | Over Capacity |
| 5 | IL 50/Wilmington-Peotone Road Interchange | 3.70 | - | - | 0.82 | Under Capacity |
| 6 | Harlem/Manhattan-Monee Intersection | 4.80 | - | - | 0.78 | Under Capacity |
| 7 | I-57/Manhattan-Monee Interchange (West Side Ramp Pair) | 2.30 | - | - | 0.82 | Under Capacity |
| 8 | I-57/Manhattan-Monee Interchange (East Side Ramp Pair) | 2.50 | - | - | 0.68 | Under Capacity |
| 9 | IL 50/Crete-Monee Intersection | 2.20 | - | - | 0.86 | Near Capacity |
| 10 | IL 50/Exchange Road Intersection | - | 0.56 | Under Capacity | 0.88 | Near Capacity |
| 11 | IL 50/Sauk Trail Intersection | - | 0.80 | Under Capacity | 1.16 | Over Capacity |
| 12 | Governor's Highway/Exchange Road Intersection | - | 0.61 | Under Capacity | 0.86 | Near Capacity |
| 13 | Western Avenue/Sauk Trail Road Intersection | - | 0.55 | Under Capacity | 1.24 | Over Capacity |
| 14 | Western Avenue/Exchange Road Intersection | - | 0.14 | Under Capacity | 0.88 | Near Capacity |
| 15 | IL 1/Indiana Avenue Intersection | - | 0.40 | Under Capacity | 0.62 | Under Capacity |
| 16 | IL 1/East Airport Access Road Intersection | 2.20 | - | - | 0.99 | At Capacity |
| 17 | IL 1 (IL 394)/Goodenow Rd. Intersection (West Side Ramp Pair) | 3.26 | - | Under Capacity | 0.59 | Under Capacity |
| 18 | IL 1 (IL 394)/Goodenow Rd. Intersection (East Side Ramp Pair) | 5.16 | - | Under Capacity | 0.79 | Under Capacity |
| 19 | IL 1/Old Monee Road Intersection (West Side) | 0.70 | - | - | 0.87 | Near Capacity |
| 20 | Planned as IL 1/East-West Airport Connector Rd. (North Side Ramp Pair) | N/A | N/A | N/A | 0.64 | Under Capacity |
| 21 | IL 1/Exchange Road Intersection (South Side Ramp Pair) | - | 0.21 | Under Capacity | 0.52 | Under Capacity |
| 22 | IL 1 / Steger Road Intersection | - | 0.29 | Under Capacity | 0.86 | Near Capacity |
| 23 | IL 394 / Exchange Road Intersection (Eliminated in Plan by Upgrading IL 394 to Freeway) | - | 0.57 | Under Capacity | N/A | N/A |
| 25 | Planned IL 394/Sauk Trail Interchange (West Side Ramp Pair) | - | 0.76 | Under Capacity | 0.76 | Under Capacity |
| 26 | Planned IL 394/Sauk Trail Interchange (East Side Ramp Pair) | N/A | N/A | N/A | 0.63 | Under Capacity |
| 27 | IL 394/Glenwood Dyer Road Interchange (West Side Ramp Pair) | 109.60 | - | - | 0.71 | Under Capacity |
| 28 | IL 394/Glenwood Dyer Road Interchange (East Side Ramp Pair) | 60.40 | - | - | 0.87 | Near Capacity |
| 29 | Lincoln Hwy/Torrence Ave. Intersection (East Side Ramp Pair) | - | 0.38 | Under Capacity | 0.80 | Under Capacity |
| 30 | US 41/US 231 Intersection (in Indiana) | - | 0.61 | Under Capacity | 0.79 | Under Capacity |

Source: TAMS, 1995; CATS, 1995.

N/A = not applicable

5.23.22 VISUAL IMPACTS

5.23.22.1 Potential Airport-Related Impacts

No-Action Alternative

Under the No-Action Alternative, no airport would be constructed; thus, no visual impacts would occur.

Kankakee Inaugural Acquisition Alternative

The following text describes the anticipated visual impacts that would occur for a conceptual inaugural airport at the Kankakee Inaugural Acquisition Alternative based on the view points discussed in [Section 5.22](#). View point photography is presented in [Appendix I](#). Refer to [Figure 5.22-1](#) for the location of each of the viewpoints.

