



## Airport Master Plan

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# KANSAS CITY DOWNTOWN AIRPORT – WHEELER FIELD

Appendix H

# Environmental Overview



## Appendix H

### ENVIRONMENTAL OVERVIEW

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An analysis of potential environmental impacts associated with proposed airport projects is an essential consideration in the master plan process. The primary purpose of this discussion is to review the recommended master plan concept (Exhibit 5A) and associated capital program (Exhibit 6A) to consider whether projects identified in the airport master plan could, individually or collectively, impact existing environmental resources. Information contained in this section was obtained from previous studies, federal and state resource agencies, and analysis by the consultant.

The *FAA Reauthorization Act of 2024* (Act) has introduced a variety of updated and new environmental guidelines. The primary environmental-related updates are outlined in three sections: Section 743, Section 783, and Section 788.

Section 743 acts as a revision to Section 163 of the *FAA Reauthorization Act of 2018*. Section 743 details FAA’s authority to regulate uses of airport property. First, the section details the FAA’s authority over projects on land acquired without federal assistance, and outlines limitations imposed on non-aeronautical review. Section 743 also states that a notice of intent for proposed projects outside of FAA jurisdiction should be submitted by an airport sponsor to the FAA.

Section 783 outlines that airport capacity enhance projects, terminal development projects, and general aviation airport improvement projects will be subject to coordinated and expedited environmental review requirements. Additionally, Section 783 introduces a new process for determining which safety related projects should be prioritized during environmental review.

Section 788 establishes two new categorical exclusions that would cover environmental projects for the following:

(A) *Categorical Exclusion for Projects of Limited Federal Assistance*

- (1) Receive less than \$6 million of federal funds and do not involve extraordinary circumstances or special purpose laws, or has a total anticipated cost of not more than \$35 million and with federal funds comprising less than 15 percent of the total estimated project cost.



(B) *Categorical Exclusions in Emergencies*

- (1) For the repair or reconstruction of any airport facility, runway, taxiway, or something similar in structure that is in operation or under construction when damaged by a State declared emergency, or for an emergency declared by the President pursuant to the *Robert. T. Stafford Disaster Relief and Emergency Assistance Act*.

If the FAA retains approval authority over a project, then the project is typically subject to the *National Environmental Policy Act (NEPA)*. For projects not categorically excluded under FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures*, compliance with NEPA is generally satisfied through the preparation of an environmental assessment (EA). In instances where significant environmental impacts are expected, an environmental impact statement (EIS) may be required.

The following portion of the airport master plan is not designed to satisfy the NEPA requirements for a specific development project, but instead provides a preliminary review of environmental issues that may need to be considered in more detail within the environmental review processes. It is important to note that the FAA is ultimately responsible for determining the level of environmental documentation required for airport actions.

The environmental inventory included in the first chapter of this master plan provides baseline information about the airport environs. This section provides an overview of potential impacts to existing resources that could result from implementation of the planned improvements outlined on the recommended development concept.

**Table H1** summarizes potential environmental concerns associated with implementation of the recommended development concept for MKC. Analysis under NEPA includes effects or impacts a proposed action or alternative may have on the human environment (see 40 Code of Federal Regulations [CFR] §1508.1). Effects have been recently defined in the Council of Environmental Quality guidelines as changes to the human environment from the proposed action or alternatives that are reasonably foreseeable and include direct effects, indirect effects, cumulative effects, and ecological effects.<sup>1</sup>

TABLE H1   Summary of Potential Environmental Concerns	
<b>AIR QUALITY</b>	
<b>FAA Order 1050.1F, Significance Threshold/Factors to Consider</b>	<i>The action would cause pollutant concentrations to exceed one or more of the National Ambient Air Quality Standards (NAAQS), as established by the United States (U.S.) Environmental Protection Agency (EPA) under the Clean Air Act, for any of the time periods analyzed, or to increase the frequency or severity of any such existing violations.</i>
<b>Potential Environmental Concerns</b>	<p><b>Unknown Impact.</b> An increase in operations could occur over the 20+ year planning horizon of the master plan that would likely result in additional emissions. Although Clay County, which contains the airport, is currently in attainment for federal criteria pollutants,<sup>1</sup> FAA’s <i>Aviation Emissions and Air Quality Handbook</i>, version 4, includes screening criteria for projects that are in attainment areas.</p> <p>For construction or operational emissions, a qualitative or quantitative emissions inventory under NEPA may be required, depending on the type of environmental review needed for specific projects defined on the development plan concept.</p> <p><sup>1</sup> U.S. EPA Greenbook – Missouri Nonattainment/Maintenance Status for Each County by Year for All Criteria Pollutants, (<a href="https://www3.epa.gov/airquality/greenbook/anayo_mo.html">https://www3.epa.gov/airquality/greenbook/anayo_mo.html</a>), data current as of September 30, 2024</p>

<sup>1</sup> Federal Register / Vol 89, No. 85, May 1, 2024, Rules and Regulations (§1508.1 Definitions)



