# Final Report

**ENVIRONMENTAL ASSESSMENT** for

RUNWAY 13/31 REHABILITATION





## DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION

#### **Finding of No Significant Impact**

Will Rogers World Airport Oklahoma City, OK

#### **Proposed Federal Action.**

The City of Oklahoma City is proposing to rehabilitate Runway 13/31's pavement at Will Rogers World Airport. The proposed project will address deteriorating conditions of the pavement and the need of full rehabilitation. Rehabilitation will allow the runway to remain accessible to the flying public into the future. To do the rehabilitation, the city is requesting Federal funding assistance via a grant under the Airport Improvement Program (AIP). Issuance of a grant under AIP is the proposed Federal action under consideration in this FONSI.

#### **Environmental Considerations.**

The only potential issue of note is noise impacts over noise sensitive land uses. To assess the potential of a significant noise impact, the attached Environmental Assessment (EA) analyzed the projected noise environment for the No Action alternative and the sponsor's proposed action. No noise sensitive land uses were found to be potentially impacted by the sponsor's proposed action when compared to the No Action alternative.

The public was solicited via newspapers of general circulation in the Oklahoma City area for comments and concerns about the sponsor's proposed action. The attached EA was available for review electronically and physically for 30 days. No comments or concerns were received.

For additional details concerning noise and other environmental considerations as well as public involvement, see the attached EA.

#### Mitigation Measures.

No mitigation measures have been determined necessary for the sponsor's proposed action or possible issuance of AIP funds to support the action.

#### Finding.

I have carefully and thoroughly considered the facts contained in the attached EA. Based on that information, I find the proposed Federal action is consistent with existing national environmental policies and objectives of Section 101(a) of the National Environmental Policy Act of 1969 (NEPA) and other applicable environmental requirements. I also find the proposed Federal action will not significantly affect the quality of the human environment or include any condition requiring any consultation pursuant to section 102(2)(C) of NEPA. As a result, the FAA will not prepare an EIS for this action.

Recommended:	Dean A. McMath	March, 12, 2021
	Responsible Federal Official	Date
Approved:	GLENN A  Digitally signed by GLENN A BOLES  Date: 2021.03.12 10:46:13 -06'00'	
rr	Approving Federal Official	Date

## Environmental Assessment

For

Runway 13/31 Rehabilitation

Will Rogers World Airport Oklahoma City, Oklahoma

Prepared for: City of Oklahoma City

Prepared by:
Mead & Hunt, Inc.
and
MacArthur Associated Consultants

Submitted Pursuant to 42 U.S.C. 4332(2)

March 2021

The preparation of this document may have been supported, in part, with financial assistance from the Federal Aviation Administration through the Airport Improvement Program. This Environmental Assessment becomes a federal document when evaluated and signed and dated by the responsible FAA official.

Dean A. McMath	March, 12, 2021
Responsible FAA Official	Date

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#### **Purpose and Need for the Proposed Projects**

#### Introduction

Will Rogers World Airport (OKC), owned and operated by the City of Oklahoma City, Oklahoma, is a small hub commercial service airport located in the southwest portion of Oklahoma City, Oklahoma. OKC operates with four runways, three north-south oriented runways (Runways 17R/35L, 17L/35R, and 18/36) and a crosswind runway (Runway 13/31). OKC is proposing to rehabilitate the Runway 13/31 pavement. This action and associated request for federal grant assistance require review and approval by the federal government. Before a federal agency can approve such projects, the agency is required to comply with the requirements of the National Environmental Policy Act of 1969 (NEPA). In this case, the Federal Aviation Administration (FAA) is the federal agency responsible for reviewing and approving federal actions that pertain to airports. FAA has adopted guidance concerning compliance with NEPA in FAA Order 1050.1F, Environmental Impacts: Policies and Procedures, and FAA Order 5050.4B, National Environmental Policy Act (NEPA) Implementing Instructions for Airport Actions. In accordance with these Orders, EAs can be prepared by airport sponsors for FAA review and use in NEPA compliance.

The purpose of this EA is to evaluate the potential environmental impacts associated with the proposed runway pavement rehabilitation. According to FAA Order 1050.1F, runway pavement rehabilitation projects are an action normally eligible for a Categorical Exclusion (CATEX). A CATEX is allowable for actions that the FAA has found to not normally have the potential for individual or cumulative significant impacts on the human environment. However, the time limit established by Order 1050.1F is 6 months for short-term changes in air traffic control procedure to accommodate airport construction<sup>1</sup>. Any construction lasting longer than 6 months that results in a change to air traffic control procedures requires an EA. Since the Runway 13/31 pavement rehabilitation is scheduled to last from 10 to 14 months, OKC is preparing this EA to evaluate the potential noise impacts resulting from the temporary re-routing of aircraft that would normally use Runway 13/31 to Runways 17L/35R and 17R/35L.

#### **Proposed Project Purpose**

It is the policy of OKC to accommodate existing and future aircraft operations in the safest, most efficient, and most reliable manner. Acceptance of FAA funding requires OKC to maintain airport facilities to FAA standards regarding safety and efficiency. According to FAA's *Grant Assurances for Airport Sponsors*, dated March 2014, Airport Sponsor's will operate and maintain at all times the airport and all facilities servicing the aeronautical users of the airport in a safe and serviceable condition<sup>2</sup>. The overall project purpose of the pavement rehabilitation is to assure the runway pavement is and

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<sup>&</sup>lt;sup>1</sup> FAA Order 1050.1F, Paragraph 5-6.5.m.

<sup>&</sup>lt;sup>2</sup> Federal Aviation Administration, *Grant Assurances for Airport Sponsors*, March 2014. Assurance 19. Operation and Maintenance.

remains in good physical condition to support aircraft operations at OKC in an adequate, safe, and efficient manner.

#### **Proposed Project Need**

A pavement study conducted by Lochner and RDM International, Inc. (dated October 2019), and a subsequent study prepared by MacArthur Associated Consultants and RDM International, Inc. (dated November 2020), identified the Runway 13/31 pavement is approaching poor conditions and in need of full rehabilitation. Without the rehabilitation, the runway pavement condition will further deteriorate, jeopardizing the ability of Runway 13/31 to accommodate aircraft operations in a safe, efficient, and reliable manner. If left unmaintained, pavement can eventually break loose into pieces, known as Foreign Object Debris (FOD) that can be ingested by engines, blown into aircraft bodies, puncture tires, or lodge into mechanisms affecting flight operations. Moreover, as pavement deteriorates, its ability to support aircraft weight is compromised, which can result in limiting the size of aircraft able to operate on it. Runway 13/31 is used by all types of aircraft, including larger air carrier, air cargo, and military aircraft.

Additionally, a drainage study prepared by Olsson Associates (dated June 2015), and a subsequent study conducted by MacArthur Associated Consultants and Olsson Associates (dated November 2020), indicated that two drainage structures under Runway 13/31 are undersized and do not adequately drain the area northeast of the runway. Without the size increase of the drainage structures, inadequate drainage will continue and flooding of the aprons and hangars east of Runway 17R/35L will persist during heavy rainfalls, which could contribute to the deterioration of the runway pavement.

#### **Requested Federal Actions**

The FAA is the federal agency responsible for the environmental approval of the proposed action. Federal action is being requested by the City of Oklahoma City for environmental approval and funding for the pavement rehabilitation of Runway 13/31. A Finding of No Significant Impact (FONSI) is anticipated from the FAA.

#### **Action Time Frame**

It is anticipated that the pavement rehabilitation will require a 10- to 14-month period, beginning in late summer of 2021 and completed in spring of 2023. The project will be done in two separate contracts and phases. Phase 1 will likely begin in the summer of 2021 and be completed in the spring of 2022. Phase 2 will likely begin in the summer of 2022 and be completed in the spring of 2023).

#### **Proposed Action Description**

The proposed action is to rehabilitate the entire 7,800-foot long and 150-foot wide Runway 13/31 pavement. The existing edge lights, conduit, and wiring will be

demolished, and new LED edge lights will be installed. Two drainage structures will be increased from 6.5-foot by 6-foot reinforced concrete box and 36-inch reinforced concrete pipe to 12-foot by 6-foot reinforced concrete box and 48-inch reinforced concrete pipe respectively. However, the new drainage structure will be within and along the same footprint as the original drainage structures.

The proposed action will be constructed in two separate construction phases. The two phases will divide the pavement rehabilitation at Runway 17R/35L. However, all the work within the Runway 17R/35L safety area will be done in one of the phases (Phase 2) so that the simultaneous closure of both Runways 13/31 and 17R/35L will only occur once. Project phasing also provides continuous airfield access to the adjacent stakeholders at OKC.

#### **Alternatives**

#### Introduction

The Council on Environmental Quality (CEQ) regulations implementing NEPA requires federal agencies to explore and objectively evaluate all reasonable alternatives during the environmental process, including the no action alternative. The examination of alternatives is of critical importance to the environmental process and serves to establish the conclusion that all reasonable alternatives have been considered, and that an alternative, which addresses the project purpose and might enhance environmental quality (or has a less detrimental effect), has not been prematurely dismissed from consideration.

#### **Alternatives Evaluated in Detail**

**No Action.** The no action alternative involves OKC not rehabilitating the Runway 13/31 pavement. Further pavement deterioration can be expected, eventually reaching levels that will not accommodate aircraft operations in an adequate, safe, and efficient manner.

**Proposed Project.** The proposed action alternative rehabilitates the Runway 13/31 pavement. This will maintain the pavement in the safest, most efficient, and most reliable manner so that aircraft operations can continue to be accommodated well into the foreseeable future.

#### **Affected Environment**

#### Introduction

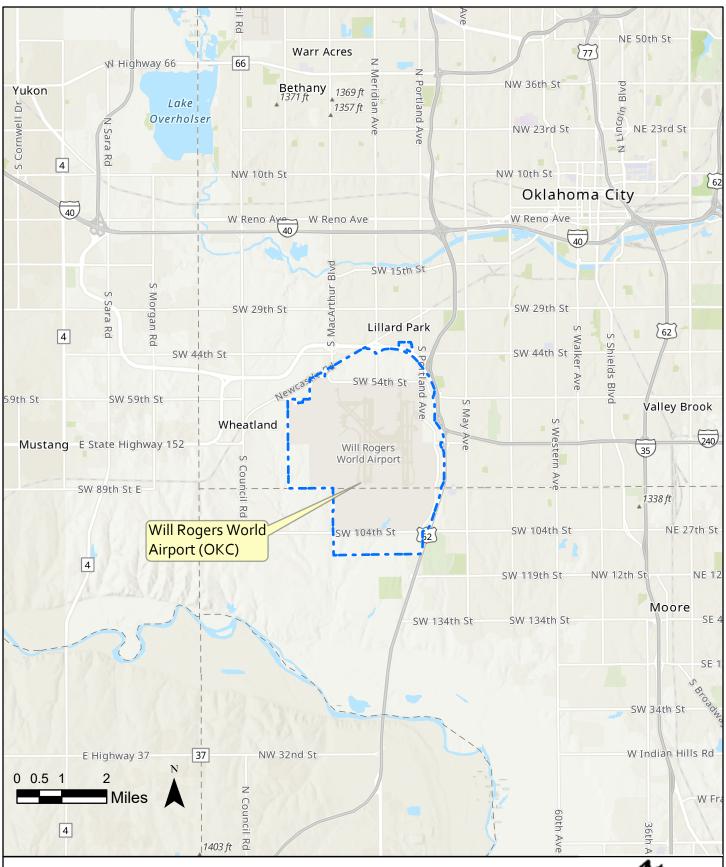
This chapter generally describes the baseline conditions and character of the environment in which the proposed project occurs: the affected environment. The term "affected environment" is used to describe the areas and resources within and surrounding the project having the potential to affect or be affected by the proposed project and reasonable alternatives.

Because of the temporary nature of the proposed project and the limited area involved in reconstructing the runway pavement and increasing the size of the two drainage structures within and along the same footprint as the original drainage structures, the only anticipated environmental resource category to be affected are the noise impacts to existing land uses, specifically those uses considered to be noise sensitive (i.e., residences, schools, hospitals, and places of worship). Water resources will not be impacted beyond replacing the original drainage structures with larger sizes to allow adequate flow during heavy rainfalls. Therefore, this chapter will only present the baseline conditions associated with existing land uses near OKC. The environmental consequences analysis presented in the next chapter will focus on the noise impacts to the noise sensitive land uses.

#### **Project Setting**

Will Rogers World Airport (OKC) is owned and operated by the City of Oklahoma City, and is leased to and governed by the Oklahoma City Airport Trust. OKC is in Oklahoma County, Oklahoma, approximately 10 miles southwest of the Oklahoma City center. It is located directly south of State Highway 152 and directly west of the Interstate 44 (I-44) and Interstate 240 (I-240) interchanges. OKC is the busiest commercial airport in Oklahoma and encompasses approximately 8,100 acres. All types of aviation activity are accommodated at OKC, from large air carrier, air cargo and military aircraft to the smallest single engine general aviation aircraft. **Figure C1** provides the geographical setting of OKC in relation to the surrounding area.

OKC operates with four runways, three north-south runways (Runways 17R/35L, 17L/35R, and 18/36) and a crosswind runway (Runway 13/31). Runways 17R/35L and 17L/35R are 9,800 feet in length and 150 feet in width. Runway 18/36 is 3,078 feet in length and 75 feet in width. Runway 13/31 is 7,800 feet in length and 150 feet in width. Runway 13/31 is located primarily in the west half of OKC, bisecting Runway 17R/35L at approximately 3,500 feet south of the Runway 17R threshold and 4,300 feet southeast of the Runway 13 threshold. Taxiway C is a parallel taxiway serving Runway 13/31 located 400 feet to the northeast. Taxiways D, F, G, and L intersect Runway 13/31 at various locations along the length of the runway. Airport tenants/stakeholders surrounding Runway 13/31 include Metrotech Aviation, Oklahoma Air National Guard (OKANG), FAA Mike Monroney Aeronautical Center (MMAC), AAR, the OKC Aircraft

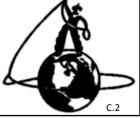


## Figure C1 Vicinity Map

Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap and the GIS user community, Sources: Esri, HERE, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

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Rescue and Fire Fighting (ARFF) facility, and the US Marshal's Service/Federal Transfer Center. **Figure C2** provides a graphic illustration of the existing airport facilities. **Figure C3** provides a closer view of the project area and the key tenants/stakeholders affected by the project.

#### **Existing Land Use**

OKC is located entirely within the city limits of Oklahoma City. Existing land uses surrounding OKC are primarily industrial, with some portions of residential, commercial, and public/institutional. The most intensely developed areas surrounding OKC are to the north and east. **Figure C4** depicts the generalized land uses surrounding OKC. **Table C1** provides a list of all schools and day care centers near OKC.

Table C1 Schools and Day Care Centers Surrounding OKC

School	Location
Oklahoma City Community College	South of SW 74 <sup>th</sup> Street and west of
Oklanoma City Community Conege	South May Avenue
Metro Technology Center Aviation Career	South of SW 54 <sup>th</sup> Street and east of
Campus	MacArthur Boulevard
Mid-America Christian University	South of SW 119 <sup>th</sup> Street and east of
Wild America Christian Oniversity	South Portland Avenue
Pierce Elementary	West of South Tulsa Ave and north of
rierce Liementary	SW 27 <sup>th</sup> Street
Rockwood Elementary	North of SW 24 <sup>th</sup> Street and west of I-44
Adams Elementary	South of SW 37 <sup>th</sup> Street and east of
Additis Elementary	South Goff Avenue
Roosevelt Middle School	North of SW 44 <sup>th</sup> Street and east of
Roosevert ivildale School	South Independence Avenue
Arthur Elementary	North of SW 59 <sup>th</sup> Street and east of
Arthur Elementary	South Independence Avenue
John Glenn Elementary	North of SW 65 <sup>th</sup> Place and east of I-44
Southlake Elementary	West of South Portland Avenue and
Southlake Liententary	south of SW 119 <sup>th</sup> Street
La Petite Academy Day Care	Southwest intersection of SW 59 <sup>th</sup> Street
La Petite Academy Day Care	and South May Avenue
Childtime Day Care	West of South May Avenue and
Ciliutine Day Care	north of SW 89 <sup>th</sup> Street
Westmore Child Development Day Care	West of South May Avenue and
westinore clina bevelopment day care	north of SW 97 <sup>th</sup> Street

**Source:** Mead & Hunt using the City of Oklahoma City Southwest Sector Plan, Zoning Map, Esri aerial photograph, and Google Earth.

