7.0 Resources for Airport Compatible Land Use Planning

Each airport must address their specific land use issues with techniques and tools appropriate for their situation. As the previous chapters have illustrated, there are a tremendous number of state and federal rules and regulations that relate to airport and aviation related land use planning. This guide is not an exhaustive list of these rules and regulations, nor is it a complete how-to guide to address all of your planning questions. Each airport and its host community have specific concerns and various techniques available to address land use related issues within their own community. This guide provides a broad framework of information that can be used to address these issues, however, additional research is suggested to create a land use program specifically tailored to your community.

This chapter contains resource information that the reader can use to address the land use issues related to their community and their airport. Templates have been developed, based upon the model overlay zone ordinances, which provide a graphic representation of the land areas around airports that are impacted by the various FAA related safety zones and areas. In addition to the templates, a list of agency contacts has been provided which can be used by the user should specific questions arise. These items, in conjunction with the questions contained in Chapter 1, should be used to assess compliance with state and federal rules, regulations and guidelines.

Information contained in this document, and the various sources used to develop it, can be supplemented with additional data. The FAA has developed a valuable resource for airport sponsors and their communities to plan and manage land use compatibility and airport noise, the FAA Airport Noise Compatibility Planning Toolkit, which can be found at www.aee.faa.gov/noise/lupitoolkit.htm. Any or all of the documents contained in this toolkit can be downloaded and printed, as needed.

7.1 Planning Templates

As discussed in Chapters 1 and 3, the first step in examining land use compatibility surrounding an airport is to identify whether incompatibilities exist today and whether or not adequate measures also exist to prevent future incompatibility. Safety, height restrictions, and noise must be considered when planning for land uses compatible with airport operations. The FAA has established safety criteria related to the height of objects in proximity to airports, and in the approaches to airports, that affect both the ground and the air. There are also areas on the ground that are more prone to high noise levels around an airport and should be protected from incompatible use. It is the intent of this Guidebook to provide planners with information that offers a combined application, considering both safety and noise criteria, to direct the control of land use around airports throughout Oregon. This combined application has been used to develop overlay-planning templates for airports, which can be used in the community planning process.

These templates can be used to identify those land uses that are currently incompatible, as well as those areas that may be undeveloped that should be protected to prevent future incompatibility. Local planners, as appropriate within each safety and noise-restricted area, should consider preventive measures and corrective actions discussed in the previous chapter. For areas that fall within the templates that are presently undeveloped, preventive measures that were discussed in the previous chapter should be considered and implemented. For incompatible land uses or existing activities that fall within the templates, corrective actions (discussed in the previous section) should be considered to resolve or mitigate, to the extent possible, incompatibilities that may now exist in

the no development, the limited development, or the height restricted development areas.

Three different types of planning templates representing three different overlay zoning ordinances were developed to reflect the combined application of both safety and noise related land use planning for the airport environs. Activity levels, runway lengths, and approach categories were the primary inputs used to develop each of the three planning templates. Planning templates were developed for the following:

- → Private use airports
- > Public use airports with only visual approaches
- Public use airports with instrument approaches, non-commercial service

Designing planning templates for the larger commercial service airports such as Portland, Eugene, and Medford, would not be useful because of the vast mix of aircraft that operate at these airports. More specific information related to critical aircraft and fleet mix is required to develop an applicable template for each of these airports. The templates are intended to be non-airport specific. Specific safety and noise criteria, especially for the more active airports in Oregon, may vary considerably from the general planning guidelines provided in this section. In developing the generalized safety and noise compatibility templates presented in this section, it was assumed that larger and more active airports in Oregon would have the ability to develop their own airport-specific standards. The following sections describe the planning templates for each airport category and the assumptions that were used to develop them. A brief summary of visual and instrument airports is located on page 7-15.

Planning templates based upon the state model ordinances for airport safety and compatibility overlay zones can be used to illustrate general impact areas

The planning templates for the three airport categories address the safety areas for the various categories. The templates are based upon the model ordinances for airport safety and compatibility overlay zones (Appendices D,E, and F). These general guidelines were developed to define those areas that should have limited development compatible with the airport and its operations, and those areas where development only needs to be height restricted to conform to FAR Part 77. All of these areas, however, need to consider FAR Part 77 guidelines. The dimensions of each of these areas have been simplified to provide planners with easier interpretation of the technical dimensional criteria contained in Federal and State planning documents for both safety and noise compatibility.

Many airports in Oregon have already adopted overlay zoning. These planning templates are not intended to replace such zoning, but rather they are provided for those airports that have not yet taken steps to promote compatible land use in the airport environs. The planning templates are also available to airports where current controls have proven to be ineffective. The templates are intended to protect the airports as a viable part of the transportation system. Information contained in this chapter should be used by planners to assess their current land use controls. Information contained in this section can also be used to check the effectiveness of Comprehensive Plans and Zoning Ordinances when they are periodically reviewed.

7.1a. Private Use Airports

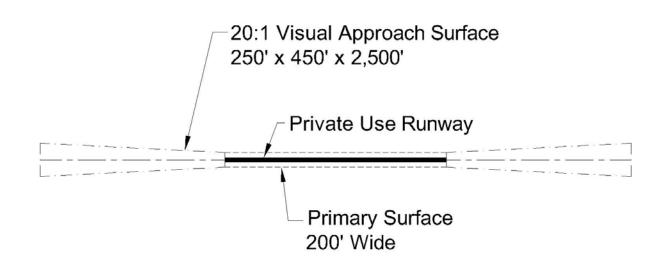
The private use airport template is useful for the vast majority of Oregon's small general aviation airports. The purpose of the safety overlay zone is to encourage and support the continued operations and vitality of the private use airports which

Private use airports have a fairly limited overlay zone.

were the base for three or more aircraft in December 31, 1994 and certain privately-owned public use airports.

