



MAX WESTHEIMER AIRPORT  
*The UNIVERSITY of OKLAHOMA*  
Master Plan Update

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# Environmental Overview



## 06 ENVIRONMENTAL OVERVIEW

### 6.1 OVERVIEW

The following environmental overview was prepared in accordance with Section 102(2)(c) of the National Environmental Policy Act (NEPA) of 1969 (Public Law 91-190, 42 USC 4321 et. Seq.), the Council on Environmental Quality (CEQ) Regulations for Implementing NEPA (40 CFR 1500 through 1508) and other relevant CEQ guidance. The Federal Aviation Administration (FAA) is the lead federal agency for the preparation of the Max Westheimer Airport Master Plan; therefore, the guidance within FAA Order 5050.4B: National Environmental Policy Act (NEPA) Implementing Instructions for Airport Actions, and FAA Order 1050.1F, Environmental Impacts: Policies and Procedures were followed.

The primary purpose of this analysis is to evaluate potential impacts to existing environmental resources resulting from the implementation of the recommended development plan. Projects which may require additional scrutiny or NEPA analysis will be identified. This overview is not intended to serve as a formal Environmental Assessment (EA) and will follow guidance provided in AC 150/5070-6, *Airport Master Plans*, Section 605.

### 6.2 SUMMARY OF POTENTIAL ENVIRONMENTAL IMPACTS

The existing environmental conditions at Max Westheimer Airport, as detailed in Chapter 1, *Inventory of Existing Conditions*, will serve as the baseline for evaluating potential impacts to the airport environs resulting from the implementation of the Recommended Development Plan (**Exhibit 4.10**). The following analysis will consider potential impacts to each of the 14 environmental impact categories and applicable subcategories.

For each category, both direct and indirect impacts must be considered. Direct impacts are those which are caused by the action and occur at the same time and place (i.e., construction of a taxiway in a wetland which results in the loss of the wetland). Indirect impacts are those impacts which are caused by the action and are later in time or farther removed in distance. These may include projects that promote growth in other areas of a community, impacts to air and water quality, including ecosystems. Major airport development projects may involve the potential for growth-inducing impacts on surrounding communities.



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### 6.2.1 AIR QUALITY

#### SIGNIFICANCE THRESHOLD

The action would cause pollutant concentrations to exceed one or more of the National Ambient Air Quality Standards (NAAQS), as established by the Environmental Protection Agency under the Clean Air Act, for any of the time periods analyzed, or increase the frequency or severity of any such existing violations. Under the Clean Air Act (CAA), the U.S. Environmental Protection Agency (EPA) developed the National Ambient Air Quality Standards (NAAQS) for six common air pollutants: Carbon Monoxide (CO), Nitrogen Dioxide (NO<sub>2</sub>), Ozone (O<sub>3</sub>), Particulate Matter (PM), Sulfur Dioxide (SO<sub>2</sub>), and Lead (Pb).

### COMMON AIR POLLUTANTS



#### POTENTIAL IMPACTS

The proposed Recommended Development Plan includes several changes to the runway/taxiway environment at OUN. These changes would allow the Airport to continue serving its existing fleet mix during varying weather conditions and increase overall airfield safety. It is not anticipated the proposed changes would result in increased emissions. According to the *EPA Green Book: Non-attainment Areas for Criteria Pollutants*, Cleveland County is classified as being in attainment, meeting all air quality pollution standards as established by the EPA.

### 6.2.2 BIOLOGICAL RESOURCES

#### SIGNIFICANCE THRESHOLD

The U.S. Fish and Wildlife Service or National Marine Fisheries Service 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.

The FAA has not established a significance threshold for non-listed species.

Impacts to consider would include actions which would have the potential for:

- A long-term or permanent loss of unlisted plant or wildlife species, i.e., extirpation of the species from a large project area (e.g., a new commercial service airport);
- Adverse impacts to special status species (e.g., state species of concern, species proposed for listing, migratory birds, bald and golden eagles) or their habitats;
- Substantial loss, reduction, degradation, disturbance, or fragmentation of native species' habitats or their populations; or
- Adverse impacts on a species' reproductive success rates, natural mortality rates, non-natural mortality (e.g., road kills and hunting), or ability to sustain the minimum population levels required for population maintenance.

