

## 5.0 Federal and State Regulations Related to Airport Compatible Land Use Planning

There are many entities involved in implementing programs related to land use compatibility around airports. These include the FAA, state and local governments and the community at-large. Familiarity with the regulations mandated by each entity is foremost in efforts to protect the airport's environs. The various regulations related to airport land use issues have been separated into three primary categories for ease of review: planning related regulations, noise related regulations and environmental related regulations. Each of these areas of interest is discussed below with summaries of both federal and state regulations. The following descriptions are not meant to be an inclusive list of federal and state regulations, but simply a summary of the primary rules and regulations with ties to land use issues. Additional coordination or involvement with other federal or state agencies may be required on a project specific basis. Early coordination with ODA is recommended in order to identify the potential involvement of these other agencies, as soon as possible.

### 5.1 Planning Related Legislation and Regulations

✈ *Planning regulations lay the foundation for the creation of a land use planning process and provide the fundamental tools to implement the resulting program.*

Planning related regulations are the most critical of the three basic types of rules. These planning regulations lay the foundation for the creation of a land use planning process and provide the fundamental tools to implement the resulting program. These regulations cover a wide range of topics dealing with everything from airspace related issues to the content of an airport master plan. Used in conjunction with one another, they provide the core regulations governing airport land use compatibility issues.

#### 5.1a. Federal Level Planning Regulations

Federal statutes and regulations relating to land use compatibility and airports, are summarized below. This is not an exhaustive summary, however, it provides the primary legislation related to land use issues.

##### a.1 Airport and Airway Improvement Act of 1982 United States Code (USC), Title 49

Upon acceptance of Federal funds, this Act obligates the airport owners to operate and maintain the airport and comply with specific assurances, including maintenance of compatible land uses around airports. The implementation of this Act is handled through stipulations outlined in the grant documents signed by airport owners when they accept federal funds for a project.

##### a.2 Objects Affecting Navigable Airspace Federal Code of Federal Regulations (CFR) Title 14, Part 77

This federal regulation establishes standards for determining obstructions in navigable airspace. It sets forth requirements for construction and alteration of structures (i.e. buildings, towers, etc.). It also provides for studies of obstructions to determine their effect on the safe and efficient use of airspace, as well as providing for public hearings regarding these obstructions, along with provisions for the creation of antenna farm areas. It also establishes methods of identifying surfaces that must be free from penetration by obstructions, including buildings, cranes, cell towers, etc., in the vicinity of an airport. The specifics of this regulation are outlined in Chapter 3 of this document. This regulation is predominately concerned with airspace related issues. Implementation and enforcement of the elements contained in this regulation is a cooperative effort between the FAA and the individual state aviation agencies, in this instance, ODA.

**a.3 Proposed Construction or Alteration of Objects That May Affect the Navigable Airspace****FAA Advisory Circular (AC) 70/7460-2J**

This form works in conjunction with the requirements of FAR Part 77. It is required at all federally obligated airports to assess all proposed or temporary construction in the vicinity of the airport. The FAA conducts an aeronautical study and issues a determination to the proponent and the airport operator if the proposed development is determined to be a hazard. It is imperative that local planners are aware of the various critical safety considerations when siting developments around airports. A sample FAA 7460-1 is included in Appendix K of this document.

**a.4 General Operating and Flight Rules – FAR Part 91  
Federal Code of Federal Regulations (CFR) Title 14, Part 91**

This federal regulation establishes general rules for the operation of aircraft with regards to various airports, various types of flight, i.e., Instrument Flight Rules (IFR) or Visual Flight Rules (VFR) conditions, as well as maintenance, special flight operations, foreign aircraft operations and operating noise limits. FAR Part 91 requirements are considered planning regulations. This is because the recommendations for various types of flight operations translate into specific spatial requirements for safety areas that must be planned for during the master planning process.