East of OKC, east of I-44, single-family residential development is dominant with commercial development occurring adjacent to and at the intersections of major arterial streets. There are five places of worship located east of OKC and south of I-240 and ten



Figure C2 Existing Airport Layout

Source: 2005 Oklahoma City Southwest Sector Plan National Agriculture Inventory Program Aerial 2019 Will Rogers World Airport

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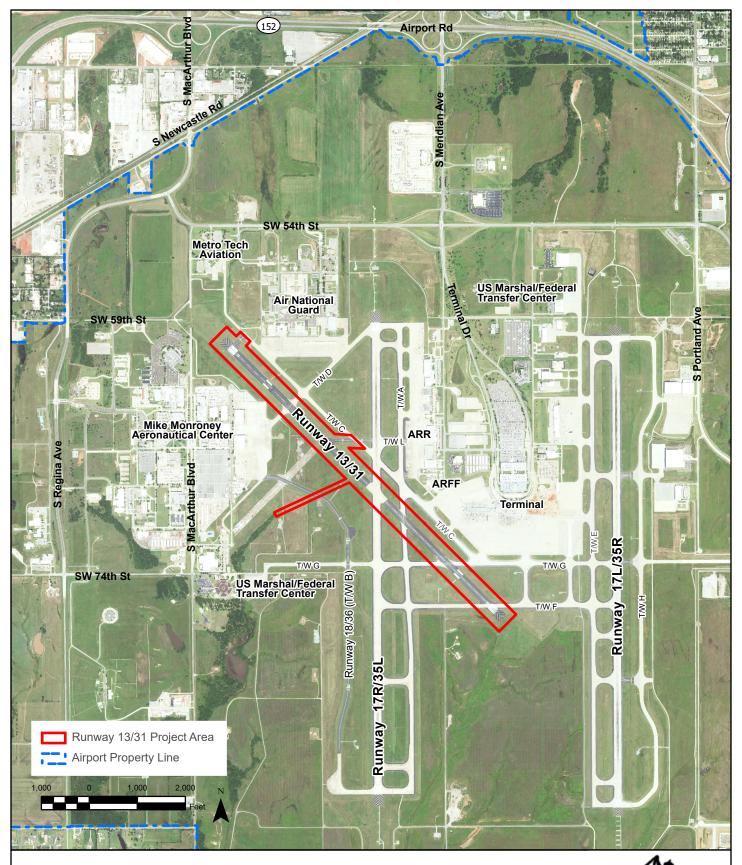


Figure C3 Proposed Project Area

Source: National Agriculture Inventory Program Aerial 2019

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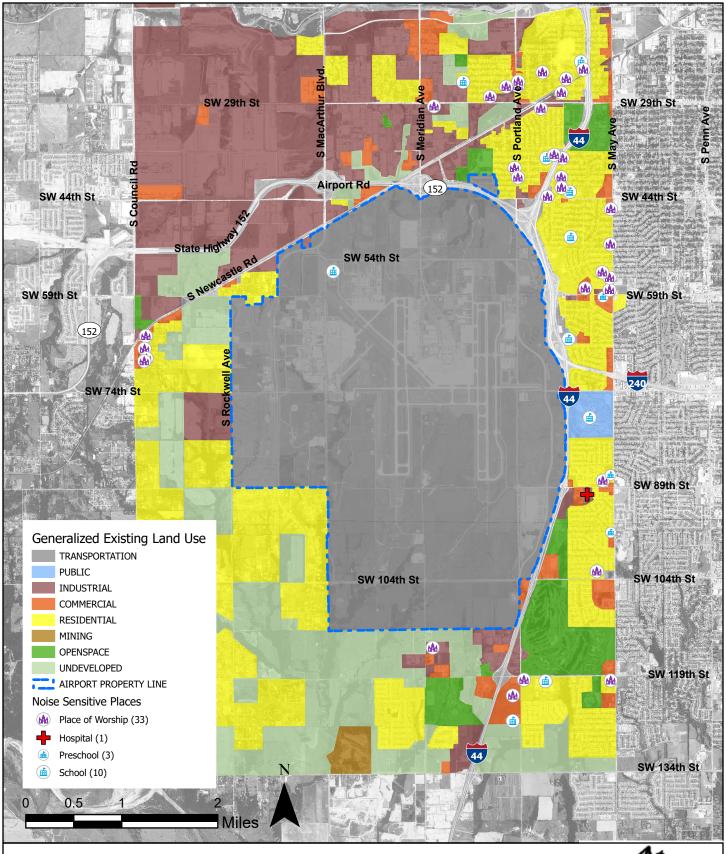


Figure C4 Generalized Existing Land Use

Source: 2005 Oklahoma City Southwest Sector Plan National Agriculture Inventory Program Aerial Photo 2019 Noise Sensitive Places from Google Maps Will Rogers World Airport

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places of worship located north of I-240 and east of I-44. Community Hospital is located south of SW 89<sup>th</sup> Street just east of I-44.

Land uses to the north (between OKC property and Airport Road) is comprised of primarily industrial development with some commercial and single-family residential uses. Further north is dominated by industrial and commercial development, with a variety of single-family residential, mobile home, and duplex/townhome development occurring north of SW 29<sup>th</sup> Street and west of Meridian Avenue. North of Newcastle Road and east of Meridian Avenue is dominated by industrial and commercial land uses with some residential development. North of Airport Road, south of Newcastle Road and west of I-44 is predominantly single-family residential development with some commercial, industrial, and open space/recreational land uses occurring.

There are five places of worship located between Newcastle Road and I-44 with eight located north of Newcastle Road and east of Meridian Avenue and west of I-44. Metro Technology Center's Aviation Career Campus is located on OKC property, directly north of the Runway 13 threshold and south of SW 54<sup>th</sup> Street.

West of OKC the area is primarily industrial with some areas of undeveloped land. Single-family residential and commercial land uses occur adjacent to and south of South Newcastle Road; industrial land uses are located north of South Newcastle Road. Large lot single-family residential development occurs west of Rockwell Avenue and north of SW 89<sup>th</sup> Street, as well as south of SW 89<sup>th</sup> Street and west of MacArthur Boulevard. There are three places of worship east of Council Road and south of Newcastle Road.

The area south of OKC, between Meridian Avenue and I-44 is mostly undeveloped with some industrial, commercial, and open space/recreational. West of Meridian Avenue, large lot single-family residential and mining land uses are scattered throughout vast amounts of undeveloped land. There is one place of worship just south of the OKC property east of South Meridian Avenue. South of OKC and east of I-44 is dominated by single-family residential development or open space/recreational uses (e.g., Earlywine Golf Course).

#### **Environmental Consequences**

#### Introduction

This chapter outlines the potential environmental consequences associated with implementing the proposed project and the no action alternative as presented in the previous chapter.

#### **Resources Not Impacted**

Due to the temporary nature of the proposed project and the limited area involved in reconstructing the runway pavement and increasing the size of the two drainage structures within and along the same footprint as the original drainage structures, most environmental resource categories (contained in FAA Order 1050.1F) will not be affected or have an effect on the environment. The following environmental resource categories are presented for review as a statement of no impact resulting from the proposed project. The draft Categorical Exclusion (CATEX) prepared by MacArthur Associated Consultants was used for the information presented in the following sections. The draft CATEX can be reviewed in Appendix One.

Air Quality. The proposed project area is not within a non-attainment area or maintenance area for any of the six criteria air pollutants having National Ambient Air Quality Standards (NAAQS) established under the Clean Air Act. Existing land uses will remain as they are. Aircraft operations, ground service equipment, and ground access vehicles activity will not increase because of the proposed project or the no action alternative. Therefore, implementation of either the proposed project action or the no action alternative will not cause a reasonable foreseeable increase in emissions and will have no direct, indirect, or cumulative effect on air quality.

Biological Resources. The proposed project area is primarily contained within a small area of the Runway 13/31 pavement, with the two drainage structures occurring just outside the pavement area (but within and along the same footprint as the original drainage structures). This land has been dominated by past human activity through the development of airfield facilities. According to the U.S. Fish and Wildlife Service (USFWS), there is the potential for one threatened fish and four threatened and endangered bird species within the project environment. The Arkansas River Shiner (Notropis girardi) is the threatened fish species. The threatened and endangered bird species include the Least Tern (Sterna antillarum), Piping Plover (Charadrius melodus), Whooping Crane (Grus americana), and the Red Knot (Calidris canutus rufa). The proposed project will not directly impact any critical habitats associated with these species.

The USFWS also identifies two migratory birds that may be present at the project location, the Harris's Sparrow (*Zonotrichia querula*) and Smith's Longspur (*Calcarius pictus*). There are no critical habitats within the project area for these species. There are

no refuge lands or fish hatcheries within the proposed project area. Best Management Practices (BMPs) and mitigation measures during the construction may be implemented to reduce any potential impacts. However, there are no direct, indirect, or cumulative impacts to any endangered, threated, candidate species, critical habitat, migratory birds or Birds of Conservation Concern anticipated from the implementation of the proposed project or the no action alternative.

Climate. Research has shown there is a direct correlation between fuel combustion and greenhouse gas (GHG) emissions, which can affect climate. However, FAA Order 1050.1F does not establish a significance threshold for Climate. Therefore, there are no federal standards for aviation-related greenhouse gas (GHG) emissions and how increases might affect climate change. And there are no corresponding levels of local emission increases or thresholds to establish significance.

There will be no increase in existing or future aircraft operations, airport facilities operation, ground service equipment, or ground access vehicles because of the proposed project or the no action alternative. Therefore, there will be no direct, indirect, or cumulative impact to the climate.

**Coastal Resources.** No coastal resources are in central Oklahoma. Therefore, no coastal resources will be directly, indirectly, or cumulatively impacted by the proposed project or the no action alternative.

**Department of Transportation Act: Section 4(f).** No public parks, recreation areas, wildlife or waterfowl refuges, or lands from historic sites of national, state, or local significance will be directly, indirectly, or cumulative affected by either the proposed project or the no action alternative.

**Farmlands.** The U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) classifies the soils within the proposed project area as Urban land, Grainola-Ashport frequently flooded complex, Kirland silt loam, Kirkland-Urban land complex, and Renthin-Urban land complex. The Kirkland silt loam is considered prime farmland. The proposed project area encompasses approximately 2.0 acres of this soil. However, this land has been disturbed and maintained as an airfield for many years. Therefore, there are no anticipated new direct, indirect, or cumulative farmland impacts anticipated by either the proposed project or the no action alternative.

Hazardous Materials, Solid Waste, and Pollution Prevention. Construction activities associated with proposed project could generate hazardous wastes and some construction materials constitutes hazardous substances. However, contractors will be required to implement BMPs to prevent or minimize the potential for hazardous substances to be released into the environment. No significant changes will be made to existing pollution prevention practices and increases in solid waste generation will be minimal. Implementation of either the proposed project or the no action alternative

will have no significant direct, indirect, or cumulative effect on any known hazardous materials or wastes.

Historical, Architectural, Archaeological, and Cultural Resources. The proposed project area is primarily contained within a small area of the Runway 13/31 pavement, with only the two drainage structures occurring just outside the pavement area (but within and along the same footprint as the original drainage structures). There are no known archaeological or cultural resources occurring in the vicinity of the proposed project area. No acquisition of any structures will occur and no known tribal lands are within one mile of the proposed project area. Minimal ground disturbance will occur with the construction of the increased size of the two drainage structures, but the land has experienced past human disturbance through the development of airfield facilities. Therefore, implementation of the proposed project or the no action alternative will have no direct, indirect, or cumulative impact on any historical, architectural, archaeological, or cultural resources.

**Natural Resources and Energy Supply.** There will be no direct, indirect, or cumulative impact to energy reserves or mineral resources, will not increase energy consumption, and will not affect natural resource that are unusual or in short supply by either the proposed project or the no action alternative.

Socioeconomics, Environmental Justice, and Children's Health and Safety Risks. Implementation of either the proposed project or the no action alternative will not disproportionately affect any minority group, age group, or income group. No discrimination based on race, color, or national origin will occur, nor will the environmental health and safety risks disproportionately affecting children occur with either the proposed project or the no action alternative. No businesses will be affected by the proposed project action or the no action alternative.

**Visual Effects.** The implementation of the proposed project or the no action alternative will not involve any light emissions, will not change the visual environment or character, and will have no effect on any officially designated scenic areas or visually sensitive resources. Therefore, there are no anticipated direct, indirect, or cumulative impacts to visual effects or because of light emissions.

Water Resources. Water resources include wetlands, floodplains, surface waters, groundwater, and wild and scenic rivers. Except for the construction of the two increased size drainage structures within and along the same footprint as the original drainage structures, no construction activity will occur beyond the small area of the Runway 13/31 pavement. Surface water flows from a general northeast to southwest direction.

**Wetlands.** According to the USFWS National Wetland Inventory (NWI) and the EPA Waters GeoViewer, there are waterbodies near the proposed project area. The NWI

identifies the closest waterbody as a small intermittent stream at the northwest corner of the proposed project area. However, this waterbody is not identified on the EPA Water Geoviewer or the ODEQ Water Map. Aerial images and desktop research indicate it is a channelized drainage structure.

The NWI also shows the existence of a 0.77-acre freshwater forested/shrub wetland and a 1.28-acre freshwater emergent wetland located approximately 0.3-mile to the north (upslope) of the proposed project area. There are a 1.44-acre freshwater emergent wetland and a 1.31-acre freshwater pond located approximately 0.5-mile northwest (upslope) of the project location. A 2.35-acre freshwater forested/shrub wetland adjacent to a 11.37-acre freshwater pond are located approximately 0.7-mile southwest (downslope) of the proposed project area. An 8.14-acre freshwater pond and a 3.88acre freshwater emergent wetland are directly south of the southeast end of the proposed project area. They are approximately 0.15-mile downslope from the project location. No wetland delineation or field checks have been conducted. BMPs such as good housekeeping, minimized exposure, preventative maintenance of construction materials, spill prevention, and erosion and sediment control will be implemented to avoid, minimize, or mitigate impacts to nearby waterbodies. Therefore, no wetlands or waters of the United States, as defined the U.S. Army Corps of Engineers (USACOE), are anticipated to be directly, indirectly, or cumulatively affected by implementing either the proposed project or the no action alternative.

**Floodplains.** According to the Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Map (FIRM), the proposed project is not located within an area of minimal flood hazard and is not within a floodway. Therefore, there will be no direct, indirect, or cumulative impacts to floodplains by either the proposed project or the no action alternative.

Surface Waters. According to the EPA Waters GeoViewer, the proposed project has the potential to impact the 303(d) impaired water of Cow Creek, which is located approximately 0.75-mile southwest (downslope) of the proposed project area. An unnamed tributary of Cow Creek is located approximately 0.15-mile southwest (downslope) of the proposed project area. Additionally, there are several "blue line streams" near the proposed project area as indicated on U.S. Geological Service (USGS) topography maps. The potential for flooding of the AAR apron and hangar area will continue with the no action alternative. The proposed project will increase the size of the drainage structures (but be within and along the same footprint as the original drainage structures), provide adequate drainage, and alleviate the potential flooding.

While the proposed project may not directly impact jurisdictional waterbodies, a Storm Water Pollution Prevention Plan (SWPPP) will be included to address erosion and runoff resulting from the proposed project construction activities. BMPs will be employed during construction to reduce any impact to the nearby waterbodies. Additionally, a Notice of Intent (NOI) will be filed with the Oklahoma Department of Environmental

Quality (ODEQ) prior to construction. All federal, state, and local permits with be obtained if necessary. No direct, indirect, or cumulative impacts to surface waters are anticipated from the proposed project or the no action alternative.

**Groundwater.** The proposed project is located above the Garber-Wellington Bedrock aquifer. There are no public water supplies or sole source aquifers at the proposed project location. No direct, indirect, or cumulative impacts to groundwater are expected from the implementation of the proposed project or the no action alternative.

**Wild and Scenic Rivers.** No wild and scenic rivers, as defined by the U.S. Department of the Interior (USDOI) Wild and Scenic Rivers Inventory will be directly, indirectly, or cumulatively impacted by the proposed project or the no action alternative.

#### **Resources Impacted**

As presented previously, due to the temporary nature of the proposed project and the limited area involved in reconstructing the runway pavement and increasing the size of the two drainage structures within and along the same footprint as the original drainage structures, the only expected environmental resource category to be affected are the noise impacts to existing noise sensitive land uses such as residences, schools, hospitals, and places of worship. The effect could result from the increase noise levels associated with diverted aircraft using the north-south runways that would normally use Runway 13/31 during the 10 to 14-month construction time frame.

Noise and Compatible Land Use. Noise is generally defined as unwanted sound that can disturb routine activities (such as sleep, conversation, or learning) and cause annoyance. The determination of acceptable levels is subjective. Aviation noise impacts at airports primarily results from the operation of fixed and rotary wing aircraft during departures, arrivals, overflights, taxiing, and engine run-ups. The compatibility of existing land uses with proposed aviation actions is usually determined in relation to the level of aircraft noise.

Aircraft-related noise exposure has been defined through noise contours using the FAA's Aviation Environmental Design Tool (AEDT). This software program models the noise exposure levels from aircraft operations and produces contours of equal noise exposure for selected points on the ground. These contours are presented using Day Night Average Sound Level (DNL) noise contour metric. DNL metric measures the overall noise experienced during an entire (24-hour) day. DNL calculations account for the sound exposure level of aircraft, the number of aircraft operations, and a penalty for nighttime operations. In the DNL scale, noise occurring between the hours of 10:00 p.m. to 6:59 a.m. is penalized by 10 decibels (dB). This penalty accounts for the higher sensitivity to noise in the nighttime and the expected further decrease in background noise levels that typically occur at night. DNL provides a numerical description of the

weighted 24-hour cumulative noise energy level using the A-weighted decibel scale, typically over a period of a year.

