McMinnville Municipal Airport
Airport Layout Plan Report

Chapter Seven

Environmental Checklist

CHAPTER SEVEN
ENVIRONMENTAL CHECKLIST

PROCESS AND FINDINGS

The purpose of the Environmental Checklist is to identify any physical, social and environmental conditions of record, which may affect the ability to undertake future improvements at McMinnville Municipal Airport (MMV). In comparison to an Environmental Assessment (EA), the project scope for this review is limited and focuses on gathering and compiling information of record from the applicable local, state and federal sources pertaining to existing conditions of the subject site and its environs. The scope of the review research does not involve extensive interpretation of the information, in-depth analyses, or the more comprehensive, follow-up correspondence and inquiries with affected agencies that is associated with an EA. However, as each federally funded airport project is undertaken, the FAA, as the lead federal agency, will evaluate the need for more detailed environmental analyses on a case-by-case basis.

All research activities, including correspondence, data collection and documentation proceeded under the provisions of FAA Order 5050.4A, The Airport Environmental Handbook, which is intended to implement the requirements of Sections 1505.1 and 1507.3 of the National Environmental Policy Act (NEPA). This report briefly addresses, either in narrative or in checklist format, each potential impact category identified in Order 5050.4A. If a particular specific impact category does not appear to apply to this study site, the checklist is noted accordingly.

Included below is a brief summary of the categories in which potentially significant impacts were identified, or appear to be possible, and where notable ecological or social conditions appear pertinent to the future development of this facility. **Table 7-2**, located at the end of the chapter, summarizes also summarizes the findings.

AIRPORT LAND USE

The airport is located at the southeasterly edge of the McMinnville city limits and Urban Growth Boundary (UGB), in the City's General Industrial (M-2) Zone. This zoning designation permits "airports" as an outright permitted use, and encompasses all developable portions of the airport, as well as the Evergreen International Aviation complex and Oregon National Guard Armory, located northwest of the airfield. There is concern that the extensive range of uses allowable under this designation may not be compatible or appropriate for neighboring an active public airfield. Nonetheless, land in this district is almost entirely developed, and the zoning compatibility question would only likely come into play in an instance where, for example, the National Guard was to close their armory facility.

Land uses abutting McMinnville Municipal Airport on its southerly, westerly, and easterly exposures are predominantly agricultural and riparian corridor. A few single family, farm-related dwellings are also present, and various aeronautical, commercial, and urban residential uses also occur to the north of the site.

Most notable among zone designations in the vicinity, Multi-Family Residential (R-4) Zoning occurs immediately northwest of Runway 17/35, where a manufactured home / RV park is located. This is reportedly the source of the most persistent and frequent noise complaints concerning airport operations, including complaints associated with tow plains for gliders. However, the local glider operator indicates that specific attempts are made to avoid direct overflights of this area, whenever possible. Observance of guidelines and requirements contained in Oregon's Airport Compatibility Guidelines, Oregon Revised Statutes (ORS) Chapter 836.600 through 836.630, would preclude the formation of any new, high density residential zoning districts in the immediate vicinity of this or any other public airport.

Local airport representatives report two significant obstructions in the vicinity of McMinnville Municipal Airport, including a cell phone tower located to the east, near Cruickshank Road, and a radio transmission antenna. The airport sponsor should work with owners of the subject structures to ensure that appropriate obstruction lighting is in place, if required by FAA regulation.

Oregon Revised Statutes (ORS) Chapter 836.600 through 836.630 addresses 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. An Airport Overlay Zone, which protects necessary airspaces and limits incompatible uses in proximity to an airfield

is the primary means of ensuring the compatibility of surrounding land uses with operations of a general aviation airport.

