1. INVENTORY

1.1. Introduction

The airport master planning process for Auburn-Lewiston Municipal Airport (LEW or the Airport) includes collecting baseline information relating to the Airport's property, facilities, services, tenants, access, and utilities. This information is vital in determining any changes or facility improvements necessitated by the existing or anticipated future aeronautical demand. The information presented in this chapter was obtained through a variety of sources including airport site visits, interviews with Airport management and staff, and review of other public documents having a bearing on the development considerations at LEW.

This chapter is organized into the following sections:

- Airport Background
- Recent Airport Development
- Meteorological Conditions and Climate
- Existing Airport Facilities
- Aviation Businesses and Groups
- Land Use and Zoning
- Airport Reuse and Recycling Plan

1.2. Airport Background

1.2.1. Airport Location and Details

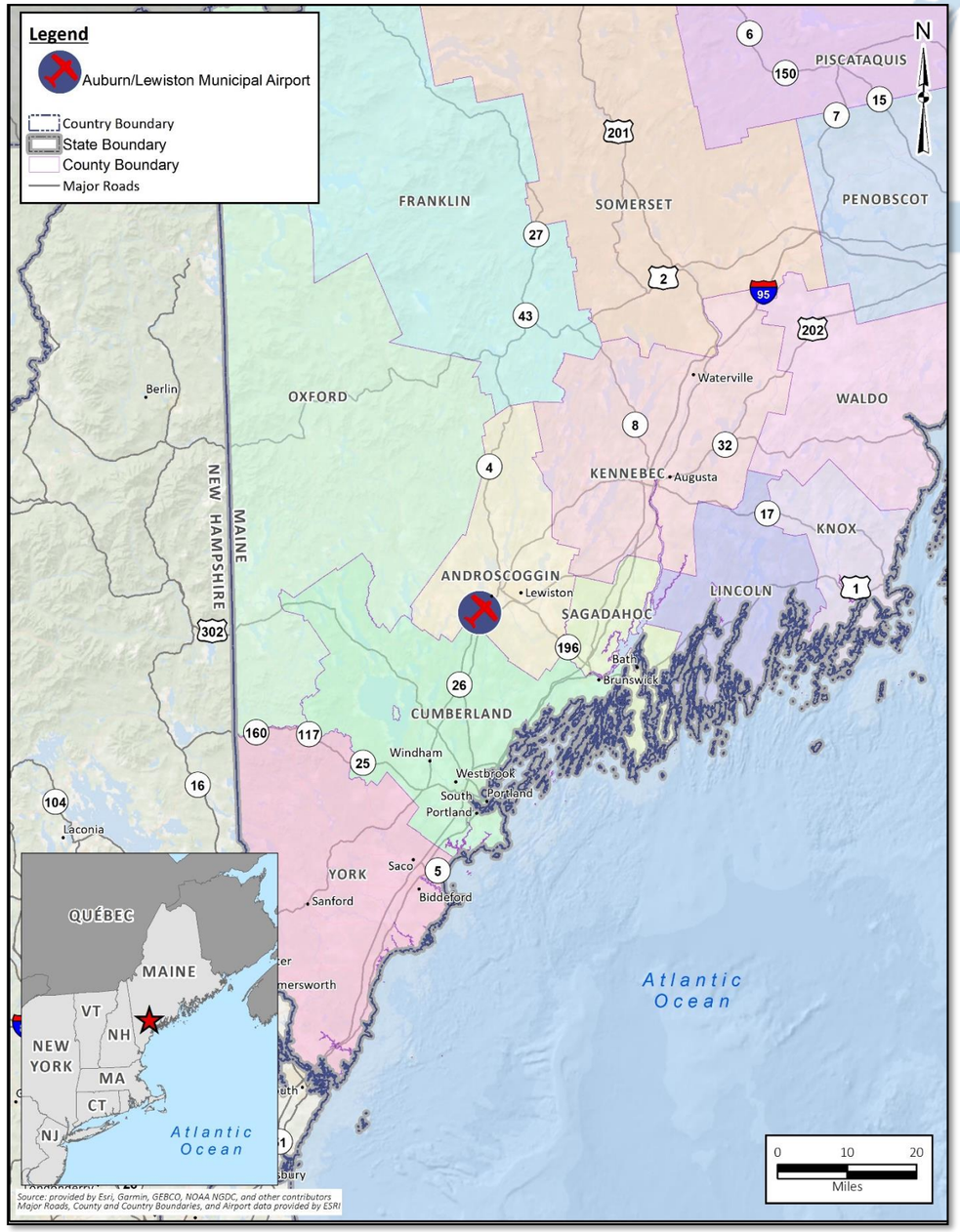
The Airport is located five miles southwest of the central business district of the City of Auburn. Both the Cities of Auburn and Lewiston co-own and operate the Airport. **Table 1-1** identifies basic characteristics of the Airport. The Federal Aviation Administration (FAA) airport reference point (ARP) coordinates identify the geometric center of the Airport at 44° 2' 54.502" north latitude and 70° 17' 0.627" west longitude. **Figure 1-1** displays the Airport setting within the region.

Table 1-1: 2023 Airport Characteristics

Element	Airport Information
Owners	Cities of Auburn & Lewiston
Acreage	565
FAA NPIAS Classification	GA Reliever

Sources: FAA Form 5010 (Dec. 2023), FAA National Plan of Integrated Airport Systems (NPIAS) 2023-2027, and Airport Management.

Figure 1-1: LEW Location Map



Source: McFarland Johnson, 2023.

1.2.2. Airport History

Auburn-Lewiston Municipal Airport opened in 1935. During World War II the Airport was under control of the United States Navy for anti-submarine patrols. In late 1945, the Airport was decommissioned as a naval air station and returned as surplus back to the Cities of Auburn and Lewiston. Starting in the 1950's, the Airport was serviced by Northeast Airlines and Air New England for nearly two decades, with Northeast Airlines merging with Delta Airlines in 1972, and Air New England ceasing operations in 1981. In 1985, Bar Harbor Airlines Flight 1808 crashed short of the runway. In total, there were 11 fatalities, most notably Samantha Smith who was a goodwill ambassador to the Soviet Union. Starting in 2007, a restoration project for a Lockheed "Super" Constellation got underway which resulted in Building 5 being built for the project. However, the project was cancelled in 2018. Taxiway A was constructed in the late 2000s as a full-length parallel taxiway for Runway 4-22. Both Runways 4-22 and 17-35 were rehabilitated and grooved between 2020-2021. This project also included the Taxiway B extension to the approach end of Runway 35 and the Taxiway J connection of the east ramp and Runway 35. The Airport is not serviced by any commercial air carrier, but most recently, Elite Airways operated at the Airport with maintenance repair operations (MRO) from 2019-2022. Twin Cities Air Service, the last remaining privately owned FBO at the Airport, closed in 2012. The Airport serves general aviation (GA) traffic. In November 2022, nearby Twitchell Airport closed after 76 years but the seaplane base remained open for the 2023 summer season as Dirigo Aerospace Solutions moved to Auburn-Lewiston and continues to provide seaplane base services (fueling and maintenance). In 2024, Chickadee Aviation began operating as a flight school at the Airport, and Sunbird Aviation began operations as an MRO, both operations are in Building 9.

1.2.3. Roadway Access

Interstate 95 from both the north and south provide access to the Airport via exit 75. From there, the Airport can be accessed via Route 202 to Kittyhawk Avenue to Lewiston Junction Road. Lewiston Junction Road is used as a point of entry from the west and east. Flight Line Drive and Airport Road are owned by the Airport, and not maintained by the city. Both Airport Road and Flight Line Drive need reconstruction and the Airport does not have funding or receive any funding for this project need.

1.2.4. Public Transit Access

As of 2023, the Cities of Auburn and Lewiston do not offer public transit to the Airport. Western Maine Transportation Services provides demand response bus service to access the airport/airport at request. Most demand response services offer "door-to-door" service at one to two-day notice.

1.2.5. Airport Service Area

The service area of a GA airport is often influenced by several factors. These include the number and type of airports in the region, the facilities and services at the airport, the aeronautical demands from the regional community, and aircraft owners and pilots in the vicinity. The service area represents the realistic distance an airport user could be expected to travel to access and utilize airport facilities.

Twitchell SPB has a partnership with the Airport for fueling, while Augusta SPB does not have fuel services located at their facility.

The airport service area selected for Auburn-Lewiston Municipal Airport assesses areas within 30-minute and 60-minute drive times of the Airport. Oxford County Regional Airport (81B) is the only airport within the 30-minute drive of LEW. Portland (PWM) is the only commercial airport and is within the 60-minute drive time. Three GA airports are within the 60-minute drive time: Brunswick Executive (BXM), Augusta State Airport (AUG), and Wiscasset Airport (IWI). As shown in **Table 1-2**, BXM has the longest runway of airports within the 60-minute drive time. Augusta Seaplane Base (M00) is also within the LEW airport service area, which is shown in **Figure 1-2**.

Table 1-2: LEW and Surrounding Paved Runway Airports

Airport	Runway(s)	Runway Length & Width	Based Aircraft	Instrument Approaches	Associated City	Distance from LEW (Statute Miles (SM))
KLEW	4-22 17-35	5,001' x 100' 2,750' x 75'	59*	ILS or LOC/DME, RNAV	Auburn, ME	0
81B	15-33	2,997' x 75'	22	RNAV	Oxford, ME	11 nm NW
KBXM	01L-19R 01R-19L	8,000' x 200' 8,000' x 200'	50	ILS, LOC, RNAV	Brunswick, ME	18 nm SE
KPWM	11-29 18-36	7,200' x 150' 6,100' x 150'	35	ILS, RNAV	Portland, ME	24 nm S
KIWI	07-25	3,397' x 75'	31	RNAV	Wiscasset, ME	25 nm E
KAUG	17-35 08-26	5,002' x 100' 2,613' x 75'	47	ILS, RNAV	Augusta, ME	27 nm E

Source: FAA Airport Data and Information Portal (ADIP), 2023 and (*) Airport update, 2024.