**a.5 Airport Land Use Compatibility Planning  
FAA Advisory Circular (AC) 150/5060-6**

This document guides the development of a compatibility plan to ensure the environs surrounding an airport are not developed in a manner that could pose a risk to the airport's operations. This document specifically looks at land use and noise issues. (1977)

**a.6 Airport Master Plans  
FAA Advisory Circular (AC) 150/5070-6A**

This document guides the development of airport master plans. The guiding principle of the airport planning process is to develop a safe and efficient airport through the use of acceptable standards. While there are many steps in the planning process, none of these steps should be treated in a piecemeal manner. The air-side and land-side issues must be equally evaluated to create a plan that provides for compatible airport and community development where possible. (1985)

**a.7 A Model Zoning Ordinance to Limit Height of Objects Around Airports  
FAA Advisory Circular (AC) 150/5190-4A**

This advisory circular concerns itself with developing zoning ordinances to control the height of objects. It is based upon the surfaces described in Subpart C of FAR Part 77, Objects Affecting Navigable Airspace, current edition. This document provides sample language and model ordinances for use by local airports. (1987)

**a.8 Airport Design  
Advisory Circular (AC) 150/5300-13 Change 7**

This document provides the basic standards and recommendations for airport design. This document consolidates five previous documents pertaining to airport design. The most recent update provides expanded information for new approach procedures for Runway Protection Zones, threshold-siting criteria and new instrument approach categories.

**a.9 FAA Order 18, November, 1999, US Standards for Terminal Instrument Procedures (TERPS) FAA Order 8260. 3 B change 14 (July 7, 1976 with changes 1-19 through May 2002)**

This document contains standards for establishing and designing instrument flight procedures. The criteria are applicable at any location over which the U.S. has jurisdiction.

**a.10 Grant Assurances**

Pursuant to the provisions of Title 49, U.S.C., subtitle VII, as amended, assurances are required to be submitted as part of a project application by sponsors requesting funds. Upon acceptance of the grant offer by the sponsor, these assurances are incorporated in, and become part of, the grant agreement. For planning related projects, the number of assurances that apply to the project are more limited. A summary of some of the planning assurances are noted below:

- compliance with all applicable Federal laws, regulations, executive orders, policies, guidelines and requirements as they relate to the project
- responsibility and authority of the sponsor to carry out the proposed project
- availability of the local share of funds for the proposed project
- preservation of the rights and powers of the sponsor, and the airport
- consistency with local plans
- creation of an accurate accounting , auditing and record-keeping process
- accessibility of the public to project information and the planning process
- compliance with civil rights issues
- provision of engineering and design services
- compliance with current policies, standards and specifications.

The aforementioned issues are a sample for the thirty-seven assurance issues currently listed within the federal grant assurances. Each airport sponsor should be cognizant of these assurances as they apply to their specific airport project and must work to maintain compliance with these assurances.

→ *Oregon is unique in that there are numerous state regulations that govern airport-related planning and development.*

**5.1b. State Level Planning Legislation and Regulations**

The topics of various state level planning regulations are addressed in a broader format than the federal regulations. The following summaries illustrate the relationships between the various state rules and regulations.

**b.1 Comprehensive Planning and Periodic Review**

Oregon's land use planning program requires cities and counties to prepare, adopt and amend comprehensive plans in compliance with 19 Statewide Planning Goals and administrative rules (OARs) that implement these goals. The State Land Conservation and Development Commission (LCDC) adopted the

goals and rules. One of these Goals (Goal 12, Transportation Planning) promotes the provision of a safe, convenient, and economic statewide transportation network, including passenger and freight air transportation. The goal is achieved by the creation of transportation system plans (TSPs).

Oregon Revised Statutes (ORS 197.628 et seq.) also require local governments to periodically review comprehensive plans and to implement land use regulations to ensure that they adequately provide “needed housing, employment, transportation and public facilities and services.” Through the periodic review process, local governments work with the state Department of Land Conservation and Development (DLCD), the agency arm implementing policies established through LCDC, to update certain comprehensive plan elements (e.g., transportation plans) and/or regulations (e.g., airport compatibility zoning).

The need for periodic review is based upon a determination that there has been:

- a change in circumstances such that the local plan or land use regulations do not comply with statewide planning goals,
- the existing plan or regulations are not achieving the goals, or
- there are agency plans or programs that affect land use which require modification to local plans or regulations to assure compliance with the goals.

