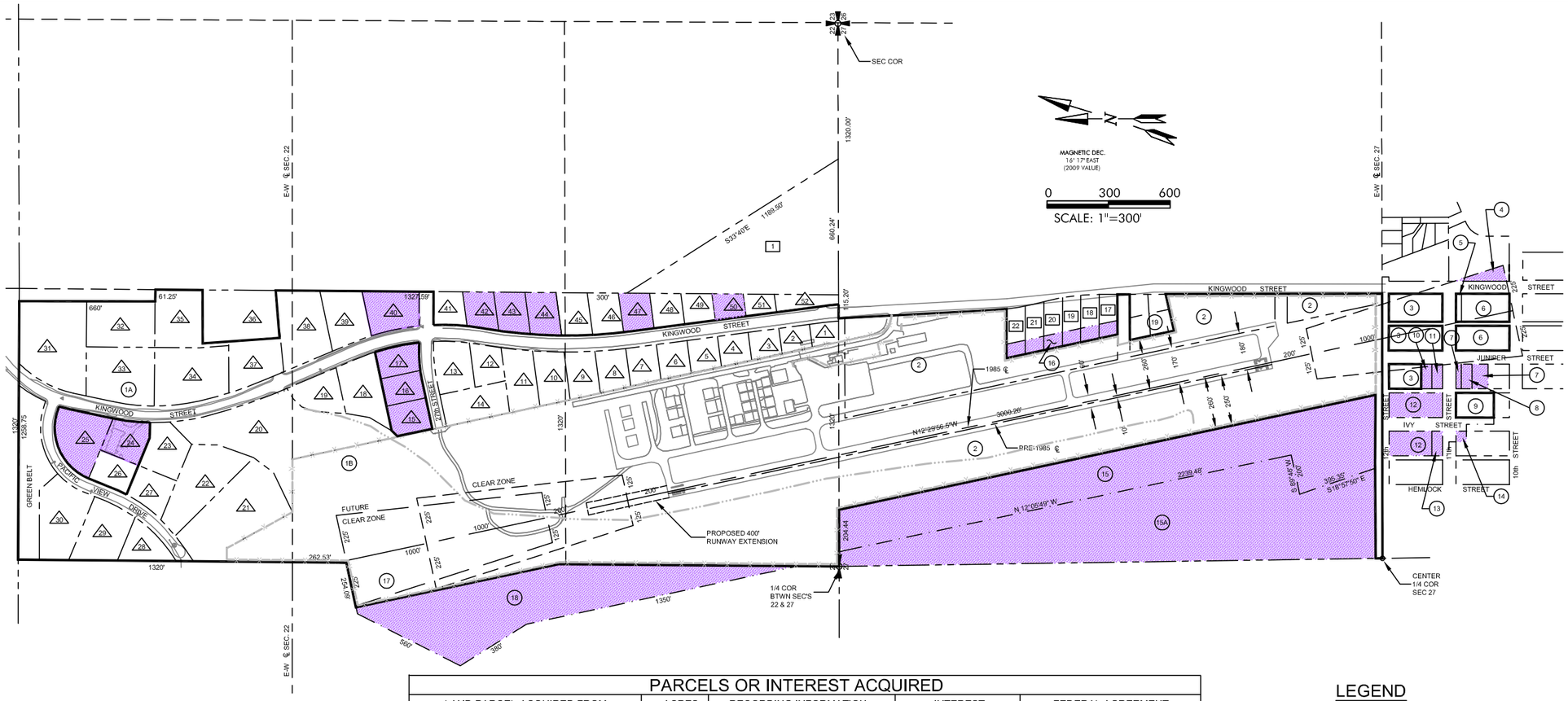
PARCELS SOLD

LOT #	PARCELS SOLD- CURRENT OWNER	ACRES	DATE	INSTRUMENT #
25	LITKEI, FRANK J.	1.4	10-01-2004	20-04078043
26	HAIGHT, HERBERT C. & CAROL A.	0.69	03-31-1999	99-030865
24	LITKEI, FRANK J.	0.87	07-24-2002	20-02-056105
	SPARES INC	-	08-27-2001	20-01-056594
36	CENTRAL LINCOLN PUB	2.04	02-17-1999	99-015479
15	HODSON, BRIAN W. TERESA J.	0.78	03-17-2006	20-6-018756
	DIVIDE WEST CONSTRUCTION INC	-	06-28-2004	20-04-051150
16	PHILLIPS, TONY R. & MELISSA K.	0.61	02-01-2005	20-05-009259
17	BURNS ALAN & KAREN	0.65	08-06-2004	20-04-063681
41	OREGON STATE DEPT OF FORESTRY	0.57	04-13-2000	20-00028248
42	HECETA PROPERTIES LIC	0.61	10-22-2004	20-04-090560
43	HECETA PROPERTIES LIC	0.68	10-22-2004	20-04-090560
44	DUMAN INC	0.72	09-15-2004	20-04-073548
45	SIUSLAW SCHOOL DISTRICT 97J	0.72	07-19-1999	99-063100
46	SIUSLAW SCHOOL DISTRICT 97J	0.69	07-19-1999	25-71/99063100
47	SIUSLAW SCHOOL DISTRICT 97J	0.63	12-03-2003	20-03-117380
48	SIUSLAW SCHOOL DISTRICT 97J	0.55	12-03-2003	20-03-117380
49	TRI STATES LIC	0.48	09-27-2002	20-02-077301
	HEIDT REVOCABLE LIVING TRUST	-	07-21-1999	99-064756
50	HECETA PROPERTIES LIC	0.41	02-14-2006	20-06-037756
	GRANT, CHRIS K & CLAUDIA A.	-	08-17-2001	20-01-057329
51	TECHNOLOGY SERVICES INC	0.34	03-29-2001	20-01-018107
52	TECHNOLOGY SERVICES INC	0.43	03-29-2001	20-01-018107
1	SIUSLAW SCHOOL DISTRICT 97J	6.74	06-26-1995	95-03604200
22	HECETA INC	0.48	12-03-2003	20-03-118256
	WELLS RAY E & BOBBIE K	-	08-14-2002	20-20-061673
21	HECETA INC	0.47	11-13-1997	97-07871100
20	HECETA INC	0.48	11-13-1997	97-07871100
19	HECETA PROPERTIES	0.47	05-21-1999	99-046324
	CITY OF FLORENCE	-	08--08-1997	97-05419600
18	HECETA PROPERTIES	0.45	09-04-1996	96-06000600
17	ANGLER'S MANUFACTURING INC	0.43	03-30-1998	98-02280400



PARCELS OR INTEREST ACQUIRED

LAND PARCEL-ACQUIRED FROM	ACRES	RECORDING INFORMATION DATE	BLOCK OR VOL. (REEL NO.)	PAGE (RECEP NO.)	INTEREST	FEDERAL AGREEMENT
