RS&H

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Inventory of Existing Conditions

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Prepared by RS&H, Inc. at the
direction of Laredo International Airport

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1.1 Introduction

The Federal Aviation Administration (FAA) Advisory Circular (AC) 150/5070-6B, *Airport Master Plans*, emphasizes the importance of an initial inventory phase in the development process. This phase involves gathering comprehensive data about the Airport and its surrounding area, serving as the foundation for future analysis and planning efforts. For Laredo International Airport (LRD), the inventory is critical to assessing current conditions and ensuring that future development meets the evolving needs of the region.

The inventory process for LRD includes extensive documentation of key functional areas such as airfield layout, terminal facilities, general aviation, cargo operations, and support services. A detailed understanding of these areas will guide the determination of facility requirements and inform decisions on future improvements.

Data collection for this inventory was based on site visits, consultations with airport management, and tenants, as well as reviews of previous master plans and airport records. As a result, relevant aspects of LRD's operations are addressed, building on key infrastructure projects completed since the last master plan, and identifying current infrastructure projects. The inventory phase sets the stage for assessing capacity, identifying needs, and planning for LRD's future growth.

1.1.1 Strategic Visioning

LRD envisions itself as a dynamic hub that drives economic growth in the city and region by creating opportunities for both domestic and international passenger and cargo transportation. As a vital player in the region's future, the Airport aims to integrate sustainability into its operational and financial practices, ensuring long-term viability and environmental responsibility. Owned and operated by the City of Laredo, the Airport seeks to modernize its facilities and enhance services to align with industry trends and the needs of its diverse users. Guided by the Laredo Airport Advisory Board, the Airport's vision includes improved infrastructure, efficient service delivery, and the development of sustainable business models to establish a resilient, future-ready aviation hub that benefits both the community and global stakeholders. LRD's mission is to be a catalyst for economic development to the region by striving for a safe and secure airport environment and being sensitive to noise concerns while also creating and promoting opportunities for domestic and international passenger and air cargo transportation.

1.1.2 Airport Setting and Role

The Airport, originally established as Laredo Municipal Airport in 1929, initially served military and general aviation. Over time, it has expanded to meet growing regional and international air

traffic demands. Its strategic location along the U.S.-Mexico border has shaped its development into a transportation gateway for both passenger and cargo services. The Airport's infrastructure supports a diverse array of aircraft operations, including commercial, cargo, and general aviation. Its proximity to key highways and trade routes enables efficient cargo handling and distribution, positioning it as an essential part of regional supply chains. LRD remains committed to advancing operational capabilities and enhancing service quality, aiming to sustain its pivotal role in the aviation industry while promoting regional economic growth.

1.1.3 Regional Setting

Located in Webb County, Texas, the Airport sits three miles northeast of the central business district, approximately five miles northeast of the U.S.-Mexico border, and close to major transportation routes such as Interstate 35, U.S. Highway 59, and Loop 20. These connections link the Airport to regional, national, and international networks, reinforcing its importance as a key driver of cross-border trade, logistics, and travel. LRD's location in reference to other commercial service airports in Texas can be seen in **Figure 1-1**.

Situated at an elevation of 508 feet above mean sea level, the Airport spans approximately 1,796 acres. The Airport has a 500-acre site designated as a Foreign Trade Zone (FTZ). It is one of seven FTZs in the Laredo area and is a United States-Mexico-Canada Agreement (USMCA) gateway for air cargo. The Airport's position near critical border-crossing points makes it a vital trade gateway between the U.S. and Mexico, bolstering Laredo's status as one of the busiest inland ports in the country.

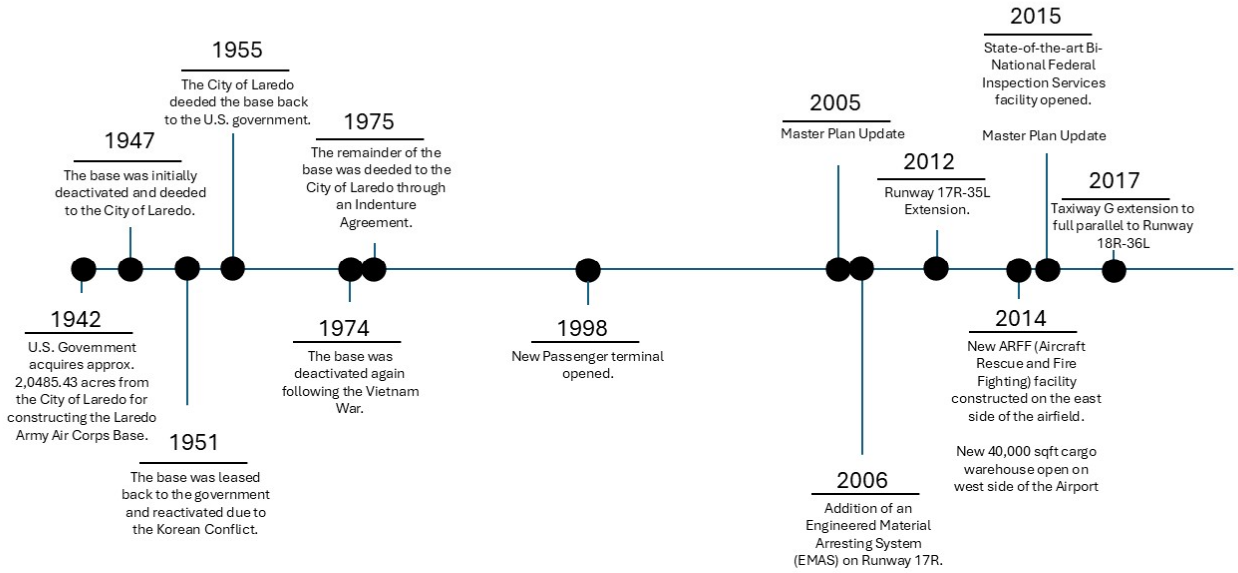
Figure 1-1:
LRD Regional Setting

Source: RS&H, 2024

1.1.4 Airport History and Timeline

Figure 1-2 illustrates a chronological list of events and provides a brief history of the Airport's start and growth to its current state.

Figure 1-2:
LRD Timeline

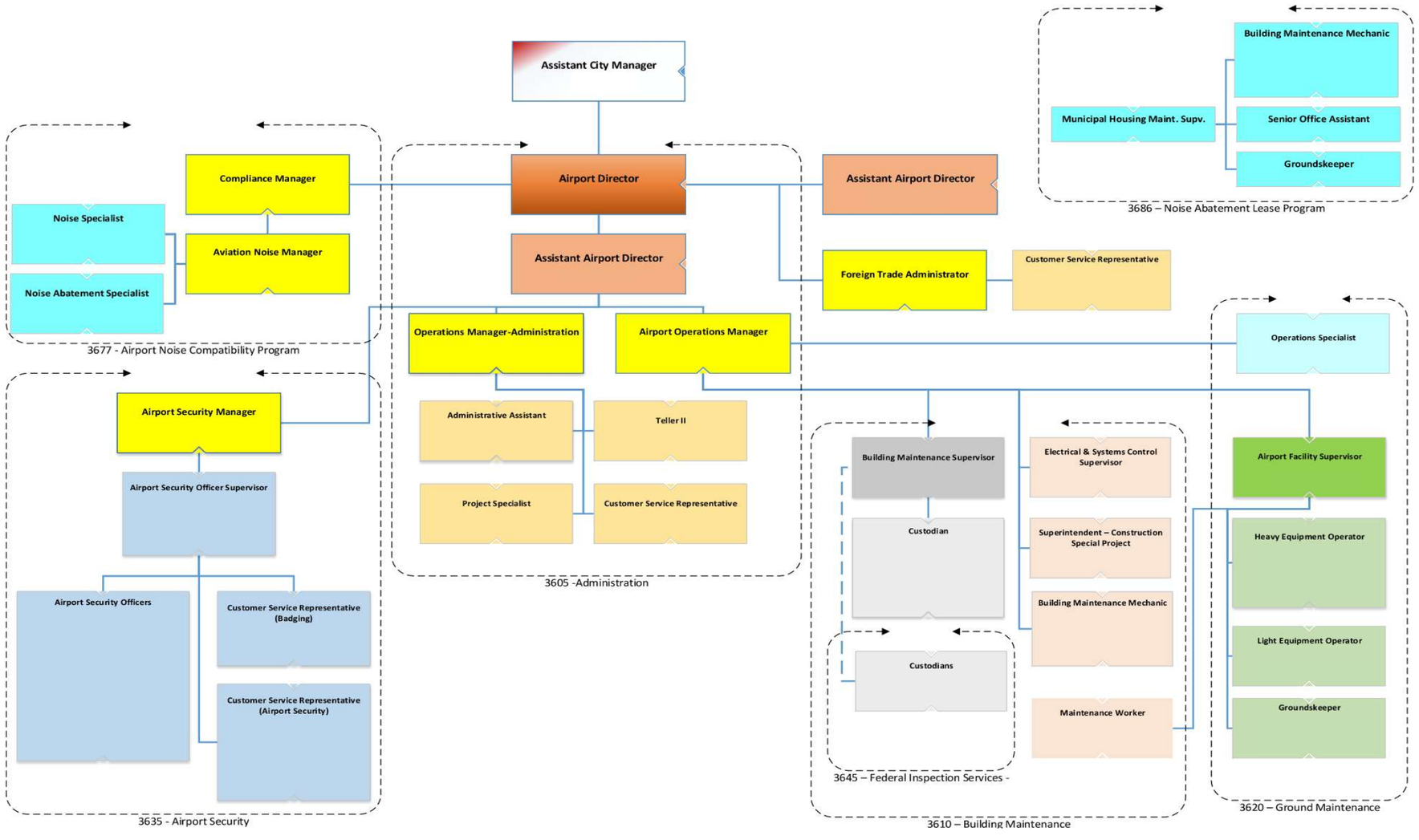


Source: RS&H, 2024

1.1.5 Airport Role and Governance

LRD is a department within the City of Laredo, where the airport director reports to an assistant city manager. The Airport also collaborates with an airport advisory board. The organizational structure of the Airport is illustrated in **Figure 1-3**. The Airport is responsible for airport operations, maintenance, and development in alignment with FAA regulations. As a public-use facility, the Airport supports both general and commercial aviation, with a strong emphasis on cargo services due to its proximity to international trade routes. The following sections describe the Airport's FAA classification and its role within the state of Texas.

Figure 1-3:
LRD Organizational Chart



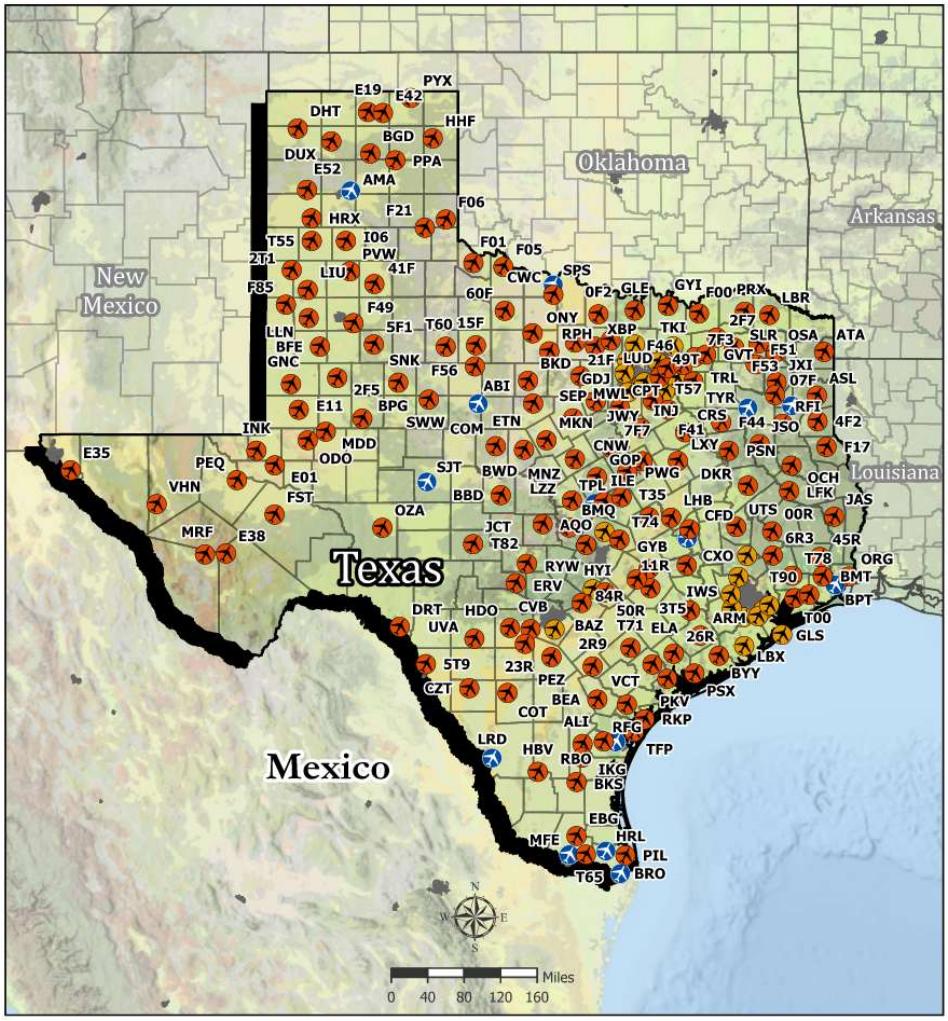
Source: Laredo International Airport 2020

1.1.5.1 NPIAS Role

The Airport is designated in the FAA's National Plan of Integrated Airport Systems (NPIAS) 2025-2029 report as a publicly owned, primary commercial service, non-hub airport. The NPIAS identifies nearly 3,400 public-use airports across the United States that are considered critical to national air transportation, eligible for federal funding for improvements to maintain safety, capacity, and accessibility. Based on the FAA Lists of NPIAS airports, LRD anticipates 151,114 enplaned passengers between in CY23/FY25 and currently has 62 based aircraft. The NPIAS 2025-2029 report identifies a 5 year development estimate for LRD funding that are eliglbe for federal funding, not inclusive of planning cost. The 2025-2029 development estimate for LRD is projected at $823,546.[1] **Figure 1-4** shows the NPIAS airports in the state of Texas.