Many communities find the latter circumstance most common in relation to providing for safe airports and compatible land uses nearby. For communities with deficient regulations concerning compatible land uses and airport safety, periodic review can be an effective means of implementing new regulations or modifying existing regulations to meet state standards. State funding is also available to assist local governments in complying with plan and code updates required through periodic review.

However, by recent changes to state law, periodic review is no longer mandatory for counties with populations of less than 15,000 people and cities with a population of less than 2,500 within their Urban Growth.

For smaller jurisdictions no longer obligated to go through periodic review, and therefore not directly eligible for funding assistance through this venue, there are other possible funding strategies outlined in discussion of state roles and responsibilities in Chapter 4.

## **b.2 Airport Planning Rule (APR)**

To aid in implementing Goal 12 and provisions for local government airport regulations outlined in ORS 836.600 et seq., the LCDC adopted the Airport Planning Rule (APR). Outlined in OAR Chapter 660, Division 13, the APR establishes a series of local government requirements pertaining to aviation facility planning. These include requirements to:

- Adopt comprehensive plan and land use regulations for airports to carry out the requirements established in the APR and applicable ORS;
- Map and provide supporting documentation to establish airport boundaries, identify existing and proposed facilities, site future expansion areas and/or airport uses, map airport safety and

→ *The APR provides specific requirements for aviation facility planning, comprehensive planning, and land use regulations.*

compatibility zones and imaginary surfaces, and delineate noise impact boundaries;

- Adopt an Airport Safety Overlay Zone prohibiting structures, trees, etc., from penetrating airport imaginary surfaces based upon FAA standards, and establish limited height exceptions and a means of approving variances when supported by the ODA and FAA;
- Develop compatibility standards to prohibit residential and public assembly uses within runway protection zones, limit certain uses within noise impact boundaries, limit outdoor lighting, prohibit new and expanded industrial uses that cause emissions hazardous to aviation, and require coordinated review with ODA of radio, TV, and cellular facilities proximate to airports;
- Regulate water impoundments (e.g., gravel pits) per ORS 836.623(2) through (6), and prohibit new landfills near airports per DEQ standards;
- Adopt land use regulations for non-towered airports authorizing various aviation and airport-related uses and activities, as well as forestry and agricultural uses;
- Allow certain industrial, manufacturing, and other uses within airport boundaries if they would result in no significant hazard or limitation on approved airport uses, and are consistent with local comprehensive plans, statewide planning goals, and other OARs; and
- Update local plans and land use regulations to conform to the APR during periodic review or a TSP update, and ensure that future amendments to local plans and regulations also comply with provisions of the APR.

The APR serves as the state regulatory basis for ensuring that local government airport planning conforms to the hierarchy of state plans and statutory requirements (i.e., Goal 12, ORS 836.600 et seq., Oregon Transportation Plan, Oregon Aviation Plan). These rules outline the clear, comprehensive parameters for local governments to follow as a framework for airport planning.

**b.3 Transportation Planning Rule (TPR)**

The state Transportation Planning Rule (TPR, embodied in OAR Chapter 660, Division 12) contains planning requirements for local governments to develop Transportation System Plans (TSPs) as elements of comprehensive plans. These TSPs are required to contain elements intended to preserve local components of the state’s public use aviation system, as identified in the 2000 Oregon Aviation Plan, as well as plan for multi-modal ground transportation system needs.

The TPR requires local jurisdictions to adopt land use regulations for land uses within airport noise corridors and FAR Part 77 imaginary surfaces, and to restrict physical hazards to air navigation. Since publication of the 1994 Oregon Airport Land Use Compatibility Guidebook, several changes to the TPR were enacted that have bearing on airport planning. These changes include:

- OAR 660-012-0045(2), which requires local governments to adopt land use or subdivision ordinance regulations consistent with federal and state requirements that protect transportation facilities, corridors and functions, including:

→ *TSPs need to address the APR issues and ground access to the airport facilities.*

- ✓ controlling land uses within airport noise corridors and imaginary surfaces, and limiting physical hazards to air navigation to protect public use airports, and
- ✓ developing a process for coordinated review of future land use decisions affecting transportation corridors or facilities (including public use airports).