While overlay zoning exists in the City of McMinnville and Yamhill County, in the case of the City, the regulations date to the early 1980's. The County's airport safety zoning provisions likewise do not constitute compliance with ORS Ch. 836.600 *et. seq.* Neither jurisdiction has incorporated the airport overlay configurations atop zoning information on their respective zoning maps. The City and County acknowledge their joint need to adopt overlay zoning, which is consistent with applicable law. In addition to ensuring quality and cohesive code language and mapping for all areas affected by the required Airport Overlay and related safety zones, in both the City and County jurisdictions, the existing respective Transportation System Plan languages must also be reviewed and amended to ensure full compliance with ORS Chapter 836.600-630 and to acknowledge this facility as an important part of the local transportation network.

Among the additional provisions of this statute are the following (Please note: This is not intended to be a comprehensive summation of this legislation. Additional requirements may apply to this site under the cited or related statutes and/or Administrative Rules):

OAR 660-13-160(1) Requires jurisdictions to update Plan, land use regulations at Periodic Review to conform with provisions of this statute, or at next update of Transportation System Plan, per OAR 660-12-0015(4) and OAR 660-12-0045(2)(c)&(d). If more than one local government is affected by the Airport Safety Overlay (see below), a Coordinated Work Program for all jurisdictions is required, concurrent with timing of Periodic Review (or TSP update) for the jurisdiction having the most land area devoted to the airport use(s).

The respective County and City Comprehensive Plans and Transportation Plans, Zoning Ordinances, and mapping should be amended no later than the affected jurisdictions' next Periodic Review work cycles, to ensure compliance with these provisions. An Inter-Governmental Agreement is one potential mechanism for complying with the requirement for a "coordinated work program" between concerned jurisdictions under this section.

(8) Adopt map delineating Safety Zones, compatibility zones, and existing noise impact boundaries identified by OAR 340-35. See also OAR 660-13-0070(1) and Exhibits 1 & 2 to Division 13.

In addition to the fact that it has not been adopted by the local jurisdictions, the mapping provided the consultant does not conform with these requirements, as discussed above. To cite just one example, it does not appear that "compatibility zones" required under the cited statute exist currently in either affected jurisdiction.

This Airport Layout Plan Update Report will provide the information and graphics necessary to incorporate into the City and County zoning data and mapping files to establish compliance with the requirement for mapping "noise impact boundaries." Additional analyses, safety zone designations and mapping may likely be necessary to establish full conformity with this section.

OAR 660-13-0070(2): Review future development in Airport Safety Overlay for compliance with maximum height limitations.

The consultant recommends that the County and City adopt height limitations, and other Airport Safety Overlay zoning implementation language, consistent with this and other applicable state laws and federal regulations. In addition to Airport Hazard Overlay requirements described above, OAR 660-13-0040(1)-(3) also requires that jurisdictions adopt a map of existing and planned airport improvements.

A detailed review of all City and County Ordinance, Comprehensive Plan language and mapping pertaining to the airport and its immediate environs should be performed based on the requirements of ORS Chapter 836.600-630, which are intended to ensure airport compatibility. This would identify any amendments to City and County codes, plans and or maps which may be necessary in order to demonstrate compliance. It is further recommended that this Airport Layout Plan Report be adopted as part of the Transportation elements of the City of McMinnville and Yamhill County Comprehensive Plans.

SOCIOECONOMIC ISSUES

McMinnville Municipal Airport contributes to the economic vitality of the City of McMinnville and Yamhill County. A forthcoming study by the Oregon Department of Aviation intends to attempt to quantify the economic impact of each individual publicly owned airport in the State of Oregon. Airport management reports that itinerant business aircraft air traffic has increased as McMinnville's economy has expanded.

Improvements under the preferred alternative will allow the McMinnville Municipal Airport to better accommodate the annual antique airplane show; regular pedestrian and vehicular traffic between the airport and the neighboring aviation museum; and corporate aircraft in hangars and tie down areas. In addition, positive social impacts may be anticipated in the forms of improved vehicular access and transportation design, via the planned Highway 18 / 3 Mile Lane Corridor Study improvements.

Increased water pressure, and additional hydrants as needed, has recently been provided through a McMinnville Water and Light Company improvement project. A new water main has been

extended to the airport from Norton Lane, across Highway 18 and northwest of the airport. Some existing lines in the airport's vicinity will be replaced with larger pipes. This project was necessary to provide adequate water pressure and fire protection to new airport buildings.