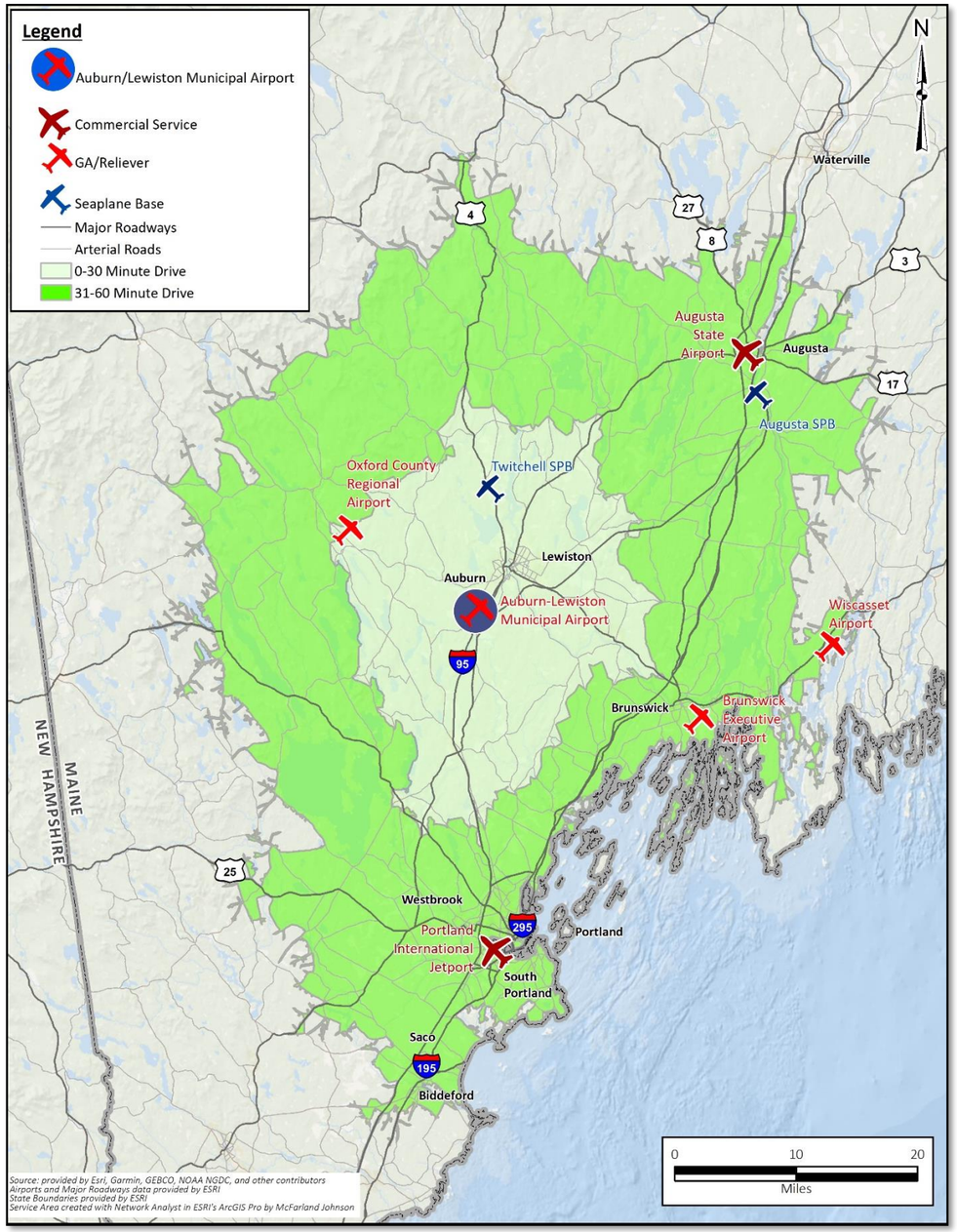
1.2.6. Airport Classification and Level of Service

The National Plan of Integrated Airport System (NPIAS) identifies nearly 3,000 public-use airports that are included in the national airport system. This includes the roles they serve, the amounts and types of airport development eligible for federal funding under the airport improvement program (AIP) over the next five years. The FAA identifies LEW as a Regional reliever airport, which include metropolitan statistical areas with an urban core population of at least 50,000 or micropolitan statistical areas with a core urban core population between 10,000 and 50,000. The Maine Aviation Systems Plan Update classifies the Airport as a GA regional airport.

1.2.7. Socioeconomic Data

To better understand the true service area of the Airport, as well as local and regional trends, data regarding the socioeconomic atmosphere of the communities surrounding the Airport was collected. Population, income, and unemployment were analyzed within the Cities of Auburn and

Figure 1-2: LEW Airport Service Area



Source: McFarland Johnson, 2023.

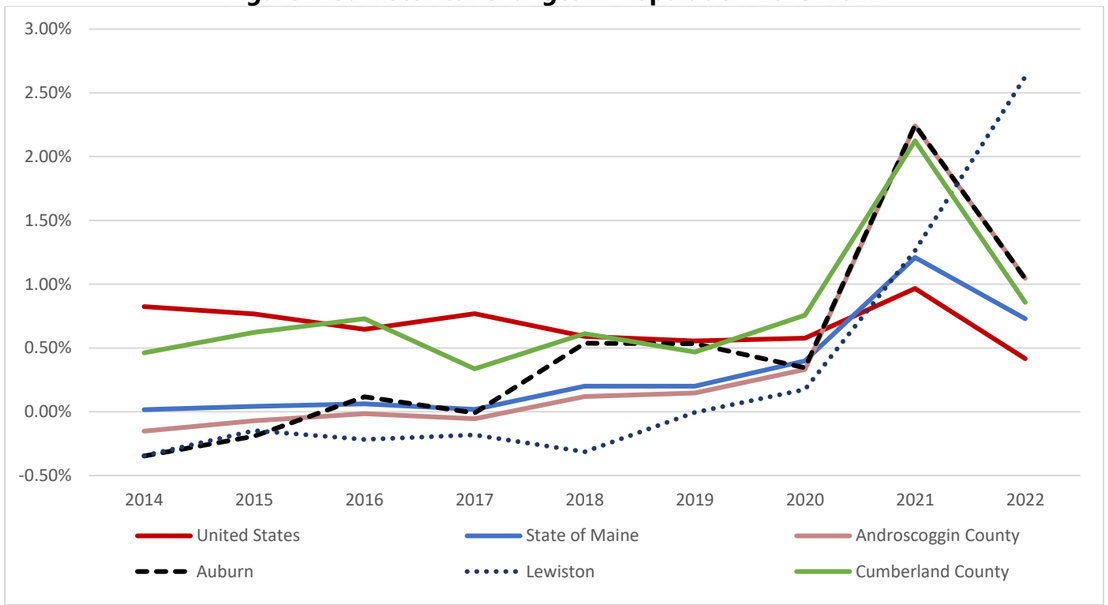
Lewiston, as well as with the County, State, and national context. Cumberland County, which includes the City of Portland, was included in the socioeconomic data due to constraints for GA at PWM and since those suburbs have shown to be a key area of growth for the Airport.

1.2.7.1.Population

According to the *United States Census Bureau Update* 2013 to 2022 showed a 0.4 percent compound annual growth rate (CAGR) in population for Androscoggin County while the State of Maine, during the same period, showed a 0.3 percent growth. Details are shown in **Figure 1-3**.

The Cities of Auburn and Lewiston have both had higher than average population growth from 2020 to 2022 than the nation and State of Maine.

Figure 1-3: Historical Changes in Population 2013-2022

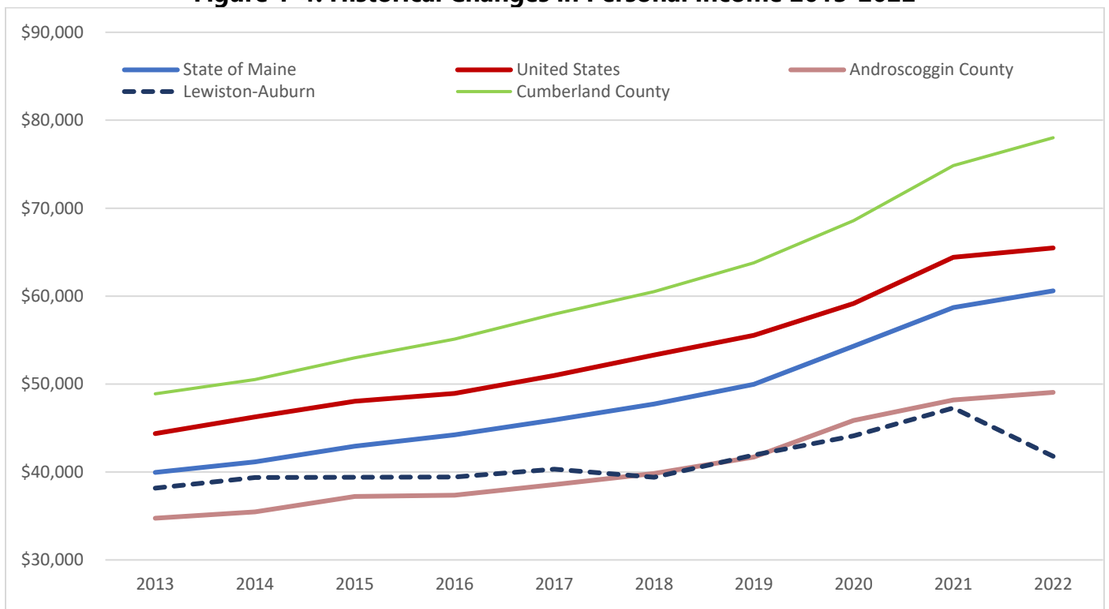


Source: United States Census Bureau, Federal Reserve Economic Data, 2023.