(1A) JULIAN FRANCIS MILLER						
(1B) JULIAN FRANCIS MILLER	39.2	4-18-80	(1072 R)	(8023755)	FEE	
(2) LANE COUNTY	120.0	1-4-46	307	256	FEE	
(3) CITY OF FLORENCE	1.86	2-21-80	(1058 R)	(8023755)	FEE	ADAP 5-41-0019-01
(4) HOUSING AUTHORITY & URBAN RENEWAL AGENCY	0.3	7-2-85			EASEMENT	AIP 3-41-0019-01
(5) PATRICA TRAVIS	0.2	6-10-85			FEE	AIP 3-41-0019-01
(6) AUDTHER & MONICA WALKER	1.4	11-5-85			FEE	AIP 3-41-0019-01
(7) SHELLY MARGRET SOUTHWORTH RICHARD D & LAI S YIP	0.3	10-28-85			EASEMENT	AIP 3-41-0019-01
(8) SCOTT & LEANA WOOLEY RICHARD D & LAI S YIP	0.1	10-28-85			EASEMENT	AIP 3-41-0019-01
(9) DONALD & LILLY PALMBALD	0.5	2-6-86			FEE	DONATED AIP 3-41-0019-01
(10) NICHOLAS & RUTH WILDS PARKINSON LIVING TRUST	0.1	5-14-85			EASEMENT	AIP 3-41-0019-01
(11) WALTER & MARIE MOO SITTNER JOHN WILHELM	0.1	5-14-85			EASEMENT	AIP 3-41-0019-01
(12) WHISPERING PINES DEVELOP. CO. JERRY PATER CONSTRUCTION INC	1.3	7-17-85			EASEMENT	AIP 3-41-0019-01
(13) JAMES H. WEIR JAMES H. WEIR TESTAMENTARY TRUST	0.1	5-14-85			EASEMENT	AIP 3-41-0019-01
(14) THOMAS RUSSELL HURVITZ YARDENNA	0.1	5-14-85			EASEMENT	AIP 3-41-0019-01
(15) DAVIDSON INDUSTRIES INC.	13.9	5-14-85			EASEMENT	AIP 3-41-0019-01
(15A) HICKSON DEVELOPMENT GROUP	18.2	2-12-2004			EASEMENT	
(16) CITY OF FLORENCE	1.0	7-2-85			EASEMENT	AIP 3-41-0019-01
(17) CITY OF FLORENCE	2.6	7-2-85			EASEMENT	AIP 3-41-0019-01
(18) LANE COUNTY	8.9	7-2-85			EASEMENT	AIP 3-41-0019-01
(19) RICHARD W. & ARLIS M. ULMAN AND WILBER & JOYCE A. TERNYIK	0.55				NONE (FUTURE EASEMENT)	

LEGEND

- [1] OTHER LOT PREVIOUSLY OWNED BY THE AIRPORT
- 1 LOT FROM 1998 INDUSTRIAL PARK PLAT
- (1A) PARCEL
- 1, 1A LOT NUMBER
- AIRPORT BOUNDARY
- AVIGATION EASEMENT IN PLACE
- CLEAR ZONE
- FUTURE CLEAR ZONE
- PARCEL/LOT/PROPERTY BOUNDARY
- EASEMENT BOUNDARY
- SECTION LINE
- AIRPORT FENCE
- DRAINAGE DITCH

NOTES:
1. THE SECTIONAL INFORMATION ON THIS DRAWING IS A COMPILATION OF VARIOUS SOURCES AND DOES NOT CONSTITUTE A RECORD OF SURVEY.