AEDT requires information concerning the number of aircraft operations, the types of aircraft (fleet mix), the time of day (or night) that activity occurs, runway utilization patterns and the typical flight tracks of aircraft taking off or landing at an airport. Aircraft noise contours for OKC were developed using these data. **Table D1** provides the annual aircraft operations, categorized by general aircraft category, used by AEDT to generate the noise contours for this EA.

Table D1 OKC Aircraft Operation, By Type

Category	Total Operations
Air Carrier	38,275
Air Taxi	7,555
GA	15,755
Military	27,384
Total	88,969

**Source:** Mead & Hunt based on most recent six months of FAA data (May through October 2020) and six months of straight-line extrapolation.

The threshold of significance for aircraft noise is defined in FAA Order 1050.1F as:

The action would increase noise by DNL 1.5dB or more for a noise sensitive area that is exposed to noise at or above the DNL 65dB noise exposure level, or that will be exposed at or above the DNL 65dB level due to a DNL 1.5dB or greater increase, when compared to the no action alternative for the same timeframe.

For example, an increase from DNL 65.5dB to 67dB is considered a significant impact, as is an increase from DNL 63.5dB to 65dB.

**No Action Alternative.** The baseline noise contours for OKC are presented in **Figure D1**. Because the no action alternative involves not rehabilitating the runway pavement, which does not involve closing Runway 13/31 for a 10 to 14-month construction time frame, allocated aircraft operations at OKC remain identical to the existing conditions. As presented, the no action alternative 65 DNL noise contour does not extend beyond airport property.

**Proposed Project.** The proposed project noise contours for OKC are presented in **Figure D2**. With the proposed project, aircraft that would normally use Runway 13/31 are diverted to use either of the two north-south primary runways (Runways 17L/35R and 17R/35L) during the construction time frame. The percentage split between the two runways is based on the percentages for each individual aircraft currently using the runways. As presented, the resulting shift of aircraft to Runways 17L/35R and 17L/35R increases the noise energy to the north and south of OKC slightly. However, the amount

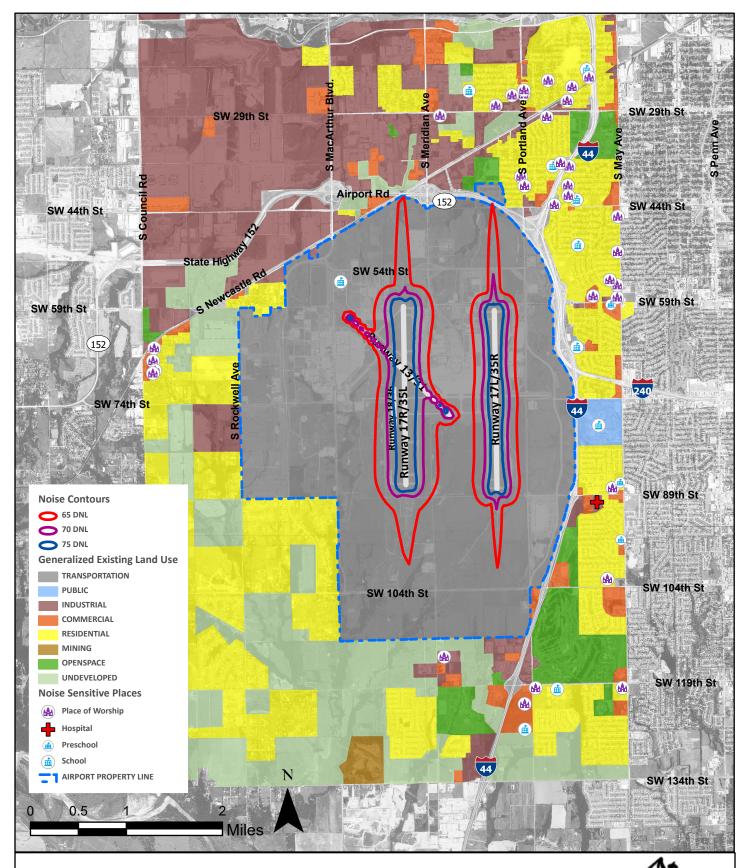


Figure D1 No Action Alternative Noise Contours Will Rogers World Airport With Existing Land Use

Source: National Agriculture Inventory Program Aerial 2019 Aviation Environmental Design Tool (AEDT)

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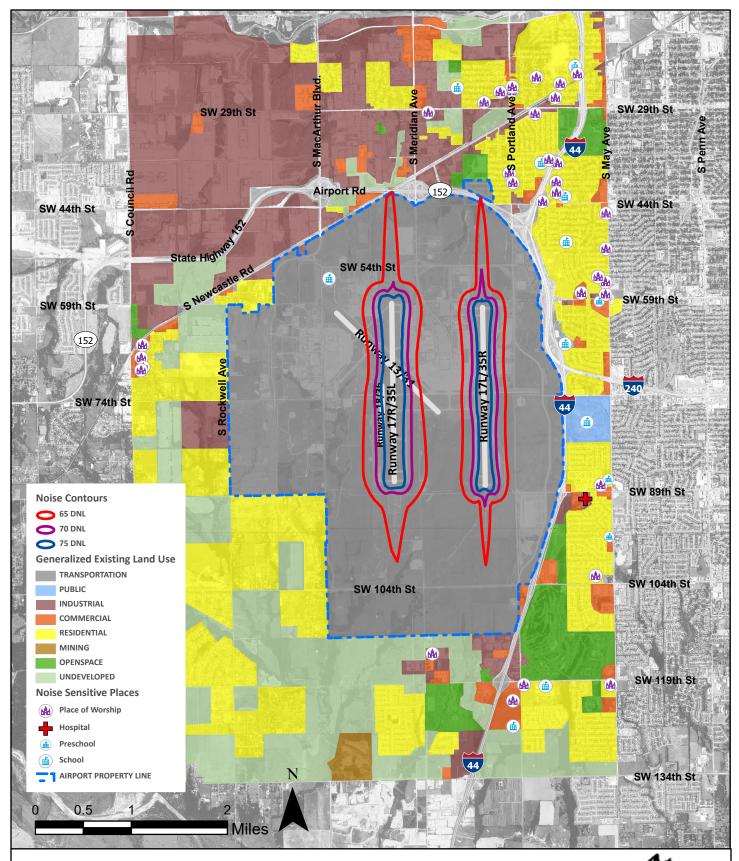


Figure D2 Proposed Project Alternative Noise Contours With Existing Land Use

Source: National Agriculture Inventory Program Aerial 2019 Aviation Environmental Design Tool (AEDT) Will Rogers World Airport

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of increased noise energy is negligible. The proposed project 65 DNL noise contour does not extend beyond airport property. Therefore, no noise sensitive receptors experience an increase of 1.5 dB due the proposed project compared to the no action alternative.

#### **Preparers**

The following peopled were primarily responsible for the preparation of this EA.

Kelly Maddoux Mead & Hunt Project Management, Document Preparation

Ryk Dunkelberg Mead & Hunt Document Review

Sam Pappas
MacArthur Associated Consultants
Document Review

Shelby Hanchera MacArthur Associated Consultants Categorical Exclusion

Corbett Smith
Mead & Hunt
Document Preparation

Patricia Song Mead & Hunt Document Preparation

#### **Public Involvement**

OKC has advertised a Notice of Availability of a Draft Environmental Assessment and a Notice of Public Comment Period for the Runway 13/31 Pavement Rehabilitation Project in *The Oklahoman* and *The Journal Record Publishing Company*, newspapers of general circulation within the Oklahoma City area (see the Affidavits of Publication in Appendix Two). The EA was made available for public review at the Department of Airports, 3<sup>rd</sup> Floor, Airport Terminal Building and on the OKC website (<a href="www.flyokc.com/news-advisories">www.flyokc.com/news-advisories</a>) for 30 days. The comment period ended on Friday, March 5, 2021. No comments were received during the 30-day review period.

Appendix One –Runway 13/31 Runway Pavement Rehabilitation Categorical Exclusion (CATEX)

#### APPENDIX A. DOCUMENTED CATEX

Airport sponsors may use this form for projects eligible for a categorical exclusion (CATEX) that have greater potential for extraordinary circumstances or that otherwise require additional documentation, as described in the Environmental Orders (FAA Order 1050.1F and FAA Order 5050.4B).

To request a CATEX determination from the FAA, the sponsor should review potentially affected environmental resources, review the requirements of the applicable special purpose laws, and **consult with the Airports District Office or Regional Airports Division Office staff** about the type of information needed. The form and supporting documentation should be completed in accordance with the provisions of FAA Order 5050.4B, paragraph 302b, and submitted to the appropriate FAA Airpor5ts District/Division Office. The CATEX cannot be approved until all information/documentation is received and all requirements have been fulfilled.

Name of Airport, LOC ID, and location:

Effective Date: June 2, 2017

Will Rogers World Airport, Location ID OKC, Oklahoma City, Oklahoma

Project Title:

Runway 13/31 Rehabilitation

Give a brief, but complete description of the proposed project, including all project components, justification, estimated start date, and duration of the project. Include connected actions necessary to implement the proposed project (including but not limited to moving NAVAIDs, change in flight procedures, haul routes, new material or expanded material sources, staging or disposal areas). Attach a sketch or plan of the proposed project. Photos can also be helpful.

The runway rehab will be designed in accordance with AC 150/5300-13A CHG 1. The existing 7,800' long and 150' wide 13/31 Runway does not have shoulders. Per FAA Advisory Circular 150/5300-13A, Section 304, paved shoulders are required for runways accommodating Airplane Design Group (ADG) IV and higher aircraft and are recommended for runways accommodating ADG III aircraft. If paved shoulders are constructed, the existing edge lights, conduit and wiring will be demolished and will require new runway edge lights to be constructed. Any new edge lights will utilize new elevated LED fixtures. If paved shoulders are not constructed as part of this project, the existing base housings and buried conduits for the airfield lighting circuits can be retained and reused. Illuminators in all existing signs will be converted to LED. The existing regulators, controls, and other vault equipment will remain in place and not be modified as part of this project. The existing PAPI systems are in excellent condition and will not require replacement or relocation under this project. If necessary, they will be removed and protected during construction, and then reinstalled. A previous pavement study identified 13/31 to be approaching poor condition and in need of full rehab. Additionally, a previous draininge study indicates the drainage structures under 13/31 are undersized for current and future development. An additional drainage study will be conducted to identify requirements for replacing or adding drainage infrastructure. If shallow duct banks are encountered during demolition they will be addressed on a case-by-case basis.

Give a brief, but complete, description of the proposed project area. Include any unique or natural features within or surrounding airport property.

Will Rogers World Airport is located in southwest Oklahoma City, directly south of SH-152 and directly west of I-44 and the I-240 interchange. The airport occupies roughly 8,000 acres. There are some naturally vegetated areas surrounding the airport, but most of the acreage is grassland and open field. All proposed construction will occur within the existing airport boundaries.

The overall project will be developed in two separate construction projects. The two projects will divide the Runway 13/31 construction at Runway 35R-17L. However, all the work within the Runway 35R/17L safety area will be done in one of the phases so that the simultaneous closure of both Runway 13/31 and Runway 17R/35L only happens once. An emergency response plan will be developed as part of the bid documents that would facilitate the rapid opening of Runway 17R/35L in case of the loss of use of Runway 17L/35R. The project will be broken into as large of individual components/areas as possible to facilitate the largest possible paving areas, while maintaining access to all critical portions of the airfield by the identified stakeholders. Phasing of the project will be required to provide acces to the adjacent stakeholders/sites including: Metrotech Aviation, OK Air National Guard, MMAC, AAR, ARFF Station, US Marshal's Service/Federal Transfer Center, Field Aerospace, Atlantic Aviation, SkyWestPlease see thet attached aerial photos and topographic maps.

Identify the appropriate CATEX paragraph(s) from Order 1050.1F (paragraph 5-6.1 through 5-6.6) or 5050.4B (Tables 6-1 and 6-2) that apply to the project. Describe if the project differs in any way from the specific language of the CATEX or examples given as described in the Order.

Effective Date: June 2, 2017

5-6.3(b):Establishment, installation, upgrade, or relocation of any of the following on designated airport or FAA property: airfield or approach lighting systems, visual approach aids, beacons, and electrical distribution systems as described in FAA Order 6850.2, Visual Guidance Lighting Systems, and other related facilities. (ATO, ARP).

5-6.4(e): Federal financial assistance, licensing, or Airport Layout Plan (ALP) approval for the following actions, provided the action would not result in significant erosion or sedimentation, and will not result in a significant noise increase over noise sensitive areas or result in significant impacts on air quality. Construction, repair, reconstruction, resurfacing, extending, strengthening, or widening of a taxiway, apron, loading ramp, or runway safety area (RSA), including an RSA using Engineered Material Arresting System (EMAS); or Reconstruction, resurfacing, extending, strengthening, or widening of an existing runway.

Of the above mentioned actions, the project only intends to do the following: Repair, reconstruct, an resurface the taxiway, apron or runway safety areas (RSA) or reconstruct, resurface, extend, strengthen, or widen the existing runway.

5050.4B 310a: Airfield Improvements, roads. Build, maintain, move or repair roads if the actions does not permanently reduce the Level of Service to unacceptable levels.

5050.4B 310e: Airfeild Improvements, runways. Extend, fillet, groove, mark, rebuild, resurface, or strengthen existing runways or runway surface areas.

5050.4B 309b: Airfield Lighting. Install or upgrade airifeld lighting (e.g., beacons, runway indicator lights, runway end identification lights, visual approach aids, etc.)

The circumstances one must consider when documenting a CATEX are listed below along with each of the impact categories related to the circumstance. Use FAA Environmental Orders 1050.1F, 5050.4B, and the Desk Reference for Airports Actions, as well as other guidance documents to assist you in determining what information needs to be provided about these resource topics to address potential impacts. Keep in mind that both construction and operational impacts must be included. Indicate whether or not there would be any effects under the particular resource topic and, **if needed**, cite available references to support these conclusions. Additional analyses and inventories can be attached or cited as needed.

## 5-2.b(1) National Historic Preservation Act (NHPA) resources

	YES	NO
Are there historic/cultural resources listed (or eligible for listing) on the National Register of Historic Places located in the Area of Potential Effect? If yes, provide a record of the historic and/or cultural resources located therein and check with your local Airports Division/District Office to determine if a Section 106 finding is required.		
There are no National Register of Historic Places (NRHP) properties within the proposed project area. The closest NRHP property (Reference No. 97000443) is located at the Mike Monroney Aeronautical Center adjacent to WRWA in Oklahoma County. In addition, the project will remain within the existing airport boundaries.		
Does the project have the potential to cause effects? If yes, describe the nature and extent of the effects.		
There are no National Register of Historic Places (NRHP) properties within the proposed project area. he closest NRHP property (Reference No. 97000443) is located at the Mike Monroney Aeronautical Center adjacent to WRWA in Oklahoma County. In addition, the project will remain within the existing airport boundaries.		
Is the project area undisturbed? If not, provide information on the prior disturbance (including type and depth of disturbance, if available)		$\boxtimes$
This is an existing airport.		
Will the project impact tribal land or land of interest to tribes? If yes, describe the nature and extent of the effects and provide information on the tribe affected. Consultation with their THPO or a tribal representative along with the SHPO may be required.		
There are no tribal lands within 1 mile of the proposed project location.		
5-2.b(2) Department of Transportation Act Section 4(f) and 6(f) resources		
	YES	NO
Are there any properties protected under Section 4(f) (as defined by FAA Order 1050.1F) in or near the project area? This includes publicly owned parks, recreation areas, and wildlife or waterfowl refuges of national, state or local significance or land from a historic site of national, state or local significance.		
The airport is located within City of Oklahoma City property, but there are no 4(f) properties near the poriect area.		

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	YES	NO
Will project construction or operation physically or constructively "use" any Section 4(f) resource? If yes, describe the nature and extent of the use and/or impacts, and why there are no prudent and feasible alternatives. See 5050.4B Desk Reference Chapter 7.		
There will be no land use changes. The proposed project will stay within the boundaries of the existing airport.		
Will the project affect any recreational or park land purchased with Section 6(f) Land and Water Conservation Funds? If so, please explain, if there will be impacts to those properties.		
There will be no land use changes. The proposed project will stay within the boundaries of the existing airport.		

## 5-2.b(3) Threatened or Endangered Species

	YES	NO
Are there any federal or state listed endangered, threatened, or candidate species or designated critical habitat in or near the project area? This includes species protected by individual statute, such as the Bald Eagle.	$\boxtimes$	
According to the attached U.S. Fish and Wildlife Service (USFWS) IPaC, there is the potential for one (1) threatened fish and four (4) threatened and endangered birds within the project area. The Arkansas River Shiner prefers larger rivers, such as the adjacent Canadian River. They can also inhabit shallow prairie streams with sandy bottoms. There are creeks near the project location, but they will not be directly impacted by the project. Best Management Practices may be implemented to reduce potential impacts to nearby waterbodies. Least Terns, Piping Plovers, Whooping Crane, and the Red Knot all require shoreline habitat. The project is located near freshwater ponds, forested/shrub wetlands, creeks and riverines, but will not directly impact any of these habitats. There are two (2) migratory birds that may be present at the project location, the Harris's Sparrow and Smith's Longspur. Harris's Sparrows prefer thickets and woodland edges during migration in the winter. Probability of presence is highest during February through April. The Smith's Longspur prefer winters on short grassland plains and airport fields. The highest probability of presence is in January. Mitigation measures, such as construction phasing and reduced land disturbance may be used to reduce the potential impacts on Migratory birds. There are no critical habitats within the project area. There are no refuge lands or fish hatcheries within the project area. BMP's and mitigation measures may be implemented to reduce any potential impacts. However, this project is not anticipated to affect any endangered, threated, candidate species, critical habitat, migratory birds or Birds of Conservation Concern.		