As is typical with general aviation airport improvement projects, foreseeable induced or secondary impacts of the project relate primarily to the positive economic impacts associated with jobs creation during construction; potential for increased employment base in aviation related industry; and an opportunity for increased commerce for businesses reliant upon the airport.

Improvements to runway approach systems, lighting, site fencing, surface transportation routes, and land side (terminal, hangar) buildings will accrue additional positive impacts over time as users enjoy the benefits of the enhanced safety and convenience these amenities will provide.

WATER QUALITY

Water quality impacts are always a concern with any construction project, and especially when considering uses and sites where potentially hazardous materials, such as aviation fuel, fire retardants, de-icing agents, and/or agricultural chemicals are involved. The Oregon Department of Environmental Quality (DEQ) routinely recommends for airport projects that, at a minimum, investigations be performed which divulge past agricultural spraying practices, aviation fuel storage facilities, and other potential sources for adverse water quality impacts associated with past, present and potential future activities at the site. Agricultural and/or forestry-related chemical operators and airport sponsors must ensure that wash down, collection, treatment and storage areas and devices comply with Oregon Administrative Rule 340-109 and all applicable environmental standards. In this case, no agricultural chemicals or other hazardous materials are recorded or present, per information from the airport manager and written correspondence from DEQ personnel. The airport's fuel storage is fully compliant, with double-wall above-ground tanks and leak detection systems.

DEQ recommends that the airport's National Pollutants Discharge and Elimination Permit (NPDES) be updated in consideration of the current proposed project. Special precautions are advised to ensure that untreated runoff, from construction as well as from standard airport operations, is not allowed to enter the tributary to the Yamhill River or any ditch or natural drainage way. Adherence to Appendix 2 of FAA Order 1050.1.B., "Prevention, Control, Abatement of Environmental Pollution at FAA Facilities", would work to ensure against adverse impacts to water quality.

During construction, adherence to the applicable local, state, and federal regulations and standards; observance of DEQ's "Best Management Practices for Storm Water Discharges Associated with Construction Activities" (2000); and compliance with the guidelines of FAA Advisory Circular 150/5370-10, are all advised to further protect against adverse water quality impacts.

CULTURAL RESOURCES

As of April 15, 2001, the Oregon State Historic Preservation Office, SHPO, requires considerable documentation be provided by any party inquiring about the existence of significant cultural resources in a given location.

The new procedure requires such information as architectural classification, window and roof types of all structures within the study area; if they may be considered as a resource; dates of any alterations; and "Significance Statements" for all types of resources. SHPO has provided specific forms, "Section 106 (of the National Historic Preservation Act) Documentation Forms" and "Section 106 Level of Effect Forms", for use in making such a request. This level of investigation surpasses the scope of this ALP Update Report.

The consultant forwarded a project description to the Tribal Planner of the Confederated Tribes of the Grand Ronde Indians. No response was received as of this writing. If any historic or cultural resources are discovered during construction, the sponsor will be responsible for immediately notifying SHPO, the Tribes, and the other appropriate authorities. Work would be required to be halted until the physical extent and relative cultural significance of the resource(s) could be identified, and a protection plan developed and implemented, if warranted.

FLORA AND FAUNA

The installation of fencing should be considered in areas where the airfield abuts riparian and tree canopied areas associated with Galen McBee Airport Park and the Yamhill River and its tributary. This would reduce the likelihood of direct conflicts of aviation operations with wildlife and users of the park. Under current conditions, pedestrians, dogs, and wildlife may continue past the terminus of the park's walking path, entering directly onto the runway-taxiway system. Aside from fencing, no impact to this or any other public park would ensue.

A search of the Oregon Natural Heritage Program (ORNHP) database revealed two species of turtles which are listed by federal and state authorities as "Species of Concern" and which may occur in the vicinity of the project. In addition to these, the Oregon Giant Earthworm,

Driloleirus macelfreshi, was reported in two locations in 1985. The Oregon Giant Earthworm observed in 1985 in the City of McMinnville was thirty three inches (33") long. This is a Species of Concern to the USFWS, and population information is also tracked by the ORNHP.