"THE PREPARATION OF THIS DOCUMENT MAY HAVE BEEN SUPPORTED, IN PART, THROUGH THE AIRPORT IMPROVEMENT PROGRAM FINANCIAL ASSISTANCE FROM THE FEDERAL AVIATION ADMINISTRATION (PROJECT NUMBER 3-41-0019-009) AS PROVIDED UNDER TITLE 49, UNITED STATES CODE, SECTION 47104. THE CONTENTS DO NOT NECESSARILY REFLECT THE OFFICIAL VIEWS OR POLICY OF THE FAA. ACCEPTANCE OF THIS REPORT BY THE FAA DOES NOT IN ANY WAY CONSTITUTE A COMMITMENT ON THE PART OF THE UNITED STATES TO PARTICIPATE IN ANY DEVELOPMENT DEPICTED THEREIN NOR DOES IT INDICATE THAT THE PROPOSED DEVELOPMENT IS ENVIRONMENTALLY ACCEPTABLE IN ACCORDANCE WITH APPROPRIATE PUBLIC LAWS."

NO.	DATE	BY	APPR	REVISIONS

NO.	DATE	BY	APPR	REVISIONS
3	2/2007	JB	JR	UPDATED UNDER AIP # 3-41-0019-008
2	2-87	SMM	DRW	REVISE PARCELS 4 & 9, INTEREST
1	1-85	MEL	1	NEW CENTERLINE & PARCEL 20

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING.
0" ■
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

FEDERAL AVIATION ADMINISTRATION APPROVAL

APPROVAL DATE: _____

MANAGER, SEATTLE ADO

CITY OF FLORENCE APPROVAL

APPROVAL DATE: _____

SIGNATURE

CENTURY WEST
ENGINEERING CORPORATION
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Portland, Oregon 97224
503-419-2130 phone ♦ 503-639-2710 fax
www.centurywest.com

DESIGNED BY:	DRAWN BY:	CHECKED BY:	SCALE:
JNR	JJB	JNR	AS SHOWN
DATE: MARCH 2010		PROJECT NO: 4130101001	

FLORENCE MUNICIPAL AIRPORT

EXHIBIT "A" AIRPORT PROPERTY PLAN

FIGURE NO. .

SHEET NO. 8 OF 8

Chapter Eight
Environmental Review

CENTURY WEST
ENGINEERING CORPORATION

Florence Municipal Airport

CHAPTER EIGHT
ENVIRONMENTAL REVIEW

Introduction

The purpose of this Environmental Review is to identify physical or environmental conditions of record which may affect improvement options for Florence Municipal Airport. With the exception of the airport noise evaluation, the scope of work for this element is limited to compiling, reviewing and briefly summarizing information of record from applicable local, federal and state source for the airport site and its environs.

The airport noise evaluation was conducted based on prescribed Federal Aviation Administration (FAA) guidelines, using the FAA's Integrated Noise Model (INM) computer software with several airport-specific inputs including FAA-approved air traffic forecasts, fleet mix, common aircraft flight tracks, and existing/future runway configurations.

Included below are brief summaries of the categories in which potentially significant issues were identified or appear to be possible, and where notable ecological or social conditions appear to be pertinent to the future development of the airport.

AIRPORT NOISE ANALYSIS

Airport Noise and Noise Modeling

It is often noted that noise is the most common negative impact associated with airports. A simple definition of noise is unwanted sound. However, sound is measurable, whereas noise is subjective. The relationship between measurable sound and human irritation is the key to understanding aircraft noise impact. A rating scale has been devised to relate sound to the sensitivity of the human ear. The A-weighted decibel scale (dBA) is measured on a "log" scale, by which is meant that for each increase in sound energy level by a factor of 10, there is a designated increase of 1 dBA. This system of measurement is used because the human ear functions over such an enormous range of sound energy impacts. At a psychological level, there is a rule of thumb that the human ear often "hears" an increase of 10 decibels as equivalent to a "doubling" of sound.

The challenge to evaluating noise impact lies in determining what amount and what kind of sound constitutes noise. The vast majority of people exposed to aircraft noise are not in danger of direct physical harm. However, much research on the effects of noise has led to several generally accepted conclusions:

- The effects of sound are cumulative; therefore, the duration of exposure must be included in any evaluation of noise.
- Noise can interfere with outdoor activities and other communication.
- Noise can disturb sleep, TV/radio listening, and relaxation.
- When community noise levels have reached sufficient intensity, community wide objection to the noise will likely occur.