As shown in **Exhibit 7-1**, the primary surface is 200 feet wide and ends at each runway end. The visual approach surface begins at the end of the runway with a width of 250 feet. It then expands uniformly to a width of 450 feet for that end of a private use airport with a visual approach. The surface extends for a horizontal distance of 2,500 feet at a slope of 20 feet outward for each one foot upward. **Appendix F** should be referenced for the complete text of the private use airport safety overlay zone model ordinance.

Exhibit 7-1: Planning Template for Private Use Airport



7.1b. Public Use Airports with Only Visual Approaches

This template is useful for those general aviation airports with visual approaches. As shown in **Exhibit 7-2**, the horizontal surface of an airport with a non-precision approach, forms an oval band shape that extends to 5,000 feet from the end of the runway's primary surface. Inside the oval band, the runway, the runway protection zones, the visual approach surfaces, and their dimensions are depicted. By illustrating the safety zone, the areas suitable for development and the specific types of development compatible with both criteria can be determined. In general terms, the following are suggested guidelines for development at a public use airport with only visual approaches. **Table 7-1** provides a summary of the land uses and their accessory uses that are permitted, permitted under limited circumstances and those prohibited in the manner described. Table 7-1 applies to both the Public Use Airports with visual approaches and the Public Use Airports with Instrument Approaches.

b.1 Airport Noise Impact Boundary

The area within 1,500 feet of an airport runway or within an established noise contour with boundaries exceeding 55 DNL is contained in the Airport Noise Impact Boundary. Land uses within the Airport Noise Impact Boundary shall be established consistent with the levels identified in OAR 660, Division 13, Exhibit 5. The information contained in Exhibit 5 is shown in this document as **Table 3-6.**

Table 7-1 also outlines the permitted, permitted with circumstances, and non-permitted uses relative to the general impact areas.

b.2 Airport Direct Impact Area

The area within 5,000 feet of an airport runway, excluding the lands within the runway protection zones and the approach surfaces is defined as the Airport Direct Impact Area. This physical area is shown in **Exhibit 7-2**. The dimensions of the various surfaces depend upon the runway type. As noted in **Table 7-1**, there are various levels of development allowed based upon the type of land use.

b.3 Airport Secondary Impact Area

The areas within 5,000 feet and 10,000 feet of an airport runway, as presented in **Exhibit 7-2**, are defined as the Airport Secondary Impact Area. This area includes all of the horizontal surface and the conical surface from the FAR Part 77 Surfaces. This area has various uses allowed as noted in **Table 7-1**.

TABLE 7-1: LIMITATIONS & RESTRICTIONS ON ALLOWED USES

KEY:

P = Use is Permitted

L = Use is Allowed Under Limited Circumstances (see footnotes)

N = Use is Not Allowed

	RPZ 1	Approach Surface 8	Direct Impact Area	Secondary Impact Area
Public Airport	L ²	L 9	Р	Р
Residential	N	L 10	L 14	Р
Commercial	N	L ⁹	L 15	Р
Industrial	N	L ⁹	Р	Р
Institutional	N	L ⁹	L 15	Р
Farm Use	P 3	P 3	P 3	P ³
Roads/Parking	L ⁴	Р	Р	Р
Utilities	L 5	L ⁵	L ⁵	L ⁵
Parks/Open Space	L 6	Р	Р	Р
Golf Courses	L ⁷	L 7 9	L ⁷	L ⁷
Athletic Fields	N	L ⁹	L 14	Р
Sanitary Landfills	N	N	N	N
Water Treatment Plants	N	N	N	N
Mining	N	L 11	L 11	L 11
Water Impoundments	N	N ¹²	N ¹⁶	N ¹⁶
Wetland Mitigation	N	L 13	L 13	L ¹³

Source: Model Public Use Airport Safety And Compatibility Overlay Zone (Visual and Instrument Approach Airports), ODA

Notes:

No Structures shall be allowed within the Runway Protection Zone (RPZ). Exceptions shall be made only for structures accessory to airport operations whose location within the RPZ has been approved by the Federal Aviation Administration.

In the RPZ, public airport uses are restricted to those uses and facilities that require location in the RPZ

³ Farming practices that minimize wildlife attractants are encouraged.

Roads and parking areas are permitted in the RPZ only upon demonstration that there are not practicable alternatives. Lights, guardrails, and related accessory structures are prohibited. Cost may be considered in determining whether practicable alternatives exist.

In the RPZ, utilities, powerlines and pipelines must be underground. In approach surfaces and in airport direct and secondary impact areas, the proposed height of utilities shall be coordinated with the airport sponsor and Department of Aviation (ODA).

Public assembly facilities are prohibited in the RPZ.

Golf courses may be permitted only upon demonstration, supported by substantial evidence, that management techniques will be utilized to reduce existing wildlife attractants and avoid the recreation of new wildlife attractant. Such techniques shall be required as conditions of the approval. Structures are not permitted within the RPZ. For purposes of this document, tee markers, tee signs, pin cups and pins are not considered to be structures.

Within 10,000 feet from the end of the primary surface of a non-precision instrument runway, and within 50,000 feet from the end of the primary surface of a precision instrument runway.