	YES	NO
Does the project affect or have the potential to affect, directly or indirectly, any federal or state-listed, threatened, endangered or candidate species, or designated habitat under the Endangered Species Act? If yes, Section 7 consultation between the FAA and the US Fish & Wildlife Service, National Marine Fisheries Service, and/or the appropriate state agency will be necessary. Provide a description of the impacts and how impacts will be avoided, minimized, or mitigated. Provide the Biological Assessment and Biological Opinion, if required.		
Since the area has been previously developed, proposed renovations will remain within the airport proprerty, and there are no waterbodies or wetlands directly adjacent to the project, T & E species and migratory birds will not be affected. Best Management Practices and mitigation measuress may be implimented to reduce any impacts. There are no refuge lands or fish hatcheries within the project area. There are no critical habitats within the project area for any of the IPaC listed USFWS species.		
Does the project have the potential to take birds protected by the Migratory Bird Treaty Act? Describe steps to avoid, minimize, or mitigate impacts (such as timing windows determined in consultation with the US Fish & Wildlife Service).	$\boxtimes$	
According to the attached USFWS IPaC, there are two (2) migratory birds that may be present at the project location, the Harris's Sparrow and Smith's Longspur. Although this is suitable migration and wintering habitat for both migratory birds, construction efforts may be reduced during migration/wintering seasons (Jan-Mar), and all other aspects of the project will remain within the object free zone for safety. The proposed project will stay within the boundaries of the existing airport. However, this project does not anticipate take to migratory birds or Birds of Conservation Concern.		

## 5-2.b (4) Other Resources

Items to consider include:

a. Fish and Wildlife Coordination Act	YES	NO
Does the project area contain resources protected by the Fish and Wildlife Coordination Act? If yes, describe any impacts and steps taken to avoid, minimize, or mitigate impacts.		
There are no critical habitsts, refuge lands, or fish hatcheries within the project location. See Attached USFWS IPaC.		
b. Wetlands and Other Waters of the U.S.	YES	NO
Are there any wetlands or other waters of the U.S. in or near the project area?		
According to the attached USFWS National Wetland Inventory (NWI) and the EPA Waters GeoViewer, there are several waterbodies near the project area. According to the NWI, the closest waterbody is a small intermittent stream on the northwest corner of the project area. However, this waterbody is not identified on the EPA Water Geoviewer or the ODEQ Water Map. According to aerial images and desktop research, this is a channelized drainage structure. Additionally, according to USGS topography maps, the project location generally slopes to the south/southwest. The NWI also shows the existance of freshwater ponds, forested wetlands and creeks to the southwest of the project location. Additionally, there are several "blue line streams" near the project area. According to the EPA Waters GeoViewer, this project has the potential to impact the unnamed tributary of Cow Creek and the 303(d) impaired water of Cow Creek which are located to the southwest of the project. However, all construction will remain within the already disturbed airport property and Best Management Practices (BMP's) will be utilized to reduce any impact to the nearby waterbodies.		
Has wetland delineation been completed within the proposed project area? If yes, please provide U.S. Army Corps of Engineers (USACE) correspondence and jurisdictional determination. If delineation was not completed, was a field check done to confirm the presence/absence of wetlands or other waters of the U.S.? If no to both, please explain what methods were used to determine the presence/absence of wetlands.		
Niether wetland delineation nor a field check were completed within the project location. However, a desktop review of USGS Topographic maps, aerial photographs, USFWS National Wetland Inventory Maps, EPA Water GeoViewer, ODEQ resources, FEMA Flood Hazard Maps, and NRCS Soil Survey has been completed.		

If wetlands are present, will the project result in impacts, directly or indirectly (including tree clearing)? Describe any steps taken to avoid, minimize or mitigate the impact.		
The desktop review of the USFWS National Wetlands Inventory indicated the presence of forested/shrub wetlands near the proejct area. There is a 0.77 acre wetland to the northwest of the project area. It is 0.3 miles upslope from the project location and therefore will not be affected. There is a 2.35 acre forested/shrub wetland adjacent to a 11.37 acre freshwater pond located southwest of the project area and a 3.88 freshwater emergent wetland directly south of the project area. However, all construction will remain within the exisitng footprint of the runway, with the exception of potential construction of shoulders. Best Management Practices such as good housekeeping, minimized exposure, preventative maintenance of consutruction materials, spill prevention and erosion and sediment control will be implimented to avoid, minimize or mitigate impacts to nearby waterbodies.		
Is a USACE Clean Water Act Section 404 permit required? If yes, does the project fall within the parameters of a general permit? If so, which general permit?		
There are no anticipated discharge of pollutants into nearby waterways. Therefore, it is not anticipated that a Seciton 404 permit will be required. However, USACE coordination and permits will be aquired if necessary.		
		ı
c. Floodplains	YES	NO
c. Floodplains  Will the project be located in, encroach upon or otherwise impact a floodplain? If yes, describe impacts and any agency coordination or public review completed including coordination with the local floodplain administrator. Attach the FEMA map if applicable and any documentation.	YES	NO 🖂
Will the project be located in, encroach upon or otherwise impact a floodplain? If yes, describe impacts and any agency coordination or public review completed including coordination with the local floodplain administrator. Attach the FEMA map if	YES	
Will the project be located in, encroach upon or otherwise impact a floodplain? If yes, describe impacts and any agency coordination or public review completed including coordination with the local floodplain administrator. Attach the FEMA map if applicable and any documentation.  The project is not located within an area of minimal flood hazard and is not within a	YES	
Will the project be located in, encroach upon or otherwise impact a floodplain? If yes, describe impacts and any agency coordination or public review completed including coordination with the local floodplain administrator. Attach the FEMA map if applicable and any documentation.  The project is not located within an area of minimal flood hazard and is not within a floodway. See attached FEMA and FIRMETTE maps.		
Will the project be located in, encroach upon or otherwise impact a floodplain? If yes, describe impacts and any agency coordination or public review completed including coordination with the local floodplain administrator. Attach the FEMA map if applicable and any documentation.  The project is not located within an area of minimal flood hazard and is not within a floodway. See attached FEMA and FIRMETTE maps.  d. Coastal Resources  Will the project occur in or impact a coastal zone as defined by the State's Coastal Zone Management Plan? If yes, discuss the project's consistency with the State's		
Will the project be located in, encroach upon or otherwise impact a floodplain? If yes, describe impacts and any agency coordination or public review completed including coordination with the local floodplain administrator. Attach the FEMA map if applicable and any documentation.  The project is not located within an area of minimal flood hazard and is not within a floodway. See attached FEMA and FIRMETTE maps.  d. Coastal Resources  Will the project occur in or impact a coastal zone as defined by the State's Coastal Zone Management Plan? If yes, discuss the project's consistency with the State's CZMP. Attach the consistency determination if applicable.  NOAA has not established a Coastal Zone Management Plan for Oklahoma. Therefore,		

e. National Marine Sanctuaries	YES	NO
Is a National Marine Sanctuary located in the project area? If yes, discuss the potential for the project to impact that resource.		
Oklahoma is not within a National Marine Sanctuary. Therefore, this project is not located within a National Marine Sanctuary.		
f. Wilderness Areas	YES	NO
Is a Wilderness Area located in the project area? If yes, discuss the potential for the project to impact that resource.		$\boxtimes$
This project is not located within a designated Wilderness Area.		
g. Farmland	YES	NO
Is there prime, unique, state, or locally important farmland in/near the project area? Describe any significant impacts from the project.		
The proposed project will stay within the boundaries of the existing airport. There is a small portion of the southeast section of the project considered "prime farmland". However, this land has already been disturbed and is maintained as an operating airport runway. Therefore, no new or undisturbed prime farmland within the project area will be imapacted by the project. See attached NRCS Prime Farmland Map.		
Does the project include the acquisition and conversion of farmland? If farmland will be converted, describe coordination with the US Natural Resources Conservation and attach the completed Form AD-1006.		
The proposed project will stay within the boundaries of the existing airport. Therefore, there will not be acquisition or conversion of farmland.		
h. Energy Supply and Natural Resources	YES	NO
Will the project change energy requirements or use consumable natural resources either during construction or during operations?		
Some new materials will be used to rehabilitate the existing pavement and install new runway lighting. Some materials will be reused and/or recycled during upgrades. This porject does not anticipate to change energy requirements or consumable natural resources.		
Will the project change aircraft/vehicle traffic patterns that could alter fuel usage either during construction or operations?		
Airfield traffic and fuel usage may be reduced during construction, but the project does not anticipate to change overall airfield traffic.		

i. Wild and Scenic Rivers	YES	NO			
Is there a river on the Nationwide Rivers Inventory, a designated river in the National System, or river under State jurisdiction (including study or eligible segments) near the project?	$\boxtimes$				
According to the National Park Service Nationwide Rivers Inventory, there are no designated rivers near the project location. According to the EPA Waters GeoViewer, Cow Creek is located approximatley 0.75 miles southwest of the project location. There is also an unnamed tributary of Cow Creek approximatley 0.15 miles south of the project location. Both waterbodies may fall under Tulsa USACE jurisdiction.					
Will the project directly or indirectly affect the river or an area within ¼ mile of its ordinary high water mark?					
j. Solid Waste Management	YES	NO			
Does the project (either the construction activity or the completed, operational facility) have the potential to generate significant levels of solid waste? If so, discuss how these will be managed.		$\boxtimes$			
There will be some soil disturbance for the installation of lighting, and products used for the rehabilitation of the runway, but there will not be significant levels of solid waste produced. In fact, this project plans to reuse many of the existing infrastructure.					

# 5-2.b(5) Disruption of an Established Community

	YES	NO
Will the project disrupt a community, planned development or be inconsistent with plans or goals of the community?		
All improvements will remain within the boundary of the existing airport.		
Are residents or businesses being relocated as part of the project?		$\boxtimes$
All improvements will remain within the boundary of the existing airport. Construction phasing will allow surrounding stakeholders to traverse and use the airport as needed.		

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### 5-2.b(6) Environmental Justice

	YES	NO
Are there minority and/or low-income populations in/near the project area?		$\boxtimes$
The proposed project will stay within the boundaries of the existing airport. Therefore, no minority/low-income populations near the project will be impacted.		
Will the project cause any disproportionately high and adverse impacts to minority and/or low-income populations? Attach census data if warranted.		
The proposed project will stay within the boundaries of the existing airport.  Therefore, no minority/low-income populations near the project will be impacted.		
5-2.b(7) Surface Transportation		
	YES	NO
Will the project cause a significant increase in surface traffic congestion or cause a degradation of level of service provided?		
The proposed project will stay within the boundaries of the existing airport.  Construction phasing will allow for exisiting airfiled traffic to perform as normal.  Adjacent stakeholders will be able to traverse and use the airfield as necessary.		
Will the project require a permanent road relocation or closure? If yes, describe the nature and extent of the relocation or closure and indicate if coordination with the agency responsible for the road and emergency services has occurred.		
The proposed project will stay within the boundaries of the existing airport. Construction phasing will allow for exisiting airfiled traffic to perform as normal. Adjacent stakeholders will be able to traverse and use the airfield as necessary. Roads will not be closed or relocated. Any airfield traffic will be detoured on exisiting airport roads and runways.		
5.2 h(9) Noige		
5-2.b(8) Noise	VES	NO
	YES	NO
Will the project result in an increase in aircraft operations, nighttime operations, or change aircraft fleet mix?		

	YES	NO
Will the project cause a change in airfield configuration, runway use, or flight patterns either during construction or after the project is implemented?	$\boxtimes$	
Runway use and flight patterns may be reduced and/or altered during construction for safety. Airfield configuration and operations will return to normal after construction is complete.		
Does the forecast exceed 90,000 annual propeller operations, 700 annual jet operations or 10 daily helicopter operations or a combination of the above? If yes, a noise analysis may be required if the project would result in a change in operations.		
Has a noise analysis been conducted, including but not limited to generated noise contours, a specific point analysis, area equivalent method analysis, or other screening method. If yes, provide that documentation.		$\boxtimes$
Noise analysis was not conducted because the project does not anticipate to increase or decrease the airport usage.		
Could the project have a significant impact (DNL 1.5 dB or greater increase) on noise levels over noise sensitive areas within the 65+ DNL noise contour?		
Noise analysis was not conducted because the project does not anticipate to increase or decrease the airport usage.		
5-2.b(9) Air Quality		
	YES	NO
Is the project located in a Clean Air Act non-attainment or maintenance area?		$\boxtimes$
According to the EPA, this project is not located within a designated non-attainment or maintenance area.		
If yes, is it listed as exempt, presumed to conform or will emissions (including construction emissions) from the project be below <i>de minimis</i> levels (provide the paragraph citation for the exemption or presumed to conform list below, if applicable) Is the project accounted for in the State Implementation Plan or specifically exempted? Attach documentation.  N/A		
Does the project have the potential to increase landside or airside capacity,		$\square$

	YES	NO
Could the project impact air quality or violate local, State, Tribal or Federal air quality standards under the Clean Air Act Amendments of 1990 either during construction or operations?		

# **5-2.b** (10) Water Quality

	YES	NO
Are there water resources within or near the project area? These include groundwater, surface water (lakes, rivers, etc.), sole source aquifers, and public water supply. If yes, provide a description of the resource, including the location (distance from project site, etc.).	$\boxtimes$	
According to the EPA Waters GeoViewer, the 303(d) impaired stream, Cow Creek, is located approximatley 0.75 miles southwest of the project location. There is also an unnamed tributary of Cow Creek approximatley 0.15 miles south of the project location. The USFWS National Wetland Inventory (NWI) shows an additional waterbody near the northwest corner of the project. Accroding to aerial imagery, this waterbody is concrete channel. The NWI also indicates the presence of wetlands and ponds to the south of the project locaiton. These waterbodies may fall under Tulsa USACE jurisdiction. The project locaiton is on top pf the Garber-Wellington Bedrock aquifer. There are no public water supplies (pws) or sole source aquifers on the project locaiton.		
Will the project impact any of the identified water resources either during construction or operations? Describe any steps that will be taken to protect water resources during and after construction.		
While the project may not directly impact any jurisdictional waterbodies, a Storm water Pollution Prevention Plan (SWPPP) will be included to address erosion and runoff resulting from the proposed project. Best Management Practices such as good housekeeping, minimized exposure, preventative maintenance, eorision and sediment control and runoff management may be implimented to reduce or avoid impacts. Additionally, a Notice of Intent (NOI) will be filed with the Oklahoma Department of Environmental Quality (ODEQ) prior to construction.		
Will the project increase the amount or rate of stormwater runoff either during construction or during operations? Describe any steps that will be taken to ensure it will not impact water quality.		
A Storm Water Pollution Prevention Plan (SWPPP) should be created to address erosion and runoff resulting from construciton of the proposed project and the possible additions of shoulders to the runway.		

Effective Date: June 2, 2017

	YES	s no
Does the project have the potential to violate federal, state, tribal or local water quality standards established under the Clean Water and Safe Drinking Water Acts?		
Are any water quality related permits required? If yes, list the appropriate permits.		
A Storm Water Pollution Prevention Plan (SWPPP) should be created to address erosion and runoff resulting from the proposed project. Additionally, a Notice of Intent (NOI) needs to be obtained from the Oklahoma Department of Environmental Quality (ODEQ) prior to construction. Any and all permits will be acquired if necessary.		
5-2.b(11) Highly Controversial on Environmental Grounds		
	YES	NO NO
Is the project highly controversial? The term "highly controversial" means a substantial dispute exists as to the size, nature, or effect of a proposed federal action. The effects of an action are considered highly controversial when reasonable disagreement exists over the project's risks of causing environmental harm. Mere opposition to a project is not sufficient to be considered highly controversial on environmental grounds. Opposition on environmental grounds by a federal, state, or local government agency or by a tribe or a substantial number of the persons affected by the action should be considered in determining whether or not reasonable disagreement exists regarding the effects of a proposed action.		
The proposed maintenance and repair project will stay within the boundaries of the existing airport. Therefore, there will be no land use changes, the project will not have an effect on the nearby populations and the project will not cause pollution to nearby waterways. The project is not highly controversial.		
5.2 h(12) Inconsistant with Federal State Tribal on Legal Law		
5-2.b(12) Inconsistent with Federal, State, Tribal or Local Law	YES	NO
Will the project be inconsistent with plans, goals, policy, zoning, or local controls that have been adopted for the area in which the airport is located?		
This is a mainenance and repair project. All aspects of the project will remain within plans, goals, policy and zoning of the existing airport.		
Is the project incompatible with surrounding land uses?		$\boxtimes$
The proposed project will stay within the boundaries of the existing airport. There will be no land use changes.		