Research has also found that individual responses to noise are difficult to predict.[16] Some people are annoyed by perceptible noise events, while others show little concern over the most disruptive events. However, it is possible to predict the responses of large groups of people – i.e. communities. Consequently, community response, not individual response, has emerged as the prime index of aircraft noise measurement.

On the basis of the findings described above, a methodology has been devised to relate measurable sound from a variety of sources to community response. For aviation noise analysis, the FAA has determined that the cumulative noise energy exposure of individuals to noise resulting from aviation activities must be established in terms of yearly day/night average sound level (DNL) as FAA's primary metric. The DNL methodology is used in conjunction with the standard A-weighted decibel scale (dBA) which is measured on a "log" scale, by which is meant that for each increase in sound energy level by a factor of 10, there is a designated increase of 1 dBA. DNL has been adopted by the U. S. Environmental Protection Agency (EPA), the Department of Housing and Urban Development (HUD), and the Federal Aviation Administration (FAA) for use in evaluating noise impacts. In a general sense, it is the yearly average of aircraft-created noise for a specific location (i.e., runway), but includes a calculation penalty for each night flight.

The FAA has determined that a significant noise impact would occur if analysis shows that the proposed action will cause noise sensitive areas to experience an increase in noise of DNL 1.5 dB or more at or above DNL 65 dB noise exposure when compared to the no action alternative for the same time frame. As an example, an increase from 63.5 dB to 65 dB is considered a significant impact. The DNL methodology also includes a significant calculation penalty for each night flight. DNL levels are

[16] Beranek, Leo, *Noise and Vibration Control*, McGraw-Hill, 1971, pages ix-x.

normally depicted as contours. These contours are generated from noise measurements processed by a FAA-approved computer noise model. They are superimposed on a map of the airport and its surrounding area. This map of noise contour levels is used to predict community response to the noise generated from aircraft using that airport.

The basic unit in the computation of DNL is the sound exposure level (SEL). An SEL is computed by mathematically summing the dBA level for each second during which a noise event occurs. For example, the noise level of an aircraft might be recorded as it approaches, passes overhead, and then departs. The recorded noise level of each second of the noise event is then added logarithmically to compute the SEL. To provide a penalty for nighttime flights (considered to be between 10 PM and 7 AM), 10 dBA is added to each nighttime dBA measurement, second by second. Due to the mathematics of logarithms, this calculation penalty is equivalent to 10-day flights for each night flight.[17]

A DNL level is approximately equal to the average dBA level during a 24-hour period with a weighing for nighttime noise events. The main advantage of DNL is that it provides a common measure for a variety of different noise environments. The same DNL level can describe an area with very few high noise events as well as an area with many low-level events.

Noise Modeling and Contour Criteria

DNL levels are typically depicted as contours. Contours are an interpolation of noise levels drawn to connect all points of a constant level, which are derived from information processed by the FAA-approved computer noise model. They appear similar to topographical contours and are superimposed on a map of the airport and its surrounding area. It is this map of noise levels drawn about an airport, which is used to predict community response to the noise from aircraft using that airport. DNL mapping is best used for comparative purposes, rather than for providing absolute values. That is, valid comparisons can be made between scenarios as long as consistent assumptions and basic data are used for all calculations. It should be noted that a line drawn on a map by a computer does not imply that a particular noise condition exists on one side of the line and not on the other. These calculations can only be used for comparing average noise impacts, not precisely defining them relative to a specific location at a specific time.

[17] Where Leq ("Equivalent Sound Level") is the same measure as DNL without the night penalty incorporated, this can be shown through the mathematical relationship of:

$$Leq_d = 10 \log \left(\frac{N_d \times 10^{(SEL/10)}}{86{,}400} \right)$$

If SEL equals the same measured sound exposure level for each computation, and if $N_d = 10$ daytime flights, and $N_n = 1$ night-time flight, then use of a calculator shows that for any SEL value inserted, $Leq_d = Leq_n$.

Noise and Land-Use Compatibility Criteria

Federal regulatory agencies of government have adopted standards and suggested guidelines relating DNL to compatible land uses. Most of the noise and land-use compatibility guidelines strongly support the concept that significant annoyance from aircraft noise levels does not occur outside a 65 DNL noise contour. Federal agencies supporting this concept include the Environmental Protection Agency, Department of Housing and Urban Development, and the Federal Aviation Administration.