Therefore, these TPR standards obligate local governments through their TSP and comprehensive plan to protect public use airports from incompatible uses through planning and ongoing review of local land use decisions on development proposals that could impact airport facilities.

OAR 660-012-0065(3), which allows for expansions or alterations of public use airports without having to seek exceptions from certain statewide planning goals (Goals 3, 4, 11 and 14), when the expansion or alteration does not change the design class of aircraft planned for the subject airport.

This standard significantly streamlines the approval process for certain types of airport expansions and modifications on rural lands surrounding airports.

#### **b.4 Notice Requirements**

ORS 197.183 requires local governments to provide notice to the Oregon Department of Aviation when applications are received for water impoundments (e.g., new gravel pits) larger than ¼ acre in size located within 10,000 feet of an airport identified in ORS 836.610(1). Standards in ORS 836.623 outline the local government responsibilities for approving or denying such impoundments.

Implementing state statutes (ORS 215.223, 215.416, and 227.175) and administrative rules (OAR 738-100-0010) also require local planning authorities to send notice of public hearings and decisions on land use permits or zone changes to owners of public use airports and to the Oregon Department of Aviation when the subject property is within 5,000 feet of the sides or ends of a runway on a visual airport, or 10,000 feet on an instrument airport. Notice need not be provided if the permit or zone change would allow a structure of less than 35 feet in height and the property is located outside the runway approach surface or on property owned by the airport.

## **5.2 Noise Related Legislation**

The previous rules and regulations provide the overall framework for airport planning, while this section addresses specific issues as they relate to noise impacts. These regulations provide general federal and state guidelines for the two primary areas: the measurement of noise and the methods of mitigation. These are the two main focus areas that address how noise is measured, how it can affect surrounding land uses and how to reduce impacts through various mitigation measures. As with the planning regulations, this section is not meant to be an all-inclusive list, rather it is meant to provide a summary of the primary legislation related to noise issues.

➔ *The method of measurement and various mitigation measures are addressed at the federal and state levels.*

## **5.2a. Federal Legislation**

### **a.1 Aviation Safety and Noise Abatement Act of 1979 (ASNA) United States Code (USC), Title 49**

This Act required that a single system be developed for measuring noise and determining noise exposure caused by airport operations & required identification of land uses normally compatible with exposures of individuals to noise. Section 103 of the Act authorized the Secretary of the DOT to make grants for airport noise compatibility planning to minimize noise impacts on communities around airports.

### **a.2 Noise Compatibility Program FAR Part 150 - Code of Federal Regulations (CFR) Title 14, Part 150**

Part 150 established the measures required by the ASNA and was ultimately revised to include a standardized airport noise compatibility program including:

- voluntary noise exposure maps (NEMs) and noise compatibility programs,
- (NCPs) by airport owners to FAA,
- standard noise measurement methodologies and units,
- identification of land uses that are normally compatible or incompatible with various levels of noise, and
- procedures and criteria for preparation and submission of NEMs and NCPs.

The Final Rule included language that stated that Part 150 regulations apply to any "public use airport" as defined by Section 502 (17) of the Airport and Airway Improvement Act of 1982.

### **a.3 Airport Noise & Capacity Act of 1990 (National Noise Policy)**

The increasing public outcry against aircraft noise required the establishment of a procedure to eliminate Stage I (the noisiest) and Stage II aircraft from operating in the United States and required that as of December 31, 1999, all turbojet aircraft must meet the quietest Stage 3 noise levels.

### **a.4 Notice and Approval of Airport Noise and Access Restrictions FAR Part 161- Code of Federal Regulations (CFR) Title 14, Part 161**

Establishes the implementation of the Airport Noise and Capacity Act of 1990 (49 U.S.C. App. 2153,2154,2155, and 2156) that requires notification of and creation of procedures for the operation of Stage 2 and Stage 3 aircraft noise restrictions.