# 5-2 .b (13) Light Emissions, Visual Effects, and Hazardous Materials

a. Light Emissions and Visual Effects	YES	NO	
Will the proposed project produce light emission impacts?			
The proposed project includes the installation of new LED runway lights. However, there are no sensitive sites near the project area.			
Will there be visual or aesthetic impacts as a result of the proposed project and/or have there been concerns expressed about visual/aesthetic impacts?			
There have not been expressed concerns about visual and aesthetic impacts.			
b. Hazardous Materials	YES	NO	
Does the project involve or affect hazardous materials?			
There are several LUST sites near the project location, but non fall within the project footprint. There are no hazerdous material sites or LUST facilities that will be affected by this project.			
Will construction take place in an area that contains or previously contained hazardous materials?			
If the project involves land acquisition, is there a potential for this land to contain hazardous materials or contaminants?		$\boxtimes$	
The proposed project will stay within the boundaries of the existing airport. There will be no land acquisition.			
Will the proposed project produce hazardous and/or solid waste either during construction or after? If yes, how will the additional waste be handled?		$\boxtimes$	
5-2 .b (14) Public Involvement			
	YES	NO	
Was there any public notification or involvement? If yes, provide documentation.			

# 5-2 .b (15) Indirect/Secondary/Induced Impacts

	YES	NO	
Will the project result in indirect/secondary/induced impacts?			
When considered with other past, present, and reasonably foreseeable future projects, on or off airport property and regardless of funding source, would the proposed project result in a significant cumulative impact?			

#### **Permits**

List any permits required for the proposed project that have not been previously discussed. Provide details on the status of permits.

A Notice of Intent (NOI) will be filed with the ODEQ prior to construction. A Stormwater Pollution Prevention Plan (SWPPP) should be completed and kept on site during construction. If necessary, 404 permits will be aguired.

#### **Environmental Commitments**

List all measures and commitments made to avoid, minimize, mitigate, and compensate for impacts on the environment, which are needed for this project to qualify for a CATEX.

The proposed project will remain within the boundaries of the existing airport. All construction and operation will remain within the previously disturbed area of he safety and object free zone.

ARP SOP No. 5.1 Effective Date: June 2, 2017

#### Preparer Information

Point of Contact: Shelby Hanchera				
Address: 25 NW 146 <sup>th</sup> Street				
City: Edmond		Stat	e: OK	<b>Zip Code:</b> 73013
Phone: 1(405) 463-0969 Email Address: shanchera@macokc.com				
Signature: Standard Date: 6/1/2020				
Airport Sponsor Information a	nd Certificatio	on (ma	y not be delegated	to consultant)
Provide contact information for the requiring notification of the FAA		ponso	r point of contact ar	nd any other individuals
Point of Contact: John R. Storms, P.E				
Address: 7100 Terminal Drive, Unit 93	7			
City: Oklahoma City  State: OK  Phone Number: 405-316-3201  En		OK	<b>Zip Code:</b> 73159	
			Email Address: john.	storms@okc.gov
Additional Name(s):			Additional Email Address(es):	
A				
I certify that the information I have recognize and agree that no constitute demolition, or land disturbance, so final environmental decision for the applicable FAA approval actions occurred.  Signature:	ruction activity hall proceed fo he proposed pr	y, inclusor the a	ding but not limited bove proposed project (s) and until compliant (s)	d to site preparation, ject(s) until FAA issues a unce with all other
Signature			Date.	

ARP SOP No. 5.1 Effective Date: June 2, 2017

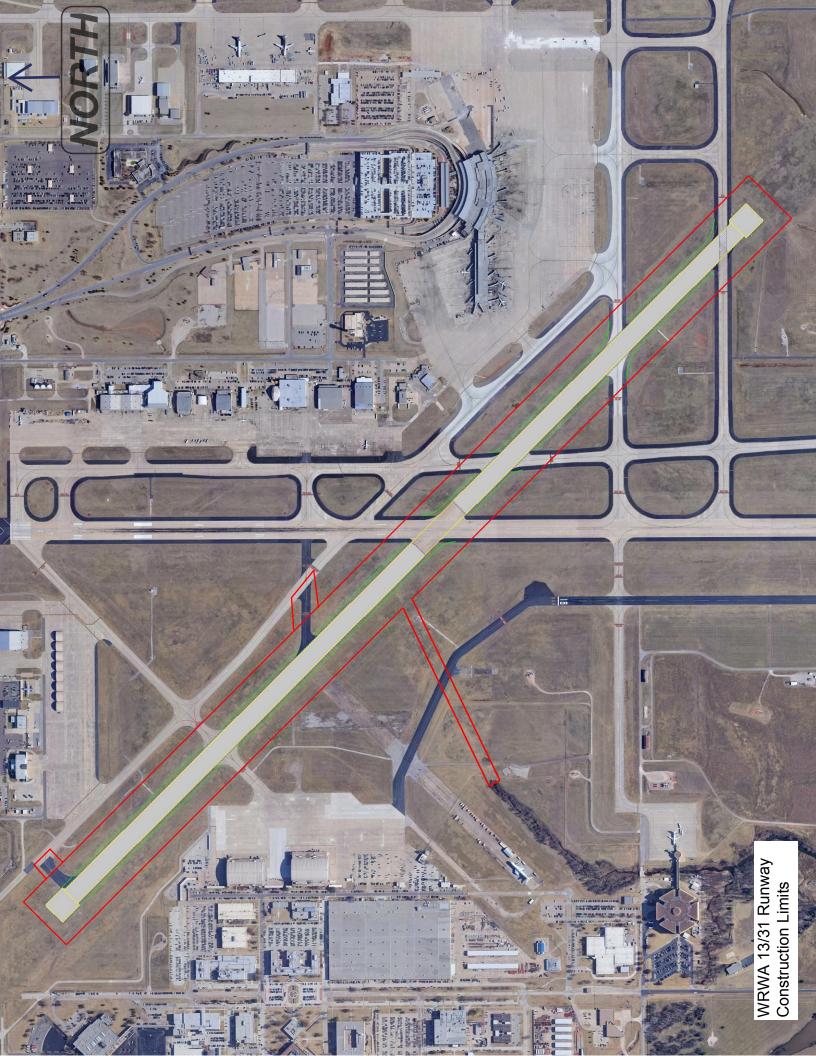
# **FAA Decision**

Having reviewed the above information, it is the FAA's decision that the proposed project (s) or development warrants environmental processing as indicated below.

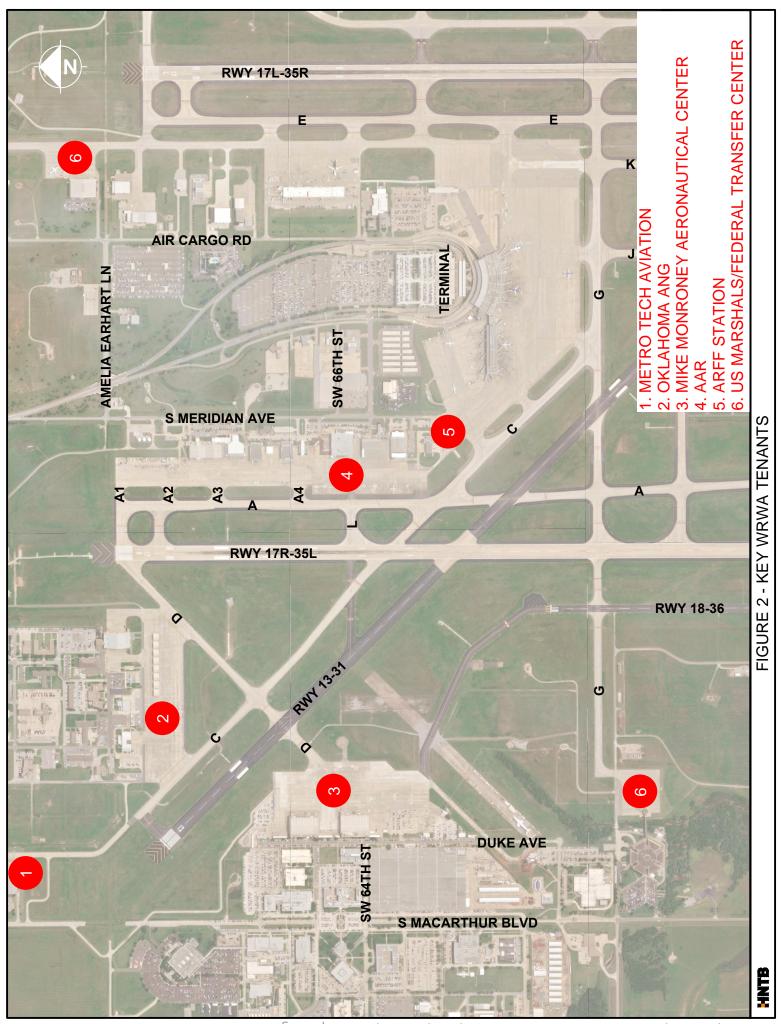
development warrants environmental	processing as indicated below.				
Name of Airport, LOC ID, and location	on:				
Project Title:					
☐ No further NEPA review rec 1050.1.F CATEX that applies:	quired. Project is categorically excluded per (cite applicable )				
An Environmental Assessment (EA) is required.					
An Environmental Impact S	tatement (EIS) is required.				
The following additional do- environmental evaluation of	cumentation is necessary for FAA to perform a complete f the proposed project.				
Name:  Responsible FAA Officia	Title:				
Signature:	Date:				

#### **APPENDICES**

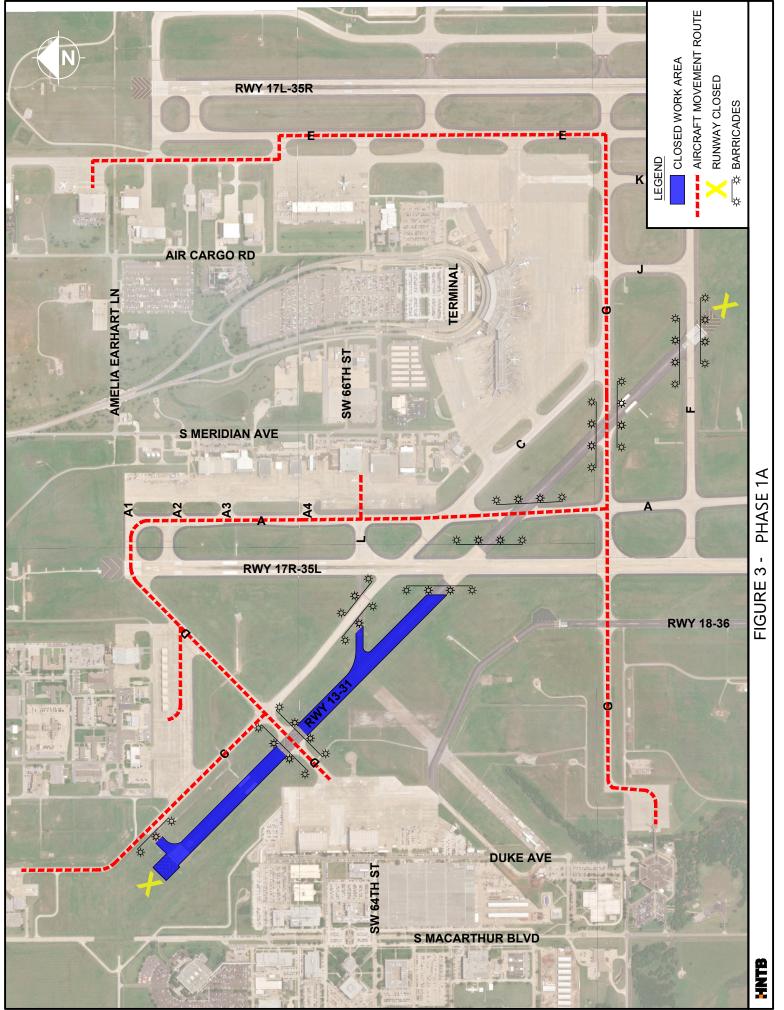
- I. Aerial Images of the Project Location
- II. Construction Limits, Phasing, Stakeholder Locations and Aircraft Movement Routes
- III. USGS Topo Maps
- IV. USFWS Information for Planning and Consultation
- V. USFWS National Wetland Inventory
- VI. EPA Waters GeoViewer
- VII. FEMA National Flood Hazard Layer FIRMette
- VIII. NRCS Soils Map
  - IX. NRCS Hydric Soils
  - X. NRCS Prime Farmland
  - XI. NRCS Water Table Depth
- XII. ODEQ Superfund Sites
- XIII. ODOT LUST sites
- XIV. NPS National Register of Historical Places
- XV. FAA Directory