Federal Aviation Regulations (FAR) Part 150, Airport Noise Compatibility Planning provides guidance for land-use compatibility around airports. **Table 8-1** summarizes the federal guidelines for compatibility or non-compatibility of various land uses and noise exposure levels. Under federal guidelines, all land uses, including residential, are considered compatible with noise exposure levels of 65DNL and lower. Generally, residential and some public uses are not compatible within the 65-70 DNL, and above. As noted in this table, some degree of noise level reduction (NLR) from outdoor to indoor environments may be required for specific land uses located within higher-level noise contours. Land uses such as commercial, manufacturing, some recreational uses, and agriculture are compatible within 65-70 DNL contours.

Residential development within the 65 DNL contour and above is not recommended and should be discouraged. Care should be taken by local land use authorities to avoid creating potential long-term land use incompatibilities in the vicinity of the airport by permitting new development of incompatible land uses such as residential subdivisions in areas of moderate or higher noise exposure. Oregon's airport noise and land use compatibility guidelines discourage residential development within the 55 DNL contour, although it is not prohibited.

Oregon Revised Statutes (ORS) Chapters 836.000 through 836.630 address the appropriate zoning and protection of Oregon's airports and their surroundings. Under the statute, height restrictive zoning and, to some extent, use-restrictive zoning are indicated as necessary components affecting land uses in the immediate vicinity of a public airport. As noted in the Inventory Chapter, the City of Florence currently maintains airport overlay zoning that is consistent with state and federal airport protection guidelines.

Planning Period Noise Contours

A noise analysis of the effects of existing aircraft operations and proposed projects/activities linked to the updated airport master plan has been performed using the FAA's Integrated Noise Model (INM), version 7.0. A set of noise contours and associated information have been developed to assess current and future aircraft noise exposure and assist in the development of the airport land use compatibility plan.

Data from the updated forecasts of activity levels were assigned to the common arrival, departure and airport traffic pattern flight tracks defined for Runway 15/33. Runway use was estimated at 60 percent for Runway 33 and 40 percent for Runway 15. The runway's existing west-side traffic pattern was maintained for all future years and adjusted as necessary for the future runway extension. The existing noise contours are based on the current runway configuration and 2008 activity. Five-year and twenty-year noise contours were developed for 2015 and 2030 with the future runway extension from the preferred airport development alternative. The noise contours are depicted in **Figure 8-1** at the end of this section.

The contours are plotted in 5 DNL increments from 55 DNL to 80 DNL, which is consistent with local noise and land use compatibility planning. As noted earlier in this section, under federal standards, all land uses are considered compatible with noise exposure below 65 DNL and the FAA does not formally recognize noise levels below 65DNL in its land use compatibility planning assessments.

Noise Contours

2008: The 65 DNL and higher noise contours are contained entirely within the current airport property boundary. Small, discontinuous areas of 70, 75 and 80 DNL contours are located at each runway end, which is consistent with normal aircraft takeoff and landing operations. These areas of higher noise exposure extend approximately 100 feet or less beyond the runway ends and 900 to 1,200 feet down the runway from each end. The 55 DNL contour extends approximately 400 to 600 feet beyond the ends of the runway (within airport property); large areas of the 55 DNL noise contour extend up to 400 feet beyond airport property to the west and southeast. Existing land uses in these areas include residential, commercial, industrial and small areas of undeveloped lands. Smaller areas of the 60 DNL noise contour extend 100 to 200 feet beyond airport property to the southeast (over Kingwood Street) and southwest (over adjacent residential area).

2015: The 2015 noise contours reflect the forecast increase in air traffic and the recommended 400-foot runway extension at the north end of Runway 15/33. The contours overall size and shape are similar to the 2009 contours, consistent with the changes noted above. The 65 DNL and higher noise contours are contained entirely within the current airport property boundary. The size of the small, discontinuous areas of 70, 75 and 80 DNL contours located at each runway end are consistent

with the increase in traffic volume. The 55 and 60 DNL contours that extend beyond airport property increase in size proportionate to the projected increase in traffic volume. The 55 and 60 DNL contour located near the future end of Runway 15 extends further beyond airport property on the west side of the airport. This area is located immediately north of the residential subdivision that abuts the southeast side of the airport and is zoned Open Space (OS) and Marine District (MD). An avigation easement is currently in place for areas that directly abut the west airport property line.

The 55 DNL contour extends approximately 500 to 600 feet beyond the ends of the runway, mostly within airport property. A small area of 55 DNL extends beyond airport property southwest of the runway end on the south side of the 10th Street right of way. Large areas of the 55 DNL noise contour extend up to 500 feet beyond airport property to the west and southeast. Existing land uses in these areas include residential, commercial, industrial and small areas of undeveloped lands. Smaller areas of the 60 DNL noise contour extend 100 to 200 feet beyond airport property to the southeast (over Kingwood Street) and southwest (over adjacent residential area).

2030: The 2030 noise contours are relatively similar in shape to the earlier contours but are larger based on forecast increase in air traffic levels. A small area of the 65 DNL contour extends approximately 50 to 75 feet beyond the southwest airport property line over an adjacent residential area. This anticipated level of noise exposure should be reviewed periodically and efforts to mitigate noise exposure may be needed in the future.