### POTENTIAL IMPACTS

An initial review of the U.S. Fish and Wildlife Service *Information for Planning and Consultation* (IPaC) database was conducted to determine the potential for habitats to exist within the immediate vicinity of the Airport. According to the query result, the study area does not contain suitable habitat for the listed species. This surveyed area includes all existing airport property as well as any property required for implementation of the Recommended Development Plan. The following species have been determined to have the potential to occur within the vicinity of the Airport.



The USFWS IPaC review found no designated critical habitats for the above-listed species occur within the boundary of Max Westheimer Airport.

### 6.2.3 CLIMATE

#### SIGNIFICANCE THRESHOLD

The FAA has not established a significance threshold for Climate.

### POTENTIAL IMPACTS

The implementation of the Recommended Development Plan may have the potential to increase greenhouse gas (GHG) emissions on a project-by-project basis. Specific NEPA analysis may be required beyond the scope of the master plan to determine emissions impacts as projects are implemented throughout the planning period.

### 6.2.4 COASTAL RESOURCES

#### SIGNIFICANCE THRESHOLD

The FAA has not established a significance threshold for Coastal Resources.

Impacts to consider would include actions which would have the potential to:

- Be inconsistent with the relevant state coastal zone management plan(s);
- Impact a coastal barrier resources system unit (and the degree to which the resource would be impacted);
- Post an impact to coral reef ecosystems (and the degree to which the resource would be affected);
- Cause an unacceptable risk to human safety or property; or
- Cause adverse impacts to the coastal environment that cannot be satisfactorily mitigated.

#### *POTENTIAL IMPACTS*

No impact to coastal resources is expected. The Airport is not located in a coastal zone.

#### *6.2.5 DEPARTMENT OF TRANSPORTATION ACT, SECTION 4(F)*

##### *SIGNIFICANCE THRESHOLD*

The action involved 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 a 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.

#### *POTENTIAL IMPACTS*

It is not anticipated the Recommended Development Plan will produce impacts to any resources classified under Section 4(f) of the DOT Act. The property carrying the Section 4(f) designation located nearest to Max Westheimer Airport is Westwood Park, a city park located immediately south of airport property. There will be no physical use of this property, although the recommended plan involves extending the Runway 36 RPZ over this park. There are several other city parks in the local area. Some of these properties are depicted in **Exhibit 6.1**. Several properties included in the National Register of Historic Places are located within a 5-mile radius of the Airport and will be detailed in the *Historical, Architectural, Archeological and Cultural Resources* section of this overview.

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*EXHIBIT 6.1 – SECTION 4(F) PROPERTIES*

### 6.2.6 FARMLANDS

#### *SIGNIFICANCE THRESHOLD*

The total combined score on Form AD-1006, “Farmland Conversion Impact Rating,” ranges between 200 and 260 points. The action would have the potential to convert important farmlands to non-agricultural uses. Important farmlands include pastureland, cropland, and forest considered to be prime, unique, or statewide or locally important land.

#### *POTENTIAL IMPACTS*

Data obtained from the National Resource Conservation Service’s (NRCS) Web Soil Survey indicates the presence of farmland classified as prime or of statewide importance. None of the areas immediately surrounding the Airport, identified for the proposed implementation of the Recommended Plan are currently being utilized as farmland.

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

#### *SIGNIFICANCE THRESHOLD*

The FAA has not established a significance threshold for Hazardous Materials, Solid Waste, and Pollution Prevention.

Impacts to consider would include actions which would have the potential to:

- Violate applicable Federal, state, tribal, or local laws or regulations regarding hazardous materials and/or solid waste management;
- Involve a contaminated site (including but not limited to a site listed on the National Priorities List). Contaminated sites may encompass relatively large areas. However, not all of the grounds within the boundaries of a contaminated site are contaminated, which leaves space for siting a facility on non-contaminated land within the boundaries of a contaminated site. An EIS is not necessarily required. Paragraph 6-2.3a of this Order allows for mitigating impacts below significant levels (e.g., modifying an action to site it on non-contaminated grounds within a contaminated site). Therefore, if appropriately mitigated, actions within the boundaries of a contaminated site would not have significant impacts;
- Produce an appreciably different quantity or type of hazardous waste;
- 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
- Adversely affect human health and the environment.

