DRAFT – July 8, 2020

Fort Scott Municipal Airport (FSK)

Fort Scott, Kansas

Olsson Project Number 017-2226

DRAFT ENVIRONMENTAL ASSESSMENT (EA)

FOR

- Extend, Widen and Strengthen Runway 18/36, 2,450 feet south
- Close a section of Indian Road
- Land acquisition (164.5 acres in fee, 8.5 acres easement)

and other work as described within the EA.

Prepared by Olsson, Inc.

For: City of Fort Scott, Kansas

This environmental assessment becomes a Federal document when evaluated, signed, and dated by the Responsible Federal Aviation Administration (FAA) Official.

_____ _____

Responsible FAA Official Date

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1. Purpose and Need

1.1. Introduction

This Environmental Assessment (EA) was prepared per Federal Aviation Administration (FAA) Order 1050.1F and FAA Order 5050.4B.

1.2. Purpose and Need

The purpose of the Proposed Action is to safely accommodate existing and projected aircraft operations at the Fort Scott Municipal Airport.

The project is needed because there were 600 jet aircraft operations in 2017 and these are projected to increase to 2,590 annual jet operations by 2022 and 3,130 by 2027. The jet operations include a Challenger 600 and Lear 45, which are based at the airport. In addition, Spectra Jet, an aircraft repair station that specializes in Learjet and Challengers, relocated staff to the airport in 2017. New businesses such as this will generate additional transient jet operations. Existing and forecast data for the current, 5-year and 10-year situations can be found in ***Appendix B***.

FAA Advisory Circular (AC) 150/5325-4B was used to determine the recommended runway length needs for existing operations. The Challenger 604, which is the design aircraft, has a maximum takeoff weight of 48,300 pounds, and therefore the AC's Chapter 3 was used for aircraft more than 12,500 pounds and up to 60,000 pounds. The Challenger 604 is listed in Table 3-2 for airplanes that make up 100 percent of the fleet. Therefore Figure 3-2 (100% of fleet) was used. The Challenger 604's operator flies on a regular basis to both coasts (1,000 miles or more) and therefore the chart for 90 percent useful load was used. Figure 3-2 requires the input of the airport's mean maximum air temperature (91 degrees Fahrenheit) and the ultimate elevation (923 feet Mean Sea Level). These inputs result in a runway length need of 8,700 feet. The existing runway is only 4,400 feet, or 4,300 less than the needed length.

The design aircraft is categorized by FAA as an Airport Reference Code (ARC) C-II. The airport does not meet FAA design standards for ARC C-II.

If the runway length is not addressed, this will limit the number of jet aircraft operations and the jets' useful loads and the haul lengths. Aircraft operators will have to divert to other airports or

reduce their load, carrying less fuel, fewer passengers, or less cargo. A longer runway will provide economic benefits to both the airport and the users. The airport is publicly owned and operated, and an improved airport economy will reduce any potential tax burden on the citizens of Fort Scott.

If the runway were extended to accommodate the forecasted aircraft, the airport's projection is an increase in fuel sales by over 500%, from 77,170 in 2017 to approximately 475,000 gallons in 2022. The airport sells the fuel and their income would increase substantially. The airport also anticipates that a runway extension would result in more based aircraft, which would increase the airport's hangar rental income. In addition, the airport has received inquiries from a new business that may open at the airport, if traffic were increased. The business would increase local employment and provide additional rental income to the airport. Finally, Spectra Jet's employment would increase, providing an additional economic impact.

Airport users, businesses, aircraft owners based at the airport, pilots and passengers will benefit by:

1) Reducing diversions to other airports. Diversions increase ground transportation time when the pilot and passengers must drive to reach their final destination. Diversions happen when an aircraft has a higher approach speed, or there are high temperatures, high winds and/or high payloads resulting in the aircraft needing a longer runway.
2) Reducing aircraft fuel stops. Currently some aircraft depart with less than a full load of fuel, land at another airport to take on more fuel, and then continue to their final destination. This is very inefficient, increases fuel consumption due to more landings and takeoffs, and increases overall transportation time.

1.3. Proposed Action

- **Extend and widen Runway 18/36** to 6,400' by 100', including relocation of the Runway 18 threshold 450 feet to the south and extension of Runway 36 by 2,450 feet to the south. This will meet FAA standards for C-II aircraft. – (Planned for 2021-2025)
- **Implement new non-precision instrument approach procedures** listed below with one-mile minimum descent altitudes (MDA) for these new runway threshold locations. These procedures will replace the existing RNAV/GPS approaches with one-mile MDA – (Planned for 2021-2025)
    - Runway 18 – RNAV (GPS)

  - Runway 36 – RNAV (GPS)
  - Takeoff/Departure Minimums
  - Circling Approach Minimums
- **Strengthen Runway 18/36** to 50,000-pound pavement strength – (Planned for 2021-2025)
- **Light Runway 18/36** with Medium Intensity Runway Lights (MIRL) – (Planned for 2021-2025)
- **Install Precision Approach Path Indicators (PAPIs) and Runway End Indicator Lights (REILs)** on both ends of Runway 18/36. Remove FAA-owned Visual Approach Slope Indicator (VASI) on Runway end 18 – (Planned for 2021-2025)
- **Construct turnaround at Runway end 36**, including Medium Intensity Taxiway Lights (MITL) – (Planned for 2021-2025)
- **Install Medium Intensity Taxiway Lights (MITL)** on connecting and parallel taxiways – (Planned for 2021-2025)
- **Close a section of Indian Road** from the airport entrance road to the airport's west property line. *(Bourbon County Commission's resolution regarding road closure included in Appendix L)*– (Planned for 2021-2025)
- **Remove and top trees** that are hazards and/or obstructions according to FAR Part 77 and to meet standards for C-II aircraft – (Planned for 2021-2025)
- **Install and relocate fence** – (Planned for 2021-2025)
- **Construct drainage improvements** and stream meander on airport property
- **Obtain land and/or easements** for Runway 18/36 Runway Protection Zone (RPZ), Runway Object Free Area (ROFA), and Building Restriction Line (BRL) (164.5 acres in fee, 8.5 acres easement). No homes or businesses will be affected. No relocations will be needed.
  - Planned for 2018-2022 – 92 acres fee
  - Planned for 2023-2028 – 72.5 acres fee and 8.5 acres easement

This Proposed Action is included in the Sponsor's latest Airport Layout Plan (ALP), which was approved by FAA on November 25, 2019.

2. Alternatives *[See Para. 706.d]*

2.1. Introduction. This section defines the No Action, the Proposed Action, and reasonable alternatives, if any. It also briefly explains why each alternative meets or does not meet the Purpose and Need, and whether it is considered reasonable or not reasonable.

2.2. Runway length for analysis. As discussed in Chapter 1, a runway length of 8,700 feet is recommended for existing operations of the Challenger 604. The 8,700-foot length meets the purpose and need but is not feasible at this time due to current funding limitations.

The 8,700-foot length is based on a generic grouping of turbojet-powered aircraft under assumed loading conditions. To determine a length that meets the specific needs of the airport users, the Challenger 604 operator was consulted. The Challenger 604 accounts for about 95 percent of the operations that need the longer runway. The operator of the Challenger 604 reviewed the aircraft's operating handbook and has advised that 6,400 feet is sufficient for their typical loads and haul lengths for the 5-year planning period. The 6,400-foot length is financially feasible and meets the purpose and need for the planning period. Therefore, the 6,400-length will be used for the Proposed Action and to evaluate alternatives.

2.3. No Action Alternative. The No Action Alternative would not make any changes to the existing airport facilities or runways. The airport would continue to operate under the existing conditions.

Under the No Action Alternative, the runway length would remain unchanged. As a result, the airport would not be able to accommodate the needs of the aircraft owners, pilots, passengers, businesses utilizing the airport and travelling public, based on existing and future airport requirements. The No Action Alternative would limit the number of aircraft operations and the aircraft's useful loads and haul lengths. Aircraft operators would need to divert to other airports or reduce their load, carrying less fuel, fewer passengers, or less cargo than optimal for efficient operation. Furthermore, shorter haul lengths due to fuel load limitations would require extra refueling stops when travelling longer distances.

Reduced aircraft operations would result in reduced revenue for the airport because they would sell less fuel and have fewer hangar tenants. Businesses based at the airport would have less activity, which would also reduce their revenue. New businesses are less likely to be established at the airport. Airport users would have longer trips because they may have to drive to another airport, or their flights would be longer due to additional fuel stops.

The No Action Alternative does not meet the project purpose and need; however, in addition to a requirement of the Council on Environmental Quality/National Environmental Policy Act (CEQ/NEPA), the No Action Alternative serves as a baseline for a comparison of impacts to the preferred alternative and is therefore retained for analysis.

2.4. Alternative 1 – Extend Runway 18/36 to the north, as shown on ***Exhibit 1***.
Alternative 1 would extend the runway across the Marmaton River, impacting approximately 1,000 feet of stream bank and requiring up to 100 feet of embankment for approximately 2,600 linear feet of additional runway and safety area, resulting in over 5,000,000 cubic yards of embankment. This alternative would not impact Indian Road. The potential environmental and ecological impacts to the river and associated riparian habitat, and the disproportionately high cost of grading make this alternative unfeasible. Thus, this alternative was not carried forward for further evaluation.

2.5. Alternative 2 – Construct a new runway on a different alignment, including construction of a partial parallel taxiway to match the existing configuration. Several locations and alignments were considered and are shown on ***Exhibit 2***.

A. East Alignment Option. The East Alignment Option would construct a new runway east of the existing runway, as shown on ***Exhibit 2*** in red. This alignment would meet the purpose and need by providing the recommended runway length on the same runway heading. However, this alignment would 1) require the taking of a home northeast of the airport; 2) impact two potential wetlands on this homeowner's property; 3) impact a potential stream at the south end of the runway; 4) require closure of a section of Indian Road; and 5) require relocation of many existing airport buildings.

Although potentially meeting the project purpose and need, the impacts and costs associated with the East Alignment Option are significantly greater than the Proposed Action. Therefore, this alignment was not carried forward for further evaluation.

B. West Alignment Option. The West Alignment Option would construct a new runway west of the existing runway, as shown on ***Exhibit 2*** in magenta. This alignment would meet the purpose and need by providing the recommended runway length on the same runway heading. This alignment would be primarily built on existing airport property; however, the West Alignment Option would 1) impact two potential wetlands on the west side of airport property; 2) require closure of a section of Indian Road; and 3) require embankments of up to 30 feet in height with extensive fill and grading, resulting in increased costs.

The impact associated with the West Alignment Option is similar to the Proposed Action, but the costs for the additional embankment and the new parallel taxiway are significantly higher and not financially feasible. Therefore, this alignment was not carried forward for further evaluation.

C. Diagonal Alignment Option. The Diagonal Alignment Option would construct a new runway with a northeast/southwest bearing, as shown on ***Exhibit 2*** in green. This alignment provides the recommended runway length but would reduce the wind coverage. Typically, runways are aligned with prevailing winds (north/south and northwest/southeast in this area). The Diagonal Alignment Option angles away from the prevailing winds, thus reducing its utility. This alignment would also require the closure of a section of Indian Road. While this alignment would not impact any known wetlands or streams, the construction costs are increased by $5 to $10 million, due to additional grading and the taxiway replacement costs. This alternative more than doubles the construction costs, making it financially unfeasible.

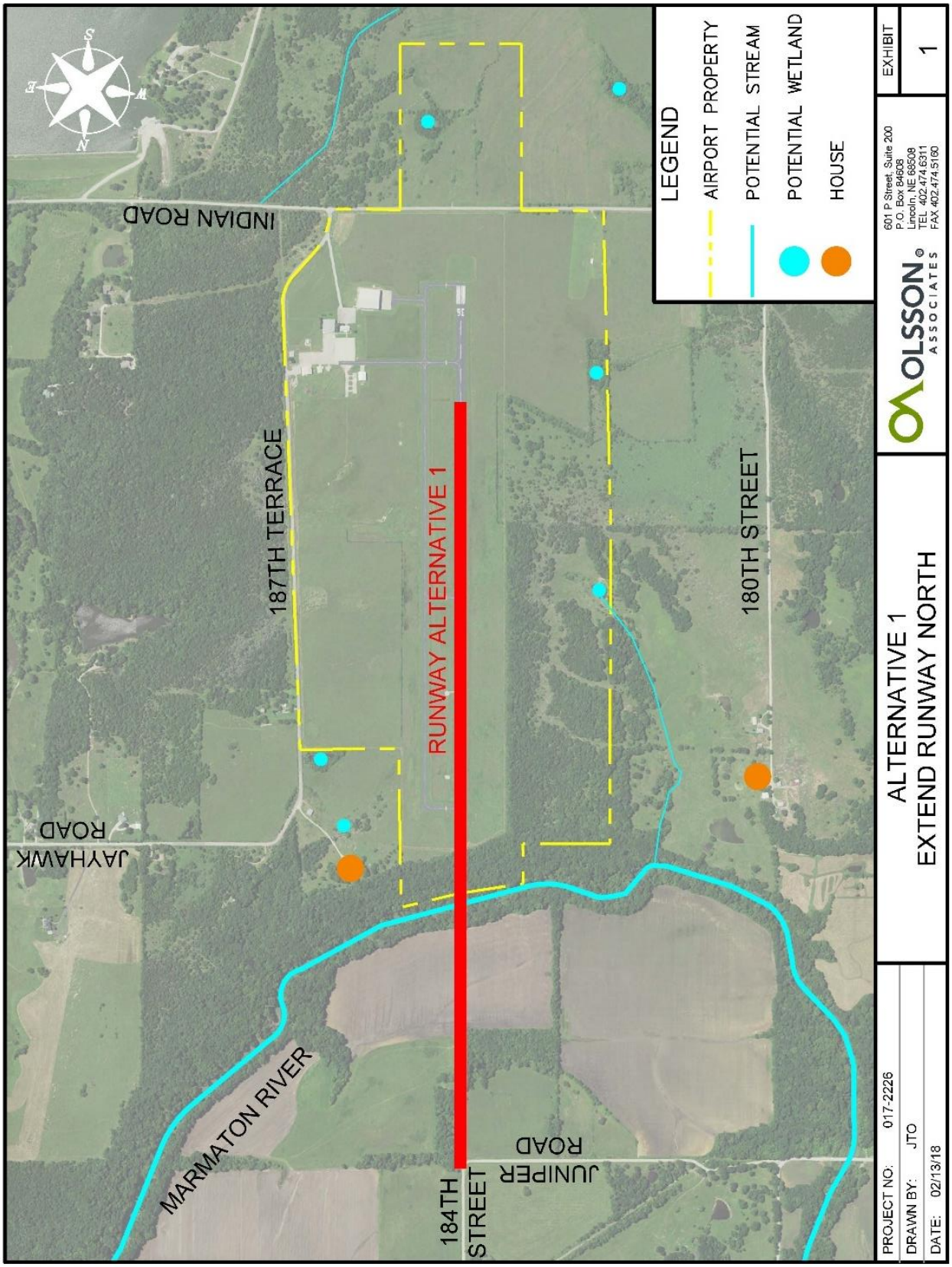
The Diagonal Alignment Option does not meet the purpose and need due to the reduced wind coverage and is not financially feasible. Therefore, this alternative was not carried forward for further evaluation.

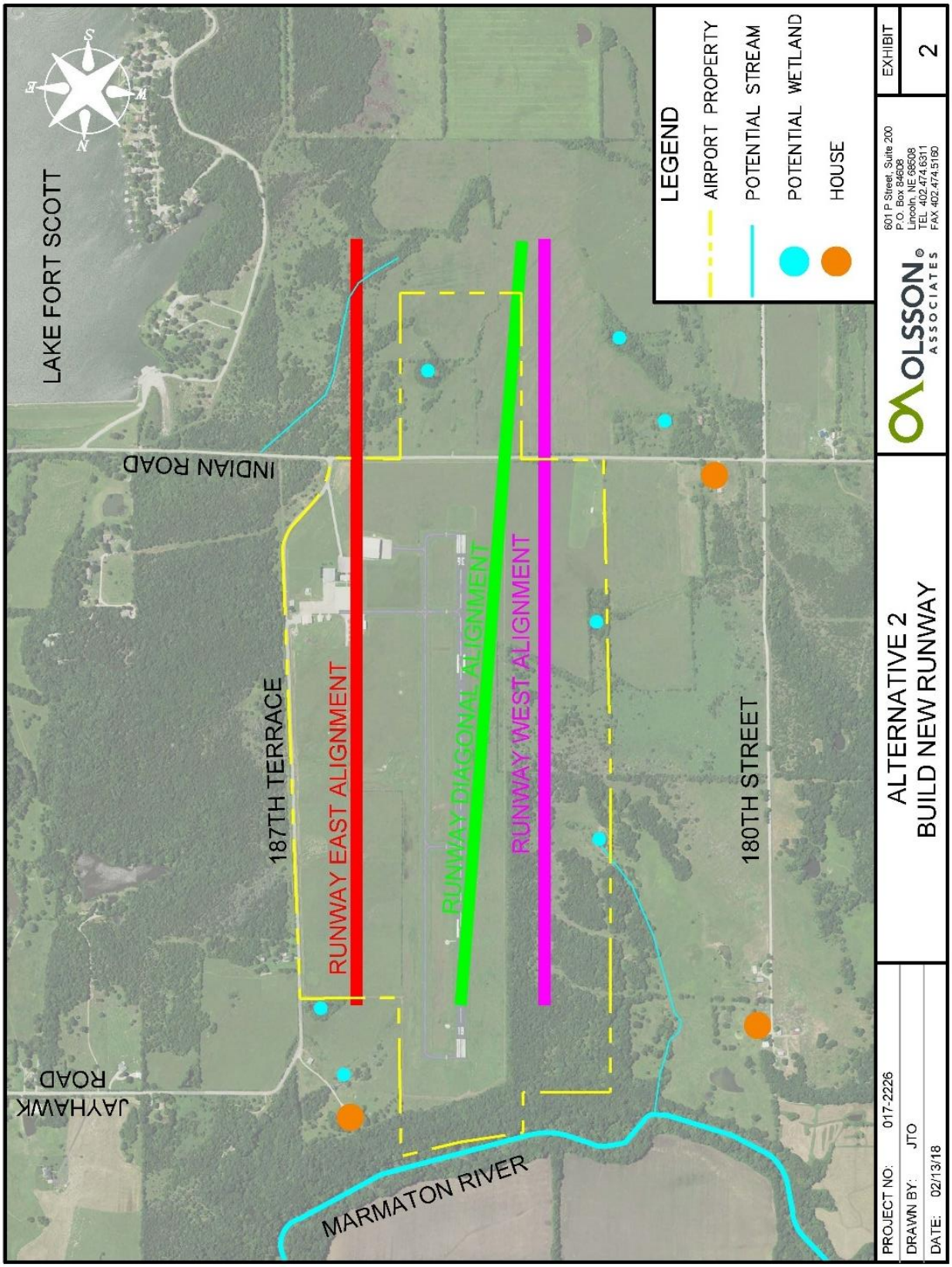
2.6. Proposed Action - Extend Runway 18/36 by 2,450 feet to the south and relocate Runway 18 threshold 450 feet south. The Proposed Action would construct a runway extension on the south side of the existing runway. Once complete, the runway would be 6,400' by 100', as shown on ***Exhibit 3***. The 450-foot relocated threshold is necessary to provide a Runway Safety Area (RSA) at the north end of the runway. The design standards for the proposed runway require an RSA that is 300 feet longer and 350 feet wider than the existing RSA. To avoid the Marmaton River and very steep terrain just north the existing RSA, the runway threshold would be moved to the south.

The Proposed Action impacts 0.51 acres of wetland

and an ephemeral stream approximately 413 feet in length. If required, the wetland would be mitigated through the purchase of credits from an approved wetland bank or an in-lieu-fee wetland mitigation bank program. If required, the stream would be mitigated by construction of a new channel on the airport property, which would connect to the existing channel outside the project area. The new channel would have a vegetated buffer and would be designed to meet all U.S. Army Corps of Engineers standards. The Proposed Action also requires the closure of a section of Indian Road. Road closure impacts cannot be avoided without impacting the Marmaton River.

The Proposed Action meets the purpose and need by providing the recommended runway length on the same runway heading and will be carried forward for further analyses.


LEGEND
AIRPORT PROPERTY
POTENTIAL STREAM
POTENTIAL WETLAND
HOUSE
INDIAN ROAD
187TH TERRACE
RUNWAY ALTERNATIVE 1
180TH STREET
JAYHAWK ROAD
MARMATON RIVER
184TH STREET
JUNIPER ROAD
ALTERNATIVE 1
EXTEND RUNWAY NORTH
OLSSON ASSOCIATES
601 P Street, Suite 200
P.O. Box 84608
Lincoln, NE 68508
TEL 402.474.6311
FAX 402.474.5160
EXHIBIT
1
PROJECT NO: 017-2226
DRAWN BY: JTO
DATE: 02/13/18


LAKE FORT SCOTT
INDIAN ROAD
187TH TERRACE
180TH STREET
JAYHAWK ROAD
MARMATON RIVER
RUNWAY EAST ALIGNMENT
RUNWAY DIAGONAL ALIGNMENT
RUNWAY WEST ALIGNMENT
LEGEND
AIRPORT PROPERTY
POTENTIAL STREAM
POTENTIAL WETLAND
HOUSE
ALTERNATIVE 2
BUILD NEW RUNWAY
EXHIBIT
2
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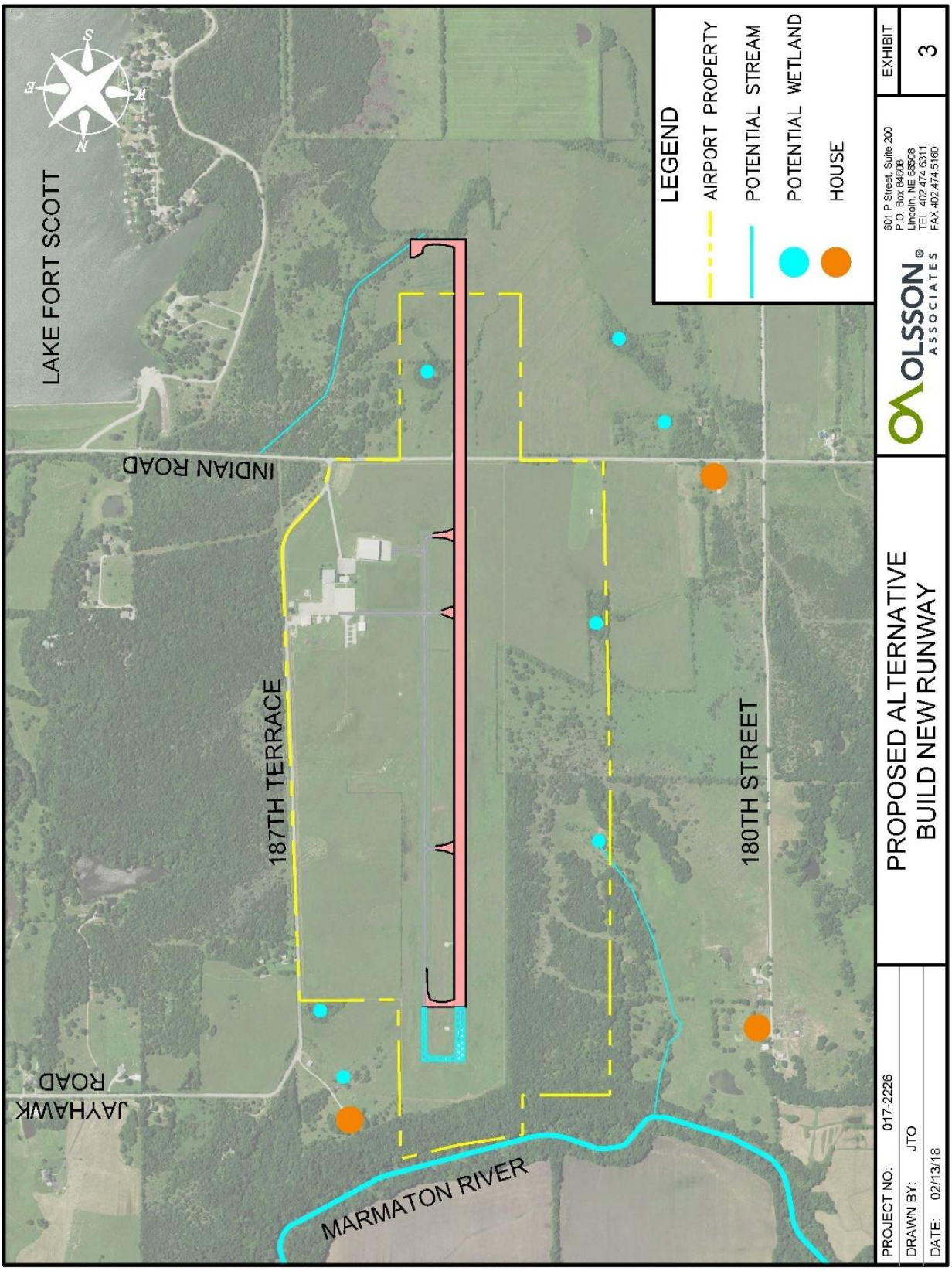
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3. Affected Environment *[see Para. 706.e.]*

3.1. Introduction

This section describes the existing environmental conditions of the potentially affected geographical area.

3.2. Location Map, Vicinity Map, Airport Diagram, Photographs

Figure 1 – United States Geological Service (USGS) 7.5-minute Topographic Map, and ***Figure 2*** – Site Map, and ***Figure 3*** – Airport Diagram are included following Page 13.

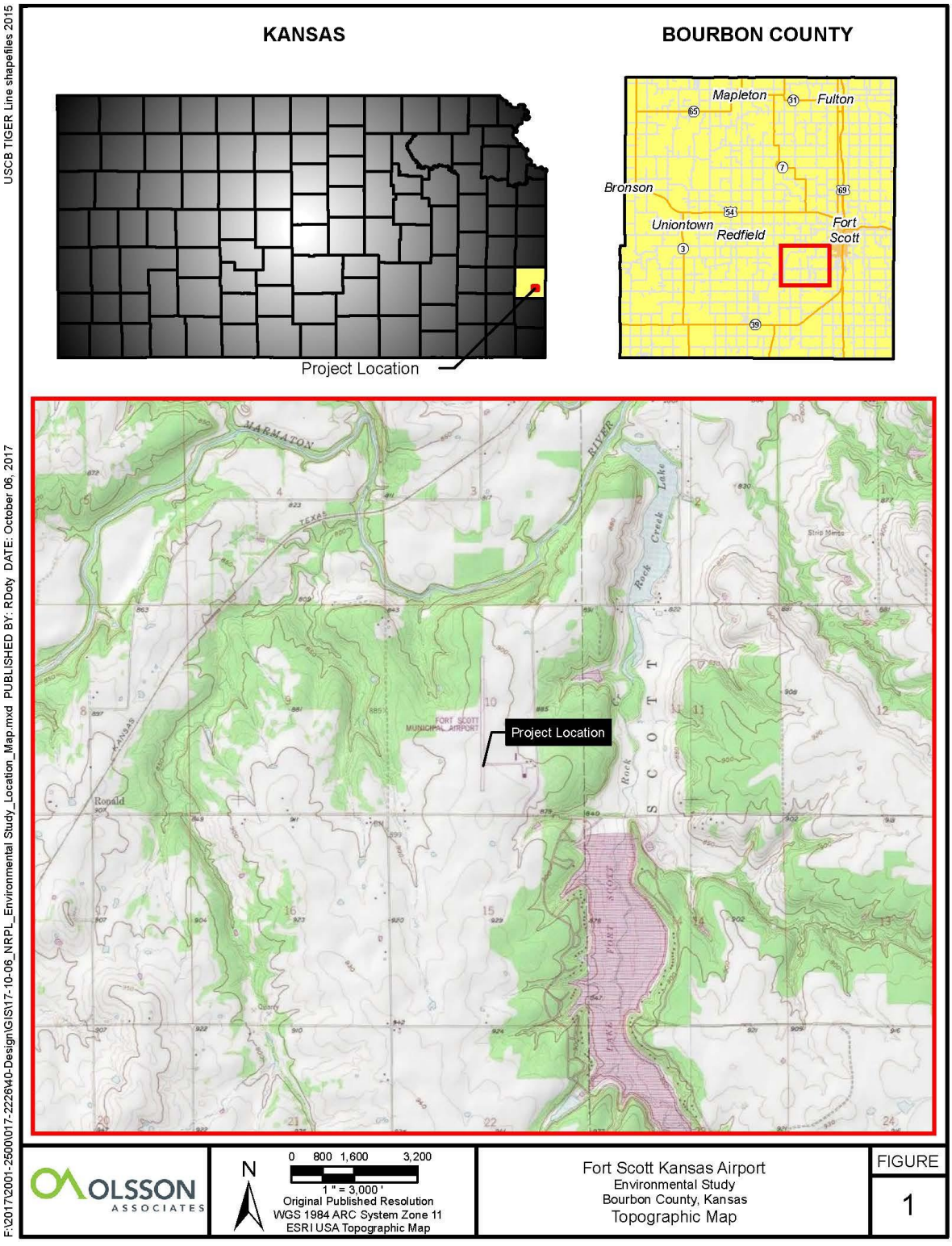
Site photographs depicting the general airport site, Proposed Action site location conditions, and hangar taxilane conditions are included on the following pages.

Photograph 1 - Aerial view of the existing Fort Scott Airport facilities. The proposed runway improvements would be built to the south, extending beyond Indian Road shown running east/west at the bottom of the photograph.

Photograph 2 - View north of the southern extent of the Fort Scott Airport runway.

Photograph 3 – View north of the Fort Scott Airport apron and aircraft hangers.

Photograph 4 – View south toward the field and scrubby woodland patches located south of Indian Road within the study area. The proposed runway expansion would extend into this area.


KANSAS
BOURBON COUNTY
Project Location
Mapleton
Fulton
Bronson
Uniontown
Redfield
Fort Scott
Project Location
MARMATON
RIVER
Rock Creek Lake
FORT SCOTT MUNICIPAL AIRPORT
Ronald
SCOTT
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OLSSON ASSOCIATES
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Bourbon County, Kansas
Topographic Map
FIGURE
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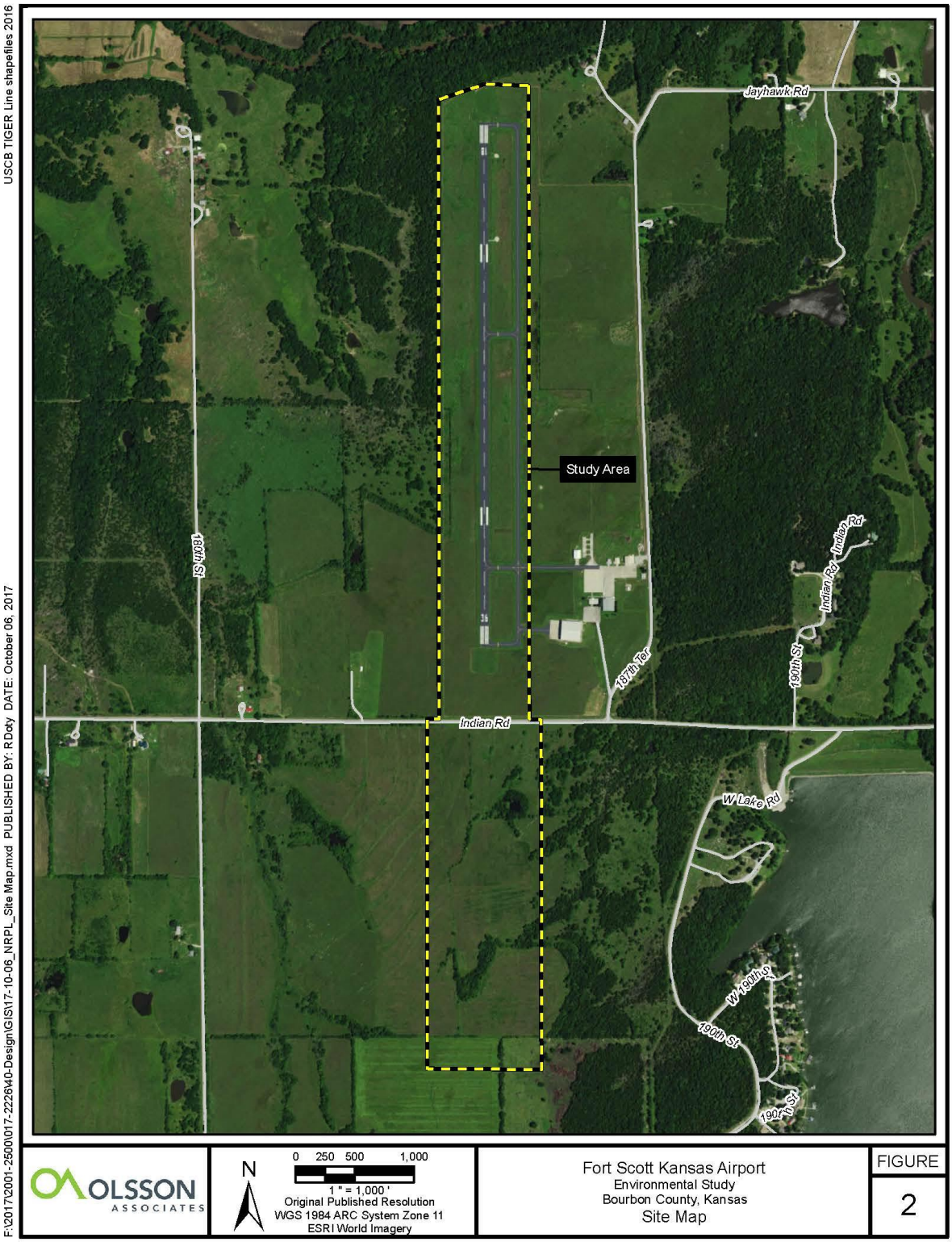
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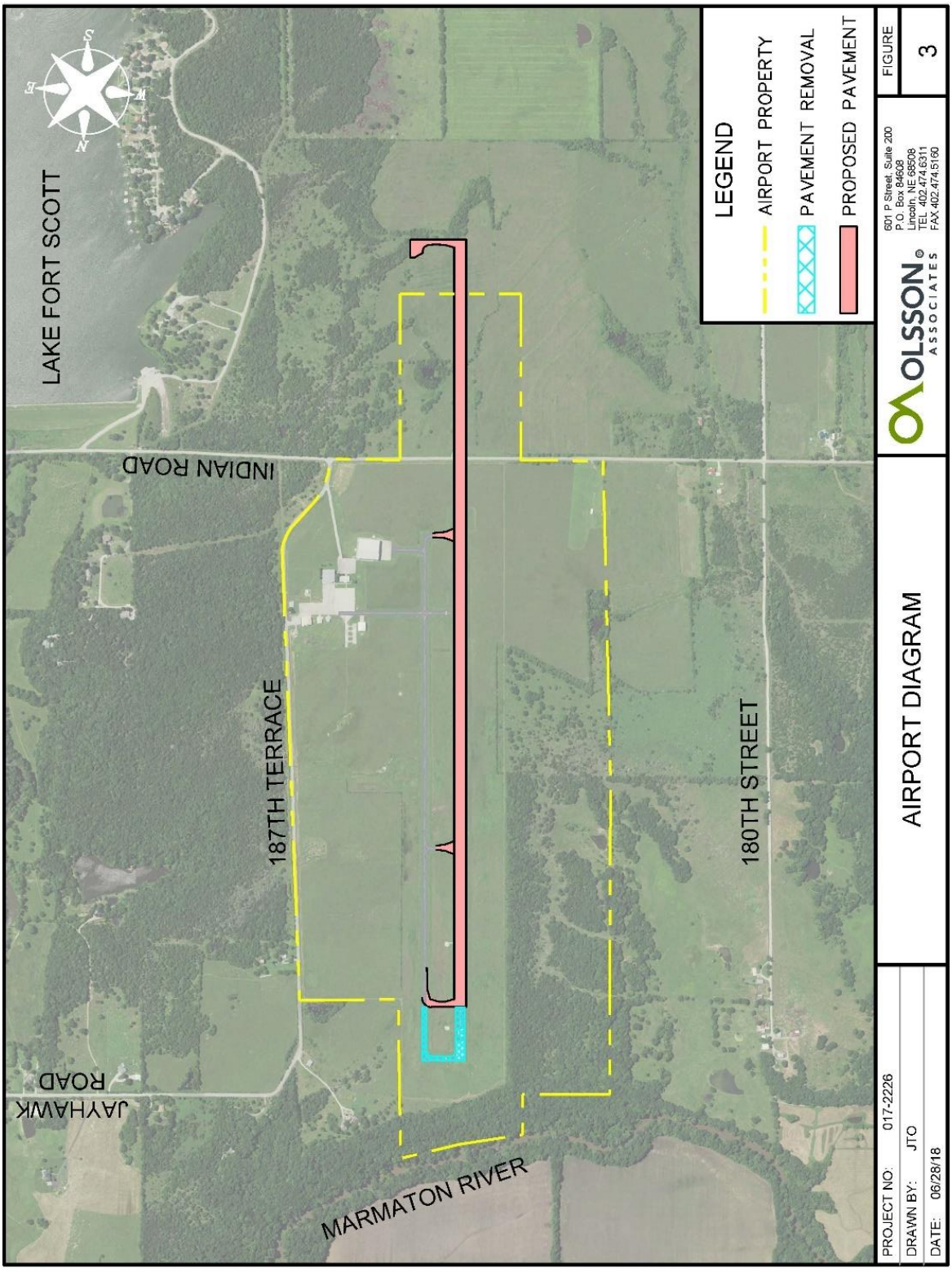
WGS 1984 ARC System Zone 11
ESRI World Imagery
Fort Scott Kansas Airport
Environmental Study
Bourbon County, Kansas
Site Map
FIGURE
2


LAKE FORT SCOTT
INDIAN ROAD
187TH TERRACE
180TH STREET
JAYHAWK ROAD
MARMATON RIVER
LEGEND
AIRPORT PROPERTY
PAVEMENT REMOVAL
PROPOSED PAVEMENT
AIRPORT DIAGRAM
FIGURE 3
OLSSON ASSOCIATES
601 P Street, Suite 200
P.O. Box 84608
Lincoln, NE 68508
TEL 402.474.6311
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DRAWN BY: JTO
DATE: 06/28/18

3.3. Existing/Planned Land Uses & Zoning

3.3.1. Industrial/Commercial Activities

The project site consists of structures associated with airport traffic – terminal, hangars, taxiways, and aircraft parking ramps. Hangars on-site house planes utilized for jet operations, agricultural crop spraying, other business uses, and recreation. Additionally, an aircraft repair station specializing in jets is located at the airport. Agricultural fields are located on either side of the existing runway and taxiways which are used for hay production. There are no additional industrial or commercial activities situated within the property boundary.

3.3.2. Residential Areas, Schools, Churches, & Hospitals

The project site is located southwest of the city of Fort Scott. There are no schools, churches, or hospitals within 3.0 miles of the project site. Farmsteads including private homes and outbuildings are located on adjacent properties, however urban residential areas are located greater than 2.0 miles from the project site.

3.3.3. Publicly-owned Parks, Recreational Areas, Wildlife & Waterfowl Refuges

Fort Scott Lake is a 360-acre area situated southeast of the airport property, south of Indian Road. The property is owned by the city of Fort Scott and offers boating recreation and fishing. Most of the shoreline is developed for private residences. There are no wildlife or waterfowl refuges located on the project site. However, Hollister Wildlife Area which is owned and operated by the Kansas Department of Wildlife, Parks and Tourism is located over 2.0 miles to the southwest of the project site.

3.3.4. National/State Forests, Wilderness Areas, Wild & Scenic Rivers, Nationwide Rivers Inventory

There are no National or State Forests, Wilderness Areas, Wild and Scenic Rivers or Nationwide Rivers Inventory (NRI) resources on the project site or within the general vicinity.

3.3.5. Federally-listed/State-listed Threatened & Endangered Species/Habitat

According to the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC), the Northern Long-eared Bat (threatened) and the Mead's Milkweed (threatened) are the only federally listed threatened and endangered species (TES) in the project area with no critical habitats identified (***Appendix G*** – Threatened and Endangered Species Coordination).

The project site consists of an airport terminal and associated hangars, runways, taxiways, apron, and hayfields. Hayfields are mowed throughout the summer and areas adjacent to the runways are mowed routinely. The project site does not have appropriate habitat for federal and state-listed TES, and bald and golden eagles. There are trees and other wooded areas that may provide habitat for migratory birds.

3.3.6. Wetlands, Floodplains, Floodways, Coastal Zones, & Coastal Barriers

The National Wetland Inventory (NWI) and National Hydrography Dataset (NHD) (***Appendix H***, Figure 4) depicts a small freshwater pond and no streams within the project boundary.

Wetland delineations were completed on October 9, 2017 and April 24, 2018 (report dated May 2018). The delineation identified two Palustrine Emergent Temporarily Flooded (PEMA) wetlands totaling 0.30 acres, two Palustrine Unconsolidated Bottom Semi-Permanently Flooded (PUBF) wetlands totaling 0.21 acres, and an ephemeral stream with 413 linear feet located within the project boundary. The wetland delineation report is included in ***Appendix H*** – Wetland Delineation Report.

According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM), the project boundary is not located within the 100-year floodplain. A copy of the FEMA floodplain map is included in ***Appendix J*** – Floodplains.

The project site is not located within coastal zones or associated with coastal barriers.

3.3.7. Historic, Archeological, or Cultural Resources

Requests were submitted to the Iowa and Miami tribes of Oklahoma, the Omaha Tribe, the Osage Nation, the Pawnee Nation of Oklahoma, the Ponca Tribe of Nebraska, the Seneca Cayuga Tribe of Oklahoma, the Shawnee Tribe, and the Yankton Sioux Tribe of South Dakota for review and comments regarding the proposed project. Responses were received from the Pawnee Nation of Oklahoma, the Shawnee Tribe, and the Yankton Sioux Tribe of South Dakota. None of the responses indicated concerns with the project as proposed. A list of the tribes, contact information, copy of the submittal documents, and responses received are included in ***Appendix C*** – Agencies/Tribes/Persons Consulted.

The Kansas State Historic Preservation Office (KSHPO) was contacted regarding potential historic archaeological and cultural resources at the project site. KSHPO indicated the project site was cleared after an archeological survey of potential runway expansion areas both north and south of the existing facility. KSHPO indicated no objection to implementation of the project. The KSHPO correspondence is found in ***Appendix F*** – Cultural Resource Coordination.