### BIOLOGICAL RESOURCES (INCLUDING FISH, WILDLIFE, AND PLANTS)

<p><b>FAA Order 1050.1F, Significance Threshold/Factors to Consider</b></p>	<p>The U.S. Fish and Wildlife Service (FWS) or the National Marine Fisheries Service (NMFS) determines that the action would be likely to jeopardize the continued existence of a federally listed threatened or endangered species or would result in the destruction or adverse modification of federally designated critical habitat.</p> <p>FAA has not established a significance threshold for non-listed species. However, factors to consider are if an action would have the potential for:</p> <ul style="list-style-type: none"> <li>• Long-term or permanent loss of unlisted plant or wildlife species;</li> <li>• Adverse impacts to special status species or their habitats;</li> <li>• Substantial loss, reduction, degradation, disturbance, or fragmentation of native species’ habitats or their populations; or</li> <li>• Adverse impacts on a species’ reproductive rates, non-natural mortality, or ability to sustain the minimum population levels required for population maintenance.</li> </ul>
<p><b>Potential Environmental Concerns</b></p>	<p><u>Federally Protected Species.</u></p> <p><b>Potential Impact.</b> According to the USFWS Information for Planning and Consultation (IPaC) report, there is the potential for seven endangered, proposed endangered, threatened, proposed threatened, or candidate species within vicinity of the airport:</p> <ul style="list-style-type: none"> <li>• gray bat (endangered)</li> <li>• Indiana bat (endangered)</li> <li>• northern long-eared bat (threatened)</li> <li>• tricolored bat (proposed endangered)</li> <li>• pallid sturgeon (endangered)</li> <li>• monarch butterfly (candidate)</li> <li>• western regal fritillary (butterfly) (proposed threatened)<sup>2</sup></li> </ul> <p>The airport may have suitable habitat for protected bats and butterflies. Therefore, project-specific analysis would be required for future projects that would affect trees, flowering plants, or other potential habitat. No impacts to pallid sturgeon would result unless indirect impacts to the Missouri River or its tributaries would occur.</p> <p><u>Federally Designated Critical Habitat.</u></p> <p><b>No Impact.</b> There are no designated critical habitats within airport boundaries.</p> <p><u>Non-listed Species</u></p> <p><b>Potential Impact.</b> Non-listed species of concern include those protected by the <i>Migratory Bird Treaty Act</i> (MBTA) and the <i>Bald and Golden Eagle Protection Act</i>. According to the USFWS IPaC online website, there is the potential for bald eagles and birds protected by the MBTA to be in proximity to the airport. It is not likely that bald eagles would be adversely affected by airport development since they would normally forage and nest near the river. Migratory birds could be adversely affected if construction occurs during the nesting and breeding season (March to August). Pre-construction surveys of vegetated areas at the airport are recommended for projects where ground clearing would occur unless happening outside the nesting and breeding season.</p> <p><sup>2</sup> U.S. Fish &amp; Wildlife Service – Information for Planning and Consultation, (<a href="https://ipac.ecosphere.fws.gov/">https://ipac.ecosphere.fws.gov/</a>), accessed September 2024</p>
<p><b>CLIMATE</b></p>	
<p><b>FAA Order 1050.1F, Significance Threshold/Factors to Consider</b></p>	<p>FAA has not established a significance threshold for Climate. Refer to FAA Order 1050.1F Desk Reference and/or the most recent FAA Aviation Emissions and Air Quality Handbook for the most up-to-date methodology for examining impacts associated with climate change.</p>
<p><b>Potential Environmental Concerns</b></p>	<p><b>Unknown.</b> An increase in greenhouse gas (GHG) emissions could occur over the 20+ year planning horizon of the airport master plan. A project-specific analysis may be required per FAA Order 1050.1F, <i>Environmental Impacts: Policies and Procedures</i>, based on the parameters of the individual projects; however, at this time FAA does not have an impact threshold to use to determine significance under NEPA.</p>





### COASTAL RESOURCES

<b>FAA Order 1050.1F, Significance Threshold/Factors to Consider</b>	<p>FAA has not established a significance threshold for Coastal Resources. Factors to consider are if an action would have the potential to:</p> <ul style="list-style-type: none"> <li>• Be inconsistent with the relevant state coastal zone management plan(s);</li> <li>• Impact a coastal barrier resources system unit;</li> <li>• Pose an impact on coral reef ecosystems;</li> <li>• Cause an unacceptable risk to human safety or property; or</li> <li>• Cause adverse impacts on the coastal environment that cannot be satisfactorily mitigated.</li> </ul>
<b>Potential Environmental Concerns</b>	<p><b>No Impact.</b> The airport is not located within a coastal zone. The closest National Marine Sanctuary is Thunder Bay National Marine Sanctuary, located 691 miles away.<sup>3</sup></p> <p><sup>3</sup> National Marine Sanctuaries, (<a href="https://sanctuaries.noaa.gov/">https://sanctuaries.noaa.gov/</a>)</p>

### DEPARTMENT OF TRANSPORTATION ACT, SECTION 4(f) (NOW CODIFIED IN 49 UNITED STATES CODE [U.S.C.] § 303)

<b>FAA Order 1050.1F, Significance Threshold/Factors to Consider</b>	<p>The action involves more than a minimal physical use of a Section 4(f) resource or constitutes a “constructive use” based on an FAA determination that the aviation project would substantially impair the Section 4(f) resource. Resources that are protected by Section 4(f) are publicly owned land from a public park, recreation area, or wildlife and waterfowl refuge of national, state, or local significance; and publicly or privately owned land from an historic site of national, state, or local significance. Substantial impairment occurs when the activities, features, or attributes of the resource that contribute to its significance or enjoyment are substantially diminished.</p>
<b>Potential Environmental Concerns</b>	<p><b>Potential Impact.</b> There are no wilderness areas, public recreational facilities, or National Register of Historic Places (NRHP)-listed resources that would be impacted by proposed development at the airport.<sup>4</sup> The closest known Section 4(f) resources are Kaw Point Park and City Market Park, both located roughly 0.5 miles from the airport.<sup>5</sup> The airport is separated from nearby historic districts by Highway 169 or the Missouri River. These resources are not likely to be physically or constructively used (i.e., substantially impaired) because of proposed airport development because they are not located on or near airport property.</p> <p>However, the airport was originally established in 1927 as the Kansas City Municipal Airport and is deeply rooted in aviation history. Due to the airport’s age, the airport may be home to historic-age structures. Potential use (including constructive use) of historic resources at the airport would need to be evaluated depending on the type and location of future airport development.</p> <p><sup>4</sup> U.S. Department of the Interior, National Park Service, National Register of Historic Places (<a href="https://www.nps.gov/maps/full.html?mapId=7ad17cc9-b808-4ff8-a2f9-a99909164466">https://www.nps.gov/maps/full.html?mapId=7ad17cc9-b808-4ff8-a2f9-a99909164466</a>)</p> <p><sup>5</sup> Google Earth Pro – Aerial Imagery</p>