1.2.7.2.Income

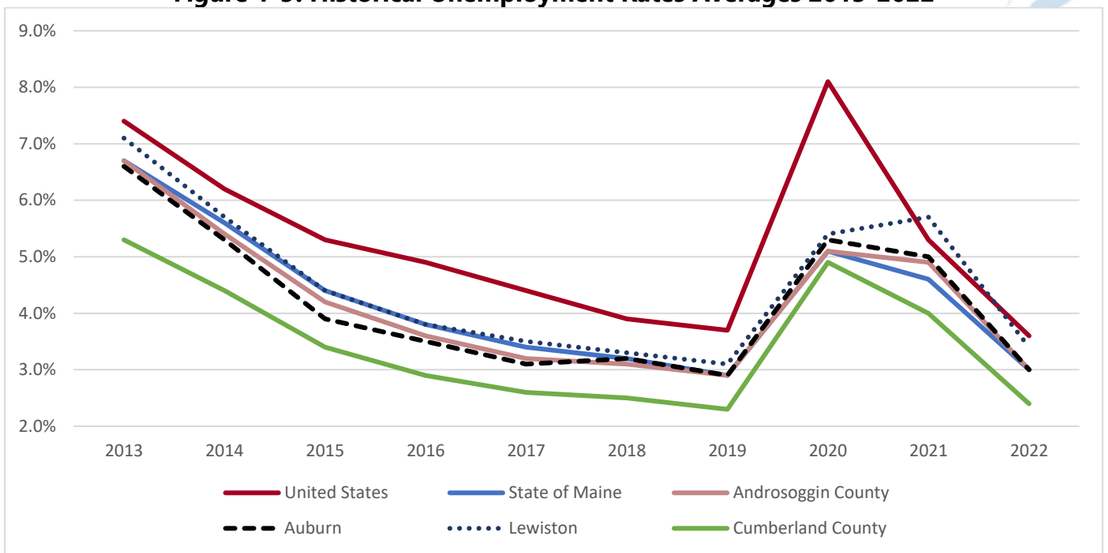
Regarding year-over-year increases in personal income, the Cities of Auburn and Lewiston were below the mean of Maine, Androscoggin County, Cumberland County, and the United States. It is possible in 2018 and 2022 that this data for Auburn-Lewiston may be anomalies and not part of the norm. This data can be seen in **Figure 1-4**.

Figure 1-4: Historical Changes in Personal Income 2013-2022



Source: Federal Reserve Economic Data, 2023.

Figure 1-5: Historical Unemployment Rates Averages 2013-2022



Sources: Maine.Gov, Labor Force Statistics accessed November 20th, 2023.

1.2.7.3.Unemployment

Historically, both Auburn and Lewiston follow the same trajectory with unemployment numbers being below the United States average from 2013 to 2020. The spike in high unemployment numbers in 2020 was due to the COVID-19 pandemic, but the spike did not reach the levels of the United States during this period. The City of Lewiston unemployment rate did exceed the United States average in 2021, which may also explain part of the decline in Lewiston-Auburn personal income dip in 2022. Unemployment averages can be seen in **Figure 1-5**.

1.3. Recent Airport Development

Total AIP entitlement and discretionary funding from 2005 to 2021 totaled over $18.2 million. As a GA airport, LEW receives $150,000 in entitlement funds each year, which can be carried over and banked for a maximum of three years to use on future projects. Recent AIP funded projects are shown in **Table 1-3**. This list does not include projects that did not receive federal funding, such as hangar constructions, terminal improvements, barracks, and other projects.

Table 1-3: LEW AIP Funded Projects

Fiscal Year	Project	AIP Federal Funds
2005	Update Airport Master Plan Study	$216,030
2006	Conduct Environmental Study	$155,610
2007	Acquire Snow Removal Equipment	$360,842
2007	Construct Taxiway	$5,370,248
2008	Update Airport Master Plan Study	$106,634
2009	Conduct Environmental Study	$67,372
2010	Acquire Land for Development	$396,094
2011	Conduct Environmental Study	$198,335
2012	Acquire Snow Removal Equipment	$190,053
2016	Expand Apron	$376,345
2016	Rehabilitate Apron	$341,325
2017	Rehabilitate Taxiway	$734,655
2018	Reconstruct Runway	$130,528
2018	Rehabilitate Runway	$301,287
2019	Reconstruct Runway	$3,212,756
2019	Rehabilitate Runway	$4,506,416

Fiscal Year	Project	AIP Federal Funds
2020	Acquire Land for Approaches	$132,098
2021	Reconstruct Taxilane	$985,140
2021	Shift or Reconfigure Existing Taxiway	$507,497

Source: FAA, 2023.

1.4. Meteorological Conditions and Climate

1.4.1. Climate

Weather plays an important role in adequate planning for an airport. Temperature and wind are essential factors in determining runway length and orientation. The need for navigational aids and lighting is determined by the percentage of time that visibility is impaired due to cloud cover or other conditions. The hottest month of the year in Auburn is July, with an average high of 85 degrees Fahrenheit[1]. The month with the most rain in Auburn is October, with an average rainfall of 4.2 inches. The month with the most snow in Auburn is January, with an average snowfall of 16.5 inches.[2]

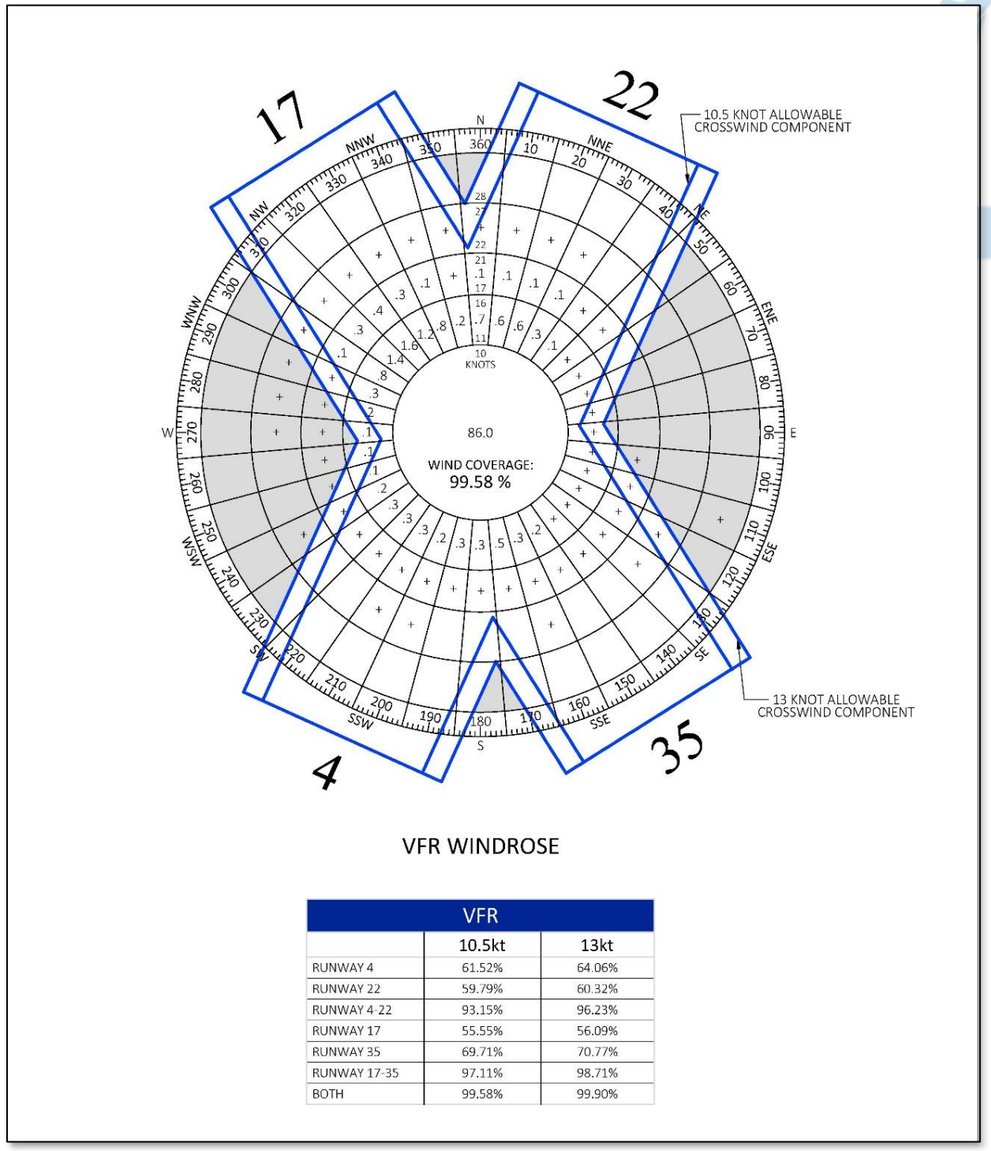
1.4.2. Ceiling and Visibility

FAA advisory circular (AC) 150/5060-5, *Airport Capacity and Delay*, identifies three categories of ceiling and visibility minimums. These categories include VFR, IFR, and PVC. Meteorological data were obtained through the NCDC consisting of 10 years of hourly observations and meteorological conditions reported by the AWOS on the airfield. This data was analyzed to explore ceiling, visibility, and wind conditions at the Airport. Over the last 10 years, the Airport was in VFR conditions approximately 78.7 percent of the time, in IFR conditions approximately 20.7 percent of the time, and closed approximately 0.6 percent of the time. VFR and IFR are defined in **Appendix A**.

1.4.3. Wind Coverage

The orientation of runways for takeoff and landing operations is primarily a function of wind velocity and direction taken together with the ability of aircraft to operate under adverse conditions. Generally, the primary runway at an airport is aligned as closely as possible with the direction of the prevailing winds. The crosswind component is the vector of wind velocity and direction, which acts at an angle to the runway. Runway wind coverage refers to the percentage of time in which operations can safely occur given crosswind components. The FAA has established that all the runways combined should provide acceptable crosswind conditions 95 percent of the time, based on different allowable crosswind components that are derived from the RDC for each runway. The previous ALP identified Runway 4-22 RDC of B-II-2400 and Runway 17-35 RDC of B-I-Small-5000. The forecast chapter will identify the existing and future RDC for LEW. Wind coverages are shown in **Figure 1-6, Figure 1-7**, and **Figure 1-8**.