Two archeological studies were completed by Algonquin Consultants. In September 2018, a Phase I and II study was performed. Phase I was a literature review and Phase II was an archaeological survey of the property slated for the construction. The purpose of the 2018 Algonquin research was to systematically look for and inventory cultural resources – archaeological sites, structures, and buildings or remnants thereof – 50 years of age or older in the project area that would receive direct impacts from the construction project. Four newly identified archaeological sites were recorded during the survey.

As a result of this study, a Phase III field investigation was recommended for two sites. The Phase III archeological assessment was conducted in summer 2019. The Phase III study determined that neither site is eligible for listing in the National Register of Historic Places (NRHP). All artifacts from all phases of work will be curated at the Kansas Historical Society, which has agreed to accept them.

3.4. Affected Political Jurisdiction

The City of Fort Scott's zoning jurisdiction extends in a three-mile radius. This radius includes the Fort Scott Municipal Airport and proposed area south of Indian Road.

3.5. Demographic Information/Bureau of Census Map

Information from the U.S. Census Bureau dated April 1, 2010 indicates the population of Fort Scott is 8,087 individuals. The majority of the population in the City of Fort Scott is white (90.3 percent) with individuals of Hispanic/Latino descent comprising 2.5 percent of the population, black or African American comprising 4.7 percent, and other races or combinations of races comprising the remainder of the population.

Table 1 details demographic information such as population, persons 65 years or older, and income and poverty data.

3.6. Past, Present, and Reasonably Foreseeable Future Actions

The Fort Scott Municipal Airport was developed during the 1940s on land previously used for agriculture. At that time, the airport had one turf runway and a few hangars. In 1963, Runway 18/36 was paved with dimensions of 3,400 feet by 75 feet. During the 1980s, the runway was extended to 4,400 feet. The full parallel taxiway was constructed in 1996. Existing facilities included a concrete apron, terminal building, hangars, and aircraft fueling system. Refer to Section 2 for present actions.

In the future, the city plans to complete the parallel taxiway to the new runway end and may relocate this taxiway further from the runway to meet FAA standards for larger aircraft. For the long term, the city may update the Airport Layout Drawing to consider another runway extension, an approach light system (MALSR) and related land.

The City of Fort Scott is currently planning to construct a road to extend and connect into Hackberry Road which connects with 190th Street, surrounding Lake Fort Scott.

Table 1 – Demographic Information for Fort Scott, Bourbon County, Kansas, and the U.S.

Data	City of Fort Scott	Bourbon County	Kansas	United States
Race and Hispanic Origin[1]	**%**	**%**	**%**	**%**
White alone	97.1	93.0	97.0	72.4
Black/African American alone	4.7	2.8	5.9	12.6
American Indian/Alaska Native	0.8	0.8	1.0	0.9
Asian alone	0.6	0.5	2.4	4.8
Native Hawaiian/Other Pacific Islander	0.1	0.0	0.1	0.2
Hispanic/Latino (of any race)	2.5	2.0	10.5	16.3
Persons 65 years and over[1]	18.1	17.3	13.2	13.0
Income and Poverty[2]				
Percent individuals below poverty level	19.4%	17.4%	13.3%	15.1%
Median household Income	$33,350	$41,529	$53,571	$55,322

[1] Data from the 2010 Census
[2] Data from the 2012-2016 American Community Survey 5-Year Estimates

4. Environmental Consequences & Mitigation

[see Para. 706.f. & g.]

4.1. Introduction

This section is organized by resource topics, with the impacts of all alternatives combined under resource headings. It provides concise analysis, environmental impacts, and conceptual measures needed to mitigate those impacts only for resources affected by at least one of the alternatives. A summary of this section is included in Table 3 on Pages 31 and 32.

4.2. Environmental Impact Categories Not Affected

The no action, Proposed Action, and reasonable alternatives would not affect the following resources listed below:

4.2.1. Air Quality

The Fort Scott Municipal Airport is in an attainment area and is not subject to General Conformity requirements. No air quality analysis is required. This impact category would not be affected.

4.2.2. Climate

The project would not result in significant increases of aircraft operations, and therefore would have no impacts to climate. No further analysis is necessary
.

4.2.3. Coastal Resources

The project does not occur in a coastal area; thus, no further analysis of coastal resources is necessary.

4.2.4. Department of Transportation Act, Section 4(f)

The City of Fort Scott had leased out the parcel south of Indian Road where the Proposed Action would occur to the Kansas Department of Wildlife, Parks, and Tourism (KDWPT) beginning in 2012 for sport hunting purposes between September 1 and May 1, annually. This parcel was originally purchased by the

City for the purposes of airport expansion. The City has terminated this lease agreement with KDWPT as of February 2018. This agreement was a temporary lease agreement and this parcel was not identified as a facility that would qualify it as Section 4(f) resource. Thus, the Proposed Action would have no impact to Section 4(f) resources.

4.2.5. Historical, Architectural, Archeological, and Cultural Resources

As discussed in Section 3.3.7, archeological studies were completed by Algonquin Consultants. The Phase III field investigation and archeological assessment determined that there are no sites eligible for listing in the National Register of Historic Places (NRHP). Thus, the project is anticipated to have no impact to historical, architectural, archeological, and cultural resources.

In a letter dated December 3, 2019, the Kansas Historical Society indicated it agreed that no sites are eligible for listing in the NRHP, concurred that the project will have no adverse effect on historic properties as defined in 36 CFR 800, and indicated the Kansas Historical Society has no objection to implementation of the runway expansion project.

Coordination letters and the Phase III report were sent to the Osage Nation and Pawnee Nation of Oklahoma via Certified Mail on November 18, 2019. The Pawnee Nation of Oklahoma replied that they concur with the report's finds that no further cultural resources work should be conducted. A copy of their email to FAA is included in ***Appendix C*** – Agencies/Tribes/Persons Consulted. No response has been received from the Osage Nation as of July 6, 2020.

Coordination with the Kansas Historical Society is included in ***Appendix F***.

4.2.6. Noise and Noise Compatible Land Use

Day-Night Level (DNL) noise exposure contours were prepared for three scenarios: the existing condition (2017), future condition (2022) with proposed improvements (Proposed Action), and future condition with no action. Significant noise is defined by FAA as a Day Night Average Sound Level (DNL) of 65 decibels (dB). The 65 DNL noise exposure contour remains on airport property

for all three scenarios, and thus there is no significant impact due to noise. See ***Appendix M*** for the full analysis.

4.3. Affected Environmental Impact Categories

4.3.1. Biological Resources (including fish, wildlife, and plants)

According to FAA Order 1050.1F, Exhibit 4-1, a significant impact to federally-listed TES would occur when the USFWS determines that the Proposed Action would likely jeopardize the continued existence of the species in question, or would result in the destruction or adverse modification of Federally-designated critical habitat in the affected area.

4.3.1.1. No Action Alternative

The No Action Alternative would not result in ground disturbing activities. Thus, no impacts to federal and state-listed threatened and endangered species (TES), fish, plants, or biological resources are anticipated.

4.3.1.2. Proposed Action

As described in Section 3.3.5, the project site does not have appropriate habitat for federal and state-listed TES or bald and golden eagles. Tree removal may impact migratory birds if trees are removed during the nesting season. Tree removal during the nesting season would require pre-construction surveys for active migratory bird nests.

Kansas Department of Wildlife, Parks, and Tourism (KDWPT) and the U.S. Fish and Wildlife Service (USFWS) were contacted for their review of the proposed project. KDWPT review indicated no significant impacts to crucial wildlife habitats and no special mitigation measures are recommended. The project would not impact any public recreational areas, nor did KDWPT document any potential impacts to currently listed threatened or endangered species or species in need of conservation.

USFWS indicated the project would not likely affect the northern long-eared bat (*Myotis septentrionalis*).

USFWS indicated records of Mead's milkweed (*Asclepias meadii*) near the project area and recommended coordination with the Kansas Natural Heritage Inventory (KNHI). USFWS recommended a qualified botanist inspect the project area to determine the presence of suitable habitat and the federally-listed plant species prior to ground disturbing activities.

Communication dated February 1, 2018 provided KNHI with a 2011 plant/habitat (FQI) survey completed by the Kansas Biological Survey (KBS) for a previous airport project. This previous survey included all areas that may be impacted by the proposed project. The 2011 KBS survey did not encounter any federally- protected species or high-quality supporting habitats for Mead's milkweed. KNHI stated it would not require additional surveys for Mead's milkweed. KNHI recommended protecting the prairie habitat not directly impacted by the runway development by managing with occasional mowing, rather than planting to fescue or other non-native grass species.

Tree removal may impact migratory birds if trees are removed during the nesting season. Tree removal during the nesting season would require pre-construction surveys for active migratory bird nests. Standard seasonal tree clearing restrictions would be applied, and nesting surveys would be conducted as needed to avoid potential migratory bird impacts.

Correspondence is included in ***Appendix G*** - Threatened and Endangered Species Coordination.

4.3.2. Farmlands

Important farmlands include pastureland, cropland, and forest considered to be prime, unique, or statewide or locally important land. An impact to farmlands would occur if an action would have the potential to convert important farmland to non-agricultural uses. According to FAA 1050.1F, Exhibit 4-1, a significant impact to farmlands would occur if the total combined score on U.S. Department

of Agriculture AD-1006, Farmland Conversion Impact Rating, ranges between 200 and 260 points.

4.3.2.1. No Action Alternative

The No Action Alternative would not result in ground disturbing activities. Thus, no impacts to farmlands are anticipated.

4.3.2.2. Proposed Action

Construction activities under the Proposed Action would convert approximately 5.48 acres of farmland directly and approximately 76.19 acres indirectly for a total of 81.67 acres. An AD-1006 form was submitted for review by U.S. Department Agriculture (USDA) Natural Resources Conservation Services (NRCS). The AD-1006 Farmland Conversion Impact rating form is based on a point system that has 160 points set as the minimum number of "Total Points' that triggers additional in-depth site review. The proposed project total points equal 81, thus NRCS has determined that the project was found to be cleared of Farmland Protection Policy Act (FPPA) significant concerns. No significant impacts are anticipated. Correspondence with NRCS is included in ***Appendix I*** – Farmlands.

4.3.3. Hazardous Materials, Solid Waste, and Pollution Prevention

The city of Fort Scott's solid waste transfer and recycle center is located at 2286 Noble Road, northeast of the city.

According to FAA Order 1050.1F, Exhibit 4-1, the FAA has not established a significance threshold for Hazardous Material, Solid Waste, and Pollution Prevention. However the order lists several factors to consider if the action would have the potential to involve a contaminated site, produce an appreciably different quantity or type of hazardous or solid waste, use a different method of collection or disposal and/or would exceed local capacity, or adversely affect human health and the environment.

A review of potential hazardous materials occurring on the project site as well as within an area approximately 0.5 mile beyond the anticipated construction limits was completed. Available environmental databases were searched to identify

facilities listed on state and federal environmental programs. The Hazardous Materials Report found a total of three underground storage tanks and two aboveground storage tanks listed at the Fort Scott Municipal Airport. These listings are considered to have a low potential to impact the project based on their regulatory status. The Hazardous Materials report is found in ***Appendix K*** – Hazardous Materials Report.

4.3.3.1. No Action Alternative

The No Action Alternative would not result in ground disturbing activities. Thus, no impacts to hazardous materials are anticipated. Solid waste would likely increase proportionate to airport activities anticipated to occur at the site because of increased operations at the Fort Scott Municipal Airport.

4.3.3.2. Proposed Action

Construction of the runway extension would not increase solid waste, pollution, or production of hazardous materials. Short term, temporary increases in solid waste production associated with construction activities would likely occur. Long term, solid waste would likely increase proportionate to airport activities anticipated to occur at the site because of increased operations at the Fort Scott Municipal Airport. However, construction of the Proposed Action would not generate an appreciable amount of solid waste and disposal would not exceed local landfill capacity. Long term operation of the Proposed Action would be similar to existing and would not generate an appreciably different quantity or type of solid waste and collection and disposal would not exceed local landfill capacity.

Construction of the runway extension would not occur in an area that contains or previously contained hazardous materials. Based on the hazardous materials report, the project would not create short term hazardous materials impacts or result in long term/permanent hazardous materials impacts.

For pollution prevention, Best Management Practices (BMPs) would be employed during construction to limit runoff and erosion to ensure there would be no direct significant impacts due to the Proposed Action. Additional impervious surface may result from the Proposed Action. However, the Proposed Action will incorporate storm water management into the design and storm water will be discharged in compliance with applicable regulatory requirements and in accordance with the National Pollutant Discharge Elimination System (NPDES) permit. Therefore, significant impacts associated with pollution prevention are not anticipated.

4.3.4. Land Use

According to Order 1050.1F, Exhibit 4-1, the FAA has not established a significance threshold for Land Use and there are no specific independent factors to consider. The determination that significant impacts exist is normally dependent on the significance of other impacts.

4.3.4.1. No Action Alternative

The No Action Alternative would not result in ground disturbing or construction activities. Thus, no impacts to land use are anticipated.

4.3.4.2. Proposed Action

The compatibility of existing and planned land uses near an airport is normally dependent on the significance of other impacts. With very little to no impact from related categories, there is also no land use impact. The city's Land Use Assurance letter is included in ***Appendix E*** – Sponsor Land Use Letter.

The predominant land uses surrounding the airport are agricultural and undeveloped pasture areas. There are no schools, churches, or hospitals within 2.0 miles of the project site. Farmsteads, private homes, and associated out buildings are located on adjacent properties approximately 0.25 mile from the project, however urban residential areas are located

greater than 1.0 mile from the project site. There are no impacts to this resource category.

4.3.5. Natural Resources and Energy Supply

Natural resources may be impacted by a construction project and may require dirt, rock, or gravel that could diminish or deplete a supply of those and other natural resources. In addition, the operation of an airport requires energy supplies in the form of electricity, natural gas, aviation fuel, diesel fuel, and gasoline. The FAA has not established a significance threshold for natural resources and energy supply; however, per FAA Order 1050.1F, Exhibit 4-1, the analysis should consider situations in which the Proposed Action or alternative(s) would have the potential to cause demand to exceed available or future supplies of these resources.

4.3.5.1. No Action Alternative

No significant impacts to natural resources and energy supply are anticipated with the No Action Alternative as the amount of aircraft fuel would remain steady due to planes holding or circling the field when others are using the runway. In addition, light emissions and energy usage would likely remain the same.

4.3.5.2. Proposed Action

Use of aircraft fuel would likely increase proportionate to the increase in forecasted jet operations as well as transient jet operations related to air traffic. The airfield lighting systems currently utilize a pilot-controlled option, which allows pilots to turn lights on by clicking their radio microphone. After 15 minutes, the lights automatically turn off, thus reducing light emissions and energy usage.

The Proposed Action would be constructed with a base of fill materials such as soil, rock, crushed aggregate or recycled crushed concrete. Asphalt, concrete, and steel may be used to construct the runway and taxiways. These materials are typical for airport construction.

The Proposed Action would not consume a notable quantity of natural resources, nor would it exceed local supplies for fuel and energy. Therefore, no significant impacts to natural resources or the local energy supply would occur as a result of the Proposed Action.

4.3.6. Socioeconomics, Environmental Justice, and Children's Environmental Health and Safety Risks

According to Order 1050.1F, Exhibit 4-1, the FAA has not established a significance threshold for this impact category. However, impacts should be evaluated if the Proposed Action would have the potential to:

Socioeconomic

- Induce substantial economic growth in an area, either directly or indirectly (e.g., through establishing projects in an undeveloped area);
- Disrupt or divide the physical arrangement of an established community;
- Cause extensive relocation when sufficient replacement housing is unavailable;
- Cause extensive relocation of community businesses that would cause severe economic hardship for affected communities;
- Disrupt local traffic patterns and substantially reduce the levels of service of roads and serving an airport and its surrounding communities; or
- Produce a substantial change in the community tax base.

Environmental Justice

- Lead to a disproportionately high and adverse impact to an environmental justice population, i.e. low-income or minority population due to significant impacts in other environmental impacts categories; or
- The FAA determines that environmental impacts are unique to the environmental justice population and significant to that population.

Children's Environmental Health and Safety Risks

- The Proposed Action would have the potential to lead to a disproportionate health or safety risk to children.

The area of the airport is in United States Census Tract 9558. The area south of the Indian Road and west of 180th Street is in Census Tract 9557. Table 2 below presents information related to limited English proficiency, race, and poverty demographics.

Table 2 – Minority and/or Low-Income Information for Census Tracts Surrounding the Project Area

Data[1]	Census Tract 9558	Census Tract 9557
White alone	93%	95%
% of Households Speaking Only English	98%	99.9%
% of the population is below the poverty level	12.5%	12.3%

[1] Data from the 2012-2016 American Community Survey 5-Year Estimates

4.3.6.1. No Action Alternative

The No Action Alternative would not result in a change from the existing conditions. Thus, no impacts to socioeconomics, environmental justice, and children's environmental health and safety risks are anticipated.

4.3.6.2. Proposed Action

The airport is located in a predominantly rural area surrounded by agricultural and undeveloped pasture areas. There are no schools, churches or hospitals near the project site. Farmsteads, private homes, and associated out buildings are located on adjacent properties with urban residential areas located greater than 1.0 mile from the project site. There are no residences within 0.4 mile of the project site.

Project and construction activities would occur on airport property as well as the additional property to be acquired south of the existing airport property south of Indian Road. The project would close Indian Road as the runway would extend through the existing roadway. This closure would impact home and property owners located west of the Fort Scott Municipal Airport. Persons wanting access to areas located west of 187th

Terrace would be required to utilize Fern Road, accessible via Kansas Highway 7, south of the City of Fort Scott. Based on the 2016 data from the American Community Survey, there are no minority, low-income, or Limited English Proficiency populations in or near the project area. Therefore, no adverse impacts to socioeconomics, environmental justice, or children's environmental health and safety are anticipated because of the Proposed Action.

4.3.7. Visual Effects (including light emissions)

The FAA has not established a significance threshold for this environmental impact category. However, Order 1050.1F, Exhibit 4-1, states that the visual effects environmental impacts category, including light emissions, deals with the extent to which the proposed action would have the potential to: 1) produce light emissions that create annoyance or interfere with normal activities; 2) affect the visual character of the area due to light emissions, including the importance, uniqueness and aesthetic value of the affected visual resources; 3) affect the nature of the visual resources or visual character of the area, including the importance, uniqueness and aesthetic value of the affected visual resources; 4) contrast with the visual resources and/or the visual character of the existing environment; or 5) block or obstruct the views of visual resources, including whether those resources would still be viewable from other locations.

4.3.7.1. No Action Alternative

The No Action Alternative would not result in a change from the existing conditions. Thus, no impacts to visual effects are anticipated.

4.3.7.2. Proposed Action

Consideration was given to impacts on people and properties due to light emissions or visual impacts. The proposed project includes lighting along the extended runway. The extended runway would be located on the interior of the airport adjacent to farmland and in a sparsely populated rural area. The lights would not create an annoyance or interfere with normal activities. The lights would not affect the visual character of the area or significantly increase light emissions from present conditions.

4.3.8. Water Resources (including wetlands, floodplains, surface waters, groundwater, and wild and scenic rivers)

According to FAA Order 1050.1F, Exhibit 4-1, a significant impact occurs if the proposed action would:

Wetlands

- Adversely affect the function of a wetland's function to protect the quality or quantity of municipal water supplies, including surface waters and sole source and other potable water aquifers;
- Substantially alter the hydrology needed to sustain the affected wetland system's values and functions or those of a wetland to which it is connected;
- Substantially reduce the affected wetland's ability to retain floodwaters or storm runoff, thereby threatening public health, safety or welfare (this includes cultural, recreational, and scientific resources or property important to the public);
- Adversely affect the maintenance of natural systems supporting wildlife and fish habitat or economically important timber, food, or fiber resources of the affected or surrounding wetlands;
- Promote development of secondary activities or services that would cause the circumstances listed above to recur; or
- Be inconsistent with applicable state wetland strategies.

Floodplains

The action would cause notable adverse impacts on natural and beneficial floodplain values.

Surface Water and Groundwater

The action would; 1) Exceed water quality standards established by Federal, state, local, and tribal regulatory agencies; or 2) Contaminate public drinking water supply such that public health may be adversely affected.

Wild and Scenic Rivers

The FAA has not established a significance threshold. However, factors to consider are if the action would have an adverse impact on the values for which a river was designated.

The 2018 Wetland Delineation ***(Appendix H)*** identified two PEMA wetlands totaling 0.30 acre, two PUBF wetlands totaling 0.21 acres, and an ephemeral stream with 413 linear feet located within the project boundary. The project is not located within a FEMA designated floodplain or floodway. According to the Kansas Geological Survey, groundwater well depths in the general vicinity of the Fort Scott Municipal Airport range from 80 feet to 180 feet below ground surface. There are no Wild and Scenic Rivers or surface water situated within the project area.

4.3.8.1. No Action Alternative

The No Action Alternative would not result in a change from the existing conditions. Thus, no impacts to water resources are anticipated.

4.3.8.2. Proposed Action

Construction of the Proposed Action would impact all wetland and stream resources delineated within the project area, totaling 0.30 acres PEMA wetland, 0.21 acres PUBF wetlands, and 413 feet ephemeral stream channel. Coordination with the U.S. Army Corps of Engineers (USACE) has indicated that 0.28 acres of PEMA are non-jurisdictional waters (***Appendix H***). Because impacts to jurisdictional wetlands and waters of the United States are greater than 0.10-acre, a Clean Water Act (CWA) Section 404 permit from the USACE is required. Impacts to the wetland and ephemeral stream will require coordination with USACE Kansas City District and the Kansas Department of Agriculture's Division of Water Resources. If needed, the wetlands would be mitigated through the purchase of credits from an approved wetland bank or an in-lieu-fee wetland mitigation bank program. If needed, the stream would be mitigated by construction of a new channel on the airport property, which would connect to the existing channel outside the project area. The new

channel would have a vegetated buffer and would be designed to meet all USACE standards.

Due to the depths to groundwater (greater than 50 feet), construction of the Proposed Action would not impact groundwater resources.

Table 3 – Summary of Impact Category Determinations and Mitigation

Environmental Consequences	Proposed Action Alternative		No Action Alternative	
Impact Category	**Impacts**	**Mitigation**	**Impacts**	**Mitigation**
Air Quality	None	None Required	None	None Required
Biological Resources	Minor impacts to hay fields. Tree removal could impact migratory birds if completed during nesting season.	Reseed disturbed areas. Avoid tree removal during nesting season. If tree removal during nesting season is required, nesting bird surveys would be required prior to removal activities.	None	None Required
Climate	None	None Required	None	None Required
Coastal Resources	None	None Required	None	None Required
Section 4(f)	None	None Required	None	None Required
Farmlands	Conversion of approximately 5.48 acres of farmland. No FPPA concerns.	None Required.	None	None Required
Hazardous Materials, Solid Waste, and Pollution Prevention	Short term, temporary increases in solid waste production associated with construction activities. No impacts to hazardous materials.	None Required.	None	None Required
Historical, Architectural, Archeological, and Cultural Resources	None	If resources are uncovered during construction, stop all construction activities in the immediate vicinity and contact FAA which will in turn coordinate with SHPO and Tribes.	None	None Required
Land Use	None	None Required	None	None Required
Natural Resources and Energy Supply	Increase expected in aircraft fuel use proportionate to increase in jet operations.	None Required	None	None Required
Noise and Noise Compatible Land Use	The 65 DNL noise exposure contour remains on airport property for the Proposed Action, and thus there is no significant impact due to noise.	None Required	None	None Required

Environmental Consequences	Proposed Action Alternative		No Action Alternative	
Impact Category	**Impacts**	**Mitigation**	**Impacts**	**Mitigation**
Socioeconomic, Environmental Justice, & Children's Health	Closure of Indian Road would impact home and property owners located west of the Fort Scott Municipal Airport. Areas located west of 187th Terrace would be required to utilize Fern Road, accessible via Kansas Highway 7, south of the City of Fort Scott for access.	None Required	None	None Required
Visual Effects	None	None Required	None	None Required
Wetlands	Impacts to wetland and ephemeral channel	Obtain Section 404 Permit from USACE. Potential mitigation may be required as part of the 404 permit.	None	None Required
Floodplains	None	None Required	None	None Required
Surface Water	None	None Required	None	None Required
Groundwater	None	None Required	None	None Required
Wild and Scenic Rivers	None	None Required	None	None Required
Cumulative Impacts	None	None Required	None	None Required

5. Cumulative Impact Analysis *[see Para. 706.h.]*

A review of the Proposed Action's effects on resources when combined with other past, present, and reasonably foreseeable actions has determined that there are no significant cumulative impacts.

Appendix A - Preparers & Qualifications

List of Preparers and Qualifications

Tony Baumert – Mr. Baumert is a natural resources technical leader with over 20 years of experience in ecological research and consulting. Mr. Baumert is a seasoned field ecologist with extensive experience in NEPA, wetland delineation, 404 permitting, mitigation, and threatened and endangered species. Mr. Baumert is a graduate of Saint John's University with a bachelor's degree in biological sciences, including additional graduate study at the University of Pittsburgh and University of Nebraska.

Amy Cherko – Ms. Cherko is an environmental scientist with ten years of experience completing NEPA, wetland delineations, Phase I and II ESAs, Section 404 permitting applications, and hazardous substances investigations. She has a bachelor's degree in biology and psychology from the University of Nebraska.

Diane Hofer – Ms. Hofer is a professional engineer with over 35 years of experience in airport planning, design and construction. She has a bachelor's degree in civil engineering from the University of Nebraska

APPENDIX B – Aviation Forecast Data

Appendix B
Aviation Forecast Data
Fort Scott Municipal Airport (FSK)

Operations

Aircraft Type	Engine Type	ARC	2017 Actual	2022 Forecasts	2027 Forecasts
Takeoff Weight > 12,500 lbs. ≤ 60,000 lbs. 100% of Fleet					
Cessna Citation II/Bravo 550	Jet	B-II	25	35	40
*Challenger 604	Jet	C-II	150	750	915
Subtotals			**175**	**785**	**955**
Takeoff Weight > 12,500 lbs. ≤ 60,000 lbs. 75% of Fleet					
Air Tractor 802 (ag sprayer)	Turboprop	A-II	200	225	250
Beech Super King Air 350	Turboprop	B-II	100	120	140
Beechjet 400	Jet	B-I	25	35	40
Cessna Citation CJ2	Jet	B-I	25	35	40
Cessna Citation V/Ultra/Encore 560	Jet	B-II	25	35	40
**Challenger 300	Jet	C-II	0	750	915
**Lear 60	Jet	C-I	0	390	475
Learjet 40	Jet	C-I	25	425	515
*Learjet 45	Jet	C-I	250	35	40
Subtotals			**650**	**2050**	**2455**
Takeoff Weight ≤ 12,500 lbs.					
Air Tractor 401 (ag sprayer)	Turboprop	A-II	1500	1600	1800
Beech 200 Super King	Turboprop	B-II	100	120	140
Beech Baron 55/58	Twin Engine	B-I	100	120	140
*Beech King Air 90	Turboprop	B-II	100	120	140
Cessna 414/421	Twin Engine	B-I	100	120	140
Cessna Mustang 510	Jet	B-I	25	35	40
Embraer Phenom 100	Jet	B-I	50	65	70
Pilatus PC-12	Turboprop	A-II	200	240	280
Socata TBM 700	Turboprop	A-I	100	280	330
Thrush (ag sprayer)	Turboprop	A-I	200	225	250
*Other Twin	Twin Engine	B-I	50	60	70
*Local Operations	Single Engine	A-I / B-I	2,150	2,267	2,400
Itinerant Operations	Single Engine	A-I / B-I	4,300	4,533	4,800
Subtotals			**8,975**	**9,785**	**10,600**
Helicopters			**350**	**350**	**350**
TOTAL			**10,150**	**12,970**	**14,360**

* Existing Based Aircraft

** Future Based Aircraft (current tenants have specific purchase plans)

Appendix B
Aviation Forecast Data
Fort Scott Municipal Airport (FSK)

Based Aircraft

Aircraft Type	Engine Type	ARC	2017 Actual	2022 Forecasts	2027 Forecasts
Single-Engine Aircraft	Single Engine	A-I / B-I	20	21	22
Multi-Engine Piston Aircraft	Twin Engine	B-I	1	2	4
Multi-Engine Turbine Aircraft	Turboprop	A-I / A-II / B-II	1	4	5
Business Jet Aircraft	Jet	B-II / C-I / C-II	2	3	4
			24	**30**	**35**

APPENDIX C - Agencies/Tribes/Persons Consulted

Tribal Coordination – Environmental Assessment 12/27/17
Fort Scott Municipal Airport, Bourbon County, Kansas

Contact	Date	Response Returned	Action Requested
Ms. Bobi Roush Cultural Preservation Department Iowa Tribe of Oklahoma 335588 E 750 Road Perkins, OK 74059	1st Mail 12/27/17 2nd Mail 9/27/18	2/22/18-No Response 11/5/18-No Response	
Ms. Diane Hunter Tribal Historic Preservation Officer Miami Tribe of Oklahoma P.O. Box 1326 Miami, OK 74355	1st Mail 12/27/17 2nd Mail 9/27/18	2/22/18-No Response 11/5/18-No Response	
Mr. Tony Provost Tribal Historic Preservation Officer Omaha Tribe P.O. Box 368 Macy, NE 68039	1st Mail 12/27/17 2nd Mail 9/27/18	2/22/18-No Response 11/5/18-No Response	
Dr. Andrea Hunter Director, THPO Osage Nation 627 Grandview Pawhuska, OK 74056	1st Mail 12/27/17 2nd Mail 4/3/18 3rd Mail 9/27/18 4th Mail 11/13/19	3/21/18-Late Response 5/30/18-Response with comments 11/5/18-No Response	12/27/17-Initial consultation letter. 3/21/18-Received late response-No longer accept surveys from Strudevant, request new survey. 4/3/18-FAA reply with "no historic properties affected". 5/30/18-Response with comments requesting new survey. 9/27/18-FAA letter with new survey and new sites identified. 11/5/18-No response. FAA email requesting response. 11/5/18-FAA emails between FAA and Tribe. 11/15/18-FAA email requesting response. 2/20/19-FAA email Ph3 SOW 5/3/19-FAA email Ph3 site visit 5/6/19-Tribe email requesting schedule. 11/13/19-FAA letter sending Ph3 survey. Cert Mail Rcvd 11/18/19. 1/3/2020-No Response to date.
~~Mr. Andrew Knife Chief, B.A., J.D.~~ Mr. Matt Reed Tribal Historic Preservation Office	1st Mail 12/27/17 2nd Mail 9/27/18 3rd Mail 11/13/19	1/12/18-Letter 10/23/18-Letter	1/12/18-"should have no potential to adversely affect" 5/30/18-Response with comments requesting new survey. 10/23/18-Concur with Phase 3 Study. May proceed with project.

Pawnee Nation of Oklahoma P.O. Box 470 Pawnee, OK 74058			2/20/19-FAA email Ph3 SOW 5/3/19-FAA email Ph3 site visit 5/8/19-Tribe email declining site visit 11/13/19-FAA letter sending Ph3 survey. Cert Mail Rcvd 11/18/19. 1/3/2020-No Response to date.
Mr. Shannon Wright Tribal Historic Preservation Officer Ponca Tribe of Nebraska PO BOX 288 Niobrara NE 68760	1st Mail 12/27/17 2nd Mail 9/27/18	2/22/18-No Response 11/5/18-No Response	
Mr. William Tarrant Culture/Historical Preservation Officer Seneca Cayuga Tribe of Oklahoma 23701 South 655 Rd Grove, OK 73444	1st Mail 12/27/17 2nd Mail 9/27/18	2/22/18-No Response 11/5/18-No Response	
~~Mr. Ben Barnes~~ Ms. Tonya Tipton The Shawnee Tribe P.O.Box 189 29 S Hwy 69A Miami, OK 74355	1st Mail 12/27/17 2nd Mail 9/27/18	1/3/18-email 11/5/18-No Response	"no known historic properties will be negatively impacted by this project"
Mr. Kip Spotted Eagle Tribal Historic Preservation Officer Yankton Sioux Tribe of South Dakota P.O. Box 1153 Wagner, SD 57380-1153	1st Mail 12/27/17 2nd Mail 9/27/18	2/8/18 Phone Call 2/22/18-No response to FAA email 11/5/18-No Response	2/8/18 FAA email record of Phone Conv. - All ground disturbing activities to the South, no ground disturbing activities to the North
Mr. Eric Oosahwee-Voss Tribal Historic Preservation Officer United Keetoowah Band of Cherokee Indians in Oklahoma PO Box 1245 Tahlequah, OK 74465	1st Mail 12/27/17 2nd Mail 9/27/18	2/22/18-No Response 11/5/18-No Response	
Mr. Gary McAdams Wichita and Affiliated Tribes P.O. Box 729 Anadarko, OK 73005	1st Mail 12/27/17 2nd Mail 9/27/18	2/22/18-No Response 11/5/18-No Response	

U.S. Department
of Transportation

**Federal Aviation
Administration**

Central Region
Iowa, Kansas,
Missouri, Nebraska

901 Locust
Kansas City, Missouri 64106
(816) 329-2600

November 13, 2019

CERTIFIED MAIL

Dr. Andrea Hunter
Director, THPO
Osage Nation
627 Grandview
Pawhuska, OK 74056

Section 106 Consultation
Environmental Assessment
Fort Scott Municipal Airport
Fort Scott, Bourbon County, Kansas

Dear Dr. Hunter:

An Environmental Assessment (EA) is being prepared for proposed development at the Fort Scott Municipal Airport subject to the National Environmental Policy Act (NEPA). The NEPA review process requires compliance with Section 106 of the National Historic Preservation Act (NHPA), as implemented through 36 CFR 800. The FAA is the lead federal agency for the NEPA document. Jim Johnson, FAA Central Region Airports Division Manager, will be making the final FAA decision on the EA.

Our previous coorespondence regarding this undertaking, dated September 27, 2018, provided a copy of the *Phases I & II Archaeological Studies, Fort Scott Airport Expansion, Fort Scott, Kansas*, prepared by Rebecca A Hawkins, Algonquin Consultants, Inc., dated September 14, 2018. This study recommended a Phase III field investigation to better evaluate NRHP eligibility for site 14BO137, located in the northern part of the Phase II survey area.

Please find enclosed for your review a copy of the *Phase III Archaeological Assessment of Sites 15BO137 and 15BO140 in the Fort Scott Airport Expansion Project Area, Fort Scott, Bourbon County, Kansas*, prepared by Rebecca A Hawkins, Algonquin Consultants, Inc., dated September 2019. The Phase III study determined that neither site is NRHP-eligible.

We request your input on properties of cultural or religious significance that may be affected by the proposed project. To help in our preparation of the EA, we would appreciate your input (via mail or e-mail) within thirty (30) days. If you have questions or require additional information, please contact me at 816-329-2639 or scott.tener@faa.gov.

Sincerely,

Scott Tener, P.E.
Environmental Specialist

Enclosures

U.S. Department
of Transportation

Federal Aviation Administration

Central Region
Iowa, Kansas,
Missouri, Nebraska

901 Locust
Kansas City, Missouri 64106
(816) 329-2600

November 13, 2019

CERTIFIED MAIL

Mr. Matt Reed
Tribal Historic Preservation Office
Pawnee Nation of Oklahoma
P.O. Box 470
Pawnee, OK 74058

Section 106 Consultation
Environmental Assessment
Fort Scott Municipal Airport
Fort Scott, Bourbon County, Kansas

Dear Mr. Reed:

An Environmental Assessment (EA) is being prepared for proposed development at the Fort Scott Municipal Airport subject to the National Environmental Policy Act (NEPA). The NEPA review process requires compliance with Section 106 of the National Historic Preservation Act (NHPA), as implemented through 36 CFR 800. The FAA is the lead federal agency for the NEPA document. Jim Johnson, FAA Central Region Airports Division Manager, will be making the final FAA decision on the EA.

Our previous coorespondence regarding this undertaking, dated September 27, 2018, provided a copy of the *Phases I & II Archaeological Studies, Fort Scott Airport Expansion, Fort Scott, Kansas*, prepared by Rebecca A Hawkins, Algonquin Consultants, Inc., dated September 14, 2018. This study recommended a Phase III field investigation to better evaluate NRHP eligibility for site 14BO137, located in the northern part of the Phase II survey area. Your response letter, dated October 23, 2018, also recommended that the "partial Calf Creek point [15BO140] may have a cultural connection to the Foreaker or Florence Chert discovered within 14BO137 and merits the additional research and protection."

Please find enclosed for your review a copy of the *Phase III Archaeological Assessment of Sites 15BO137 and 15BO140 in the Fort Scott Airport Expansion Project Area, Fort Scott, Bourbon County, Kansas*, prepared by Rebecca A Hawkins, Algonquin Consultants, Inc., dated September 2019. The Phase III study determined that neither site is NRHP-eligible.

We request your input on properties of cultural or religious significance that may be affected by the proposed project. To help in our preparation of the EA, we would appreciate your input (via mail or e-mail) within thirty (30) days. If you have questions or require additional information, please contact me at 816-329-2639 or scott.tener@faa.gov.

Sincerely,

Scott Tener, P.E.
Environmental Specialist

Enclosures

Tener, Scott (FAA)

From: tonya@shawnee-tribe.com
Sent: Wednesday, January 03, 2018 10:46 AM
To: Tener, Scott (FAA)
Subject: Section 106 Consultation/Environmental Assessment Fort Scott Municipal Airport Fort Scott, Bourbon County, Kansas

This letter is in response to the above referenced project.

The Shawnee Tribe's Tribal Historic Preservation Department concurs that no known historic properties will be negatively impacted by this project.

We have no issues or concerns at this time, but in the event that archaeological materials are encountered during construction, use, or maintenance of this location, please re-notify us at that time as we would like to resume immediate consultation under such a circumstance.

If you have any questions, you may contact me via email at tonya@shawnee-tribe.com

Thank you for giving us the opportunity to comment on this project.

Sincerely,
Tonya Tipton THPO
Shawnee Tribe

Pawnee Nation of Oklahoma

Friday, January 12, 2018

Scott Tener
Environmental Specialist
Central Region
Federal Aviation Administration
United States Department of Transportation
901 Locust
Kansas City, Missouri 64106

RE: Section 106 Consultation and Review on *Fort Scott Municipal Airport; Fort Scott, Bourbon County, Kansas*

Dear *Mr. Tener*,

The Pawnee Nation Office of Historic Preservation has received the information and materials requested for our Section 106 Review and Consultation. Consultation with the Pawnee Nation is required by Section 106 of the National Historic Preservation Act of 1966 (NHPA), and 36 CFR Part 800.

Given the information provided, you are hereby notified that the proposal project location should have no potential to adversely affect any known Archaeological, Historical, or Sacred Pawnee sites. Therefore, in accordance with 36 CFR 800.4(d) (1), you may proceed with your proposed project. H**owever, please be advised that undiscovered properties may be encountered and must be immediately reported to us under both the NHPA and NAGPRA regulations.**

This information is provided to assist you in complying with 36 CFR Part 800 for Section 106 Consultation procedures. Please retain this correspondence to show compliance. Should you have questions, please do not hesitate to contact me at jreed@pawneenation.org. Thank you for your time and consideration.

Sincerely,

Matt Reed
Tribal Historic Preservation Officer
Pawnee Nation of Oklahoma

Tribal Historic Preservation Office
Matt Reed
Phone: 918.762.2180 Fax: 918.762.3662
E-mail: jreed@pawneenation.org
P.O. Box 470
Pawnee, Oklahoma 74058

Diane Hofer

From: Tener, Scott (FAA) <scott.tener@faa.gov>
Sent: Tuesday, February 4, 2020 2:53 PM
To: Diane Hofer
Subject: FW: Pawnee Nation/Fort Scott Municipal Airport

Diane,

Please include the below response for the Pawnee Nation in the appendix for Fort Scott EA.

Please let me know if you have any questions,

Scott Tener
Environmental Specialist

FAA Central Region Airports Division
901 Locust St., Room 364
Kansas City, Missouri 64106-2325
T 816.329.2639 | F 816.329.2611
http://www.faa.gov/airports/central/

From: Joseph Reed <jreed@pawneenation.org>
Sent: Tuesday, February 4, 2020 2:36 PM
To: Tener, Scott (FAA) <scott.tener@faa.gov>
Subject: re: Pawnee Nation/Fort Scott Municipal Airport

Mr. Tener,
I just found your Phase II Archaeological Report for the Fort Scott Airport project from November 2019. I apologize for being late in my response, but somehow this report was literally lost in a stack of Section 106 submissions until this morning. I have read through that report and concur with its findings of no further cultural resources work should be conducted.
Thank you,
Matt

Matt Reed
Historic Preservation Officer
Pawnee Nation
PO Box 470
657 Harrison Street
Pawnee, Oklahoma 74058
(918) 762-2180 ext 220
(918) 762-3662 fax
jreed@pawneenation.org

EXAMPLE OF LETTERS SENT TO REVIEW AGENCIES

December 20, 2017

Larry Shepard
US EPA Region 7
11201 Renner Blvd.
Lenexa, Kansas 66219

Re: Fort Scott Airport Runway Improvements
Fort Scott, Bourbon County, Kansas

Dear Mr. Shepard:

On behalf of the City of Fort Scott (City) Municipal Airport, Olsson Associates (Olsson) is requesting input from your agency on potential environmental impacts in accordance with the National Environmental Policy Act (NEPA) of 1969, as amended; and the Council on Environmental Quality (CEQ) NEPA implementation guidelines (40 Code of Federal Regulations [CFR] 1500-1508).

The City is proposing improvements to the existing airport facility. The project would widen the existing runway, and extend the runway approximately 2500 feet to the south, crossing Indian Road. Design plans are currently being developed and can be forwarded if required. We have included maps and aerial photography showing the project location (Attachment A, Figures 1-3). Photographs of the study area are included in Attachment B.

Project Name:	Fort Scott Airport Runway Improvements
General Project Location:	City of Fort Scott, Bourbon County
Section, Range, Township:	Sections 10 & 15, Range 24 East, Township 26 South
Coordinates:	Lat 37.798311°, Long -94.769383°

We appreciate your timely review of this project. If you have any further questions, or require additional information, please contact Mr. Tony Baumert directly at 402.458.5669 or tbaumert@olssonassociates.com. Thank you in advance for your assistance.