Public assembly facilities may be allowed in an approach surface only if the potential danger to public safety is minimal. In determining whether a proposed use is appropriate, consideration shall be given to: proximity to the RPZ; density of people per acre; frequency of use; level of activity at the airport,; and other factors relevant to public safety. In general, high density uses should not be permitted within airport approach surfaces, and onresidential structures should be located outside approach surfaces unless no practicable alternatives exist.

Residential densities within approach surfaces should not exceed the following densities: (1) within 500 feet of the outer edge of the RPZ, 1 unit per acre; (2) within 500 to 1,500 feet of the outer edge of the RPZ, 2 units per

acre; (3) within 1,500 to 3,000 feet of the outer edge of the RPZ, 4 units per acre. Mining operations involving the creation or expansion of water impoundments shall comply with the requirements

of this document regarding water impoundments. Water impoundments are prohibited within 5,000 feet from the edge or end of a runway.

Wetland Mitigation required for projects located within an approach surface, the airport direct or secondary impact area shall be authorized only upon demonstration, supported by substantial evidence, that it is impracticable to provide mitigation outside of these areas. Proposals for wetland mitigation shall be coordinated with the airport sponsor, the Department of Aviation, the FAA and the wetland-permitting agencies prior to the issuance of required permits. Wetland mitigation shall be designed and located to avoid creating a wildlife hazard or increasing hazardous movements of birds across runway and approach surfaces. Conditions shall be imposed as are appropriate and necessary to prevent in perpetuity an increase in hazardous bird movements across runway and approach surfaces. See section 0.90 of Appendix D or E for the best management practices for airports located near significant wetlands or wildlife habitat areas.

14 Within the transitional surface, residential uses and athletic fields are not permitted.

- Within the transitional surface, overnight accommodations, such as hotels, motels, hospitals and dormitories, are
- See section .08 of Appendix D or E prohibiting or regulating water impoundments within 5,000 or 10,000 feet of the end or edge of a runway.

7.1c. Public Use Airports with Instrument Approaches

The larger general aviation, and the smaller commercial service or business class general aviation airports in the state, can apply the Public Use Airports With Instrument Approaches template. Many of the larger airports in Oregon that fall into this classification have airport-specific planning studies that provide more detailed safety and noise related data. Information from these airport-specific studies is considered preferable for compatible land use planning in lieu of the generalized safety and noise related planning templates described in this section.

As shown in Exhibit 7-3, this template provides an assortment of dimensions depending upon the type of runway and the level of instrumentation.

c.1 Airport Noise Impact Boundary

The Airport Noise Impact Boundary includes all areas within 1,500 feet of an airport runway or within an established noise contour boundary which exceeds 55 DNL. This area typically includes the RPZ, primary surface and transitional surfaces. Development in this area should reflect the findings shown in **Table 7-1**.

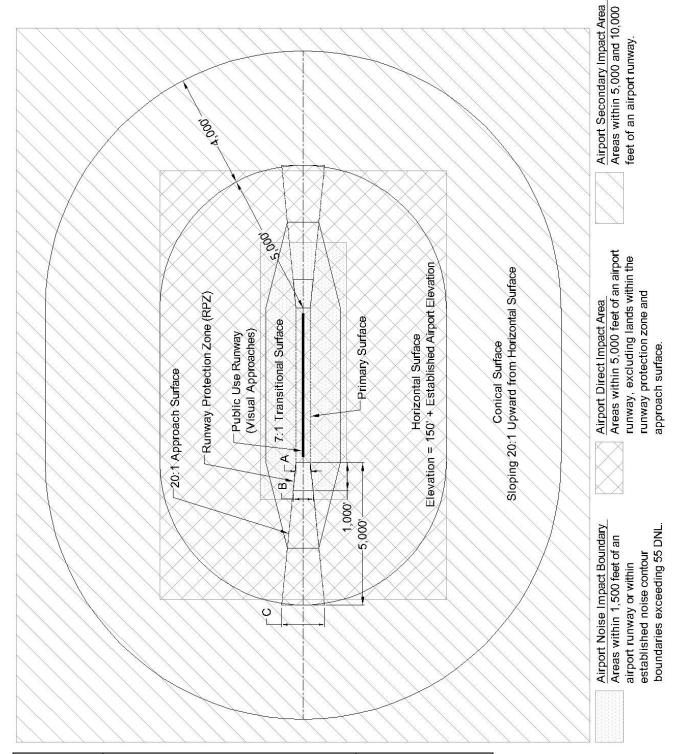
Airport Direct Impact Area

For this airport category, the Airport Direct Impact Area includes the property within 5,000 feet of an airport runway, excluding the lands within the runway protection zones and approach surfaces. As illustrated in Table 7-1, this area has moderate restrictions on the type of land uses allowed.

c.3 Airport Secondary Impact Area

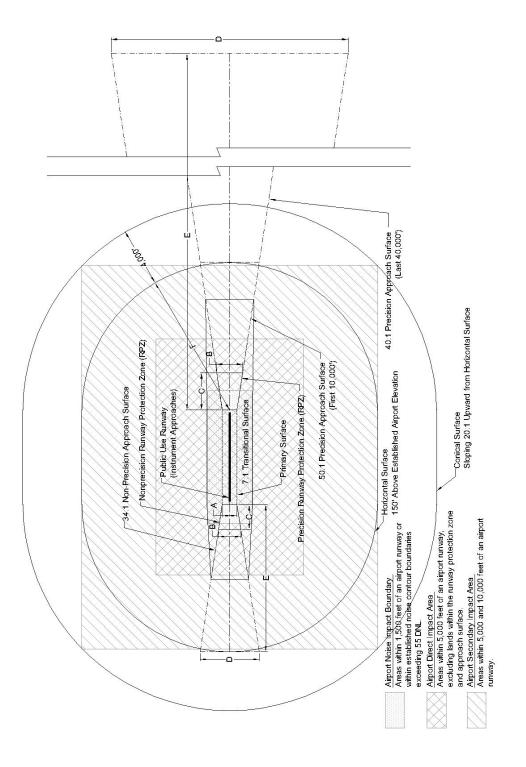
The Airport Secondary Impact Area encompasses the property within 5,000 feet and 10,000 feet of an airport runway. As depicted in Exhibit 7-3, the dimensions of the surfaces vary depending upon the runway type and level of instrumentation. Table 7-1 provides a broad summary of the compatible land uses for this area.