The size of the small, discontinuous areas of 70, 75 and 80 DNL contours located at each runway end are consistent with the increase in traffic volume. The 55 and 60 DNL contours that extend beyond airport property increase in size proportionate to the projected increase in traffic volume. The 55 DNL contour extends approximately 1,300 feet beyond the north end of the runway and approximately 1,000 feet beyond the south end of the runway, mostly over airport property.

Summary

The projected increase in air traffic and its associated noise exposure combined with the development patterns surrounding the airport suggest that noise related complaints will likely increase during the planning period. Perceived noise impacts and resulting complaints are not typically confined to areas of 65 DNL or higher significant thresholds established by federal regulatory agencies. For this reason local land use officials should work closely with the community to avoid creating any potential long-term land use incompatibilities surrounding Florence Municipal Airport. In addition, the City should consider developing and maintaining an ongoing “fly friendly” program to educate pilots and neighbors about safe airport operating practices and nearby noise sensitive areas.

TABLE 8-1: LAND USE COMPATIBILITY WITH DNL

	Yearly Day-Night Average Sound Level (DNL) in Decibels					
Land Use	Below 65	65-70	70-75	75-80	80-85	Over85
Residential						
Residential, other than mobile homes & transient lodgings	Y	N(1)	N(1)	N	N	N
Mobile Home Parks	Y	N	N	N	N	N
Transient Lodgings	Y	N(1)	N(1)	N(1)	N	N
Public Use						
Schools	Y	N(1)	N(1)	N	N	N
Hospitals and Nursing Homes	Y	25	30	N	N	N
Churches, Auditoriums, and Concert Halls	Y	25	30	N	N	N
Government Services	Y	Y	25	30	N	N
Transportation	Y	Y	Y(2)	Y(3)	Y(4)	Y(4)
Parking	Y	Y	Y(2)	Y(3)	Y(4)	N
Commercial Use						
Offices, Business and Professional	Y	Y	25	30	N	N
Wholesale and Retail-Building Materials, Hardware and Farm Equipment and Farm Equipment	Y	Y	Y(2)	Y(3)	Y(4)	N
Retail Trade-General	Y	Y	25	30	N	N
Utilities	Y	Y	Y(2)	Y(3)	Y(4)	N
Communication	Y	Y	25	30	N	N
Manufacturing and Production						
Manufacturing General	Y	Y	Y(2)	Y(3)	Y(4)	N
Photographic and Optical	Y	Y	25	30	N	N
Agriculture (except livestock) and Forestry	Y	Y(6)	Y(7)	Y(8)	Y(8)	Y(8)
Livestock Farming and Breeding	Y	Y(6)	Y(7)	N	N	N
Mining and Fishing, Resource Production and Extraction	Y	Y	Y	Y	Y	Y
Recreational						
Outdoor Sports Arenas, Spectator Sports	Y	Y(5)	Y(5)	N	N	N
Outdoor Music Shells, Amphitheaters	Y	N	N	N	N	N
Nature Exhibits and Zoos	Y	Y	N	N	N	N
Amusement Parks, Resorts and Camps	Y	Y	Y	N	N	N
Golf Courses, Riding Stables and Water Recreation	Y	Y	25	30	N	N

Y (Yes) - Land-use and related structures compatible without restrictions.
N (No) - Land-use and related structures are not compatible and should be prohibited.
NLR - Noise Level Reduction (outdoor to indoor) to be achieved through incorporation of noise attenuation into design and construction of the structure.
25, 30 or 35 - Land uses and structures generally compatible; measure to achieve NLR or 25, 30 or 35 dB must be incorporated into design and construction of the structure.

1. Where the community determines that residential uses must be allowed, measures to achieve outdoor to indoor Noise Levels Reduction (NLR) of at least 25dB and 30dB should be incorporated into building codes and be considered in individual approvals. Normal residential construction can be expected to provide a NLR of 20 dB; thus, the reduction requirements are often stated as 5, 10, or 15 dB over standard construction and normally assume mechanical ventilation and closed windows year-round. However, the use of NLR criteria will not eliminate outdoor noise problems.
2. Measures to achieve NLR of 25 dB must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise sensitive areas, or where the normal noise level is low.

3. Measures to achieve NLR of 30 dB must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise sensitive areas, or where the normal noise level is low.
4. Measures to achieve NLR of 35 dB must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise sensitive areas, or where the normal noise level is low.
5. Land-use compatible, provided special sound reinforcement systems are installed.
6. Residential buildings require an NLR of 25.
7. Residential buildings require an NLR of 30.
8. Residential buildings not permitted.