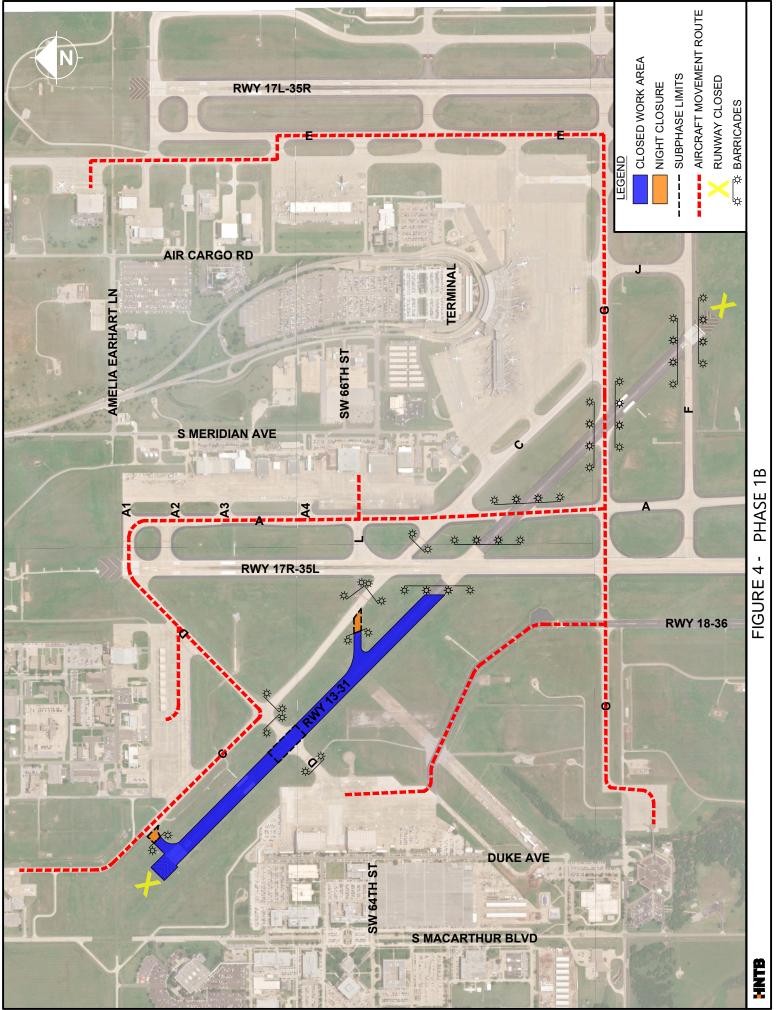


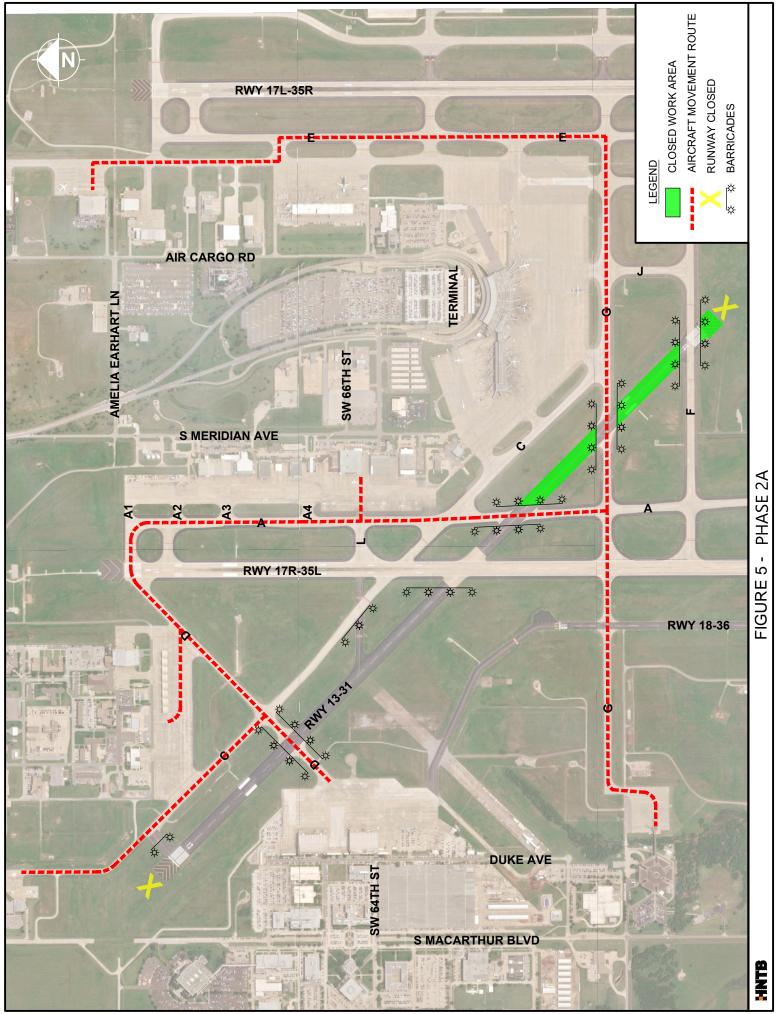
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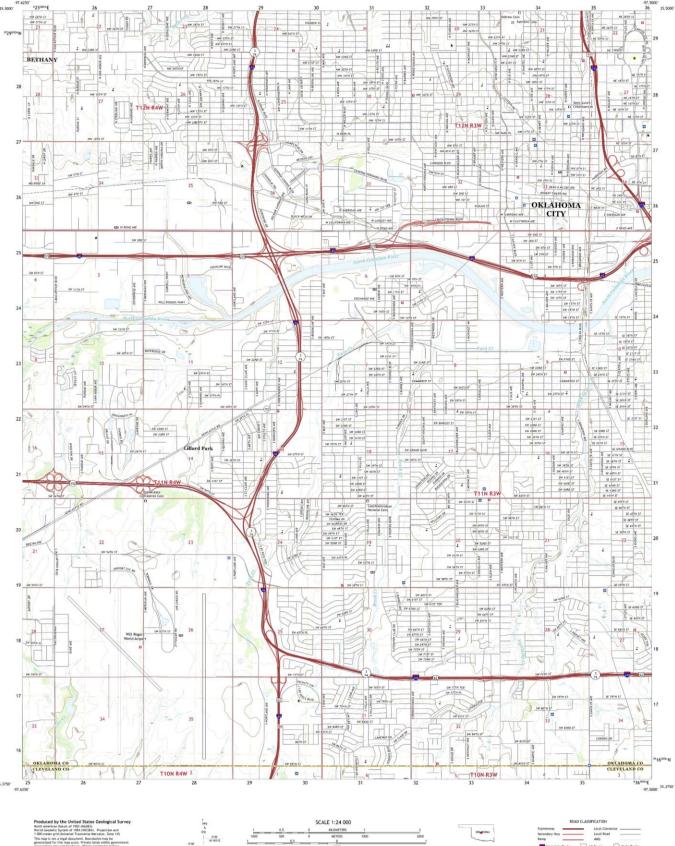
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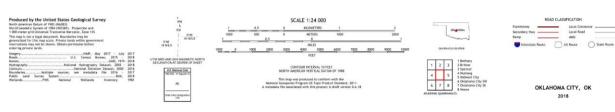






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# United States Department of the Interior

#### FISH AND WILDLIFE SERVICE

Oklahoma Ecological Services Field Office 9014 East 21st Street Tulsa, OK 74129-1428

Phone: (918) 581-7458 Fax: (918) 581-7467 http://www.fws.gov/southwest/es/Oklahoma/



In Reply Refer To: May 27, 2020

Consultation Code: 02EKOK00-2020-SLI-1876

Event Code: 02EKOK00-2020-E-04649 Project Name: WRWA 13/31 Runway

Subject: List of threatened and endangered species that may occur in your proposed project

location, and/or may be affected by your proposed project

#### To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Non-federal entities conducting activities that may result in take of listed species should consider seeking coverage under section 10 of the ESA, either through development of a Habitat Conservation Plan (HCP) or, by becoming a signatory to the General Conservation Plan (GCP) currently under development for the American burying beetle. Each of these mechanisms provides the means for obtaining a permit and coverage for incidental take of listed species during otherwise lawful activities.

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle\_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit through our Project Review step-wise process <a href="http://www.fws.gov/southwest/es/oklahoma/OKESFO%20Permit%20Home.htm">http://www.fws.gov/southwest/es/oklahoma/OKESFO%20Permit%20Home.htm</a>.

#### Event Code: 02EKOK00-2020-E-04649

### Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Migratory Birds
- Wetlands

# **Official Species List**

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Oklahoma Ecological Services Field Office 9014 East 21st Street Tulsa, OK 74129-1428 (918) 581-7458

# **Project Summary**

Consultation Code: 02EKOK00-2020-SLI-1876

Event Code: 02EKOK00-2020-E-04649

Project Name: WRWA 13/31 Runway

Project Type: TRANSPORTATION

Project Description: Will Rogers World Airport 13/31 Runway

#### **Project Location:**

Approximate location of the project can be viewed in Google Maps: <a href="https://www.google.com/maps/place/35.39643075862741N97.60441123848318W">https://www.google.com/maps/place/35.39643075862741N97.60441123848318W</a>



Counties: Oklahoma, OK

# **Endangered Species Act Species**

There is a total of 5 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 1 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries<sup>1</sup>, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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.

#### **Birds**

NAME STATUS

#### Least Tern Sterna antillarum

Endangered

Population: interior pop.

No critical habitat has been designated for this species.

This species only needs to be considered under the following conditions:

- Wind Turbines and Wind Farms
- Towers (i.e. radio, television, cellular, microwave, meterological)

Species profile: https://ecos.fws.gov/ecp/species/8505

#### Piping Plover Charadrius melodus

Threatened

Population: [Atlantic Coast and Northern Great Plains populations] - Wherever found, except

those areas where listed as endangered.

There is **final** critical habitat for this species. Your location is outside the critical habitat.

Species profile: <a href="https://ecos.fws.gov/ecp/species/6039">https://ecos.fws.gov/ecp/species/6039</a>

#### Red Knot Calidris canutus rufa

Threatened

No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/1864">https://ecos.fws.gov/ecp/species/1864</a>

#### Whooping Crane *Grus americana*

Endangered

Population: Wherever found, except where listed as an experimental population There is **final** critical habitat for this species. Your location is outside the critical habitat.

Species profile: <a href="https://ecos.fws.gov/ecp/species/758">https://ecos.fws.gov/ecp/species/758</a>

#### **Fishes**

NAME

Arkansas River Shiner *Notropis girardi* 

Threatened

Population: Arkansas River Basin (AR, KS, NM, OK, TX)

There is **final** critical habitat for this species. Your location is outside the critical habitat.

Species profile: <a href="https://ecos.fws.gov/ecp/species/4364">https://ecos.fws.gov/ecp/species/4364</a>

#### **Critical habitats**

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

# **USFWS National Wildlife Refuge Lands And Fish Hatcheries**

Any activity proposed on lands managed by the <u>National Wildlife Refuge</u> 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 OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

# **Migratory Birds**

Certain birds are protected under the Migratory Bird Treaty Act<sup>1</sup> and the Bald and Golden Eagle Protection Act<sup>2</sup>.

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 <u>below</u>.

- 1. The Migratory Birds Treaty Act of 1918.
- 2. The <u>Bald and Golden Eagle Protection Act</u> of 1940.
- 3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

The birds listed below are birds of particular concern either because they occur on the <u>USFWS</u> <u>Birds of Conservation Concern</u> (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 <u>below</u>. 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 <u>E-bird data mapping tool</u> (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

Harris's Sparrow Zonotrichia querula

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Smith's Longspur Calcarius pictus

BREEDING SEASON

Breeds elsewhere

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

## **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.

#### **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 (|)

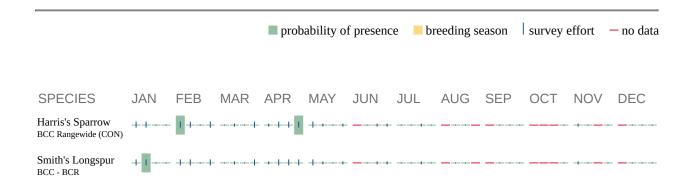
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

#### 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.



Additional information can be found using the following links:

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

## **Migratory Birds FAQ**

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 <u>Birds of Conservation Concern</u> (<u>BCC</u>) 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 <u>Avian Knowledge Network (AKN)</u>. The AKN data is based on a growing collection of <u>survey</u>, <u>banding</u>, <u>and citizen science datasets</u> 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 (<u>Eagle Act</u> 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 <u>AKN Phenology Tool</u>.

# 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 <u>Avian Knowledge Network (AKN)</u>. This data is derived from a growing collection of <u>survey</u>, <u>banding</u>, <u>and citizen science datasets</u>.

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 <u>Birds of Conservation Concern</u> (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 <a href="Eagle Act">Eagle Act</a> 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 <a href="Northeast Ocean Data Portal">Northeast Ocean Data Portal</a>. 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 <a href="NOAA NCCOS Integrative Statistical Modeling">NOAA NCCOS Integrative Statistical Modeling</a> and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic <a href="Outer Continental Shelf">Outer Continental Shelf</a> 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 <u>Diving Bird Study</u> and the <u>nanotag studies</u> or contact <u>Caleb Spiegel</u> or <u>Pam Loring</u>.

#### What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to <u>obtain a permit</u> 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.

# Wetlands

Impacts to <u>NWI wetlands</u> 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>U.S. Army Corps of Engineers District</u>.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

FRESHWATER EMERGENT WETLAND

- PEM1A
- <u>PEM1C</u>

FRESHWATER POND

PUBF

RIVERINE

R4SBC

# WRWA 13/31 Runway



May 27, 2020

# Wetlands

Estuarine and Marine Deepwater

Estuarine and Marine Wetland

Freshwater Emergent Wetland

Freshwater Forested/Shrub Wetland

Freshwater Pond

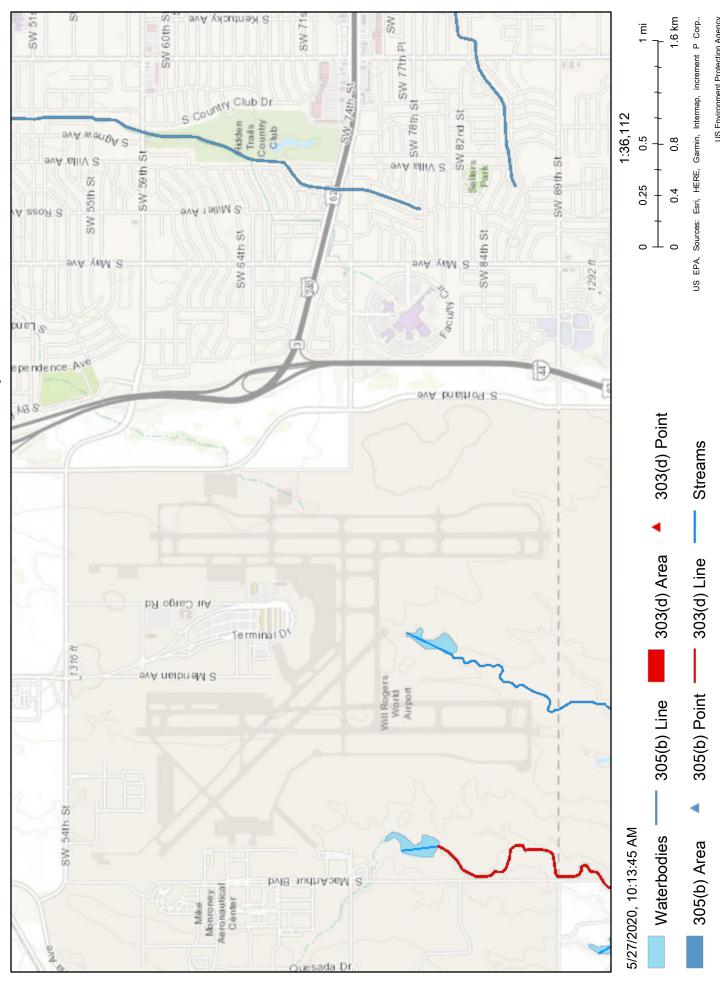
Lake

Other

Riverine

National Wetlands Inventory (NWI) This page was produced by the NWI mapper

# WRWA 13/31 Runway



US Environment Protection Agency City of Oklahoma City, Texas Parks & Wildlife, Esri, HERE, Garmin, INCREMENT P, USGS, METI/NASA, EPA, USDA | US EPA |



# **Watershed Report**

The Watershed Report provides a variety of stream, catchment and watershed related information from the <u>National Hydrography Dataset Plus</u> (NHDPlus Version 2) and other sources including the extensive collection of <u>StreamCat</u> landscape layers. A catchment is the local area draining directly to the selected stream segment. A watershed is the drainage area extending from the downstream end of the stream segment (outlet) upstream to the headwaters. The map displays the stream segment and catchment.



For the stream segment	Value
Stream Name	Cow Creek
Stream Order	1
Stream Level	4
Mean annual flow volume (estimate)	0.59 cfs
Mean annual flow velocity (estimate)	0.70 fps
Stream Length	2.25 km
Stream Time of Travel (estimate)	0.12 days

View catchment and watershed data from either the NHDPlus or StreamCat datasets by clicking on the appropriate tab below:

NHDPlus Catchment and Watershed Data

StreamCat Catchment and Watershed Data

# For the catchment (local area draining directly to the selected stream segment)

Metrics	Catchment Total
Catchment area measurement	2.06 km <sup>2</sup>
Mean annual temperature	15.85 °C
Mean annual precipitation	918.28 mm

2011 National Land Cover Dataset	Catchment Total
Open Water (11)	0.09%
Low Intensity Residential (21)	8.62%
Commercial (23)	5.35%
Deciduous Forest (41)	4.88%
Evergreen Forest (42)	0%
Mixed Forest (43)	0%
Other	81.06%

# For the watershed (drainage area extending from the outlet upstream to the headwaters)

Metrics	Watershed Total
Drainage area measurement	5.46 km <sup>2</sup>
Mean annual temperature	15.85 °C
Mean annual precipitation	917.54 mm

2011 National Land Cover Dataset	Watershed Total
Open Water (11)	0.61%
Low Intensity Residential (21)	15.03%
Commercial (23)	15.26%
Deciduous Forest (41)	3.20%
Evergreen Forest (42)	0%
Mixed Forest (43)	0%
Other	65.91%

Download Full Report (.json)

NHDPlus data extracted as of March 2019. More information on the NHDPlus dataset.

# LAST UPDATED ON FEBRUARY 15, 2017



# **Watershed Report**

The Watershed Report provides a variety of stream, catchment and watershed related information from the <u>National Hydrography Dataset Plus</u> (NHDPlus Version 2) and other sources including the extensive collection of <u>StreamCat</u> landscape layers. A catchment is the local area draining directly to the selected stream segment. A watershed is the drainage area extending from the downstream end of the stream segment (outlet) upstream to the headwaters. The map displays the stream segment and catchment.



For the stream segment	Value
Stream Name	Not Available
Stream Order	1
Stream Level	5
Mean annual flow volume (estimate)	0.68 cfs
Mean annual flow velocity (estimate)	0.72 fps
Stream Length	4.72 km
Stream Time of Travel (estimate)	0.25 days

View catchment and watershed data from either the NHDPlus or StreamCat datasets by clicking on the appropriate tab below:

NHDPlus Catchment and Watershed Data

StreamCat Catchment and Watershed Data

# For the catchment (local area draining directly to the selected stream segment)

Metrics	Catchment Total
Catchment area measurement	5.02 km <sup>2</sup>
Mean annual temperature	15.86 °C
Mean annual precipitation	919.72 mm

2011 National Land Cover Dataset	Catchment Total
Open Water (11)	0.39%
Low Intensity Residential (21)	9.53%
Commercial (23)	6.93%
Deciduous Forest (41)	5.31%
Evergreen Forest (42)	0%
Mixed Forest (43)	0%
Other	77.84%

# For the watershed (drainage area extending from the outlet upstream to the headwaters)

Metrics	Watershed Total
Drainage area measurement	6.18 km <sup>2</sup>
Mean annual temperature	15.86 °C
Mean annual precipitation	919.67 mm

2011 National Land Cover Dataset	Watershed Total
Open Water (11)	0.32%
Low Intensity Residential (21)	10.72%
Commercial (23)	8.45%
Deciduous Forest (41)	4.31%
Evergreen Forest (42)	0%
Mixed Forest (43)	0%
Other	76.19%

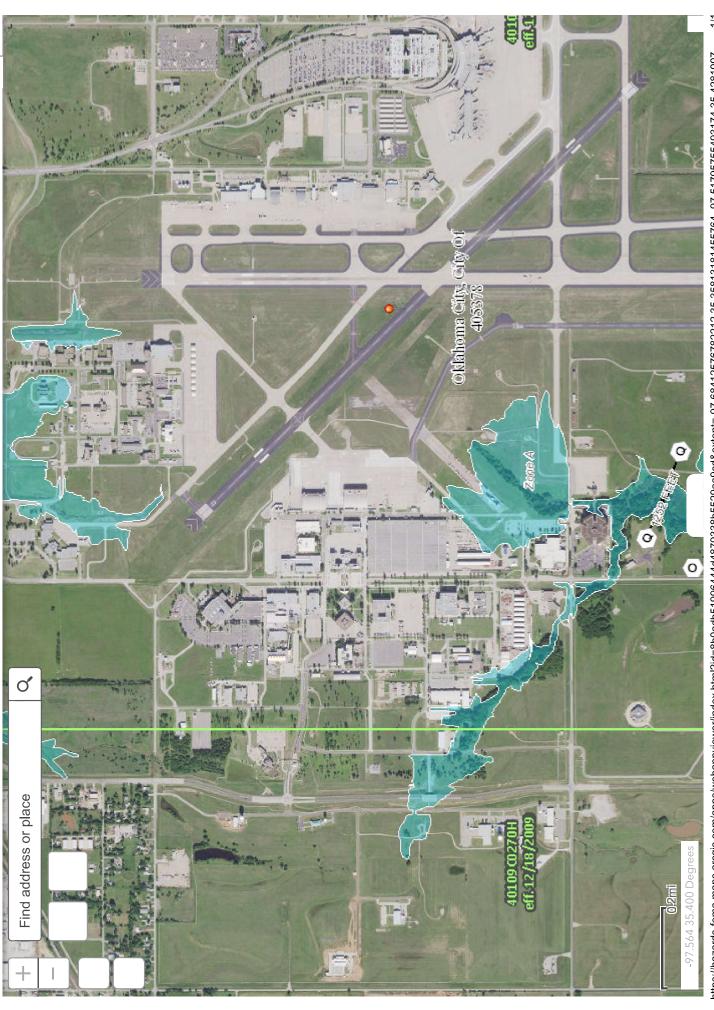
Download Full Report (.json)

NHDPlus data extracted as of March 2019. More information on the NHDPlus dataset.