Viewpoint Number 1 - Manteno/Merchants Park

New shops and restaurants may be built to serve airport workers. More strip development along Illinois Route 50 and in the vicinity of the I-57 interchange could become evident. The air traffic control tower, located 7 miles west-northwest would be obscured by the buildings in Manteno. The air traffic control tower would be visible from the I-57 interchange. Arriving and departing aircraft would be visible here, but would be more noticeable at the I-57 interchange. At night, lights from a few departing and approaching aircraft would be noticed to the north.

Viewpoint Number 2 - Proposed Airport Access Road Interchange at Center Road and Ballou Road

The access road from I-57 to an airport terminal building would be completed. The houses and trees in the immediate area would have been removed and the ground re-graded. Any residential/farm houses that were not in the roadway corridor would remain and residents would see highway traffic. An on-airport natural vegetative buffer would extend around the perimeter of the acquisition alternative, which would include the access road. Over time, as the trees mature, this buffer should obscure visibility of the access road and airport for most of the year. The air traffic control tower would be 7 miles away and visible to the west. Aircraft utilizing the runway could be seen from this point both during the day and at night.

Viewpoint Number 3 - The Community of Deselm at Manteno Road and Eastern Avenue.

The air traffic control tower would be noticeable 2 miles to the north, replacing the microwave relay tower which would have been relocated. The end of Runway 09 would be located about 2 miles away and departing and approaching aircraft would be noticed both during the day and at night.

Viewpoint Number 4 - Kankakee River State Park

Kankakee River State Park would remain virtually unchanged. More visitors would probably utilize the park as a result of sporadic new development in the vicinity of the new airport. The air traffic control tower would be about 5 miles to the north and would not be visible because of the density of the trees in the park. The end of Runway 09 would be approximately 4.5 miles away and airport-related activity would be a minor distraction. On clear nights, campers may occasionally notice lights in the distance from aircraft flying in open areas.

Viewpoint Number 5 - Warner Bridge Road Bridge

A slight elevation in the amount of traffic could be noticed on the bridge, and a few cars could be noticed parked adjacent to the road in the turnoffs. The air traffic control tower would be located 6 miles to the north-northwest and would not be noticed because of the greater distance and the depression in the terrain caused by the natural scouring of the Kankakee River. This location would be 2 miles west of the end of Runway 09 and 5 miles south of the extended centerline. At this location, aircraft activity would be visible in the distance due to the large expanse of the Kankakee River. However, aircraft would be less noticeable from the densely vegetated forest.

Viewpoint Number 6 - Forked Creek and Martin Long Road Bridge

The air traffic control tower would be seen to the northeast approximately 4 miles away. The end of Runway 09 would be about 4 miles to the east-northeast and the extended centerline would be 1 mile to the north. Aircraft could be noticed to the north from this point on approaches and departures.

Viewpoint Number 7 - Martin Long Road and Kennedy Road

The air traffic control tower would be noticeable to the southeast about 4 miles away. To the south, aircraft could be noticed on west departures and east approaches from the end of Runway 09, which would be about 2 miles to the east-southeast.

Viewpoint Number 8 - Midewin National Tallgrass Prairie, Gate 27

A few new houses and restaurants could become evident in the proximity of Symerton. The primary land use around Symerton would probably remain agricultural. Airport activity would be noticeable. The end of Runway 09 would be 3 miles away and the air traffic control tower would be located approximately 5 miles to the southeast but would not be seen.

Viewpoint Number 9 - Laughton Preserve Picnic Area

It is anticipated that the view from this location would remain unchanged; however, aircraft would be visible in the distance. The end of Runway 27 would be located 4.5 miles away almost due south. The air traffic control tower would be unnoticeable since it would be located 5.5 miles away and trees in the area would most likely obscure the view.

Viewpoint Number 10 - Wilmington-Peotone Road and Wilton Road

To the south, planes would be seen on departures and arrivals off of the end of Runway 27 and the air traffic control tower would be visible 4 miles to the southwest.

Viewpoint Number 11- Peotone

New building construction and/or renovations would probably occur due to construction of an airport. Aircraft departing and arriving at the airport would be visible in the distance. The air traffic control tower would be about 10 miles to the west-southwest. The extended runway centerline for Runway 09/27 would be located about 3 miles south.