Exhibit 7-2: Planning Template for Public Use Airport with Only Visual Approaches



Dimension	Utility (Aircraft 12,500 lb. & Under)	Other than Utility
Α	250	450
В	450	700
С	1,250	1,500

Exhibit 7-3: Planning Template for Public Use Airport with Instrument Approaches



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Dimensional Information for Exhibit 7-3 Dimension Runway/Approach Type **Feet** 500¹ Utility runways Other than utility runways having nonprecision approaches with Α 500 visibility minimums greater than 3/4 statute mile Nonprecision instrument runways with visibility minimums at 1.000 or below 3/4 statute mile and for precision instrument runways Utility runways 450 Other than utility runways, Aircraft Approach Categories A & B, with 700 visibility minimums greater than 1-mile Other than utility runways, Aircraft Approach Categories C & D, with В 1.010 visibility minimums greater than 1-mile Other than utility runways, with visibility minimums greater than 3/4 mile 1,510 and less than or equal to 1-mile Other than utility runways with visibility minimums lower than 3/4 mile 1,750 Utility runways 1,000 С Other than utility runways having nonprecision instrument approaches 1.700^{2} Precision instrument runways 2,500 Utility runways 2,000 Other than utility runways having a nonprecision instrument approach 3,500 with visibility minimums greater than 3/4 statute mile D Other than utility runways having a nonprecision instrument approach 4.000 with visibility minimums at or below 3/4 statute mile Precision instrument runways 16,000 Utility runways 5,000 Other than utility runways with nonprecision instrument approach Ε 10.000 (34:1 approach slope) Other than utility runways with precision instrument approach 50.000 (50:1 approach slope for first 10,000' and 40:1 approach slope for last 40,000') 5.000 **Utility Runways** F 10.000 Other than utility runways

Notes:

¹ 250 feet for utility runways with visibility minimums greater than 1-mile

²1,000 feet for other than utility runways, Aircraft Approach Categories A & B, with visibility minimums greater than 1-mile.

Table 7-2: Existing Public Use Facilities

All Privately Owned Private Use Airports with 3 or more based aircraft (December 1994) should use the PRIVATE Planning Template. See Appendix N for airports this classification applies to.

Planning Template Key:

Private = Private Use Airports

PUVA = Public Use Airports with Visual Approaches

PUIA = Public Use Airports with Instrument Approaches

Airport Key:

Italics = privately owned

Bold = NPIAS

 = existing scheduled commercial air service resulting in a wide variety of aircraft that use these airports; airport-specific criteria for compatible land use planning should be used

Airport	<u>City</u> Owner	Planning Template	Runway Number : Runway Length x Width	Surface Type	
Category 1					
Fastern Oregon	Pendleton		07-25: 6300 x 150	Asphalt	
Eastern Oregon Regional at Pendleton*	City of Pendleton	PUIA	11-29: 5581 x 100	Asphalt	
1 chalcton	Oity of F chalcton		16-34: 4341 x 75	Asphalt	
Eugene Mahlon	Eugene	PUIA	16-34: 8009 x 150	Asphalt	
Sweet Field*	City of Eugene	TOIX	03-21: 5228 x 150	Asphalt	
Klamath Falls *	Klamath Falls	PUIA	14-32: 10301 x 150	Asphalt	
Maillaul Falls	City of Klamath Falls	FOIA	07-25: 5260 x 100	Asphalt	
	North Bend		04-22: 5321 x 150	Asphalt	
North Bend Municipal*	City of North Bend	PUIA	13-31: 4586 x 150	Asphalt	
	Oity of North Bend		16-34: 2320 x 150	Asphalt	
	Portland		10R-28L: 11000 X 150	Asphalt	
Portland International*	Port of Portland	PUIA	10L-28R: 8000 X 150	Asphalt	
	1 of total of the field		03-21: 7001 X 150	Asphalt	
Roberts Field	Redmond	PUIA	04-22: 7040 x 150	Asphalt	
Redmond*	City of Redmond	. 02.	10-28: 7006 x 100	Asphalt	
Rogue Valley International-	Medford	PUIA	14-32: 8798 x 150	Asphalt	
Medford*	Jackson County	. 507	09-27: 3155 x 100	Asphalt	
Category 2				,	
Astoria Regional	Astoria	PUIA	08-26: 5796 x 100	Asphalt	
	Port of Astoria		13-31: 4996 x 100	Asphalt	
Aurora State	Aurora State of Oregon	PUIA	17-35: 5004 x 100	Asphalt	