### **a.5 Noise Control and Compatibility Planning for Airports FAA Advisory Circular (AC) 150/5020-1**

This document provides guidance for the implementation of FAR Part 150 which allows for the development of a plan to establish compatibility between surrounding land uses through the reduction of non-compatible land uses around airports and noise-sensitive areas and the prevention of additional non-compatible land uses. (1983)

### **a.6 Airport Landscaping for Noise Control FAA Advisory Circular (AC) 150/5320-14**

Establishes guidance for the implementation of landscaping for noise control purposes. The document recommends various species of vegetation to be used for noise control. (1978)

**5.2b. State Noise Legislation and Regulations**

State Department of Environmental Quality (DEQ) standards for noise control, abatement, and mitigation are outlined in OAR Chapter 340, Division 35. These rules define and establish parameters for the Airport Noise Abatement Program, airport noise standards, and airport noise impact boundaries (i.e., an annual average day-night airport noise level of 55 dBA, also referred to as 55 DNL). Since the 55 DNL noise contour can extend well beyond airport boundaries, these OARs also identify noise abatement methods (e.g., soundproofing programs, land acquisition within the 55 and 65 DNL boundaries, modifications to state Uniform Building Code standards for development within the 55 DNL boundary, etc.), provisions for monitoring, and exceptions.

OAR 340-035-0045 establishes a number of noise control regulations for airports, and promulgates an Airport Noise Control Procedure Manual intended to assist airports in calculating noise impact boundaries. Establishing noise contours for public use airports is completed through local airport master planning (as required under section (3)(d) of this rule), and may be eligible for FAA grant funding. Ongoing monitoring, however, can be more problematic. The state has not funded ongoing noise abatement monitoring through DEQ for some time. Therefore, responsibilities for addressing complaints concerning various sources of noise (including airports), and applying DEQ noise standards, can fall to local jurisdictions.

**5.3 Environmental Legislation and Regulations**

The regulations related to airport development and compatible land uses becomes a very large topic if all of the ancillary issues are included in the discussion. For the purposes of this document, the primary state and federal regulations have been summarized to provide a reference to the most common rules that are applied to airport development. This is not meant to be an all-inclusive list of regulations, rather, it should serve as a general guide for the review of environmental impacts. For example, the National Environmental Policy Act (NEPA) of 1969 is referenced, as is the Airport Environmental Handbook, which includes over twenty different categories of environmental consideration. This illustrates the diverse range of issues that may be impacted by airport development or may create an impact on airport development. As previously noted, each airport sponsor should seek the guidance of the Oregon Department of Aviation regarding site-specific issues or concerns with regards to environmental issues.

➔ *Environmental regulations are addressed within various federal and state documents, with the Airport Environmental Handbook and the National Environmental Policy Act of 1969 being cited most often.*

**5.3a. Federal Legislation and Regulations**

**a.1 Airport Environmental Handbook  
FAA Order 5050.4A**

Establishes the instructions and guidance for preparing and processing the environmental assessments (EA), finding-of-no-significant-impacts (FONSI) and environmental impact statements (EIS) for the proposed federal action on airport development proposals requiring federal environmental approval. (1985) There are over twenty (20) categories of impacts that are evaluated as a part of this process. These categories and a brief summary of each are listed below.

- ➔ Compatible Land Uses – are defined as “the compatibility of existing and planned land uses in the vicinity of an airport and are usually associated with the extent of the noise impacts related to that airport.”
- ➔ Social Impacts - associated with the relocation of residences or businesses, altering surface transportation patterns, dividing or disrupting established communities, or disrupting orderly, planned development.

➔ *Twenty-one environmental categories are assessed to determine impacts on the surrounding community and the environment.*

- Induced Socioeconomic Impacts - address such issues as population movement and growth, public service demands, and changes in the business and economic activity to the extent of the proposed airport development. These impacts are further impacted by significant impacts in the noise, land use and direct social impact categories.
- Environmental Justice - intended to identify, address and avoid disproportionately high and adverse human or environmental effects on minority and low-income populations.
- Air Quality – The Clean Air Act (CAA), administered by the U.S. EPA, establishes national air quality standards. An air quality analysis is required for airport development projects that involve airport location, runway development, or physical airside/or landside improvements that increase airport capacity. An air quality analysis is also required for any proposed development that does not conform to an approved state implementation plan for controlling area-wide air pollution impacts.
- Water Quality - The quality of ground and surface water must not be degraded by planned construction. The Federal Water Pollution Control Act, as amended by the Clean Water Act of 1977, provides the authority to establish water quality standards. Section 404 (b) (1) of Clean Water Act of 1977, provides for protection of waters, including wetlands, and assures that alternatives are considered, including mitigation. Administered by the U.S. Army Corps of Engineers. Airport development projects can often involve impacts to wetlands.