Kankakee Ultimate Acquisition Alternative

The following text describes the anticipated visual impacts that would occur for a conceptual ultimate airport at the Kankakee Ultimate Acquisition Alternative based on the view points discussed in [Section 5.22](#). Refer to [Figure 5.22-1](#) for the location of each of the viewpoints. View point photography is presented in [Appendix I](#).

Viewpoint Number 1 - Manteno/Merchants Park

This location would be 0.5 miles south of the extended Runway 09R/27L centerline and 5 miles east of the runway end. Many new stores could become established in this area. The grain silos that stand to the north could have been replaced by hotels or other development. The sights of aircraft flying overhead would become common at this location.

Viewpoint Number 2 - Proposed Airport Access Road Interchange at Center Road and Ballou Road

Commercial development including hotels and restaurants along the access road could become established. Industries and warehouses could occupy land to the south and residential housing could become the primary land use to the north. Aircraft would be visible on departures and arrivals, given the location of this viewpoint between the extended centerlines.

Viewpoint Number 3 - The Community of Deselm at Manteno Road and Eastern Avenue

Runways and the terminal complex would be seen from this location. To the south, a tree buffer would separate airport property from possible residential areas.

Viewpoint Number 4 - Kankakee River State Park

Heavy traffic could become visible traveling across the bridge to the north. The park could become even more popular due to visits from new area residents. Departing and arriving aircraft would be obscured by trees, but would be evident from this point. The sighting of aircraft would be common in open areas. Residential development could be constructed between the park and airport boundaries.

Viewpoint Number 5 - Warner Bridge Road Bridge

The bridge could have been expanded to four lanes and could become very busy with vehicle and truck traffic. To the north, commercial development to serve nearby residents, park visitors and through travelers could occur. Airplanes would be visible on approaches and departures in the distance.

Viewpoint Number 6 - Forked Creek and Martin Long Road Bridge

Warehouses and industrial complexes could occupy the land to the west. Aircraft flying overhead would be visible from this location but the tree buffer would obscure the view of the air traffic control tower most of the year. Traffic on the western bypass could become heavy. Cyclists would occasionally be seen riding on the perimeter bikeway. The pollution absorption marsh would also be visible. The end of Runway 09R would be approximately 4 miles to the east; this location would be just south of the extended runway centerline.

Viewpoint Number 7 - Martin Long Road and Kennedy Road

The tree buffer could obscure view of the air traffic control tower but there would be frequent visibility of overflying aircraft. Commercial development could become prevalent along the relocated Warner Bridge Road/western bypass. Commercial and industrial development could become the primary land use in this area.

Viewpoint Number 8 - Midewin National Tallgrass Prairie, Gate 27

The grain silos in Symerton may disappear, with many new commercial businesses having become established in the community. The once predominant farmland could become fully developed residential areas. Bison could be roaming the tallgrass prairie and be visible within the fence at the Midewin National Tallgrass Prairie.

Viewpoint Number 9 - Laughton Preserve Picnic Area

The preserve could become surrounded with residential housing from southern expansions of the urban areas of Frankfort and New Lenox. Residential development could also be visible stretching east toward Peotone and west toward Midewin. General aviation and commuter aircraft would be visible from Runway 14/32 since the end of Runway 14 would be located approximately 2.5 miles to the southeast.

Viewpoint Number 10 - Wilmington-Peotone Road and Wilton Road

Commercial development could be evident all along Wilmington-Peotone Road. A large commercial mall could become part of the landscape at the junction with US 45/52. A mix of residential, commercial, and industrial/warehousing land uses could occur to the southeast. At this point arriving and departing aircraft could be seen and heard, not only from the primary runways, but also from the general aviation/commuter runway.

Viewpoint Number 11 - Peotone

The area surrounding a potential Metra station could be of mixed commercial use with a variety of shops and restaurants serving rail commuters and Peotone's expanded suburban airport community. Extensive commercial development could become visible along Wilmington-Peotone Road to serve residential uses that could have become part of a continuous development corridor linking Frankfort, Monee and Peotone. Some airport service-oriented commercial development could also be developed south of Peotone along I-57.