#### *POTENTIAL IMPACTS*

There are currently no known areas containing hazardous materials or waste contamination within the existing airport property. Airport operations include the utilization of above-ground fuel storage facilities, which carry the potential to produce hazardous materials associated with fossil fuels. These facilities are governed and regulated by the Environmental Protection Agency (EPA) and the Oklahoma Department of Agriculture, Food, and Forestry (ODAFF). Additionally, the Airport stores approximately 3,000 gallons of EPA-approved Cryotech E36 Liquid Runway Deicer and approximately 300 pounds of EPA-approved Cryotech NAAC Solid Runway Deicer. Initial review using the EPA's EJSCREEN indicated no areas of hazardous contamination within the vicinity of the Airport.

#### *6.2.8 HISTORICAL, ARCHITECTURAL, ARCHEOLOGICAL, AND CULTURAL RESOURCES*

##### *SIGNIFICANCE THRESHOLD*

The FAA has not established a significance threshold for Historical, Architectural, Archeological, and Cultural Resources. The action would result in a finding of Adverse Effect through Section 106 process. However, an adverse effect finding does not automatically trigger preparation of an EIS (i.e., a significant impact).

##### *POTENTIAL IMPACTS*

No impact is anticipated. Several properties included in the National Register of Historic Places (NRHP) are located within a 8-mile radius of OUN. Implementation of the Recommended Plan would not produce any negative impacts to these identified resources.

Historical, architectural, archeological, and cultural resources encompass a range of sites, properties, and physical resources relating to human activities, society, and cultural institutions. Such resources include past and present expressions of human culture and history in the physical environment, such as prehistoric and historic archaeological sites, structures, objects, districts, which are considered important to a culture of a community. Impacts have the potential to occur when a proposed project results in an adverse effect to a property which has been classified as having historical, architectural, archeological, or cultural significance.

Several properties are located within a 8-mile radius of OUN and include:

- Moore-Lindsay House – 508 N. Peters

- United States Post Office-Norman – 207 E. Gray St.
- Sooner Theater Building – 101 E. Main St.
- Santa Fe Depot – Jct. of Abner Norman Dr. and Comanche St.
- Norman Public Library – 329 S. Peters Ave.
- Norman City Park New Deal Resources – Jct. of Daws St. and Webster Ave.
- Cleveland County Courthouse – 200 S. Peters Ave.
- Norman Historic District
- President’s House, University of Oklahoma – 410 W. Boyd St.
- DeBarr Historic District
- Casa Blanca – 103 W. Boyd
- Jacobson, Oscar B., House – 609 S. Chautauqua Ave.
- Bizzell Library, University of Oklahoma – 401 W. Brooks St.
- Ledbetter, H.E., House – 701 W. Brooks
- Beta Theta Pi Fraternity House, The University of Oklahoma – 800 S. Chautauqua Ave.
- Gimeno, Patricio, House – 800 Elm St.
- Oklahoma Center for Continuing Education Historic District

### 6.2.9 LAND USE

#### SIGNIFICANCE THRESHOLD

The FAA has not established a significance threshold for Land Use. There are no specific independent factors to consider for Land Use. The determination that significant impacts exist in the Land Use impact category is normally dependent on the significance of other impacts.

#### POTENTIAL IMPACTS

The Recommended Plan, as depicted in **Exhibit 4.10**, proposes four separate acquisitions/easements totaling approximately 25, 10, 16, and 8 acres, respectively, to ensure continued airport control of the Runway Protection Zones (RPZ). None of these acquisitions/easements overlap residential areas, and it is important that the land use of these areas remains non-residential.

### 6.2.10 NATURAL RESOURCES AND ENERGY SUPPLY

#### SIGNIFICANCE THRESHOLD

The FAA has not established a significance threshold for Natural Resources and Energy Supply. The action would have the potential to cause demand to exceed available or future supplies of these resources.