Table 7-2 (Continued)						
Airport	<u>City</u> Owner	Planning Template	Runway Number : Runway Length x Width	Surface Type		
Category 2 - Continued						
Bend Municipal	Bend City of Bend	PUIA	16-34: 5005 x 75	Asphalt		
Corvallis	Corvallis	PUIA	17-35: 5900 x 150	Asphalt		
Municipal	City of Corvallis	-	09-27: 3345 x 75	Asphalt		
Hillsboro	Hillsboro	PUIA	12-30: 6600 x 150	Asphalt		
(Portland)	Port of Portland	TOIA	02-20: 4049 x 100	Asphalt		
McMinnville	McMinnville	PUIA	04-22: 5420 x 150	Asphalt		
Municipal	City of McMinnville	TOIA	17-35: 4676 x 150	Asphalt		
Portland Heliport	Portland City of Portland	PUVA	80 x 80	Concrete		
Roseburg Regional	Roseburg City of Roseburg	PUVA	16-34: 4602 x 100	Asphalt		
Salem McNary	Salem	PUIA	13-31: 5811 x 150	Asphalt		
Field	City of Salem	TOIA	16-34: 5145 x 140	Asphalt		
Scappoose Industrial	Scappoose	PUIA	15-33: 5100 x 150	Asphalt		
Airpark	Port of St. Helens					
Troutdale (Portland)	Troutdale Port of Portland	PUVA	07-25: 5399 x 150	Asphalt		
Category 3						
	Baker City		12-30: 5095 x 100	Asphalt		
Baker City Municipal	City of Baker City	PUIA	16-34: 4359 x 75	Asphalt		
	ony or barron only		08-26: 3999 x 140	Asphalt		
Burns	Burns	PUIA	12-30: 5100 x 75	Asphalt		
Municipal	City of Burns	. 371	03-21: 4500 x 60	Concrete		
Columbia Gorge	The Dalles		12-30: 5097 x 150	Asphalt		
Regional/ The Dalles	City of The Dalles/Klickitat	PUVA	07-25: 4647 x 150	Asphalt		
Municipal	County, WA		02-20: 4401 x 150	Asphalt		
Grant County Regional/	John Day	PUVA	17-35: 4500 x 60	Asphalt		
Ogilvie Field	Grant County		09-27: 3436 x 60	Asphalt		
La Grande/	La Grande	PUIA	12-30: 5600 x 100	Asphalt		
Union County	Union County		16-34: 3874 x 60	Asphalt		
Lake County	Lakeview Lake County	PUIA	16-34: 5306 x 100	Asphalt		
	Ontario	B	44.00 (500) 50			
Ontario Municipal	City of Ontario	PUIA	14-32: 4529 x 100	Asphalt		

Table 7-2 (Continued) **Planning Runway Number:** Surface City **Airport** Owner Template Runway Length x Width Type Category 4 Albany Albany **PUVA** 16-34: 3004 x 75 Asphalt Municipal City of Albany Ashland **Ashland PUVA** 12-30: 3603 x 75 Asphalt Municipal City of Ashland Bandon **Bandon State PUVA** 16-34: 3600 x 60 Asphalt State of Oregon Brookings **Brookings PUVA** 12-30: 2900 x 60 Asphalt Curry County Chehalem Newberg **PUVA** 07-25: 2285 x 40 Asphalt Airpark Private Chiloquin Chiloquin State **PUVA** 17-35: 3735 x 60 Asphalt State of Oregon Condon State-Condon **PUVA** 07-25: 3500 x 60 Concrete **Pauling Field** State of Oregon Cottage Grove **PUVA** 15-33: 3200 x 60 **Cottage Grove State** Asphalt State of Oregon Sandy Country Squire Airpark **PUVA** 07-25: 3095 x 32 Asphalt Private Creswell **Creswell Hobby Field PUVA** 15-33: 3100 x 60 Asphalt City of Creswell Enterprise Enterprise **PUVA** 12-30: 2850 x 50 Asphalt Municipal City of Enterprise Florence **PUVA** 15-33: 3000 x 60 Florence Asphalt City of Florence Gold Beach **Gold Beach Municipal PUVA** 16-34: 3200 x 75 Asphalt Port of Gold Beach **Grants Pass Grants Pass PUVA** 12-30: 3999 x 75 Asphalt Josephine County Hermiston Hermiston **PUVA** 04-22: 4500 x 75 Asphalt Municipal City of Hermiston Cave Junction **Illinois Valley PUVA** 18-36: 5200 x 75 Asphalt Josephine County Independence Independence State **PUVA** 16-34: 3000 x 60 Asphalt State of Oregon Joseph Joseph State **PUVA** 15-33: 5200 x 60 Asphalt State of Oregon Hood River Ken Jernstedt Airfield **PUVA** 07-25: 3040 x 75 Asphalt Port of Hood River Lebanon Lebanon State **PUVA** 16-34: 2877 x 50 Asphalt State of Oregon Hubbard **PUVA** Lenhardt Airpark 02-20: 3200 x 45 Asphalt Private Lexington Lexington **PUVA** 08-26: 4150 x 75 Asphalt Morrow County 16-34: 5100 x 75 Asphalt Madras **Madras City-County PUVA** City of Madras/ 03-21: 2700 x 50 Asphalt Jefferson County Mulino Mulino (Portland) **PUVA** Asphalt 14-32: 3600 x 100 Port of Portland Myrtle Creek Myrtle Creek **PUVA** 03-21: 2600 x 50 Asphalt Municipal City of Myrtle Creek Newport 16-34: 5698 x 150 Asphalt Newport **PUIA** Municipal City of Newport 02-20: 3001 x 75 Asphalt Prineville 10-28: 5000 x 60 Asphalt **Prineville PUIA** Crook County/City 15-33: 4000 x 40 Asphalt of Prineville