### FARMLANDS

<b>FAA Order 1050.1F, Significance Threshold/Factors to Consider</b>	<p>The total combined score on Form AD-1006, Farmland Conversion Impact Rating, ranges between 200 and 260. (Form AD-1006 is used by the U.S. Department of Agriculture, Natural Resources Conservation Service [NRCS] to assess impacts under the Farmland Protection Policy Act [FPPA].)</p> <p>FPPA applies when airport activities meet the following conditions:</p> <ul style="list-style-type: none"> <li>• Federal funds are involved;</li> <li>• The action involves the potential for the irreversible conversion of important farmlands to non-agricultural uses. Important farmlands include pastureland, cropland, and forest considered to be prime, unique, or statewide or locally important land; or</li> <li>• None of the exemptions to FPPA apply. These exemptions include: <ul style="list-style-type: none"> <li>○ When land is not considered “farmland” under FPPA, such as land already developed or already irreversibly converted. These instances include when land is designated as an urban area by the U.S. Census Bureau or the existing footprint includes rights-of-way.</li> <li>○ When land is already committed to urban development.</li> <li>○ When land is committed to water storage.</li> <li>○ The construction of non-farm structures necessary to support farming operations.</li> <li>○ The construction/land development for national defense purposes.</li> </ul> </li> </ul>
<b>Potential Environmental Concerns</b>	<p><b>No Impact.</b> Most of the soils at the airport are classified as prime farmland.<sup>6</sup> However, because the airport is within a census-designated urban area, the FPPA does not apply.</p> <p><sup>6</sup> USDA-Natural Resources Conservation Service – Web Soil Survey (<a href="https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx">https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx</a>)</p>



### HAZARDOUS MATERIALS, SOLID WASTE, AND POLLUTION PREVENTION

<p><b>FAA Order 1050.1F, Significance Threshold/Factors to Consider</b></p>	<p>FAA has not established a significance threshold for Hazardous Materials, Solid Waste, and Pollution Prevention. However, factors to consider are if an action would have the potential to:</p> <ul style="list-style-type: none"> <li>• Violate applicable federal, state, tribal, or local laws or regulations regarding hazardous materials and/or solid waste management;</li> <li>• Involve a contaminated site;</li> <li>• Produce an appreciably different quantity or type of hazardous waste;</li> <li>• Generate an appreciably different quantity or type of solid waste or use a different method of collection or disposal and/or would exceed local capacity; or</li> <li>• Adversely affect human health and the environment.</li> </ul>
<p><b>Potential Environmental Concerns</b></p>	<p><b>No Impact.</b> The airport has several aboveground aviation fuel tanks and mobile fuel trucks managed by its FBOs. In addition, the aircraft rescue and firefighting (ARFF) facility uses various firefighting chemicals. These operations are regulated and monitored by the appropriate regulatory agencies, such as the U.S. EPA, Missouri Division of Environmental Protection, and Clay County. There are no known hazardous contamination sites currently on airport property. However, it is likely that the ARFF will be required to begin using non-aqueous film forming foam (AFFF) as per- and polyfluoroalkyl (PFAS) regulations continue to be promulgated.</p> <p>The proposed development concept does not anticipate land uses that would produce an appreciably different quantity or type of hazardous waste. However, should this type of land use be proposed, further NEPA review and/or permitting would be required. Proposed new fuel storage facilities would be regulated in a manner similar to what occurs today.</p> <p>No long-term impacts related to solid waste disposal are expected. The airport would continue to manage its waste in a safe and practical manner. See also the Recycling Plan (Appendix K).</p> <p>See discussion on Surface Water for information on water quality pollution prevention. Best management practices (BMPs) for managing stormwater would continue to be implemented for future airport projects as required by the NPDES permitting program.</p>

### HISTORICAL, ARCHITECTURAL, ARCHAEOLOGICAL, AND CULTURAL RESOURCES

<p><b>FAA Order 1050.1F, Significance Threshold/Factors to Consider</b></p>	<p>FAA has not established a significance threshold for Historical, Architectural, Archaeological, and Cultural Resources. Factors to consider are if an action would result in a finding of “adverse effect” through the Section 106 process. However, an adverse effect finding does not automatically trigger the preparation of an EIS (i.e., a significant impact).</p>
<p><b>Potential Environmental Concerns</b></p>	<p><b>Potential Impact.</b> Due to the airport’s age, the airport may have historic-era structures on airport property. In addition, airport-wide or project-specific cultural surveys may be needed on a project-by-project basis to determine the presence of potential cultural resources at the proposed project sites. The FAA would then decide on the level of impact airport projects would have on these historic properties under NEPA and through the <i>National Historic Preservation Act’s</i> Section 106 process.</p> <p>During project implementation, precautions should be taken if previously unknown cultural resources are found. This typically includes procedures to be followed by the contractor, which include stopping work, having a qualified archaeologist review the potential resource, and coordinating with FAA and/or the State Historic Preservation Office.</p> <p>There are no federally recognized tribal lands in Missouri; the closest tribal land is in Kansas at the Kickapoo Reservation, 55 miles northwest of the airport.<sup>7</sup></p> <p><sup>7</sup> U.S. EPA EJSscreen (<a href="https://ejscreen.epa.gov/mapper/">https://ejscreen.epa.gov/mapper/</a>)</p>