Figure 1-6: LEW VFR Wind Rose



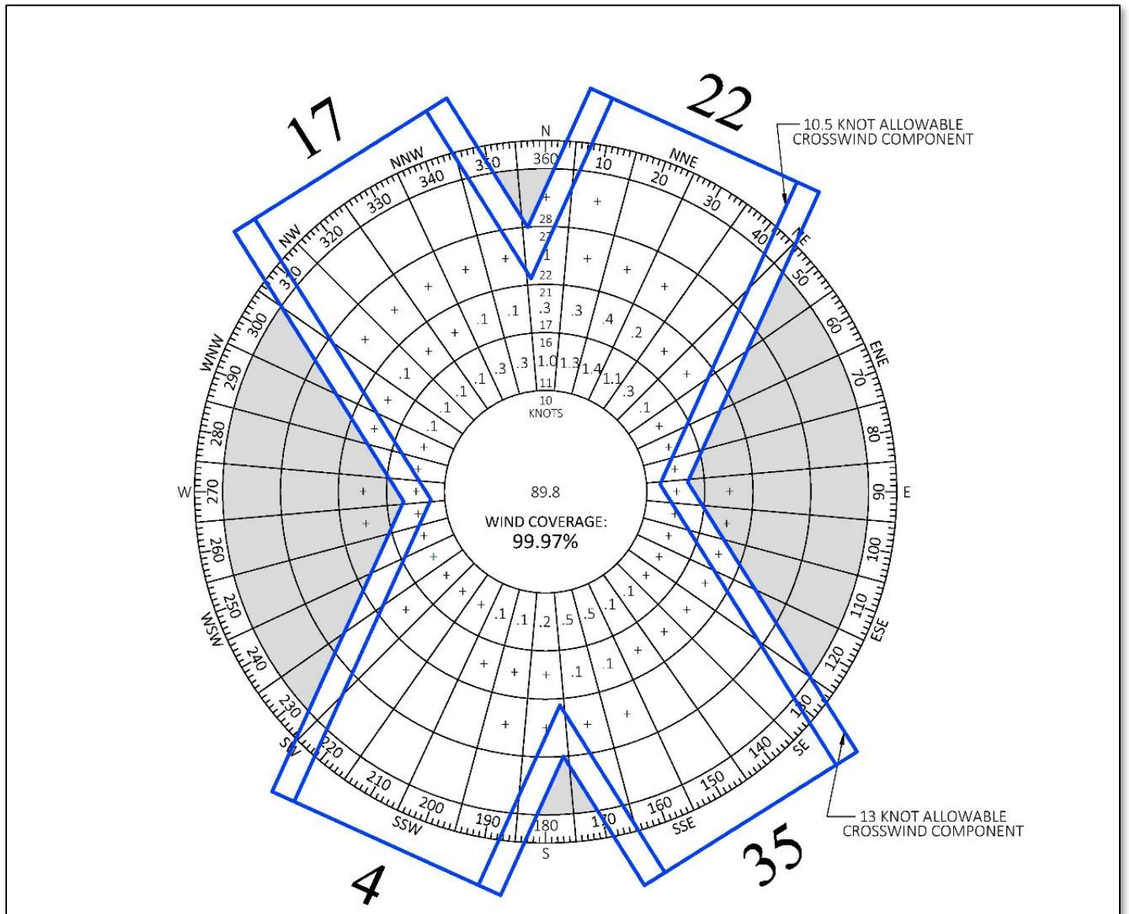
VFR		
	10.5kt	13kt
RUNWAY 4	61.52%	64.06%
RUNWAY 22	59.79%	60.32%
RUNWAY 4-22	93.15%	96.23%
RUNWAY 17	55.55%	56.09%
RUNWAY 35	69.71%	70.77%
RUNWAY 17-35	97.11%	98.71%
BOTH	99.58%	99.90%

Source: Auburn-Lewiston Municipal Airport 2013-2022 (Station: 726184).

[1] FAA Future Climate Scenarios for Runway Length: Assessment of Future Temperature and Precipitation Trends Accessed November 15, 2023.

[2] Auburn Climate, Weather By Month, Average Temperature (Maine, United States) - Weather Spark Accessed November 15, 2023.

Figure 1-7: IFR Windrose

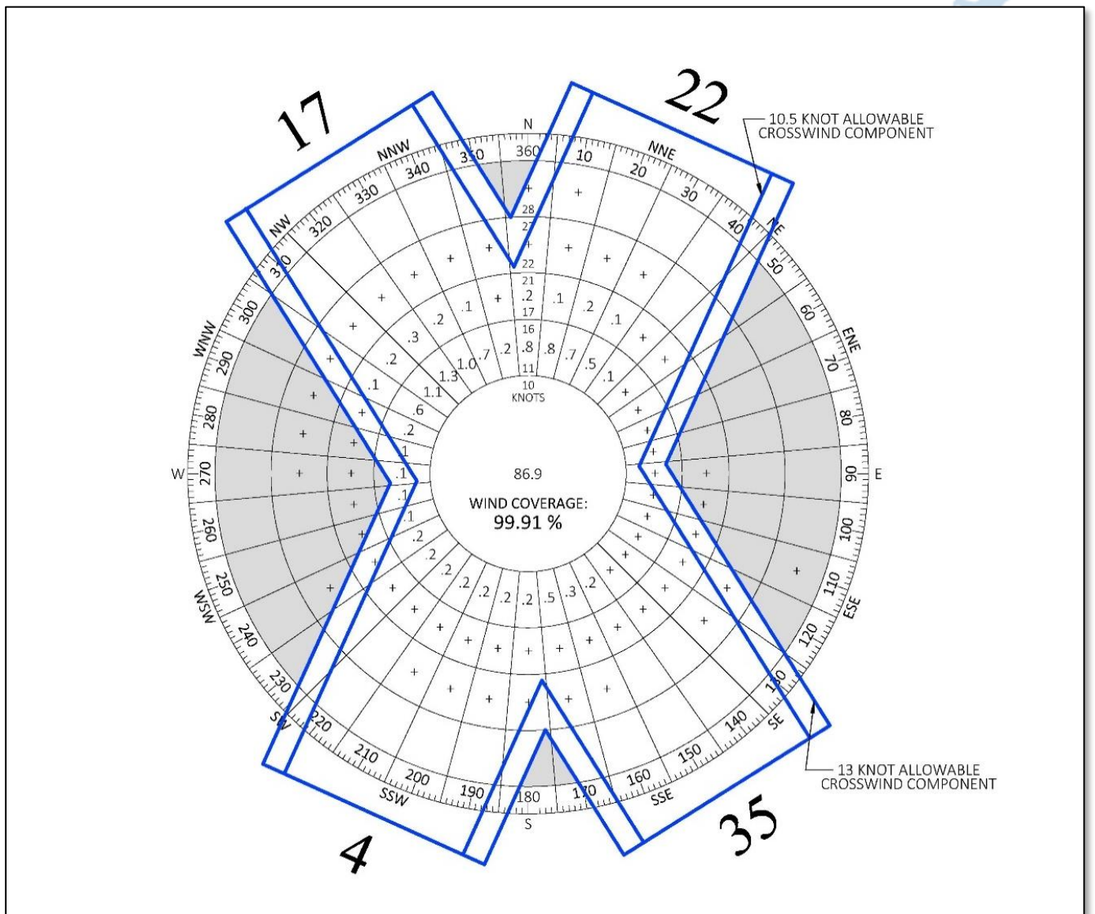


IFR WINDROSE

IFR		
	10.5kt	13kt
RUNWAY 4	70.89%	7.32%
RUNWAY 22	59.03%	59.42%
RUNWAY 4-22	98.44%	99.26%
RUNWAY 17	63.13%	63.30%
RUNWAY 35	64.57%	66.52%
RUNWAY 17-35	96.23%	98.35%
BOTH	99.85%	99.97%

Source: Auburn-Lewiston Municipal Airport 2013-2022 (Station: 726184).

Figure 1-8: LEW All-Weather Wind Rose



ALL WEATHER WINDROSE

ALL CEILING AND VISIBILITIES

ALL WEATHER		
	10.5kt	13kt
RUNWAY 4	63.35%	65.45%
RUNWAY 22	59.88%	60.38%
RUNWAY 4-22	94.27%	96.87%
RUNWAY 17	57.31%	57.77%
RUNWAY 35	68.24%	69.84%
RUNWAY 17-35	96.44%	98.65%
BOTH	99.63%	99.91%

Source: Auburn-Lewiston Municipal Airport 2013-2022 (Station: 726184).

1.5. Existing Airport Facilities

This section is divided into the following subsections:

- Airside facilities
- Airspace
- Instrument approach procedures
- Landside facilities and services
- Airport support facilities

1.5.1. Airside Facilities

The airside facilities include runways, taxiways, and visual and navigational aids. Existing airside facilities are shown in **Figure 1-9**.

1.5.1.1.Runways

LEW has two runways which consist of primary, Runway 4-22, and a crosswind, Runway 17-35. Runway data for the Airport can be found in **Table 1-4**.

Table 1-4: LEW Runway Data

Runway	4-22	17-35
Surface	Asphalt-Grooved	Asphalt
Dimensions	5,001' x 100'	2,750' x 75'
Pavement Condition	Excellent	Excellent
Markings	Precision / Non-Precision	Basic
Lighting	HIRL	MIRL
End Elevation (MSL)	270.4' / 263.1'	255.5' / 287.5'
Approach Minimums	½ SM / 1 SM	Visual
Visual Approach Aids	4-PAPI / 4-PAPI	None
Instrument Approach Aids	ILS, MALSR, DME / None	None
CFR Part 77 Category	PIR / NPI	Visual

Sources: FAA Airport Data and Information Portal (ADIP), effective December 28th, 2023, and McFarland Johnson analysis, 2023.