Table 7-2 (Continued)					
Airport	<u>City</u> Owner	Planning Template	Runway Number : Runway Length x Width	Surface Type	
Category 4 - Continu	ied				
Seaside	Seaside	PUVA	16-34: 2360 x 50	Asphalt	
Municipal	City of Seaside		10 0 1. 2000 X 00	, topridit	
Siletz Bay State	Gleneden Beach State of Oregon	PUVA	17-35: 3300 x 60	Asphalt	
Sisters Eagle Air	Sisters Private	PUVA	02-20: 3550 x 30	Asphalt	
Sportsman Airpark	Newberg Private	PUVA	17-35: 2745 x 50	Asphalt	
Stark's Twin Oaks Airpark	Hillsboro Private	PUVA	02-20: 2465 x 48	Asphalt	
Sunriver	Sunriver Private	PUIA	18-36: 5455 x 70	Asphalt	
T:00 1-	Tillamook	DUILA	13-31: 4990 x 100	Asphalt	
Tillamook	Port of Tillamook Bay	PUIA	01-19: 2900 x 75	Asphalt	
Valley View	Estacada Private	PUVA	16-34: 3780 x 32	Asphalt	
Category 5					
	Alkali Lake	PUVA	10 26: 6100 v 150	Gravel	
Alkali Lake State	State of Oregon	PUVA	18-36: 6100 x 150	Gravei	
Arlington Municipal	Arlington City of Arlington	PUVA	06-24: 5000 x 100	Turf- Gravel	
Beaver Marsh	Beaver Marsh Private	PUVA	18-36: 4500 x 60	Dirt	
Boardman	Boardman Port of Morrow	PUVA	04-22: 4200 x 150	Asphalt	
Cape Blanco State	Denmark State of Oregon	PUVA	14-32: 5100 x 150	Asphalt	
Cascade Locks State	Cascade Locks State of Oregon	PUVA	06-24: 1800 x 30	Asphalt	
Christmas Valley	Christmas Valley Christmas Valley Parks/Rec. Dist.	PUVA	07-25: 5200 x 60	Asphalt	
Crescent Lake State	Crescent Lake State of Oregon	PUVA	13-31: 3900 x 30	Asphalt	
Davis	Gates Private	PUVA	07-25: 1940 x 50	Turf	
George Felt	Roseburg Private	PUVA	10-28: 2300 x 100	Turf	
Lake Billy Chinook	Culver Private	PUVA	16-34: 5000 x 80	Dirt	
Lake Woahink SPB	Florence Private	PUVA	N/A	Water	
Lakeside State	Lakeside State of Oregon	PUVA	15-33: 2150 x 100	Turf	
Malin	Malin City of Malin	PUVA	14-32: 2800 x 30	Asphalt- Gravel	
McDermitt State	McDermitt State of Oregon	PUVA	16-34: 5900 x 60	Asphalt	
McKenzie Bridge State	McKenzie Bridge State of Oregon	PUVA	06-24: 2600 x 90	Turf	
Memaloose USFS	Imnaha USFS	PUVA	17-35: 2900 x 120	Dirt	
	Vale		18-36: 3872 x 65	Gravel	
Miller Memorial Airpark	City of Vale	PUVA	10-28: 2200 x 40	Gravel	

Table 7-2 (Continued)						
Airport	<u>City</u> Owner	Planning Template	Runway Number : Runway Length x Width	Surface Type		
Category 5 - Continued						
Monument Municipal	Monument City of Monument	PUVA	14-32: 2140 x 29	Gravel- Turf		
Nehalem Bay State	Manzanita State of Oregon	PUVA	15-33: 2350 x 50	Asphalt		
Oakridge State	Oakridge State of Oregon	PUVA	09-27: 3610 x 47	Asphalt		
Owyhee Reservoir State	Owyhee State of Oregon	PUVA	13-31: 1840 x 30	Dirt		
Pacific City State	Pacific City State of Oregon	PUVA	14-32: 1875 x 30	Asphalt		
Paisley	Paisley Lake County	PUVA	13-31: 4300 x 60	Asphalt		
Pinehurst State	Pinehurst State of Oregon	PUVA	04-22: 2800 x 30	Asphalt		
Powers	Powers Port of Coquille River	PUVA	13-31: 2500 x 60	Turf		
Prospect State	Prospect State of Oregon	PUVA	02-20: 4000 x 50	Asphalt		
Rome State	Rome State of Oregon	PUVA	03-21: 6000 x 150	Asphalt		
Sandy River	Sandy Private	PUVA	08-26: 2115 x 100	Turf		
Santiam Junction State	Santiam Junction State of Oregon	PUVA	06-24: 2800 x 150	Gravel		
Silver Lake USFS	Silver Lake USFS	PUVA	03-21: 3000 x 55	Gravel		
Skyport	Cornelius Private	PUVA	16-34: 2000 x 60	Turf- Gravel		
Toketee State	Clearwater State of Oregon	PUVA	VA 11-29: 5350 x 60			
Toledo State	Toledo State of Oregon	PUVA	PUVA 13-31: 1750 x 40			
Vernonia Airfield	Vernonia City of Vernonia	PUVA	PUVA 09-27: 2940 x 45			
Wakonda Beach State	Waldport State of Oregon	PUVA	16-34: 2000 x 50	Turf		
Wasco State	Wasco State of Oregon	PUVA	07-25: 3450 x 60	Asphalt		

7.1d. Summary of Planning Templates

The three planning templates illustrate the appropriate safety zones for the various airport categories. **Table 7-2** suggests the template that is currently best suited for each of the Oregon airports. As activity increases or approaches change, applicable planning standards will vary accordingly. As previously discussed, different criteria determine land use compatibility within each safety zone and noise contour. **Exhibit 3-4** depicts the compatibility of different land uses within the various FAA Safety Zones and the FAR Part 77 surfaces. **Exhibit 3-6** depicts the FAA's acceptable land uses with various DNL noise levels. These standards should be used to identify existing incompatibilities and to identify areas that should be protected from future development.

recommendations for planning template usage.