Section 401 of the Clean Water Act is administered by individual states through the Department of Natural Resources and protects waters from pollutants. Storm water runoff is a concern at airports due to the refueling and deicing operations.

- Department of Transportation, Section 4(f) - provides that no program or project requiring the use of any publicly-owned land from a public park, recreation area or wildlife or waterfowl refuge, will be permitted unless there is no other alternative and that planning of such program or project includes plans to minimize harm resulting from the use of the property. It should be noted that this legislation has been superseded by Section 303© of the Title 49, USC, however, the criteria remain the same.
- Historical, Architectural, Archaeological, and Cultural Resources – Based upon the requirements of the National Historic Preservation Act of 1969, it is intended to assure coordination of federal historic preservation matters and to recommend measures to coordinate federal historic preservation activities and to comment on federal actions affecting properties included in or eligible for inclusion in the National Register of Historic Places. The Secretary of the Interior is authorized to maintain a record of objects of significant American history, architecture, archaeology, and culture, referred to as the National Register.
- Biotic Communities - protects biotic communities, including native and introduced plants and animals in the project area.
- Endangered/Threatened Species of Flora and Fauna - The Endangered Species Act, Section 7, as amended, requires each federal agency to ensure that any action authorized, funded, or carried out by such agency is not likely to jeopardize the continued existence of any endangered or

threatened species. Administered by the U.S. Fish and Wildlife Service, this Act ensures that proposed projects do not result in loss of habitat.

- Wetlands - Wetlands are areas that are inundated by surface or ground water with a frequency sufficient to support, and under normal circumstances does or would support, a prevalence of vegetative or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction.
- Floodplain - Floodplains are “the lowland and relatively flat areas adjoining inland and coastal waters, including flood-prone areas of offshore islands that are subject to a one percent or greater change of flooding in any given year.”
- Coastal Zone Management - Coastal Zone Management is to preserve and protect the Nation’s coastal zone, to encourage wise use of land and water resources of a coastal zone, to prepare a plan to provide protection of natural resources and coordination of the public, federal state, local interstate and regional agencies and governments affecting the coastal zone.
- Coastal Barriers - The Coastal Barriers Resources Act of 1982, PL 97-348, prohibits, with some exceptions, Federal financial assistance for development within the Coastal Barrier Resources System, which consists of undeveloped coastal barriers along the Atlantic Ocean or Gulf Coasts.
- Wild and Scenic Rivers - The Wild and Scenic Rivers Act describes those river areas eligible to be included in a system afforded protection under the Act as flowing and possessing “outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural or other similar values.”
- Farmland - The Farmland Protection Policy Act authorizes the Department of Agriculture to develop criteria for identifying the effects of Federal programs on the conversion of farmland to non-agricultural uses.
- Energy Supply and Natural Resources - Energy requirements generally fall into two categories: those which relate to changed demands or stationary facilities (e.g. airfield lighting and terminal building heating), and secondly, those which involve the movement of air and ground vehicles. For most airport actions, changes in energy or other natural resource consumption will not result in significant impacts.
- Light Emissions - Consideration shall be given to any lighting associated with an airport that will create an annoyance among people in the vicinity. An EA should consider site location, type of system, and measures to lessen annoyance.
- Solid Waste Impacts - Airfield development (runways, taxiways and related items) will not usually impose any direct relationship to solid waste collection. Terminal area development may involve circumstances that require consideration of solid waste impacts. Consultation with local officials concerning solid waste disposal facilities shall be documented in the environmental assessment.
- Construction Impacts - Any specific activities which may create adverse environmental impacts including noise, dust, air pollution from burning debris and water pollution from erosion shall be discussed in the

→ Some categories may not be relevant to every project and are accordingly removed from consideration.

environmental assessment. In general, a description of the type and nature of the construction and measures taken to minimize potential impacts should be detailed.