1.5.1.2.Taxiways

There are seven taxiways present on the airfield. Taxiways A, B, C, D, E, H, and J. Taxiway details can be found in the subsections below.

Taxiway A

Taxiway A is a full-length parallel taxiway measuring 35 feet wide. Taxiway A is separated 400 feet from the Runway 4-22 centerline. A run-up/bypass area is located at the end near Runway 4.

Taxiway B

Taxiway B is an entrance taxiway measuring 35 wide to Runway 4-22 and a partial parallel taxiway to Runway 17-35 at the middle third of Runway 4-22 (high energy crossing). Taxiway B has an unexpected hold line parallel to Runway 17-35.

Taxiway C

Taxiway C connects Taxiway A and Runway 4-22 and is used as an entrance taxiway for Runway 4-22. It measures roughly 300 feet long and 35 feet wide.

Taxiway D

Taxiway D is a crossover taxiway between the west itinerant apron and Taxiway A and is 45 feet wide.

Taxiway E

Taxiway E is a crossover taxiway between the west itinerant apron and Taxiway A and is 35 feet wide.

Taxiway H

Taxiway H is a crossover taxiway between the west apron and Taxiway A and is 35 feet wide.

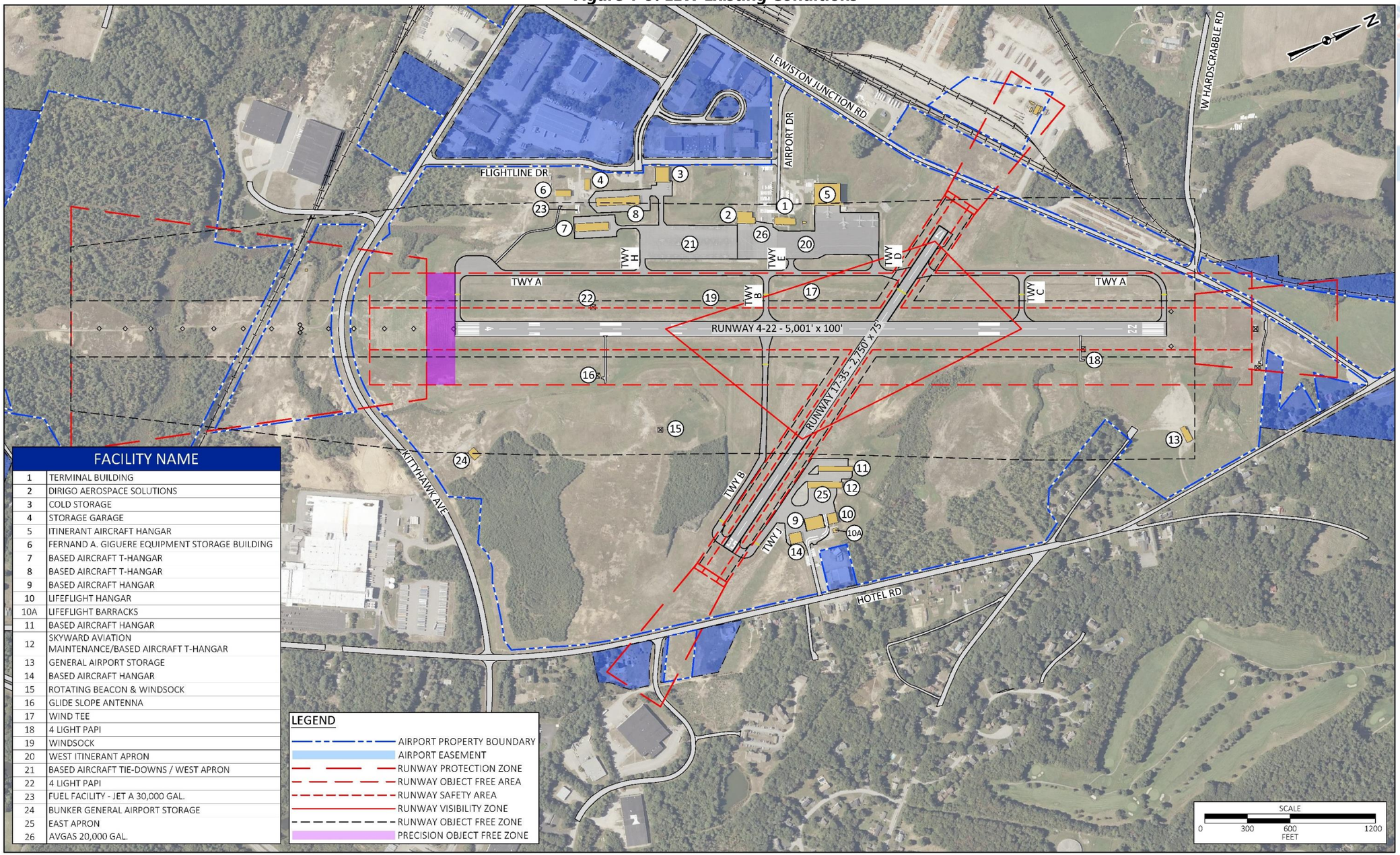
Taxiway J

Taxiway J connects the east apron to Runway 17-35 and measures 50 feet wide. Taxiway J is used as an entrance taxiway for Runway 17-35. Taxiway J has an unexpected hold line next to Runway 17-35 which can increase the risk of pilots taxiing through the hold line and causing a runway incursion. Additionally, aircraft taxiing from the east apron via Taxiway J for a Runway 22 departure requires three runway crossings.

1.5.1.3.Aircraft Hangars

There are ten airport hangars located at the Airport which are described in **Table 1-5**, and whose location on the Airport are shown in **Figure 1-9**.

Figure 1-9: LEW Existing Conditions



FACILITY NAME	
1	TERMINAL BUILDING
2	DIRIGO AEROSPACE SOLUTIONS
3	COLD STORAGE
4	STORAGE GARAGE
5	ITINERANT AIRCRAFT HANGAR
6	FERNAND A. GIGUERE EQUIPMENT STORAGE BUILDING
7	BASED AIRCRAFT T-HANGAR
8	BASED AIRCRAFT T-HANGAR
9	BASED AIRCRAFT HANGAR
10	LIFEFLIGHT HANGAR
10A	LIFEFLIGHT BARRACKS
11	BASED AIRCRAFT HANGAR
12	SKYWARD AVIATION MAINTENANCE/BASED AIRCRAFT T-HANGAR
13	GENERAL AIRPORT STORAGE
14	BASED AIRCRAFT HANGAR
15	ROTATING BEACON & WINDSOCK
16	GLIDE SLOPE ANTENNA
17	WIND TEE
18	4 LIGHT PAPI
19	WINDSOCK
20	WEST ITINERANT APRON
21	BASED AIRCRAFT TIE-DOWNS / WEST APRON
22	4 LIGHT PAPI
23	FUEL FACILITY - JET A 30,000 GAL.
24	BUNKER GENERAL AIRPORT STORAGE
25	EAST APRON
26	AVGAS 20,000 GAL.

LEGEND
- AIRPORT PROPERTY BOUNDARY
- AIRPORT EASEMENT
- RUNWAY PROTECTION ZONE
- RUNWAY OBJECT FREE AREA
- RUNWAY SAFETY AREA
- RUNWAY VISIBILITY ZONE
- RUNWAY OBJECT FREE ZONE
- PRECISION OBJECT FREE ZONE

Source: 2019 Airport Layout Plan, 2021 Exhibit A, and McFarland Johnson, 2024.

Table 1-5: Hangar Areas

Hangar	Aircraft Storage	Office Space	Maintenance	Total SF*
Building 2	3,989	873	3,989	8,850 SF
Building 3	9,448	-	-	9,448 SF
Building 5	26,472	-	1,393	27,865 SF
Building 7	12,357	-	-	12,357 SF
Building 8	16,966	-	-	16,966 SF
Building 9	8,796	1,540	-	10,336 SF
Building 10	4,356	-	-	4,356 SF
Building 11	7,932	-	-	7,932 SF
Building 12	8,015	-	2,004	10,015 SF
Building 14	5,770			5,770 SF

Sources: Airport management and McFarland Johnson, 2025.

1.5.1.4. Aircraft Parking

There are two aircraft parking locations at the Airport. The based aircraft apron has 48 tie-downs and is approximately 164,000 SF. The west itinerant apron spans from Building 2 to the apron in front of Building 5, totaling approximately 269,000 SF. Additionally, there are tie-downs near Building 9.