A pair of Streaked Horned Larks, or *Eremophila alpestris strigata*, were reported as being observed at the airport in 1996. The Streaked Horned Lark is a Candidate species for Federal Listing, and a Species of Concern to the State of Oregon.

Additional Species of Concern in the area include the American Grass Bug and the Thin-Leaved Peavine. Neither of these was reported as occurring specifically on the airport property.

The Chinook Salmon – Upper Willamette River Spring Run, and Steelhead – Upper Willamette River Winter Run, *Oncorhynchus tshawytscha pop 23* and *Oncorhynchus mykiss pop 33*, respectively, are both listed as Threatened Species by the National Marine Fisheries Service (NMFS). Both reportedly inhabit the Yamhill River and its tributaries. Local planning maps acknowledge the Yamhill River and its tributaries as critical fish habitat. The County planner also noted that the subject site is located in the waterfowl flyways as mapped on the County's Natural Resource Conservation Plan, Critical Wildlife Habitat Inventory. A local airport representative stated that a hawk has its permanent residence on the airport, but that in their twelve years of experience there, only two incidents of bird strikes have been recorded. The exact species of the resident hawk was not available, and the bird was not observed during an onsite visit by the consultant.

US Department of Interior's Fish and Wildlife Service (USFWS) records list one bird as a "Threatened" Species which may be affected by an airport improvement project at this location. The Bald Eagle, or *Haliaeetus leucocephalus,* is reported within proximity to the project site. Fender's blue butterfly, *Icaricia icarioides fenderi*, and six species of flora, are Endangered or Threatened and may be found in the project vicinity. One additional bird and one amphibian are also indicated as Candidate Species for some type of federal protection listing, but are "not yet the subject of a proposed rule". These are the Yellow-billed cuckoo, *Coccyzus amreicanus* and the Oregon Spotted Frog, *Rana pretiosa.*

Finally, Species of Concern to the USFWS include, in addition to those discussed in earlier paragraphs of this document: six species of bats; a gopher; four birds; two amphibians; two fish; and four species of plants. The locations of specimens are not provided by USFWS.

The USFWS indicates a Biological Assessment is required for "*construction projects (or other undertakings having similar physical impacts) which are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy*

Act (NEPA) (42 U.S.C. 4332 (2) (c)). For projects other than major construction activities," the USFWS' correspondence continues, *"the Service suggests that a biological evaluation similar to the Biological Assessment be prepared to determine whether they may affect listed and proposed species."*

WETLANDS

According to a review of the US Fish and Wildlife Service's National Wetlands Inventory (NWI), the tributary to the Yamhill River which lines the northwest corner of airport property is a jurisdictional wetland classified as a Riverine, intermittently / seasonally flooded stream bed. Where it intersects with this tributary, the Yamhill River is classified as a Riverine, lower perennial stream with an unconsolidated bottom.

As a safe harbor approach, it is recommended that development generally maintain a minimum of thirty feet setback from this wetland, if practical. A culvert, crossing the tributary, has been discussed as a potential means of providing access between new hangars west of the existing structures and the existing taxiway / runway system. Mr. Ed Emrick at the Oregon Division of State Lands (DSL) is the person charged with Yamhill County fill and excavation permits. Development activities, which would impact a wetland resource must be preceded by any necessary permit(s) from DSL and/or US Army Corps of Engineers (ACOE). No other wetlands are mapped as occurring on the property.

FLOODPLAIN / SOILS

Information provided by the USDA's Natural Resources Conservation Service local office describes the soils on the site as very wet, and in some cases subject to severe limitations due to slope and erosion. Soils on the site range in Agricultural Capability Classifications from VIIe, indicating severe limitations due to erosion, to IIw, indicating a high productivity potential which is somewhat limited by wetness, were observed on the subject site. No conversion of farmland is contemplated under the preferred alternative, and no further analysis is required under the Farmland Protection Policy Act.