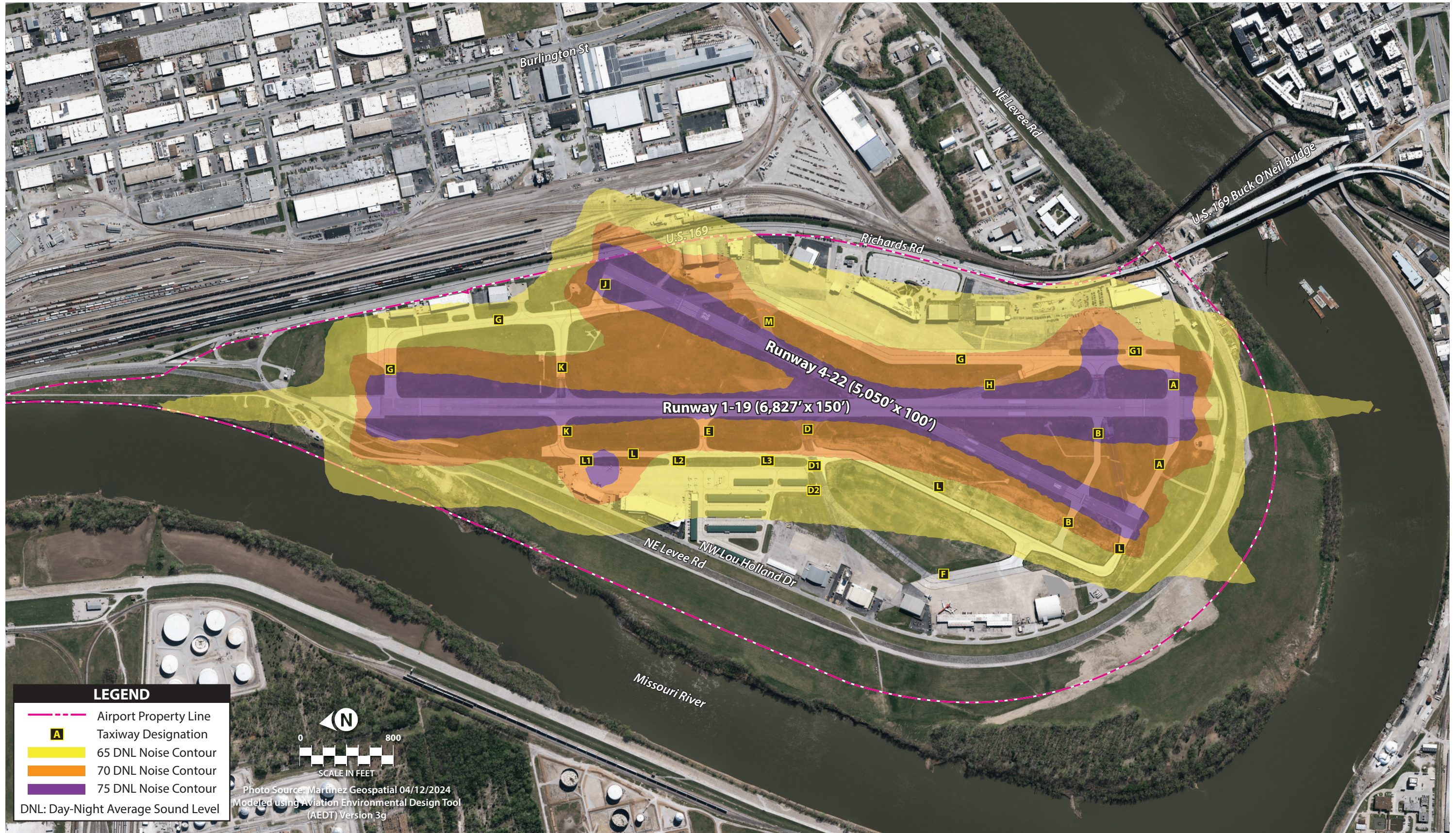
### LAND USE

<p><b>FAA Order 1050.1F, Significance Threshold/Factors to Consider</b></p>	<p>FAA has not established a significance threshold for Land Use. There are also no specific independent factors to consider. The determination that significant impacts exist is normally dependent on the significance of other impacts.</p>
<p><b>Potential Environmental Concerns</b></p>	<p><b>No Impact.</b> There are very few land uses that would be considered sensitive land uses relative to the airport near the airport’s boundaries (see Exhibit 1W, Environmental Sensitivities [Urban Resources]). See also Noise and Noise-Compatible Land Use below. The airport is adjacent to other industrial and commercial land uses and is abutted by railroads, highways, and the levee for the Missouri River, which act as buffers between the airport and other nearby businesses. The closest residential areas are 0.6 miles from the airport to the northeast and 0.8 miles to the west. All proposed future development proposed in the master plan would occur within the airport’s current boundaries.</p> <p>All new airport projects, including a proposed vertiport, would be evaluated during FAA’s 7460 process to ensure that the proposed structures do not create a hazard to airport operations.</p>