[1] https://www.faa.gov/sites/faa.gov/files/airports/planning_capacity/npias/current/ARP-NPIAS-2025-2029-Appendix-A.pdf

Figure 1-4:
NPIAS Airports in Texas



Source: FAA NPIAS FY 2025-2029

1.1.5.2 State Role

The 2010 Texas Airport System Plan (TASP) identifies airports and heliports in the state that perform an essential role in the economic and social development of Texas. At the time of development, the TASP included 1,600 public and private landing sites, 292 airports and two heliports. Airports are classified by their roles: 27 Commercial Service airports, 24 Reliever airports, 67 Business/Corporate airports, 106 Community Service airports, 68 Basic Service airports, and 2 Heliports. Within the TASP, LRD is classified as a primary commercial, non-hub airport.

1.1.6 Regional Transportation and Access

LRD is well integrated within the regional transportation network, with accessibility guided by existing regional transportation plans, including the Transportation Improvement Program (TIP). The TIP, developed by the Laredo-Webb County Area Metropolitan Planning Organization (LWCAMPO) Transportation Policy Committee, is a fiscally constrained, three-year list of projects approved for federal and state funding. Updated every two years, the TIP spans a four-year period, with the current plan addressing projects from fiscal year (FY) 2025 to FY 2028. **Figure 1-5**~~**Figure 1-5**~~ illustrates the regional roadway network in and around the City of Laredo.

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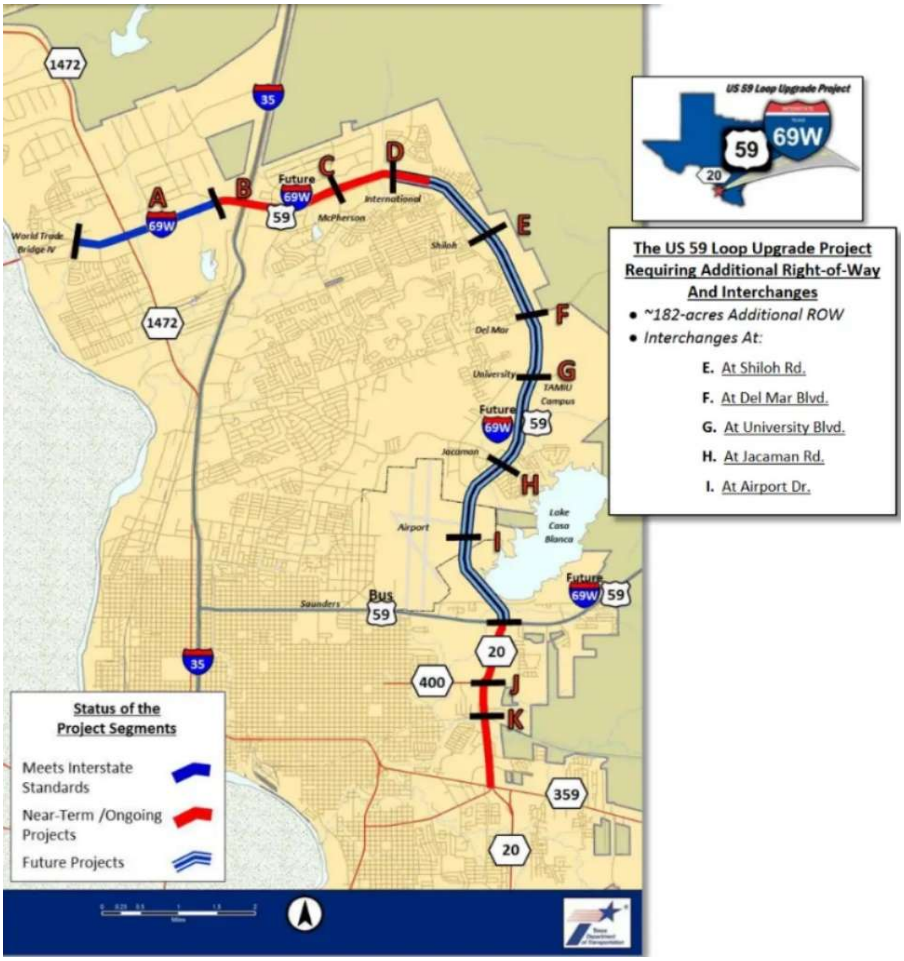
Figure 1-5:
Laredo Regional Transportation Routes

Source: TxDOT

Figure 1-6:
Loop 59 Upgrade



Source: TxDOT

The Airport's main access route, Bob Bullock Loop, plays a crucial role in connecting LRD to major highways like Interstate 35 and U.S. Highway 59, which support regional commerce and cross-border trade. As part of the Texas Department of Transportation's (TxDOT) U.S. 59 Loop Upgrade, this section of Bob Bullock Loop (also designated Loop 20) will be transformed into an urban expressway meeting interstate standards. The project can be referenced visually with **Figure 1-6~~Figure 1-6.~~** This upgrade, covering approximately seven miles from International

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Boulevard to the US 59/Loop 20 interchange, is expected to increase capacity and improve access management, helping reduce congestion and streamline travel to and from the Airport. The project began in February of 2024 and is estimated to take five years to complete.

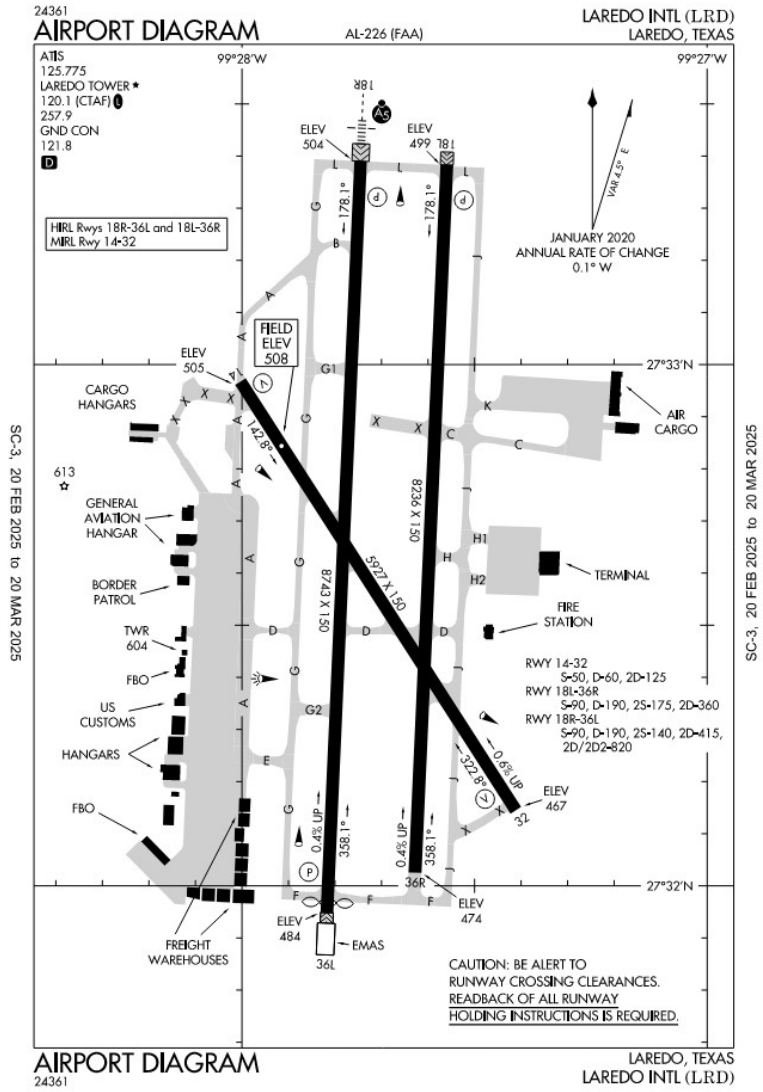
These upgrades align with the 2015-40 Metropolitan Transportation Plan, the 2021 Unified Transportation Plan, and the 2021-2024 Statewide Transportation Improvement Program. A blend of federal, state, and local funding sources financed the upgrades.

Bartlett Avenue, located west of the Airport, and Jacaman Road, to the north, function as minor arterial roads. These corridors enhance local access for both passenger and cargo operations, thereby reinforcing LRD's role as a regional transportation hub.

1.2 Airfield Facilities

This section provides an inventory of LRD airfield facilities, which includes the runway and taxiway systems, existing pavement condition, and navigational aids and lighting. The airfield facilities are graphically depicted in **Figure 1-7**.

Figure 1-7:
Airport Diagram



Source: FAA Airport Diagram

1.2.1 Runway System

LRD has three runways. Runways 18R-36L and 18L-36R are parallel runways serving the majority of the Airport's operations. Runway end 36L has an Engineered Material Arresting System (EMAS) to help stop aircraft that may inadvertently overrun the runway end. Runway 14-32 is the Airport's crosswind runway primarily used by general aviation (GA) aircraft. **Table 1-1** provides a summary of the Airport's runway system.

Table 1-1:
Runway Characteristics

Item		Runway 18R-36L	Runway 18L-36R	Runway 14-32
Runway Length (ft)		8,743′	8,236′	5,927′
Runway Width (ft)		150′	150′	150′
Runway Shoulder Width (ft)		0′	0′	0′
Runway End Elevation (feet above Mean Sea Level)		503.7′ (18R) 483.7′ (36L)	499.2′ (18L) 474.2 (36R)	505.4′ (14) 467.4′ (32)
Pavement Surface		Concrete	Concrete	Concrete
Pavement Condition Index*		-	-	-
Surface Treatment		Grooved	Grooved	None
Pavement Strength – Wheel Loading (pounds)	Single Wheel	90,000	90,000	50,000
	Dual Wheel	190,000	190,000	60,0000
	Double Tandem	415,000	360,000	125,000
	Dual Double Tandem	820,000	N/A	N/A

Source: FAA Airport Master Record, 2024

* Pavement Condition Index for airfield pavements will be confirmed under the Pavement Management Program

1.2.2 Declared Distances

Declared distances, as defined in AC 150/5300-13B-Change 1, *Airport Design*, represent the maximum distances available and suitable for meeting takeoff, rejected takeoff, and landing distance requirements for aircraft. **Table 1-2~~Table 1-2~~**, shows the current distances for each runway at LRD.