# LAST UPDATED ON FEBRUARY 15, 2017

# FEMA's National Flood Hazard Layer (NFHL) Viewer

with Web AppBuilder for ArcGIS



https://hazards-fema.maps.arcgis.com/apps/webappviewer/index.html?id=8b0adb5199644d4879338b5529aa9cd&extent=-97.68412576782212,35.35813181455764,-97.51795755493174,35.4281007... 1/1

# NOTES TO USERS

This map is for use in administering the National Flood insurance Program. It does in recessary individual and associated in Charity, particularly from local dramage postess of small size. The community map repository should be onsulted for possible individual or additional flood hazard information.

Bountaintes of the floodways were computed at cross sections and inter-bathways cross section. The floodways wind based of individual considerably regard to requirements of the National Flood hazanza Program. Ploodway and other perfects (Bookeng data are provided in the Flood historinos-Stud, for this transferior.

Pertain sneas not in Special Flood Hazard Aleas may be protected by fiboid cont. structures. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurer Study apport for information, on flood, control structures for this jurisdiction.

hopitation used in the represente out this may use a unaband confirmed consistent of the properties used in the represente of 19% used to 19% used to

Base may informetion shown on this ITIM was provided in digital formal by the C information by Systems department of the University of Delahoma, and by the is information of Delahoma Geology.

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Contact the PEMA Map Service center at 1-502-303-3016 for intontation of contact the Penda products executed with in FRIM. Available products are yielded products because the Yorkson's provided by the Penda Charles of Map Charles of Nation Penda Penda

I you have questions about this map or questions concerning the National Flood naturance Troppian in presently, please on I 4577-164M MAP (1487-1386-2627) or old the FEMA website at I quickness conductions and an experimental productions.

The "profile base lines" depoted on this map represent the hydraulie modeling treatment and marter the Bood grother in InS raport. As a result of improved topographic deals, the "profile base line", in some cases, may deviate significantly from the Vanish caracteristics or uppear couples this SPHA.

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FLOOD INSURANCE RATE MAP

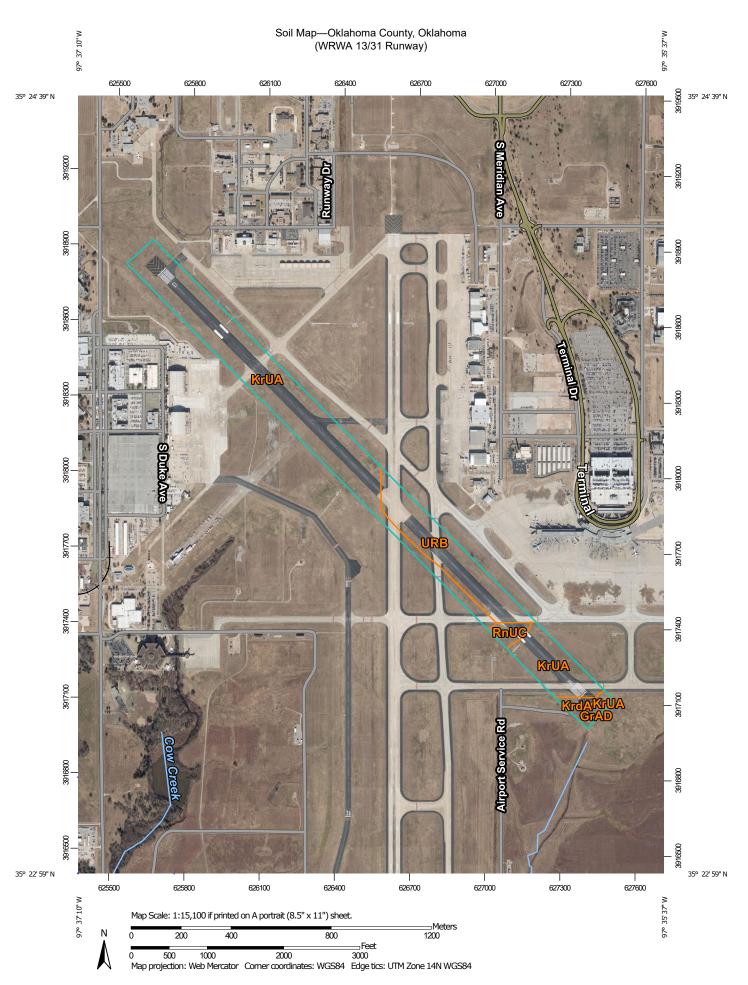
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AND INCORPORATED AREAS PANEL 290 OF 370

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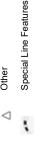
MAP NUMBER 40109C0290H

REVISED DATE DECEMBER 18, 2009

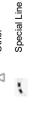


# MAP LEGEND

# Very Stony Spot Stony Spot Spoil Area Wet Spot Other W Soil Map Unit Polygons Area of Interest (AOI) Soil Map Unit Points Soil Map Unit Lines Special Point Features Area of Interest (AOI) Soils





































**Borrow Pit** 

Blowout

Clay Spot



Closed Depression

This product is generated from the USDA-NRCS certified data as

of the version date(s) listed below.

distance and area. A projection that preserves area, such as the Maps from the Web Soil Survey are based on the Web Mercator

Albers equal-area conic projection, should be used if more

accurate calculations of distance or area are required.

projection, which preserves direction and shape but distorts

Source of Map: Natural Resources Conservation Service

Coordinate System: Web Mercator (EPSG:3857)

Web Soil Survey URL:

Please rely on the bar scale on each map sheet for map

measurements.

The soil surveys that comprise your AOI were mapped at

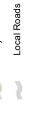
MAP INFORMATION



**Gravelly Spot** 

**Gravel Pit** 









Marsh or swamp

Lava Flow

Landfill

Mine or Quarry

Miscellaneous Water

Perennial Water

Rock Outcrop

Saline Spot Sandy Spot Severely Eroded Spot

Slide or Slip Sodic Spot

Sinkhole

Aerial Photography

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Date(s) aerial images were photographed: Nov 1, 2018—Nov

Soil map units are labeled (as space allows) for map scales

1:50,000 or larger.

Soil Survey Area: Oklahoma County, Oklahoma Survey Area Data: Version 21, Sep 16, 2019

USDA

# **Map Unit Legend**

Map Unit Symbol Map Unit Name		Acres in AOI	Percent of AOI	
GrAD	Grainola-Ashport, frequently flooded, complex, 0 to 12 percent slopes	1.8	1.9%	
KrdA	Kirkland silt loam, 0 to 1 percent slopes	2.1	2.1%	
KrUA	Kirkland-Urban land complex, 0 to 1 percent slopes	68.9	70.4%	
RnUC	Renthin-Urban land complex, 1 to 5 percent slopes	2.7	2.7%	
URB	Urban land	22.4	22.9%	
Totals for Area of Interest		97.8	100.0%	



# MAP LEGEND

Not rated or not available Streams and Canals Interstate Highways Aerial Photography Major Roads Local Roads US Routes Rails C/D Water Features **Transportation** Background ŧ Not rated or not available Area of Interest (AOI) Soil Rating Polygons Area of Interest (AOI) Soil Rating Lines C/D B/D ΑD ΑD Ш ⋖ } Soils

The soil surveys that comprise your AOI were mapped at

MAP INFORMATION

Please rely on the bar scale on each map sheet for map measurements. Source of Map: Natural Resources Conservation Service Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

distance and area. A projection that preserves area, such as the Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required. This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Oklahoma County, Oklahoma Survey Area Data: Version 21, Sep 16, 2019

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger. Date(s) aerial images were photographed: Nov 1, 2018—Nov

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Not rated or not available

C/D

Soil Rating Points

⋖

ΑD

B/D

# **Hydrologic Soil Group**

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
GrAD	Grainola-Ashport, frequently flooded, complex, 0 to 12 percent slopes	D	1.8	1.9%
KrdA	Kirkland silt loam, 0 to 1 percent slopes	D	2.1	2.1%
KrUA	Kirkland-Urban land complex, 0 to 1 percent slopes	D	68.9	70.4%
RnUC	Renthin-Urban land complex, 1 to 5 percent slopes	D	2.7	2.7%
URB	Urban land	D	22.4	22.9%
Totals for Area of Inter	est		97.8	100.0%

## **Description**

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

# **Rating Options**

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher



	Farmland of unique importance  Not rated or not available  Soil Rating Lines	All areas are prime farmland All areas are prime farmland Prime farmland if drained Prime farmland if protected from flooding or not frequently flooded during the growing	Prime farmland if irrigated Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season Prime farmland if irrigated and drained Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season	
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•	ne product or r (son bility) x C (climate		ranniand of statewide importance, if thawed			Soil map units are labeled (as space allows) for map scales
importance Farmland of local importance, if irrigated	r) does not exceed		Farmland of local			1.30,000 of larger.
Farmland of local importance, if irrigated			importance			Date(s) aerial images were photographed: Nov 1, 2018—Nov
importance, if irrigated			Farmland of local			30, 2018
			importance, if irrigated			The orthophoto or other base map on which the soil lines were
						compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor
						shifting of map unit boundaries may be evident.

### **Farmland Classification**

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
GrAD	Grainola-Ashport, frequently flooded, complex, 0 to 12 percent slopes	Not prime farmland	2.0	1.8%
KrdA	Kirkland silt loam, 0 to 1 percent slopes	All areas are prime farmland	2.0	1.8%
KrUA	Kirkland-Urban land complex, 0 to 1 percent slopes	Not prime farmland	78.7	70.8%
RnUC	Renthin-Urban land complex, 1 to 5 percent slopes	Not prime farmland	2.5	2.3%
URB	Urban land	Not prime farmland	25.9	23.3%
Totals for Area of Inter	rest	111.2	100.0%	

# **Description**

Farmland classification identifies map units as prime farmland, farmland of statewide importance, farmland of local importance, or unique farmland. It identifies the location and extent of the soils that are best suited to food, feed, fiber, forage, and oilseed crops. NRCS policy and procedures on prime and unique farmlands are published in the "Federal Register," Vol. 43, No. 21, January 31, 1978.

# **Rating Options**

Aggregation Method: No Aggregation Necessary

Tie-break Rule: Lower



# MAP LEGEND

### Not rated or not available Streams and Canals Interstate Highways Aerial Photography Major Roads Local Roads US Routes Rails Water Features **Transportation** Background ŧ Not rated or not available Area of Interest (AOI) Soil Rating Polygons Area of Interest (AOI) 100 - 150 150 - 200 50 - 100 25 - 50 0 - 25 > 200

# MAP INFORMATION

The soil surveys that comprise your AOI were mapped at

Please rely on the bar scale on each map sheet for map

Source of Map: Natural Resources Conservation Service measurements.

Coordinate System: Web Mercator (EPSG:3857) Web Soil Survey URL:

distance and area. A projection that preserves area, such as the Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required. This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Oklahoma County, Oklahoma Survey Area Data: Version 21, Sep 16, 2019

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger. Date(s) aerial images were photographed: Nov 1, 2018—Nov

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Not rated or not available

> 200

Soil Rating Points

0 - 25

> 200

50 - 100

25 - 50

50 - 100

25 - 50

Soil Rating Lines

0 - 25

6/1/2020 Page 2 of 3

# **Depth to Water Table**

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
GrAD	Grainola-Ashport, frequently flooded, complex, 0 to 12 percent slopes	>200	1.8	1.9%
KrdA	Kirkland silt loam, 0 to 1 percent slopes	>200	2.1	2.1%
KrUA	Kirkland-Urban land complex, 0 to 1 percent slopes	>200	68.9	70.4%
RnUC	Renthin-Urban land complex, 1 to 5 percent slopes	>200	2.7	2.7%
URB	Urban land	>200	22.4	22.9%
Totals for Area of Inter	est		97.8	100.0%

# **Description**

"Water table" refers to a saturated zone in the soil. It occurs during specified months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

# **Rating Options**

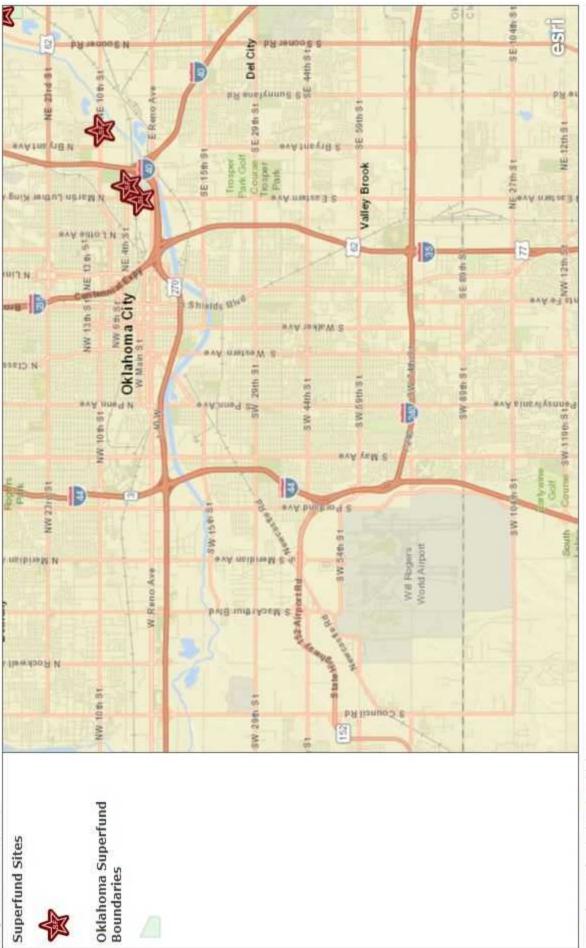
Units of Measure: centimeters

Aggregation Method: Dominant Component Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No Beginning Month: January Ending Month: December

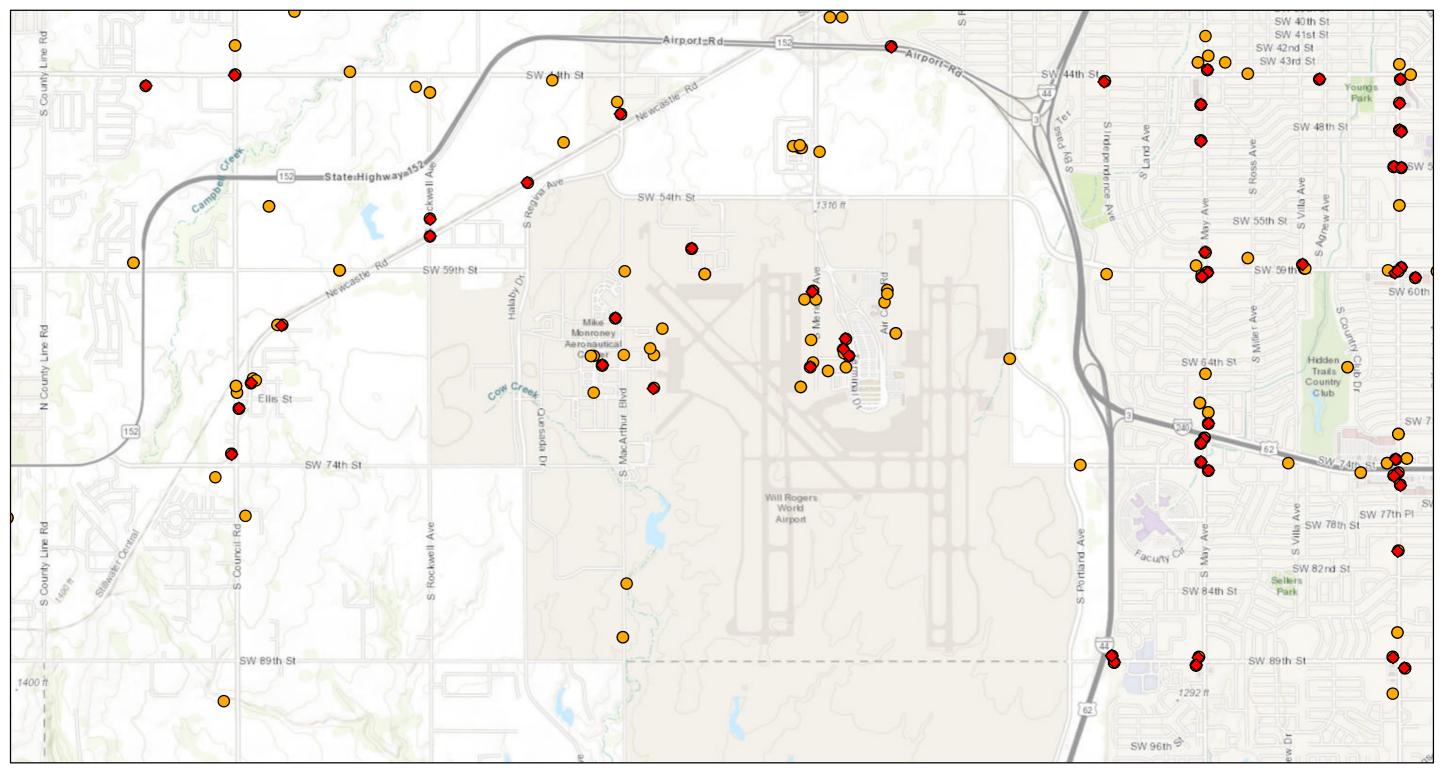
# Superfund Sites



Map of Superfund Sites in Oklahoma

City of Oklahoma City, Esri, HERE, Garmin, NGA, USGS, NPS | Oklahoma Department of Environmental Quality | Oklahoma Department of Environmental Quality, Land Protection - Site Remediation