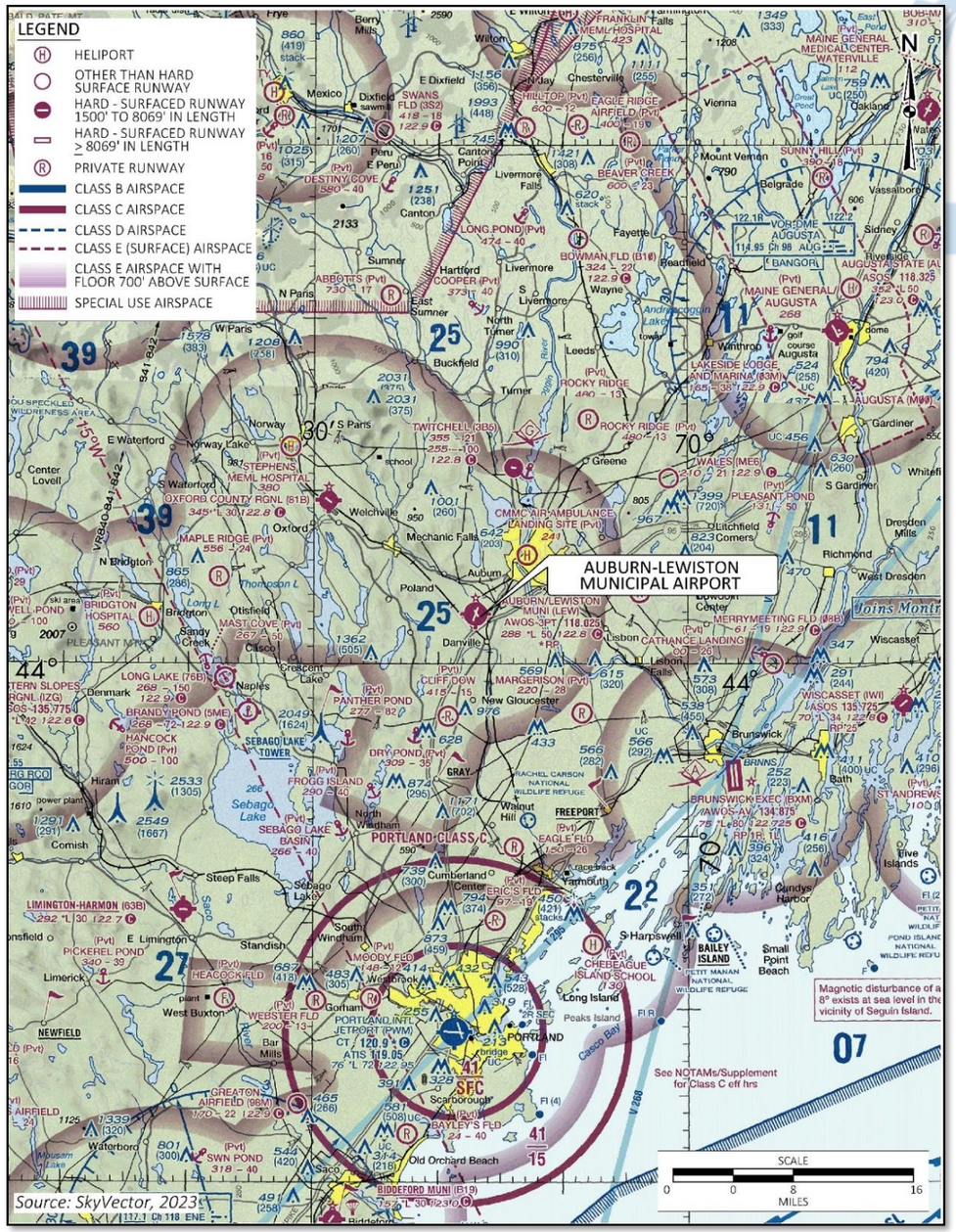
1.5.1.5. Visual Aids

Runway 4 is supported by a medium-intensity approach lighting system with runway alignment indicator lights (MALSR) which is part of the instrument landing system (ILS) approach for Runway 4. Other components of the ILS include the glideslope and the localizer which is present on the approach end of Runway 22. The only runway supported with runway end identifier lights (REILs) is Runway 22. Both ends of Runway 4-22 have 4-light PAPIs. Runway 17-35 does not have visual approach aids.

1.5.2. Airspace

LEW is an untowered airport. Airspace in the U.S. is classified as controlled, uncontrolled, or special use. A detailed explanation of different airspace classes can be found in **Appendix A** Section A.2. The airspace surrounding LEW is Class G airspace from the surface to 700 feet above the surface of the Airport, where Class E airspace starts. Class G airspace is uncontrolled. Class E airspace is controlled airspace up to 14,500 feet MSL. The closest Class C airport is PWM. The closest Class D airport is AUG. The closest class B airport is Boston Logan International Airport (BOS). Military operations area (MOA), referred to as Condor 1, is located north of LEW. According to the Massachusetts National Guard, Condor 1 is used for training operations. The surface starts at 7,000 feet MSL to 17,999 feet MSL. For activity status for this MOA, pilots are required to contact Bangor Radio on 122.60. To view airspace surrounding the Airport, refer to **Figure 1-10**.

Figure 1-10: LEW Airspace Map



Source: SkyVector, 2023.

1.5.3. Instrument Approach Procedures

A flight procedure is a set of predetermined maneuvers using electronic navigational or visual aids that assist pilots in locating and landing or departing from an airport, particularly in bad weather. LEW has three published instrument approach procedures. One of the approaches utilizes ground-based equipment of the ILS and two approaches are area navigation (RNAV) that utilize GPS. Both GPS approaches are localizer performance with vertical guidance (LPV) approaches.

Table 1-6 shows the instrument approach procedure minimums for the Airport.

Table 1-6: LEW Instrument Approach Procedures Minimums

Runway End	Type of Approach	Ceiling (Feet Above Ground)	Visibility (Statute Miles)
Runway 04	ILS or LOC/DME	200	½
Runway 04	RNAV (GPS)	200	½
Runway 22	RNAV (GPS)	300	1

Source: FAA Terminal Procedures, 2023.

1.5.4. Landside Facilities and Services

Landside facilities and services are associated with the terminal, hangars, aircraft parking, vehicle parking, fencing, and utilities. Buildings 1, 2, 3, 4, 5, 6, 9, 10, 10A, and 13 are owned by the Airport. Building 13, known as the Rondee House is located next to Hotel Road and is unheated and stores general airport storage and airplane in parts. General airport storage is also located by Kittyhawk Avenue shown as #24 in **Figure 1-9**.

Private leased buildings include Buildings 7 and 8 which are leased by BelAir and Auburn Hangar Condo Associations. Buildings 11, 12 and the newest hangar building, 14, are also privately leased.

1.5.4.1.Terminal Building

The terminal building can be seen in **Figure 1-11** and its location on the Airport, in **Figure 1-9**. The terminal building spans roughly 6,000 square feet (SF). The area includes a waiting area, conference room, a space for a former airport restaurant, pilots lounge, and airport management offices. The terminal was constructed in the 1970's and expanded in 2012 for airline operators and includes a baggage sorting area. The terminal building is staffed daily 7am to 5pm. The breakdown of terminal space is shown in **Table 1-7**.

Figure 1-11: Terminal Building

Source: McFarland Johnson, 2023.

Table 1-7: Terminal Building Areas

Facility	Square Footage
Airport Administration	2,401 SF
Concessions	1,016 SF
Public Areas	826 SF
Public Circulation	1,264 SF
Restrooms	484 SF
Total	**5,991 SF**

Source: McFarland Johnson, 2024.

1.5.4.2. Vehicle Parking

The main parking lot is in front of the main terminal, totaling approximately 44 parking spaces including four handicap spaces. A second parking lot is located behind both Buildings 1 and 2. The secondary lot closest to Flightline Drive, accommodates truck storage with availability of up to eight vehicles. The remaining portion of the parking lot is used for extended airport parking with manager permission and for airport business.

1.5.4.3. Fencing

The Airport has fencing to enclose airside activities, but not property wide. Airport Management has expressed concern regarding the portion of the fencing along Kittyhawk Avenue when the snow height rises. During times of large amounts of snow, deer can jump the fence and enter airport property.

1.5.4.4. Airport Utilities

The following utilities provide service for the Airport:

- Electric: Central Maine Power
- Gas: Unitil
- Water: Auburn Water/Sewer
- Fiberoptic and internet: First Light Fiber

There are no known issues with the utilities.

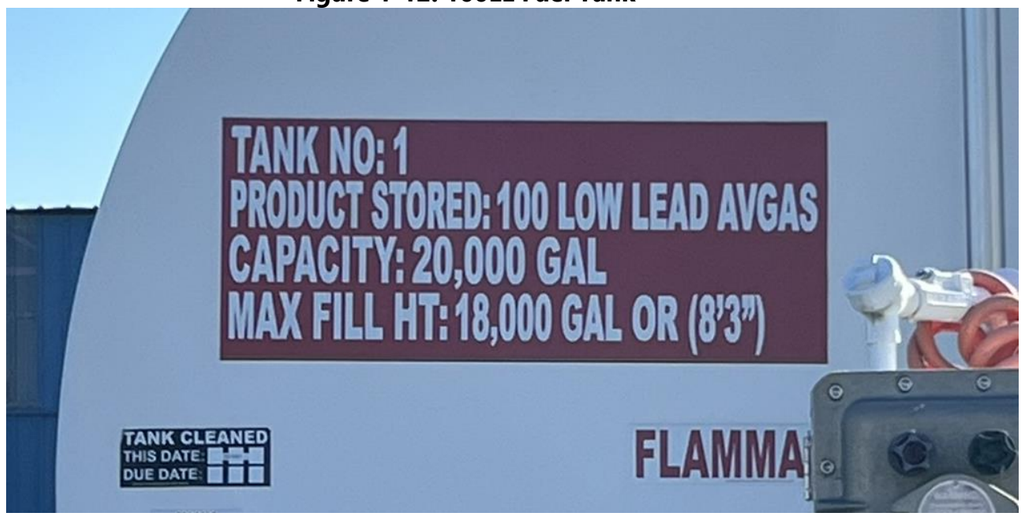
1.5.5. Airport Support Facilities

Airport support facilities include aviation fueling facilities, firefighting, and maintenance and snow removal equipment (SRE).