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Table 1-2:
Declared Distances

	Runway 18R	Runway 36L	Runway 18L	Runway 36R	Runway 14	Runway 32
Takeoff Run Available (TORA)	8,743′	8,743′	8,236′	8,236′	5,927′	5,927′
Takeoff Distance Available (TODA)	8,743′	8,743′	8,236′	8,236′	5,927′	5,927′
Accelerate-Stop Distance Available (ASDA)	8,743′	8,743′	8,236′	8,236′	5,927′	5,927′
Landing Distance Available (LDA)	8,743′	8,623′	8,236′	8,236′	5,927′	5,927′

Source: FAA Airport Master Record, 2024

1.2.3 Taxiway System

The current taxiways at Laredo International Airport are presented in **Table 1-3** and can be visually referenced with **Figure 1-7**.

Table 1-3:
Taxiway Dimensions

Taxiway (TWY)	Description	Width (ft)
Taxiway A	Apron Edge Taxiway	75′
Taxiway B	Connector between TWY G and RWY 18R/36L	75′
Taxiway C	Connector from the east air cargo facility to RWY 18L/36R	75′
Taxiway D	Taxiway between west ramp to Taxiway G, and then across parallel runways to Taxiway J. There is a section of Taxiway D between Taxiway G and RWY 18R/36L	75′
Taxiway E	Connector between west ramp and TWY G	75′
Taxiway F	Stub taxiway for RWY 36L and 36R, and a connector taxiway between the parallel runways	75′
Taxiway G	Parallel TWY west of RWY 18R/36L	75′
Taxiway G1	Connector between TWY G and RWY 18L/36R, north of Runway 14/32	75′
Taxiway G2	Connector between TWY G and RWY 18L/36R, south of TWY D	75′
Taxiway H	TWY between TWY J and Runway 18L/36R	75′
Taxiway H1	TWY between terminal ramp and TWY J	75′
Taxiway H2	TWY between terminal ramp and TWY J	75′
Taxiway J	Parallel TWY east of RWY 18L/36R	75′
Taxiway K	Connector between east air cargo facility and TWY J	75′
Taxiway L	Stub TWY for RWY 18R and 18L, and a connector between the parallel runways	75′

Source: FAA Airport Master Record, 2024

1.2.4 Pavement Condition

An evaluation of the airfield pavement is ongoing at the writing of this chapter. Please reference **Appendix A**, *Pavement Management System Report,* for the pavement condition index (PCI) and pavement classification rating (PCR) for the airfield.

1.2.5 Airfield Hot Spots

As defined in AC 150/5300-13B-Change 1, *Airport Design* a hot spot is a location on an airport movement area with a history of potential risk of a collision or runway incursion. Heightened attention by pilot-drivers-controllers is necessary when maneuvering through a hot spot. LRD has no published hot spot locations on the airfield. Airport operations has noted an area of concern located at Taxiway D as it crosses Runway 14-32 and Runway 18L-36R. In AC 150/5300-13 Change 1, the FAA recommends mitigating complex intersections through the planning process. A new taxiway layout will help reduce the complexity of the intersection and provide pilots will a simpler taxiway/runway interchange.

1.2.6 Meteorological Conditions

The annual climate summary for Laredo, Texas, from 2014 to 2024 reveals a warm, dry climate with occasional precipitation. The hottest day during this period occurred on June 19, 2023, with a peak temperature of 115°F, and June was consistently the hottest month with an average high of 88.5°F. January was the coldest month, with an average low temperature of 32°F. The average hottest day across the years reached 107°F to 110°F, while the average low temperature for the year remained around 64°F. The number of days with temperatures exceeding 90°F was consistent, averaging around 190 days annually, with a record of 207 days in 2024.

In terms of precipitation, the total annual liquid precipitation ranged from 9.63 inches in 2024 to 26.13 inches in 2015. The wettest month was May, with the highest liquid precipitation recorded in 2015 at 3.68 inches. Laredo typically saw less than 1 inch of snow per year, with snowfall recorded only in rare occurrences, such as a trace amount in February 2021. The total number of days with precipitation exceeding 0.01 inches varied from 45 in 2022 to 69 in 2015, while days with significant precipitation (greater than 1 inch) ranged from 2 to 11, depending on the year. The city also saw occasional heavy fog and thunderstorms, with up to 44 days with thunderstorms in 2020.[2]

1.2.7 Navigational Aids and Lighting

Navigational aids and lighting, often referred to as NAVAIDS, include visual aids, electronic aids, and meteorological aids. NAVAIDS are used to help pilots navigate to and from the Airport and

[2] https://www.noaa.gov/

perform safe landings and takeoffs. LRD features several types of aids, which are detailed in the following sections. The NAVAIDS located at the Airport are listed in **Table 1-4**.

LRD's NAVAIDS maintenance is managed by the FAA, although visual aids like PAPIs and REILs, if present, may sometimes fall under airport management if they cater to specific operational needs. LRD does not currently report any deficiencies in its NAVAIDS infrastructure, aligning with FAA standards to ensure safe and reliable guidance for all aircraft in its airspace.

1.2.7.1 Visual, Navigational, and Electronic Aids

The Airport provides a range of visual and electronic navigational aids to support aviation operations, including an Instrument Landing System (ILS) on Runway 18R, which offers precision guidance through both localizer and glideslope components. Additionally, the FAA-operated Laredo Very High Omnidirectional Range Station (VORTAC) delivers azimuth and distance information, aiding navigation for both civil and military aircraft. LRD's visual aids include a Medium Intensity Approach Lighting System with Runway Alignment Indicator Lights (MALSR) on Runway 18R, enhancing approach visibility.

The lighting infrastructure consists of high-intensity runway edge lights (HIRL) on Runways 18R-36L and 18L-36R, while Runway 14-32 features medium-intensity runway lights (MIRL). Visual Approach Slope Indicators (VASI) on Runway 14 and Runway 32 approaches, and Precision Approach Path Indicators (PAPI) on Runway 18R and Runway 36L approaches are owned and maintained by LRD. The Runway 18R MALSR and the PAPI for Runway 18L approach are owned and maintained by the FAA.

The Airport also has a white-green rotating beacon denoting it as a land use airport, a lighted wind cone, and five lighted supplemental windsocks. The Airport has a segmented circle around the primary wind cone.

Table 1-4:
NAVAIDS and Lighting

Item	Runway 18R	Runway 36L	Runway 18L	Runway 36R	Runway 14	Runway 32
Visual Aids						
Runway Markings	P	P	NP	NP	NP	NP
Runway Centerline Lights	NO	NO	NO	NO	NO	NO
Lighting System	HIRL	HIRL	HIRL	HIRL	MIRL	MIRL
Runway End Identifier Lights	YES	NO	NO	NO	NO	NO
Approach Lighting	MALSR	NO	NO	NO	NO	NO
Visual Slope Indicator	PAPI (P4L)	PAPI (P4L)	PAPI (P4L)	NO	VASI (4L)	VASI (4L)
Wind cone	YES	YES	YES	YES	YES	YES
Airport Rotating Beacon	YES					
Segmented Circle	YES					
Electronic Aids						
Glideslope	YES	NO	NO	NO	NO	NO
Localizer	YES	Back Course	NO	NO	NO	NO
RNAV (GPS)	YES	YES	YES	NO	YES	YES
VOR/DME	YES	YES	YES	NO	YES	YES
TACAN	YES	YES	YES	NO	YES	YES
Meteorological Aids						
Automatic Weather Observation System	YES					

Abbreviations:
P = Precision Approach
NP = Non-Precision Approach
HIRL = High Intensity Runway Lighting
MIRL = Medium Intensity Runway Lighting
MALSR = Medium Intensity Approach Light System with Runway Alignment Indicator Lights
PAPI (P4L) = Precision Approach Path Indicator of 4 Identical Light Units placed on the Left side of the RWY
VASI (4L) = Visual Approach Slope Indicator of 4 Identical Light Units placed on the Left side of the RWY
*A segmented circle is used by all runways.

1.2.7.2 Meteorological Aids

Meteorological aids consist of equipment that reports weather conditions to users and tenants at an airport. LRD is equipped with an Automated Weather Observation System (AWOS-3). The AWOS is type-III P/T. The system provides real-time barometric pressure, wind speed and direction, visibility, temperature, dew point, density altitude, and cloud ceiling information.

1.3 Airspace

1.3.1 Air Traffic Control Procedures

The FAA manages the airspace at and around LRD by two main facility types that have their own function to ensure the safety of flight operations. The Air Route Traffic Control Center (ARTCC) is designed to provide air traffic control services for aircraft flying under instrument flight rules (IFR) within controlled airspace, primarily during the enroute phase of flight. If requested, the center may also offer advisory or assistance services to aircraft operating under visual flight rules (VFR). Each ARTCC is divided into sectors, with each sector managed by one or more controllers using a dedicated sector frequency. As aircraft transition between sectors, pilots are instructed to switch to the corresponding sector frequency. The center that directly oversees the airspace surrounding LRD is Houston Center (ZHU).

The second facility responsible for managing the airspace around the Airport is the Air Traffic Control Tower (ATCT). The ATCT is responsible for providing air traffic services for aircraft making their final approach before landing, ground operations, takeoff, and initial climb. The ATCT is a standalone facility located on the west side of the Airport along Maher Avenue. The facility is designated as a "contract tower", signifying that it is staffed by privately employed air traffic controllers rather than by FAA employees. The ATCT is operational seven days a week from the hours of 6:00 a.m. to 12:00 a.m.

Figure 1-8~~**Figure 1-8**~~ depicts the airspace surrounding the Airport. LRD is located within Class D airspace. Unless specifically authorized, all aircraft operating in Class D airspace must establish two-way radio communication with ATC before and during operations in the airspace. Class D airspace extends vertically from the ground up to 2,500 feet above ground level (AGL). This controlled airspace provides a designated area for the safe management of arriving and departing aircraft. The horizontal configuration is tailored to accommodate arrival and departure procedures. Outside the Class D airspace, Class E airspace begins at 700 feet AGL and facilitates transitions between enroute airways and terminal operations. Given LRD's location near the U.S.-Mexico border, coordination with Mexican Air Traffic Control is essential for cross-border flights.

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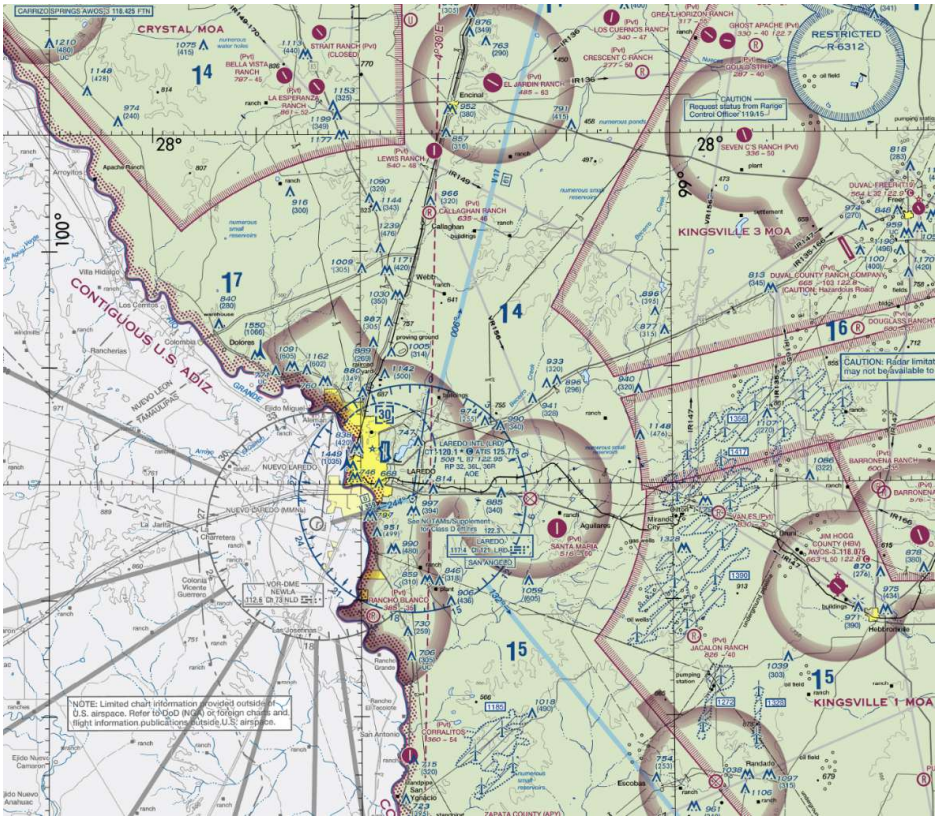
One alert area and three designated Military Operation Areas (MOAs) are located near LRD's airspace. An alert area is established to inform pilots of a specific area wherein a high volume of pilot training or an unusual type of aeronautical activity is conducted. The one alert area near LRD's airspace is identified as A-632A and east of the Airport. A MOA is an airspace where military operations are conducted frequently enough that a special designation is justified to ensure non-military pilots are aware of the potential for military aircraft activity. The MOAs

surrounding LRD include Crystal MOA to the north, Kingsville 1 MOA to the southeast, and Kingsville 3 MOA to the northeast.