NATURAL RESOURCES AND ENERGY SUPPLY	
<b>FAA Order 1050.1F, Significance Threshold/Factors to Consider</b>	<i>FAA has not established a significance threshold for Natural Resources and Energy Supply. However, factors to consider are if the action would have the potential to cause demand to exceed available or future supplies of these resources.</i>
<b>Potential Environmental Concerns</b>	<b>No Impact.</b> Planned development projects at the airport could increase demands on energy utilities, water supplies and treatment, and other natural resources during construction; however, significant long-term impacts are not anticipated. Most proposed projects are the continuation of land uses already present at the airport, such as additional hangar development, upgrades to navigational aids, and a potential vertiport. Should long-term impacts be a concern, coordination with local service providers is recommended. This includes any future plans to increase electrification of the airport.
NOISE AND NOISE-COMPATIBLE LAND USE	
<b>FAA Order 1050.1F, Significance Threshold/Factors to Consider</b>	<i>The action would increase noise by Day-Night Average Sound Level (DNL) 1.5 decibel (dB) or more for a noise-sensitive area that is exposed to noise at or above the DNL 65 dB noise exposure level, or that will be exposed at or above the DNL 65 dB level due to a DNL 1.5 dB or greater increase, when compared to the no action alternative for the same timeframe.</i>  <i>Another factor to consider is that special consideration should be given to the evaluation of the significance of noise impacts on noise-sensitive areas within Section 4(f) properties where the land use compatibility guidelines in Title 14 Code of Federal Regulations (CFR) Part 150 are not relevant to the value, significance, and enjoyment of the area in question.</i>
<b>Potential Environmental Concerns</b>	<b>No Impact.</b> Exhibits H1 and H2 show existing and anticipated future noise contours for the airport. Under existing conditions, the DNL 65 dB noise exposure extends slightly outside airport property over a railroad yard east of U.S. 169 and over the Missouri River to the west. In the future (2042) noise contours, the DNL 65 dB would expand slightly farther outside of airport property boundaries but would not overlie any noise-sensitive land uses. Ultimate development at the airport is not expected to change the overall noise environment more than the 1.5 dB threshold for any noise-sensitive area.
SOCIOECONOMICS, ENVIRONMENTAL JUSTICE, AND CHILDREN’S ENVIRONMENTAL HEALTH AND SAFETY RISKS	
Socioeconomics	
<b>FAA Order 1050.1F, Significance Threshold/Factors to Consider</b>	<i>FAA has not established a significance threshold for Socioeconomics. However, factors to consider are if an action would have the potential to:</i> <ul style="list-style-type: none"> <li>• Induce substantial economic growth in an area, either directly or indirectly (e.g., through establishing projects in an undeveloped area);</li> <li>• Disrupt or divide the physical arrangement of an established community;</li> <li>• Cause extensive relocation when sufficient replacement housing is unavailable;</li> <li>• Cause extensive relocation of community businesses that would cause severe economic hardship for affected communities;</li> <li>• Disrupt local traffic patterns and substantially reduce the levels of service of roads serving the airport and its surrounding communities; or</li> <li>• Produce a substantial change in the community tax base.</li> </ul>
<b>Potential Environmental Concerns</b>	<b>No Impact.</b> See discussion above under Land Use. Proposed development would not relocate or disrupt current businesses or residents. No division of existing neighborhoods or housing or businesses relocations would occur due to proposed development on the airport, which would be contained within the existing airport property.
Environmental Justice	
<b>FAA Order 1050.1F, Significance Threshold/Factors to Consider</b>	<i>FAA has not established a significance threshold for Environmental Justice. However, factors to consider are if an action would have the potential to lead to a disproportionately high and adverse impact to an environmental justice population (i.e., a low-income or minority population), due to:</i> <ul style="list-style-type: none"> <li>• Significant impacts in other environmental impact categories; or</li> <li>• Impacts on the physical or natural environment that affect an environmental justice population in a way that FAA determines is unique to the environmental justice population and significant to that population.</li> </ul>