Sincerely,

Tony Baumert
Technical Lead

Enclosures

601 P Street, Suite 200
P.O. Box 84608
Lincoln, NE 68508-2303

TEL 402.474.6311
FAX 402.474.5160

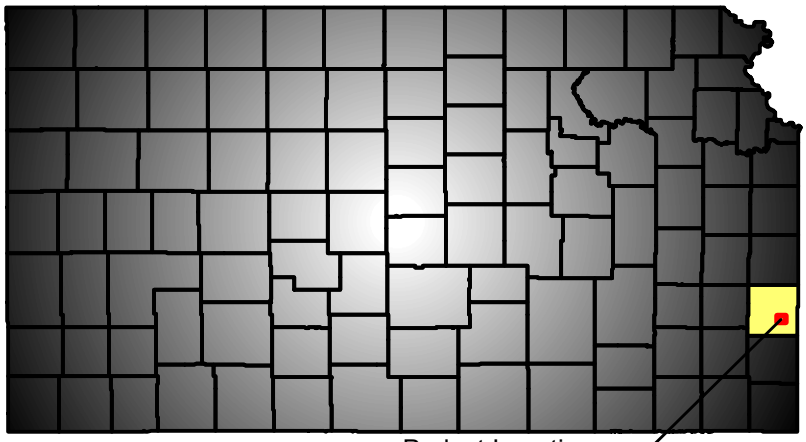
www.olssonassociates.com

Attachment A – Figures

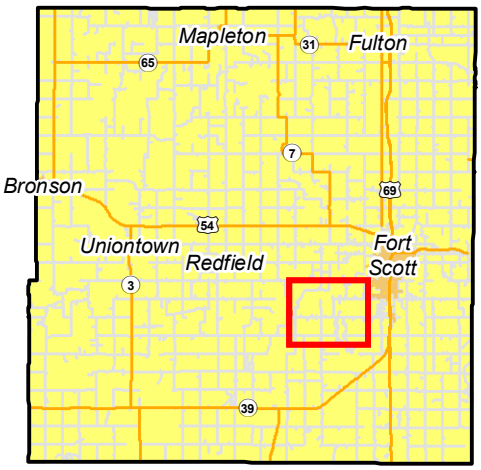
USCB TIGER Line shapefiles 2015

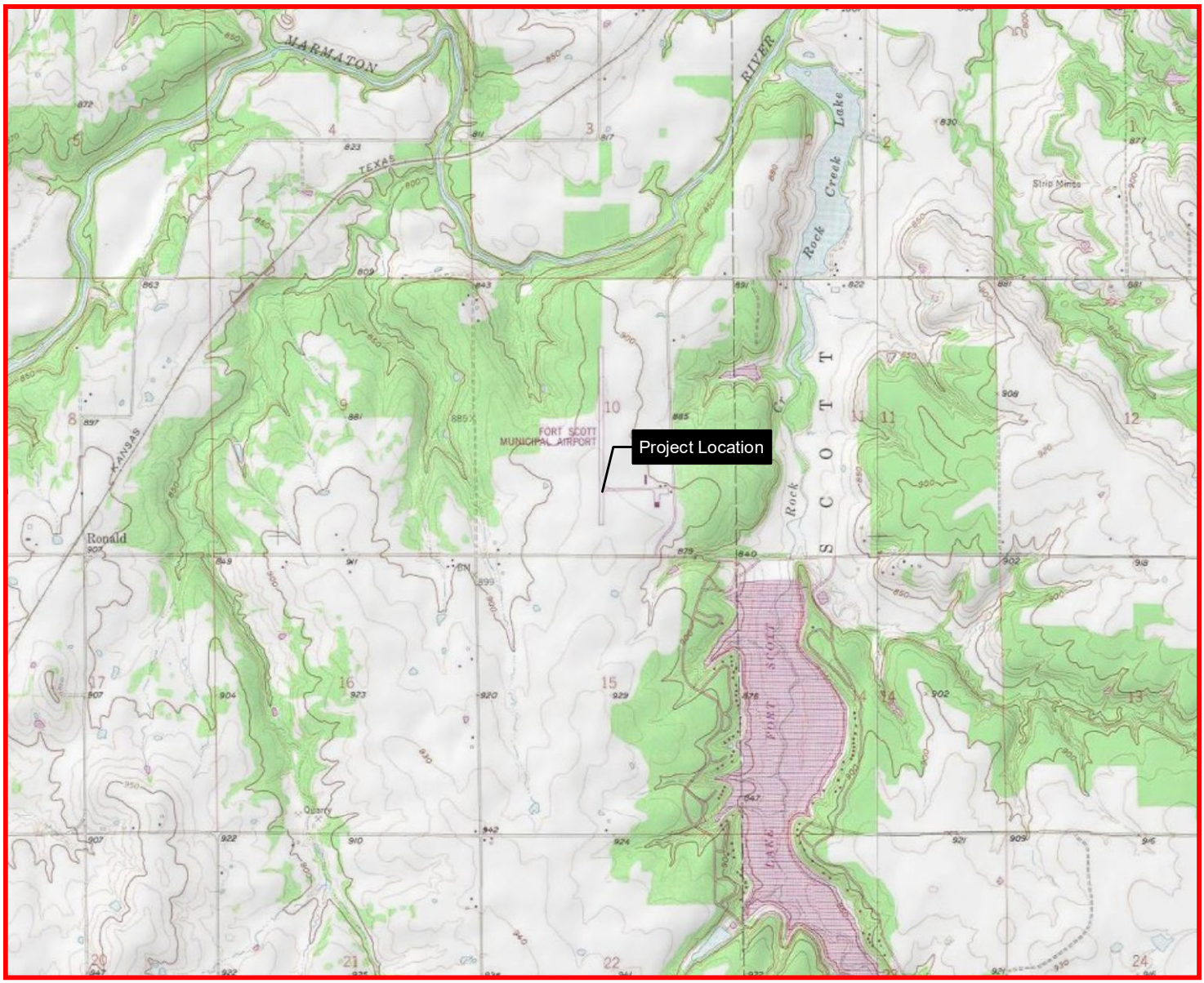
F:\2017\2001-2500\017-2226\40-Design\GIS\17-10-06_NRPL_Environmental Study_Location_Map.mxd PUBLISHED BY: RDoty DATE: October 06, 2017

KANSAS



BOURBON COUNTY





OLSSON ASSOCIATES

N

0 800 1,600 3,200

1 " = 3,000 '

Original Published Resolution

WGS 1984 ARC System Zone 11

ESRI USA Topographic Map

Fort Scott Kansas Airport

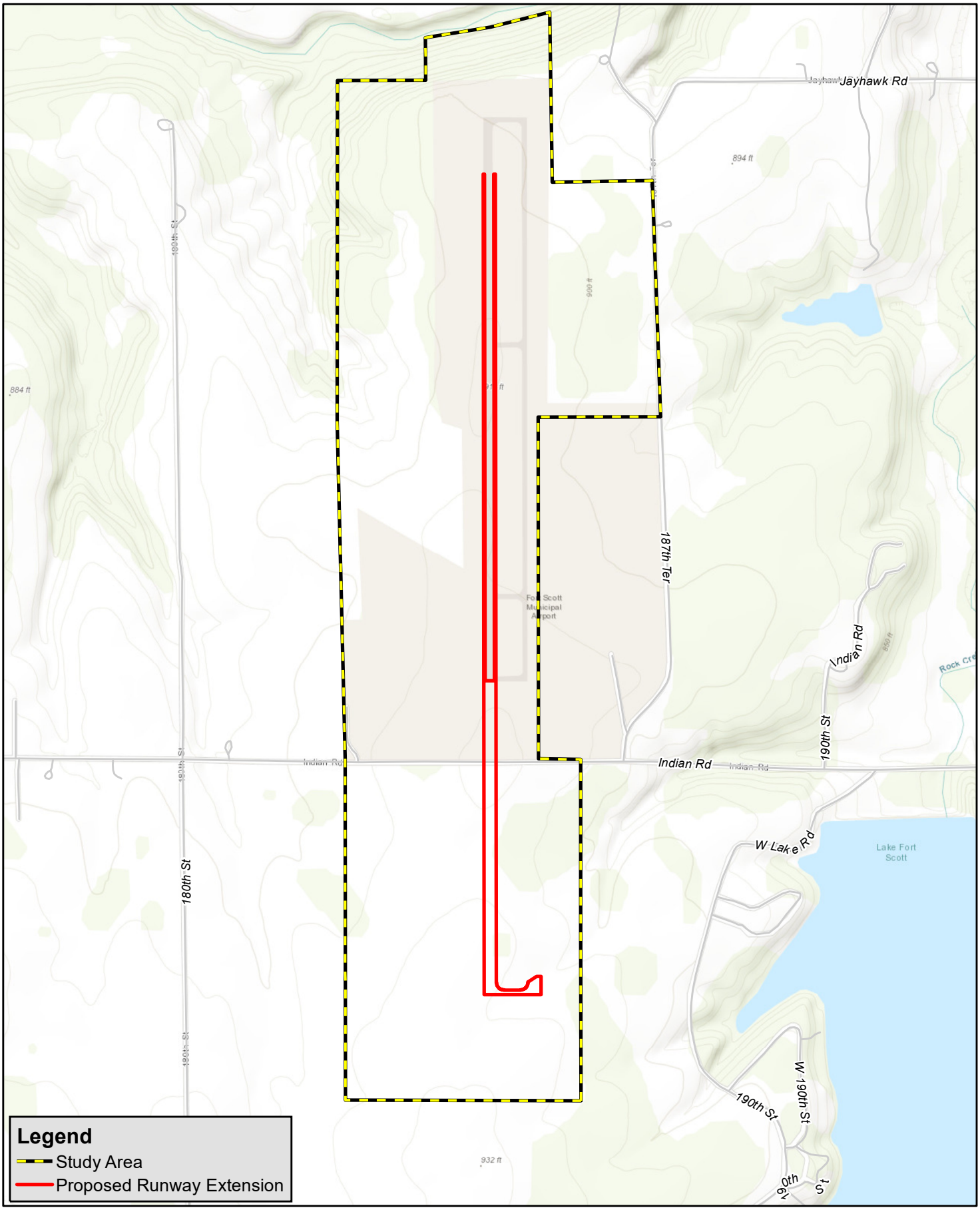
Environmental Study

Bourbon County, Kansas

Topographic Map

FIGURE

1



OLSSON ASSOCIATES

N

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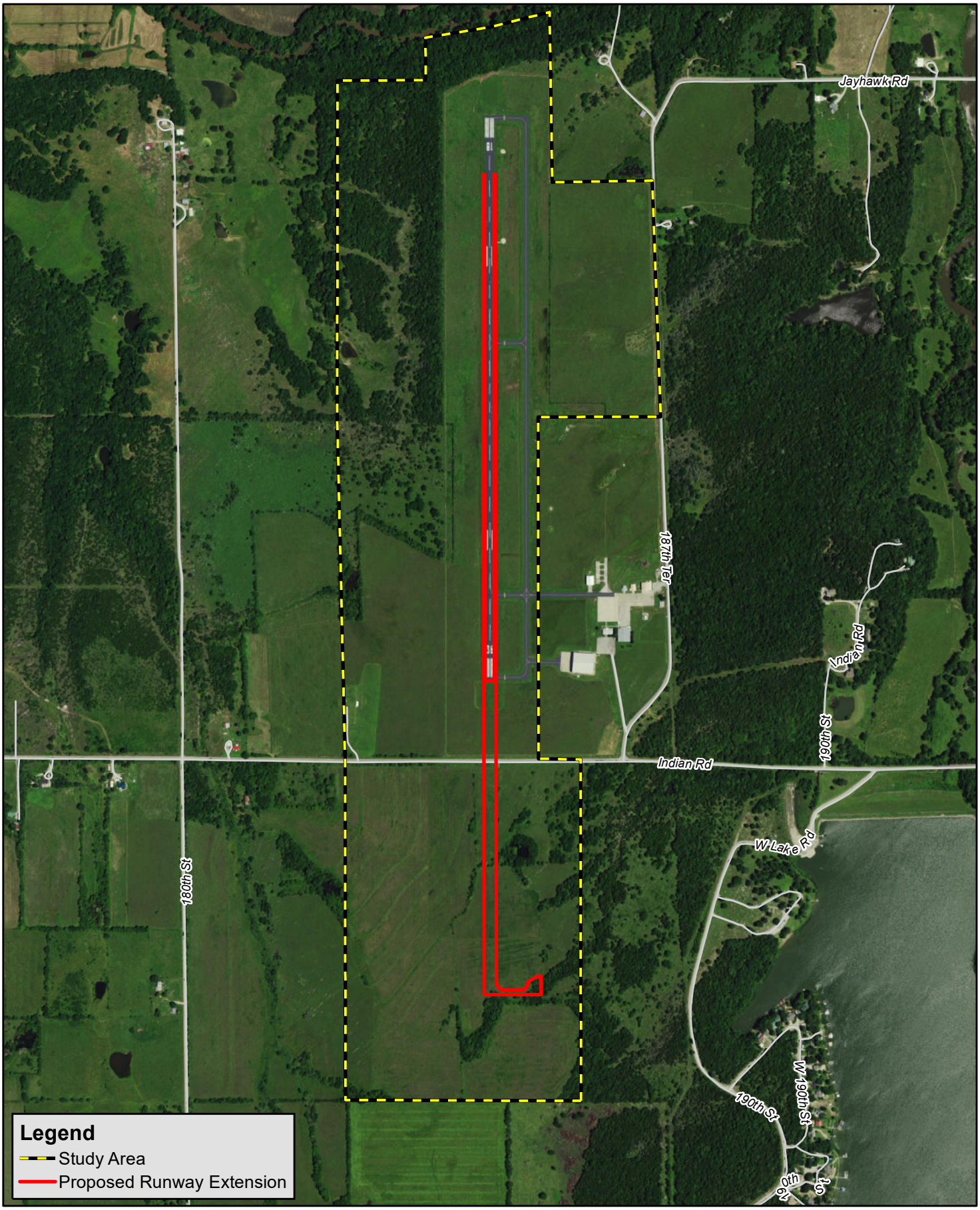
1 " = 1,000 '
Original Published Resolution
WGS 1984 ARC System Zone 11
ESRI World Imagery

Fort Scott Kansas Airport
Environmental Study
Bourbon County, Kansas
Site Map

FIGURE
2

USCB TIGER Line shapefiles 2016

F:\2017\2001-2500\017-2226\40-Design\GIS\17-10-06_NRPL_Site Map.mxd PUBLISHED BY: gmalek-madani DATE: December 21, 2017



F:\2017\2001-2500\017-2226\40-Design\GIS\17-10-06_NRPL_Site Map.mxd PUBLISHED BY: gmalek-madani DATE: December 21, 2017

USCB TIGER Line shapefiles 2016

OLSSON ASSOCIATES

N

0 250 500 1,000

1 " = 1,000 '

Original Published Resolution

ESRI World Imagery

Fort Scott Kansas Airport

Environmental Study

Bourbon County, Kansas

Site Map

FIGURE

3

Attachment B – Photo Log

Photo Log

Project Name: Fort Scott Airport Runway Improvements	
Photo: 1 Photo Direction: West Description: Delineated ephemeral stream channel and typical shrub/scrub woodland found within the project area south of Indian Road.	

Project Name: Fort Scott Airport Runway Improvements	
Photo: 2 Photo Direction: South Description: Wooded area dominated by eastern red cedar (*Juniperus virginiana*) and Osage orange (Maclura pomifera) within the study area found south of Indian Road.	

Photo Log

Project Name: Fort Scott Airport Runway Improvements	
Photo: 3 Photo Direction: West Description: Wetland habitat found within the study area south of Indian road.	

Project Name: Fort Scott Airport Runway Improvements	
Photo: 4 Photo Direction: North Description: Southern extent of the Fort Scott Airport runaway.	

Photo Log

Project Name: Fort Scott Airport Runway Improvements	
Photo: 5 Photo Direction: South Description: Hayed field and scrubby woodland patches located south of Indian Road within the study area. The proposed runway expansion would extend into this area.	

Project Name: Fort Scott Airport Runway Improvements	
Photo: 6 Photo Direction: North Description: Forth Scott Airport apron and aircraft hangers.	

Photo Log

Project Name: Fort Scott Airport Runway Improvements	
Photo: 7	
Photo Direction: Southwest Description: Aircraft hanger facility at the Fort Scott Airport.	

Project Name: Fort Scott Airport Runway Improvements	
Photo: 8	
Photo Direction: North Description: Aerial view of the existing Fort Scott Airport facilities. The proposed runway improvements would be built to the south, extending beyond Indian Road shown running east/west at the bottom of the photograph.	

OLSSON ASSOCIATES

December 20, 2017

Mr. Thomas Schumann
Kansas State Program Manager
Kansas State Regulatory Office
United States Army Corps of Engineers
2710 NE Shady Creek Access Road
El Dorado, Kansas 67042

Re: Fort Scott Airport Runway Improvements
Fort Scott, Bourbon County, Kansas

Dear Mr. Schumann:

On behalf of the City of Fort Scott (City) Municipal Airport, Olsson Associates (Olsson) is requesting input from your agency on potential environmental impacts in accordance with the National Environmental Policy Act (NEPA) of 1969, as amended; and the Council on Environmental Quality (CEQ) NEPA implementation guidelines (40 Code of Federal Regulations [CFR] 1500-1508).

The City is proposing improvements to the existing airport facility. The project would widen the existing runway, and extend the runway approximately 2500 feet to the south, crossing Indian Road. Design plans are currently being developed and can be forwarded if required. We have included maps and aerial photography showing the project location (Attachment A, Figures 1-3). Photographs of the study area are included in Attachment B.

Project Name:	Fort Scott Airport Runway Improvements
General Project Location:	City of Fort Scott, Bourbon County
Section, Range, Township:	Sections 10 & 15, Range 24 East, Township 26 South
Coordinates:	Lat 37.798311°, Long -94.769383°

A wetland delineation report (Attachment C) is provided for your review. A single palustrine emergent (PEM) wetland and an ephemeral stream channel were identified within the project area. The project will mostly likely include impacts to the wetland and stream within the project footprint. A U.S. Army Corps of Engineers Section 404 permit will be obtained if needed.

We appreciate your timely review of this project. If you have any further questions, or require additional information, please contact Mr. Tony Baumert directly at 402.458.5669 or tbaumert@olssonassociates.com. Thank you in advance for your assistance.

Sincerely,

Tony Baumert
Technical Lead

Enclosures

601 P Street, Suite 200
P.O. Box 84608
Lincoln, NE 68508

TEL 402.474.6311
FAX 402.474.5160

www.olssonassociates.com

December 20, 2017

Ms. Katie Tietsort
Water Commissioner
Kansas Department of Agriculture
Division of Water Resources – Topeka Field Office
6531 SE Forbes Ave., Suite B
Topeka, Kansas 66619

Re: Fort Scott Airport Runway Improvements
Fort Scott, Bourbon County, Kansas

Dear Ms. Tietsort:

On behalf of the City of Fort Scott, Kansas (City), Olsson Associates (Olsson) is submitting a request for an environmental review for the project referenced above in regard to public water supplies, wellhead protection areas, surface water resources, ground water resources, and other resources under the jurisdiction of the Kansas Department of Agriculture.

The City is proposing improvements to the existing airport facility. The project would widen the existing runway, and extend the runway approximately 2500 feet to the south, crossing Indian Road. Design plans are currently being developed and can be forwarded if required. We have included maps and aerial photography showing the project location (Figures 1-3). Photographs of the study area are included in Attachment B.

Project Name:	Fort Scott Airport Runway Improvements
General Project Location:	City of Fort Scott, Bourbon County
Section, Range, Township:	Sections 10 & 15, Range 24 East, Township 26 South
Coordinates:	Lat 37.798311°, Long -94.769383°

We appreciate your timely review of this project. If you have any further questions, or require additional information, please contact Mr. Tony Baumert directly at 402.458.5669 or tbaumert@olssonassociates.com. Thank you in advance for your assistance.

Sincerely,

Tony Baumert
Technical Lead

Enclosures

601 P Street, Suite 200
P.O. Box 84608
Lincoln, NE 68508-2303

TEL 402.474.6311
FAX 402.474.5160

www.olssonassociates.com

December 20, 2017

Ms. Kati Westerhaus
LWCF Grant Coordinator
Kansas Department of Wildlife, Parks, & Tourism
Ecological Services Section
512 SE 25th Avenue
Pratt, Kansas 67124-8174

Re: Fort Scott Airport Runway Improvements
Fort Scott, Bourbon County, Kansas

Dear Ms. Westerhaus:

Olsson Associates (Olsson), on behalf of the City of Fort Scott, Kansas (City), is requesting information regarding impacts to potential Land and Water Conservation Fund 6(f) properties for the Fort Scott Airport Runway Improvements Project (project) located just east of the City of Fort Scott in Bourbon County, Kansas.

The proposed project is located in Sections 10 & 15, Township 26 South, Range 24 East, and is roughly centered at Lat 37.798311°, Long -94.769383° (See Figures 1-3, Attachment A).

Properties within the proposed project footprint are listed in Table 1.

Table 1. Properties Potentially Impacted by the Fort Scott Airport Runway Improvements Project

Parcel ID	Owner Name	Location
0061920300000006000	City of Fort Scott	00000 187th Ter, Fort Scott, KS 66701
0061921000000003000	City of Fort Scott	1869 Indian Rd, Fort Scott, KS 66701
0061951500000002000	Kaudle, Harvey C & Lutz, Jane S	00000 Indian Rd, Fort Scott, KS 66701
0061951500000002010	City of Fort Scott	00000 Indian Rd, Fort Scott, KS 66701

Project Description

The City is proposing improvements to the existing airport facility. The project would widen the existing runway, and extend the runway approximately 2500 feet to the south, crossing Indian Road. Design plans are currently being developed and can be forwarded if required. Construction is scheduled to begin in late 2018. Photographs of the study area are included in Attachment B.

601 P Street, Suite 200
P.O. Box 84608
Lincoln, NE 68508-2303
TEL 402.474.6311
FAX 402.474.5160
www.olssonassociates.com

The project includes approximately 160 acres of mostly upland grasslands adjacent to the airport runway consisting of big bluestem (*Andropogon gerardii*), Indiangrass (*Sorghastrum nutans*), little bluestem (*Schizachyrium scoparium*), and sideoats grama (*Bouteloua curtipendula*). Most of these areas are routinely mowed, hayed, or grazed.

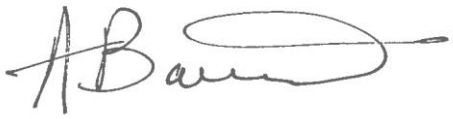
Small wooded patches are scattered through the study area. Trees within the project boundary included hackberry (*Celtis occidentalis*), eastern redcedar (*Juniperus virginiana*), and Osage orange (*Maclura pomifera*). Most of the wooded areas are immature shrub/scrub woodlands without large mature canopy trees. Some tree removal may be required.

A single palustrine emergent (PEM) wetland and an ephemeral stream channel were identified within the project area.

No parks, recreation areas, or public natural areas have been identified within the project area. Lake Fort Scott is located to the south and west of the proposed project; however, no impacts to properties associated with the recreation area are anticipated.

We appreciate your timely review of this project for potential impacts to 6(f) properties. If you have any further questions, or require additional information, please contact Mr. Tony Baumert directly at 402.458.5669 or tbaumert@olssonassociates.com. Thank you in advance for your assistance.

Sincerely,



Tony Baumert
Technical Lead

Enclosures

December 20, 2017

Mr. Tom Stiles
Assistant Director
Kansas Department of Health and Environment
1000 SW Jackson Street, Suite 420
Topeka, Kansas 66612-1367

Re: Fort Scott Airport Runway Improvements
Fort Scott, Bourbon County, Kansas

Dear Mr. Stiles:

On behalf of the City of Fort Scott, Kansas (City), Olsson Associates (Olsson) is submitting a request for an environmental review for the project referenced above in regard to public water supplies, wellhead protection areas, surface water resources, ground water resources, and other resources under the jurisdiction of the Kansas Department of Health and Environment.

The City is proposing improvements to the existing airport facility. The project would widen the existing runway, and extend the runway approximately 2500 feet to the south, crossing Indian Road. Design plans are currently being developed and can be forwarded if required. We have included maps and aerial photography showing the project location (Figures 1-3). Photographs of the study area are included in Attachment B.

Project Name:	Fort Scott Airport Runway Improvements
General Project Location:	City of Fort Scott, Bourbon County
Section, Range, Township:	Sections 10 & 15, Range 24 East, Township 26 South
Coordinates:	Lat 37.798311°, Long -94.769383°

We appreciate your timely review of this project. If you have any further questions, or require additional information, please contact Mr. Tony Baumert directly at 402.458.5669 or tbaumert@olssonassociates.com. Thank you in advance for your assistance.

Sincerely,

Tony Baumert
Technical Lead

Enclosures

601 P Street, Suite 200
P.O. Box 84608
Lincoln, NE 68508-2303

TEL 402.474.6311
FAX 402.474.5160

www.olssonassociates.com

December 20, 2017

Ms. Samantha Pounds
Kansas Department of Wildlife, Parks, & Tourism
Ecological Services Section
512 SE 25th Avenue
Pratt, Kansas 67124-8174

Re: Fort Scott Airport Runway Improvements
Fort Scott, Bourbon County, Kansas

Dear Ms. Pounds:

Olsson Associates (Olsson), on behalf of the City of Fort Scott, Kansas (City), is requesting an environmental review regarding Threatened and Endangered Species, critical habitat or any other natural resources of importance for the Fort Scott Airport Runway Improvements Project (project) located just east of the City of Fort Scott in Bourbon County, Kansas. The proposed project is located in Sections 10 & 15, Township 26 South, Range 24 East, and is roughly centered at Lat 37.798311°, Long -94.769383° (See Figures 1-3, Attachment A). Photographs of the project site (Attachment B) and a wetland delineation report (Attachment C) are also provided for your review.

Project Description

The City is proposing improvements to the existing airport facility. The project would widen the existing runway, and extend the runway approximately 2500 feet to the south, crossing Indian Road. Design plans are currently being developed and can be forwarded if required. Construction is scheduled to begin in late 2018.

The project includes approximately 160 acres of mostly upland grasslands adjacent to the airport runway consisting of big bluestem (*Andropogon gerardii*), Indiangrass (*Sorghastrum nutans*), little bluestem (*Schizachyrium scoparium*), and sideoats grama (*Bouteloua curtipendula*). Most of these areas are routinely mowed, hayed, or grazed.

Small wooded patches are scattered through the study area. Trees within the project boundary included hackberry (*Celtis occidentalis*), eastern redcedar (*Juniperus virginiana*), and Osage orange (*Maclura pomifera*). Most of the wooded areas are immature shrub/scrub woodlands without large mature canopy trees.

Some tree removal may be required. A single palustrine emergent (PEM) wetland and an ephemeral stream channel were identified within the project area.

601 P Street, Suite 200
P.O. Box 84608
Lincoln, NE 68508-2303
TEL 402.474.6311
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Species of Concern Potentially Occurring in Bourbon County.

The following Kansas Department of Wildlife, Parks, & Tourism (KDWPT) State-listed Threatened and Endangered Species, and Species in Need of Conservation (SINC) have the potential to occur within Bourbon County (Table 1).

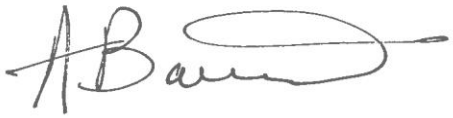
Table 1. State-listed Threatened and Endangered Species, and Species in Need of Conservation with Critical Habitat located in Bourbon County

Common Name	Scientific Name	Status	Potential to Occur Within the Project Area
Mucket mussel	*Actinonaias ligamentina*	State Endangered	Unlikely – outside of designated critical habitat. No habitat within project area
Rock pocketbook mussel	*Arcidens confragosus*	State Threatened	Unlikely – outside of designated critical habitat. No habitat within project area
Hornyhead chub	*Nocomis biguttatus*	State Threatened	Unlikely – outside of designated critical habitat. No habitat within project area
Northern map turtle	*Graptemys geographica*	State Threatened	Unlikely – outside of designated critical habitat. No habitat within project area
Broadhead skink	*Plestiodon laticeps*	State Threatened	Unlikely – mature oak woodlands not present within the project area

We do not believe that project will impact any State-listed Threatened and Endangered Species, SINC, or their critical habitat.

We appreciate your timely review of this project. If you have any further questions, or require additional information, please contact Mr. Tony Baumert directly at 402.458.5669 or tbaumert@olssonassociates.com. Thank you in advance for your assistance.

Sincerely,



Tony Baumert
Technical Lead

Enclosures

December 20, 2017

Mr. Jason Luginbill
U.S. Fish and Wildlife Service
Kansas Ecological Services Field Office
2609 Anderson Avenue
Manhattan, Kansas 66502

Re: Fort Scott Airport Runway Improvements
Fort Scott, Bourbon County, Kansas

Dear Mr. Luginbill:

Olsson Associates (Olsson), on behalf of the City of Fort Scott, Kansas (City), is requesting information regarding Threatened and Endangered Species, critical habitat or any other natural resources of importance for the Fort Scott Airport Runway Improvements Project (project) located just east of the City of Fort Scott in Bourbon County, Kansas. The proposed project is located in Sections 10 & 15, Township 26 South, Range 24 East, and is roughly centered at Lat 37.798311°, Long -94.769383° (See Figures 1-3, Attachment A). Photographs of the project site (Attachment B) and a wetland delineation report (Attachment C) are also provided for your review.

Project Description

The City is proposing improvements to the existing airport facility. The project would widen the existing runway, and extend the runway approximately 2500 feet to the south, crossing Indian Road. Design plans are currently being developed and can be forwarded if required. Construction is scheduled to begin in late 2018.

The project includes approximately 160 acres of mostly upland grasslands adjacent to the airport runway consisting of big bluestem (*Andropogon gerardii*), Indiangrass (*Sorghastrum nutans*), little bluestem (*Schizachyrium scoparium*), and sideoats grama (*Bouteloua curtipendula*). Trees within the project boundary included hackberry (*Celtis occidentalis*), eastern redcedar (*Juniperus virginiana*), and Osage orange (*Maclura pomifera*).

Some tree removal may be required. A single palustrine emergent (PEM) wetland and an ephemeral stream channel were identified within the project area.

Endangered Species Act (ESA)

Olsson conducted a review of U.S. Fish and Wildlife Service (USFWS) Threatened, Endangered, Proposed, and Candidate Species that may potentially occur within the project area. Results from the USFWS Information for Planning and Consultation (IPaC) Database indicates that the Northern Long-eared Bat (*Myotis septentrionalis*) and Mead's Milkweed

601 P Street, Suite 200
P.O. Box 84608
Lincoln, NE 68508-2303
TEL 402.474.6311
FAX 402.474.5160
www.olssonassociates.com

(*Asclepias meadii*) may potentially occur within the project area (Table 1). We do not believe that the project will significantly impact Federally-Listed Threatened or Endangered Species.

Table 1. Federally-Listed Threatened and Endangered Species and Designated Critical Habitat Potentially Occurring in Within the Project Area

Common Name	Scientific Name	Status	Impact Evaluation[1]
Northern Long-eared Bat	*Myotis septentrionalis*	Federally Threatened	A
Mead's Milkweed	*Asclepias meadii*	Federally Threatened	B

[1] Impact Evaluation

A – The project is located within the range of the species, species may occur in this location. Suitable habitat is present.

B – The project is located within the range of the species, species may occur in this location. Suitable habitat is present but impacted due to grazing and agricultural activities.

Northern Long-eared Bat

The breeding season for the Northern Long-eared Bat begins in the spring/summer months with roosts located underneath bark, in cavities, or in crevices of both live and dead trees. During the winter, this species hibernates in caves and other hibernacula. The project is located in a rural setting surrounded by agricultural fields, hay fields, wooded areas, and reservoirs (See Photolog, Attachment B). The project will likely require the removal of trees within the project footprint. Tree removal would be conducted outside the maternity roosting season for the northern long-eared bat (April 1 to September 31). If tree removal cannot be avoided during the times, surveys would be conducted by a qualified biologist to determine if these species are present. If found, construction activities would cease and consultation with the USFWS would be initiated to determine the appropriate course of action. Given these conditions, we believe there will likely be no impacts to the Northern Long-eared Bat.

Mead's Milkweed

Mead's Milkweed generally requires moderately wet (mesic) to moderately dry (dry mesic) upland tallgrass prairie or glade/barren habitat characterized by vegetation adapted for drought and fire. Upland tallgrass prairie habitat is present within the project area; however, most of these areas have been routinely impacted by mowing and haying activities, and grazing (See Figure 3, Attachment A and Photolog, Attachment B. Given the marginal, low-quality habitat that is present, we do no believe that the project is likely to impact Mead's Milkweed.

Bald and Golden Eagle Protection Act

Potential bald eagle and golden eagle habitat was reviewed. The project is located in a rural setting surrounded by agricultural fields, hay fields, wooded areas, lakes, and reservoirs (See Figure 3, Attachment A and Photolog, Attachment B). Lake Fort Scott, Rock Creek Lake, Cedar Creek and the Marmaton River are near the project. Suitable habitat for Bald Eagles is present in the surrounding vicinity, and there are some larger trees within the project area that may provide roosting habitat; however most of the wooded areas within the proposed project

footprint consist of dense shrub/scrub habitat with small sized trees and shrubs. Furthermore, the study area is in the existing runway takeoff and landing approach zone, and is frequently disturbed by aircraft. Given these conditions, we believe that it is unlikely that the proposed project would impact Bald Eagles.

No suitable habitat for Golden Eagles is present within the proposed project footprint.

Migratory Bird Treaty Act

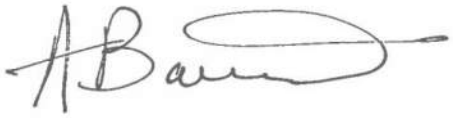
The project is located in a rural setting surrounded by agricultural fields, hay fields, wooded areas, lakes, and reservoirs (See Figure 3, Attachment A and Photolog, Attachment B) that may be frequented by migratory birds. The project will likely require the removal of trees within the project footprint. Tree removal would be conducted outside of the migratory bird nesting season (April 1 to September 31). If tree removal cannot be avoided during the times, surveys would be conducted by a qualified biologist to determine if occupied or active nests are present. If found, construction activities would cease and consultation with the USFWS would be initiated to determine the appropriate course of action. Given these conditions, we believe there will likely be no impacts to migratory birds.

Fish and Wildlife Coordination Act

The project will mostly likely include impacts to the wetland and stream within the project footprint. A U.S. Army Corps of Engineers (Corps) 404 permit will be obtained if needed.

We appreciate your timely review of this project. If you have any further questions, or require additional information, please contact Mr. Tony Baumert directly at 402.458.5669 or tbaumert@olssonassociates.com. Thank you in advance for your assistance.

Sincerely,



Tony Baumert
Technical Lead

Enclosures

December 20, 2017

Ms. Rachel Pruitt
Director of Economic Development
City of Fort Scott
123 S Main Street
Fort Scott, Kansas 66701

Re: Fort Scott Airport Runway Improvements
Fort Scott, Bourbon County, Kansas

Dear Ms. Pruitt:

On behalf of the City of Fort Scott Municipal Airport, Olsson Associates (Olsson) is requesting information regarding local development plans, zoning regulations, policies, and local controls that may potentially impact or affect the proposed Fort Scott Airport Runway Improvements Project.

The City is proposing improvements to the existing airport facility. The project would widen the existing runway, and extend the runway approximately 2500 feet to the south, crossing Indian Road. Design plans are currently being developed and can be forwarded if required. We have included maps and aerial photography showing the project location (Attachment A, Figures 1-3). Photographs of the study area are included in Attachment B.

Project Name:	Fort Scott Airport Runway Improvements
General Project Location:	City of Fort Scott, Bourbon County
Section, Range, Township:	Sections 10 & 15, Range 24 East, Township 26 South
Coordinates:	Lat 37.798311°, Long -94.769383°

We appreciate your timely review of this project. If you have any further questions, or require additional information, please contact Mr. Tony Baumert directly at 402.458.5669 or tbaumert@olssonassociates.com. Thank you in advance for your assistance.

Sincerely,

Tony Baumert
Technical Lead

Enclosures

601 P Street, Suite 200
P.O. Box 84608
Lincoln, NE 68508-2303

TEL 402.474.6311
FAX 402.474.5160

www.olssonassociates.com

Amy Cherko

From: Westerhaus, Kati [KDWPT] <Kati.Westerhaus@KS.GOV>
Sent: Thursday, December 28, 2017 11:35 AM
To: Tony Baumert
Cc: Berens, Chris [KDWPT]
Subject: Fort Scott Review

Hi Tony,

I wanted to follow up with you regarding the review of LWCF property in Fort Scott. This particular property is not a LWCF site and does not require review by me. I have passed this on to Chris Berens in Ecological Services to conduct the environmental review. His number is 620-672-5911 x171 or you can reach him by email at chris.berens@ks.gov.

Thank you,
Kati

Kati Westerhaus
LWCF Grant Coordinator
Kansas State Parks

Kansas
Department of Wildlife, Parks and Tourism

P 620.672.0740
KS Dept. of Wildlife, Parks & Tourism
512 SE 25th Ave. | Pratt, KS 67124
kati.westerhaus@ks.gov | www.ksoutdoors.com

Amy Cherko

From: Scott Satterthwaite [KDHE] <Scott.Satterthwaite@ks.gov>
Sent: Tuesday, January 9, 2018 3:56 PM
To: Tony Baumert
Cc: Tom Stiles [KDHE]; Larry Hook [KDHE]
Subject: Environmental review comments for City of Fort Scott Airport Runway Improvements, KS
Attachments: KDHE csgp 8-1-2017 NOI Instructions.pdf; KDHE csgp 8-1-2017 NOI.PDF

Mr. Baumert, thank you for your request for review of potential water resource impacts from the proposed project.

The KDHE has jurisdiction over all of the waters of the state. All known surface waters are over 1,400 feet from the proposed activity, with adequate vegetated areas. Therefore, the KDHE requires the following:

> Owners/operators of construction projects that will disturb 1 acre or more are required to obtain permit coverage for stormwater discharge prior to starting construction. Please submit a Notice of Intent (attached, with instructions) for the project, $60 fee payment and the additional documentation specified on the form. Processing of NOI submittals generally takes about a month from receipt. The permit, forms and related information are available on the following website: www.kdheks.gov/stormwater

Feel free to contact Mr. Larry Hook, P.E., through the preferred method below if you have questions about KDHE's construction stormwater permit program.

Larry Hook, P.E.
KDHE - Bureau of Water
Industrial Programs Section
1000 SW Jackson St., Suite 420
Topeka, KS 66612-1367
Phone: (785) 296-5549; Fax: (785) 559-4257
New email address: Larry.Hook@ks.gov

Additionally, to assure minimum impacts occur, KDHE strongly recommends the following:

1) A Spill Prevention and Response Plan be prepared and implemented to address any spill of fuel or discharge of pollutants occur which may occur during construction. The local emergency staff should be contacted first by dialing 911. The Kansas Department of Health and Environment shall then be notified immediately: (785) 291-3333 (24 hours a day.) These incidences should also be reported to the National Spill Response Center (1-800¬-424-8802). These reporting numbers shall be posted in several locations around the site.

2) A public water supply pumping unit for Bourbon County Rural Water District 2C is ½ mile east proposed site on Jayhawk Road . You are encouraged to notify the owner operator of your planned activity some time before construction. Contact person is: Mr. Mark Pollmeier, 715 215th St., Fort Scott, KS 66701, 620-223-1110, bourboncrwd2@hotmail.com.

Thank you for your interest in protecting the waters of the state. Please contact me if you have questions pertaining this communication.
Regards,

Scott

Scott L. Satterthwaite
Kansas Department of Health and Environment
Bureau of Water, Watershed Management Section
1000 S.W. Jackson St., Suite 420
Topeka, KS 66612-1367

NOTICE NEW EMAIL- Scott.Satterthwaite@ks.gov

Phone (785) 296-5573
FAX (785) 296-5509
Check out our web site! www.kdheks.gov/nps

Amy Cherko

From: Scott Satterthwaite [KDHE] <Scott.Satterthwaite@ks.gov>
Sent: Wednesday, January 10, 2018 4:18 PM
To: Tony Baumert
Cc: Tom Stiles [KDHE]; Larry Hook [KDHE]; Katie Basiotis [KDHE]; Andrew Lyon [KDHE]
Subject: RE: Environmental study review comments for City of Fort Scott Airport Runway Improvements, KS

Follow Up Flag: Follow up
Flag Status: Flagged

Tony, thank you for the delineation maps I requested. I can understand why this project will probably go under a Section 404 NWP which will automatically receive a Section 401 from this office. Upon further review and following our phone conversation, the statement "known surface waters are over 1,400 feet from the proposed activity…" below is incorrect. I presumed the work was being done on the north end where surface water was not as evident and there was a Rural Water District facility near. So thank you for clarifying the work is being done on the south end. As stated in the phone conversation, once both the Section 404 jurisdictional and isolated non-jurisdictional wetlands south of Indian Road, are filled, water quality standards are no longer applicable. Furthermore, the ephemeral channel proposed to be filled leads to a tributary which by-passes Fort Scott City Lake, flows to another lake which discharges to the Marmaton River. **Therefore, the main concern is assuring the wetlands and ephemeral channel fill areas are included in the construction stormwater permit/stormwater pollution prevention plan boundaries.**

Additionally, In as much as the project is on the south end of the airport, to the south of Indian Road, impacts to the public water supply pump facility is likely not an issue. Therefore, contacting the public water supply operator as noted in my previous email is not as relevant as previously thought. The other two items in my previous email pertaining to: obtaining a construction stormwater permit/preparing and implementing a SWPP and developing and implementing spill prevention and response plan, **are still applicable**. The KDHE does concur with your plan to include the spill prevention and response plan as a condition of the environmental assessment. The ephemeral channel will be filled using heavy equipment and spills could make their way to the tributary, a water of the state, and a plan could help avoid violations of state water quality standards.

Another discussion topic I touched briefly on in the phone conversation was the concern of concentrated flow from the "new impervious surface". The LIDAR image shows incision is less and GE Image shows fairly well grassed channel in the uplands, then more incised down towards the South Indian Road ditch and culvert. The Marmaton Watershed Restoration and Protection Strategy should be notified for their information. They might be interested in having a conservation about potential for water quality impacts from destabilization of the tributary from the new impervious area. They provide technical and financial assistance to work with landowners in implementing water quality protection measures to improve oxygen levels, improve aquatic life and reduce nutrients to help meet TMDLs at the HUC 12 watershed level which could result from this action. **The project should be designed in a manner that does not destabilize the tributary or its banks receiving the increased runoff to avoid spending WRAPS funds possible needed to address a preventable water quality issue on the adjacent landowner's property.**

The Marmaton WRAPS contact information is:

Ms. Kara Niemeir
Marmaton Joint Watershed District 102
PO Box 4, 1000 Promontory Dr
Uniontown, KS 66779
620-756-1000
kara@agengineering.com

The KDHE appreciates your interest in protecting the waters of the state. Please contact me if you have any questions.