OTHER ENVIRONMENTAL ISSUES

Silt fences, runoff diversion tactics, and storm water detention are commonly implemented in similar construction projects, and should be utilized for any project on the airport in order to minimize adverse impacts of development related activities. FAA Advisory Circular 150/5370-

10 provides additional measures, which are recommended to minimize adverse impacts of airport construction activities. In addition, DEQ's 2000 publication "Best Management Practices for Storm Water Discharges Associated with Construction Activities" should be followed during all phases of the project. Please see the above related discussion regarding water quality impacts.

AIRPORT NOISE

Noise is sometimes defined as 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[34]. 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.,

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

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. It has been termed "Day-Night Average Sound Level" (DNL) and 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 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[35].

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

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[35] 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:

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

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, $Leq_d = Leq_n$.

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.

The noise contours depicted on the Airport Land Use Plan drawing in Chapter Five are plotted in 5 DNL increments starting at 55 DNL based on the 2022 forecast activity levels. The size and shape of the contours is consistent with the airport's business jet runway utilization on the primary runway and lower volumes of aircraft traffic on the secondary runway. The location of the airport, approximately two miles southeast of the main urban areas of McMinnville, combined with the alignment of the airport's two runways, results in the extended centerlines for all runway ends avoiding large concentrations of population. The populace areas within the City of Dayton are located along the extended centerline of Runway 22, nearly two miles northeast of the runway end, well beyond the end of the 2022 55 DNL contour.

The 2022 55 DNL noise contour extends approximately 9,200 feet beyond the end of Runway 22 over mostly agricultural lands located along Highway 18; and approximately 9,300 feet beyond the threshold for Runway 4 in sparsely developed areas along the Yamhill River. A portion of the 55DNL also extends over the north side of Highway 18 (Three Mile Lane) from Cirrus Avenue east, including the residential areas located north of Runway 17/35. The 55 DNL noise contour associated with Runway 17/35 is largely contained within airport property, except along the east side of the runway, where the contour extends 400 to 500 feet east of the airport boundary, east of the county road that connects to Cruickshank Road. Noise exposure at the north end of Runway 17/35 is largely overshadowed by Runway 4/22 activity, although a slight bump out in the 55, 60, 65 and 70 DNL contours is visible near the end of Runway 17. Portions of the 60 DNL contour also extend beyond airport property in largely unpopulated areas beyond the ends of Runway 4 and 22 and along the east side of Runway 17/35.

The 2022 65 DNL noise contours for both runways are contained almost entirely within airport property. Small areas of the 65 DNL contour extend beyond the airport boundary near the end of Runway 35 and approximately 1,000 to 1,500 feet east of the airport boundary, along the extended centerline of Runway 4 over sparsely populated agricultural or rural lands. A discontinuous 65 DNL contour, approximately 2,800 feet long, appears at the Runway 35

threshold that is not connected to the contour located along Runway 4/22 and the end of Runway 17. This area of noise exposure is attributed to takeoff and landing operations on Runway 17.

70 DNL noise contours for both runways are contained within airport property boundaries. As with the 65 DNL, a discontinuous 70 DNL contour, approximately 1,500 feet long, appears at the Runway 35 threshold.

The sparsely developed land uses in the vicinity of the airport suggest that noise compatibility will not be a significant issue during the planning period. However, since perceived noise impacts are not generally limited to areas with significant levels of noise, 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 development of incompatible land uses such as residential subdivisions.

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.

Part 150, Airport Noise Compatibility Planning, of the Federal Aviation Regulations, provides guidance for land-use compatibility around airports. **Table 7-1** presents these guidelines. Compatibility or non-compatibility of land use is determined by comparing the noise contours with existing and potential land uses. All types of land uses are compatible in areas below 65 DNL. Generally, residential and some public uses are not compatible within the 65-70 DNL, and above. As noted in **Table 7-1**, 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.