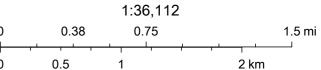
# WRWA 13/31 Runway



June 1, 2020

LUST Cases

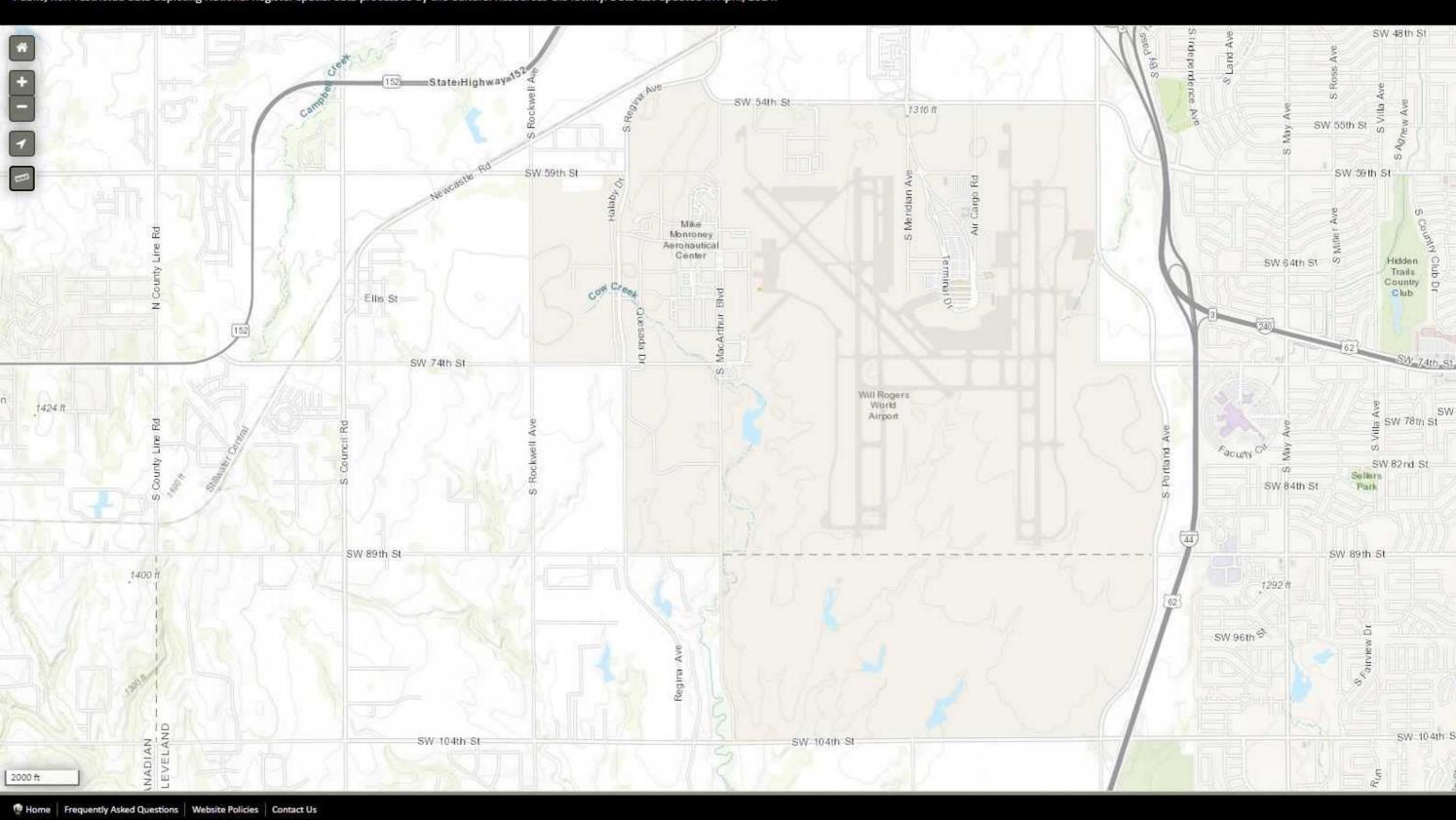
LUST Facilities



Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

# **National Register of Historic Places**

Public, non-restricted data depicting National Register spatial data processed by the Cultural Resources GIS facility. Data last updated in April, 2014.



212 OKLAHOMA

```
WILL ROGERS WORLD (OKC)(KOKC) P (ANG) 6 SW UTC-6(-5DT) N35°23.58′ W97°36.05′ DALLAS-FT WORTH
  1296 B LRA Class I, ARFF Index C NOTAM FILE OKC
                                                                                                    H-6H, L-15D
  RWY 17L-35R: H9803X150 (CONC-GRVD) S-50, D-200, 2S-175,
    2D-400 HIRL CL
    RWY 17L: MALSR. RVR-TMR
                                                                        9
                                                                                                ■ 121
                                                                                    LVB:
    RWY 35R: ALSF2. TDZL. RVR-TMR Rgt tfc.
  RWY 17R-35L: H9801X150 (CONC-GRVD) S-50, D-200, 2S-175,
    2D-400 HIRI CI
    RWY 17R: MALSR, PAPI(P4L)—GA 3.0° TCH 60', RVR-TR Rgt tfc.
    RWY 35L: MALSR. RVR-TR 0.3% up.
  RWY 13-31: H7800X150 (ASPH-CONC-GRVD) S-50, D-200,
    2S-175, 2D-400 MIRI
    RWY 13: REIL. PAPI(P4L)—GA 3.0° TCH 52′. Rgt tfc. RWY 31: REIL. PAPI(P4L)—GA 3.0° TCH 52′.
                                                                         •ु;
  RWY 18–36: H3078X75 (ASPH) S–50, D–150, 2S–175, 2D–240
    RWY 18: Rgt tfc.
                                                                         <3
  RUNWAY DECLARED DISTANCE INFORMATION
    RWY 13: TORA-7800 TODA-7800 ASDA-7800 LDA-7800
                                                                         €3
    RWY 17L:TORA-9802 TODA-9802 ASDA-9802 LDA-9802
    RWY 17R: TORA-9800 TODA-9800 ASDA-9800 LDA-9800
    RWY 18: TORA-3079 TODA-3079 ASDA-3079 LDA-3079
    RWY 31: TORA-7800 TODA-7800 ASDA-7800 LDA-7800
    RWY 35L:TORA-9800 TODA-9800 ASDA-9800 LDA-9800
    RWY 35R:TORA-9802 TODA-9802 ASDA-9802 LDA-9802
    RWY 36: TORA-3079 TODA-3079 ASDA-3079 LDA-3079
  SERVICE: S4 FUEL 100LL, JET A 0X 1, 2, 3, 4 LGT Rwy 17R PAPI unusable 4° right of course. MILITARY— JASU 2(MA-1A)
    (CE12) (CE13) 4(CE16) FUEL A, A+ (C405-787-4043.) (NC-100LL) FLUID LPOX OIL O-128-156(Mil)
  AIRPORT REMARKS: Attended continuously. Numerous birds on and invof arpt. PPR for parking on FAA Aeronautical Center ramp
    phone 405–954–9783 and email MXC@FAA.gov. Pilots of acft with wing spans greater than 118′ must use judgement
    over steering at all twy intersections. Rwy 18–36 600' west of Rwy 17R–35L on existing twy. Rwy 18–36 VFR dalgt
    operations only except for Air National Guard. Rwy 18-36 used as taxiway when not used as rwy. Rwy 18-36, Twy G
    west of Rwy 17R-35L, Twy A2 east of Twy A, Twy D southwest of Rwy 13-31, Twy A1, Twy A3, Twy A4, Twy A6, Twy
    B, and C2, not avbl for air carrier ops with over 9 passenger seats. Twy G west of Twy B clsd to all except U.S. Marshals
    Service acft. Twy C2 clsd to all ops except Metro Tech tfc. Twys H2 and G east of Twy H clsd indef. Compass rose restricted
    to acft under 95,000 lbs except ANG C-130. Twy B north of compass rose restricted to acft under 120,000 lbs except
    ANG C-130. All ramps are uncontrolled. Flight Notification Service (ADCUS) available. NOTE: See Special
    Notices-Continuous Power Facilities.
  AIRPORT MANAGER: 405-316-3200
  WEATHER DATA SOURCES: ASOS (405) 686-4711 TDWR.
  COMMUNICATIONS: D-ATIS. ARR/DEP 125.85 (405) 686-4707
  ® OKE CITY APP/DEP CON 124.6 (171°–360°) 120.45 (081°–170°) 124.2 (001°–080°)
    ROGERS TOWER 119.35 120.25 GND CON 121.9 CLNC DEL 124.35 PRE-TAXI CLNC 124.35
  AIRSPACE: CLASS C svc ctc APP CON.
  VOR TEST FACILITY (VOT) 112.15
  RADIO AIDS TO NAVIGATION: NOTAM FILE OKC.
     (H) VORTACW 114.1 IRW Chan 88 N35°21.52′ W97°36.55′ 004° 2.1 NM to fld. 1230/7E.
    GALLY NDB (LOMW) 350 RG N35°17.70′ W97°35.32′
                                                          349° 5.9 NM to fld. 1198/5E.
    ILS/DME 110.9 I-EXR Chan 46 Rwy 17L. Class IA.
    ILS/DME 110.7 I-OKC Chan 44 Rwy 17R. Class IE. DME also SERVE Rwy 35L. LOC unusable 33° left and right
      of rcl.
    ILS/DME 110.7 I-LIK Chan 44 Rwy 35L. Class IE. LOC unusable byd 30° right of course.
    ILS/DME 110.9 I-RGR Chan 46 Rwy 35R. Class IIE. LOM GALLY NDB.
    ASR
```

# Appendix Two – Public Involvement

# NOTICE OF AVAILABILITY OF A DRAFT ENVIRONMENTAL ASSESSMENT (EA) AND NOTICE OF PUBLIC COMMENT PERIOD for the RUNWAY 13/31 RECONSTRUCTION AT WILL ROGERS WORLD AIRPORT

Public Review Period: February 3, 2021 to March 5, 2021.

A Draft Environmental Assessment (EA) has been prepared and is now available for public review and comment until March 5, 2021.

The Federal Aviation Administration and the City of Oklahoma City Jointly announce a Notice of Availability of a Draft EA and Notice of Public Comment pursuant to the National Environmental Policy Act and 49 U.S.C. 47106(c)(1)(A)(i). Anyone Interested in the project has up to 30 days from the date of this Notice of Opportunity to provide comment.

Purpose of the EA:
Will Rogers World Airport (OKC) is proposing to rehabilitate the entire 7,800-foot long by 150-foot wide Runway 13/31 pavement. Existing edge lights, condult, and wiring will be demolished, and new LED edge lights will be installed. Two undersized drainage structures under the runway will be replaced with larger structures. The proposed project will be constructed in two separate phases and the work will last approximately 10 to 14 months. These actions and associated request for federal grant assistance require review and approval by the federal government. The purpose of the EA is to evaluate the potential environmental impacts associated with the proposed project.

### Draft Environmental Assessment Available :

Electronic copies of the Draft EA are now available for public review on the OKC website at <a href="http://www.flyokc.com/news-advisories">http://www.flyokc.com/news-advisories</a>

Printed copies are available and may be viewed during regular business hours at the following location (due to COVID-19 restrictions, please make an appointment prior to visiting and follow social distancing protocols: Oklahoma City Department of Airports, Airport Administrative Office, 3rd Floor Airport Terminal Building, 7100 Terminal Drive, Okiahoma City, OK 73159; (405) 316-3200

Comments on the Draft EA are encouraged and may be presented during the comment period through March 5, 2021 to the following:

By email to john.storms@okc.gov Written to: John R. Storms, P.E. Civil Engineer IV City of Oklahoma City 7100 Terminal Drive, Unit 937 Oklahoma City, OK 73159-0937

Before including your address, phone number, e-mail address, or any other personal identifying information in your comment, you should be aware that your entire comment, including personal identifying information, may be made publicly available at any time. While individuals may request that personal identifying information be withheld from public view, the FAA cannot guarantee it will be able to do so. The City of Oklahoma City wants to keep you informed and both the City and the FAA look forward to your input.

STATE OF OKLAHOMA, COUNTY OF OKLAHOMA

} ss.

# **Affidavit of Publication**

Bryan Miller, of lawful age, being first duly sworn, upon oath deposes and says that she/he is the Classified Legal Notice Admin, of GateHouse Media Oklahoma Holdings, Inc, a corporation, which is the publisher of The Oklahoman which is a daily newspaper of general circulation in the State of Oklahoma, and which is a daily newspaper published in Oklahoma County and having paid general circulation therein; that said newspaper has been continuously and uninterruptedly published in said county and state for a period of more than one hundred and four consecutive weeks next prior to the first publication of the notice attached hereto, and that said notice was published in the following issues of said newspaper, namely:

### OKLAHOMA CITY AIRPORT TRUST 86019

AdNumber	Publ	ication	Page	Date
0000623087-01	OC-	The Oklahoman	B8	02/03/2021
0000623087-01	OC-	The Oklahoman	B9	02/17/2021

Agent: Bryan Miller

Date: 02/19/2021

Subscribed and sworn to be me before this date : 02/19/2021

Notary: Terri Roberts Date: 02/19/2021



# Journal Record Publishing Company

211 N Robinson, Suite 201S Oklahoma City, OK 73102

### PUBLISHER'S AFFIDAVIT

Page 1 of 2

**RUNWAY 13/31** 

02/03/2021

02/17/2021

NUMBER

NOTICE OF AVAILABILITY OF A DRAFT ENVIRONMENTAL ASSESSMENT (EA) AND NOTICE OF PUBLIC COMME

**PUBLICATION DATES** 

**LEGAL NOTICE** 

STATE OF OKLAHOMA

s.s

COUNTY OF OKLAHOMA

I, of lawful age, being duly sworn, am a legal representative of The Journal Record of Oklahoma City, Oklahoma, a daily newspaper of general circulation in Oklahoma County, Oklahoma, printed in the English Language and published in the City of Oklahoma City, in Oklahoma County, State of Oklahoma, continuously and uninterruptedly published in the County for a period of more than 104 consecutive weeks prior to the first publication of the attached notice, and having a paid general subscription circulation therein and with admission to the United States mails as paid second-class mail matter.

That said notice a true copy of which is attached hereto, was published in the regular edition of said newspaper during the period and time of publication and not in a supplement on the ABOVE LISTED DATE(S).

Jennifer Rogers, Public Notice Goordinator

Subscribed and sworn before me this 17th day of February, 2021

MaRanda Beeson, Notary Public OF

Comission Number:

la Randa Bee

10001243

My Comission Expires:

02/18/2022

Order Number

Publisher's Fee

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# 10001243

# AFFIDAVIT OF PUBLICATION

(MS11958294)

NOTICE OF AVAILABILITY OF A DRAFT ENVIRONMENTAL ASSESSMENT (EA) AND NOTICE OF PUBLIC COMMENT PERIOD for the RUNWAY 13/31 RECONSTRUCTION AT WILL ROGERS WORLD AIRPORT

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following:

By email to:

johnstorms@okc.gov

Writtento:

John R. Storms, P.E.

Civil Engineer IV

City of Oklahoma City

7100 Terminal Drive, Unit 937 Oklahoma City, OK 73159-0937

Before including your address, phone number, e-mail address, or any other personal identifying information in your comment, you should be aware that your entire comment, including personal identifying information, may be made publicly available at any time. While individuals may request that personal identifying information be withheld from public view, the FAA cannot guarantee it will be able to do so. The City of Oklahona City wants to keep you informed and both the City and the FAA look forward to your input.

(2-3 & 2-17-2021)