Regards,

Scott

Scott L. Satterthwaite
Kansas Department of Health and Environment
Bureau of Water, Watershed Management Section
1000 S.W. Jackson St., Suite 420
Topeka, KS 66612-1367

NOTICE NEW EMAIL- Scott.Satterthwaite@ks.gov

Phone (785) 296-5573
FAX (785) 296-5509
Check out our web site! www.kdheks.gov/nps

From: Tony Baumert [mailto:tbaumert@olssonassociates.com]
Sent: Wednesday, January 10, 2018 10:07 AM
To: Scott Satterthwaite [KDHE] <Scott.Satterthwaite@ks.gov>
Subject: RE: Environmental review comments for City of Fort Scott Airport Runway Improvements, KS

Hi Scott,

Attached is the wetland delineation maps you requested. Let me know if you have any additional questions or concerns.

Within the project area, there is one wetland and one ephemeral stream channel location south of Indian Road. Figure 5 shows the entire project area. Figure 6 just shows the project area south of Indian Road.

Thanks
Tony

Tony Baumert | Olsson Associates
601 P Street, Suite 200 | Lincoln, NE 68508-2303 | 402.458.5669 | tbaumert@olssonassociates.com

---

From: Scott Satterthwaite [KDHE] [mailto:Scott.Satterthwaite@ks.gov]
Sent: Tuesday, January 9, 2018 3:56 PM
To: Tony Baumert <tbaumert@olssonassociates.com>

Cc: Tom Stiles [KDHE] <Tom.Stiles@ks.gov>; Larry Hook [KDHE] <Larry.Hook@ks.gov>
Subject: Environmental review comments for City of Fort Scott Airport Runway Improvements, KS

Mr. Baumert, thank you for your request for review of potential water resource impacts from the proposed project.

The KDHE has jurisdiction over all of the waters of the state. All known surface waters are over 1,400 feet from the proposed activity, with adequate vegetated areas. Therefore, the KDHE requires the following:

> Owners/operators of construction projects that will disturb 1 acre or more are required to obtain permit coverage for stormwater discharge prior to starting construction. Please submit a Notice of Intent (attached, with instructions) for the project, $60 fee payment and the additional documentation specified on the form. Processing of NOI submittals generally takes about a month from receipt. The permit, forms and related information are available on the following website: www.kdheks.gov/stormwater

Feel free to contact Mr. Larry Hook, P.E., through the preferred method below if you have questions about KDHE's construction stormwater permit program.

Larry Hook, P.E.
KDHE - Bureau of Water
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1000 SW Jackson St., Suite 420
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Phone: (785) 296-5549; Fax: (785) 559-4257
New email address: Larry.Hook@ks.gov

Additionally, to assure minimum impacts occur, KDHE strongly recommends the following:

1) A Spill Prevention and Response Plan be prepared and implemented to address any spill of fuel or discharge of pollutants occur which may occur during construction. The local emergency staff should be contacted first by dialing 911. The Kansas Department of Health and Environment shall then be notified immediately: (785) 291-3333 (24 hours a day.) These incidences should also be reported to the National Spill Response Center (1-800¬-424-8802). These reporting numbers shall be posted in several locations around the site.

2) A public water supply pumping unit for Bourbon County Rural Water District 2C is ½ mile east proposed site on Jayhawk Road . You are encouraged to notify the owner operator of your planned activity some time before construction. Contact person is: Mr. Mark Pollmeier, 715 215th St., Fort Scott, KS 66701, 620-223-1110, bourboncrwd2@hotmail.com.

Thank you for your interest in protecting the waters of the state. Please contact me if you have questions pertaining this communication.
Regards,

Scott

Scott L. Satterthwaite
Kansas Department of Health and Environment

Bureau of Water, Watershed Management Section
1000 S.W. Jackson St., Suite 420
Topeka, KS 66612-1367

NOTICE NEW EMAIL- Scott.Satterthwaite@ks.gov

Phone (785) 296-5573
FAX (785) 296-5509
Check out our web site! www.kdheks.gov/nps

Amy Cherko

From: Pounds, Samantha [KDWPT] <Samantha.Pounds@KS.GOV>
Sent: Friday, February 2, 2018 9:27 AM
To: Tony Baumert
Subject: KDWPT review, Fort Scott Airport Runway Improvements, Bourbon County (Track# 19960230-5)

Dear Tony Baumert,

We have reviewed the information for the proposed Fort Scott Airport Runway Improvements including the widening of the existing runway and the extension of the runway by 2500 ft. across Indian Road in Bourbon County, KS (Sec 10, 15 T26S R24E). The project was reviewed for potential impacts on crucial wildlife habitats, current state-listed threatened and endangered species and species in need of conservation, and Kansas Department of Wildlife, Parks, and Tourism managed areas for which this agency has administrative authority.

We provide the following comments and general recommendations, when applicable:

- **Avoid impacts to existing streams and rivers, adjacent riparian zones, wetlands, and native prairie and woodland areas.**

- **Minimize all bank or instream activity, particularly during general fish spawning season (March 1 – Aug. 31).**

- **Incorporate principles of low impact development (LID), such as permeable asphalt pavement, porous concrete, swales, bioretention, or raingardens. More info. on LID:** http://www.epa.gov/owow/NPS/lid/

- **Implement and maintain standard erosion-control Best-Management-Practices during all aspects of construction by installing sediment barriers (wattles, filter logs, rock ditch checks, mulching, or any combination of these) across the entire construction area to prevent sediment and spoil from entering aquatic systems. Barriers should be maintained at high functioning capacity until construction is completed and vegetation is established. For more information, go to:** http://www.kdheks.gov/stormwater/#construct

- **Reseed disturbed areas with native warm-season grasses, forbs, and trees.**

Results of our review indicate there will be no significant impacts to crucial wildlife habitats; therefore, no special mitigation measures are recommended. The project will not impact any public recreational areas, nor could we document any potential impacts to currently-listed threatened or endangered species or species in need of conservation. No Department of Wildlife, Parks, and Tourism permits or special authorizations will be needed if construction is started within one year, and no design changes are made in the project plans. Permits may still be required from other agencies, and we recommend consultation with all other applicable regulatory authorities.

Since the Department's recreational land obligations and the State's species listings periodically change, if construction has not started within one year of this date, or if design changes are made in the project plans, the project sponsor must contact this office to verify continued applicability of this assessment report. For our purposes, we consider construction started when advertisements for bids are distributed.

Please consider this email our official review for this project. Thank you for the opportunity to provide these comments and recommendations. Please let me know if you have any questions or concerns about the preceding information.

Please direct all review materials electronically to KDWPT.ess@ks.gov to streamline the review process for all parties.

Samantha Pounds

Samantha Pounds
Ecologist, Ecological Services Section
Kansas Dept. of Wildlife, Parks, and Tourism
Pratt, KS 67124
Office: (620)672-0792
Cell: (620)388-6061
samantha.pounds@ks.gov

Amy Cherko

From: Pounds, Samantha [KDWPT] <Samantha.Pounds@KS.GOV>
Sent: Monday, January 6, 2020 11:57 AM
To: Tony Baumert
Cc: Amy Cherko; Diane Hofer
Subject: KDWPT review, Fort Scott Airport Runway Improvements, Bourbon County (Track# 19960230-7)
Attachments: 19960230.srp.pdf

Dear Tony Baumert,

We have reviewed the information for the proposed Fort Scott Airport Runway Improvements including the widening of the existing runway ans the extension of the runway by 2500 ft across Indian Rd. in Bourbon County, KS (Sec 10,15 T26S R24E). The project was reviewed for potential impacts on crucial wildlife habitats, current state-listed threatened and endangered species and species in need of conservation, and Kansas Department of Wildlife, Parks, and Tourism managed areas for which this agency has administrative authority.

- **We retain the review comments sent on February 2, 2018 and have attached this review letter for reference.**

Results of our review indicate there will be no significant impacts to crucial wildlife habitats; therefore, no special mitigation measures are recommended. The project will not impact any public recreational areas, nor could we document any potential impacts to currently-listed threatened or endangered species or species in need of conservation. No Department of Wildlife, Parks, and Tourism permits or special authorizations will be needed if construction is started within one year, and no design changes are made in the project plans. Permits may still be required from other agencies, and we recommend consultation with all other applicable regulatory authorities.

Since the Department's recreational land obligations and the State's species listings periodically change, if construction has not started within one year of this date, or if design changes are made in the project plans, the project sponsor must contact this office to verify continued applicability of this assessment report. For our purposes, we consider construction started when advertisements for bids are distributed.

Please consider this email our official review for this project. Thank you for the opportunity to provide these comments and recommendations. Please let me know if you have any questions or concerns about the preceding information.

Please direct all review materials electronically to KDWPT.ess@ks.gov to streamline the review process for all parties.

Samantha Pounds

Samantha Pounds
Ecologist, Ecological Services Section
Kansas Dept. of Wildlife, Parks, and Tourism
Pratt, KS 67124
Office: (620)672-0792

Cell: (620)388-6061
samantha.pounds@ks.gov

APPENDIX D - Public Involvement

To be inserted after public hearing

APPENDIX E - Sponsor Land Use Letter

CITY OF FORT SCOTT, KANSAS 66701

ESTABLISHED IN 1842 ®

June 26, 2018

Scott Tener
Federal Aviation Administration
Airports Division, ACE-600, Rm 364
901 Locust
Kansas City, MO 64106-2325

Re: Compatible Land Use
Fort Scott Municipal Airport
Fort Scott, Kansas

Dear Mr. Tener:

The City of Fort Scott assures that appropriate action, including adopting zoning laws, has been or will be taken, to the extent reasonable, to restrict the use of land adjacent to or in the immediate vicinity of the Fort Scott Municipal Airport to activities and purposes compatible with normal airport operations, including landing and takeoff of aircraft. This action includes consideration of both existing and planned land uses. In addition, we will encourage and support other jurisdictions in the area in their efforts to do the same.

Sincerely,

David Martin, City Manager
City of Fort Scott

APPENDIX F - Cultural Resources Coordination

6425 SW 6th Avenue
Topeka, KS 66615

Kansas

phone: 785-272-8681
fax: 785-272-8682
cultural_resources@kshs.org

Kansas Historical Society

Sam Brownback, Governor
Jennie Chinn, Executive Director

KSR&C No. 17-10-058
October 20, 2017

Deanna Pulse
Olsson Associates
Via E-Mail

RE: Fort Scott Airport Runway Improvements
City of Fort Scott
Bourbon County

Dear Ms. Pulse:

The Kansas State Historic Preservation Office has reviewed your letter and attached documentation regarding the above-referenced project dated October 6, 2017. According to our records, we reviewed this project (KSR&C No. 11-08-030) in 2011. It was cleared after an archeological survey of potential runway expansion areas both north and south of the existing facility. Since we see no significant changes in the current documentation, our original clearance can stand. This office continues to have no objection to implementation of the project.

This information is provided at your request to assist you in identifying historic properties, as specified in 36 CFR 800 for Section 106 consultation procedures. If you have questions or need additional information regarding these comments, please contact Tim Weston at 785-272-8681 (ext. 214) or Lauren Jones at 785-272-8681 ext. 225. Please refer to the Kansas Review & Compliance number (KSR&C#) above on all future correspondence relating to this project.

Sincerely,

Jennie Chinn
Executive Director and
State Historic Preservation Officer

Timothy Weston for

Patrick Zollner
Deputy State Historic Preservation Officer

U.S. Department
of Transportation

Federal Aviation Administration

Central Region
Iowa, Kansas,
Missouri, Nebraska

901 Locust
Kansas City, Missouri 64106
(816) 329-2600

November 13, 2019

CERTIFIED MAIL

Mr. Patrick Zollner
Kansas State Historic Preservation Office
6425 SW 6th Avenue
Topeka, KS 66615-1099

KSR&C No. 17-10-058
Section 106 Consultation
Fort Scott Municipal Airport
Fort Scott, Bourbon County, Kansas

Dear Mr. Zollner:

An Environmental Assessment (EA) is being prepared for proposed development at the Fort Scott Municipal Airport subject to the National Environmental Policy Act (NEPA). The NEPA review process requires compliance with Section 106 of the National Historic Preservation Act (NHPA), as implemented through 36 CFR 800. The FAA is the lead federal agency for the NEPA document. Jim Johnson, FAA Central Region Airports Division Manager, will be making the final FAA decision on the EA.

Our previous coorespondence regarding this undertaking, dated September 27, 2018, provided a copy of the *Phases I & II Archaeological Studies, Fort Scott Airport Expansion*, dated September 14, 2018. This study recommended a Phase III field investigation to better evaluate NRHP eligibility for site 14BO137. The Pawnee Nation also recommended that the partial Calf Creek point (15BO140) may have a cultural connection to the Foreaker or Florence Chert discovered within 14BO137 and merits additional research and protection. Please find enclosed for your review a copy of the *Phase III Archaeological Assessment of Sites 15BO137 and 15BO140 in the Fort Scott Airport Expansion Project Area, Fort Scott, Bourbon County, Kansas*, prepared by Rebecca A Hawkins, Algonquin Consultants, Inc., dated September 2019.

The Phase III study determined that neither site is NRHP-eligible. Based on the enclosed information of the proposed undertaking, we do not believe that there will be any historic properties that will be affected and request your concurrence with a "No historic properties will be affected" finding.

If you have questions or require additional information, please contact me at 816-329-2639 or scott.tener@faa.gov.

Sincerely,

Scott Tener, P.E.
Environmental Specialist

Enclosures

Cultural Resources Division
State Historic Preservation Office
6425 SW 6th Avenue
Topeka KS 66615-1099

Kansas Historical Society

785-272-8681, ext. 240
kshs.shpo@ks.gov
kshs.org

Jennie Chinn, Executive Director

Laura Kelly, Governor

KSR&C No. 17-10-058
December 3, 2019

Scott Tener, P.E.
Federal Aviation Administration
Via E-Mail

RE: Fort Scott Airport Runway Improvements
Phase III Archeological Testing (14BO137 and 14BO140)
Bourbon County

Dear Mr. Tener:

The Kansas State Historic Preservation Office has reviewed a report entitled *Phase III Archaeological Assessment of Sites 14BO137 and 14BO140 in the Fort Scott Airport Expansion Project Area, Fort Scott, Bourbon County Kansas*, by Rebecca A. Hawkins of Algonquin Consultants, Inc. We find the report to be acceptable and agree that archeological sites 14BO137 and 14BO140 are not eligible for listing in the National Register of Historic Places. We therefore concur that the project will have no adverse effect on historic properties as defined in 36 CFR 800. This office has no objection to implementation of the runway expansion project.

This information is provided at your request to assist you in identifying historic properties, as specified in 36 CFR 800 for Section 106 consultation procedures. If you have questions or need additional information regarding these comments, please contact Tim Weston at 785-272-8681 (ext. 214) or Lauren Jones at 785-272-8681 ext. 225. Please refer to the Kansas Review & Compliance number (KSR&C#) above on all future correspondence relating to this project.

Sincerely,

Jennie Chinn
Executive Director and
State Historic Preservation Officer

Timothy Weston for

Patrick Zollner
Deputy State Historic Preservation Officer

APPENDIX G - Threatened and Endangered Species Coordination

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Bourbon County, Kansas

Local office

Kansas Ecological Services Field Office

(785) 539-3474
(785) 539-8567

2609 Anderson Avenue
Manhattan, KS 66502-2801

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population, even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information.
2. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Mammals

NAME	STATUS

Northern Long-eared Bat Myotis septentrionalis No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9045	Threatened

Flowering Plants

NAME	STATUS
Mead's Milkweed Asclepias meadii No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/8204	Threatened

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php
- Measures for avoiding and minimizing impacts to birds http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php
- Nationwide conservation measures for birds http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on

this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)
Bald Eagle *Haliaeetus leucocephalus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Oct 15 to Aug 31
Eastern Whip-poor-will *Antrostomus vociferus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Aug 20
Kentucky Warbler *Oporornis formosus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Apr 20 to Aug 20
Prothonotary Warbler *Protonotaria citrea* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Apr 1 to Jul 31
Red-headed Woodpecker *Melanerpes erythrocephalus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Sep 10

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

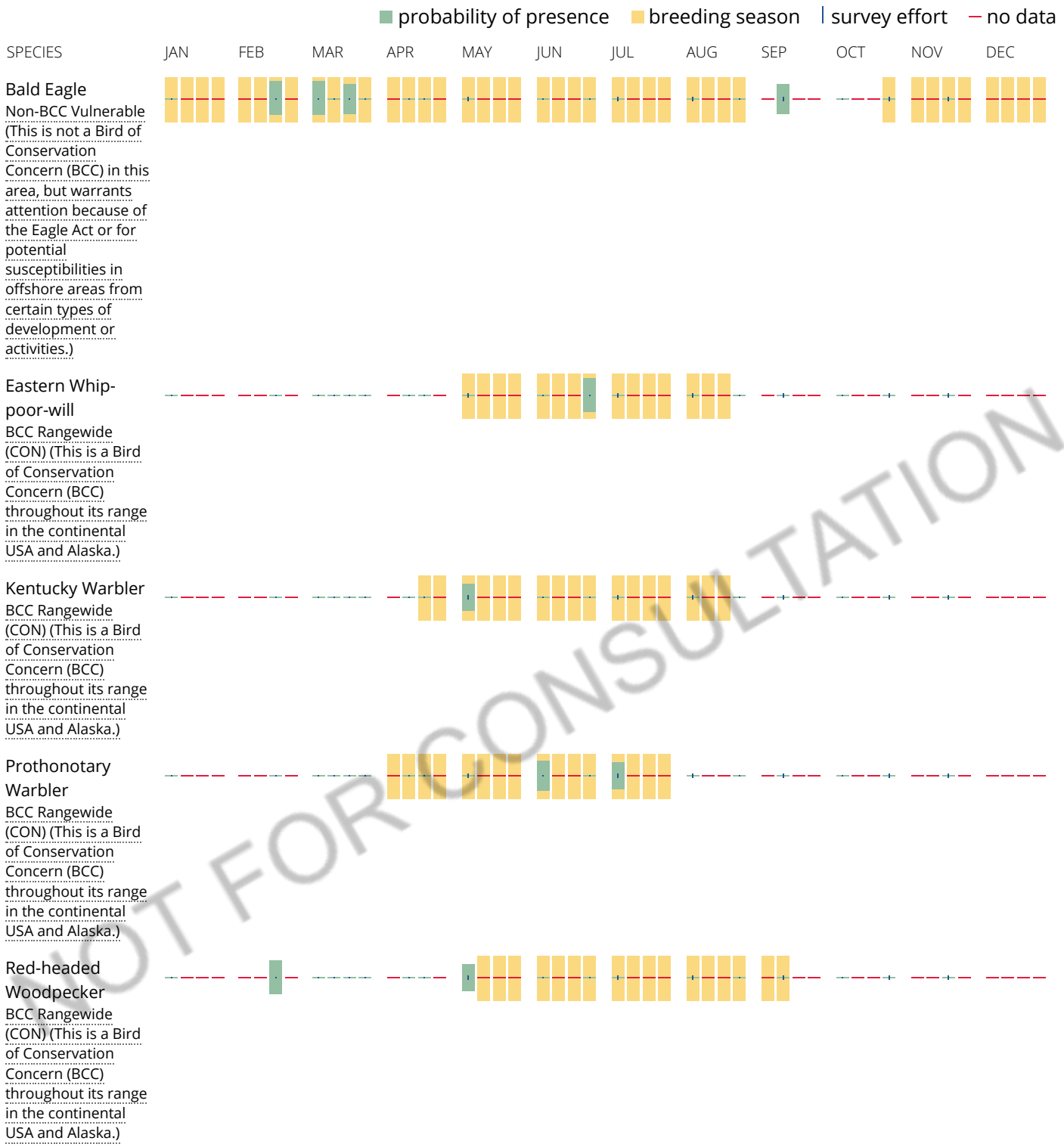
Breeding Season (■)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures and/or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the AKN Phenology Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets .

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: The Cornell Lab of Ornithology All About Birds Bird Guide, or (if you are unsuccessful in locating the bird of interest there), the Cornell Lab of Ornithology Neotropical Birds guide. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

WETLAND INFORMATION IS NOT AVAILABLE AT THIS TIME

This can happen when the National Wetlands Inventory (NWI) map service is unavailable, or for very large projects that intersect many wetland areas. Try again, or visit the NWI map to view wetlands at this location.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Kansas Ecological Services Field Office
2609 Anderson Avenue
Manhattan, Kansas 66502

January 24, 2018

Tony Baumert, Technical Lead
Olsson Associates

RE: Fort Scott Airport Runway Improvements, Bourbon Co.
FWS Tracking # 2018-CPA-0138

Dear Mr. Baumert:

This is in response to your letter dated December 20, 2017, requesting comment on the proposed Fort Scott Airport Runway Improvements Project. The project would widen the existing runway, and extend the runway approximately 2500 feet to the south, crossing Indian Road. The project is located in Sections 10 and 15, Township 26 South, Range 24 East, Bourbon County, Kansas.

We have reviewed your request for comment on the proposed project's impact to the northern long-eared bat *(Myotis septentrionalis)* (NLEB); given the project description, and lack of hibernacula/maternity roost location data in the project area, we agree that the project will not likely affect the NLEB.

However, there are records of Mead's milkweed near the project's alignment. Because warm season, native grasslands and/or hay meadows are present (as per your habitat description) and will be disturbed or removed by the project, we recommend that a qualified botanist inspect the proposed site in early June to determine the presence of suitable habitat and the federally-listed plant species prior to ground disturbing activities. The appropriate survey time for the species is late May through June. The species is notoriously difficult to find during other times of the year. Many ramets (individual stems) do not produce inflorescences and therefore do not produce a seed head.

It is recommended that you contact Ms. Jennifer Delisle, Information Manager, at the Kansas Natural Heritage Inventory, to determine the necessity of a survey and/or suitability of habitat along the project alignment. Ms. Delisle may be reached at (785) 864-1538. Please provide a copy of her response, so that we may determine whether there will be any impacts to this species.

If Mead's milkweed is present within the project boundaries, project construction may adversely affect the species. If the project may affect a listed species, the federal funding agency (Federal Aviation Agency) or permitting agency (US Army Corps of Engineers) should initiate section 7 consultation with this office.

The above comments pertaining to endangered species under our jurisdiction are provided pursuant to the ESA. This response does not preclude additional Service comments under other legislation.

Thank you for this opportunity to comment on the proposal. If we can be of any further assistance, please call Ms. Michele McNulty, of this office, at 785-539-3474 ext. 106.

Sincerely,

Jason Luginbill
Field Supervisor

cc: KDWPT, Pratt, KS (Ecological Services)
COE, KC District Regulatory Program, KC, MO
Kansas Biological Survey, (Delisle), Lawrence, KS
FAA, Central Region, (Airport Environmental Programs), 901 Locust St., KC, MO 64106

Amy Cherko

From: Delisle, Jennifer <jdelisle@ku.edu>
Sent: Monday, February 12, 2018 11:45 AM
To: Tony Baumert
Cc: Diane Hofer
Subject: RE: Fort Scott Airport Runway Runway Improvements -Mead's Milkweed

Hi Tony;

I think I neglected to respond to your e-mail. It is not necessary to conduct additional surveys for Mead's milkweed. In the report you mention it was determined that the site does not contain habitat suitable for the species. I have confirmed the report's results with the report's author Kelly Kindscher.

We do encourage you to consider protecting the prairie habitat not directly impacted by the runway development by managing with occasional mowing, rather than planting to fescue or some other non-native grass.

Jennifer

Jennifer M. Delisle, Information Manager
Kansas Natural Heritage Inventory
Kansas Biological Survey
Takeru Higuchi Bldg.
2101 Constant Ave.
Lawrence, KS 66047
785-864-1538
jdelisle@ku.edu

From: Tony Baumert [mailto:tbaumert@olssonassociates.com]
Sent: Thursday, February 01, 2018 11:57 AM
To: Delisle, Jennifer <jdelisle@ku.edu>
Cc: Diane Hofer <dhofer@olssonassociates.com>
Subject: RE: Fort Scott Airport Runway Runway Improvements -Mead's Milkweed

Hi Jennifer,

As a follow up to our phone conversation I did a little more digging. A plant/habitat (FQI) survey was conducted by the KBS in 2011 as part of an older Environmental Assessment for a past airport project. This survey appears to have included all of the areas that may be impacted by our current project. A sample location map is included in the attached survey that can be compared with the map that was previously sent.

The KBS survey did not encounter and federally-protected species or high quality supporting habitats for Mead's Milkweed (as determined by FQI comparison to known Mead's Milkweed locations).

Let me know if you need more information for your review, or if this will be sufficient.

Cheers,
Tony

Tony Baumert | Olsson Associates
601 P Street, Suite 200 | Lincoln, NE 68508-2303 | 402.458.5669 | tbaumert@olssonassociates.com

---

From: Tony Baumert
Sent: Friday, January 26, 2018 1:53 PM
To: 'jdelisle@ku.edu' <jdelisle@ku.edu>
Cc: Diane Hofer <dhofer@olssonassociates.com>
Subject: Fort Scott Airport Runway Runway Improvements -Mead's Milkweed

Hi Jennifer,

I am working on a project for the City of Fort Scott involving an expansion of the Fort Scott Airport in Bourbon County, KS. The project would include an extension of the existing runway to the south and would impact some grass/hay fields. We have coordinated with the USFWS and they have indicated that there may be a need for a Mead's milkweed survey. The response indicates that we should coordinate with you to determine if known populations and/or suitable habitat is present, and if a survey is required.

A copy of the environmental review request sent to the USFWS (complete with location maps, photos, and a wetland delineation report) and USFWS response can be downloaded using the link below.

Could you please review the attached information to determine if a survey is necessary? Please let me know if you need any addition information to evaluate the site. Thanks for your help!

Cheers,
Tony

ShareFile Attachments — Expires February 25, 2018

FW6Scan2Email@fws.gov_20180125_104155.pdf	169 KB
Letter Kansas USFWS 12 12 2017.reduced.pdf	6.2 MB

Download Attachments

Tony Baumert uses ShareFile to share documents securely. Learn More.

Tony Baumert | Environmental | Olsson Associates
601 P Street, Suite 200 | Lincoln, NE 68508-2303 | tbaumert@olssonassociates.com
TEL 402.474.6311 | DIR 402.458.5669 | CELL 412.302.4203 | FAX 402.474.5063

 Please consider the environment before printing this email.

APPENDIX H - Wetland Delineation Report

Wetland Delineation and Stream Assessment

Fort Scott Municipal Airport Runway Extension
932 187th Terrace
Fort Scott, Bourbon County, Kansas

Prepared for:

City of Fort Scott
P.O. Box 151
Fort Scott, Kansas 66701

Prepared by:

Olsson Associates
7301 W. 133rd Street, Suite 200
Overland Park, Kansas 66213

Olsson Project No. 017-2226

May 2018

OLSSON ASSOCIATES

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Appendices

Acronyms and Abbreviations

ESRI ..... Earth Sciences Resources Institute
KDOT..... Kansas Department of Transportation
MSMM ..... Missouri Stream Mitigation Method
NHD..... National Hydrography Dataset
NOAA ..... National Oceanic and Atmospheric Administration
Non-RPW..... Non-Relatively Permanent Water
NRCS ..... Natural Resources Conservation Service
NWI..... National Wetland Inventory
OHWM..... Ordinary High Water Mark
PEMA ..... Palustrine Emergent Temporarily Flooded
PUBF ..... Palustrine Unconsolidated Bottom Semi-permanently Flooded
TNW ..... Traditional Navigable Water
USACE ..... U.S. Army Corps of Engineers
USFWS..... U.S. Fish and Wildlife Service
USGS ..... U.S. Geological Survey

1. Introduction

The City of Fort Scott retained Olsson Associates (Olsson) to conduct a wetland delineation and stream assessment of the Fort Scott Runway Extension site (Project), located at 932 187th Terrace in Fort Scott, Bourbon County, Kansas (Appendix A, Figure 1). The center of the property is located at 37.793271 degrees latitude and -94.769512 degrees longitude in Sections 10 and 15, Township 26 South, Range 24 East (Appendix A, Figure 2). The City of Fort Scott is planning to extend the existing airport runway.

The Project includes approximately 160 acres that were assessed for the presence of wetlands and other waters. The current land cover is mostly upland grasslands adjacent to the airport runway. Upland grasses consisted of big bluestem (*Andropogon gerardii*), Indiangrass (*Sorghastrum nutans*), little bluestem (*Schizachyrium scoparium*), and sideoats grama (*Bouteloua curtipendula*). Trees within the project boundary included hackberry (*Celtis occidentalis*), eastern redcedar (*Juniperus virginiana*), and Osage orange (*Maclura pomifera*). Topographic and aerial imagery maps are provided as Figures 2 and 3 in Appendix A.

2. Existing Resource Review

Olsson conducted a desktop review to identify areas that were likely to contain wetlands or require stream assessments. The desktop review identified sample sites that were subsequently reviewed in the field. The field coverage was not limited or restricted to the sample sites identified by the desktop review. Resources utilized during the desktop review included the following:

- Kansas Department of Transportation (KDOT) Street Maps
- U.S. Geological Survey (USGS): 1:24,000 Topographic Map
- U.S. Fish and Wildlife Service (USFWS): National Wetlands Inventory (NWI) Map
- Natural Resources Conservation Service (NRCS); Web Soil Survey, Bourbon County Soils Survey Map
- Earth Sciences Resources Institute (ESRI) Aerial Imagery
- Google Earth® Historical Aerial Photographs
- USGS National Hydrography Dataset (NHD)

The desktop review identified potential wetland and stream locations indicated by the presence of NRCS hydric soils (Appendix A, Figure 4), hydric signatures from aerial photographs, geomorphic positions as identified by topographic maps, and wetlands identified by NWI maps (Appendix A, Figure 4). The results of the desktop review were used to plan and focus field data collection efforts.

2.1 Existing Resources Review Results

USGS Topographic Map

The USGS topographic map (Appendix A, Figure 2) indicates the relief is generally flat with elevations of 900 feet to 930 feet within the Project Limits.

NWI Map and NHD Map

The NWI and NHD Map (Appendix A, Figure 4) depicts a small freshwater pond and no streams within the Project limits; however, there is one NHD flowline extending away from the southeastern edge of the Project Limits.

Bourbon County Soil Survey

According to the soil survey for Bourbon County (Appendix A, Figure 4), the soils in the Project area are mapped as:

- 8657: Clareson stony silty clay loam, 1 to 3 percent slopes
- 8775: Kenoma silt loam, 1 to 3 percent slopes
- MT850B: Wagstaff silty clay loam, 1 to 3 percent slopes

According to the Bourbon County soils list, none of the soils within the Project area are considered hydric.

3. Field Methodology

The desktop review was followed by on-site investigations to delineate existing wetlands and assess stream resources.

3.1 Wetland Delineation

Olsson staff visited the study area on October 9, 2017 and April 24, 2018 to complete the wetland delineation. The wetland delineation followed methodology described in the *U.S. Army Corps of Engineers Wetland Delineation Manual* (1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (Version 2.0)* (August 2010). All conditions described represent conditions at the time of the field investigation. United States Army Corps of Engineers (USACE) Wetland Determination Forms with site photographs are included in Appendix B. Sample points locations, photo locations, and delineated wetlands are shown on Figures 5 and 6, Appendix A.

3.2 Stream Assessment

Stream assessments were conducted for channels identified during the delineation. The stream assessments were conducted according to the Missouri Stream Mitigation Method (MSMM) for compensatory mitigation as necessary. Guidance for the stream assessments is contained in the *U.S. Army Corps of Engineers Jurisdictional Determination Form Instructional Guidebook* and the *State of Missouri Stream Mitigation Method*, last revised April 2013. Stream data forms are included in Appendix C. Sample points locations, photo locations, and delineated wetlands and channels are shown on Figures 5 and 6, Appendix A.

4. Summary of Findings

Olsson staff visited the site on October 9, 2017. Weather data was summarized from the National Oceanic and Atmospheric Administration (NOAA), Record of Climatological Observations at the Fort Scott 0.6 Southwest, KS U.S. station. According to NOAA, precipitation totaling 1.24 inches fell within the 10 days before the survey. Olsson revisited the site on April 24, 2018. The weather at the time of the survey was about 73 degrees Fahrenheit, breezy, and sunny. According to NOAA, precipitation totaling 0.31 inch fell within 5 days prior to the field survey.

4.1 Wetland Delineation Results

The wetland delineation identified two palustrine emergent (PEMA) wetlands and two palustrine unconsolidated bottom semi-permanently flooded (PUBF) ponds within the Project Limits. Wetlands identified during the delineation are also listed in Table 1.

Wetland 1 (PEMA) is approximately 0.28 acres in size and is dominated by barnyard grass (*Echinochloa crus-galli*), pale smartweed (*Persicaria lapathifolia*), and needle spikerush (*Eleocharis acicularis*). The wetland appeared to be isolated with no obvious connection to a jurisdictional water observed in the field.

Wetland 2 (PUBF) and 3 (PUBF) are small ponds (each approximately 0.1 acre in size) primarily dominated by American elm (*Ulmus americana*) with some smooth brome (*Bromus inermis*) and *Carex sp.* Wetland 4 (PEMA) is approximately 0.02 acres in size and contains American elm and *Carex sp*. These wetlands were located along a depression that flowed into a delineated ephemeral stream channel. Photographs of the wetlands can be found with the sample point data forms in Appendix B. Wetland and sample point locations can be found on Figures 5 and 6, Appendix A.

Table 1. Wetland Delineation Summary

Feature ID	Data Points	Classification[1]	Likely Jurisdictional?	Size (Acres)
Wetland 1	W1	PEMA	No	0.28
Wetland 2	W2	PUBF	Yes	0.10
Wetland 3	W3	PUBF	Yes	0.11
Wetland 4	W4	PEMA	Yes	0.02
TOTAL				**0.51**

[1]PEMA = Palustrine Emergent Temporarily Flooded
[1]PUBF = Palustrine Unconsolidated Bottom Semi-permanently Flooded

4.2 Stream Assessment Results

The stream assessment identified one ephemeral stream reach (Tributary 1) totaling 413 linear feet. The stream reach flows to Lake Fort Scott, which eventually flows to the Missouri River,

which is a Traditional Navigable Water (TNW). Table 2 below lists the stream reach identified within the Project Limits.

Flowing into Tributary 1 is drainage feature (Drainage 1) at the extreme upper elevations of the site. The drainage feature did not have a defined bed and bank and had a discontinuous Ordinary High Water Mark (OHWM). In many places, the drainage feature was less than 4 inches wide and level with the surrounding area. The consistent absence of a bed and bank and OHWM was used to define the upstream end of Tributary 1. Photos can be found on the data forms in Appendix C.

Table 2. Stream Assessment Summary

Stream ID	Data Form	Stream Classification[1]	Stream Type	Stream Length (Linear Feet)
Tributary 1	T1	Non-RPW	Ephemeral	413
TOTAL				**413**

[2]Non-RPW = Non-Relatively Permanent Water

5. Conclusion

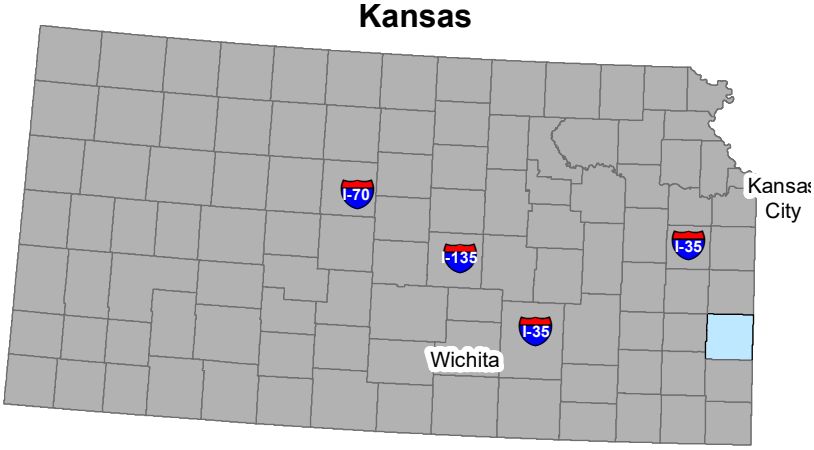
The wetland delineation and stream assessment identified 0.28 acre of potentially isolated wetlands, 0.23 acre of likely jurisdictional wetlands, and 413 linear feet of stream channel. As previously discussed, the stream channel continues upstream as a discontinuous drainage feature generally devoid of bed and bank and OHWM.

Impacts to the identified wetlands and streams will require coordination with the USACE. If impacts to the wetlands or streams can be avoided, no coordination will be needed. If wetland or stream impacts cannot be avoided, then a Clean Water Act Section 404 Permit would be required from the USACE.