Figure 1-8:
Regional VFR Airspace



Source: U.S DOT and Federal Aviation Administration, December 2024

1.3.2 VFR and IFR Procedures

VFR operations at LRD are governed by weather conditions that allow pilots to navigate by visual reference to the ground and other aircraft. The minimum weather requirements for VFR operations at LRD include at least three statute miles of visibility and a cloud ceiling no lower than 1,000 feet AGL. Aircraft must maintain a constant separation from clouds of at least 1,000 feet above, 500 feet below, and 2,000 feet horizontally. These operations are typically performed in clear weather, making them efficient for local and training flights.

IFR are employed when weather conditions do not meet VFR requirements or when aircraft operate in controlled airspace that mandates ATC oversight. IFR procedures rely on precise navigation through instruments and communication with ATC. LRD currently has nine instrument approach procedures which vary from an ILS to a Very High Frequency Omni-directional Range/Tactical Air Navigation VOR/TACAN approach. These approaches help pilots by giving options for aircraft with different levels of approach capabilities as shown in **Table 1-5**.

Table 1-5:
Approach Characteristics

Runway	Approach Type	Minimum Visibility	Minimum Altitude (AGL) (feet)
RWY 18L	RNAV (GPS)	LPV - ¾ SM	LPV-200′
RWY 18R	ILS or LOC RNAV (GPS)	ILS – ½ SM LPV – ½ SM	S-ILS – 200′
RWY 36L	RNAV (GPS) LOC BC	LPV- ¾ SM LOC- 1 SM	LPV – 200′ LOC – 400″
RWY 36R	VFR	VFR – 3 SM	N/A
RWY 14	RNAV (GPS) VOR or TACAN	LPV – ¾ SM VOR – 1 SM	LPV – 250′ VOR – 412′
RWY 32	RNAV(GPS) VOR or TACAN	LVP - ¾ SM VOR - 1 SM	LPV – 250′ VOR – 426′

Source: FAA Instrument Approach Charts, December 2024
Abbreviations:
AGL = Above Ground Level
SM = Statue Miles

1.3.3 Part 77 Objects Affecting Navigable Airspace

The Code of Federal Regulation (CFR) Part 77 establishes standards for evaluating objects that may affect navigable airspace. Part 77 is comprised of five different imaginary surfaces:

Primary Surface: A surface longitudinally centered on the runway and extending 200 feet from each runway end

Approach Surface: A surface longitudinally centered on the extended runway centerline and extending outward beyond the primary surface

Horizontal Surface: A horizontal plane 150 feet above the established airport elevation

Conical Surface: A 20:1 slope surface extending beyond the horizontal surface

Transitional Surface: A surface protruding out and upwards from the sides of the primary and approach surfaces

At LRD, an inventory of structures and natural features is maintained to assess their impact on airport operations. All identified objects are evaluated through the FAA's Obstruction Evaluation/Airport Airspace Analysis (OE/AAA) process. This ensures that they are appropriately marked, lighted, or mitigated through flight procedures. The Airport's ongoing monitoring and compliance efforts align with federal standards to protect navigable airspace.

1.3.4 Takeoff Obstacles

The airspace around LRD includes several published obstructions that could impact flight operations. These are cataloged and managed to ensure they do not pose undue risk to aircraft. **Table 1-6** below provides an overview of notable obstructions:

Table 1-6:
Takeoff Obstacles

Runway	Object	Location	Height
RWY 14	Trees	135' from der, 298' left of centerline	Up to 59' AGL/519' MSL
	Sign	226' from der, 244' left of centerline	14' AGL/474' MSL
RWY 18L	Terrain	48' from der, 333' right of centerline	Up to 478' MSL
RWY 18R	Terrain	Beginning 4' from der, 219' right of centerline	Up to 489' MSL
	Light Poles	Beginning 894' from der, 344' right of centerline	Up to 41' AGL/511' MSL
RWY 32	Aircraft On Taxiway	50' from der, 367' left of centerline	Up to 75' AGL/584' MSL
	Trees	Beginning 768' from der, 584' left of centerline	Up to 59' AGL/559' MSL
	Trees	Beginning 88' from der, 275' right of centerline	Up to 59' AGL/559' MSL
RWY 36L	MALSR	5' from der, on centerline	5' AGL/505' MSL
	NAVAID	10' from der, on centerline	5' AGL/505' MSL
	Antenna On Building	81' from der, 404' left of centerline	30' AGL/520' MSL
RWY 36R	Terrain	Beginning 19' from der, 191' left of centerline	Up to 500' MSL

Source: FAA Takeoff Minimums, (Obstacle) Departure Procedure, and Diverse Vector Area (Radar Vectors)
Abbreviations:
NAVAID = Navigational Aid
der = departure end runway

1.4 Air Cargo

LRD is utilized significantly by air cargo operators and plays a vital role in the movement of heavy freight and expedited packages. There are two major air cargo carriers operating at LRD, FedEx and UPS along with multiple other cargo operators. The cargo facilities are located on the northeast, west, and southwest sections of the Airport. In the northeast, FedEx operates a distribution facility on approximately nine acres of land. The apron has three parking positions for varying aircraft types. FedEx typically operates the Airbus A300-600 out of LRD.

UPS operates a 20,000-square-foot warehouse on the southern end of the west general aviation/cargo apron. They currently have one parking position typically occupied by a Boeing 757-200 aircraft.

Other cargo and freight carriers operating on an as-needed basis include Aeronaves TSM, USAJet, Express One, Ameristar, Everts and other smaller carriers using smaller cargo aircraft.

The GA apron includes multiple cargo warehouses and freight forwarding facilities, with nine located in the southwest corner. There are six aircraft parking positions located in front of these warehouses, though not all can be used at once if larger aircraft are parked on their pads. All cargo facilities have truck access and employee/visitor parking adjacent to their respective facilities.

1.5 Passenger Terminal

This section provides an inventory of the passenger terminal building at LRD. The passenger terminal opened in 1998. The building encompasses 79,300 square feet with four gates. It is a linear-shaped, multi-level building. The apron surrounding the passenger terminal includes four aircraft parking positions adjacent to the building. The terminal landside area consists of curbside, ticketing, baggage claim, car rental, and airport administration. The terminal airside area consists of U.S. Customs and Border Protection (CBP), airline operations, departure/arrivals, and security screening. LRD is currently in the process of renovating the terminal building. Those planned renovations are depicted in the following exhibits and tables; for the purpose of this master planning effort, they are considered existing conditions. It is anticipated that construction will be completed in early 2026. **Table 1-7** shows the following categories based on square footage and percentage compared to total space available. **Figure 1-9** and **Figure 1-10** illustrate the two floors of the terminal building.

Table 1-7:
Terminal Dimensions

Commented [VLH1]: Check with Sandra Mendez as I think these figures have changed somewhat

Space	Length (Linear Feet)	Area (sf)	Percent of Total
Airline Functions			
Ticket Counter	91	1,320	1.72%
Ticket Counter Queuing		1,130	1.47%
Airline Ticket Office		2,452	3.19%
Hold rooms (Gates)		8,106	10.55%
Baggage Claim	80	1,313	1.70%
Outbound Baggage		2,031	2.64%
Baggage Recheck		243	0.30%
Operations		944	1.23%
Subtotal Airline Functions Area		17,539	22.83%
Concessions Space			
Food/Beverage		2,147	2.78%
News/Gift/Sundry		753	0.90%
Rental Cars		1,227	1.60%
Subtotal Concessions Space		4,127	5.36%
Immigrations/USCS/INS			
Immigrations/Customs Support Space and Offices		10,345	13.46%
Subtotal/USCS/INS Area		10,345	13.46%
Secure Public			
Security Screening		4,079	5.31%
Circulation		9,705	12.63%
Restrooms		1,606	2.09%
Amenities (Nursing Room, Quiet Room, SARA)		216	0.30%
Other (TSA Office/Support Area)		1,520	1.98%
Subtotal Secure Public Area		17,126	22.29%
Non-Secure Public Area			
Circulation - General		14,466	18.83%
Restrooms		625	0.81%
Subtotal Non-Secure Public Area		14,590	19.64%
Airport Administration/Support Space			
Airport Administration/Support Offices		9,410	12.25%
Mechanical/Electrical/Building Systems		2,170	2.82%
Miscellaneous (Maintenance, Storage)		1,152	1.50%

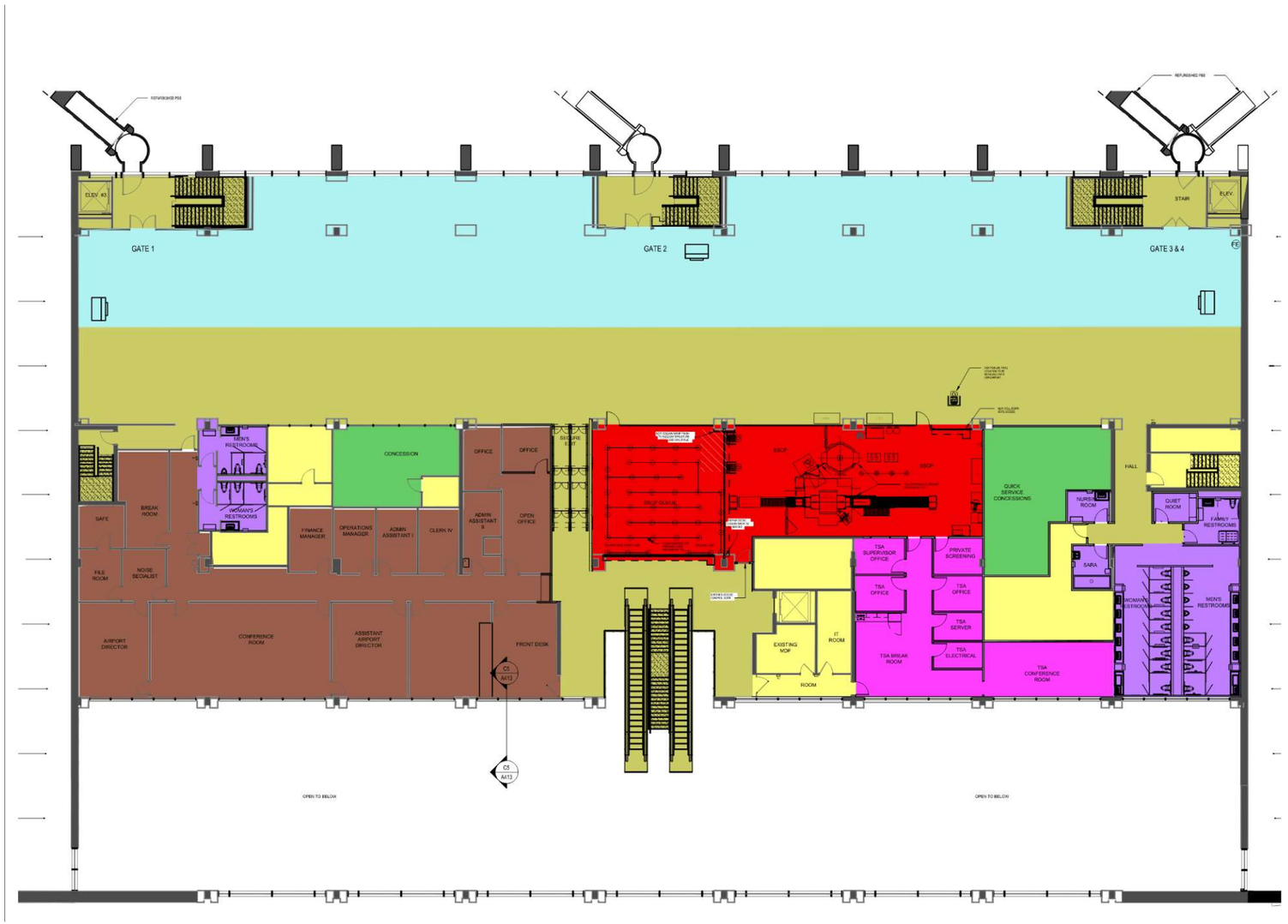
Space	Length (Linear feet)	Area (sf)	Percent of Total
Restrooms		381	0.49%
Subtotal Airport Administration/Support Space Area		13,113	17.06%
Total All Areas		76,840	100.00%

Source: LRD

Figure 1-9:
LRD Terminal 1st Floor

Source: RS&H

Figure 1-10:
LRD Terminal 2nd Floor



Source: RS&H

Commented [VLH2]: This design has changed. Talk to Sandra Mendez

1.5.1 Airline Space

The ~~southeast~~ north portion of the passenger terminal is occupied by United Airlines, American Airlines, Allegiant Air, and Aerus. The space includes the ticketing area and airline ticket offices (ATO). The ticketing area includes nine check-in counter positions along with the baggage takeaway belt and the associated passenger queue lines. The ATO's include dedicated administrative and storage space for four airlines. Currently, eight of the nine counter positions are occupied, with one unoccupied position available for an airline to use in the future.