#### POTENTIAL IMPACTS

Implementation of the Recommended Plan includes improvements aimed at increasing capacity at Max Westheimer Airport. Therefore, the potential exists for these projects to contribute to the increased demand of natural resources and energy consumption. Executive Order 13514, *Federal Leadership in Environmental, Energy, and Economic Performance*, provides guidance to the project sponsor on required coordination with applicable local, state, and Federal entities to determine if a permit may be required for a specific project.

### 6.2.11 NOISE AND COMPATIBLE LAND USE

#### SIGNIFICANCE THRESHOLD

The action would increase noise by DNL 1.5 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. For example, an increase from DNL 65.5 dB to 67 dB is considered a significant impact, as is an increase from DNL 63.5 dB to 65 dB.

### *POTENTIAL IMPACTS*

Aviation noise primarily results from the operation of fixed and rotary-wing aircraft, such as departures, arrivals, overflights, taxiing, and engine run-ups. Noise is often the predominant aviation environmental concern of the public. 14 CFR 150 notes that residential land uses and schools are not considered compatible with a 65 decibel (dB) Day-Night Average Sound Level (DNL). Religious facilities, hospitals, etc., are generally compatible when a noise level reduction is incorporated into the design of the facility. A noise contour study is not part of the scope of this project, but as the Airport progresses through capacity-enhancing projects listed in the recommended development plan, and if the operational fleet mix is altered, noise contour studies are suggested.

### *6.2.12 SOCIOECONOMICS*

#### *SIGNIFICANCE THRESHOLD*

The FAA has not established a significance threshold for Socioeconomics.

Impacts to consider would include actions which would have the potential to:

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

The FAA has not established a significance threshold for Environmental Justice.

Impacts to consider would include actions which 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:

- Significant impacts in other environmental impact categories; or
- Impacts on the physical or natural environment that affect an environmental justice population in a way that the FAA determines are unique to the environmental justice population and significant to that population.

### *POTENTIAL IMPACTS*

Projects reflected in the Recommended Plan will require the acquisition of property or implementation of aviation easements in order to accomplish the proposed extensions to Runways 18/36 and 3/21 and maintain compatible land uses within the Runway Protection Zones (RPZ). Requirements pertaining to real property acquisition and 49 CFR Part 24 (Implementing the Uniform Relocation Assistance of Real Property Acquisitions Policies Act of 1970) were covered in the “Land Use” portion of this environmental overview. Roadway and service level changes will coincide with the identified projects and will require further NEPA analysis to determine the level of service impact and possible mitigation measures.

### 6.2.13 ENVIRONMENTAL JUSTICE

#### SIGNIFICANCE THRESHOLD

The FAA has not established a significance threshold for Environmental Justice.

Impacts to consider would include actions which would have the potential to lead to a disproportionately high and adverse impact on an environmental justice population, i.e., a low-income or minority population, due to:

- Significant impacts in other environmental impact categories; or
- Impacts on the physical or natural environment that affect an environmental justice population in a way that the FAA determines are unique to the environmental justice population and significant to that population.

#### POTENTIAL IMPACTS

As detailed in Chapter 1, *Inventory of Existing Conditions*, low-income, and minority populations exist within the vicinity of Max Westheimer Airport. Implementation of associated projects will require meaningful public involvement by these identified populations as governed by Executive Order 12898, *Federal Action to Address Environmental Justice in Minority Populations and Low-Income Populations*.

### 6.2.14 CHILDREN'S ENVIRONMENTAL HEALTH AND SAFETY RISKS

#### SIGNIFICANCE THRESHOLD

The FAA has not established a significance threshold for Children's Environmental Health and Safety Risks. Impacts to be considered include actions which would have the potential to lead to a disproportionate health or safety risk to children.