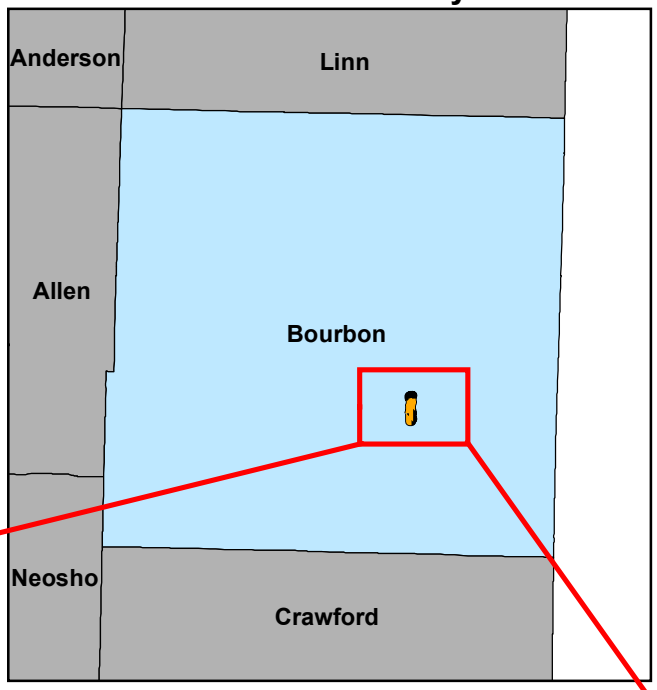
Appendix A

Figures

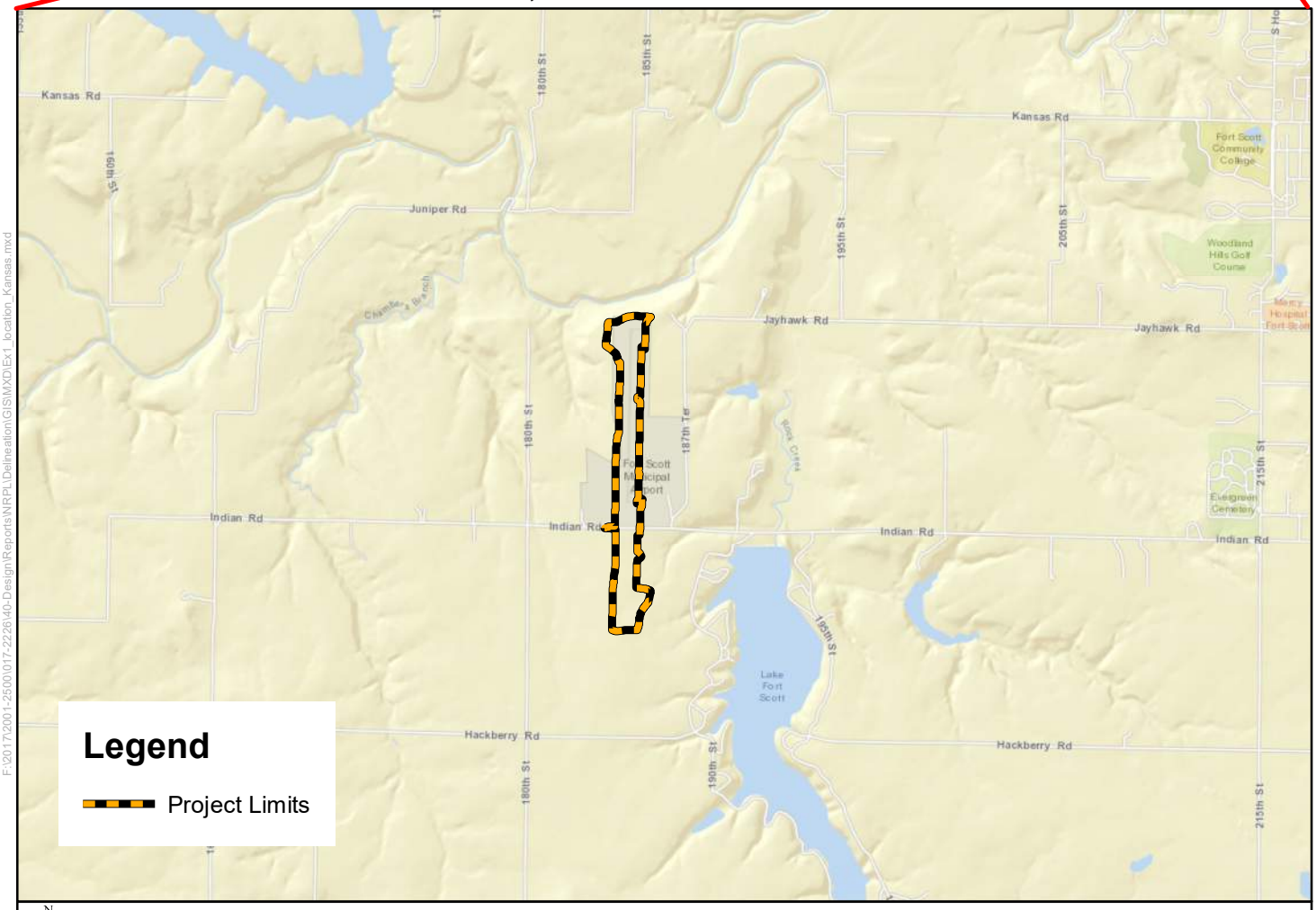
Kansas



Bourbon County



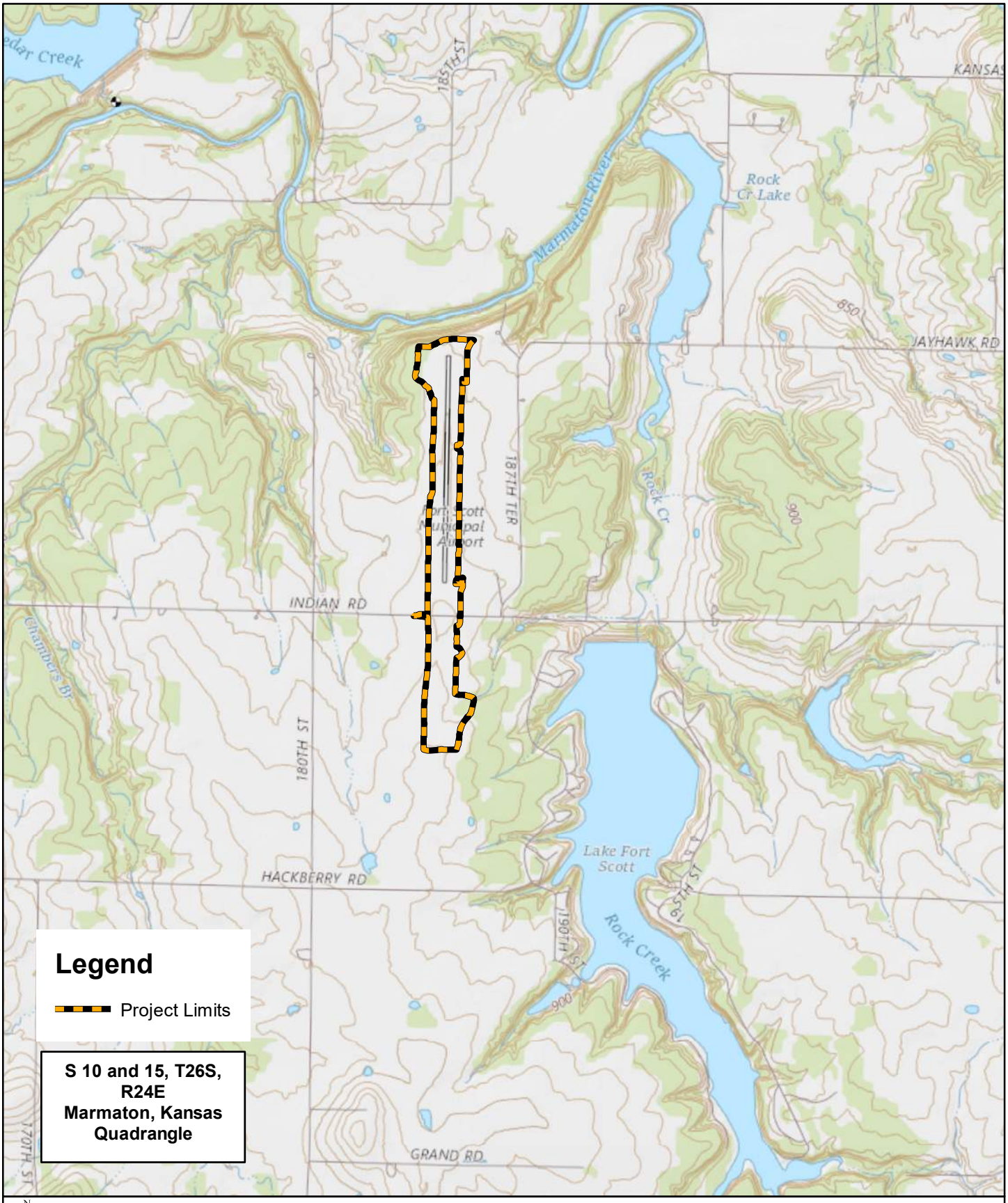
Fort Scott, Kansas



N

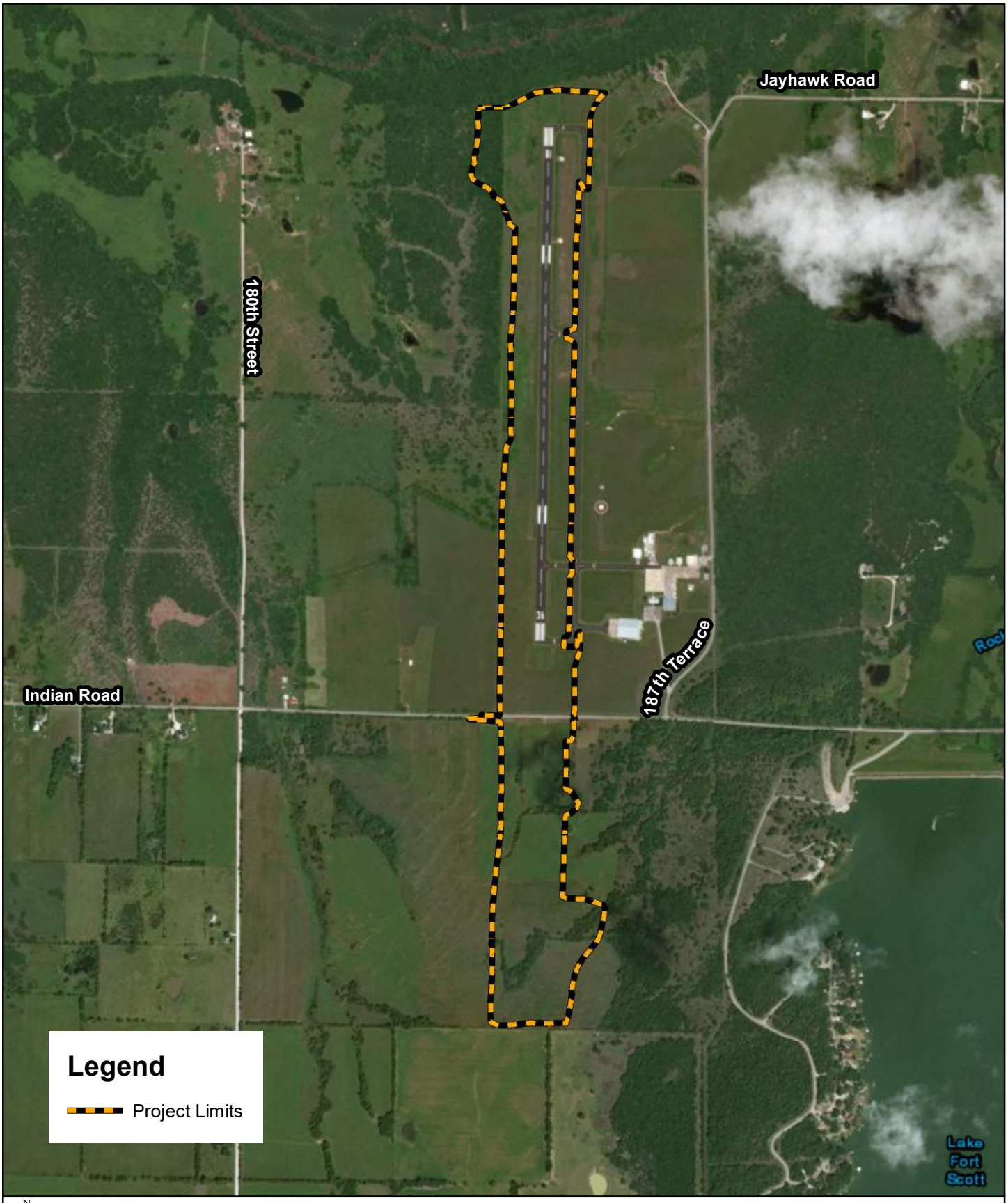
0 0.75 1.5 Miles

Project Number: 017-2226 *Drawn By: JLC* *Revision Date: 4/26/2018*	**Location Map** Fort Scott Municipal Airport Runway Extension Fort Scott, Kansas	DISCLAIMER : This Geographic Information System (GIS) and its components are designed as a source of reference for answering inquiries, for planning and for modeling. GIS is not intended, nor does it replace legal description information in the chain of title and other information contained in official government records such as the County Clerk and Recorders office or the courts. In addition, the representations of locations in this GIS cannot be substituted for actual legal surveys.	OLSSON ASSOCIATES 7301 West 133rd Street Suite 200 Overland Park, Kansas 66213 P: 913.381.1170 F: 913.381.1174	Figure **1**



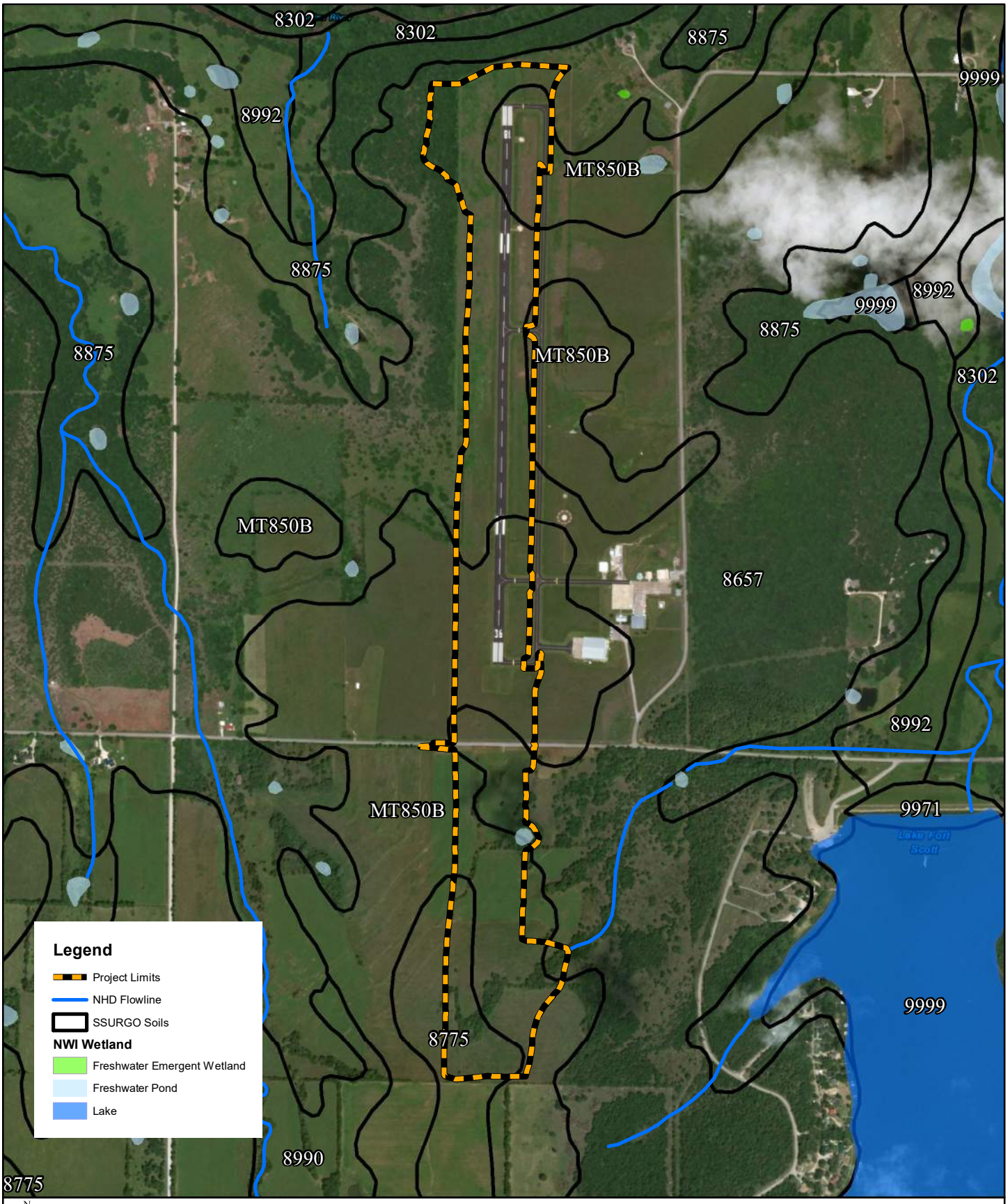
F:\2017\2001-2500\017-2226\40-Design\Reports\NRPL\Delineation\GIS\MXD\E-2_topographic_Kansas.mxd

Project Number: 017-2226 *Drawn By: JLC* *Revision Date: 4/26/2018*	**Topographic Map** Fort Scott Municipal Airport Runway Extension Fort Scott, Kansas	DISCLAIMER : This Geographic Information System (GIS) and its components are designed as a source of reference for answering inquiries, for planning and for modeling. GIS is not intended, nor does it replace legal description information in the chain of title and other information contained in official government records such as the County Clerk and Recorders office or the courts. In addition, the representations of locations in this GIS cannot be substituted for actual legal surveys.	OLSSON ASSOCIATES 7301 West 133rd Street Suite 200 Overland Park, Kansas 66213 P: 913.381.1170 F: 913.381.1174	Figure **2**



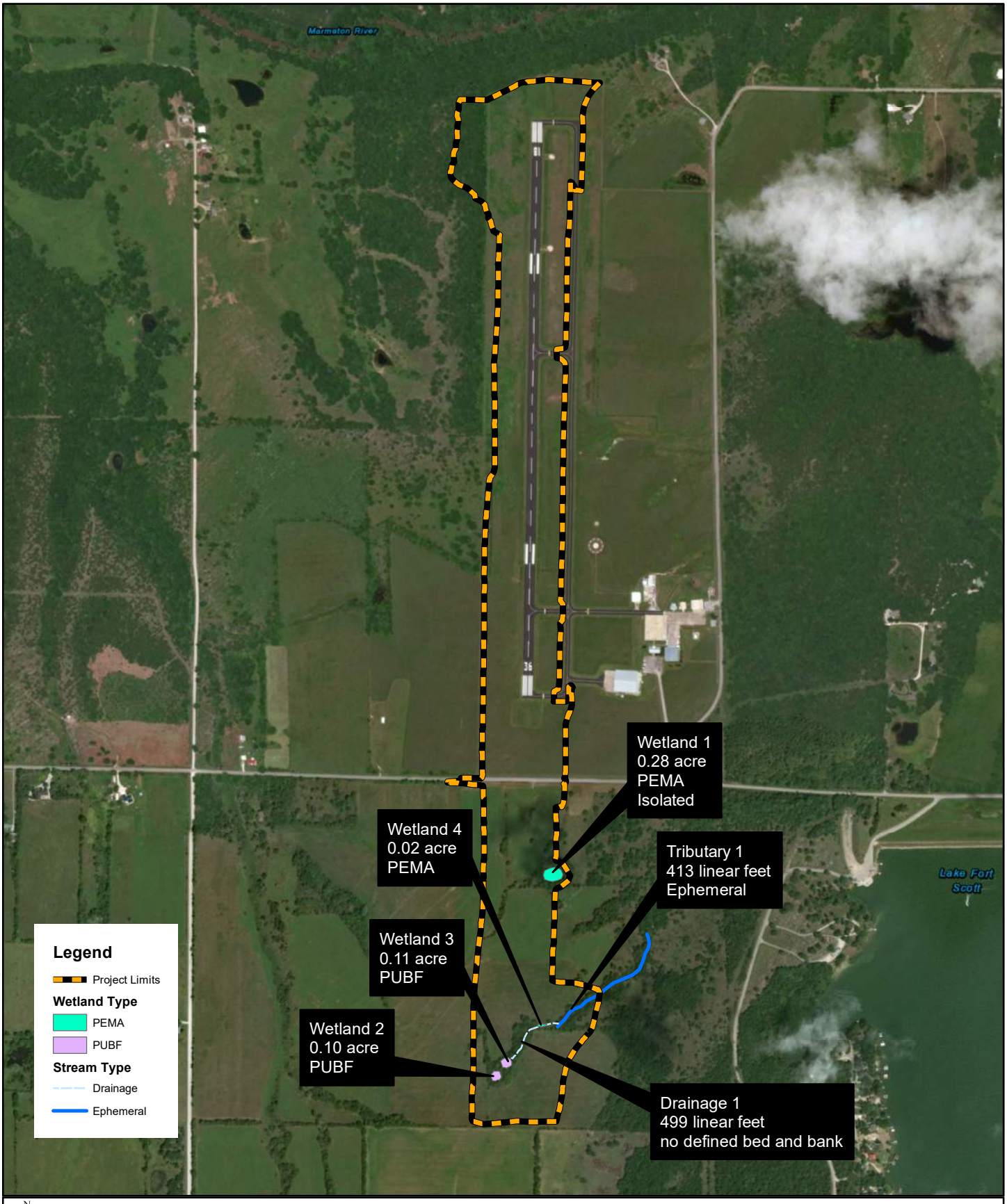
F:\2017\2001-2500\017-2226\40-Design\Reports\NRP\LIDelineation\GIS\MXD\Ex3_aerial_Kansas.mxd

Project Number: 017-2226 *Drawn By: JLC* *Revision Date: 4/26/2018*	**Aerial Map** Fort Scott Municipal Airport Runway Extension Fort Scott, Kansas	DISCLAIMER : This Geographic Information System (GIS) and its components are designed as a source of reference for answering inquiries, for planning and for modeling. GIS is not intended, nor does it replace legal description information in the chain of title and other information contained in official government records such as the County Clerk and Recorders office or the courts. In addition, the representations of locations in this GIS cannot be substituted for actual legal surveys.	OLSSON ASSOCIATES 7301 West 133rd Street Suite 200 Overland Park, Kansas 66213 P: 913.381.1170 F: 913.381.1174	Figure **3**



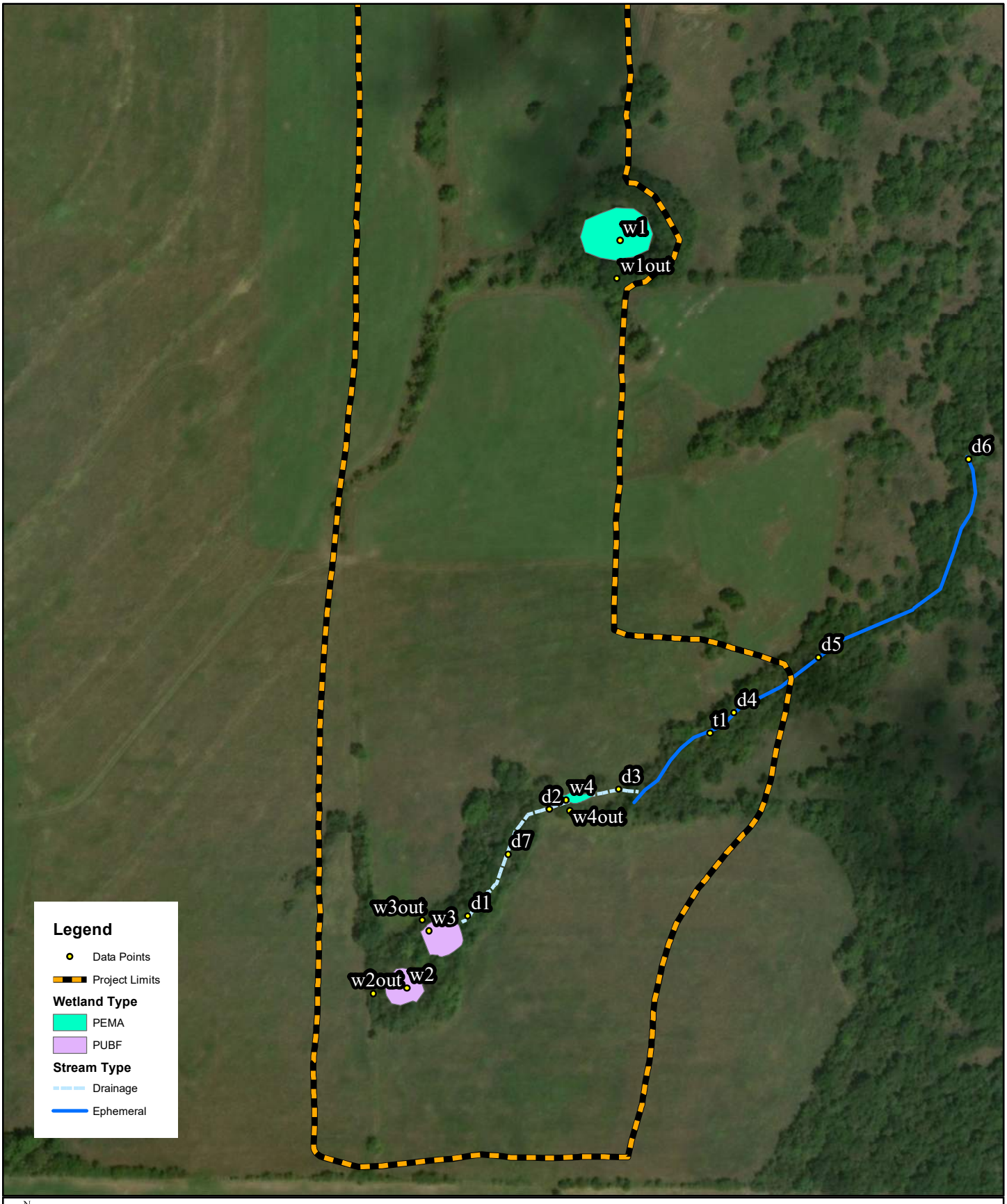
F:\2017\2001-2500\017-2226\40-Design\Reports\NRPL\Delineation\GIS\MXD\Ex4_natural resources_Kansas.mxd

Project Number: 017-2226 *Drawn By: JLC* *Revision Date: 4/26/2018*	**Natural Resources Map** Fort Scott Municipal Airport Runway Extension Fort Scott, Kansas	DISCLAIMER : This Geographic Information System (GIS) and its components are designed as a source of reference for answering inquiries, for planning and for modeling. GIS is not intended, nor does it replace legal description information in the chain of title and other information contained in official government records such as the County Clerk and Recorders office or the courts. In addition, the representations of locations in this GIS cannot be substituted for actual legal surveys.	OLSSON ASSOCIATES 7301 West 133rd Street Suite 200 Overland Park, Kansas 66213 P: 913.381.1170 F: 913.381.1174	Figure **4**



F:\2017\2001-2500\017-2226\40-Design\Reports\NRPL\Delineation\GIS\MXDs\5_aquatic resources_Kansas_new.mxd

Project Number: 017-2226 *Drawn By: JLC* *Revision Date: 5/14/2018*	**Aquatic Resources Map** Fort Scott Municipal Airport Runway Extension Fort Scott, Kansas	DISCLAIMER : This Geographic Information System (GIS) and its components are designed as a source of reference for answering inquiries, for planning and for modeling. GIS is not intended, nor does it replace legal description information in the chain of title and other information contained in official government records such as the County Clerk and Recorders office or the courts. In addition, the representations of locations in this GIS cannot be substituted for actual legal surveys.	OLSSON ASSOCIATES 7301 West 133rd Street Suite 200 Overland Park, Kansas 66213 P: 913.381.1170 F: 913.381.1174	Figure **5**



F:\2017\2001-2500\017-2226\40-Design\Reports\NRPL\Delineation\GIS\MXD\Ex6_aquatic data_Kansas_new.mxd

Project Number: 017-2226 *Drawn By: JLC* *Revision Date: 5/14/2018*	**Aquatic Data Map** Fort Scott Municipal Airport Runway Extension Fort Scott, Kansas	DISCLAIMER : This Geographic Information System (GIS) and its components are designed as a source of reference for answering inquiries, for planning and for modeling. GIS is not intended, nor does it replace legal description information in the chain of title and other information contained in official government records such as the County Clerk and Recorders office or the courts. In addition, the representations of locations in this GIS cannot be substituted for actual legal surveys.	OLSSON ASSOCIATES 7301 West 133rd Street Suite 200 Overland Park, Kansas 66213 P: 913.381.1170 F: 913.381.1174	Figure **6**

Appendix B

USACE Midwest Region Version 2.0 Worksheet and Wetland Summary Forms

Wetland Determination Data Form - Midwest Region

Project/Site: Ft. Scott Airport Runway Extension | City/County: Ft. Scott/Bourbon | Sampling Date: 10/9/2017

Applicant/Owner: City of Fort Scott, Kansas | State: KS | Sampling Point: W1

Investigator(s): Jessica Casey | Section, Township, Range: S15 T26S R24E

Landform (hillslope, terrace, etc.): Depression | Local relief (concave, convex, none): Concave

Slope (%): 0-2% | Lat: 37.788604 | Long: -94.768499 | Datum: UTM83

Soil Map Unit Name: Clareson stony silty clay loam | NWI classification: PUB

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	
Hydric Soil Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** Yes X No ____
Wetland Hydrology Present?	Yes X	No ____	

Remarks:

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30 ft)			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft)			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: 5 ft)			
1. Echinochloa crus-galli	25	X	FACW
2. Persicaria lapathifolia	20	X	FACW
3. Eleocharis acicularis	50	X	OBL
4. Ambrosia trifida	5		FAC
5.			
6.			
7.			
8.			
9.			
10.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft)			
1.			
2.			
	0 = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	50	x 1 =	50
FACW species	45	x 2 =	90
FAC species	5	x 3 =	15
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	100 (A)		155 (B)

Prevalence Index = B/A = 1.55

Hydrophytic Vegetation Indicators:

- X 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- X 3 - Prevalence Index is ≤3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks: (Include photo numbers here or on a separate sheet.)

Appears isolated. I did not see any streams or drainageways for the wetland

SOIL

Sampling Point: W1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-8	10 yr 2/1	90	10 yr 5/6	10	C	M	Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5)
- __ 2 cm Muck (A10)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Sandy Mucky Mineral (S1)
- __ 5 cm Mucky Peat or Peat (S3)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- __ Coast Prairie Redox (A16)
- __ Dark Surface (S7)
- __ Iron-Manganese Masses (F12)
- __ Very Shallow Dark Surface (TF12)
- __ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Bedrock

Depth (inches): 8

Hydric Soil Present? Yes X No __

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ Sediment Deposits (B2)
- __ Drift Deposits (B3)
- __ Algal Mat or Crust (B4)
- __ Iron Deposits (B5)
- __ Inundation Visible on Aerial Imagery (B7)
- __ Sparsely Vegetated Concave Surface (B8)
- __ Water-Stained Leaves (B9)
- __ Aquatic Fauna (B13)
- __ True Aquatic Plants (B14)
- __ Hydrogen Sulfide Odor (C1)
- __ Oxidized Rhizospheres on Living Roots (C3)
- __ Presence of Reduced Iron (C4)
- __ Recent Iron Reduction in Tilled Soils (C6)
- __ Thin Muck Surface (C7)
- __ Gauge or Well Data (D9)
- __ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- __ Surface Soil Cracks (B6)
- __ Drainage Patterns (B10)
- __ Dry-Season Water Table (C2)
- __ Crayfish Burrows (C8)
- __ Saturation Visible on Aerial Imagery (C9)
- __ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes __	No X	Depth (inches) __	
Water Table Present?	Yes __	No X	Depth (inches) __	
Saturation Present? (includes capillary fringe)	Yes __	No X	Depth (inches) __	

Wetland Hydrology Present? Yes X No __

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Wetland Wetland 1 **Sample Point** W1

Longitude	Latitude
-94.768499	37.788604

Cowardin Classification: PEM A Temporarily Flooded

Size: 0.28 acre

Landform: Depression

Tree Stratum:

Sapling/Shrub:

Herb Stratum: Echinochloa crus-galli Persicaria lapathifolia Eleocharis acicularis

Vine Stratum:

Hydric Soil Indicators: Redox Dark Surface (F6)

Hydrology Indicators: Geomorphic Position (D2) FAC-Neutral Test (D5)

Significant Nexus: No Adjacent: Abuts: Stream Name:

Jurisdictional Status and Comments:
Wetland appears to be isolated with no drainageways or connections to streams.

Photo 1 1 -North

Photo 2 2 -East

Photo 3 3 -South

Photo 4 4 -West

Wetland Determination Data Form - Midwest Region

Project/Site: Ft. Scott Airport Runway Extenison | City/County: Ft. Scott/Bourbon | Sampling Date: 10/9/2017

Applicant/Owner: City of Fort Scott, Kansas | State: KS | Sampling Point: W1out

Investigator(s): Jessica Casey | Section, Township, Range: S15 T26S R24E

Landform (hillslope, terrace, etc.): Hilltop | Local relief (concave, convex, none): Convex

Slope (%): 0-2% | Lat: 37.78836 | Long: -94.768577 | Datum: UTM83

Soil Map Unit Name: Wagstaff silty clay loam | NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	
Hydric Soil Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** Yes ____ No X
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. Celtis occidentalis	10	X	FAC
2. Juniperus virginiana	10	X	FACU
3. Maclura pomifera	10	X	FACU
4.			
5.			
	30	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 ft)			
1. Symphoricarpos orbiculatus	55	X	FACU
2. Cornus drummondii	10		FAC
3.			
4.			
5.			
	65	= Total Cover	
Herb Stratum (Plot size: 5 ft)			
1. Elymus virginicus	15	X	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	15	= Total Cover	
Woody Vine Stratum (Plot size: 30 ft)			
1. Smilax hispida	10	X	FAC
2.			
	10	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	15	x 2 =	30
FAC species	30	x 3 =	90
FACU species	75	x 4 =	300
UPL species	0	x 5 =	0
Column Totals:	120 (A)		420 (B)

Prevalence Index = B/A = 3.50

Hydrophytic Vegetation Indicators:

- ____ 1 - Rapid Test for Hydrophytic Vegetation
- ____ 2 - Dominance Test is >50%
- ____ 3 - Prevalence Index is ≤3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: W1out

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-24	10 yr 2/2	100					Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5)
- __ 2 cm Muck (A10)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Sandy Mucky Mineral (S1)
- __ 5 cm Mucky Peat or Peat (S3)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- __ Coast Prairie Redox (A16)
- __ Dark Surface (S7)
- __ Iron-Manganese Masses (F12)
- __ Very Shallow Dark Surface (TF12)
- __ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ Sediment Deposits (B2)
- __ Drift Deposits (B3)
- __ Algal Mat or Crust (B4)
- __ Iron Deposits (B5)
- __ Inundation Visible on Aerial Imagery (B7)
- __ Sparsely Vegetated Concave Surface (B8)
- __ Water-Stained Leaves (B9)
- __ Aquatic Fauna (B13)
- __ True Aquatic Plants (B14)
- __ Hydrogen Sulfide Odor (C1)
- __ Oxidized Rhizospheres on Living Roots (C3)
- __ Presence of Reduced Iron (C4)
- __ Recent Iron Reduction in Tilled Soils (C6)
- __ Thin Muck Surface (C7)
- __ Gauge or Well Data (D9)
- __ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- __ Surface Soil Cracks (B6)
- __ Drainage Patterns (B10)
- __ Dry-Season Water Table (C2)
- __ Crayfish Burrows (C8)
- __ Saturation Visible on Aerial Imagery (C9)
- __ Stunted or Stressed Plants (D1)
- __ Geomorphic Position (D2)
- __ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches) ____	
Water Table Present?	Yes ____	No X	Depth (inches) ____	
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches) ____	

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Wetland _____ **Sample Point** W1out

Longitude	Latitude
-94.768577	37.78836

Cowardin Classification: _____

Size: _____

Landform: Hilltop

Tree Stratum: Celtis occidentalis Juniperus virginiana Maclura pomifera

Sapling/Shrub: Symphoricarpos orbiculatus Cornus drummondii

Herb Stratum: Elymus virginicus

Vine Stratum: Smilax hispida

Hydric Soil Indicators: None

Hydrology Indicators: None

Significant Nexus: _____ Adjacent: _____ Abuts: _____ Stream Name: _____

Jurisdictional Status and Comments:

Photo 1 5 - North

Photo 2 6 - East

Photo 3 7 - South

Photo 4 8 - West

Wetland Determination Data Form - Midwest Region

Project/Site: Ft. Scott Airport Runway Extension | City/County: Ft. Scott/Bourbon | Sampling Date: 4/24/2018

Applicant/Owner: City of Fort Scott, Kansas | State: KS | Sampling Point: W2

Investigator(s): Jessica Casey | Section, Township, Range: S15 T26S R24E

Landform (hillslope, terrace, etc.): Depression | Local relief (concave, convex, none): Concave

Slope (%): 0-2% | Lat: 37.7843887 | Long: -94.76989 | Datum: UTM83

Soil Map Unit Name: Kenoma silt loam, 1 to 3 percent slopes | NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	
Hydric Soil Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** Yes X No ____
Wetland Hydrology Present?	Yes X	No ____	

Remarks:
very shallow depression

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. Ulmus americana	15	X	FACW
2.			
3.			
4.			
5.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft)			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: 5 ft)			
1. Carex sp.	5	X	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	5 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft)			
1.			
2.			
	0 = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	20	x 2 =	40
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	20 (A)		40 (B)

Prevalence Index = B/A = 2.00

Hydrophytic Vegetation Indicators:

__ 1 - Rapid Test for Hydrophytic Vegetation
__ 2 - Dominance Test is >50%
__ 3 - Prevalence Index is ≤3.0[1]
__ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
__ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: W2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-18	10 yr 3/2	80	10 yr 4/6	20	C	M	Silty Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5)
- __ 2 cm Muck (A10)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Sandy Mucky Mineral (S1)
- __ 5 cm Mucky Peat or Peat (S3)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- __ Coast Prairie Redox (A16)
- __ Dark Surface (S7)
- __ Iron-Manganese Masses (F12)
- __ Very Shallow Dark Surface (TF12)
- __ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Yes X No ____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ Sediment Deposits (B2)
- __ Drift Deposits (B3)
- __ Algal Mat or Crust (B4)
- __ Iron Deposits (B5)
- __ Inundation Visible on Aerial Imagery (B7)
- X Sparsely Vegetated Concave Surface (B8)
- __ Water-Stained Leaves (B9)
- __ Aquatic Fauna (B13)
- __ True Aquatic Plants (B14)
- __ Hydrogen Sulfide Odor (C1)
- __ Oxidized Rhizospheres on Living Roots (C3)
- __ Presence of Reduced Iron (C4)
- __ Recent Iron Reduction in Tilled Soils (C6)
- __ Thin Muck Surface (C7)
- __ Gauge or Well Data (D9)
- __ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- __ Surface Soil Cracks (B6)
- __ Drainage Patterns (B10)
- __ Dry-Season Water Table (C2)
- __ Crayfish Burrows (C8)
- __ Saturation Visible on Aerial Imagery (C9)
- __ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches)	____
Water Table Present?	Yes ____	No X	Depth (inches)	____
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches)	____

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Wetland Wetland 2 **Sample Point** W2

Longitude	Latitude
-94.76989	37.7843887

Cowardin Classification: PUB F Semipermanently Flooded

Size: 0.10 acre

Landform: Depression

Tree Stratum: Ulmus americana

Sapling/Shrub:

Herb Stratum: Carex sp.

Vine Stratum:

Hydric Soil Indicators: Redox Dark Surface (F6)

Hydrology Indicators: Geomorphic Position (D2) FAC-Neutral Test (D5)

Significant Nexus: Yes Adjacent: X Abuts: Stream Name: Tributary 1

Jurisdictional Status and Comments:
Tributary 1 eventually flows to the Missouri River.

Photo 1

Photo 2

Photo 3

Photo 4

Wetland Determination Data Form - Midwest Region

Project/Site: Ft. Scott Airport Runway Extension | City/County: Ft. Scott/ Bourbon | Sampling Date: 4/24/2018

Applicant/Owner: City of Fort Scott, Kansas | State: KS | Sampling Point: W2out

Investigator(s): Jessica Casey | Section, Township, Range: S15 T26S R24E

Landform (hillslope, terrace, etc.): Field | Local relief (concave, convex, none): None

Slope (%): 0-2% | Lat: 37.784356 | Long: -94.770122 | Datum: UTM83

Soil Map Unit Name: Kenoma silt loam, 1 to 3 percent slopes | NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	
Hydric Soil Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** Yes ____ No X
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. Cornus drummondii	10	X	FAC
2. Ulmus americana	5		FACW
3. Maclura pomifera	5		FACU
4. Juniperus virginiana	5		FACU
5.			
	25	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15 ft)			
1. Symphoricarpos orbiculatus	20	X	FACU
2. Ribes missouriense	15	X	FACU
3.			
4.			
5.			
	35	= Total Cover	

Herb Stratum (Plot size: 5 ft)			
1. Elymus canadensis	10	X	FACU
2. Solidago canadensis	10	X	FACU
3. Poa pratensis	10	X	FAC
4. Carex sp.	10	X	FACW
5.			
6.			
7.			
8.			
9.			
10.			
	40	= Total Cover	

Woody Vine Stratum (Plot size: 30 ft)			
1.			
2.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 43% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	15	x 2 =	30
FAC species	20	x 3 =	60
FACU species	65	x 4 =	260
UPL species	0	x 5 =	0
Column Totals:	100 (A)		350 (B)

Prevalence Index = B/A = 3.50

Hydrophytic Vegetation Indicators:

- ____ 1 - Rapid Test for Hydrophytic Vegetation
- ____ 2 - Dominance Test is >50%
- ____ 3 - Prevalence Index is ≤3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: W2out

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-18	10 yr 2/1	100					Silty Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5)
- __ 2 cm Muck (A10)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Sandy Mucky Mineral (S1)
- __ 5 cm Mucky Peat or Peat (S3)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- __ Coast Prairie Redox (A16)
- __ Dark Surface (S7)
- __ Iron-Manganese Masses (F12)
- __ Very Shallow Dark Surface (TF12)
- __ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ Sediment Deposits (B2)
- __ Drift Deposits (B3)
- __ Algal Mat or Crust (B4)
- __ Iron Deposits (B5)
- __ Inundation Visible on Aerial Imagery (B7)
- __ Sparsely Vegetated Concave Surface (B8)
- __ Water-Stained Leaves (B9)
- __ Aquatic Fauna (B13)
- __ True Aquatic Plants (B14)
- __ Hydrogen Sulfide Odor (C1)
- __ Oxidized Rhizospheres on Living Roots (C3)
- __ Presence of Reduced Iron (C4)
- __ Recent Iron Reduction in Tilled Soils (C6)
- __ Thin Muck Surface (C7)
- __ Gauge or Well Data (D9)
- __ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- __ Surface Soil Cracks (B6)
- __ Drainage Patterns (B10)
- __ Dry-Season Water Table (C2)
- __ Crayfish Burrows (C8)
- __ Saturation Visible on Aerial Imagery (C9)
- __ Stunted or Stressed Plants (D1)
- __ Geomorphic Position (D2)
- __ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches) ____
Water Table Present?	Yes ____	No X	Depth (inches) ____
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches) ____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Wetland _____ **Sample Point** W2out

Longitude	Latitude
-94.770122	37.784356

Cowardin Classification: _____

Size: _____

Landform: Field

Tree Stratum: Cornus drummondii Ulmus americana Maclura pomifera

Sapling/Shrub: Symphoricarpos orbiculatus Ribes missouriense

Herb Stratum: Elymus canadensis Solidago canadensis Poa pratensis

Vine Stratum: _____

Hydric Soil Indicators: _____

Hydrology Indicators: _____

Significant Nexus: _____ Adjacent: _____ Abuts: _____ Stream Name: _____

Jurisdictional Status and Comments:

Photo 1

Photo 2

Photo 3

Photo 4

Wetland Determination Data Form - Midwest Region

Project/Site: Ft. Scott Airport Runway Extension | City/County: Ft. Scott/ Bourbon | Sampling Date: 4/24/2018

Applicant/Owner: City of Fort Scott, Kansas | State: KS | Sampling Point: W3

Investigator(s): Jessica Casey | Section, Township, Range: S15 T26S R24E

Landform (hillslope, terrace, etc.): Depression | Local relief (concave, convex, none): Concave

Slope (%): 0-2% | Lat: 37.784739 | Long: -94.76973 | Datum: UTM83

Soil Map Unit Name: Kenoma silt loam, 1 to 3 percent slopes | NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	
Hydric Soil Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** Yes X No ____
Wetland Hydrology Present?	Yes X	No ____	

Remarks:

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. Ulmus americana	30	X	FACW
2.			
3.			
4.			
5.			
	30 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft)			
1. Symphoricarpos orbiculatus	10	X	FACU
2.			
3.			
4.			
5.			
	10 = Total Cover		
Herb Stratum (Plot size: 5 ft)			
1. Carex sp.	5	X	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	5 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft)			
1.			
2.			
	0 = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 67% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	35	x 2 =	70
FAC species	0	x 3 =	0
FACU species	10	x 4 =	40
UPL species	0	x 5 =	0
Column Totals:	45 (A)		110 (B)

Prevalence Index = B/A = 2.44

Hydrophytic Vegetation Indicators:

- ____ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- X 3 - Prevalence Index is ≤3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: W3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-12	10 yr 3/1	80	10 yr 3/2	20	C	M	Silty Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5)
- __ 2 cm Muck (A10)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Sandy Mucky Mineral (S1)
- __ 5 cm Mucky Peat or Peat (S3)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- __ Coast Prairie Redox (A16)
- __ Dark Surface (S7)
- __ Iron-Manganese Masses (F12)
- __ Very Shallow Dark Surface (TF12)
- __ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Yes X No ____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- X Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ Sediment Deposits (B2)
- __ Drift Deposits (B3)
- __ Algal Mat or Crust (B4)
- __ Iron Deposits (B5)
- __ Inundation Visible on Aerial Imagery (B7)
- __ Sparsely Vegetated Concave Surface (B8)
- __ Water-Stained Leaves (B9)
- __ Aquatic Fauna (B13)
- __ True Aquatic Plants (B14)
- __ Hydrogen Sulfide Odor (C1)
- __ Oxidized Rhizospheres on Living Roots (C3)
- __ Presence of Reduced Iron (C4)
- __ Recent Iron Reduction in Tilled Soils (C6)
- __ Thin Muck Surface (C7)
- __ Gauge or Well Data (D9)
- __ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- __ Surface Soil Cracks (B6)
- __ Drainage Patterns (B10)
- __ Dry-Season Water Table (C2)
- __ Crayfish Burrows (C8)
- __ Saturation Visible on Aerial Imagery (C9)
- __ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X	No ____	Depth (inches) 4	
Water Table Present?	Yes ____	No X	Depth (inches) ____	
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches) ____	

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Wetland Wetland 3 **Sample Point** W3

Longitude	Latitude
-94.76973	37.784739

Cowardin Classification: PUB F Semipermanently Flooded

Size: 0.11 acre

Landform: Depression

Tree Stratum: Ulmus americana

Sapling/Shrub: Symphoricarpos orbiculatus

Herb Stratum: Carex sp.

Vine Stratum:

Hydric Soil Indicators: Redox Dark Surface (F6)

Hydrology Indicators: Surface Water (A1) Geomorphic Position (D2)

Significant Nexus: Yes Adjacent: X Abuts: Stream Name: Tributary 1

Jurisdictional Status and Comments:
Tributary 1 eventually flows to the Missouri River.