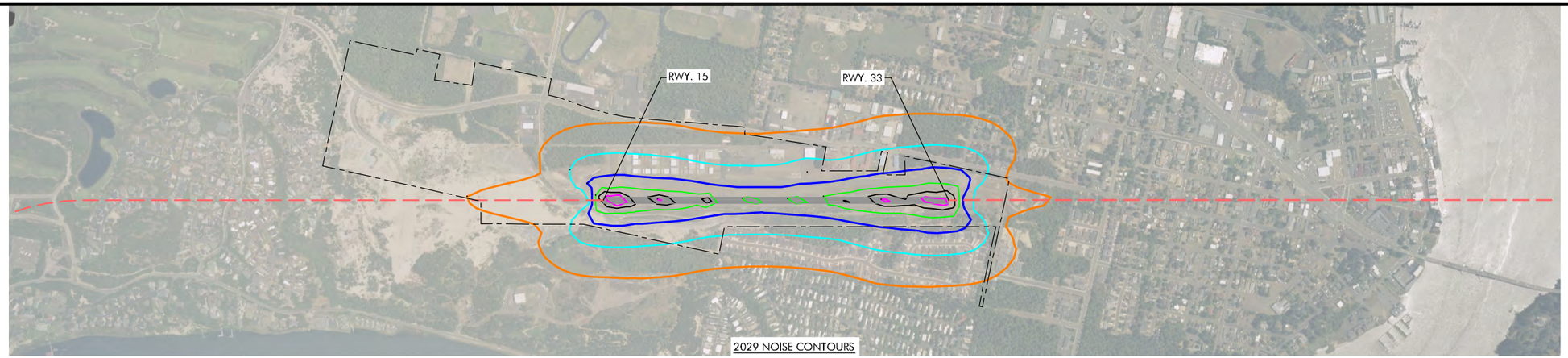
SOURCE: Federal Aviation Regulations, Part 150, Airport Noise Compatibility Guidelines

LEGEND

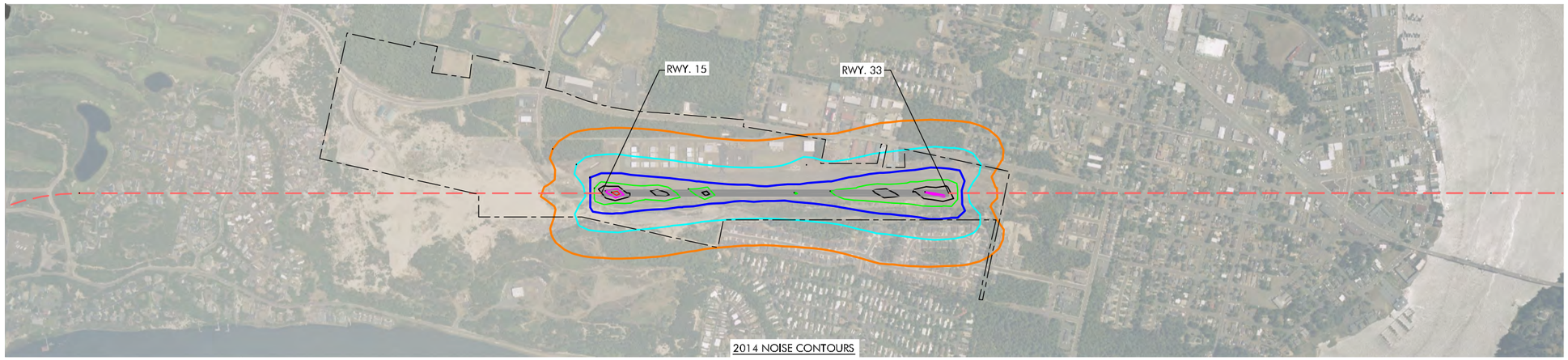
- 55 DNL
- 60 DNL
- 65 DNL
- 70 DNL
- 75 DNL
- 80 DNL
- FLIGHT TRACKS
- AIRPORT PROPERTY

DAY-NIGHT LEVEL (DNL)

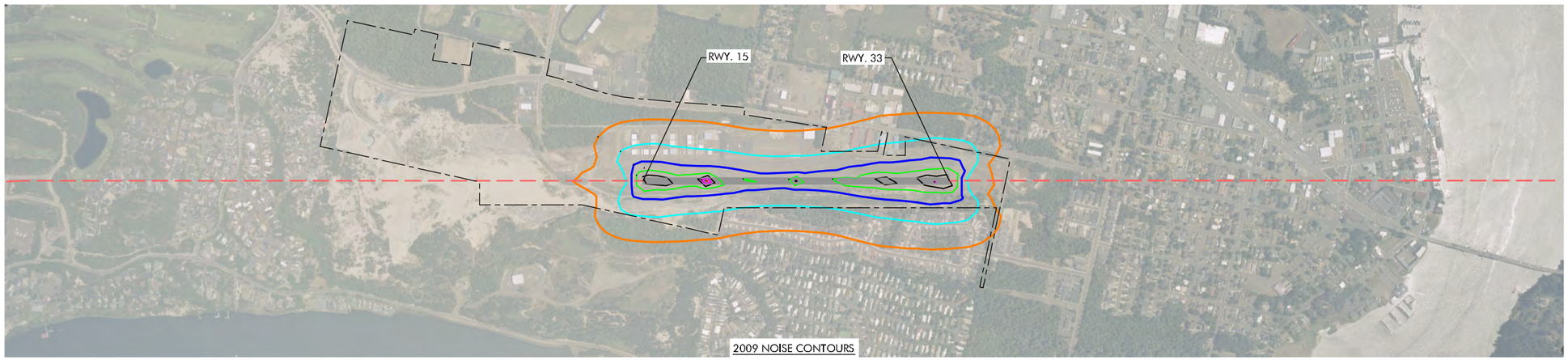
NOTE:
1.) FAA INM VERSION 7.0 USED TO DEVELOP NOISE CONTOURS. CONTOURS BASED ON MASTER PLAN FORECAST AIRCRAFT OPERATIONS FOR 2009, 2014, 2029.