Will County Inaugural Acquisition Alternative

The following text describes the anticipated visual impacts that would occur for a conceptual inaugural airport at the Will County Inaugural Acquisition Alternative based on the view points discussed in [Section 5.22](#). Refer to [Figure 5.22-2](#) for the location of each of the viewpoints. View point photography is presented in [Appendix I](#).

Viewpoint Number 1 - Village Woods Retirement Center/Goodenow Grove Nature Preserve

The air traffic control tower, located 4 miles west-southwest would be visible from the top floors of the Village Woods Retirement Center. Otherwise, there should be no visual change from airport development. Village Woods would be 2 miles north of the extended centerline of Runway 09/27, 2.5 miles east of the runway end. Aircraft probably would not be visible from this location except on the upper floors of the retirement center.

Viewpoint Number 2 - Illinois Route 1 between Burville Road and Crete-Monee Road

This vantage point would be 4 miles north of the extended centerline of Runway 09/27, 2.5 miles east of the runway end. Rarely would departure aircraft be visible from this location, except at night. Due to the number of trees in the immediate vicinity, the air traffic control tower, located approximately 4 miles southwest, may not be visible.

Viewpoint Number 3 - Pauling Road/Will Center Road

The new airport terminal building would be approximately 1.5 miles south of this point. Portions of Will Center Road would remain, as would a considerable number of trees that obscure the terminal building. However, the air traffic control tower, located approximately 3.5 miles southeast of the intersection of Pauling Road and Will Center Road, would be visible from this point. This point would be 2 miles north of the extended centerline of Runway 09/27 and 0.5 miles west of the runway end. Both arriving and departure aircraft would be visible from this location.

Viewpoint Number 4 - Monee Reservoir

Due to the distance and the large number of trees at this location, the air traffic control tower would not be visible; it would be located 6 miles to the east-southeast. This viewpoint would be 1.5 miles north of the extended centerline of Runway 09/27, 3 miles west of the runway end. Due to the extensive foliage, it is uncertain whether arrival aircraft would be visible.

Viewpoint Number 5 - Margaret Street/Will Center Road

The acquisition alternative boundary would be approximately 2.5 miles from this point. The air traffic control tower, located 4 miles to the southeast would be visible. There would be many trees that obscure an airport terminal building located more than 3 miles to the south.

Viewpoint Number 6 - Peotone-Beecher Road/ Ridgeland Road

The only potentially visible part of an airport at this location would be the air traffic control tower located approximately 6 miles to the northeast. This point would be approximately 2 miles south of the extended centerline of Runway 09/27, 2.5 miles west of the runway end. Because of foliage, aircraft would probably not be visible from this location most of the year, except at night when aircraft landing lights are visible.

Viewpoint Number 7 - Corning Road/311th Street/ Egyptian Trail

There would not appear to be any changes in the predominant farming character of the area from this viewpoint. The air traffic control tower, located 5 miles northeast, may not be visible due to the rolling terrain and existing trees between the towers' location. This viewpoint would be approximately 3 miles south of the extended centerline of Runway 09/27 and 1.5 miles west of the runway end. Aircraft would probably be visible in the distance from this location, especially during final approaches at night.

Viewpoint Number 8 - Illinois Route 1 at the southern edge of the Beecher Landfill

The air traffic control tower, located due west 2.5 miles, would be highly visible, although there would remain sufficient trees to obscure the base of the building most of the year. This viewpoint would be approximately 1 mile north of the extended centerline of Runway 09/27, 3 miles east of the runway ends. Approaching aircraft would be clearly visible from this location.

Viewpoint Number 9 - Illinois Route 1/Church Road

Other than the air traffic control tower which would be located 3 miles to the northwest, there would be no other airport development changes apparent at this location. This viewpoint would be approximately 1 mile south of the extended centerline of Runway 09/27, 3 miles east of the runway end. Approaching aircraft would be visible from this location.

Viewpoint Number 10 - Peotone-Beecher Road and Ashland Avenue

Similar to other areas north and west of Beecher, there would be no apparent airport-related development other than the air traffic control tower which, from this location, would be 3 miles to the north-northwest. This view point would be approximately 2 miles south of the extended centerline of Runway 09/27, 1.5 miles east of the runway end. Approaching aircraft would be visible from this location.