TABLE 7-1
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	Over 85
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
Governmental 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	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
Amusements, 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; measures to achieve NLR or 25, 30, or 35 dB must be incorporated into design and construction of the structure.

NOTES:

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 Planning, dated January 18, 1985.

TABLE 7-2
MCMINNVILLE MUNICIPAL AIRPORT
ENVIRONMENTAL CHECKLIST

Potential Impact Category	Existing Conditions / Comments	Further Analysis Advised by Agency -OR- Some Impact Likely?
Noise	No existing incompatible land uses located with 2022 forecast 65DNL noise contour. Adequate local land use protections are required to prevent development of incompatible land uses within areas of noise exposure.	NO
Compatible Land Use	Local governments must adopt and Map Airport Overlay Zoning, planned improvements, ensure consistency of zoning provisions with State law. Future uses in the vicinity must have the burden of demonstrating compatibility with aviation and compliance with ORS Ch. 836.600-630.	YES
Socioeconomic and Induced Impacts	Expected to be positive, as is typical with airport projects. Airside safety improvements and landside development will help accommodate future business, commuter use.	YES
Air Quality	No record of current air quality issues in area.	NO
Water Quality	DEQ requires surface storm water runoff be contained, treated, prior to discharge to any natural drainage system, water body. NPDES Permit must be updated; maintaining maximum physical separation between construction and sensitive waterways, adherence to FAA Advisory Circular 150/5370-10 required. Divulge to DEQ any chemicals stored on site. Yamhill River's and its tributary's water quality is of concern.	YES
Special Land Uses, DOT Act Section 4(f)	No parks, recreation areas, or refuge areas per this section affected.	NO

TABLE 7-2
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Potential Impact Category	Existing Conditions / Comments	Further Analysis Advised by Agency -OR- Some Impact Likely?
Historic, Architectural, Archaeological, and Cultural Resources	Records no longer provided by SHPO. Cultural resources possible on-site. Please see above discussion. Halt construction if resources discovered, notify confederated tribes, SHPO of all development plans.	POSSIBLE
Biotic Communities	Significant populations of flora and fauna in project vicinity are of concern and/or afforded protection by State and Federal authorities including USFWS; ORNHP; NMFS; ODFW. Guard against water quality impacts as they relate to the tributary to Yamhill River. See Construction Impacts, Water Quality sections of Environmental Checklist narrative.	YES
Endangered and Threatened Species	Several Threatened, Endangered, Candidate and Species of Concern were identified as occurring in vicinity. A Biological Evaluation or Assessment is recommended by USFWS prior to major construction or similar undertakings. Please see narrative.	YES
Wetlands	According to National Wetlands Inventory Maps produced by the USFWS, Yamhill River and its local tributary are jurisdictional wetlands. No other wetland resources on-site per NWI, though wetlands determination / delineation may reveal additional.	YES
Floodplains and Floodways	Although some located on-site, no flood plain is affected by the project	NO
Shoreline Management	Not applicable to this facility.	NO
Coastal Resources	Not applicable to this facility.	NO

TABLE 7-2
McMINNVILLE MUNICIPAL AIRPORT
ENVIRONMENTAL CHECKLIST

Potential Impact Category	Existing Conditions / Comments	Further Analysis Advised by Agency -OR- Some Impact Likely?
Wild and Scenic Rivers	Not applicable to this facility.	NO
Farmlands	No conversion of farmland contemplated.	NO
Natural Resources and Energy Supply	No adverse impacts anticipated.	NO
Light Emissions and Visual Impacts	No hazards reported by local planners or operators, upon inquiry. No further analysis of existing light emissions performed.	NO
Hazardous Materials and Solid Waste	Development under the Preferred Alternative would not considerably increase production of waste at the facility, except during construction phase.	NO
Construction Impacts	Temporary impacts will accrue during construction phase. Of particular concern is any runoff which might make its way to Yamhill River and/or its local tributary. Adherence to the provisions of FAA Advisory Circular 150/5370-10 and the other best practices guides referenced herein should preclude foreseeable adverse impacts.	YES