- Design, Art, and Architectural Application - Normally, the environmental assessment will include some discussion of design, art, and architecture in mitigating adverse visual and other environmental impacts and encouraging enhancement of the environment. FAA's Airport Improvement Program Handbook prescribes guidelines for treating and promoting design, art, and architectural objectives in airport aid projects.

**a.2 National Environmental Policy Act of 1969 (NEPA)**

The NEPA resulted in the development of guidelines for application of a national policy of the federal government to consider impacts of proposed action on the environment. The Act specifically states that "governments, and other public and private organizations, use all practical means and measures to create and maintain conditions under which man and nature can exist in harmony." In land use planning, when an airport sponsor proposes a project or action that requires federal approval, all actions are reviewed to determine their impacts on the environment.

**a.3 Hazardous Wildlife Attractants On or Near Airports  
FAA Advisory Circular (AC) 150/5200-33**

This document provides guidance regarding the types of land uses, which are considered to be incompatible near airports due to their nature as wildlife attractants. These uses include but are not limited to the following: wastewater treatment facilities, wetlands, dredge spoil containment areas and solid waste landfills. Typically, these uses should be located at least 5,000 feet away from an airport runway end if the airport serves piston-type aircraft and at least 10,000 feet away from an airport runway end if the airport serves turbojet aircraft. (1997)

→ *Wildlife attractants on or near airports continue to be an issue of concern across the nation.*

**a.4 Criteria for Municipal Solid Waste Landfills  
Code of Federal Regulations (CFR) Title 40, Part 258, Subpart B**

The subpart establishes criteria for the expansion and/or development of new landfills with regards to airports. In part it states that:

- a) Owners or operators of new Municipal Solid Waste Landfills (MSWLF) units, and lateral expansions that are located within 10,000 feet (3,048 meters) of any airport runway end used by turbojet aircraft or within 5,000 feet (1,524 meters) of any airport runway end used by only piston-type aircraft must demonstrate that the units are designed and operated so that the MSWLF unit does not pose a bird hazard to aircraft.
- (b) Owners or operators proposing to site new MSWLF units and lateral expansions within a five-mile radius of any airport runway end used by turbojet or piston-type aircraft must notify the affected airport and the Federal Aviation Administration (FAA).

**a.5 Construction or Establishment of Landfills Near Public Airports  
FAA Advisory Circular (AC) 150/5200-34**

This document provides guidance regarding the requirements for complying with new federal statutory requirements concerning the construction or establishment of municipal solid waste landfills (MSWLF) near public airports. Section 503 of the Wendell H. Ford Aviation Investment and Reform Act for the 21<sup>st</sup> Century (AIR-21), Pub. L. No. 106-181 (April 5, 2000) has replaced section 1220 of the 1996 Reauthorization Act, 49, U.S.C. §44718 (d), with new language that further

limits the construction or establishment of a MSWLF near certain smaller public airports.

These new limitations apply to only those airports that are recipients of Federal grants and to those that primarily serve general aviation aircraft and scheduled air carrier operations using aircraft with less than 60 passenger seats. These new restrictions require a minimum separation distance of six (6) statute miles between a new MSWLF and a public airport. (2000)

### **5.3b. State Environmental Legislation and Regulations**

The 2000 Oregon Aviation Plan found that half of the airports in the state have reported migratory bird areas located nearby, and nearly half have reported water impoundments near their airports. While having wetlands and open waterways available for migratory and non-migratory birds and other aquatic life may be an ecological blessing, such circumstances can represent significant hazards to aviation from potential bird strikes. Additionally, some 15% of airports reported having open landfills nearby, thus further contributing to bird strike concerns. FAA Circulars advise significant separation between airports and airport operations and bird attractants, such as wetlands, wastewater treatment sites, gravel extraction reclamation sites, and landfills.