Commented [VLH3]: I think this is north end of terminal. I might be wrong

1.5.2 Baggage Service

Baggage service space occupies the north portion of the passenger terminal. The space includes the outbound baggage make-up area, located outside the passenger terminal. Where baggage is sorted by airline personnel prior to loading onto aircraft. The inbound baggage service space occupies the south side of the passenger terminal. This area is where bags are sorted outside by airline personnel when aircraft arrive at the gate and the inside baggage claim belt where passengers retrieve their checked baggage. The claim device is an L-shaped carousel fed by a single, inbound belt. The baggage handling system services both domestic and international travel.

1.5.3 Transportation Security Administration Space

The Transportation Security Administration (TSA) space at LRD occupies the central portions of the passenger terminal on the 2nd floor. TSA agents staff the outbound baggage screening and passenger security screening checkpoint areas. TSA also occupies offices adjacent to the security screening checkpoint.

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The outbound baggage screening area is located behind the ticketing check-in counters. Checked bags are processed at the check-in counters and placed on the takeaway belt behind the counters. The belt transports the checked baggage to the outbound baggage screening area and through a Checked Baggage Inspection System (CBIS) where they are screened by TSA agents. The area also includes space for manual screening such as for alerted or oversized baggage. Once cleared, the baggage moves to the outbound baggage make-up area for sorting and delivery to aircraft.

The passenger security screening checkpoint is the area where TSA officials screen passengers prior to entry into the secure area of the terminal building. The passenger security screening checkpoint is in the central portion of the passenger terminal, between the ticketing and airline gates. The security screening checkpoint has one standard screening lane. The area has queuing for document check and a post-screening recompose area.

Commented [VLH4]: I don't see anywhere where it tells 2nd floor for TSA

1.5.4 Holdroom/Gates

The holdroom and gate area, located in the western section of the terminal, spans over 8,100 square feet, providing an average of 2,025 square feet per gate. The holdroom is a common area servicing four gates, with seating on the east and west sides, and a central congregating area. All four gates are equipped with passenger boarding bridges. The passenger boarding bridges include integrated gate-check bag vestibules allowing the efficient transfer of gate-checked bags between the passengers and the airline ramp workers.

1.5.5 Public Space

Public space occupies approximately 40 percent of the passenger terminal. It includes circulation and waiting areas, nursing mothers' rooms, quiet room, and restrooms.

1.5.6 Airport Space

Airport space occupies non-public areas behind ticketing and baggage claim areas and is used by LRD staff in support of airport operations and administrative duties. The space includes office space, the Emergency Operations Center (EOC), non-public restrooms, the badging and security office, airport storage, and conference rooms.

1.5.7 Building Support

Building support spaces include the areas for essential communication, mechanical, electrical, plumbing, fire protection, security, and other building support functions.

1.5.8 Terminal Apron

The terminal apron serves passenger airline aircraft operations exclusively. It is the space where the passenger boarding bridges are located, aircraft park, and where ground handling activities occur. The apron includes four aircraft positions for aircraft parking and remain overnight (RON). Each gate has a designated parking position.

1.5.9 Rental Car Counters

The Airport is currently served by four rental car companies: Avis, Enterprise, Budget, and National Car Rental. These companies provide LRD passengers with a range of vehicle options to suit their travel needs and budget. There are five dedicated rooms inside the first floor of the terminal building for the car rental companies and their customers. Four out of the five positions for the rental car companies are next to each other with ample seating located in the front.

1.6 Landside Facilities

The landside facilities at LRD help support the Airport's operations and public travel. The separate parking areas give ample options to travelers and employees while the road network allows traffic to flow to and from the terminal building.

1.6.1 Terminal Curbfront

The terminal curb front is 270 feet long and provides space for vehicle loading/unloading. A 400-foot-long sidewalk is located near the midpoint of the terminal curb and provides pedestrian access from the passenger terminal to public parking. Before the terminal curb, there are designated openings for taxi services drop-off and pick up passengers. The area after the terminal curb is designated for passenger drop-off and pickup by public transit services provided by EL Metro~~LRD Transit~~. There are two lanes in and out of the Airport's terminal. There are no designated bus lanes, but there is a bus pullover area.

Commented [VLH5]: EL Metro not LRD transit

1.6.2 Ground Transportation Services

Ground transportation services at the Airport encompass a range of options, including taxicabs, limousines, shared-ride services, transportation network companies (TNCs) like Uber and Lyft, courtesy vehicles, buses, and vans for passenger drop-offs and pick-ups. ~~The Airport has established agreements with several~~Customers have the choice between several ground transportation providers, including RodVan Services LLC, JC's Taxi Service Laredo TX, Escalera Taxi Service, Nora Taxi, and Laredo Luxury Limo. A designated passenger drop-off and pick-up area spans 250 linear feet at the beginning of the terminal curb for authorized service providers. Additionally, the Airport features a public transit stop for El Metro buses at a yellow-marked curb (90 linear feet) at the terminal curb's end. Two El Metro bus routes offer hourly service to the Airport every day of the week.

Commented [VLH6]: We do not have any agreements with ground transportation providers. We have some listed on our website but not written agreements

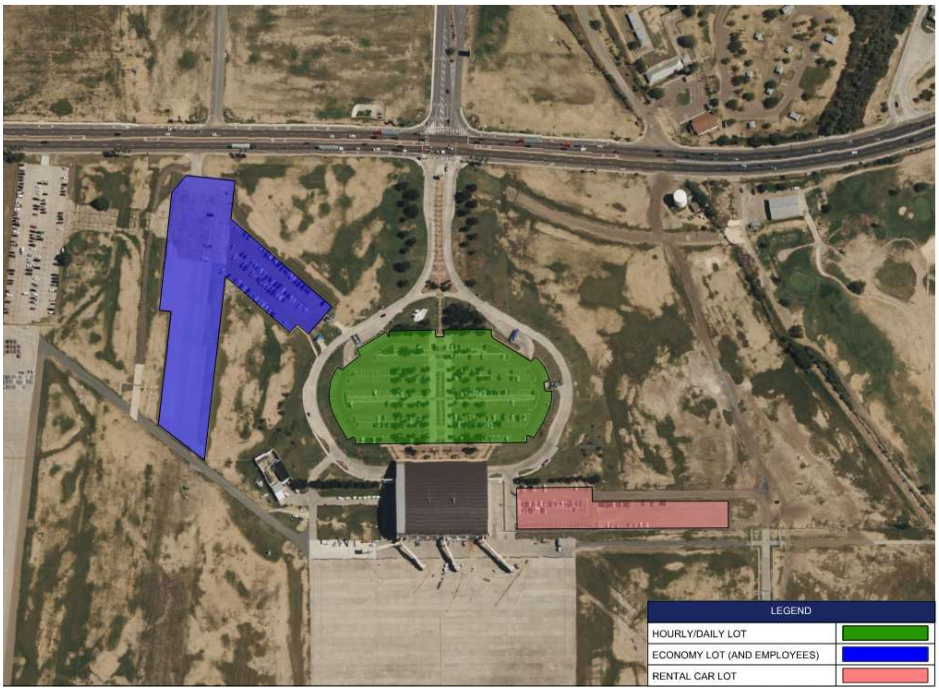
1.6.3 Vehicle Parking

Figure 1-11 provides a depiction of the Airport public and employee vehicle parking facilities located near the passenger terminal. Public parking is available in the Hourly/Daily lot and the Economy lot. Hourly/Daily parking has a total of 474 spaces over four acres. Employees also use this lot for parking. Economy passenger parking has 422 spaces over five acres. There are 12 American Disability Act (ADA) spaces. The lots are differentiated by sign to help with proper designation. Passengers parking in Hourly/Daily lot receive a ticket from a self-serve kiosk when entering the lot. Visitors ~~will then stop by the kiosk at the exit plaza to pay their balance.~~can then pay inside at the kiosk. The Economy lot will work in the same essence with the accommodation of days instead of hours. Employee parking is available in the Hourly/Daily lot. Hourly parking is free for the first 30 minutes. After that, the rate is $2.00 for up to 60 minutes,

Commented [VLH7]: They pay inside at kiosk. I don't think they can pay at gate. They can use kiosk but it is only good for 30 minutes

with an additional charge of $1.00 for each hour thereafter. The maximum daily rate is $10.00. Daily parking has the same rate structure, but the maximum daily rate is $5.00.

Figure 1-11:
Vehicular Parking



1.7 General Aviation and Support Facilities

This section provides an inventory of general aviation and support facilities. These facilities generally include hangars/buildings for aircraft storage, workshops, office, and equipment storage, apron pavement for aircraft parking, aircraft taxiing and maneuvering, and equipment storage, and landside space for vehicle parking, roadways and vehicle circulation, and landscaping.

Figure 1-12 depicts the general aviation and support facilities by function, which are described in the following subsections.

Figure 1-12:
General Aviation and Support Facilities

LAREDO INTERNATIONAL AIRPORT

FACILITIES

1. NE Fuel Farm
2. Terminal Building
3. ARFF Station
4. Airport Maintenance/Operations
5. ATC Tower
6. Signature Aviation - FBO
7. US Customs and Border Protection
8. Barker Ground Services, Inc - FBO
9. SW Fuel Farm

N

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LAREDO INTERNATIONAL AIRPORT

FACILITIES

1. NE Fuel Farm
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7. US Customs and Border Protection
7. Barker Ground Services, Inc - FBO
7. SW Fuel Farm

N

0' 200' 400'

Source: RS&H

Commented [VLH8]: Look at numbering legend

1.7.1 General/Cargo Aviation

The GA apron includes multiple cargo warehouses and freight forwarding facilities, with multiple parking positions located in the southwest corner, though the number of usable positions can be reduced when larger aircraft are parked. There are thirteen tiedown spots in the southwest corner of the apron. There are also several tie-down locations on the northwest side of the apron. Overall, the GA apron is designed to support both cargo operations and general aviation parking needs.

1.7.2 Fixed Base Operators

Fixed Base Operators (FBOs) provide services such as aircraft storage, aircraft rental or sales, flight instruction, air charter flights, flight crew lounge, passenger terminal and other passenger services, fueling, aircraft line services, and aircraft repair and maintenance. At LRD, FBO services are provided by Signature Flight Support and Barker Ground Services, Inc. Barker Ground Services, Inc. is in the southwest corner of the GA apron. Signature Flight Support is centrally located on the west side of the GA apron to the north of the U.S Customs building. Many of these businesses are in general aviation facilities previously described and shown in **Figure 1-12.**

1.7.3 Airport Traffic Control Tower

The Airport contracts with the FAA to operate and maintain the LRD ATCT through the FAA Contract Tower Program[3]. The 80-foot-tall ATCT is located on the west side of the Airport along Maher Road. Parking for staff is provided at the base of the tower. When the tower is in operation, air traffic controllers provide clearance and direction to aircraft making their final approach before landing, ground operations, takeoff, and initial climb as well as ground vehicles operating on the airfield. The tower is in operation between the hours of 6:00 a.m. to 12:00 a.m. seven days a week.

1.7.4 Aircraft Rescue and Firefighting

The Aircraft Rescue and Firefighting (ARFF) facility is located on the east side of the airfield, south of the passenger terminal apron. The existing facility was constructed and opened in June 2014. The 15,000 square-foot station consists of three flow-through bays to service the Airport's emergency response calls. ARFF operations use three response vehicles. The vehicles capabilities are highlighted in **Table 1-8**.

3 The Federal Contract Tower (FCT) Program was established in 1982 to allow the FAA to contract out the operation of towers. As of 2020, a total of approximately 256 FCTs are in operation (comprising ~49 percent of all Federal air traffic control towers in the United States) and staffed by 1,400 controllers. All contract controllers meet the same qualification and training requirements as FAA air traffic controllers. The FCT Program is administered by the FAA's Air Traffic Organization.