It is also important to understand the basic difference between an airport with visual approaches versus an airport with instrument approaches. Aircraft often fly in clouds and navigate by electronic equipment. So, weather, and when a pilot is able to see the airport, can become crucial factors in determining access by air to an airport. A visual approach means an aircraft must be able to actually see and land at the airport in visual meteorological conditions (VMC). A visual approach may not be a straight-in approach to a specific runway end. An airport with instrument approaches may have (and need) straight-in approaches that allow an aircraft to descend to a lower altitude while still in the clouds before determining if it is able to land. In this case, the zoning restrictions must be more stringent. Because all-weather landing capability may be of great importance to future business travelers and cargo shippers, it may be very important to consider the possibility of eventually developing instrument landing capability at your airport even though it presently seems unnecessary.

7.2 Troubleshooting Matrix

In those instances where land use incompatibilities currently exist, a "troubleshooting" matrix has been developed. This matrix cites specific "problem" areas and identifies example actions that can be considered to address certain land use or development issues. As shown in **Table 7-3**, specific situations are identified that represent possible conflicts with either safety or noise-related guidelines. Depending on whether the potential impact relates to noise or safety, different actions are available to address the incompatibility. Further, strategies identified in this matrix represent both preventive and correction actions. This exhibit also references the location in the Guidebook where more detailed information on specific strategies and/or safety and noise related planning criteria are available. Specific examples from the various Appendices can be adopted to achieve certain preventive measures or corrective actions as noted.

The Guidebook provides information for each community to use to examine their airport's compatibility with the surrounding environs. It is the responsibility of each local community to actually determine and identify where existing incompatible land uses have developed in the airport environs, and to determine what strategies are most appropriate to prevent further encroachment and to correct existing encroachment.

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Table 7-3: Land Use Troubleshooting Matrix					
Land Use	Potential Impact	Chapter 3 Reference	Example Actions Available	Chapter 6 Reference	Appendix Reference
Existing Residential	Noise Concern	Page 3-13	Soundproofing Noise Easement	Page 6-10	J, I (Example 1)
Development	Safety Concern	Pages 3-1 &3-11	Fee Simple Acquisition	Page 6-5	N/A
Proposed Residential	Noise Concern	Page 3-13	Hold Harmless Agreement/ Fair Disclosure Statement	NA	I (Example 3 & Example 4)
Development	Safety Concern	Pages 3-1 & 3-11	Comprehensive Plan	Page 6-3	N/A
Landfills	Safety Concern	Pages 3-1 & 3-12	Airport Overlay Zoning	Page 6-4	D, E, F
School, Hospital, and	Noise Concern	Page 3-13 & 3-18	Soundproofing Noise Easement	Page 6-10	J, I (Example 1)
Church Development	Safety Concern	Pages 3-11	Airport Overlay Zoning	Page 6-4	D, E, F
Radio /	Safety Pa Concern	D 0.40	Avigation & Hazard Easement	Page 6-6	l (Example 4)
Television Tower		Page 3-12	Height Limitation Zoning	Page 6-4	N/A
Factory	Safety Concern Page	Page 3-12	Avigation & Hazard Easement	Page 6-6	l (Example 2)
Smoke		1 agc 3-12	Airport Overlay Zoning	Page 6-4	D, E, F
Golf Courses	Safety Page 3-11 Concern & 3-12	Page 3-11	Avigation & Hazard Easement	Page 6-6	l (Example 2)
		& 3-12	Airport Overlay Zoning	Page 6-4	D, E, F
Auditoriums/ Outdoor Theaters	Safety Concern	Page 3-11	Airport Overlay Zoning	Page 6-4	D, E, F
Power Lines	Safety Concern Page 3-12	Page 3-12	Avigation & Hazard Easement	Page 6-6	I (Example 2)
		Height Limitation Ordinance	Page 6-4	N/A	
Agricultural Activities	Safety Concern	Pages 3-11 & 3-12	Avigation & Hazard Easement	Page 6-6	I (Example 2)
Water Impoundments	Safety Concern	Pages 3-11 & 3-12	Avigation & Hazard Easement	Page 6-6	l (Example 2)

7.3 Agency Contacts

There are a multitude of state and federal agencies that have various interests in compatible land use planning related to airports. As you work to plan for compatible land uses around your airport, questions may arise that can only be answered by these various agencies. This guide suggests that you begin your search for answers with the Oregon Department of Aviation (ODA). The Aviation Department webpage has a staff roster with telephone extensions to help you reach the right person. If you have a more general transportation question, the best place to start would be your ODOT regional representative. The ODOT webpage lists representatives by region and includes a map of region boundaries. For guestions related to comprehensive planning, contact your DLCD field representative. They are listed on the DLCD web page. For questions about federal rules and regulations, start with the FAA website. Website addresses and general information phone numbers are listed below to get you started.