The following identify applicable state regulations pertaining to wetlands, open water impoundments from surface mining activities, and landfills relative to airport planning:

#### **b.1 Wetlands**

The Oregon Removal-Fill Law (ORS 196.600 through 196.905) requires a permit administered by the Oregon Division of State Lands (DSL) for any proposals that involve more than 50 cubic yards of fill in, or removal from “waters of the state of Oregon.” Waters of the state include jurisdictionally inventoried wetlands, waterways, and certain water bodies. DSL wetland permitting requirements and mitigation protocols are outlined in OAR Chapter 141, Division 85. Although certain exemptions are allowed, there are no provisions waiving airports from complying with wetland fill requirements in an effort to address potential bird strike hazards.

If wetlands are located within an airport boundary and must be filled, they may be mitigated effectively on-site without becoming a bird attractant through sound mitigation planning and design. Off-site mitigation may be accomplished through wetland mitigation banking or by cooperatively planning with DSL staff to enhance or create wetlands of comparable functional values off-site within the same watershed.

Wetlands located proximate to an airport boundary and/or within the vicinity of airport operations are more difficult to address outside of a comprehensive wetland mitigation effort. Collaboration with city and county authorities in addressing wetlands comprehensively in the Goal 5 (Natural Resources) process will likely have more far-reaching effect in addressing wetlands impacts upon aviation. OAR Chapter 660, Division 23 outlines the procedures for complying with inventoried Goal 5 resources, including wetlands (OAR 660-023-0100). Under (3)(a) of this OAR, for areas within Urban Growth Boundaries or Urban Unincorporated Communities, local governments are required to conduct a Local Wetlands Inventory (LWI) under procedures in OAR 141-086-0010 through 0240. Such communities must identify “significant wetlands” and adopt the LWI as part of its comprehensive plan and local land use regulations. For areas outside of

UGBs and UUCs, local governments must adopt or use the statewide wetland inventory. In any case, public use airport owners and managers are well-served

➔ *Wetlands, water impoundments, and landfills are the three primary areas of environmental concern within the state.*

by being involved with city and county officials in comprehensive planning efforts and periodic review updates to achieve compliance with Goal 5.

### **b.2 Open Water Impoundments**

Consumptive natural resources such as sand and gravel deposits meeting significance criteria are regulated as Goal 5 resources under OAR 660-023-0180. Mining of such aggregate resources may form open water impoundments, or such man-made waterways may be created as a product of required mining reclamation efforts. As noted above, such impoundments proximate to airports can increase risk of bird strikes. To address this risk and prevent conflicts with bird movements, ORS 836.623(2) prohibits new open water impoundments of ¼-acre in size or larger within airport approach corridors, within 5,000 feet from the end of a runway, and on land owned by the airport where necessary for airport operations.

Local governments can also adopt regulations expanding the area subject to this prohibition on new open water impoundments (up to 40,000 feet within an approach corridor for an airport with an instrument approach) when supported by substantial evidence and findings of fact demonstrating that the impoundment(s) would likely result in a significant increase in hazardous bird movements across runways or approach corridors. These standards offer the potential for significant influence for airport operators in relation to the aggregate mining operations and reclamation when proximate to airport runways and approach corridors.

### **b.3 Landfills**

State regulations governing municipal solid waste landfills by the Oregon DEQ are outlined in OAR Chapter 340, Division 94. These standards track the guidelines for landfill siting and operations outlined in federal law (CFR Title 40, Part 258, Subpart B). To minimize the potential for hazards from bird and wildlife attractants, new landfills and landfill expansions should be developed in keeping with applicable FAA advisory circulars (AC 150/5200-34) to ensure adequate separation from airport environs.

## **5.4 Summary**

The various regulations previously discussed provide a substantial base of information to use as the foundation for an airport land use plan. The regulations also provide numerous avenues for land use controls at the federal and state level. It is utilizing these regulations in a comprehensive and complimentary manner that is often the challenge to land use planners.

None of these regulations by themselves are an effective means of land use control, however, as a package in concert with each other, they can provide a rigorous set of land use regulations with which an airport can be protected. This protection assumes that the regulations are used to plan, develop, implement and maintain the necessary land use controls and programs.

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