#### POTENTIAL IMPACTS

Roosevelt, Truman, Cleveland, Jackson, McKinley, Jefferson, and Adams Elementary Schools; Alcott, Longfellow, and Whittier Middle Schools; and Norman and Norman North High Schools are located within two miles of airport property. Executive Order 13045, *Protection of Children from Environmental Health and Safety Risks*, directs federal agencies to identify environmental risks associated with project implementation that contain the potential to disproportionately affect children. Care should be given during the construction phase to limit unnecessary access to the project site by unauthorized persons. **Exhibit 6.2** depicts the locations of schools surrounding the Airport.

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EXHIBIT 6.2 – SURROUNDING SCHOOLS



#### 6.2.15 VISUAL EFFECTS (LIGHT EMISSIONS)

##### SIGNIFICANCE THRESHOLD

The FAA has not established a significance threshold for Light Emissions or Visual Resources / Visual Character. Impacts to consider would include action which would have the potential to:

- Create annoyance or interfere with normal activities from light emissions; and
- Affect the visual character of the area due to the light emissions, including the importance, uniqueness, and aesthetic value of the affected visual resources;
- Affect the nature of the visual character of an area, including the importance, uniqueness, and the aesthetic value of the affected visual resources;
- Contact with the visual resources and/or visual character in the study area; and

- Block or obstruct the views of visual resources, including whether these resources would still be viewable from other locations.

### *POTENTIAL IMPACTS*

Projects proposed in the Recommended Plan contain the potential to alter the existing visual characteristics of Max Westheimer Airport including lighting, proposed runway and taxiway extensions, and other on-airport development. Section 13.2.2 or FAA Order 1050.1F outlines the recommended public involvement regarding visual impacts and resources.

### *6.2.16 WETLANDS*

#### *SIGNIFICANCE THRESHOLD*

The action would:

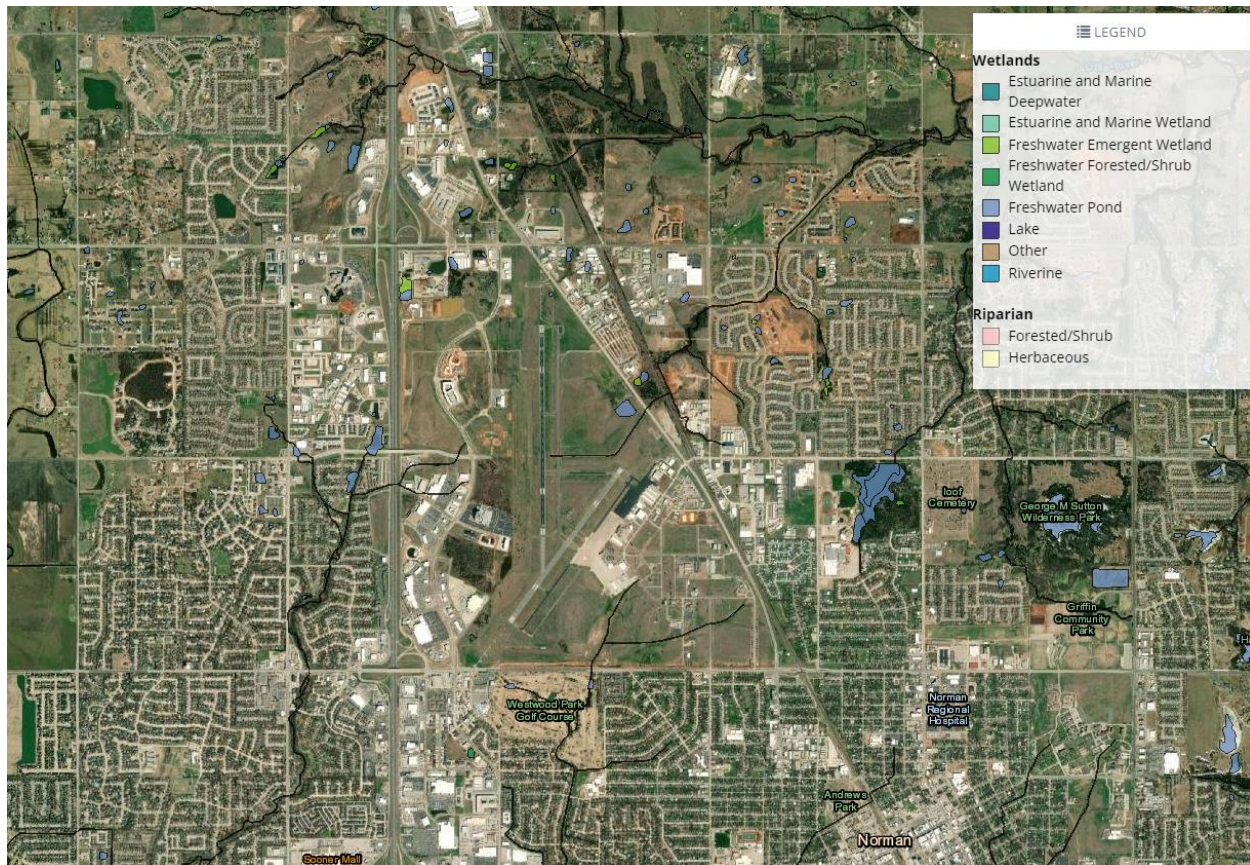
- Adversely affect a wetland's function to protect the quality or quantity of municipal water supplies, including surface waters and sole source and other aquifers;
- Substantially alter the hydrology needed to sustain the affected wetland system's values and functions or those of a wetland to which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