Oregon Department of Aviation

http://www.aviation.state.or.us/ 3040 25th St. SE Salem, OR 97302-1125 Phone: (503) 378-4880

Fax: (503) 373-1688 Toll Free: (800) 874-0102

Oregon Department of Transportation

http://www.odot.state.or.us/ 355 Capitol St. NE Salem, OR 97301-3871 (888) ASK-ODOT

Region 1

123 NW Flanders Street Portland, OR 97209-4037 Phone: (503) 731-8200 Fax: (503) 731-8259

www.odot.state.or.us/region1/

Region 2

455 Airport Road SE, Building B Salem, OR 97301-5395 Phone: (503) 986-2600 Fax: (503) 986-2840

www.odot.state.or.us/region2/

Region 3

3500 NW Stewart Parkway Roseburg, OR 97470 Phone: (541) 957-3500 Fax: (541) 957-3547

www.odot.state.or.us/region3/

Region 4

63034 O.B. Riley Road Bend, OR 97701 Phone: (541) 388-6032

Fax: (541) 385-0476 www.odot.state.or.us/region4/

Region 5

3012 Island Avenue La Grande, OR 97701 Phone: (541) 388-0632 Fax: (541) 963-9079

www.odot.state.or.us/region5/

Transportation Development Division

Administration Mill Creek Office Park 555 13th Street NE, Suite 2 Salem, OR 97301-4178 Phone: (503) 986-3420

Fax: (503) 986-4173

Planning Section, Planning Group, Access Management Unit, and Transportation Planning Analysis Unit

Mill Creek Office Park 555 13th Street NE, Suite 2 Salem, OR 97301-4178 Phone: (503) 986-4121

Fax: (503) 986-4174

Oregon Department of Land Conservation and Development (DLCD)

DLCD - Salem Office

635 Capitol St. NE, Suite 150 Salem, OR 97301-2540 Phone: (503) 373-0050 Fax: (503) 378-5518 TTY: Oregon Relay Services,

1-800-735-2900

DLCD - Portland Office

800 NE Oregon Street, #18, Suite 1145 Portland, OR 97232 Phone: (503) 731-4065

Fax: (503) 731-4068

DLCD - Community Solutions Office

155 Cottage St. NE Salem, OR 97301

Phone: (503) 378-6892 x 31

DLCD – ODOT Office

123 NW Flanders

Portland, OR 97209-4037 Phone: (503) 731-8356 Fax: (503) 731-3266

DLCD – Central Point

155 N. First St.

Central Point, OR 97502 Phone: (541) 858-3152 Fax: (541) 858-3142

DLCD - Bend

Empire Corporate Park 20300 Empire Ave. Suite 1 Bend, OR 97701

Phone: (541) 388-6157 Fax: (541) 388-6480

DLCD - Oregon Coast

Coastal Field Office, Suite B 365 Port Street Waldport, OR 97394

Phone: (541) 563-2056 Fax: (541) 563-4022

Federal Aviation Administration

FAA Home Page

http://www.faa.gov/

Community and Environmental Needs Division

http://www.faa.gov/arp/600home.cfm

Advisory Circulars

http://www.faa.gov/arp/150acs.cfm?ARPnav=acs

Seattle Airports District Office

Serving Idaho, Oregon & Washington 1601 Lind Avenue, S.W., Suite 250 Renton, WA 98055-4056

Phone: (452) 227-2650 Fax: (452) 227-1650

Portland Flight Standards District Office

1800 N.E. 25th Avenue – Suite 15

Hillsboro, OR 97124 Phone: (503) 681-5500 Fax: (503) 681-5555

Northwest Mountain Region Headquarters

1601 Lind Avenue, S.W., Suite 250 Renton, Washington 98055-4056

All of the following have the address listed above:

Office of the Regional Administrator

Routing Symbol: ANM-1 Phone: (452) 227-2001 Fax: (452) 227-1006 Flight Standards Division

Routing Symbol: ANM-200 Phone: (452) 227-2200 Fax: (452) 227-1200

Airway Facilities Division

Routing Symbol: ANM-400 Phone: (452) 227-2400 Fax: (452) 227-1400

Air Traffic Division

Routing Symbol: ANM-500 Phone: (452) 227-2500 Fax: (452) 227-1500

Airports Division

Routing Symbol: ANM-600 Phone: (452) 227-2600 Fax: (452) 227-1600

Civil Aviation Security Division

Routing Symbol: ANM-700 Phone: (452) 227-2700 Fax: (452) 227-1700

Military Representatives

Routing Symbol: ANM-900 Phone: (452) 227-2947 Fax: (452) 227-1114

7.4 Summary

This document provides a significant amount of information related to land use planning in the airport environs. Implementation of the Guidelines must be accomplished on the local level. Information that has been provided in the Guidelines includes:

- Roles of various agencies and individuals in land use planning process
- Safety impacts including FAA safety zones and FAR Part 77
- Noise impacts
- → Land development controls
- Noise mitigation measures

Because of the large area affected by the operation of an airport, no single policy or regulation will ensure that all adjacent land uses will be compatible with the airport. The variety of strategies discussed in these guidelines is presented with the intent to help achieve the highest level of compatible land use in airport environs determined to be realistic for each community. Airports in Oregon serve not only their respective urban areas, but also their respective agricultural and recreational areas. The airport sponsor should make all other jurisdictions aware of the benefits they gain from the availability of the airport. If the airport affects several jurisdictions, the cooperation of all of the jurisdictions is necessary to achieve long-term compatible land use.

→ Implementation of the elements contained in the Guidebook must be accomplished at the local level.

Each airport and its community must select unique tools and techniques to address their specific land use issues.

The land use planning requirements for each airport are different, as is the need to implement all or portions of these guidelines. Information provided in these Guidelines is meant to identify the issues, discuss a range of strategies to promote land use compatibility, and provide examples of ordinances that can be modified to fit local needs. As defined by Oregon state statutes, the responsibility for implementing appropriate portions of these guidelines rests with each local jurisdiction that falls within the airport operating environs.

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