**LEGEND**

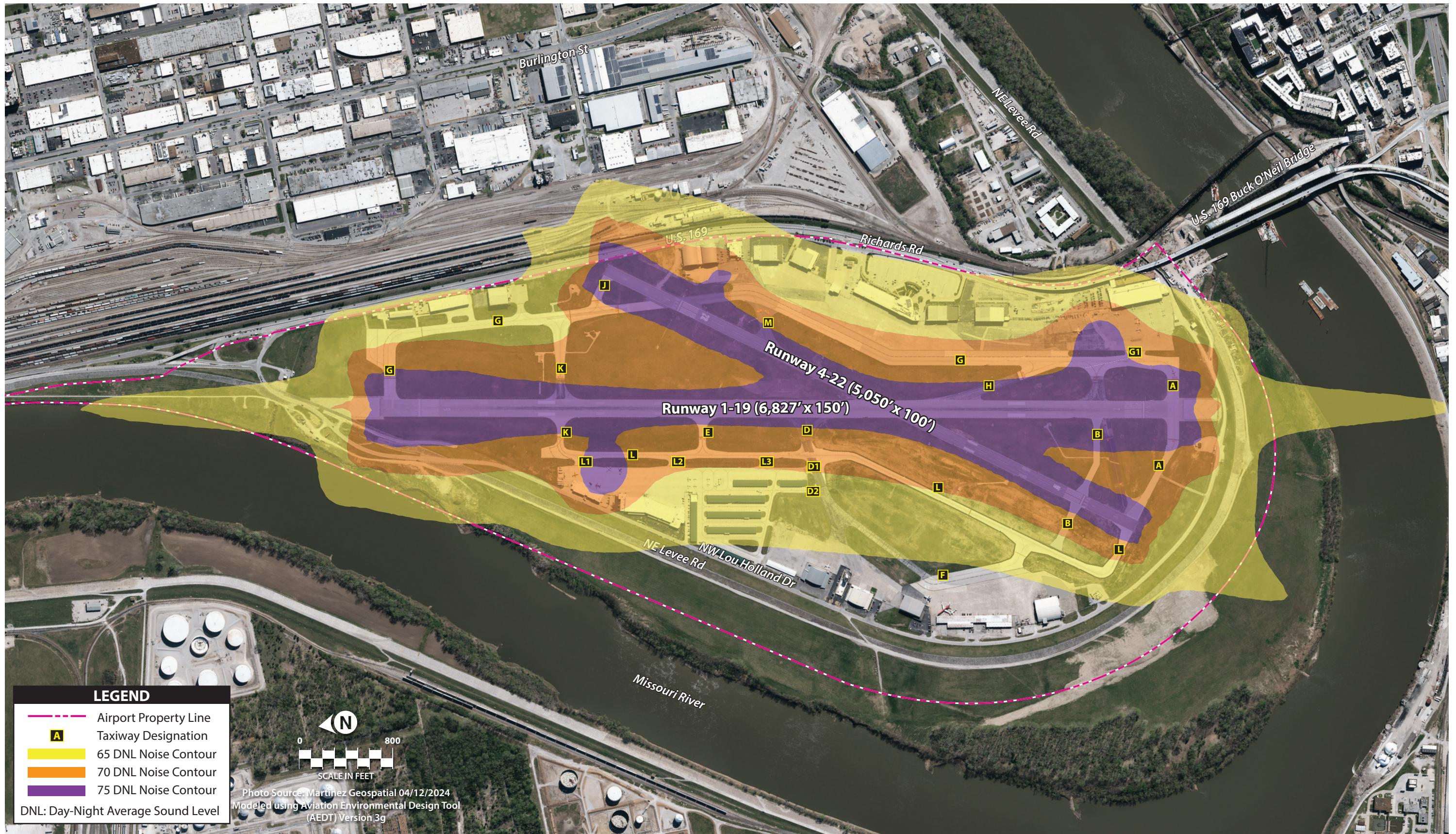
- Airport Property Line
- Taxiway Designation
- 65 DNL Noise Contour
- 70 DNL Noise Contour
- 75 DNL Noise Contour

DNL: Day-Night Average Sound Level



Photo Source: Martinez Geospatial 04/12/2024  
Modeled using Aviation Environmental Design Tool (AEDT) Version 3g









Environmental Justice (continued)	
Potential Environmental Concerns	<p><b>No Impact.</b> Both low-income and minority populations have been identified within one mile of the airport. However, the closest residential areas are 0.6 miles from the airport to the northeast and 0.8 miles to the west. Due to the distance from the airport and the industrial land uses between the airport and these neighborhoods, it is unlikely that implementation of the proposed improvements outlined in the development concept plan would affect these populations in a disproportionate or adverse manner.</p> <p>Executive Order (E.O.) 12898, <i>Federal Action to Address Environmental Justice in Minority Populations and Low-Income Populations</i>, and the accompanying Presidential Memorandum, and Order DOT 5610.2, <i>Environmental Justice</i>, require the FAA to provide meaningful public involvement for minority and low-income populations, as well as analysis that identifies and addresses potential impacts on these populations that may be disproportionately high and adverse. Environmental justice impacts may be avoided or minimized through early and consistent communication with the public and allowing ample time for public consideration; therefore, disclosure of ultimate airport development to potentially affected environmental justice populations near the airport as the projects are proposed is crucial. If disproportionately high or adverse impacts are noted, mitigation and enhancement measures and offsetting benefits should be taken into consideration.</p>
Children’s Health and Safety Risks	
FAA Order 1050.1F, <i>Significance Threshold/Factors to Consider</i>	<p>FAA has not established a significance threshold for Children’s Environmental Health and Safety Risks. However, factors to consider are if an action would have the potential to lead to a disproportionate health or safety risk to children.</p>
Potential Environmental Concerns	<p><b>No Impact.</b> No disproportionately high or adverse impacts are anticipated to affect children living, playing, or attending school near the airport because of the proposed ultimate development. The airport is an access-controlled facility, and children will not be allowed within the fenced portions of the airport without adult supervision. All construction areas should be controlled to prevent unauthorized access.</p>
VISUAL EFFECTS (INCLUDING LIGHT EMISSIONS AND VISUAL RESOURCES/VISUAL CHARACTER)	
Light Emissions	
FAA Order 1050.1F, <i>Significance Threshold/Factors to Consider</i>	<p>FAA has not established a significance threshold for Light Emissions. However, a factor to consider is the degree to which an action would have on the potential to:</p> <ul style="list-style-type: none"> <li>• Create annoyance or interfere with normal activities from light emissions;</li> <li>• Affect the nature of the visual character of the area due to light emissions, including the importance, uniqueness, and aesthetic value of the affected visual resources;</li> </ul>
Potential Environmental Concerns	<p><b>No Impact.</b> Some of the proposed development would be in the runway environment and, therefore, construction would occur at night. Night lighting is typically directed down to the construction work area to avoid light from spilling outside the airport boundaries. Because the airport is adjacent to industrial land uses and the Missouri River is buffered by a levee, night lighting during construction would not create an adverse impact.</p> <p>Landside development such as hangars would be constructed during the daytime hours, but once operational, would have building security lighting. This type of lighting would not be intrusive or adversely affect off-airport areas.</p> <p>Lighting associated with a proposed vertiport would be evaluated during the 7460 process to ensure that impacts, including light effects to the airport itself, do not create a hazard to airport operations.</p>
Visual Resources/Visual Character	
FAA Order 1050.1F, <i>Significance Threshold/Factors to Consider</i>	<p>FAA has not established a significance threshold for Visual Resources/Visual Character. However, a factor to consider is the extent an action would have on the potential to:</p> <ul style="list-style-type: none"> <li>• Affect the nature of the visual character of the area, including the importance, uniqueness, and aesthetic value of the affected visual resources;</li> <li>• Contrast with the visual resources and/or visual character in the study area; and</li> <li>• Block or obstruct the views of the visual resources, including whether these resources would still be viewable from other locations.</li> </ul>
Potential Environmental Concerns	<p><b>No Impact.</b> The airport is located within a highly industrialized area of downtown Kansas City, and all proposed development would be contained within airport property. No adverse impacts to visual resources of the area would occur, including the open spaces around the Missouri River.</p>