### *POTENTIAL IMPACTS*

Wetlands in the vicinity of the airport include several small riverines as well as a freshwater pond on the north side of the airfield. The recommended development plan for this part of the airfield took the pond's location into account and kept development away from it. At the time of implementation, additional field surveys and NEPA analysis may be required to provide an accurate delineation of wetlands located in project areas. Any removal, alteration, or fill of jurisdictional wetlands may necessitate the need to apply for a Section 404 permit as determined by the Clean Water Act. This information was gathered using the U.S. Fish and Wildlife Service, National Wetlands Mapper. A graphical depiction of the identified wetlands is located below.

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## EXHIBIT 6.3 – WETLANDS



Source: <https://www.fws.gov/wetlands/Data/Mapper.html>

## 6.2.17 FLOODPLAINS

*SIGNIFICANCE THRESHOLD*

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 56580.2, Floodplain Management and Protection.

*POTENTIAL IMPACTS*

According to the Federal Emergency Management Agency (FEMA) flood maps dated neither the existing nor proposed Airport Boundary contains areas identified as floodplains.

## 6.2.18 SURFACE WATERS

*SIGNIFICANCE THRESHOLD*

The action would:

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

*POTENTIAL IMPACTS*

Max Westheimer Airport maintains a Stormwater Pollution Prevention Plan, which is updated quarterly. It includes one water sample per year being sent to the Oklahoma Department of Environmental Quality. Special permits may be required for construction projects determined to contain the potential to increase watershed. Each project identified in the Recommended Plan will require individual analysis to determine the level of impact and required permits.

*6.2.19 GROUNDWATER**SIGNIFICANCE THRESHOLD*

The action would:

- Exceed groundwater quality standards established by Federal, state, local, and tribal regulatory agencies; or
- Contaminate an aquifer used for public water supply such that public health may be adversely affected.

*POTENTIAL IMPACTS*

Projects identified in the Recommended Plan would not create the potential to cause an adverse impact to groundwater quality or any aquifers utilized for public water supply.

*6.2.20 WILD AND SCENIC RIVERS**SIGNIFICANCE THRESHOLD*

The FAA has not established a significance threshold for Wild and Scenic Rivers.

Impacts to consider would include actions which would have the potential to cause an adverse impact on the values for which a river was designated (or considered for designation) through:

- Destroying or altering a river's free-flowing nature;
- A direct and adverse effect on the values for which a river was designated (or under study for designation);
- Introducing a visual, audible, or other type of intrusion that is out of character with the river or would alter outstanding features of the river's setting;
- Causing the river's water quality to deteriorate;
- Allowing the transfer or sale of property interests without restrictions needed to protect the river or the river corridor (which cannot exceed an average of 320 acres per mile which, if applied uniformly along the entire designated segment, is one-quarter of a mile on each side of the river); or
- Any of the above impacts preventing a river on the Nationwide Rivers Inventory (NRI) of 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)

*POTENTIAL IMPACTS*

No impact anticipated. A review of the National Wild and Scenic River Inventory identified no designated rivers within the vicinity of Max Westheimer Airport.