Viewpoint Number 11 - Offner Road/Will Center Road

Airport-related facilities would be evident for several miles to the east (airport terminal building) and to the west (highway linkages with I-57) of this location. This viewpoint would be approximately 0.5 miles west of the terminal building. The air traffic control tower would be due east of this location, about 4 miles.

Viewpoint Number 12 - North of Sanger Field at Offner Road.

This location would be the approximate east end of Runway 09/27. Extensive earthwork would be visible to the south (1.5 miles) and to the west (2.5 miles). An airport terminal would be visible along with aircraft on the apron. The air traffic control tower would be less than 0.5 miles south. No other buildings would be visible.

Will County Ultimate Acquisition Alternative

The following text describes the anticipated visual impacts that would occur for a conceptual ultimate airport at the Will County Ultimate Acquisition Alternative based on the view points discussed in [Section 5.22](#). Refer to [Figure 5.22-2](#) for the location of each of the viewpoints. View point photography is presented in [Appendix I](#).

Viewpoint Number 1 - Village Woods Retirement Center/Goodenow Grove Nature Preserve.

An upgrade of Illinois Route 394 would have been completed as far south as the junction with Illinois Route 1. This upgrade would be similar to the interstate level highway standards north of Sauk Trail. No visual change would be anticipated from airport-related development with the exception of increasing truck traffic on Illinois Route 394. This vantage point would be 3 miles east of the northern set of runways. Approaching aircraft would be clearly visible from this location.

Viewpoint Number 2 - Illinois Route 1 between Burville Road and Crete-Monee Road

The East-West Airport Connector road would be constructed and a new interchange with Illinois Route 1 would exist. Airport-related development would probably be found at this intersection. Airport users from communities located directly north of this viewpoint would continue to use this interchange as their primary access to the Will County site. Aircraft using Runway 08L/26R would be visible.

Viewpoint Number 3 - Pauling Road/Will Center Road

There could be airport-related development north of Runway 08L/26R. The tree buffer planted south of the East-West Airport Connector Road and along the interchange with the North Airport Access Road would probably be of sufficient height to obscure the roadway. Cyclists would occasionally be observed on the bikeway. In addition, the prairie restoration areas of the Raccoon Grove Expansion Area would be visible.

A new airport terminal would be approximately 1.5 miles south of this point. The air traffic control tower, located approximately 3.5 miles to the southeast would also be visible from this point. Aircraft utilizing the northern set of runways would be clearly visible.

Viewpoint Number 4 - Monee Reservoir

The area between the original Monee Reservoir and the new expansion areas north, west and south would have been fully developed as prairie restoration areas. This view point would be on centerline, 2.5 miles west of Runway 08C/26C. Given the departure procedures for this runway (it is a departure-only runway), aircraft would turn prior to overflying this location.

Viewpoint Number 5 - Margaret Street/Will Center Road

Trees along the East-West Airport Connector Road would obscure the roadway most of the year, as well as an airport (and aircraft) from visibility, although the air traffic control tower would remain visible. The interchange between the East-West Airport Connector Road and the North Airport Access Road would be directly south of this location. The bikeway along the East-West Airport Connector Road, Raccoon Grove, the Monee Reservoir and around the remainder of an airport would be accessible from Monee on the north side of the highway.

Viewpoint Number 6 - Peotone-Beecher Road/ Ridgeland Road

The wastewater treatment plant would be visible; however, the tree growth to the west side of the South Airport Access Road would obscure airport traffic on that highway. Farming activities would continue at this location on-airport. This viewpoint would be approximately 1 mile south of the extended centerline of Runway 09R/27L, 2.5 miles west of the runway end.

Viewpoint Number 7 - Corning Road/311th Street/ Egyptian Trail

West of the South Airport Access Road, the tree growth would begin to obscure views of an airport. To the west of the trees, land set aside for community compatible development could be used for active recreational purposes by the residents of Peotone. Corning Road/311th Street would become the major east-to-west roadway connecting Beecher and Peotone, replacing the Peotone-Beecher Road. This view point would be approximately 2 miles south of the extended centerline of Runway 09R/27L, 1.5 miles west of the runway end. Aircraft would be visible from this location.