### WATER RESOURCES (INCLUDING WETLANDS, FLOODPLAINS, SURFACE WATERS, GROUNDWATER, AND WILD AND SCENIC RIVERS)

#### Wetlands

<p><b>FAA Order 1050.1F, Significance Threshold/Factors to Consider</b></p>	<p><i>The action would:</i></p> <ol style="list-style-type: none"> <li>1. Adversely affect a wetland’s function to protect the quality or quantity of municipal water supplies, including surface waters and sole source and other aquifers;</li> <li>2. Substantially alter the hydrology needed to sustain the affected wetland system’s values and functions or those of a wetland to which it is connected;</li> <li>3. Substantially reduce the affected wetland’s ability to retain floodwaters or storm runoff, thereby threatening public health, safety or welfare (the term welfare includes cultural, recreational, and scientific resources or property important to the public);</li> <li>4. Adversely affect the maintenance of natural systems supporting wildlife and fish habitat or economically important timber, food, or fiber resources of the affected or surrounding wetlands.</li> <li>5. Promote the development of secondary activities or services that would cause the circumstances listed above to occur; or,</li> <li>6. Be inconsistent with applicable state wetland strategies.</li> </ol>
<p><b>Potential Environmental Concerns</b></p>	<p><b>No Impact.</b> Although there are wetlands associated with the Missouri River to the west and south of the airport, these wetlands are separated from the airport by a levee along the river and by NW Lou Holland Drive. Because all proposed development would be contained within airport property, no adverse impacts to wetlands would occur.</p>

#### Floodplains

<p><b>FAA Order 1050.1F, Significance Threshold/Factors to Consider</b></p>	<p><i>The action would cause notable adverse impacts on natural and beneficial floodplain values. Natural and beneficial floodplain values are defined in Paragraph 4.k of DOT Order 5650.2, Floodplain Management and Protection.</i></p>
<p><b>Potential Environmental Concerns</b></p>	<p><b>Potential Impact.</b> Based on the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) panels 29095C0138G, 29095C0139G, 29095C0251G, and 29095C0252G, effective January 20, 2017, the airport is in Zone X, an area with reduced flood risk due to levee.<sup>8</sup> The levee protects the airport from a 100-year flood. However, the airport remains in a 0.2% annual chance flood hazard, otherwise known as a 500-year floodplain; proposed airside and landside development would, thus, occur in the 500-year floodplain.</p> <p>On May 25, 2021, E.O. 14030, <i>Climate-Related Financial Risk</i> was established. Section 5(e) of E.O. 14030 reinstates E.O. 13690, <i>Establishing a Federal Flood Risk Management Standard and a Process for Further Soliciting and Considering Stakeholder Input</i>, amends E.O. 11988, <i>Floodplain Management</i>, and mandates that a Federal Flood Risk Management Standard (FFRMS) be created. One of the primary purposes of FFRMS is to expand the management of floodplains from a base flood evaluation to include a higher vertical elevation (and the corresponding floodplain) to protect against future flood risks for federally funded projects.</p> <p>Under E.O. 13690 and its guidelines, one of several approaches should be used to identify floodplains and their risks to critical<sup>9</sup> or non-critical federally funded actions:</p> <ul style="list-style-type: none"> <li>• Climate-Informed Science Approach (CISA) – The elevation and flood hazard area (i.e., 100-year floodplain) using data that integrates climate science with an emphasis on possible future effects on critical actions.</li> <li>• Freeboard Value Approach – The elevation and flood hazard area, and an additional two or three feet above the base flood elevation, depending on whether the proposed federal action is critical or non-critical.</li> <li>• 500-year Floodplain Approach – All areas subject to the 0.2 percent annual chance flood.</li> <li>• Other methods resulting from updates to the FFRMS.</li> </ul> <p>Because the airport is within the 500-year floodplain, which is one of the methods for determining federal flood risk, federally funded projects would need to assess potential floodplain impacts related to the FFRMS (unless one of the other methods identified above are available). Potential floodplain encroachment, if triggered by the FFRMS, could involve public notice allowing comments.</p> <p><sup>8</sup> FEMA Flood Map Service (<a href="https://msc.fema.gov/portal/home">https://msc.fema.gov/portal/home</a>)</p> <p><sup>9</sup> Critical action is defined in E.O. 13690 and 2015 Guidelines for Implementing E.O. 11988 as any activity for which even a slight change of flooding is too great. For example, a facility producing and/or storing highly volatile, toxic, or water-reactive materials; structures such as schools where occupants may not be sufficiently mobile or have available transport capability given the flood warning lead times available; or essential or irreplaceable resources, utilities, other functions that could be damaged beyond repair or otherwise made unavailable.</p>