Table 1-8:
ARFF Vehicles

Vehicle	Water (gal)	Foam (gal)	Dry Chemical Agent (gal)	Clean Agent
Oshkosh HRET	3000	420	550	N/A
Rosenbauer HRET	3000	400	500	Halon 460

Source: LRD ACM Appendix G
Abbreviations:
HRET = High Reach Extendable Turret

Commented [VLH9]: We only have 2 trucks. Send Andrew email asking which one we are getting rid of

The ARFF station meets FAA Index B requirements, as outlined in Title 14 CFR Part 139, "Certification of Airports." Index B standards allow LRD to serve commercial aircraft at least 90 feet but less than 126 feet in length[4]. If there are fewer than five average daily departures in a day of aircraft smaller than Index B, the Index will then be A. Other vehicles stored in the facility include a rescue vehicle, water tender, and Mass Casualty Incident (MCI) vehicle.

The ARFF facility is staffed 24 hours per day, which complies with Title 14 CFR Part 139 requirements. Three firefighting personnel are typically on duty at a time, but the station employs nine firefighters. The ARFF facility currently provides 18 employee and visitor vehicle parking spaces. All training is provided at LRD, except for live fire training. Although Laredo Emergency Medical Services (EMS) will provide initial triage and treatment for health and medical incidents at the Airport, the ARFF unit may respond first if the nature of the incident deems it necessary.

1.7.5 Aviation Fuel Storage

The Airport has several fuel storage facilities. At the Northeast Fuel Farm, there is a single above-ground tank with a capacity of 12,000 gallons of Jet-A fuel. The Southwest Fuel Farm contains a mix of above ground and underground storage tanks. It includes tanks operating by Aero Center, which has three above-ground tanks, each with a 20,000-gallon capacity, and two tanks with 15,000 gallons each for Jet-A fuel. It also has one 10,000-gallon tank for Avgas. AltAir Aviation operates two above-ground tanks, each with a 15,000-gallon capacity for Jet-A fuel. Barker Ground Services, Inc has one 12,000-gallon above-ground tank for Jet-A fuel and another 12,000-gallon tank for Avgas. Sanchez Oil and Gas operates one underground storage tank with a 10,000-gallon capacity for Jet-A fuel.

[4] 14 CFR 139.315

Table 1-9:
Fuel Storage

Commented [VLH10]: Send Andrew email to make sure this is correct

Location	Operator	Tank-Type	Fuel Type	Capacity (gallons)	Number of Tanks
NE Fuel Farm	N/A	Above-Ground	Jet-A	12,000	1
SW Fuel Farm	Aero Center	Above-Ground	Jet-A	20,000	3
SW Fuel Farm	Aero Center	Above-Ground	Jet-A	15,000	2
SW Fuel Farm	Aero Center	Above-Ground	Avgas	10,000	1
SW Fuel Farm	AltAir Aviation	Above-Ground	Jet-A	15,000	2
SW Fuel Farm	Barker Ground Services, Inc	Above-Ground	Jet-A	12,000	1
SW Fuel Farm	Barker Ground Services, Inc	Above-Ground	Avgas	12,000	1
SW Fuel Farm	Sanchez Oil and Gas	Underground	Jet-A	10,000	1

Source: LRD

1.7.6 Airport Maintenance

LRD's maintenance building occupies 7,500 square feet on the northwest corner of the General/Cargo apron at the Hillside Road and Maher Avenue intersection. The maintenance building stores groundskeeping equipment, airfield maintenance vehicles, and fuel tanks for refueling the on-site vehicles and machinery.

1.8 Utilities

This section provides a summary of the existing utility infrastructure of the Airport. The Airport's primary developed area, including the terminal, is served by main lines of utilities. This section identifies existing utilities and their characteristics.

1.8.1 Water

The City of Laredo sources its raw water from the Rio Grande River, using two water treatment plants: the Jefferson Water Treatment Plant (65 million gallons per day (MGD) capacity) and the El Pico Water Treatment Plant (20 MGD capacity), for a total combined capacity of 85 MGD.

1.8.2 Sewage

LRD's sewage system integrates with the city's wastewater infrastructure, which underpins safe and efficient waste management. The city's network features over 520 miles of sanitary sewer lines, numerous lift stations, and 9,100 manholes, channeling wastewater from the Airport facilities and nearby areas to the city's treatment plants. These plants adhere to federal and state

regulations, ensuring effective wastewater treatment to minimize environmental impact and protect public health.

1.8.3 Gas

LRD's natural gas infrastructure benefits from the city's recent enhancements to regional gas supply and reliability. With City Public Service (CPS) Energy's acquisition of nearby natural gas plants, the Airport and surrounding facilities can expect improved reliability, ensuring stable energy access for LRD operations, particularly during peak demand times. This gas infrastructure supports the Airport's heating, emergency power, and other essential services.

1.8.4 Electricity

The Airport is connected to the city's main power distribution lines, powered and provided by the Texas Utility Company (TXU), which provides a stable electricity supply essential for lighting, air conditioning, operational systems, and emergency equipment.

1.8.5 Communications

LRD's communication infrastructure is vital for both operational and safety needs. The Airport utilizes a range of communication services, including essential radio frequencies for air traffic control, such as CTAF (120.10 MHz), UNICOM (122.95 MHz), and ATIS (125.775 MHz). Ground operations and tower communication are facilitated on 121.8 MHz and 120.1 MHz, respectively, during the Airport's operational hours from 0600 to 2400. In the absence of tower services, Houston ARTCC provides radar services for approach and departure on 127.8 MHz and 307.2 MHz.

1.9 Financial Overview

This section provides a high-level overview of the Airport's historical capital assets, operating revenues and expenses, capital expenditures, debt history, rates and charges, and FAA grants received. All financial data is shown in the Airport's Fiscal Year (FY), which aligns with the City of Laredo Fiscal Year starting October 1st and ending September 30th. Historical financial data is used to help the Airport anticipate finances during implementation planning for preferred development alternatives. Later sections of this Master Plan will evaluate alternative financial models of airport management and make recommendations for a financial model to support the preferred facility development plan.

1.9.1 Airport Ownership and Operation

LRD is a municipally operated entity, functioning as a department of the City of Laredo. This ownership and operational structure provide significant insights into the Airport's financial framework. Being city-operated, LRD's financial structure integrates with the broader fiscal

management of the municipality. The Airport's funding, mechanisms, financial obligations, and decision-making processes are influenced by municipal priorities and governance.

1.9.2 Airport Revenues

Airport revenues at LRD are derived from a combination of operating activities, non-operating sources, grants from federal and state governments, and the issuance of long-term debt. In FY 2023, the Airport's operating revenues totaled $36,994,522. The largest contributions to this revenue came from rents, royalties, and interest, amounting to $9,632,033, as well as intergovernmental revenues totaling $20,286,291. These figures highlight the diverse income streams that support LRD's operations and capital projects. Non-operating revenues, while not detailed separately in the fiscal documents, include significant contributions from federal and state grants. These grants serve as a vital source of funding for the Airport's capital improvements and are essential for maintaining and enhancing LRD's infrastructure.

1.9.3 Airport Expenses

In FY 2023, total operating expenses for LRD amounted to $50,306,213. This included expenditure across various operational areas. The administration category incurred the highest costs, with $22,340,884 allocated to personnel, materials, and contractual services. Other key expense areas included building maintenance, which accounted for $2,825,870, and airport security, which required $2,632,496. These expenditures reflect the Airport's commitment to maintaining operational efficiency and ensuring safety and security.

1.9.4 Landing Fees

The landing fees at the Airport are calculated by dividing total net airfield costs by the total number of thousand pounds of the maximum certificated gross landing weight (MGW) of the signatory and non-signatory commercial aircraft operating at the Airport. The aircraft's MGW is rounded to the nearest 1,000 pounds, with weights of 499 pounds or less rounded down, and weights of 500 pounds or more rounded up. Non-signatory airlines are charged a differential rate of 25.0 percent over the signatory airlines fee. The landing fee rate for signatory airlines is set to one dollar and twenty cents per 1,000 pounds of MGW, while for non-signatory tenant airlines, the rate is one dollar and fifty cents per 1,000 pounds of MGW. Non-tenant airlines and general aviation aircraft are subject to a rate of two dollars per 1,000 pounds. These rates will remain in effect until amended by the City of Laredo as per the Airline Use and Lease Agreement. Landing fees are exempt from federal and military aircraft, based aircraft and Texas government aircraft registered with the FAA to Texas.

1.9.5 Airline Lease and Use Agreement (Airline Operating Agreement)

The Airline Lease and Use Agreement, commonly referred to as the Airline Operating Agreement, defines the business relationship between LRD and its signatory airline partners. The Airline Operating Agreement governs the signatory airlines' use of the Airport's facilities and services while outlining their financial obligations and operational responsibilities. Under the Airline Operating Agreement, airlines gain the right to use key airport facilities, including terminal gates, ticket counters, baggage handling areas, and other operational spaces. These allocations are designed to ensure efficient operations while meeting the specific needs of each signatory airline.

Financially, airlines are responsible for landing fees based on aircraft weight and operational frequency, terminal rentals for leased spaces, and federally regulated passenger facility charges (PFCs) that support airport improvement projects. Additional fees may apply for utilities, ground handling, and other airport services. These revenue streams are vital for maintaining and enhancing LRD's infrastructure. Operationally, the Airline Operating Agreement mandates compliance with federal regulations, airport policies, and safety standards. Signatory airlines must coordinate closely with the Airport to optimize scheduling, ground handling, and passenger services. The Airline Operating Agreement's duration typically includes provisions for renewal, offering stability while allowing adjustments to evolving market conditions.

This structure has provided an equitable partnership between the Airport and its airline partners. The Airline Operating Agreement fosters operational efficiency, financial sustainability, and high-quality service, aligning with LRD's long-term strategic goals.

1.9.6 Sources of Capital Funding

Capital funding at LRD is sourced from a combination of federal, state, and local contributions. Federal funding, primarily through the FAA's Airport Improvement Program (AIP), forms the backbone of the Airport's capital projects. State funding, such as TxDOT's Routine Airport Maintenance Program (RAMP) grants, also plays a critical role. Additionally, local contributions, including reimbursements and miscellaneous revenues, supplement these sources to ensure the successful completion of capital initiatives.

1.9.7 Airport Capital Expenditures

The Airport's capital expenditures in FY 2023 were primarily directed toward large-scale projects, with total capital outlays amounting to $23,102,416. Notable projects included those funded under the FAA proposed grant, which covers Materials/Supplies, Contractual Services, Capital Outlay, and other charges. The grant accounted for $7,930,187. State contributions through TxDOT's RAMP grants added $100,000 to the funding pool for essential improvements. These

investments underscore the Airport's focus on infrastructure enhancement to meet operational demands and future growth.

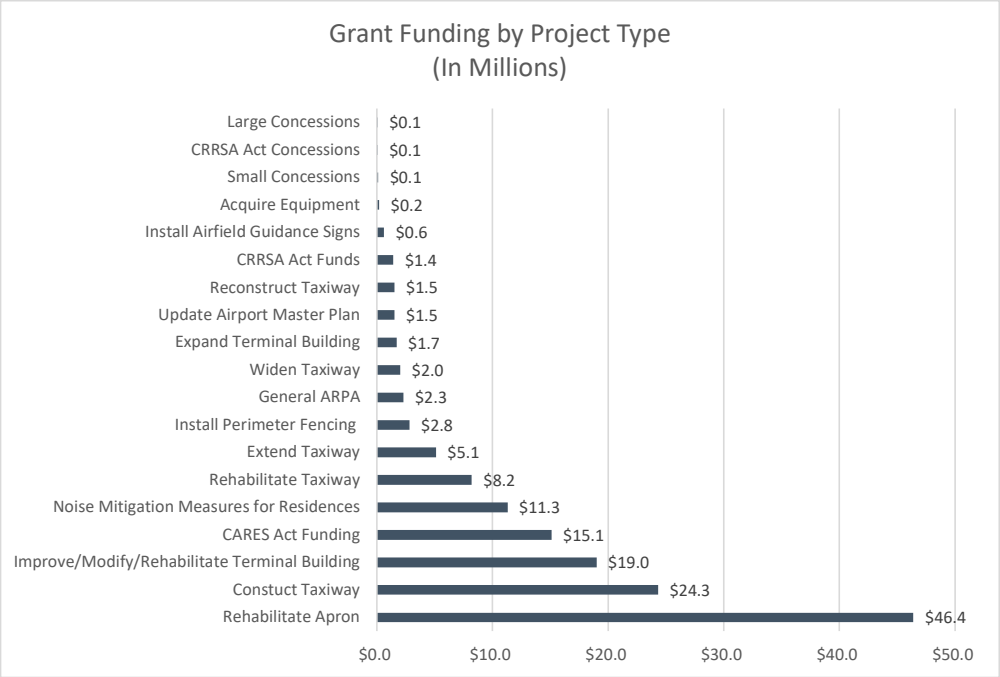
1.9.8 Federal and State Grants

Federal funding is available to airports through the FAA AIP dependent upon the airport category (based on enplanements), the role filled within the NPIAS, and the priority of the improvement as determined within the national priority ranking system. FAA Order 5100.38D Airport Improvement Program Handbook details the grant process, project eligibility, allowable costs, and other information relevant to grant acceptance. Entitlement grants are offered annually based on the number of passenger enplanements and the amount of enplaned cargo tonnage.