1.5.5.1. Aviation Fueling Facilities

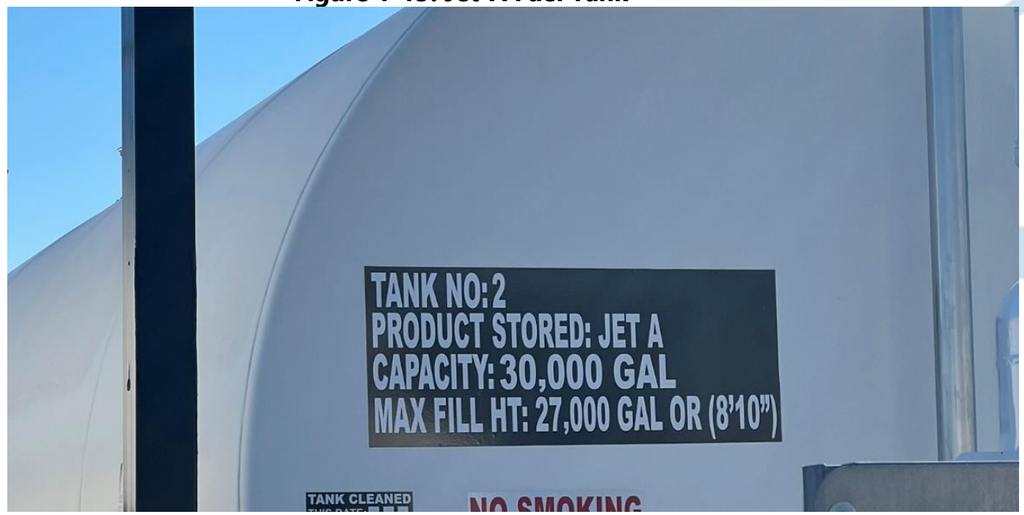
Located on the southwest portion of the Airport between Buildings 7 and 8 are two fuel tanks. The Avgas/100LL fuel tank holds 20,000 gallons and the Jet-A fuel tank holds 30,000 gallons. These tanks are shown in **Figure 1-12** and **Figure 1-13**. Both tanks were installed in 2021. Airport management has indicated the Avgas tank will be moved in 2024 to a new self-serve Avgas facility between Buildings 1 and 2. This is anticipated to be completed in the fall of 2024.

Figure 1-12: 100LL Fuel Tank



Source: McFarland Johnson, 2023.

Figure 1-13: Jet-A Fuel Tank



Source: McFarland Johnson, 2023.

1.5.5.2. Firefighting

The Airport has no firefighting equipment. The following fire departments provide emergency response for aircraft emergencies:

- Auburn Central Station, 550 Minot Avenue: First responding station (7-minute response time)
- City of Lewiston, 2 College Street: Second responding station (15-minute response time)
- Town of Poland, 33 Poland Corner Road: Assisting with mutual aid (9-minute response time)

1.5.5.3. Maintenance and Snow Removal Equipment (SRE)

SRE and maintenance equipment and their respective storage locations are shown in **Table 1-8**. The Roundy garage is connected to Building 13. Cold storage for seasonal airport equipment is located at the bunker next to Kittyhawk Avenue.

Table 1-8: SRE and Maintenance Equipment Inventory

Year/Model	Details	Location
	SRE	
2007 Silverado	Maintenance	Operations Lot
2008 Oshkosh	Snowblower	Building 6
2013 7500 International	Speed plow	Building 6
1998 Plow Truck	Plow Truck with Dump Body	Building 4
2022 624 John Deere	Front End Loader	Building 6
2022 John Deere	16' Box Plow	Building 6 (Outside)
	Maintenance Equipment	
2017 Bush Hog	Heavy Duty Mower	Building 6

Year/Model	Details	Location
2010 Ford Escape	Airport Operations/Maintenance	Terminal Ramp
2014 Zero Turn Mower	Maintenance	Roundy Garage Storage
2019 John Deere 6215R Tractor	Maintenance	Building 6
2020 John Deere 3039RHR3 Tractor	Maintenance	Building 6

Source: Airport management, 2024.

1.6. Aviation Businesses and Groups

The following on-airport businesses and groups are present at LEW:

- **Fixed Base Operator (FBO):** FBO functions such as fueling, tie-down, and parking services as well as services for various types of commercial operations are handled by Airport personnel. In 2023 a request for proposal (RFP) for an FBO was issued by the Airport.

- **T-Hangar Condo Associations:** There are two areas of t-hangars on the Airport, each of which is run by BelAir and Auburn Hangar Condo Associations. In total, these two associations cover Buildings 7 and 8 and approximately 22 based aircraft.

- **Medical and Emergency Response:** Life Flight of Maine operates a Sabaca A-109 and is based in Hangar 10. Crew facilities for rest areas are in Building 10a. Life Flight of Maine helicopters also use Hangar 9 for space if needed.

- **Cargo:** Wiggins Airways provides cargo to the Auburn-Lewiston area. As of February 2024, flights operate once in the morning and once in the evening from Manchester, New Hampshire and Hyannis, Massachusetts. Wiggins parks its aircraft in front of Hangar 3 and also has a lease for Hangar 5 on an as-needed basis.

- **Flight School:** Chickadee Aviation started operating in 2024 out of Hangar 9. Chickadee Aviation brought in a single-engine based aircraft and has plans to add two more single-engine and one a multi-engine aircraft anticipated to join the fleet in the short term. They also operate the Red Bird simulator under an operating rights agreement with the Airport.

- **Maintenance and Seaplane Operations:** Dirigo Aerospace Solutions provides itinerant hangar space as well as aircraft maintenance. Twice a year Dirigo helps seaplane operators remove or install floats. Additionally, Dirigo helps facilitate the seaplane operations at Twitchell Seaplane base, offering 100LL for arriving aircraft. This is accomplished by using a 100LL fuel truck at the seaplane base. Many float aircraft fly into the airport during the start and conclusion of seaplane operations. Dirigo Aerospace Solutions occupies Hangar 2.

  Skyward Aviation is in Building 11 on the east ramp and performs A&P maintenance for piston aircraft.

In 2023, Sunbird Aviation signed a lease with the Airport and started operating out of Hangar 9. A portion of Building 9 is subleased to Chickadee Aviation.

1.7. Land Use and Zoning

When considering improvement projects that meet airport development goals, it is important early in the planning process to identify potential impacts to existing land uses on Airport property and in the surrounding area. This determines how potential airport projects will affect future land use and development patterns. Identifying potential conflicts enables airport plans to incorporate measures into the future design and layout of airport developments that will avoid or minimize land use conflicts as well as improve on existing conflicts when practicable.

1.7.1. Land Use

The City of Auburn classifies land use into several categories. Most of the Airport and surrounding the Airport are used for commercial and industrial purposes, which is compatible with an Airport. However, there are some areas of residential and commercial activities on airport property that are not compatible with airport uses and should be considered for land use changes. **Figure 1-14** details land uses surrounding the Airport.

1.7.2. Zoning

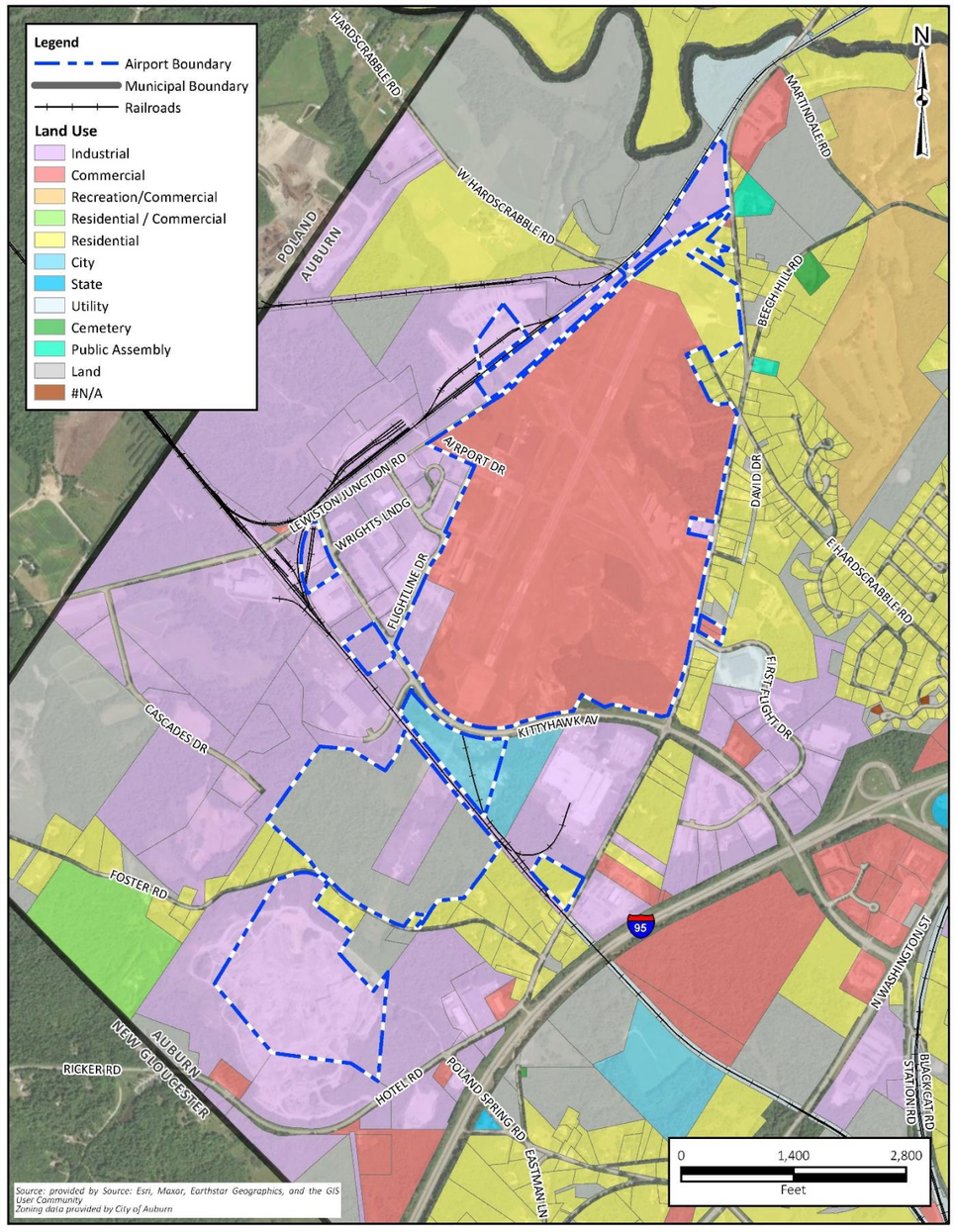
Figure 1-15 shows the zoning map. The Airport is located within an industrial zone encompassing the east, southeast and a small northern portion of the zoning map.