### 6.3 AIRPORT RECYCLING, REUSE, AND WASTE REDUCTION

The FAA Modernization and Reform Act of 2012 (FMRA), which amended Title 49, United States Code (U.S.C.) included a number of changes to the Airport Improvement Program (AIP). Two of these changes are related to recycling, reuse, and waste reduction at airports.

- a. Section 132 (b) of the FMRA expanded the definition of airport planning to include “developing a plan for recycling and minimizing the generation of airport solid waste, consistent with applicable State and Local recycling laws, including the cost of a waste audit.”
- b. Section 133 of the FMRA added a provision requiring airports that have or plan to prepare a master plan and that receive AIP funding for an eligible project to ensure that the new or updated master plan addresses issues relating to solid waste recycling at the airport.
  - (1) The feasibility of solid waste recycling at the airport;
  - (2) Minimizing the generation of solid waste at the airport;
  - (3) Operation and maintenance requirements;
  - (4) Review of waste management contracts; and
  - (5) The potential for cost savings or the generation of revenue.

Airports generate various types of solid waste. The guidance provided in the FMRA addresses the recycling, reuse, and reduction of municipal solid waste (MSW) and other materials that can be legally disposed of in a 42 U.S.C. 6941-6949 landfill or equivalent state-permitted facility. Airport waste is generally separated into eight primary categories.

- a. **Municipal Solid Waste (MSW)** consists of everyday items that are used and then discarded, such as product packaging, furniture, clothing, bottles, food scraps, and newspapers.
- b. **Construction and Demolition Waste (C&D)** is generally categorized as MSW. However, as it can be a major component of airport waste, it has been separated into its own category. C&D waste is any non-hazardous solid waste from land clearing, excavation, and/or the construction, demolition, renovation or repair of structures, roads, and utilities. C&D waste commonly includes concrete, wood, metals, drywall, carpet, plastic, pipe, land clearing debris, cardboard, and salvaged building components. In some instances, C&D waste may be subject to special requirements (e.g., tar impregnated roofing materials, asbestos-containing building materials, etc.)
- c. **Green Waste** is categorized as MSW and is also referred to as yard waste. Green waste consists of tree, shrub and grass clippings, leaves, weeds, small branches, seeds, pods, and similar debris generated by landscape maintenance activities.
- d. **Food Waste** is food that is not consumed or is the waste generated and discarded during food preparation activities. Food wastes are also considered part of the MSW waste stream.
- e. **Lavatory Waste** falls under the category of special waste and is generated when the lavatory tanks of the airplanes are emptied via hose and pumped into a lavatory service vehicle, which can either be a self-powered truck or a lavatory cart pulled by a tug. After the aircraft’s lavatory tanks are emptied, they are refilled with a mixture of water and disinfecting concentrate, commonly called “blue juice.” The lavatory waste removed from the aircraft is transported to a triturator facility, generally located airside, near airline operations, for pretreatment prior to discharge to the sanitary sewer system and publicly owned treatment works (POTW). Lavatory waste, which contains chemicals and potential enteric pathogens, can present risks to the environment and human health if not handled properly. Therefore, caution must be taken to ensure that releases of lavatory waste do not occur during the transfer process which can result from either equipment failure or operator error.

- f. **Spill cleanup and remediation wastes** are another type of special waste. These materials are generated during cleanup of spills and/or the remediation of contamination from various types of sites on an airport (e.g., storage tanks, oil and gas production, vehicular leaks, spills from maintenance activities, etc.). Care must be taken to ensure that these types of waste materials are not co-mingled with other waste streams and that storage and disposal procedures comply with applicable regulatory requirements.
- g. **Hazardous Waste** must be handled in accordance with stringent federal regulations. Wastes designated as “hazardous” are covered by regulations outlining legal handling, treatment, or disposal. Hazardous wastes are either specifically “listed” in the regulation (as defined in 40 CFR 261.33-.33), or are ignitable, corrosive, toxic or reactive (as defined in 40 CFR 261.21-.24). Hazardous wastes most often encountered at airports include solvents, caustic part wastes, heavy metal paint waste, wastewater sludges, unused epoxies, waste fuels and other ignitable, unusable water conditioning chemicals, illegal dumping of containerized chemicals, contaminated sludge in GA aircraft wash rack oil/water separator, ni-cad batteries, and waste pesticides.