At LRD, federal and state grant funding has played a crucial role in supporting various airport improvement projects. Between FY 2014 and FY 2024, annual funding has fluctuated significantly, with the highest allocation of $31 million in FY 2020, largely due to CARES Act funding, and a low of $1.5 million in FY 2024. In recent years, LRD received $16.3 million in FY 2021, $16.5 million in FY 2022, and $17.5 million in FY 2023, reflecting consistent investment in the Airport's development.

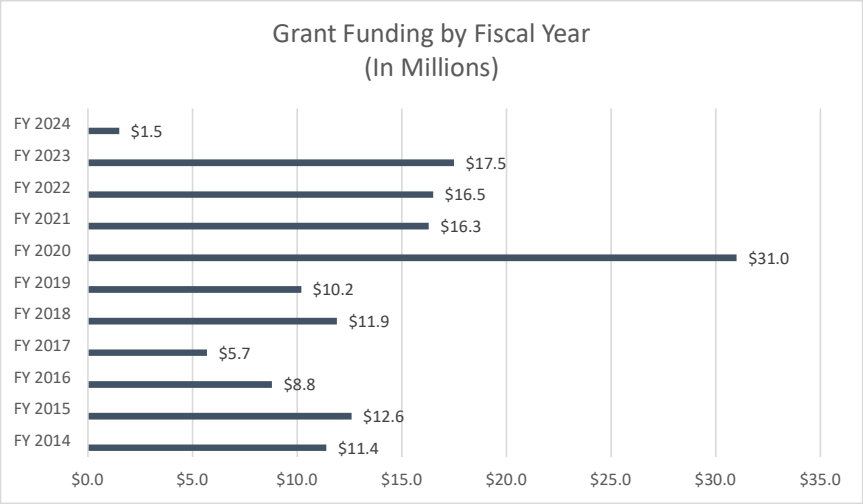
The grants have been used to address key infrastructure and operational needs. The largest allocation, $46.4 million, went toward apron rehabilitation, followed by $24.3 million for taxiway construction and $19 million for terminal building improvements. Additional significant projects included $15.1 million from CARES Act funds, $11.3 million for noise mitigation in residential areas, $8.2 million for taxiway rehabilitation, and $5.1 million for taxiway extensions. Other projects included $2.8 million for perimeter fencing, $2.3 million for ARPA funding, and $2 million for taxiway widening. The CARES Act helped fund the terminal improvement project which included enlarging the Airport's security checkpoint, amenity upgrades, bathroom renovations, and other modern features for travelers at LRD. Smaller improvements, such as airfield guidance signs ($0.6 million) and concession assistance (less than $0.1 million), were also supported, ensuring comprehensive development and operational enhancements at LRD. This grant funding for LRD can be depicted in **Figure 1-13** and **Figure 1-14**.

Figure 1-13:
Grant Funding by Project Type



Source: FAA Office of Airports Planning and Programming

Figure 1-14:
Grant Funding by Fiscal Year



Source: FAA Office of Airports Planning and Programming

1.9.9 Local Funding

All local funding for the purpose of airport development is handled by the Airport and the City of Laredo. The Airport maintains various streams of revenue such as airline landing fees, building and land rental fees, aircraft and vehicle parking, concessions, customs, as well as other sources inclusive of non-aeronautical revenue (off-airport leases, land disposal, etc.).

1.9.10 Airport Capital Long-term Debt

The City of Laredo issued the 2023 Certificate of Obligation (C.O.) Bond (2023 Bond) to finance specific capital projects for LRD during FY 2024-2025. The 2023 Bond represents a form of long-term debt, providing the Airport with the necessary funds to support ongoing infrastructure improvements and operational enhancements. By issuing the 2023 Bond, the City of Laredo borrows funds from investors and commits to repaying the principal and interest over a set period, making this financial instrument a key component of the Airport's funding strategy.

At the start of FY 2023, the 2023 Bond had no opening balance, reflecting its purpose as a newly issued financial obligation. Over the course of FY 2023-2024, the 2023 Bond generated total revenues of $1,718,015. This amount included $118,015 from rents, royalties, and interest, and $1,600,000 from other financing sources. For FY 2024-2025, the 2023 Bond is projected to yield an additional $43,550 from rents, royalties, and interest, bringing the total available funds across both fiscal years to $1,761,565.

Commented [VLH11]: I have asked Mr. Sanchez to look at this. I will let you know what he says

Expenditures under the 2023 Bond are carefully allocated to align with the Airport's capital improvement goals. During FY 2023-2024, $1.7 million of the 2023 Bond proceeds were directed toward capital outlay, indicating significant investments in infrastructure and equipment. Additional spending included $161 for contractual services and $17,854 for debt servicing. For FY 2024-2025, the remaining funds of $43,550 are designated for other charges.. These allocations ensure that all 2023 Bond revenues are fully utilized, resulting in a zero-closing balance for both fiscal years. The primary focus of the 2023 Bond is on long-term infrastructure development, emphasizing the Airport's commitment to addressing growing demands and enhancing its operational capacity. By leveraging this financial instrument, LRD can make significant progress in its development goals while managing its debt responsibly.

The 2023 Bond has provided LRD with a strategic funding source to support its capital improvement initiatives. As a form of long-term debt, it enables the Airport to address immediate infrastructure needs while spreading the financial impact over time. The careful allocation of resources reflects a balanced approach to achieving operational excellence and sustaining long-term growth. Future evaluations will assess the impacts of these investments on the Airport's services and financial health.

1.9.11 Existing Capital Improvement Program

LRD's Capital Improvement Program (CIP) outlines a comprehensive strategy for infrastructure development and operational enhancements over several years, with projects supported by federal funding, which requires the Airport to grant assurances when accepting such funds. In FY 2019, the program focused on the rehabilitation of the Cargo Apron, Phase 13, with a total project cost of $11,232,902, supported by an AIP funding request of $1,123,290, matching contributions from the Airport, and a significant local investment of $8,484,505. Moving into FY 2020, the Cargo Apron, Phase 14 rehabilitation, was prioritized costing $9,483,237, alongside the acquisition of a 3000-gallon ARFF Striker vehicle for $1,100,000. These efforts were bolstered by $1,058,324 in AIP contributions, with sponsor matches and local funding covering the remaining costs.

In FY 2021, the program expanded to include the rehabilitation of a portion of Taxiway A and the expansion of Cargo Apron, Phase 15, with a combined project cost of $13,444,585. Additionally, the Pavement Management Plan and PCI Update were introduced, with a budget of $410,000, and $1,385,459 in AIP funding sought to support these initiatives. By FY 2022, the program's focus shifted to constructing Taxiways T1 and T2, a $6,940,075 project with $694,008 in AIP funding and local contributions. In FY 2023, efforts centered on the rehabilitation of Taxiway A, at a cost of $5,494,410, with $549,441 in AIP funding and matching contributions. In

FY 2024, the construction of Taxiways T4, H1, and H2 was the priority, with an estimated project cost of $7,738,685, including $773,869 in AIP funding. Lastly, the program outlined the construction of Taxiways T3 and T5 in 2025, with a total project cost of $5,387,800, supported by $538,780 in AIP funding.

The CIP strategically allocates resources to critical infrastructure projects that enhance the Airport's operational safety, growth, and regulatory compliance. The program, leveraging AIP entitlements, sponsor matches, and local funding, addresses key priorities such as taxiway construction, cargo apron rehabilitation, and safety equipment upgrades. This ensures that LRD is positioned for sustainable development while maintaining compliance with the necessary federal assurances that come with accepting AIP funding. LRD's CIP Report can be seen in **Table 1-10**.

Table 1-10:
LRD Capital Improvement Plan

CAPITAL IMPROVEMENT PLAN (CIP) for LAREDO INTERNATIONAL AIRPORT					
Plan Year	ODO Project Component and/or Phase	Est. Total Project Cost	Funding Source		
			AIP	Sponsor	AIP Funding Request
			ENT	Local	
24	Reconstruct Existing EMAS	$ 15,000,000	$ 1,600,000	$ 1,500,000	$ 11,900,000
	Construct Taxiways T4	$ 6,000,000	-	$ 600,000	$ 5,400,000
	Master Plan Update, ALP, PMMP/PCI/PCN	$ 4,250,000	-	$ 425,000	$ 3,825,000
	Update, Utility Master Plan				
	BCA/NEPA for Runway 18L Extension	$ 1,000,000	-	$ 100,000	$ 900,000
	2024 Annual Subtotals:	**$ 26,250,000**	**$ 1,600,000**	**$ 2,625,000**	**$ 22,025,000**
25	Decommission of Taxiway A (from Taxiway E to Cargo Apron north end)	$ 1,500,000	$ 1,350,000	$ 150,000	$ 1,350,000
	Extend Runway 18L	$ 25,000,000	250000	2,500,000	$ 22,250,000
	Reconstruct TWY J Phase 1 North of TWY K	$ 9,000,000	-	$ 900,000	$ 8,100,000
	Airfield Signs and Markings Assessment Implementation	$ 3,000,000	-	300,000	$ 2,700,000
	2025 Annual Subtotals:	**$ 38,500,000**	**$ 1,600,000**	**$ 3,850,000**	**$ 34,400,000**

Plan Year	ODO Project Component and/or Phase	Est. Total Project Cost	Funding Source		
			AIP ENT	Sponsor Local	AIP Funding Request
	Reconstruct TWY J Phase 2 South of TWY K and North of RWY 14/32	$ 12,000,000	1,850,000	1,200,000	$ 8,950,000
	QTA Facility	$ 2,500,000	(250,000)	250,000	$ 2,500,000
26	Airfield Maintenance Building	$ 2,500,000	-	250,000	$ 2,250,000
	2026 Annual Subtotals:	**$ 17,000,000**	**$ 1,600,000**	**$ 1,700,000**	**$ 13,700,000**
	Reconstruct TWY J Phase 3 South of RWY 14/32	$ 10,000,000	1,350,000	1,000,000	$ 7,650,000
	Reconstruct TWY G Shoulders	$ 8,500,000	250,000	850,000	$ 7,400,000
27	Perimeter Road Reconstruction Phase 1	$ 4,000,000	-	400,000	$ 3,600,000
	2027 Annual Subtotals:	**$ 22,500,000**	**$ 1,600,000**	**$ 2,250,000**	**$ 18,650,000**
	Reconstruct TWY G Phase 1	$ 15,000,000	1,850,000	1,500,000	$ 11,650,000
	Perimeter Road Reconstruction Phase 2	$ 4,500,000	(250,000)	450,000	$ 4,300,000
28	Northeast Cargo Expansion	$ 12,500,000	-	1,250,000	$ 11,250,000
	2028 Annual Subtotals:	**$ 32,000,000**	**$ 1,600,000**	**$ 3,200,000**	**$ 27,200,000**
	Reconstruct TWY G Phase 2	$ 15,000,000	1,600,000	1,500,000	$ 11,900,000
	Perimeter Road Reconstruction Phase 3	$ 5,000,000	-	500,000	$ 4,500,000
29	SW Fuel Farm Site Development	$ 3,500,000	-	350,000	$ 3,150,000
	2029 Annual Subtotals:	**$ 23,500,000**	**$ 1,600,000**	**$ 2,350,000**	**$ 19,550,000**
	5 Year CIP Totals:	**$ 159,750,000**	**$ 9,600,000**	**$15,975,000**	**$ 135,525,000**

1.9.12 FY 2024 and FY 2025 Budget

The budgetary allocation for FY 2024 reflects the Airport's comprehensive approach to operational and capital needs, with a total of $50,306,213 designated for expenditures. For FY 2025, the financial documents indicate a continued focus on strategic investments, as evidenced by allocations across various operating and construction funds. These budgets ensure that LRD remains financially robust while advancing its development goals.