Surrounding the airport are:

- Agricultural and resource protection zoning are located north of the Airport.
- General business areas are located southeast of the Airport.
- Low density country residential areas are located southwest of the Airport.
- Neighborhood business zoning is located north and west of the Airport.
- Rural and suburban residential zoning are located southeast and east of the Airport.

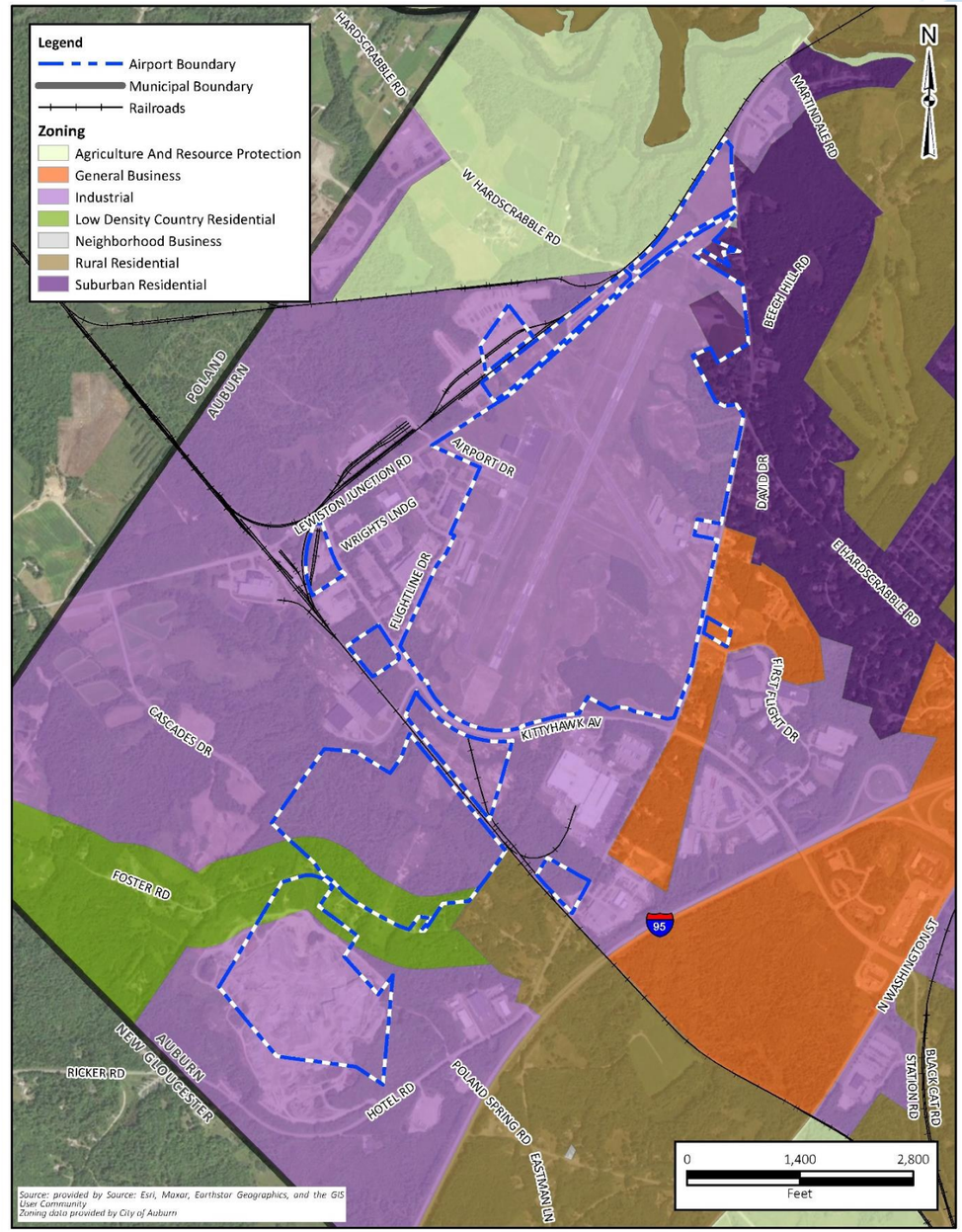
Zoning on and around airports should generally be limited to commercial and industrial. Especially residential zoning should not be located on airport property or surrounding airport property within RPZ, approach areas, near terminals, or near areas where aircraft operate. It is recommended that the Airport work with the City of Auburn to rezone certain areas.

Figure 1-14: LEW Surrounding Land Uses



Source: City of Auburn, 2023.

Figure 1-15: LEW Zoning Map



Source: City of Auburn, 2023.

1.8. Airport Reuse and Recycling Plan

Solid waste management is an issue of importance to both the Airport and the City of Auburn. This Recycling, Reuse, and Waste Reduction Plan (RRWR Plan or the Plan) addresses materials management at LEW by:

- Reviewing existing recycling, waste reduction, and reuse policies, and facilities at the Airport;
- Analyzing the opportunities, costs, and benefits of initiating or expanding these efforts; and
- Recommending goals and/or initiatives to establish, operate, and maintain an airport recycling, reuse, and waste reduction program, in compliance with FAA guidance.

1.8.1. Federal Airport Waste Management Plans and Policies

The U.S. Congress passed the FAA Modernization and Reform Act of 2012 (FMRA or the Act) which amended Title 49 of the U.S. Code (U.S.C.). The Act included several changes to the AIP, two of which related to recycling, reuse, and waste reduction at airports. Section 132(b) of the Act expanded the definition of airport planning to include "developing a plan for recycling and minimizing the generation of airport solid waste, consistent with applicable state and local recycling laws, including the cost of a waste audit."

Section 133 of the Act added a provision that requires airports that are updating their master plan to address issues relating to solid waste recycling at the airport. This includes:

- Assessing the feasibility of municipal solid waste recycling at the Airport,
- Minimizing the generation of solid waste at the Airport,
- Documenting operation and maintenance requirements,
- Reviewing waste management contracts, and
- Identifying the potential for cost savings or the generation of revenue.

As defined by Congress, "recycling" refers to any program, practice, or opportunity to reduce the amount of waste disposed of in a landfill. This includes reuse and waste reduction as well as the recycling of materials.

The FAA issued a Memorandum dated September 30, 2014, to guide the preparation of airport RRWR plans as an element of a master plan or master plan update, within a sustainability planning document, or as a stand-alone document. The guidance is immediately applicable to all federally obligated airports, which includes LEW.

1.8.2. Existing Waste Sources

Conversations with Airport management indicate that all recycling and solid waste are collected in one dumpster, once per week through a contractual agreement with Almighty Waste. Further discussions identified that all tenants in their respective hangars are responsible for their own waste and recycling. There is a trash area in the terminal.

Areas within the Airport property can be divided into how much control the Airport has over the generation of waste. The three levels of control are:

- Areas where the Airport has direct control of waste management;
- Areas where the Airport has no direct control but can influence waste management; and
- Areas where the Airport has no control or influence over waste management.

Table 1-9 shows the areas on the Airport in which waste generation is and is not under Airport control.

Table 1-9: Waste Generator and Control at LEW

Area	Waste generated	Control
Area 1: Terminal Building and Offices	Paper, plastic, aluminum cans, trash, used oil, and aircraft parts	Direct control
Area 2: Hangars/Tenants	Paper, plastic, aluminum cans, trash, deplaned waste, possibly used oil, and aircraft parts	Direct control on airport owned hangars

Source: Airport Management, 2023.

1.8.2.1. Direct Control Areas

The Airport has direct control over the main hangar and offices, and any Airport maintenance vehicles or operations. Airport management has expressed interest in having other users fill the existing dumpster utilized by the main terminal.

1.8.2.2. No Direct Control or Influence Areas

These are areas that the Airport neither owns nor leases. All other hangars and buildings on the Airport are required to monitor and handle their own trash and recycling needs.

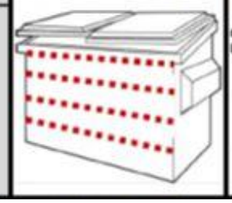
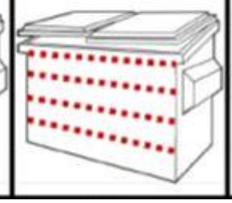
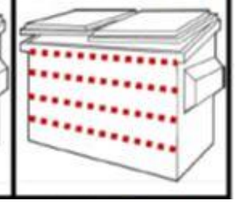
1.8.3. Overview of Existing Airport Recycling, Reuse, and Waste Management

During conversations with Airport management, the Airport Manager expressed combining Dirigo Aerospace Solutions waste with the terminal, as the current waste only fills the dumpster roughly half full per week. LEW has an established contract for waste and recycling pickup with Almighty Waste of Auburn, Maine. Conversations with Almighty Waste revealed that all trash and recycling are sorted at a transfer station after pickup.

1.8.4. Recommendations

The Airport should explore devoting some portion of time each week to record estimates of volume and weight of waste and recycled materials at the time private hauling contractor comes to collect. As described, there is no record of these measures at the Airport today, and estimates of materials sent to landfill versus those diverted for recycling and reuse is helpful to appreciate the Airport's contribution to sustainability. A sample for monitoring recycling performance at the Airport is shown in **Figure 1-16**.

Figure 1-16: Sample Waste and Recyclable Material Volume Monitoring

Waste	Pick Up Record	Pick Up Record	Pick Up Record
	Date: _____	Date: _____	Date: _____
	Time: _____	Time: _____	Time: _____
	Initials: _____	Initials: _____	Initials: _____
Percent (%) Full	100% ☐ 75% ☐ 50% ☐ 25% ☐	100% ☐ 75% ☐ 50% ☐ 25% ☐	100% ☐ 75% ☐ 50% ☐ 25% ☐
Terminal Dumpster 1 (Capacity: 6 CY)			

Source: McFarland Johnson, 2024.