Photo 1

Photo 2

Photo 3

Photo 4

Wetland Determination Data Form - Midwest Region

Project/Site: Ft. Scott Airport Runway Extension | City/County: Ft. Scott/ Bourbon | Sampling Date: 4/24/2018

Applicant/Owner: City of Fort Scott, Kansas | State: KS | Sampling Point: W3out

Investigator(s): Jessica Casey | Section, Township, Range: S15 T26S R24E

Landform (hillslope, terrace, etc.): Field | Local relief (concave, convex, none): None

Slope (%): 0-2% | Lat: 37.784765 | Long: -94.76978 | Datum: UTM83

Soil Map Unit Name: Kenoma silt loam, 1 to 3 percent slopes | NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?**	**Yes** ____ **No** X
Hydric Soil Present?	Yes ____	No X		
Wetland Hydrology Present?	Yes ____	No X		

Remarks:

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. Juniperus virginiana	20	X	FACU
2.			
3.			
4.			
5.			
	20 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft)			
1. Cornus drummondii	35	X	FAC
2. Symphoricarpos orbiculatus	15	X	FACU
3. Rosa multiflora	5		FACU
4.			
5.			
	55 = Total Cover		
Herb Stratum (Plot size: 5 ft)			
1. Andropogon virginicus	10	X	FACU
2. Sorghastrum nutans	5	X	FACU
3. Cirsium undulatum	5		FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	15 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft)			
1.			
2.			
	0 = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 20% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	35	x 3 =	105
FACU species	60	x 4 =	240
UPL species	0	x 5 =	0
Column Totals:	95 (A)		345 (B)

Prevalence Index = B/A = 3.63

Hydrophytic Vegetation Indicators:

- ____ 1 - Rapid Test for Hydrophytic Vegetation
- ____ 2 - Dominance Test is >50%
- ____ 3 - Prevalence Index is ≤3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: W3out

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-18	10 yr 2/1	100						

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5)
- __ 2 cm Muck (A10)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Sandy Mucky Mineral (S1)
- __ 5 cm Mucky Peat or Peat (S3)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- __ Coast Prairie Redox (A16)
- __ Dark Surface (S7)
- __ Iron-Manganese Masses (F12)
- __ Very Shallow Dark Surface (TF12)
- __ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ Sediment Deposits (B2)
- __ Drift Deposits (B3)
- __ Algal Mat or Crust (B4)
- __ Iron Deposits (B5)
- __ Inundation Visible on Aerial Imagery (B7)
- __ Sparsely Vegetated Concave Surface (B8)
- __ Water-Stained Leaves (B9)
- __ Aquatic Fauna (B13)
- __ True Aquatic Plants (B14)
- __ Hydrogen Sulfide Odor (C1)
- __ Oxidized Rhizospheres on Living Roots (C3)
- __ Presence of Reduced Iron (C4)
- __ Recent Iron Reduction in Tilled Soils (C6)
- __ Thin Muck Surface (C7)
- __ Gauge or Well Data (D9)
- __ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- __ Surface Soil Cracks (B6)
- __ Drainage Patterns (B10)
- __ Dry-Season Water Table (C2)
- __ Crayfish Burrows (C8)
- __ Saturation Visible on Aerial Imagery (C9)
- __ Stunted or Stressed Plants (D1)
- __ Geomorphic Position (D2)
- __ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches) ____

Water Table Present? Yes ____ No X Depth (inches) ____

Saturation Present? (includes capillary fringe) Yes ____ No X Depth (inches) ____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Wetland _____ **Sample Point** W3out

Longitude	Latitude
-94.76978	37.784765

Cowardin Classification: _____

Size: _____

Landform: Field

Tree Stratum: Juniperus virginiana

Sapling/Shrub: Cornus drummondii Symphoricarpos orbiculatus Rosa multiflora

Herb Stratum: Andropogon virginicus Sorghastrum nutans Cirsium undulatum

Vine Stratum: _____

Hydric Soil Indicators: _____

Hydrology Indicators: _____

Significant Nexus: _____ Adjacent: _____ Abuts: _____ Stream Name: _____

Jurisdictional Status and Comments:

Photo 1

Photo 2

Photo 3

Photo 4

Wetland Determination Data Form - Midwest Region

Project/Site: Ft. Scott Airport Runway Extension | City/County: Ft. Scott/Bourbon | Sampling Date: 4/24/2018

Applicant/Owner: City of Fort Scott, Kansas | State: KS | Sampling Point: W4

Investigator(s): Jessica Casey | Section, Township, Range: S15 T26S R24E

Landform (hillslope, terrace, etc.): Depression | Local relief (concave, convex, none): Concave

Slope (%): 0-2% | Lat: 37.785458 | Long: -94.768786 | Datum: UTM83

Soil Map Unit Name: Kenoma silt loam, 1 to 3 percent slopes | NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	
Hydric Soil Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** Yes X No ____
Wetland Hydrology Present?	Yes X	No ____	

Remarks:
Happens to have a little water in a small depression. Appears to be overland sheer flow from the small drainage that flows to Tributary 1

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30 ft)			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Sapling/Shrub Stratum Plot size: 15 ft)			
1. Gleditsia triacanthos	5	X	FACU
2.			
3.			
4.			
5.			
	5 = Total Cover		
Herb Stratum (Plot size: 5 ft)			
1. Bromus inermis	45	X	FACU
2. Carex sp	55	X	FACW
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft)			
1.			
2.			
	0 = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	55	x 2 =	110
FAC species	0	x 3 =	0
FACU species	50	x 4 =	200
UPL species	0	x 5 =	0
Column Totals:	105 (A)		310 (B)

Prevalence Index = B/A = 2.95

Hydrophytic Vegetation Indicators:

- ____ 1 - Rapid Test for Hydrophytic Vegetation
- ____ 2 - Dominance Test is >50%
- X 3 - Prevalence Index is ≤3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: W4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-18	10 yr 3/2	98	10 yr 3/2	2	C	M	Silty Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5)
- __ 2 cm Muck (A10)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Sandy Mucky Mineral (S1)
- __ 5 cm Mucky Peat or Peat (S3)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- __ Coast Prairie Redox (A16)
- __ Dark Surface (S7)
- __ Iron-Manganese Masses (F12)
- __ Very Shallow Dark Surface (TF12)
- __ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Yes X No __

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- X Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ Sediment Deposits (B2)
- __ Drift Deposits (B3)
- __ Algal Mat or Crust (B4)
- __ Iron Deposits (B5)
- __ Inundation Visible on Aerial Imagery (B7)
- __ Sparsely Vegetated Concave Surface (B8)
- __ Water-Stained Leaves (B9)
- __ Aquatic Fauna (B13)
- __ True Aquatic Plants (B14)
- __ Hydrogen Sulfide Odor (C1)
- __ Oxidized Rhizospheres on Living Roots (C3)
- __ Presence of Reduced Iron (C4)
- __ Recent Iron Reduction in Tilled Soils (C6)
- __ Thin Muck Surface (C7)
- __ Gauge or Well Data (D9)
- __ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- __ Surface Soil Cracks (B6)
- __ Drainage Patterns (B10)
- __ Dry-Season Water Table (C2)
- __ Crayfish Burrows (C8)
- __ Saturation Visible on Aerial Imagery (C9)
- __ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- __ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X	No __	Depth (inches) 2	
Water Table Present?	Yes __	No X	Depth (inches)	
Saturation Present? (includes capillary fringe)	Yes __	No X	Depth (inches)	

Wetland Hydrology Present? Yes X No __

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Wetland Wetland 4 **Sample Point** W4

Longitude	Latitude
-94.768786	37.785458

Cowardin Classification: PEM A Temporarily Flooded

Size: 0.02 acre

Landform: Depression

Tree Stratum:

Sapling/Shrub: Gleditsia triacanthos

Herb Stratum: Bromus inermis Carex sp

Vine Stratum:

Hydric Soil Indicators: Redox Dark Surface (F6)

Hydrology Indicators: Surface Water (A1)

Significant Nexus: Yes Adjacent: X Abuts: _____ Stream Name: Tributary 1

Jurisdictional Status and Comments:
Adjacent to Tributary 1 which eventually flows to the Missouri River.

Photo 1

Photo 2

Photo 3

Photo 4

Wetland Determination Data Form - Midwest Region

Project/Site: Ft. Scott Airport Runway Extension | City/County: Ft. Scott/ Bourbon | Sampling Date: 4/24/2018

Applicant/Owner: City of Fort Scott, Kansas | State: KS | Sampling Point: W4out

Investigator(s): Jessica Casey | Section, Township, Range: S15 T26S R24E

Landform (hillslope, terrace, etc.): Field | Local relief (concave, convex, none): None

Slope (%): 0-2% | Lat: 37.78541 | Long: -94.7687 | Datum: UTM83

Soil Map Unit Name: Kenoma silt loam, 1 to 3 percent slopes | NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?**	**Yes** ____ **No** ____
Hydric Soil Present?	Yes ____	No X		
Wetland Hydrology Present?	Yes ____	No X		

Remarks:

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft)			
1. Symphoricarpos orbiculatus	20	X	FACU
2.			
3.			
4.			
5.			
	20 = Total Cover		
Herb Stratum (Plot size: 5 ft)			
1. Elymus canadensis	35	X	FACU
2. Bromus inermis	25	X	FACU
3. Solidago canadensis	15		FACU
4. Bromus tectorum	15		FACU
5. Poa pratensis	10		FAC
6.			
7.			
8.			
9.			
10.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft)			
1.			
2.			
	0 = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	10	x 3 =	30
FACU species	110	x 4 =	440
UPL species	0	x 5 =	0
Column Totals:	120 (A)		470 (B)

Prevalence Index = B/A = 3.92

Hydrophytic Vegetation Indicators:

- ____ 1 - Rapid Test for Hydrophytic Vegetation
- ____ 2 - Dominance Test is >50%
- ____ 3 - Prevalence Index is ≤3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: W4out

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-18	10 yr 3/2	100						

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5)
- __ 2 cm Muck (A10)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Sandy Mucky Mineral (S1)
- __ 5 cm Mucky Peat or Peat (S3)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- __ Coast Prairie Redox (A16)
- __ Dark Surface (S7)
- __ Iron-Manganese Masses (F12)
- __ Very Shallow Dark Surface (TF12)
- __ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ Sediment Deposits (B2)
- __ Drift Deposits (B3)
- __ Algal Mat or Crust (B4)
- __ Iron Deposits (B5)
- __ Inundation Visible on Aerial Imagery (B7)
- __ Sparsely Vegetated Concave Surface (B8)
- __ Water-Stained Leaves (B9)
- __ Aquatic Fauna (B13)
- __ True Aquatic Plants (B14)
- __ Hydrogen Sulfide Odor (C1)
- __ Oxidized Rhizospheres on Living Roots (C3)
- __ Presence of Reduced Iron (C4)
- __ Recent Iron Reduction in Tilled Soils (C6)
- __ Thin Muck Surface (C7)
- __ Gauge or Well Data (D9)
- __ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- __ Surface Soil Cracks (B6)
- __ Drainage Patterns (B10)
- __ Dry-Season Water Table (C2)
- __ Crayfish Burrows (C8)
- __ Saturation Visible on Aerial Imagery (C9)
- __ Stunted or Stressed Plants (D1)
- __ Geomorphic Position (D2)
- __ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches) ____

Water Table Present? Yes ____ No X Depth (inches) ____

Saturation Present? (includes capillary fringe) Yes ____ No X Depth (inches) ____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Wetland _____ **Sample Point** W4out

Longitude	Latitude
-94.7687	37.78541

Cowardin Classification: _____

Size: _____

Landform: Field

Tree Stratum: _____

Sapling/Shrub: Symphoricarpos orbiculatus

Herb Stratum: Elymus canadensis Bromus inermis Solidago canadensis

Vine Stratum: _____

Hydric Soil Indicators: _____

Hydrology Indicators: _____

Significant Nexus: _____ Adjacent: _____ Abuts: _____ Stream Name: _____

Jurisdictional Status and Comments:

Photo 1

Photo 2

Photo 3

Photo 4

Appendix C

Stream Assessment Forms

Date: 10/9/2017 Investigator(s): Jessica Casey 37.785848 -94.767781

Feature ID:	Tributary 1
Unique Site ID:	T1
Project name:	Ft. Scott Airport Runway exten
Project #:	017-2226
County, State:	Bourbon, KS
Stream Classification:	☐TNW ☐RPW ☒Non-RPW
Side Slopes:	1:1 ☐ ☒2:1 ☐3:1 ☐4:1 or >
Hydrology:	☐ Flowing ☐ Standing ☒ None
Water Color/Quality:	☐Clear ☐Discolored ☐Oily film
Stream Has:	☒Bed/Bank ☒OHWM:
Tributary Geometry:	☐Relatively Straight ☒Meandering

Stream Bottom Composition:
☒silt ☐concrete
☐sand ☐muck
☐gravel ☐other:
☐cobble ☐vegetation (% cover, type):
☒bedrock

Riparian Type:
☒ Forested
☐ Herbaceous
☐ Ag. Field
☐ _____

Surface Flow:
☐Discrete
☐Confined
☒Discrete and Confined
☐Overland Sheet Flow

Stream Characteristics: ☒Natural ☐Artificial ☐Manipulated
Explain Artificial/Manipulated:

OHWM width:	2 ft	Top of bank to top of bank width:	8 ft
OHWM height:	1 ft	Top of Bank height:	5 ft
Riparian Buffer Width:		N/E side:	100 Ft.
		S/W side:	100 Ft.

Buffer (adjacent bank) vegetation:

Maclura pomifera, Ulmus americana, Symphoricarpos orbiculatus, Sanicula canadensis

Stream Type:
☐Perennial ☐Intermittent ☒Ephemeral ☐Draws/Gullies/Erosional Pattern

Stream Type Rational:
Small stream, no running water

Significant Nexus: ☒ Yes ☐ No
Explain:
Flows to Lake Fort Scott, which eventually flows to the Missouri River

OHWM has:
☒clear, natural line on bank
☐shelving
☒veg. matted down or absent
☐leaf litter disturbed
☐ wrack line
☐scour
☐change in plant community
☐other:

Stream Condition/Stability:
☒excessive erosion
☐bank collapse
☐cut-off channels
☐riffles/runs
☐pools
☒exposed tree roots
☒steep side slopes
☒vegetated banks
☐stable stream channel
☐incised stream channel

Biological Function and Comments:

I walked the area to the southwest of this stream and saw no signs of bed and bank anywhere to indicate a stream. The soil surrounding the stream did not have any redox.

Upsteam Photo: 9

Downstream Photo: 10

Date: 4/24/2018 Investigator(s): Jessica Casey 37.784797 -94.769486

OLSSON ASSOCIATES

Feature ID:	Drainage 1
Unique Site ID:	D1
Project name:	Ft. Scott Airport Extension
Project #:	017-2226
County, State:	Bourbon, Kansas

Stream Classification: ☐ TNW ☐ RPW ☒ Non-RPW

Side Slopes: 1:1 ☒ ☐ 2:1 ☐ 3:1 ☐ 4:1 or >

Hydrology: ☐ Flowing ☒ Standing ☐ None

Water Color/Quality: ☒ Clear ☐ Discolored ☐ Oily film

Stream Has: ☐ Bed/Bank ☒ OHWM:

Tributary Geometry: ☐ Relatively Straight ☒ Meandering

OHWM width: 1 ft

Top of bank to top of bank width:

OHWM height: 2 in

Top of Bank height:

Riparian Buffer Width: N/E side: 100 Ft.

S/W side: 60ft Ft.

Buffer (adjacent bank) vegetation:

Maclura pomifera, Juniperus virginiana, Sorghastrum nutans

Stream Bottom Composition:

☒ silt ☐ concrete
☐ sand ☐ muck
☐ gravel ☐ other:
☐ cobble ☐ vegetation (% cover, type):
☐ bedrock

Riparian Type:

☒ Forested
☐ Herbaceous
☐ Ag. Field
☐ _____

Surface Flow:

☒ Discrete
☐ Confined
☐ Discrete and Confined
☐ Overland Sheet Flow

Stream Characteristics: ☒ Natural ☐ Artificial ☐ Manipulated

Explain Artificial/Manipulated:

Stream Type:

☐ Perennial ☐ Intermittent ☐ Ephemeral ☒ Draws/Gullies/Erosional Pattern

Stream Type Rational:

Just happens to have water due to recent rains; not flowing, standing in spots. No defined bed and bank. V-shaped

Significant Nexus: ☐ Yes ☐ No

Explain:

OHWM has:

☒ clear, natural line on bank
☐ shelving
☒ veg. matted down or absent
☐ leaf litter disturbed
☐ wrack line
☐ scour
☐ change in plant community
☐ other:

Stream Condition/Stability:

☐ excessive erosion
☐ bank collapse
☐ cut-off channels
☐ riffles/runs
☐ pools
☐ exposed tree roots
☐ steep side slopes
☐ vegetated banks
☐ stable stream channel
☐ incised stream channel

Biological Function and Comments:

Upstream Photo:

Downstream Photo:

Date: 4/24/2018 Investigator(s): Jessica Casey 37.785410 -94.768914

OLSSON ASSOCIATES

Feature ID:	Drainage 1
Unique Site ID:	D2
Project name:	Ft. Scott Airport Extension
Project #:	017-2226
County, State:	Bourbon, Kansas
Stream Classification:	☐TNW ☐RPW ☒Non-RPW
Side Slopes:	1:1 ☒ ☐2:1 ☐3:1 ☐4:1 or >
Hydrology:	☐ Flowing ☒ Standing ☐ None
Water Color/Quality:	☐Clear ☐Discolored ☐Oily film
Stream Has:	☐Bed/Bank ☒OHWM:
Tributary Geometry:	☐Relatively Straight ☐Meandering
OHWM width:	6 inches
Top of bank to top of bank width:	
OHWM height:	0.5 inch
Top of Bank height:	
Riparian Buffer Width:	N/E side: 100 Ft.
	S/W side: 100 Ft.

Buffer (adjacent bank) vegetation:
Maclura pomifera, Juniperus virginiana

Stream Bottom Composition:
☐silt ☐concrete
☐sand ☐muck
☐gravel ☐other:
☐cobble ☐vegetation (% cover, type):
☐bedrock

Riparian Type:
☐ Forested
☐ Herbaceous
☐ Ag. Field
☐ _____

Surface Flow:
☐Discrete
☐Confined
☐Discrete and Confined
☐Overland Sheet Flow

Stream Characteristics: ☐Natural ☐Artificial ☐Manipulated
Explain Artificial/Manipulated:

Stream Type:
☐Perennial ☐Intermittent ☐Ephemeral ☒Draws/Gullies/Erosional Pattern

Stream Type Rational:
no defined bed and bank. some areas have standing water. small.

Significant Nexus: ☐ Yes ☐ No
Explain:

OHWM has:
☐clear, natural line on bank
☐shelving
☒veg. matted down or absent
☐leaf litter disturbed
☐ wrack line
☐scour
☐change in plant community
☐other:

Stream Condition/Stability:
☐excessive erosion
☐bank collapse
☐cut-off channels
☐riffles/runs
☐pools
☐exposed tree roots
☐steep side slopes
☐vegetated banks
☐stable stream channel
☐incised stream channel

Biological Function and Comments:

Upstream Photo:

Downstream Photo:

Date: 4/24/2018 Investigator(s): Jessica Casey 37.7855406 -94.768422

OLSSON ASSOCIATES

Feature ID:	Drainage 1
Unique Site ID:	D3
Project name:	Ft. Scott Airport Extension
Project #:	017-2226
County, State:	Bourbon, Kansas

Stream Classification: ☐ TNW ☐ RPW ☒ Non-RPW

Side Slopes: 1:1 ☒ ☐ 2:1 ☐ 3:1 ☐ 4:1 or >

Hydrology: ☐ Flowing ☒ Standing ☐ None

Water Color/Quality: ☒ Clear ☐ Discolored ☐ Oily film

Stream Has: ☐ Bed/Bank ☒ OHWM:

Tributary Geometry: ☐ Relatively Straight ☒ Meandering

OHWM width: 3 in

Top of bank to top of bank width:

OHWM height: 0.5 ft

Top of Bank height:

Riparian Buffer Width: N/E side: 5 ft Ft.

S/W side: 100 ft Ft.

Buffer (adjacent bank) vegetation:

Bromus inermis, Andropogon virginicus, and Cornus drummondii

Stream Bottom Composition:

☒ silt ☐ concrete
☐ sand ☐ muck
☐ gravel ☐ other:
☐ cobble ☐ vegetation (% cover, type):
☐ bedrock

Riparian Type:

☐ Forested
☒ Herbaceous
☐ Ag. Field
☐ _____

Surface Flow:

☐ Discrete
☒ Confined
☐ Discrete and Confined
☐ Overland Sheet Flow

Stream Characteristics: ☒ Natural ☐ Artificial ☐ Manipulated

Explain Artificial/Manipulated:

Stream Type:

☐ Perennial ☐ Intermittent ☐ Ephemeral ☒ Draws/Gullies/Erosional Pattern

Stream Type Rational:

Small not flowing. V-shaped. No defined bed and bank.

Significant Nexus: ☐ Yes ☐ No

Explain:

OHWM has:

☐ clear, natural line on bank
☐ shelving
☒ veg. matted down or absent
☐ leaf litter disturbed
☐ wrack line
☐ scour
☐ change in plant community
☐ other:

Stream Condition/Stability:

☐ excessive erosion
☐ bank collapse
☐ cut-off channels
☐ riffles/runs
☐ pools
☐ exposed tree roots
☐ steep side slopes
☐ vegetated banks
☐ stable stream channel
☐ incised stream channel

Biological Function and Comments:

Upstream Photo:

Downstream Photo:

Date: 4/24/2018 Investigator(s): Jessica Casey 37.785951 -94.76761

Feature ID:	Tributary 1
Unique Site ID:	D4
Project name:	Ft. Scott Airport Extension
Project #:	017-2226
County, State:	Bourbon, Kansas

Stream Classification: ☐ TNW ☐ RPW ☒ Non-RPW

Side Slopes: 1:1 ☐ ☒ 2:1 ☐ 3:1 ☐ 4:1 or >

Hydrology: ☐ Flowing ☒ Standing ☐ None

Water Color/Quality: ☒ Clear ☐ Discolored ☐ Oily film

Stream Has: ☒ Bed/Bank ☒ OHWM:

Tributary Geometry: ☒ Relatively Straight ☐ Meandering

OHWM width: 2 ft Top of bank to top of bank width: 5 ft

OHWM height: 2 ft Top of Bank height: 2 ft

Riparian Buffer Width: N/E side: 60 ft Ft.
S/W side: 85 ft Ft.

Buffer (adjacent bank) vegetation:
Cornus drummondii, Symphoricarpos orbiculatus, and Celtis occidentalis

Stream Bottom Composition:
☒ silt ☐ concrete
☐ sand ☐ muck
☐ gravel ☐ other:
☐ cobble ☐ vegetation (% cover, type):
☐ bedrock

Riparian Type:
☒ Forested
☐ Herbaceous
☐ Ag. Field
☐ _____

Surface Flow:
☐ Discrete
☐ Confined
☒ Discrete and Confined
☐ Overland Sheet Flow

Stream Characteristics: ☒ Natural ☐ Artificial ☐ Manipulated
Explain Artificial/Manipulated:

Stream Type:
☐ Perennial ☐ Intermittent ☒ Ephemeral ☐ Draws/Gullies/Erosional Pattern

Stream Type Rational:
Small, not flowing .some of it has no water

Significant Nexus: ☒ Yes ☐ No
Explain:
Flows to Lake Fort Scott, which eventually flows to the Missouri River.

OHWM has:
☒ clear, natural line on bank
☐ shelving
☒ veg. matted down or absent
☐ leaf litter disturbed
☐ wrack line
☐ scour
☐ change in plant community
☐ other:

Stream Condition/Stability:
☐ excessive erosion
☐ bank collapse
☐ cut-off channels
☐ riffles/runs
☐ pools
☒ exposed tree roots
☐ steep side slopes
☒ vegetated banks
☐ stable stream channel
☐ incised stream channel

Biological Function and Comments:

Upstream Photo:

Downstream Photo:

Date: 4/24/2018 Investigator(s): Jessica Casey 37.78628 -94.76702

OLSSON ASSOCIATES

Feature ID:	Tributary 1
Unique Site ID:	D5
Project name:	Ft. Scott Airport Extension
Project #:	017-2226
County, State:	Bourbon, Kansas

Stream Classification: ☐ TNW ☐ RPW ☒ Non-RPW

Side Slopes: 1:1 ☐ ☒ 2:1 ☐ 3:1 ☐ 4:1 or >

Hydrology: ☐ Flowing ☐ Standing ☒ None

Water Color/Quality: ☐ Clear ☐ Discolored ☐ Oily film

Stream Has: ☒ Bed/Bank ☒ OHWM:

Tributary Geometry: ☐ Relatively Straight ☒ Meandering

OHWM width: 2 ft Top of bank to top of bank width: 5 ft

OHWM height: 1 ft Top of Bank height: 2 ft

Riparian Buffer Width: N/E side: 100 Ft. S/W side: 100 Ft.

Buffer (adjacent bank) vegetation:
Juniperus virginiana, Elymus canadensis

Stream Bottom Composition:
☒ silt ☐ sand ☐ gravel ☐ cobble ☐ bedrock ☐ concrete ☐ muck ☐ other: ☐ vegetation (% cover, type):

Riparian Type:
☒ Forested ☐ Herbaceous ☐ Ag. Field ☐ _____

Surface Flow:
☐ Discrete ☐ Confined ☒ Discrete and Confined ☐ Overland Sheet Flow

Stream Characteristics: ☒ Natural ☐ Artificial ☐ Manipulated
Explain Artificial/Manipulated:

Stream Type:
☐ Perennial ☐ Intermittent ☒ Ephemeral ☐ Draws/Gullies/Erosional Pattern

Stream Type Rational:
Small, some parts don't have water

Significant Nexus: ☒ Yes ☐ No
Explain:
Flows to Lake Fort Scott which eventually flows to the Missouri River.

OHWM has:
☒ clear, natural line on bank ☐ shelving ☒ veg. matted down or absent ☐ leaf litter disturbed ☐ wrack line ☐ scour ☐ change in plant community ☐ other:

Stream Condition/Stability:
☐ excessive erosion ☐ bank collapse ☐ cut-off channels ☐ riffles/runs ☐ pools ☒ exposed tree roots ☐ steep side slopes ☒ vegetated banks ☐ stable stream channel ☐ incised stream channel

Biological Function and Comments:

Upstream Photo:

Downstream Photo:

Date: 4/24/2018 Investigator(s): Jessica Casey 37.787398 -94.76598

OLSSON ASSOCIATES

Feature ID:	Tributary 1
Unique Site ID:	D6
Project name:	Ft. Scott Airport Extension
Project #:	017-2226
County, State:	Bourbon, Kansas

Stream Classification: ☐ TNW ☐ RPW ☒ Non-RPW

Side Slopes: 1:1 ☒ ☐ 2:1 ☐ 3:1 ☐ 4:1 or >

Hydrology: ☐ Flowing ☐ Standing ☒ None

Water Color/Quality: ☐ Clear ☐ Discolored ☐ Oily film

Stream Has: ☒ Bed/Bank ☒ OHWM:

Tributary Geometry: ☐ Relatively Straight ☒ Meandering

OHWM width: 3 ft Top of bank to top of bank width: 6 ft

OHWM height: 0.5 ft Top of Bank height: 2 ft

Riparian Buffer Width: N/E side: 100 Ft. S/W side: 50 Ft.

Buffer (adjacent bank) vegetation:
Juniperus virginiana

Stream Bottom Composition:
☒ silt ☐ concrete
☐ sand ☐ muck
☐ gravel ☐ other:
☒ cobble ☐ vegetation (% cover, type):
☐ bedrock

Riparian Type:
☒ Forested
☐ Herbaceous
☐ Ag. Field
☐ _____

Surface Flow:
☐ Discrete
☐ Confined
☒ Discrete and Confined
☐ Overland Sheet Flow

Stream Characteristics: ☒ Natural ☐ Artificial ☐ Manipulated
Explain Artificial/Manipulated:

Stream Type:
☐ Perennial ☐ Intermittent ☒ Ephemeral ☐ Draws/Gullies/Erosional Pattern

Stream Type Rational:
No water, small

Significant Nexus: ☒ Yes ☐ No
Explain:
Flows to Lake Fort Scott which eventually flows to the Missouri River

OHWM has:
☒ clear, natural line on bank
☐ shelving
☒ veg. matted down or absent
☐ leaf litter disturbed
☐ wrack line
☐ scour
☐ change in plant community
☐ other:

Stream Condition/Stability:
☒ excessive erosion
☐ bank collapse
☐ cut-off channels
☐ riffles/runs
☐ pools
☐ exposed tree roots
☐ steep side slopes
☒ vegetated banks
☐ stable stream channel
☐ incised stream channel

Biological Function and Comments:

Upstream Photo:

Downstream Photo:

Date: 4/24/2018 Investigator(s): Jessica Casey 37.785150 -94.769190

OLSSON ASSOCIATES

Feature ID:	Drainage 1
Unique Site ID:	D7
Project name:	Ft. Scott Airport Extension
Project #:	017-2226
County, State:	Bourbon, Kansas

Stream Classification: ☐ TNW ☐ RPW ☒ Non-RPW

Side Slopes: 1:1 ☒ ☐ 2:1 ☐ 3:1 ☐ 4:1 or >

Hydrology: ☐ Flowing ☒ Standing ☐ None

Water Color/Quality: ☒ Clear ☐ Discolored ☐ Oily film

Stream Has: ☐ Bed/Bank ☒ OHWM:

Tributary Geometry: ☒ Relatively Straight ☐ Meandering

OHWM width: 8 inches

Top of bank to top of bank width:

OHWM height: 1 inch

Top of Bank height:

Riparian Buffer Width: N/E side: 100 Ft.

S/W side: 100 Ft.

Buffer (adjacent bank) vegetation:

Juniperus virginiana, Maclura pomifera, Fraxinus pennsylvanica, Symphoricarpos orbiulatus

Stream Bottom Composition:

☐ silt ☐ concrete
☐ sand ☐ muck
☐ gravel ☐ other:
☐ cobble ☐ vegetation (% cover, type):
☐ bedrock

Riparian Type:

☒ Forested
☐ Herbaceous
☐ Ag. Field
☐ _____

Surface Flow:

☐ Discrete
☐ Confined
☐ Discrete and Confined
☐ Overland Sheet Flow

Stream Characteristics: ☒ Natural ☐ Artificial ☐ Manipulated

Explain Artificial/Manipulated:

Stream Type:

☐ Perennial ☐ Intermittent ☐ Ephemeral ☒ Draws/Gullies/Erosional Pattern

Stream Type Rational:
no defined bed and bank. flat with the surrounding area.

Significant Nexus: ☐ Yes ☐ No

Explain:

OHWM has:

☐ clear, natural line on bank
☐ shelving
☒ veg. matted down or absent
☐ leaf litter disturbed
☐ wrack line
☐ scour
☐ change in plant community
☐ other:

Stream Condition/Stability:

☐ excessive erosion
☐ bank collapse
☐ cut-off channels
☐ riffles/runs
☐ pools
☐ exposed tree roots
☐ steep side slopes
☐ vegetated banks
☐ stable stream channel
☐ incised stream channel

Biological Function and Comments:

Upstream Photo:

Downstream Photo:

DEPARTMENT OF THE ARMY
KANSAS CITY DISTRICT, CORPS OF ENGINEERS
KANSAS STATE REGULATORY OFFICE
2710 NE SHADY CREEK ACCESS ROAD
EL DORADO, KANSAS 67042

May 17, 2018

Kansas State Regulatory Office
(NWK-2007-01472)
(Bourbon, KS, NPR)

Deanna Pulse
Olsson Associates
601 P Street, Suite 200
Lincoln, Nebraska 68508

Dear Ms. Pulse:

Reference: Fort Scott Municipal Airport—geographically isolated wetland—approved jurisdictional determination (AJD)

This letter pertains to an application you submitted on behalf of Fort Scott Municipal Airport requesting an AJD from the Department of the Army (DA). It was received on February 19, 2018. The proposed project involves runway expansion of the Fort Scott Municipal Airport. The work will include the placement of dredged and fill material within a geographically isolated wetland located in Section 15, Township 26 South, Range 24 East, Bourbon County (N 37.788604°, W 94.768499°).

In accordance with the December 2, 2008 National Guidance of Clean Water Act jurisdiction, this letter contains an AJD for the above referenced geographically isolated wetland. This jurisdictional determination is valid for a 5-year period from the date of this letter unless new information warrants revision of the determination before the expiration date. If you object to this determination, you may request an administrative appeal under Corps regulations at 33 C.F.R. Part 331. Enclosed you will find a Notification of Administrative Appeal Options and Process and Request for Appeal (NAO-RFA) form. If you request to appeal this determination, you must submit a completed NAO-RFA form to the Northwestern Division Office at the following address:

Division Engineer
ATTN: Melinda M. Witgenstein
Regulatory Appeals Review Officer
U.S. Army Corps of Engineers
P.O. Box 2870
Portland, OR 97208-2870
Telephone: 503-808-3888Division Engineer

In order for an NAO-RFA to be accepted by the Corps, the Corps must determine that it is completed, that it meets the criteria for appeal under 33 C.F.R. Part 331.5, and that it has been received by the Division Office within 60 days of the date of the NAO-RFA. Should you decide to submit an NAO-RFA form, it must be received at the above address by July 16, 2018. It is not necessary to submit an NAO-RFA form to the Division Office if you do not object to the determination in this letter.

In the event that you disagree with the AJD and you have new information not considered in the original determination, you may request reconsideration of that determination by the Corps District prior to initiating an appeal. To request this reconsideration based upon new information, you must submit the

completed NAO-RFA form and the new information to the District Office so that it is received within 60 days of the date of the NAO-RFA. Send AJD reconsideration requests to:

District Commander
ATTN: Mark D. Frazier
Chief, Regulatory Branch
U.S. Army Engineer District, Kansas City
601 East 12th Street, Suite 402
Kansas City, MO 64106-2824
Voice: 816-389-3990 – FAX: 816-389-2032

The Corps of Engineers has jurisdiction over all waters of the United States (WOUS). Discharges of dredged or fill material in WOUS, including wetlands, require prior authorization from the Corps under Section 404 of the Clean Water Act (33 USC 1344). The implementing regulation for this Act is found at 33 CFR 320-332, http://www.usace.army.mil/Missions/CivilWorks/RegulatoryProgramandPermits/FederalRegulation.aspx.

We have reviewed the information furnished and determined that the subject wetland is not a jurisdictional WOUS because it is geographically isolated. Therefore, DA permit authorization is not required for the discharge of dredged or fill material for the subject wetland at the aforementioned location. However, other Federal, state and/or local permits might be required and you should verify this yourself.

We are interested in your thoughts and opinions concerning your experience with the Kansas City District, Corps of Engineers Regulatory Program. Please feel free to complete our Customer Service Survey form on our website at: http://corpsmapu.usace.army.mil/cm_apex/f?p=regulatory_survey. You also may call and request a paper copy of the survey which you may complete and return to us by mail or fax.

Brian Bartels, Regulatory Project Manager, reviewed the information furnished and made this determination. If you have any questions concerning this matter, please contact Brian at (816) 389-3745 or email brian.c.bartels@usace.army.mil. Please reference Permit NWK-2007-01472 in comments and/or inquiries relating to this project.

Enclosures

Copies Furnished (electronically w/o enclosures):

Environmental Protection Agency—Watershed Planning and Implementation Branch
U.S. Fish and Wildlife Service, Manhattan, Kansas
Kansas Department of Wildlife, Parks, and Tourism
Kansas Department of Health and Environment
Kansas Department of Agriculture—Division of Water Resources

APPENDIX I - Farmlands (Form AD-1006)

December 22, 2017

Mr. Gerald Gray
Acting District Conservationist
Fort Scott Service Center
Natural Resource Conservation Service
1515 S Judson Street
Fort Scott, Kansas 66701-3444

Re: Fort Scott Airport Runway Improvements
Fort Scott, Bourbon County, Kansas

Dear Mr. Gray:

On behalf of the City of Fort Scott Municipal Airport, Olsson Associates (Olsson) is requesting information regarding potential impacts to prime farmland or similar resources under your jurisdiction that may potentially affect the proposed Fort Scott Airport Runway Improvements Project.

The City is proposing improvements to the existing airport facility. The project would widen the existing runway, and extend the runway approximately 2500 feet to the south, crossing Indian Road. Design plans are currently being developed and can be forwarded if required. We have included maps and aerial photography showing the project location (Attachment A, Figures 1-3).

A farmland conversion impact rating form (Form AD-1006[03-02]) and drawings illustrating two project alternatives are included for you review in Attachment B. We would greatly appreciate it if you could review the project alternatives, and complete and return the farmland conversion impact rating form for our records.

Project Name:	Fort Scott Airport Runway Improvements
General Project Location:	City of Fort Scott, Bourbon County
Section, Range, Township:	Sections 10 & 15, Range 24 East, Township 26 South
Coordinates:	Lat 37.798311°, Long -94.769383°

We appreciate your timely review of this project. If you have any further questions, or require additional information, please contact Mr. Tony Baumert directly at 402.458.5669 or tbaumert@olssonassociates.com. Thank you in advance for your assistance.