Viewpoint Number 8 - Illinois Route 1 at the southern edge of the Beecher Landfill

The rooflines of aircraft hangars and cargo handling facilities would be visible from Illinois Route 1. A portion of a new cargo building would be visible south of the East Airport Access Road. The Beecher Marsh and Prairie Mitigation Area and the airfield would be obscured by the growing tree belt along the west side of the Union Pacific Railroad tracks, visible from this vantage point. Occasionally, cyclists would be visible on the bikeway. This viewpoint would be approximately 1 mile north of the extended centerline of Runway 09/27, 3 miles east of the runway ends. Approaching aircraft would be clearly visible from this location.

Viewpoint Number 9 - Illinois Route 1/Church Road

This view point would be approximately on the extended centerline, 3 miles east of Runway 09R/27L. An industrial park currently exists along Church Road to the west of Illinois Route 1. Approaching aircraft would be visible overhead.

Viewpoint Number 10 - Peotone-Beecher Road and Ashland Avenue

The Peotone-Beecher Road would be closed to the west. The west side of Ashland Avenue would be airport property, used as an environmental mitigation area. The southern portion and visible part of this area would be restored and enhanced prairie. This viewpoint would be approximately 2 miles south of the extended centerline of Runway 09R/27L, 1.5 miles east of the runway end. Approaching aircraft would be visible from this location.

Viewpoint Number 11 - Offner Road/Will Center Road

The terminal complex would be visible from this location. The North Airport Access Road (from the north and east) would intersect with the West Airport Access Road (from I57 and separately with Illinois Route 50) to the west of this location. This viewpoint would be approximately 0.5 miles west of the terminal building. The arrivals (upper) and departures (lower) vehicular drives would have been partially constructed and would extend the length of the terminal building. The circulation road would approach the terminal perpendicularly, curving in front of the building and then curving 90-degrees such that the departure and arrival sections of the road are parallel to one another. The air traffic control tower would be due east of this location about 4 miles.

Viewpoint Number 12 - North of Sanger Field at Offner Road

North of this viewpoint would be a taxiway that would connect the terminal area with the east end of Runway 08R/26L. To the east and south of the area, additional cargo facilities would have been developed. To the west, there would be additional north-south connecting taxiways, a storage area for airfield maintenance vehicles and the people mover rail yard.

5.23.22.2 Potential Induced Cumulative Impacts

No-Action Alternative

Very little change is anticipated to occur around the Kankakee Acquisition Alternatives over existing conditions. Additional residential and commercial development in the vicinity of the site would primarily occur around the villages of Manteno and Peotone and along the I57 and Illinois Route 50 corridors, to the east. As plans for the former Joliet Arsenal are gradually implemented, increased activity may be noticeable, particularly around the new landfill and industrial park being established in the southern portion of the former arsenal. Restoration efforts at the Midewin National Tallgrass Prairie would be in progress; however, significant recreational activity at this park is not anticipated to occur until future years.

Scattered residential development is anticipated to continue throughout the Will County Acquisition Alternatives. More rapid and concentrated residential and commercial development would most likely occur in the Villages of Crete, Monee and University Park located north of the acquisition alternative, while less intense development would probably occur in the Villages of Beecher and Peotone located south of the site.

Other areas within the cumulative impact study areas would also experience growth, especially those communities located in northwestern Will County, Illinois and northeastern Lake County, Indiana. New development in this area will result in changes in the landscape and land use, as outlined in [Section 5.23.3](#).

The construction of new roads and expansion of existing roads will also cause changes in the visual and aesthetic environment. However, this change in the visual and aesthetic environment should occur gradually and should not result in significant impacts, especially if land use planning is effectively implemented.

Acquisition Alternatives

The projected increase in population and households and the development associated with this population would cause changes in the landscape and land use of the area, as outlined in [Section 5.23.3](#). The construction of new roads and expansion of existing roads (as shown on [Figure 5.23.1-1](#)) would also cause changes in the visual and aesthetic environment. This change in the visual and aesthetic environment should occur gradually and should not result in adverse impacts unless the Inaugural Acquisition Alternatives, but could result in visual impacts under the Ultimate Acquisition Alternatives. The potential for adverse impacts could be minimized and avoided with effective land use planning.