As pilots and passengers interact with the airport environment, they contribute to the overall waste stream via several methods. Additionally, employees also play an integral part in contributing to the waste stream through their daily tasks and responsibilities. There are several key areas that contribute to the waste stream at OUN, including the following:

- a. **Terminals** are the heart of an airport complex and normally have the largest concentration of people, which can translate into the biggest concentration of waste. The terminal houses passenger waiting areas, pilot lounges, briefing rooms, a conference room, vending machines, and restrooms. As for the varied operations, the types of wastes produced at a terminal area also vary and include food, paper, plastic (in many forms), aluminum cans, universal wastes (electronics, light bulbs, batteries) green waste (from lawn care), general trash and deplaned waste from aircraft.
- b. The **Airfield** features runways and taxiways that allow aircraft to takeoff, land, and go to and from the terminal. With such limited and transient activities, the character of waste produced on the airfield is also limited and consists mostly of rubber from aircraft tires (runway rubber) and green waste.
- c. **Aircraft Maintenance Hangars** contain aircraft subjected to repairs and maintenance necessary for the safety and operation of such large, complex pieces of machinery. In addition, airlines have aircraft ground service equipment (GSE) that need to be serviced as well. Servicing equipment results in a number of predictable types of waste, such as oil, grease, certain hazardous chemicals, universal waste (batteries, light bulbs), wastewater, plastic, and vehicle waste such as tires and fluids (brake, transmission, etc.). These hangars also typically have office space where office waste is generated.
- d. **Offices** provide space for airport, FBO, and employees of other tenants. These offices yield waste streams typical of all office operations; paper, toner cartridges, universal waste (batteries, electronics, and light bulbs), plastic, aluminum cans, food, and general trash.
- e. **Airport Construction Projects**, whether large or small, can involve demolition, renovation, or new construction. The waste products from construction are different from the normal day-to-day waste streams and thus require special attention. Types of waste that can arise from construction activities are concrete, asphalt, building materials, wood, soil, construction equipment waste, and regular trash.

Below is a list of items that the City of Norman’s recycling contractor accepts for recycling and items which cannot be recycled.

- Aluminum: Empty Aluminum Cans
- Paper: Newspapers, Office Paper, Magazines, Advertising Inserts, Junk Mail and Phone Books, Shredded paper should be placed in a paper bag

- Plastics #1 and #2: Clean Milk Jugs, Beverage Containers, Detergent Jugs, Shampoo and Conditioner Bottles (Stamped #1 or #2 on the bottom.)
- Steel and Tin: Clean Food Cans and Lids (empty cans only)
- Paperboard: Cereal boxes, Kleenex boxes (no wax coated paperboard)
- Cardboard and Paper Bags (Flatten cardboard and cut into pieces)

OUN should ensure that waste and recycling receptacles are updated alongside this provided list to ensure adequate quantity and placement of receptacles to promote recycling.

#### *6.3.1 EXISTING WASTE MANAGEMENT SERVICES*

Currently, solid waste produced at the Airport is handled by the University of Oklahoma Department of Facilities Management. The Airport utilizes up to 10 dumpsters located at the terminal building, classroom and office buildings, and at each complex of hangars. Airport management ensures these dumpsters are closed as part of their inspections, and OU Facilities Management empties them once per week. There are also recycling bins in all office and classroom buildings, which are emptied by OU Facilities Management.

#### *6.3.2 WASTE MANAGEMENT PLAN GOALS*

It is recommended that OUN continue to expand the availability of solid waste and recycling dumpsters throughout airport property as tenant/operations numbers increase. This will promote the continued use of proper waste management and recycling streams.

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