Sincerely,

Tony Baumert
Technical Lead

Enclosures

601 P Street, Suite 200
P.O. Box 84608
Lincoln, NE 68508-2303

TEL 402.474.6311
FAX 402.474.5160

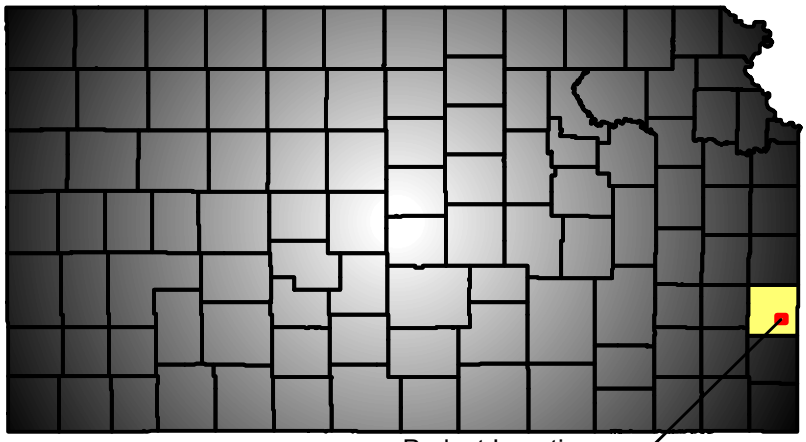
www.olssonassociates.com

Attachment A – Figures

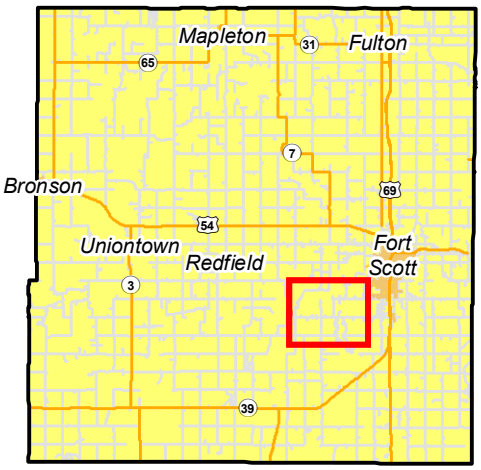
USCB TIGER Line shapefiles 2015

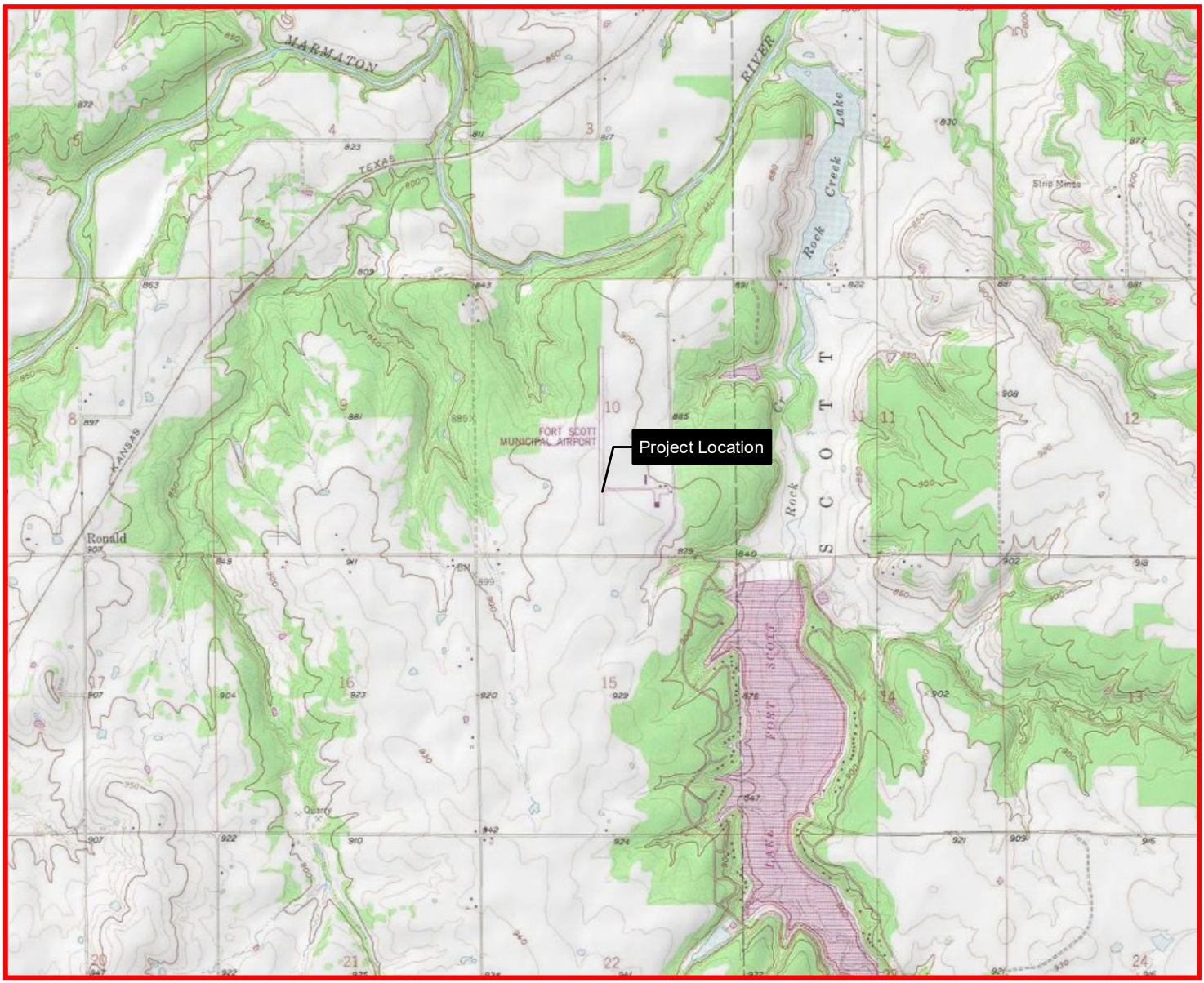
F:\2017\2001-2500\017-2226\40-Design\GIS\17-10-06_NRPL_Environmental Study_Location_Map.mxd PUBLISHED BY: RDoty DATE: October 06, 2017

KANSAS



BOURBON COUNTY





OLSSON ASSOCIATES

N

0 800 1,600 3,200

1 " = 3,000 '

Original Published Resolution

WGS 1984 ARC System Zone 11

ESRI USA Topographic Map

Fort Scott Kansas Airport

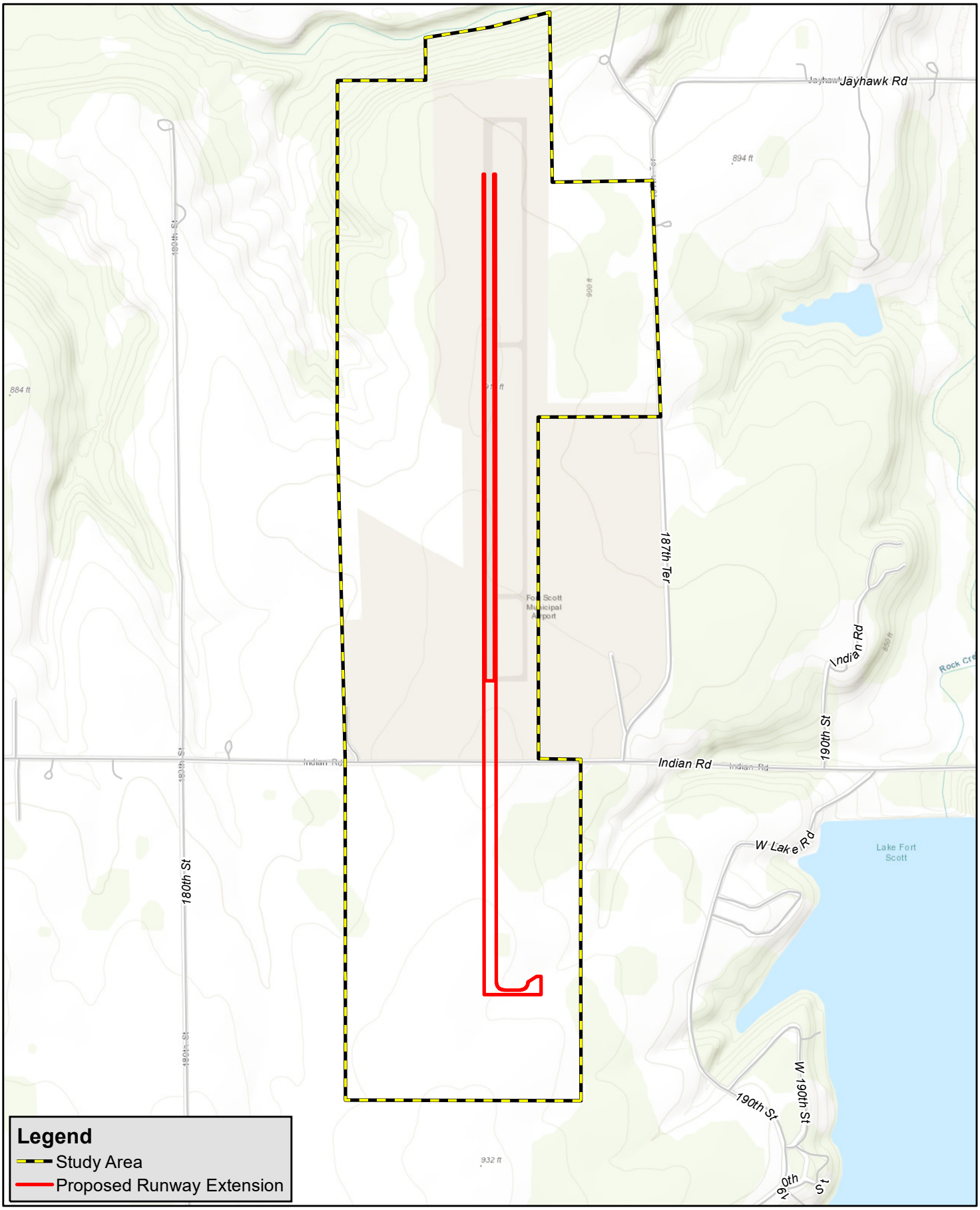
Environmental Study

Bourbon County, Kansas

Topographic Map

FIGURE

1



OLSSON ASSOCIATES

N

0 250 500 1,000

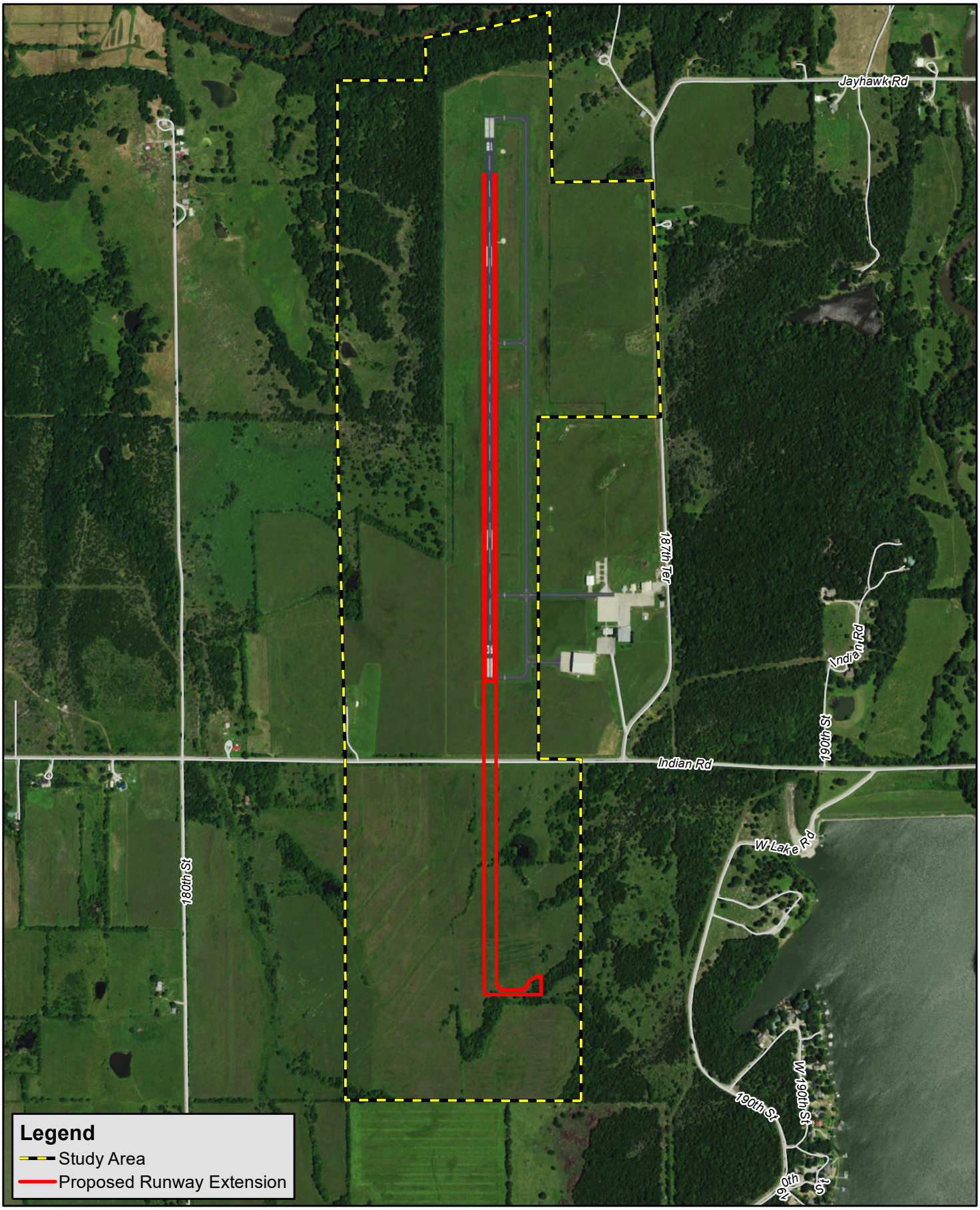
1 " = 1,000 '
Original Published Resolution
WGS 1984 ARC System Zone 11
ESRI World Imagery

Fort Scott Kansas Airport
Environmental Study
Bourbon County, Kansas
Site Map

FIGURE
2

USCB TIGER Line shapefiles 2016

F:\2017\2001-2500\017-2226\40-Design\GIS\17-10-06_NRPL_Site Map.mxd PUBLISHED BY: gmalek-madani DATE: December 21, 2017



F:\2017\2001-2500\017-2226\40-Design\GIS\17-10-06_NRPL_Site Map.mxd PUBLISHED BY: gmalek-madani DATE: December 21, 2017

USCB TIGER Line shapefiles 2016

OLSSON ASSOCIATES

N

0 250 500 1,000

1 " = 1,000 '

Original Published Resolution

ESRI World Imagery

Fort Scott Kansas Airport

Environmental Study

Bourbon County, Kansas

Site Map

FIGURE

3

Attachment B – Form AD-1006 and Alternative Maps

U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RATING

PART I *(To be completed by Federal Agency)*		Date Of Land Evaluation Request December 12,2017	
Name of Project Fort Scott Runway Improvements		Federal Agency Involved Federal Aviation Administration	
Proposed Land Use Airport Runway Extension		County and State Bourbon County, Kansas	
PART II *(To be completed by NRCS)*		Date Request Received By NRCS	Person Completing Form:
Does the site contain Prime, Unique, Statewide or Local Important Farmland? *(If no, the FPPA does not apply - do not complete additional parts of this form)*	YES ☐ NO ☐	Acres Irrigated	Average Farm Size
Major Crop(s)	Farmable Land In Govt. Jurisdiction Acres: %	Amount of Farmland As Defined in FPPA Acres: %	
Name of Land Evaluation System Used	Name of State or Local Site Assessment System	Date Land Evaluation Returned by NRCS	

PART III *(To be completed by Federal Agency)*	Alternative Site Rating			
	Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly	5.48	20.7		
B. Total Acres To Be Converted Indirectly	76.19	73.88		
C. Total Acres In Site	81.67	94.58		
PART IV *(To be completed by NRCS)* Land Evaluation Information				
A. Total Acres Prime And Unique Farmland				
B. Total Acres Statewide Important or Local Important Farmland				
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted				
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value				
PART V (To be completed by NRCS) Land Evaluation Criterion Relative Value of Farmland To Be Converted (Scale of 0 to 100 Points)				

PART VI *(To be completed by Federal Agency)* Site Assessment Criteria *(Criteria are explained in 7 CFR 658.5 b. For Corridor project use form NRCS-CPA-106)*	**Maximum Points**	Site A	Site B	Site C	Site D
1. Area In Non-urban Use	(15)	15	15		
2. Perimeter In Non-urban Use	(10)	10	10		
3. Percent Of Site Being Farmed	(20)	1	1		
4. Protection Provided By State and Local Government	(20)	20	20		
5. Distance From Urban Built-up Area	(15)	15	15		
6. Distance To Urban Support Services	(15)	10	10		
7. Size Of Present Farm Unit Compared To Average	(10)	1	1		
8. Creation Of Non-farmable Farmland	(10)	0	0		
9. Availability Of Farm Support Services	(5)	4	4		
10. On-Farm Investments	(20)	5	5		
11. Effects Of Conversion On Farm Support Services	(10)	0	0		
12. Compatibility With Existing Agricultural Use	(10)	0	0		
TOTAL SITE ASSESSMENT POINTS	160	81	81	0	0
PART VII ***(To be completed by Federal Agency)***					
Relative Value Of Farmland *(From Part V)*	100	0	0	0	0
Total Site Assessment *(From Part VI above or local site assessment)*	160	81	81	0	0
TOTAL POINTS ***(Total of above 2 lines)***	260	81	81	0	0

Site Selected: Site A	Date Of Selection December 12, 2017	Was A Local Site Assessment Used? YES ☐ NO ☑

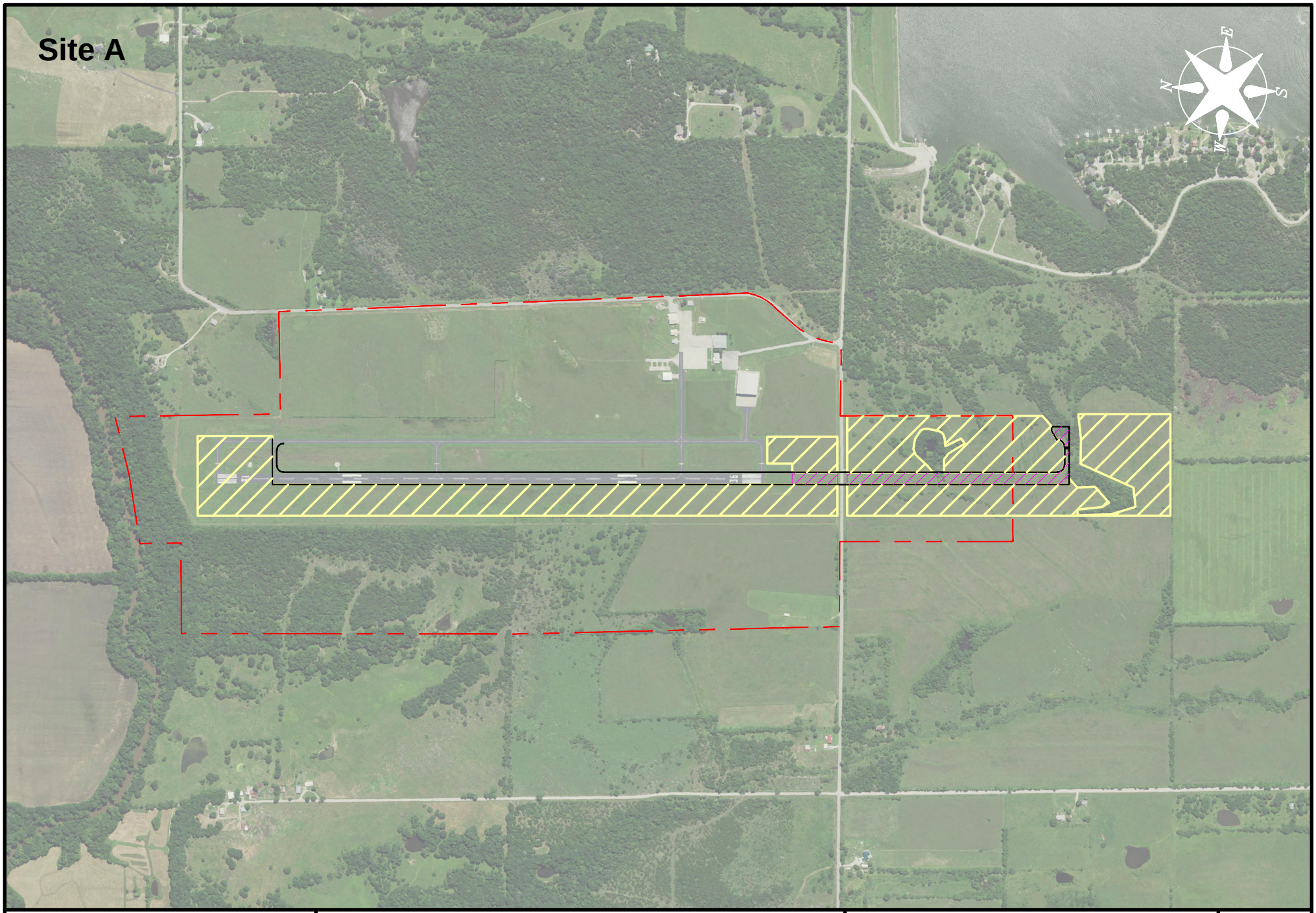
Reason For Selection:

Site A is the preferred alternative. Site A would result in less direct and total acres of impact. Site A would make use of the existing runway.

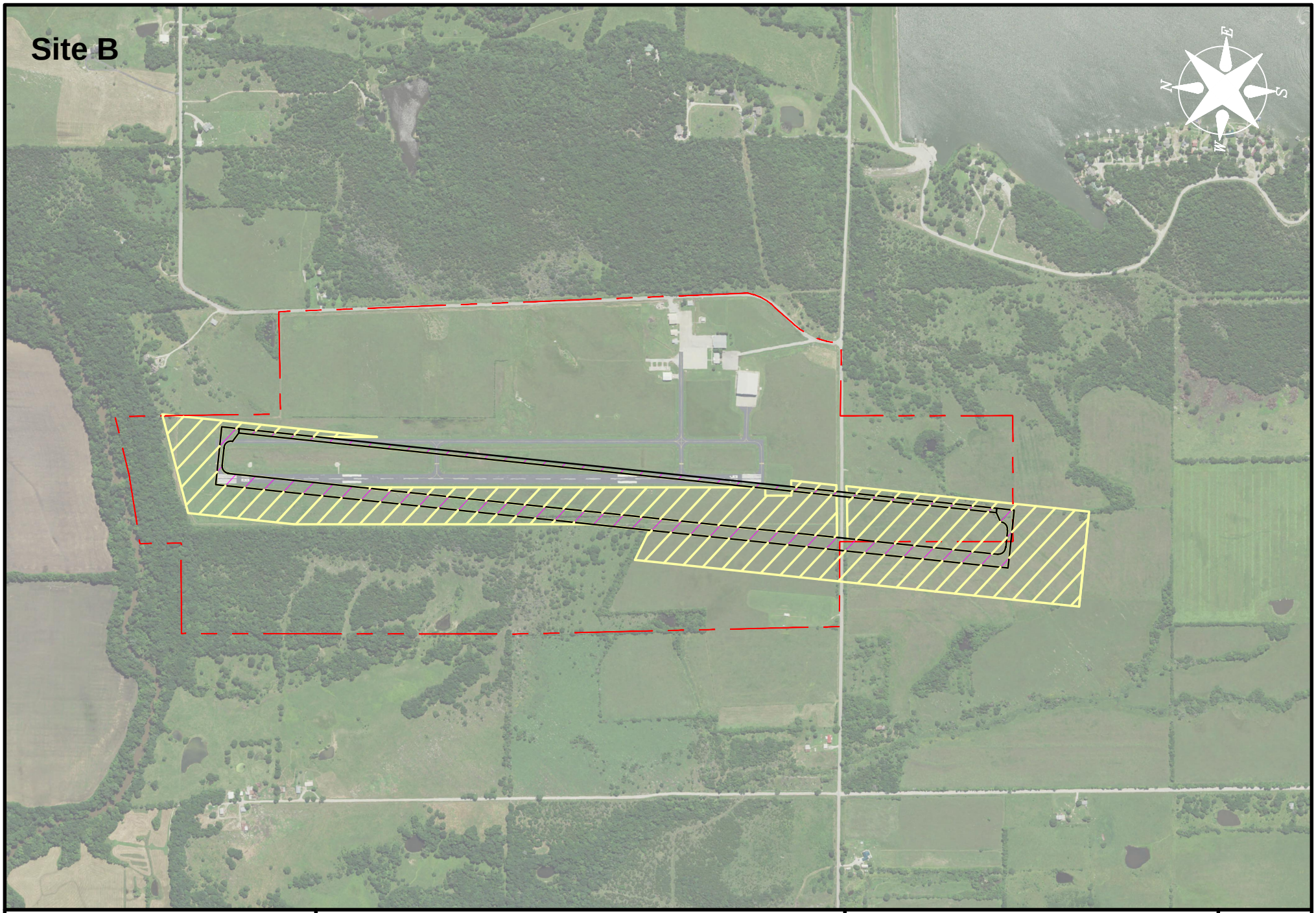
Name of Federal agency representative completing this form: Tony Baumert, Olsson Associates	Date: 12/12/2017

(See Instructions on reverse side)

Form AD-1006 (03-02)



PROJECT NO: 017-2226 DRAWN BY: JTO DATE: 12/19/17	PRIMARY DESIGN IMPACTED FARMLAND	OLSSON ASSOCIATES	601 P Street, Suite 200 P.O. Box 84608 Lincoln, NE 68508 TEL 402.474.6311 FAX 402.474.5160	EXHIBIT A



PROJECT NO: 017-2226 DRAWN BY: JTO DATE: 12/19/17	ALTERNATE DESIGN IMPACTED FARMLAND	OLSSON ASSOCIATES	601 P Street, Suite 200 P.O. Box 84608 Lincoln, NE 68508 TEL 402.474.6311 FAX 402.474.5160	EXHIBIT B

USDA

United States Department of Agriculture

January 25, 2018

Mr. Tony Baumert
Olsson Associates
601 P Street, Suite 200
P.O. Box 84608
Lincoln, NE 68508-2303

Dear Mr. Baumert:

Thank you for completing the AD-1006 Farmland Conversion Impact Rating form for the Fort Scott Airport Runway Improvements for the City of Fort Scott located in Bourbon County, Kansas.

Enclosed is a copy of the completed Form AD-1006, Farmland Conversion Impact Rating, with the Natural Resources Conservation Service's (NRCS) parts completed for you to keep.

I see no other adverse environmental effects for which NRCS is responsible for evaluating.

I wish you well with your project and if our local NRCS office in Fort Scott can be of any assistance, don't hesitate to call.

Sincerely,

Clifford Thornton

CLIFFORD THORNTON
Assistant State Conservationist-Field Operations

Enclosure

ec w/o attachment:
Jeffrey A. Hellerich, State Soil Scientist, NRCS, Salina, Kansas
Gerald Gray, Supervisory District Conservationist, NRCS, Iola, Kansas

Natural Resources Conservation Service
3020 West 18th Avenue, Suite B
Emporia, Kansas 66801-6191

Phone: 620-343-7276
FAX: 855-533-5068
www.ks.nrcs.usda.gov

U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RATING

PART I *(To be completed by Federal Agency)*		Date Of Land Evaluation Request December 12,2017	
Name of Project Fort Scott Runway Improvements		Federal Agency Involved Federal Aviation Administration	
Proposed Land Use Airport Runway Extension		County and State Bourbon County, Kansas	
PART II *(To be completed by NRCS)*		Date Request Received By NRCS 12/28/17	Person Completing Form: Robert Wimer
Does the site contain Prime, Unique, Statewide or Local Important Farmland? *(If no, the FPPA does not apply - do not complete additional parts of this form)*	YES [X] NO [ ]	Acres Irrigated 2100	Average Farm Size 409
Major Crop(s) Soybeans	Farmable Land In Govt. Jurisdiction Acres: 245,300 % 60	Amount of Farmland As Defined in FPPA Acres: 91,136 % 23	
Name of Land Evaluation System Used	Name of State or Local Site Assessment System	Date Land Evaluation Returned by NRCS 1/19/18	

PART III *(To be completed by Federal Agency)*	Alternative Site Rating			
	Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly	5.48	20.7		
B. Total Acres To Be Converted Indirectly	76.19	73.88		
C. Total Acres In Site	81.67	94.58		
PART IV *(To be completed by NRCS)* Land Evaluation Information				
A. Total Acres Prime And Unique Farmland	46.7	54.6		
B. Total Acres Statewide Important or Local Important Farmland	0	0		
C. Percentage Of Farmland In County Or Local Govt. Unit To Be Converted	0.001	0.001		
D. Percentage Of Farmland In Govt. Jurisdiction With Same Or Higher Relative Value	76	76		
PART V (To be completed by NRCS) Land Evaluation Criterion Relative Value of Farmland To Be Converted (Scale of 0 to 100 Points)	0.33	0.33		
PART VI *(To be completed by Federal Agency)* Site Assessment Criteria *(Criteria are explained in 7 CFR 658.5 b. For Corridor project use form NRCS-CPA-106)*	Maximum Points	Site A	Site B	Site C	Site D
1. Area In Non-urban Use	(15)	15	15		
2. Perimeter In Non-urban Use	(10)	10	10		
3. Percent Of Site Being Farmed	(20)	1	1		
4. Protection Provided By State and Local Government	(20)	20	20		
5. Distance From Urban Built-up Area	(15)	15	15		
6. Distance To Urban Support Services	(15)	10	10		
7. Size Of Present Farm Unit Compared To Average	(10)	1	1		
8. Creation Of Non-farmable Farmland	(10)	0	0		
9. Availability Of Farm Support Services	(5)	4	4		
10. On-Farm Investments	(20)	5	5		
11. Effects Of Conversion On Farm Support Services	(10)	0	0		
12. Compatibility With Existing Agricultural Use	(10)	0	0		
TOTAL SITE ASSESSMENT POINTS	160	81	81	0	0
PART VII *(To be completed by Federal Agency)*					
Relative Value Of Farmland *(From Part V)*	100	033	033	0	0
Total Site Assessment *(From Part VI above or local site assessment)*	160	81	81	0	0
TOTAL POINTS *(Total of above 2 lines)*	260	81	81	0	0

Site Selected: Site A	Date Of Selection December 12, 2017	Was A Local Site Assessment Used? YES [ ] NO [✓]

Reason For Selection:

Site A is the preferred alternative. Site A would result in less direct and total acres of impact. Site A would make use of the existing runway.

Name of Federal agency representative completing this form: Tony Baumert, Olsson Associates — Date: 12/12/2017

(See Instructions on reverse side)

Form AD-1006 (03-02)

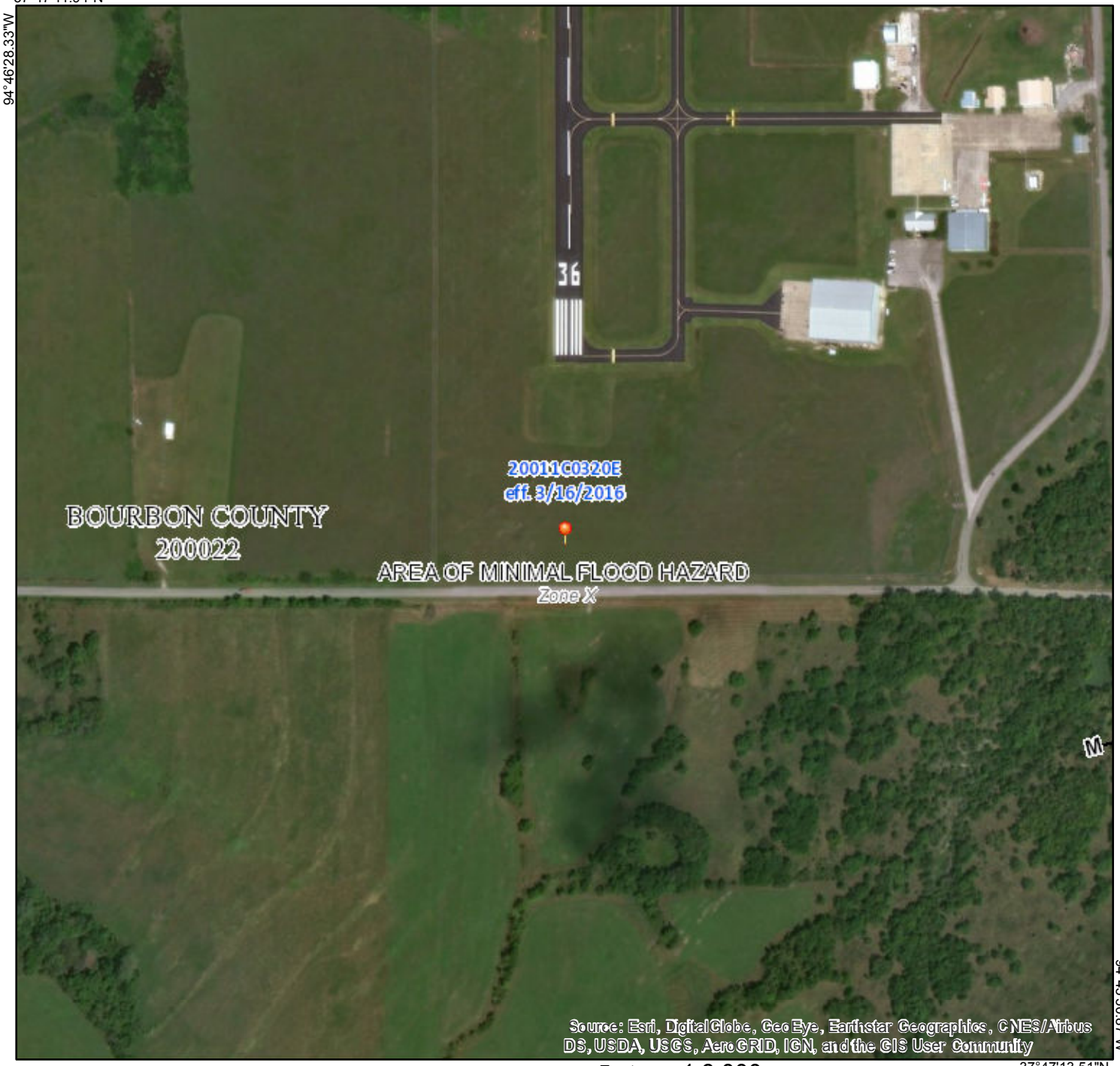
APPENDIX J - Floodplains

National Flood Hazard Layer FIRMette

FEMA

37°47'41.94"N

94°46'28.33"W



94°45'50.87"W

37°47'13.51"N

Feet

0 250 500 1,000 1,500 2,000

1:6,000

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth
- Regulatory Floodway *Zone AE, AO, AH, VE, AR*

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 / 17.5 Cross Sections with 1% Annual Chance / Water Surface Elevation
- Coastal Transect
- 513 Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The base map shown complies with FEMA's base map accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 3/7/2018 at 12:00:58 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: base map imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

National Flood Hazard Layer FIRMette

FEMA

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
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- With BFE or Depth
- Regulatory Floodway *Zone AE, AO, AH, VE, AR*

OTHER AREAS OF FLOOD HAZARD
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- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN — Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 / 17.5 — Cross Sections with 1% Annual Chance / Water Surface Elevation
- Coastal Transect
- 513 — Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The base map shown complies with FEMA's base map accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 3/7/2018 at 12:02:15 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: base map imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

National Flood Hazard Layer FIRMette

FEMA

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
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- With BFE or Depth
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- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 / 17.5 Cross Sections with 1% Annual Chance / Water Surface Elevation
- Coastal Transect
- 513 Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The base map shown complies with FEMA's base map accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 3/7/2018 at 12:03:44 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: base map imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

National Flood Hazard Layer FIRMette

FEMA

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth
- Regulatory Floodway *Zone AE, AO, AH, VE, AR*

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
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- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The base map shown complies with FEMA's base map accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 3/7/2018 at 12:05:40 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: base map imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

National Flood Hazard Layer FIRMette

FEMA

37°47'23.13"N

94°46'27.71"W

94°45'50.25"W

37°46'54.69"N

Feet

0 250 500 1,000 1,500 2,000

1:6,000

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth
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- Coastal Transect
- 513 — Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The base map shown complies with FEMA's base map accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 3/7/2018 at 12:09:30 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: base map imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

APPENDIX K - Hazardous Materials Report

MEMO

	Overnight
	Regular Mail
	Hand Delivery
X	Other: email

TO:	File
FROM:	Kari Cantarero
RE:	Hazardous Materials Review – Fort Scott Municipal Airport Runway Extension
DATE:	January 22, 2018
PROJECT#:	017-2226

NOTES:

This is a summary of the findings of the Hazardous Materials Review (HMR) conducted for the Fort Scott Municipal Airport Runway Extension project (Project). The following scope of work was performed for this HMR:

- Conduct a review of the project area for local, state, and federal environmental database records.
- Review readily available historical aerial photographs.
- Prepare a written technical memorandum (this document).

The purpose of the review was to identify environmental concerns which could potentially have an adverse impact on construction activities or use of the construction project. Federal Aviation Administration (FAA) Standard Operating Procedures (SOP) (FAA 2014) Section 304k, Hazardous Materials and Construction were evaluated using available information relative to hazardous materials. Site reconnaissance was not completed for this HMR.

Project Description

The Project's construction scope is shown in Exhibit 1. The maximum anticipated excavation depths are 5 feet. Project construction includes grading a runway extension and safety areas, and constructing the runway extension. The project includes land acquisition of 164.4 acres in fee and 8.5 acres in easement.

General Setting

The Fort Scott Airport is located approximately 3.5 miles southwest of Fort Scott, Kansas. The area that was assessed as part of this HMR is displayed on Figures 1, 2, and 3. The hazardous review area extends a minimum of 0.50 mile beyond the anticipated construction limits.

Land use in the study area consists of predominantly agricultural land outside of the existing airport property, with some residences located around Lake Fort Scott to the southeast. The U.S. Geological Survey (USGS) Topographic Map (Figure 2) indicates the relief is generally flat.

The southern portion of the Project area is at a highpoint elevation of approximately 920 feet. From there, the topography slopes southeast toward Lake Fort Scott, northeast toward Rock Creek Lake, and north-northwest toward Marmaton River (see the enclosed Topographic Map, Figure 2). Depth to water is approximately 230 feet below ground surface (bgs) based on data from nearby well registrations.

Environmental Database Records

The following sources were used to complete the review of environmental databases for this HMR:

- The U.S. Environmental Protection Agency (EPA) MyEnvironment webpage was used to locate facilities managed under EPA programs.
- The Kansas Department of Health and Environment (KDHE) Kansas Environmental Interest Finder (KEIF) Map was used to locate facilities managed under KDHE programs.
- The Right-to-Know Emergency Response Notification System (ERNS) database was used to identify emergency response reports regarding hazardous material or petroleum product releases.

These databases were searched to identify facilities located within the hazardous review area. Facilities listed in environmental programs that are not related to hazardous materials or petroleum products, such as air permitting and livestock waste control, were not considered.

The environmental facilities that were identified within the study area are listed in the table below, and are also shown on the enclosed Figure 4 Environmental Facility Location Map.

Facility Name	Facility ID	Distance and Direction*	Environmental Programs	Facility Status**
Fort Scott Municipal Airport	00299	0.14 Mile East	LUST	Closed
Fort Scott Municipal Airport	00299	0.14 Mile East	AST/UST	Active
Ward Kraft Hanger	KSR000500744-NCG	0.07 Mile East	RCRA-NonGen	Active

**Distance and direction are measured from the nearest point along the anticipated construction limits. Direction is the facilities location relative to that point.*
***Facility status is taken from the environmental database records if available.*
RCRA – Resource Conservation and Recovery Act
NonGen – Not Currently a Generator
LUST – Leaking Underground Storage Tank
UST – Underground Storage Tank
AST – Aboveground Storage Tank

An evaluation of each facility was made based on several criteria, including the distance and direction between the facility and the proposed projects, the types of environmental programs that each facility is listed in, and the status of the environmental program listings for each

facility. Based on this initial review, the following facilities were considered to be low-risk based on the criteria discussed below.

- *Ward Kraft Hanger.* Any spills or releases which may have occurred at this facility would be unlikely to reach the proposed project or study area.

Additional review/consideration of the facilities not listed above is included in the following sections.

***Fort Scott Municipal Airport*:** The Fort Scott Municipal Airport was listed in the AST, UST, and LUST databases.

The AST/UST database contained listings for two separate ASTs and two separate USTs. One AST contains aviation gas and the second AST contains aviation jet fuel. Both ASTs are still active and have a current permit date of June 12, 2017. Neither AST has received notice of violation. Both USTs contained gas, including alcohol, and are listed as permanently out of use. Both tanks are listed as out of service as of April 15, 1990, and the tanks and associated piping were removed on April 24, 1990.

This location does not currently have any active projects in the LUST Trust Fund. The existing database listing, L/T Project Code U3-00600260, is closed with no date listed.

Based on the regulatory status, the above listings are considered to have a low potential to impact the project.

Historic Aerial Photo Review

Historic aerial photos over a period from 1991 to 2017 were reviewed using Google Earth. A summary of the observations from the aerial photo review is as follows:

- The airport appears in the 1991 aerial photo. The areas surrounding the airport consist of agricultural land. The City of Fort Scott is located to the northwest of the airport.
- There is no significant change between the 1991 aerial photo and the 2002-2017 aerial photos.

The aerial photo review generally confirms the information from the Environmental Database Records review. None of the observations provide sufficient information on their own to indicate the presence of hazardous materials or petroleum product concerns.

Site Reconnaissance Survey

Not included in the scope of work.

Conclusions

A records review and historical aerial photograph review were conducted to identify potential concerns associated with the Project. A summary of the findings is as follows:

- The project will not involve or affect hazardous materials.
- Construction will not take place in an area that contains or previously contained hazardous materials.
- The proposed project will not produce hazardous and/or solid waste either during construction or after.
- The project will not result in construction hazmat impacts, such as reducing local air quality; increasing erosion, pollutant runoff, or noise; or disrupting local traffic patterns.
- The project will not create short-term hazmat impacts.
- The project will not result in long-term/permanent hazmat impacts.

References

FAA, Standard Operating Procedure, CATEX Determinations, ARP SOP 5.00. Effective date October 1, 2014.

Google Earth Aerial Photographs, accessed using Google Earth software on January 3, 2018.

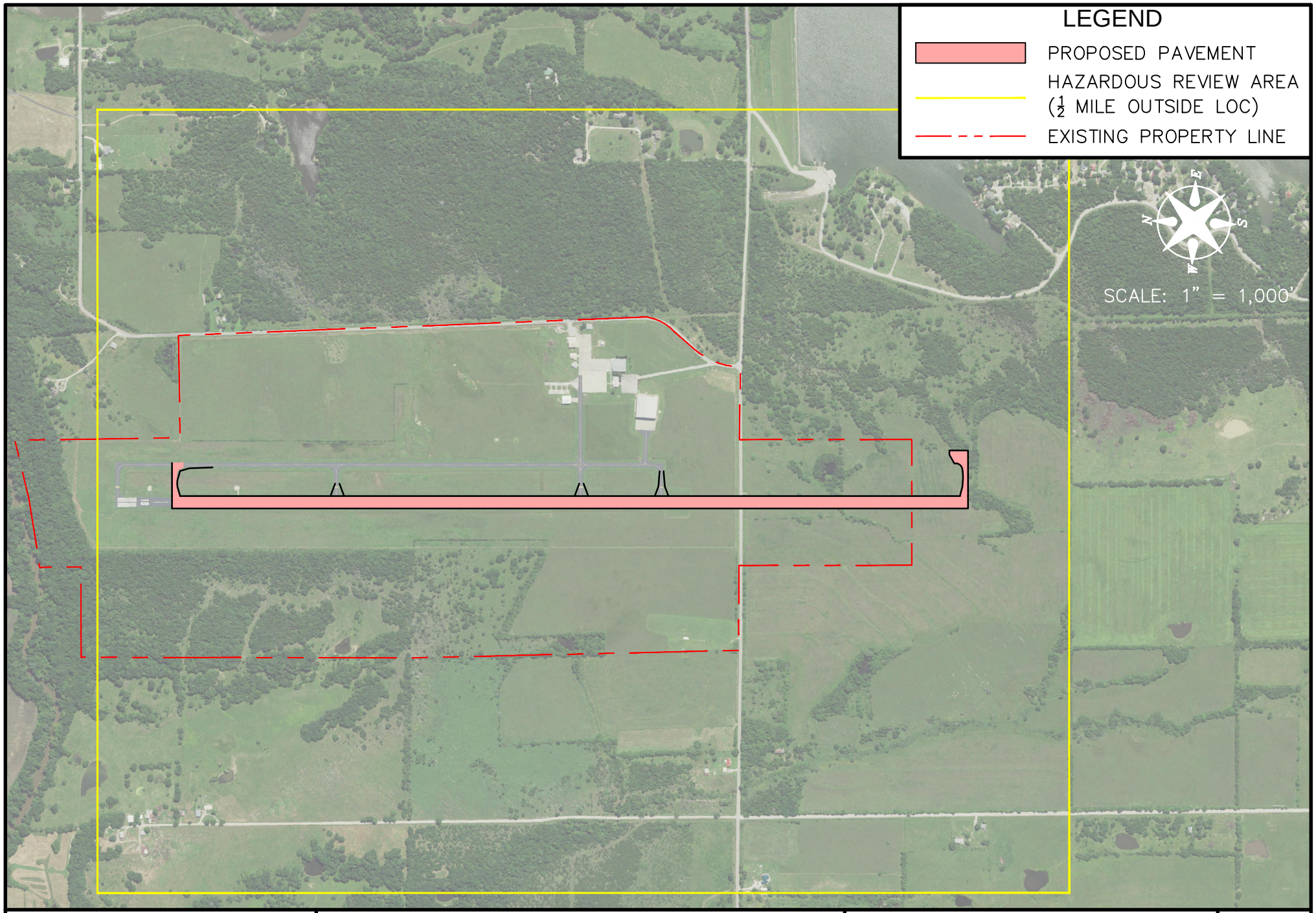
Kansas Department of Health and Environment Kansas Environmental Interest Finder Map, https://maps.kdhe.state.ks.us/keif/, accessed January 5, 2018.

The Right-to-Know Network, Hazardous Waste Violations and Permits (RCRIS) Database, http://www.rtknet.org/db/rcris, accessed January 5, 2018.

United States Environmental Protection Agency, MyMaps for MyEnvironment, http://www.epa.gov/myenv/MyMap.html, accessed January 3, 2018.