Surface Waters	
<p><b>FAA Order 1050.1F, Significance Threshold/Factors to Consider</b></p>	<p><i>The action would:</i></p> <ol style="list-style-type: none"> <li>1. Exceed water quality standards established by federal, state, local, and tribal regulatory agencies; or</li> <li>2. Contaminate public drinking water supply such that public health may be adversely affected.</li> </ol>
<p><b>Potential Environmental Concerns</b></p>	<p><b>Potential Impact.</b> The airport is located within the Buckeye Creek-Missouri River watershed. The Missouri River is considered an impaired water body due to E. Coli contamination.<sup>10</sup></p> <p>An NPDES General Construction permit would be required for all projects involving ground disturbance over one acre. FAA’s Advisory Circular (AC) 150/5370-10H, <i>Standards for Specifying Construction of Airports, Item C-102, Temporary Air and Water Pollution, Soil Erosion and Siltation Control</i> should also be implemented during construction projects at the airport. In addition, any projects increasing the amounts of impervious surfaces, such as new apron and vehicular parking areas, would need to be evaluated for water quality impacts and the airport’s stormwater pollution prevention plan updated.</p> <p><sup>10</sup>How’s My Waterway (<a href="https://mywaterway.epa.gov/community/Charles%20B%20Wheeler%20Airport/overview">https://mywaterway.epa.gov/community/Charles%20B%20Wheeler%20Airport/overview</a>)</p>
Groundwater	
<p><b>FAA Order 1050.1F, Significance Threshold/Factors to Consider</b></p>	<p><i>The action would:</i></p> <ol style="list-style-type: none"> <li>1. Exceed groundwater quality standards established by federal, state, local, and tribal regulatory agencies; or</li> <li>2. Contaminate an aquifer used for public water supply such that public health may be adversely affected.</li> </ol> <p><i>Factors to consider are when a project would have the potential to:</i></p> <ul style="list-style-type: none"> <li>• Adversely affect natural and beneficial groundwater values to a degree that substantially diminishes or destroys such values;</li> <li>• Adversely affect groundwater quantities such that the beneficial uses and values of such groundwater are appreciably diminished or can no longer be maintained and such impairment cannot be avoided or satisfactorily mitigated; or</li> <li>• Present difficulties based on water quality impacts when obtaining a permit or authorization.</li> </ul>
<p><b>Potential Environmental Concerns</b></p>	<p><b>No Impact.</b> The airport property is not located near a sole source aquifer. The closest sole source aquifer is the Mahomet Aquifer more than 230 miles away from the airport.<sup>11</sup></p> <p><sup>11</sup> U.S EPA Sole Source Aquifer (<a href="https://epa.maps.arcgis.com/apps/webappviewer/index.html?id=9ebb047ba3ec41ada1877155fe31356b">https://epa.maps.arcgis.com/apps/webappviewer/index.html?id=9ebb047ba3ec41ada1877155fe31356b</a>)</p>
Wild and Scenic Rivers	
<p><b>FAA Order 1050.1F, Significance Threshold/Factors to Consider</b></p>	<p><i>FAA has not established a significance threshold for Wild and Scenic Rivers. Factors to consider are when an action would have an adverse impact on the values for which a river was designated (or considered for designation) through:</i></p> <ul style="list-style-type: none"> <li>• Destroying or altering a river’s free-flowing nature;</li> <li>• A direct and adverse effect on the values for which a river was designated (or under study for designation);</li> <li>• Introducing a visual, audible, or another type of intrusion that is out of character with the river or would alter outstanding features of the river’s setting;</li> <li>• Causing the river’s water quality to deteriorate;</li> <li>• Allowing the transfer or sale of property interests without restrictions needed to protect the river or the river corridor; or</li> <li>• Any of the above impacts preventing a river on the Nationwide Rivers Inventory (NRI) or a Section 5(d) river that is not included in the NRI from being included in the Wild and Scenic River System or causing a downgrade in its classification (e.g., from wild to recreational).</li> </ul>
<p><b>Potential Environmental Concerns</b></p>	<p><b>No Impact.</b> The closest designated National Wild and Scenic River to the airport is the Buffalo River, located 230 miles from the airport in Arkansas.<sup>12</sup> The nearest National River Inventory feature is the Kansas River, located 0.7 miles from the airport.<sup>13</sup> Projects delineated on the proposed development concept would not have adverse effects on these river’s outstanding remarkable values (i.e., scenery, recreation, geology, fish, wildlife, and history).</p> <p><sup>12</sup> National Wild and Scenic Rivers System (<a href="https://nps.maps.arcgis.com/apps/MapJournal/index.html?appid=ba6debd907c7431ea765071e9502d5ac#">https://nps.maps.arcgis.com/apps/MapJournal/index.html?appid=ba6debd907c7431ea765071e9502d5ac#</a>)</p> <p><sup>13</sup> National Park Service – Nationwide Rivers Inventory (<a href="https://www.nps.gov/maps/full.html?mapId=8adbe798-0d7e-40fb-bd48-225513d64977">https://www.nps.gov/maps/full.html?mapId=8adbe798-0d7e-40fb-bd48-225513d64977</a>)</p>