2029 NOISE CONTOURS



2014 NOISE CONTOURS



2009 NOISE CONTOURS

MAGNETIC DEC.
16° 17' EAST
(2009 VALUE)

0 600 1200
SCALE OF FEET
SCALE: 1"=600'

CENTURY WEST
ENGINEERING CORPORATION

FLORENCE MUNICIPAL AIRPORT
NOISE CONTOURS

FIGURE NO.
8-1

AIR AND WATER QUALITY

Florence Municipal Airport is located in the Siuslaw River watershed, approximately 0.75 miles to the east of river mile (RM) 3. As a component of the Clean Water Act, Section 303(d) requires states to develop lists of impaired waters that do not meet water quality standards. In Oregon that responsibility rests with the Department of Environmental Quality (DEQ). At RM 3, DEQ has listed the Siuslaw River as impaired for temperature.

The City of Florence requires the submittal of a Storm Water Management Plan for all larger development projects: major partitions, subdivisions, land disturbing activities affecting over one (1) acre, projects involving the construction or extension of the public storm water system, or where the project is deemed by the City to present a special risk to the public health, safety, and general welfare (Florence City Code Title 9, Chapter 5).

The Lane Regional Air Protection Agency (LRAPA) monitors air quality in Lane County. LRAPA recently installed an optical opacity (visibility) measuring device known as a nephelometer to provide real time estimates of Particulate Matter (PM-2.5) in Florence. LRAPA uses the data to calculate local Air Quality Index (AQI) values, which are transmitted to EPA's AIRNow website. However, no data is available for the Florence area at this time, perhaps due to the fact that the instrument was recently installed.

Water Resources

In Oregon, water resources (e.g. rivers, streams, and wetlands) are regulated by the US Army Corps of Engineers through Section 404 of the Clean Water Act and by the Oregon Department of State Lands through the Removal-Fill Law. Impacts to water resources require review and permits from these agencies. In addition, impacted resources must be replaced through mitigation. Mitigation for drainageways is generally a 1:1 replacement of function. Wetlands are replaced at specific ratios, as described below:

TABLE 8-2: REQUIRED RATIOS* FOR WETLAND MITIGATION

Type of mitigation	Ratio	Explanation
Wetland restoration	1:1	This usually means restoring hydrology to an area that was previously wetland.
Wetland creation	1.5:1	Creating a wetland in an area where wetland has never existed.
Wetland enhancement (actively farmed)	2:1	Enhancing a cropped and degraded wetland, usually by planting desirable species and through shallow excavation to improve hydrology.
Wetland enhancement (degraded non-agricultural wetland)	3:1	Enhancing a degraded wetland, usually by planting desirable species and through shallow excavation to improve hydrology.

** These ratios apply whether the mitigation is on-site or off-site and regardless of how far away from the development site the mitigation area is located.*

The Siuslaw River is located approximately 0.75 miles to the west of the airport. The Florence Local Wetland and Riparian Inventories depict two drainages within the property. One drainage flows to the south through the western portion of the airport property. It enters the northern property boundary, flows approximately 1500', where it changes course to the west and leaves the property. This creek has a mapped 50-foot wide riparian area. A smaller creek flows to the south in the southern portion of the property. This creek has no associated riparian area.

No wetlands are depicted within or adjacent to the property. However, future development will require the delineation of any water resources to ensure compliance with state and federal regulations.

Prior to site development, a wetland determination using the Corps of Engineers' Wetland Delineation Manual Technical Report Y-87-1 and the Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region should be conducted to verify the location of the drainages and to confirm that wetlands are not present within the property.

Threatened and Endangered Species

The Oregon Natural Heritage Information Center database lists one federally threatened species within two miles of the airport and eight species that are rare, but have no legal protection. No protected species occur within the property. Oregon Coast evolutionary significant unit, Coho salmon (*Oncorhynchus kisutch*) are listed as threatened at the federal level and sensitive-vulnerable