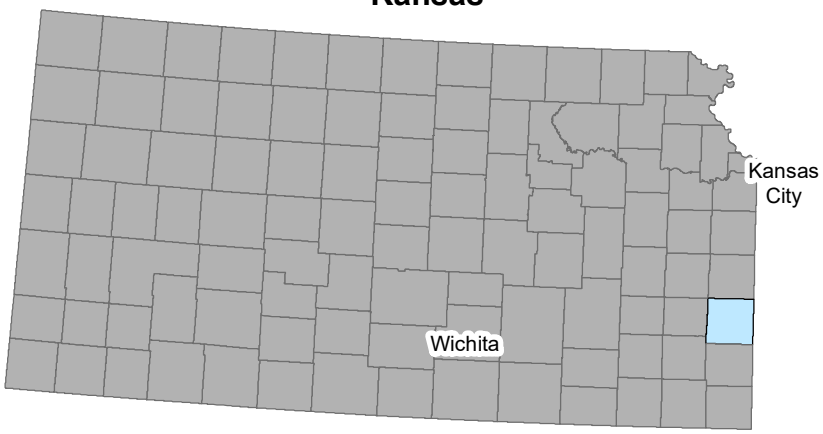
Enclosed:

Exhibit 1 Proposed Projects
Figure 1 Location Map
Figure 2 Topographic Map
Figure 3 Aerial Map
Figure 4 Environmental Facilities Map

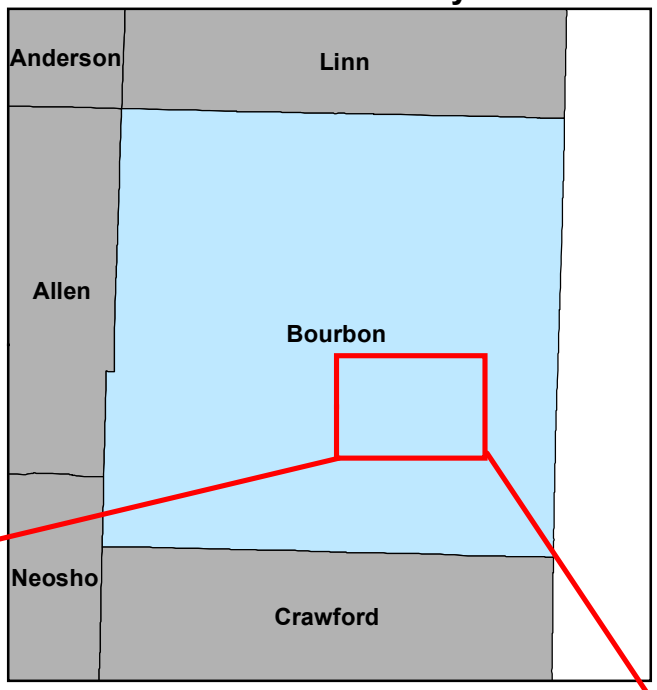


PROJECT NO: 017-2226	HAZARDOUS REVIEW	OLSSON ASSOCIATES	601 P Street, Suite 200 P.O. Box 84608 Lincoln, NE 68508 TEL 402.474.6311 FAX 402.474.5160	EXHIBIT
DRAWN BY: JTO				1
DATE: 01/18/18				

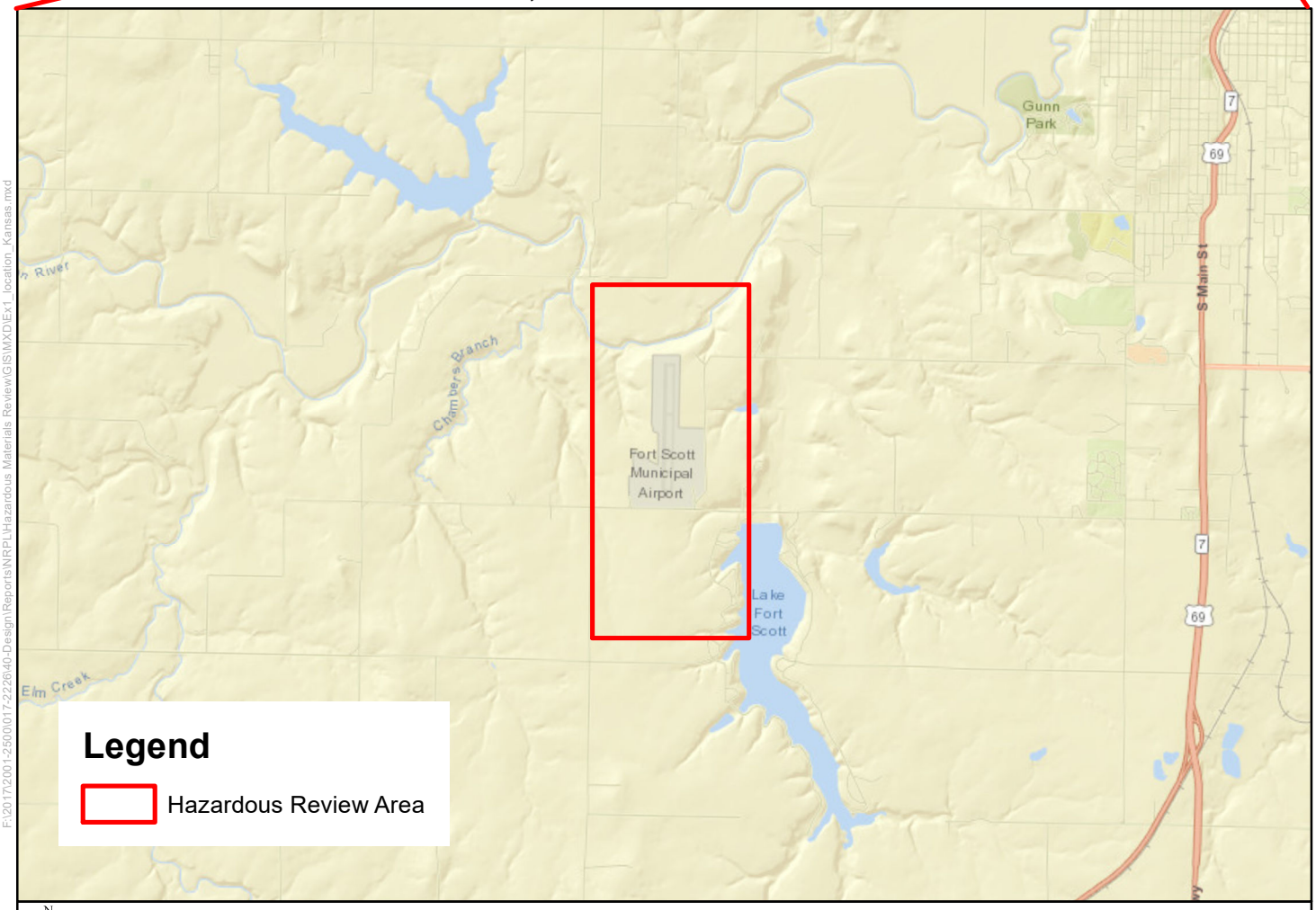
Kansas



Bourbon County



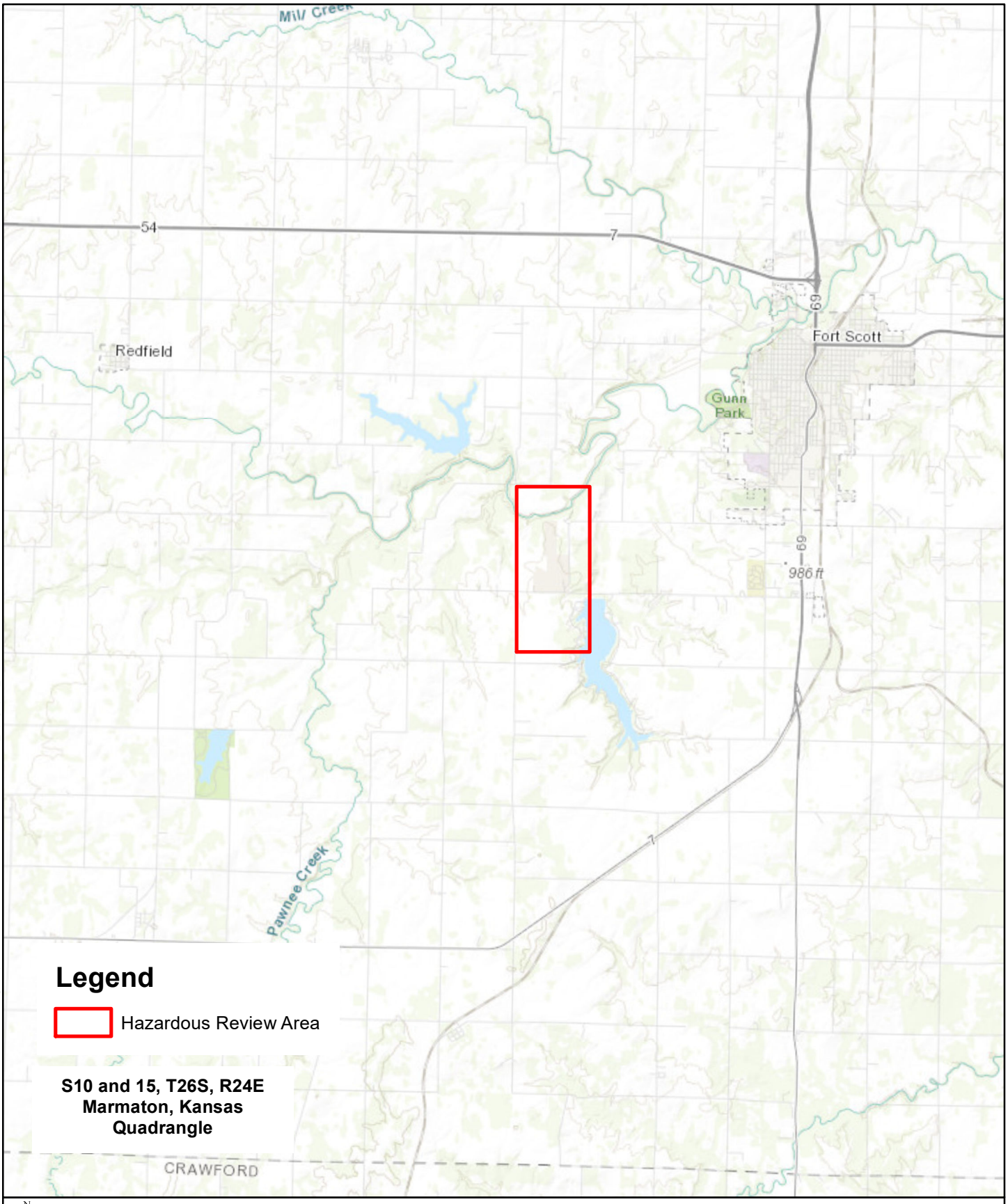
Fort Scott, Kansas



N

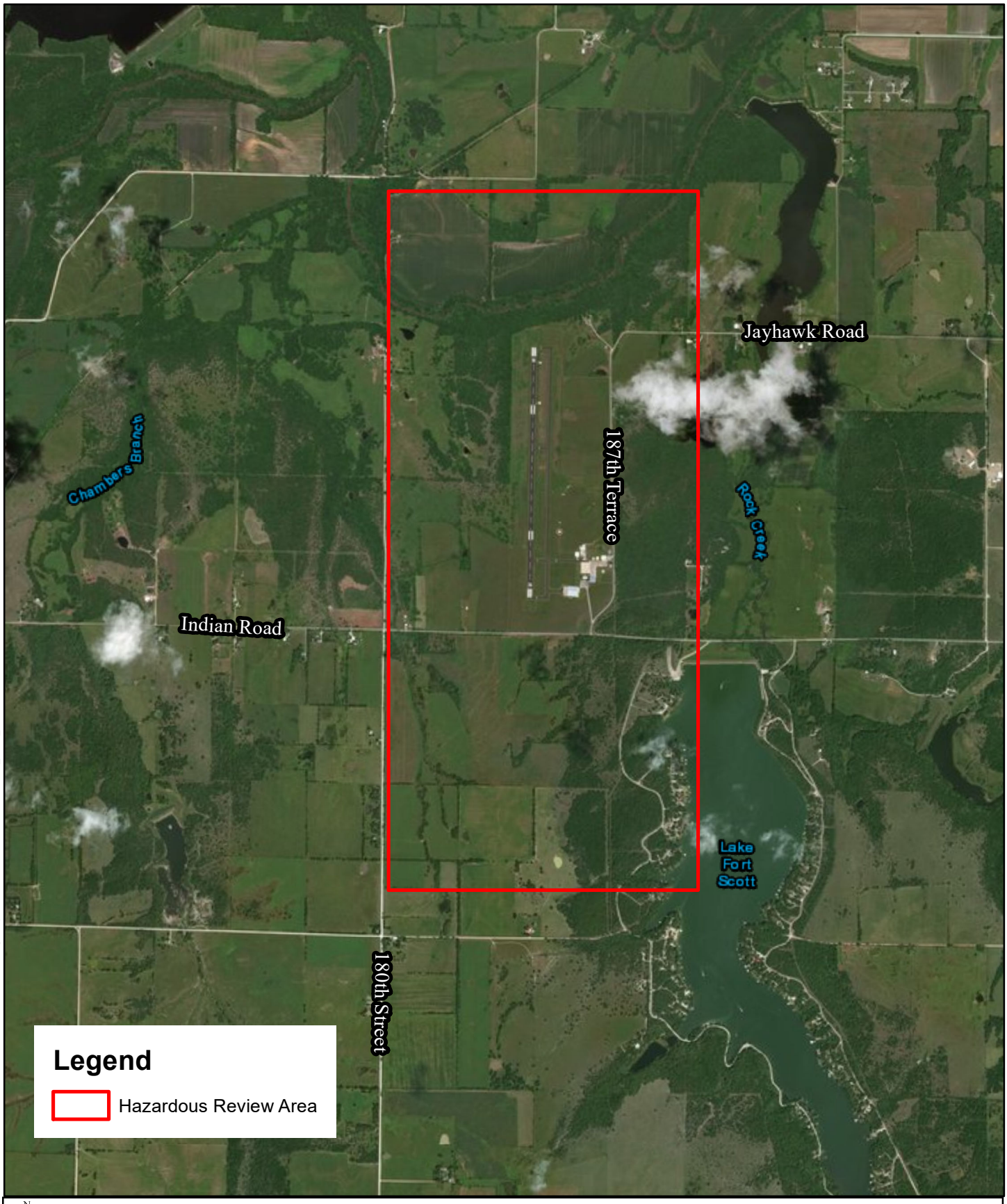
0 1.25 2.5 Miles

Project Number: 017-2226 *Drawn By: KC* *Revision Date: 1/15/2018*	**Location Map** Fort Scott Municipal Airport Runway Extension Fort Scott, Kansas	DISCLAIMER : This Geographic Information System (GIS) and its components are designed as a source of reference for answering inquiries, for planning and for modeling. GIS is not intended, nor does it replace legal description information in the chain of title and other information contained in official government records such as the County Clerk and Recorders office or the courts. In addition, the representations of locations in this GIS cannot be substituted for actual legal surveys.	OLSSON ASSOCIATES 7301 West 133rd Street Suite 200 Overland Park, Kansas 66213 P: 913.381.1170 F: 913.381.1174	Figure **1**



F:\2017\2001-2500\017-2226\40-Design\Reports\NRPL\Hazardous Materials Review\GIS\MXD\Ex2_topographic_Kansas.mxd

Project Number: 017-2226 *Drawn By: KC* *Revision Date: 1/15/2018*	**Topographic Map** Fort Scott Municipal Airport Runway Extension Fort Scott, Kansas	DISCLAIMER : This Geographic Information System (GIS) and its components are designed as a source of reference for answering inquiries, for planning and for modeling. GIS is not intended, nor does it replace legal description information in the chain of title and other information contained in official government records such as the County Clerk and Recorders office or the courts. In addition, the representations of locations in this GIS cannot be substituted for actual legal surveys.	OLSSON ASSOCIATES 7301 West 133rd Street Suite 200 Overland Park, Kansas 66213 P: 913.381.1170 F: 913.381.1174	Figure **2**



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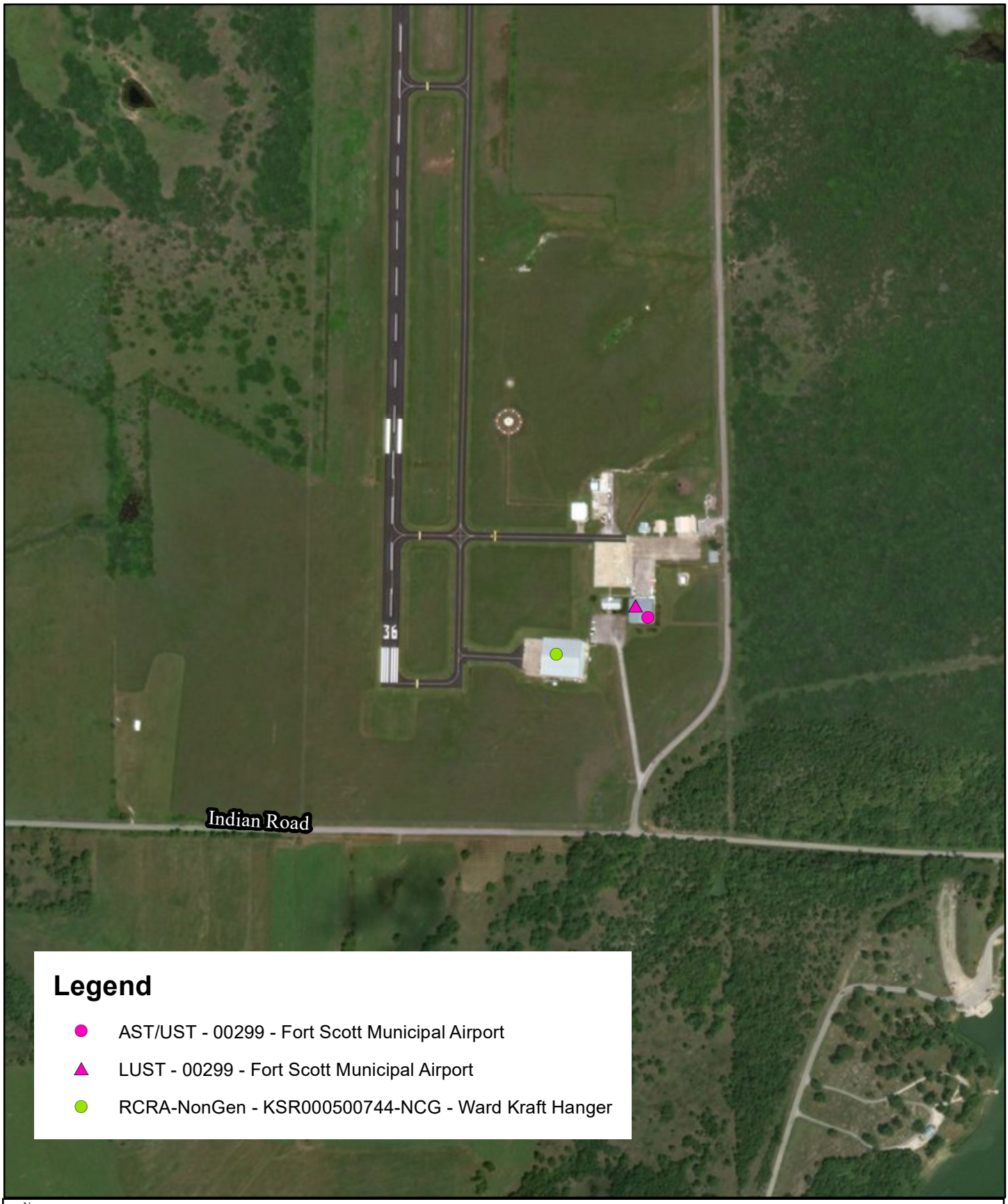
Project Number: 017-2226 *Drawn By: KC* *Revision Date: 1/15/2018*	**Aerial Map** Fort Scott Municipal Airport Runway Extension Fort Scott, Kansas	DISCLAIMER : This Geographic Information System (GIS) and its components are designed as a source of reference for answering inquiries, for planning and for modeling. GIS is not intended, nor does it replace legal description information in the chain of title and other information contained in official government records such as the County Clerk and Recorders office or the courts. In addition, the representations of locations in this GIS cannot be substituted for actual legal surveys.	OLSSON ASSOCIATES 7301 West 133rd Street Suite 200 Overland Park, Kansas 66213 P: 913.381.1170 F: 913.381.1174	Figure **3**



F:\2017\2001-2500\017-2226\40-Design\Reports\NRPL\Hazardous Materials Review\GIS\MXD\Ex4_hazardous sites_Kansas.mxd

N

0 0.125 0.25 Miles

Project Number: 017-2226 *Drawn By: KC* *Revision Date: 1/15/2018*	**Environmental Facilities** Fort Scott Municipal Airport Runway Extension Fort Scott, Kansas	DISCLAIMER : This Geographic Information System (GIS) and its components are designed as a source of reference for answering inquiries, for planning and for modeling. GIS is not intended, nor does it replace legal description information in the chain of title and other information contained in official government records such as the County Clerk and Recorders office or the courts. In addition, the representations of locations in this GIS cannot be substituted for actual legal surveys.	OLSSON ASSOCIATES 7301 West 133rd Street Suite 200 Overland Park, Kansas 66213 P: 913.381.1170 F: 913.381.1174	Figure **3**

APPENDIX L - Road Relocation

BOURBON COUNTY
210 S. National
Fort Scott, KS 66701
(620)223-3800

RESOLUTION NO. 19-20

A RESOLUTION REGARDING INDIAN ROAD IN THE VICINITY OF THE FORT SCOTT MUNICIPAL AIRPORT:

WHEREAS, the Fort Scott Municipal Airport is essential to the economic development of the county, providing the gateway to the nation's air transportation system; and

WHEREAS, many local businesses rely on the airport to increase their productivity and provide deliveries of goods and personnel in a more timely manner; and

WHEREAS, a runway extension is planned that will increase aircraft capacity by allowing heavier loads on each aircraft and could increase aircraft traffic by 40 percent and fuel sales by 500 percent; and

WHEREAS, a longer runway will provide economic benefits to the region and reduce the potential tax burden on the citizens; and

WHEREAS, it will be necessary to close a portion of Indian Road when the time comes for the construction of the runway extension; and

WHEREAS, the road will not be vacated prior to the letting of the airport expansion construction contract.

NOW, THEREFORE, BE IT RESOLVED by the County Commission of Bourbon County, Kansas that the portion of Indian Road needed for the runway extension will be closed and the County will go through the procedures to close the road when the time comes for the work to actually be done on the runway and the runway construction project has received grant funds necessary for the design of this construction.

Upon calling for a vote on the resolution, 3 voted yea, and 0 voted nay, and the resolution therefore was declared passed and approved on June 16, 2020.

ATTEST: Kendell Mason
Clerk

COUNTY CLERK OF BOURBON COUNTY KANSAS

Chairman

APPENDIX M - Noise Analysis

January 22, 2018

Ms. Diane Hofer, P.E.
Olsson Associates
601 P Street, Suite 200
Lincoln, NE 68508

Dear Ms. Hofer:

Thank you for contacting Coffman Associates to prepare noise exposure contours for Fort Scott Municipal Airport. As outlined in our agreement, we prepared Day-Night Level (DNL) noise exposure contours for three scenarios: the existing condition (2017), future condition (2022) with proposed improvements, and future condition with no action. The attachment discusses the inputs used to model the contours, much of which was provided by Olsson Associates through email communication. If you have any questions regarding the noise contours, please contact me or Dave Fitz at 1-800-892-7772.

Sincerely,

Kory Lewis
Associate

C. David Fitz, Coffman Associates

Noise Modeling Assumptions

The standard methodology for analyzing noise conditions at airports involves the use of a computer simulation model. Use of the Airport Environmental Design Tool, Version 2d (AEDT) is required by the Federal Aviation Administration (FAA) for developing noise exposure contours. AEDT is designed to predict annual average aircraft noise conditions at a given geographic location. The purpose of the noise model is to produce noise exposure contours that are overlain on a map of the airport and vicinity to graphically represent aircraft noise conditions.

For the purposes of this report, Day-Night Level (DNL) noise exposure contours were prepared. DNL accounts for the increased sensitivity during nighttime hours (10:00 p.m. to 7:00 a.m.). DNL is a summation metric which allows for objective analysis and can describe noise exposure comprehensively over a large area and includes a 10-decibel weighting for noise events occurring at night. In addition to being widely accepted, the primary benefit of using the DNL metric is that it accounts for the average community response to noise as determined by the actual number and types of noise events and the time of day they occur.

To achieve an accurate representation of an airport's noise conditions, the AEDT incorporates a combination of industry standard information and user-supplied inputs specific to the airport. The software provides noise characteristics, standard flight profiles, and manufacturer-supplied flight procedures for aircraft which commonly operate at Fort Scott Municipal Airport. As each aircraft has different design and operating characteristics (number and type of engines, weight, and thrust levels), each aircraft emits different noise levels. The most common way to spatially represent the noise levels emitted by an aircraft is with a noise exposure contour.

Based on AEDT-provided and user inputs, the 24-hour aircraft sound exposure within a grid covering the Airport and surrounding areas is calculated. The grid values, represented with the DNL, at each intersection point on the grid represent a noise level for that geographic location. To create the noise contours, a line linking equal values, similar to those on a topographic map, is drawn which connects points of the same DNL noise value. In the same way that a topographic contour represents the same elevation, the noise contour identifies equal noise exposure.

The AEDT contains database tables correlating noise, thrust settings, and flight profiles for most of the civilian aircraft and many common military aircraft operating in the United States. This database, often referred to as the noise curve data, has been developed under FAA guidance, based on rigorous noise monitoring in controlled settings. This information was developed through more than a decade of research, including extensive field measurements of more than 10,000 aircraft operations. The database also includes performance data for each aircraft to allow for the computation of airport-specific flight profiles (rates of climb and descent).

Airport-specific information, including runway configuration, flight paths, aircraft fleet mix, runway use distribution, elevation, atmospheric conditions, and numbers of daytime and nighttime operations are also used as modeling inputs. Specific modeling assumptions for Fort Scott Municipal Airport are discussed in the following sections.

AIRCRAFT FLEET MIX AND OPERATIONS

Database Selection

Noise emissions from an aircraft vary by the type and number of engines, as well as the airframe. AEDT provides more than 3,000 engine and airframe combinations to represent many of the aircraft operating in the United States. **Table 1** lists the existing and 20-year forecast operations by aircraft type for the airport prepared by Olsson Associates. The aircraft types were determined by reviewing FAA records for a 12-month period. This information is available from the FAA's Traffic Flow Management System Counts (TFMSC) and was collected by Coffman Associates. The estimated fleet mix percentages were then applied to the 20-year forecast for the airport.

TABLE 1
Aircraft Fleet Mix and Operations
Fort Scott Municipal Airport

	AEDT	2017 Operations	2022 Forecasts Proposed Action	2022 Forecasts No Action
Itinerant				
Jet				
Cessna Mustang 510, Embraer Phenom 100	CNA510	75	100	90
Cessna Citation CJ2, Beechjet 400	CNA500	50	70	60
Cessna Citation II/Bravo 550	CNA55B	25	35	30
Challenger 300, 600	CL600	150	1500	700
Learjet 40, 45, 60	LEAR35	275	850	160
Cessna Citation V/Ultra/Encore 560	CNA560U	25	35	30
Subtotal		**600**	**2590**	**1070**
Turboprop				
Beech King Air 90, Super King Air 200, 350	DHC6	300	360	360
Pilatus PC-12	PC-12	200	240	240
Socata TBM 700	CNA208	100	280	280
Air Tractor 401, 802, Thrush	GASEPV	1900	2050	2050
Subtotal		**2500**	**2930**	**2930**
Twin Engine				
Beech Baron 55/58, Cessna 414/421	BEC58P	250	300	300
Subtotal		**250**	**300**	**300**

TABLE 1 (Continued)
Aircraft Fleet Mix and Operations
Fort Scott Municipal Airport

	AEDT	2017 Operations	2022 Forecasts Proposed Action	2022 Forecasts No Action
Single Engine				
Single Engine, Variable Pitch	GASEPV	2150	2267	2267
Single Engine, Fixed Pitch	GASEPF	2150	2267	2267
Subtotal		**4300**	**4534**	**4534**
Helicopter				
Military	S70	100	100	100
Medical Flight	H500D	100	100	100
Subtotal		200	200	200
Itinerant Total		**7850**	**10554**	**9034**
Local Operations				
Single Engine				
Single Engine, Variable Pitch	GASEPV	1075	1133	1133
Single Engine, Fixed Pitch	GASEPF	1075	1133	1133
Local Total		**2,150**	**2,267**	**2,267**
Grand Total		**10,000**	**12,820**	**11,300**

Source: Olsson Associates analysis.

Time-of-Day

The time-of-day which aircraft operations occur is important as input to the AEDT due to the 10-decibel nighttime (10:00 p.m. to 7:00 a.m.) weighting of flights. In calculating airport noise exposure, one operation at night has the same noise emission value as 10 operations during the day by the same aircraft. Time-of-day assumptions provided by Olsson Associates are included in **Table 2**.

TABLE 2
Time-of-Day Operations Percentages
Fort Scott Municipal Airport

Aircraft Type	Day	Night
Jet	98%	2%
Turboprop	100%	0%
Twin Engine	100%	0%
Single Engine	100%	0%
Agricultural single engine	96%	4%
Helicopters	100%	0%

Day = 7:00 a.m. to 10:00 p.m.
Night = 10:00 p.m. to 7:00 a.m.
Source: Olsson Associates analysis.

Runway Use

Runway use indicates the typical direction aircraft fly when arriving or departing from the airport. For all scenarios, it is assumed that operations are divided evenly between the two runway ends for arrivals and departures, with 50 percent of arrivals and departures assigned to both Runway 18 and Runway 36. This information is based on Olsson Associates analysis.

Flight Tracks

Flight patterns can be categorized within the following types: arrivals, departures, and local or touch-and-go. Arrivals and departures correspond to itinerant traffic traveling to or from the Airport, while local operations represent those operations conducted within the local traffic pattern. The touch-and-go nomenclature refers to an aircraft landing briefly on the runway and then resuming flight. Pilots use this technique to practice landing or other procedures. These paths are included in the model to indicate where each aircraft type operates. Based on Coffman Associates' experience at other similar airports, standardized flight tracks were assumed for the existing and future conditions. Flight tracks were developed to represent standard left-hand traffic for itinerant and local operations, including touch-and-go operations.

Flight Profiles

The standard arrival profile used in the AEDT program is a three-degree approach. No indication was given by airport staff that there was any variation on this standard procedure for civilian aircraft. Therefore, the standard approach was included in the model as representative of local operating conditions.

Noise Exposure Contours

The following exhibits depict the noise exposure contours resulting from the inputs described above.

Exhibit 1 – Existing Condition: This scenario is based on the existing runway length of 4,403 feet and 10,000 operations as noted in **Table 1**. As illustrated on the exhibit, the 65 DNL noise exposure contour remains on airport property.

Exhibit 2 – Future Condition, Proposed Action: This scenario is based on the existing runway length of 6,403 feet and 12,280 operations as noted in **Table 1**. The runway length reflects the proposed southerly shift of 450 feet and southerly extension of 2,450 feet. As illustrated on the exhibit, the 65 DNL noise exposure contour remains within the proposed property boundary.

Exhibit 3 – Future Condition, No Action: This scenario is based on the existing runway length of 4,403 feet and 11,300 operations as noted in **Table 1**. As illustrated on the exhibit, the 65 DNL noise exposure contour remains on airport property.

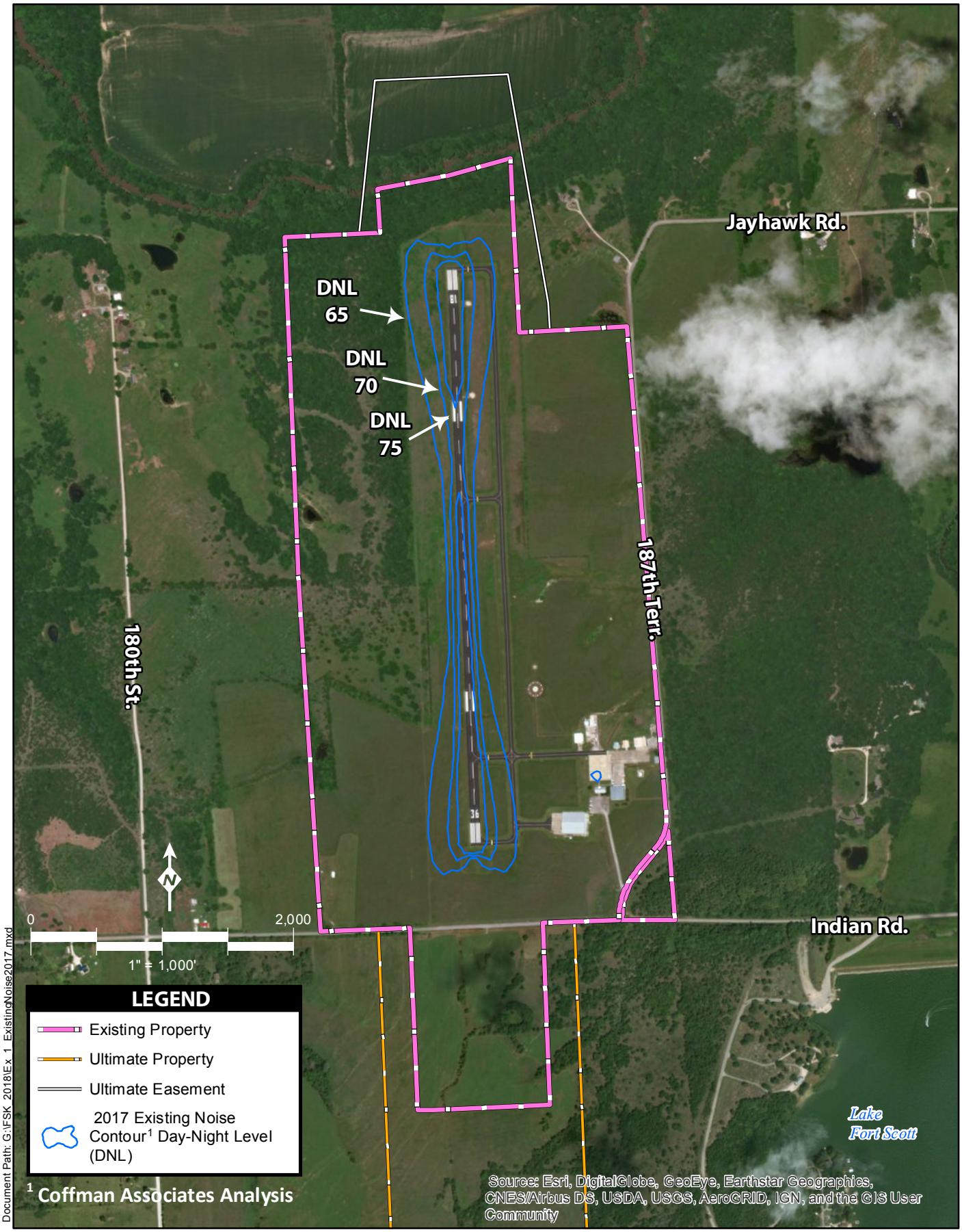


EXHIBIT 1
FORT SCOTT MUNICIPAL AIRPORT
EXISTING NOISE CONTOURS 2017

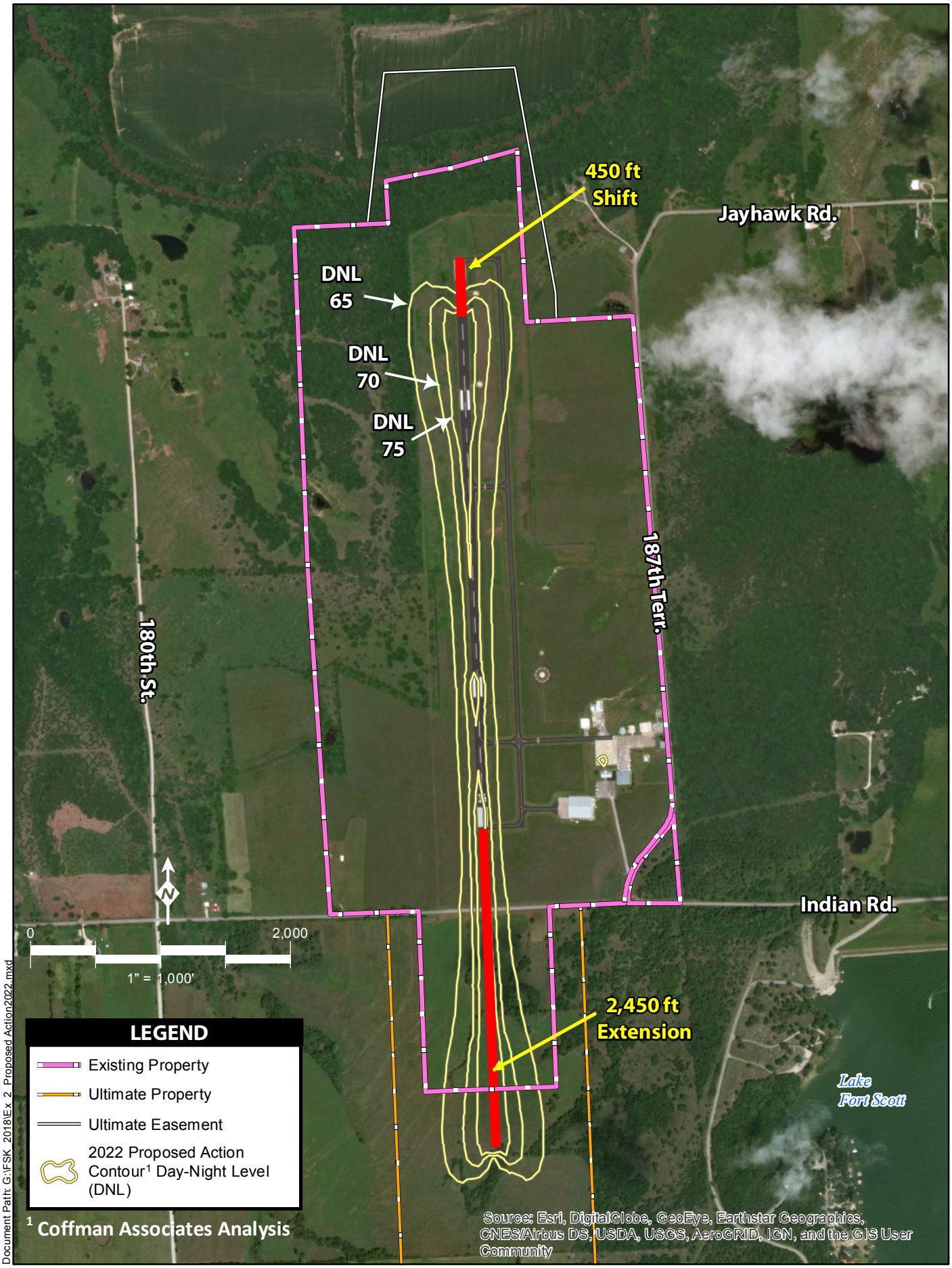


EXHIBIT 2
FORT SCOTT MUNICIPAL AIRPORT
PROPOSED ACTION NOISE CONTOURS 2022

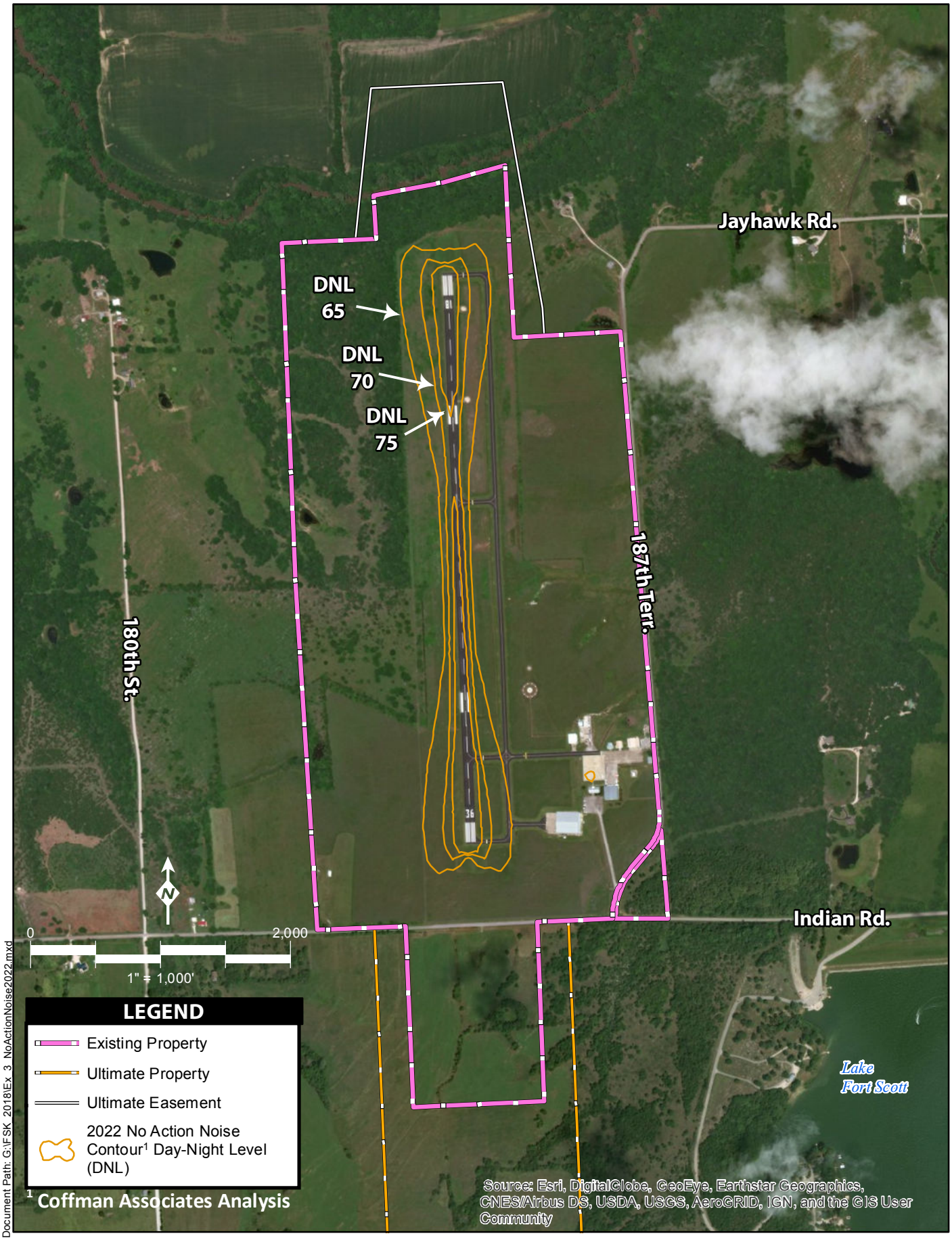


EXHIBIT 3
FORT SCOTT MUNICIPAL AIRPORT
NO ACTION NOISE CONTOURS 2022