1.9.13 Operating Fund FY 2024-2025

The Operating Fund for FY 2024-2025 reflects an opening balance of $30,098,382 and a proposed budget of $11,915,077 in total revenues. The total expenditures for the year are projected to be $15,918,944, resulting in a closing balance of $26,094,515. This reflects a continued stable financial position, with the funds showing a healthy closing balance despite a decrease in revenues compared to the previous fiscal year. The Operating Fund is reflected in **Table 1-11.**

Table 1-11:
Operating Fund

	Actual FY 21-22	Actual FY 22-23	Original Budget FY 23-24	Amended Budget FY 23-24	Total Estimate FY 23-24	Proposed Budget FY 24-25
Opening Balance	**$17,188,299**	**$25,674,164**	**$18,520,945**	**$29,021,859**	**$29,021,859**	**$30,098,382**
Total Revenues	$16,905,019	$14,212,174	$15,438,167	$36,994,522	$33,008,244	$11,915,077
Total Available	$34,093,318	$ 39,886,338	$ 33,959,112	$ 66,016,381	$ 62,030,103	$ 42,013,459
Total Expenditures	$8,419,154	$10,864,479	$17,668,397	$50,306,213	$31,931,721	$15,918,944
Closing Balance	$25,674,164	$29,021,859	$16,290,715	$15,710,168	$30,098,382	$26,094,515

Source: LRD Financial Document

1.9.14 Summary of Airport Financial Position

As of FY 2023, LRD maintained a closing balance of $30,098,382, demonstrating a stable financial position. This strong fiscal performance, fueled by substantial grant support and diverse revenue streams, positions the Airport to effectively address operational demands and undertake critical infrastructure projects.

In summary, the financial structure of LRD reflects a balanced approach to revenue generation, expense management, and capital investment. This foundation will support the Airport's long-term goals and ensure its continued contribution to the region's economic vitality.

1.10 Environmental Inventory/Conditions

1.10.1 Environmental Conditions

The purpose of considering environmental factors in airport master planning is to help the airport sponsor thoroughly evaluate airport development alternatives and to provide information that will help expedite subsequent environmental documentation processing. For a comprehensive description of the existing environmental conditions at the Airport, environmental resource categories outlined in FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures*, were used as a guide to help identify potential environmental effects during the planning process.

FAA Order 1050.1F and FAA Order 5050.4B, *National Environmental Policy Act (NEPA) Implementing Instructions for Airport Actions*, require the evaluation of airport development projects as they relate to specific environmental resource categories by outlining impacts and thresholds at which the impacts are considered significant. For some environmental resource categories, this determination can be made through calculations, measurements, or observations. However, other environmental resource categories require that the determination be established through correspondence with appropriate federal, state, and/or local agencies. A complete evaluation of the environmental resource categories identified in FAA Orders 1050.1F and 5050.4B is required during the NEPA documentation of a categorical exclusion, environmental assessment, or environmental impact statement.

Future development plans at the Airport consider environmental resources known to exist in its vicinity. Early identification of these environmental resources helps avoid impeding future development plans.

This section provides an overview of resource categories defined in FAA Order 1050.1F, Chapter 4, as they apply to the environs of and surrounding the Airport. It also summarizes the environmental resource categories studied for the Master Plan Update. It is important to note that while the environmental analysis is included in this Master Plan Update, it is not an NEPA document in and of itself.

Table 1-12:
Resource Categories

Environmental Resource	Description
Air Quality	The Airport is in "attainment" for all National Ambient Air Quality Standards (NAAQS). See **Section 1.10.2** for details.
Biological Resources	There is potential for federal- and state-threatened, –endangered, and candidate species, as well as migratory birds in the Airport area. There is no critical habitat at the Airport. See **Section 1.10.3** for details.
Climate	There are greenhouse gas (GHG) emissions produced at the Airport. See **Section 1.10.4** for details.
Coastal Resources	The Airport is not located in the Texas Coastal Zone, and there are no Coastal Barrier Resource System (CBRS) segments within the Airport property. See **Section 1.10.5** for details.
Department of Transportation Act, Section 4(f)	There are no Section 4(f) properties on LRD property. See **Section 1.10.6** for details.
Farmlands	There are no farmlands on the Airport's property. See **Section 1.10.7** for details.
Hazardous Materials, Solid Waste and Pollution Prevention	There are no Resource and Recovery Act (RCRA) Hazardous Waste Generators on the Airport's property. Solid waste generated at the Airport is disposed of at the City of Laredo Landfill. The Airport enacts best management practices to control and manage potential hazardous spills. See **Section 1.10.9** for details.
Historical, Architectural, Archaeological and Cultural Resources	There are no historic resources located at the Airport. See **Section 1.10.10** for details.

Environmental Resource	Description
Land Use	The current land uses surrounding the Airport include light and heavy commercial, light and heavy industrial, and low-density residential. See **Section 1.10.11** for details.
Natural Resources and Energy Supply	Water and Sewage are supplied to the Airport by the City of Laredo. Electricity is provided by American Electric Power (AEP) Texas. See **Section 1.10.12**Error! Reference source not found. for details.
Noise and Noise-Compatible Land Use	The Airport is located within an airport district. Residential units are required to follow the City of Laredo Building Code to meet interior noise requirements. Noise contours are shown in **Section 1.10.13** for details.
Socioeconomics, Environmental Justice, Children's Environmental Health, and Safety Risks	The Airport is located within Census Tract 9800, Block Group 1, Census Tract 16.02, Block Groups 1 and 3, and Census Tract 17.14, Block Groups 1 and 2 See **Section 1.10.14** for details.
Visual Effects	Light emissions at the Airport currently result from airfield, building, access roadway, parking, and apron area lighting fixtures required for the safe and secure movement of people, vehicles, and aircraft. The visual resources and visual character of the Airport currently include the air traffic control tower, fixed base operators, air cargo operators' hangars, and maintenance

Environmental Resource	Description
	buildings. See **Section 1.10.15** for all Visual Effects details.
Water Resources	There are 3.5 acres of wetlands on the Airport's property. There are no floodplains, surface waters, or groundwater resources on the Airport's property. There are no Wild and Scenic rivers or rivers listed in the Nationwide River Inventory located near the Airport. See **Section 1.10.16** for details.

Prepared by: RS&H, 2024

1.10.2 Air Quality

The U.S. Environmental Protection Agency (USEPA) sets NAAQS for certain air pollutants to protect public health and welfare through Section 109 of the Clean Air Act (CAA). The USEPA has identified the following six criteria air pollutants and has set NAAQS for them: Carbon Monoxide (CO), Lead (Pb), Nitrogen Dioxide (NO_2), 8-Hour Ozone (O_3), Particulate Matter (PM_{10} and $PM_{2.5}$), and Sulfur Dioxide (SO_2).

Areas found to be in violation of one or more NAAQS of these pollutants are classified as "nonattainment" areas. States with "nonattainment" areas must develop a State Implementation Plan (SIP) demonstrating how the areas will be brought back into "attainment" of the NAAQS within designated timeframes. Areas where concentrations of the criteria pollutants are below (i.e., within) these threshold levels are classified as "attainment" areas. Areas with prior "nonattainment" status that have since transitioned to "attainment" are known as "maintenance" areas.

According to the USEPA, Webb County is in "attainment" for all pollutants under the NAAQS.[5] According to the Texas Commission on Environmental Quality (TCEQ), Webb County's critical pollutants are $PM_{2.5}$ and O_3; however, the county overall is rated as "good" in the USEPA Air Quality Index (AQI).[6]

1.10.3 Biological Resources

Biological resources include terrestrial and aquatic plant and animal species; game and non-game species; special status species; and environmentally sensitive or critical habitats. The following are relevant federal laws, regulations, Executive Orders (EOs), and guidance[7] that protect biotic communities:

- Endangered Species Act (ESA) (16 U.S.C. §§ 1531-1544)
- Bald and Golden Eagle Protection Act (16 U.S.C. §§ 668 et seq.)
- Magnuson-Stevens Fishery Conservation and Management Act (16 U.S.C. § 1801 et seq.)
- Fish and Wildlife Coordination Act (16 U.S.C. § 661-667d)
- EO 13112, *Invasive Species* (64 FR 6183)
- Marine Mammal Protection Act (16 U.S.C. § 1361 et seq.)
- Migratory Bird Treaty Act (MBTA) (16 U.S.C. §§ 703 et seq.)
- EO 13186, *Responsibilities of Federal Agencies to Protect Migratory Birds* (66 FR 3853)
- Council on Environmental Quality (CEQ) Guidance on Incorporating Biodiversity Considerations into Environmental Impact Analysis under NEPA; and
- Memorandum of Understanding to Foster the Ecosystem Approach.

Although the federal Endangered Species Act does not protect state-protected species or habitats, NEPA documentation ensures that environmental analysis prepared for airport actions addresses the potential effects to state-protected resources. According to the U.S. Fish and Wildlife Service (USFWS), although there are no designated critical habitats on LRD property, there are eight species of federal concern that have potential to be found at the Airport[8] (see **Table 1-13**). According to the Texas Parks and Wildlife Department (TPWD), there are nineteen species of state concern with potential to occur within Webb County[9] (see **Table 1-14**).

5 U.S. Environmental Protection Agency. Texas Nonattainment/Maintenance Status for Each County by Year for All Criteria Pollutants. Green Book. Accessed December 2024: https://www3.epa.gov/airquality/greenbook/anayo_tx.html.

6 Texas Commission on Environmental Quality. Laredo Metropolitan Area. Accessed December 2024: https://www.tceq.texas.gov/cgi-bin/compliance/monops/aqi_rpt.pl?metro:19:2024:1:15

7 Due to the number of federal laws and EOs applicable to development plans, this section presents only the legal citations or references for those requirements in lieu of summarizing their requirements. See FAA's 1050.1F Desk Reference for more.

8 U.S. Fish and Wildlife Service. Information for Planning and Consultation (IPAC). Accessed December 2024: https://ipac.ecosphere.fws.gov/location/PQYVGYF2IJCTDOMYDJMVQGNS5A/resources.

9 Texas Park and Wildlife Department. Rare, Threatened, and Endangered Species of Texas. Accessed December 2024: https://tpwd.texas.gov/gis/rtest/.

Table 1-13:
Federally Listed Species with Potential to Occur Within the Vicinity of Airport Property

Common Name	Scientific Name	Federal Listing Status
Cactus Ferruginous Pygmy-owl	*Glaucidium brasilianum cactorum*	Threatened
Piping Plover	*Charadrius melodus*	Threatened
Rufa Red Know	*Calidris canutus rufa*	Threatened
Mexican Fawnsfoot	*Truncilla cognata*	Proposed Endangered
Salina Mucket	*Potamilus metnecktayi*	Proposed Endangered
Common Name	**Scientific Name**	**Federal Listing Status**
Texas Hornshell	*Popenaias popeii*	Endangered
Monarch Butterfly	*Danaus Plexippus*	Candidate
Ashy Dogweed	*Thymophylla tephroleuca*	Endangered

Source: USFWS, 2024

Table 1-14:
State-Listed Species with Potential to Occur Within the Vicinity of Airport Property

Common Name	Scientific Name	State Listing Status
Interior Least Tern	*Sternula antillarum athalassos*	Endangered
Ocelot	*Leopardus pardalis*	Endangered
Texas Hornshell	*Popenaias popeii*	Endangered
Ashy Dogweed	*Thymophylla tephroleuca*	Endangered
South Texas Siren (Large Form)	*Siren sp. 1*	Threatened
White-Faced Ibis	*Plegadis chihi*	Threatened
Wood Stork	*Mycteria americana*	Threatened
Gray Hawk	*Buteo plagiatus*	Threatened
Tamaulipas Shiner	*Notropis braytoni*	Threatened
Rio Grande Shiner	*Notropis jemezanus*	Threatened
Speckled Chub	*Macrhybopsis aestivalis*	Threatened
Rio Grande Darter	*Etheostoma grahami*	Threatened
Black Bear	*Ursus americanus*	Threatened
White-Nosed Coati	*Nasua narica*	Threatened
Texas Tortoise	*Gopherus berlandieri*	Threatened
Texas Horned Lizard	*Phrynosoma cornutum*	Threatened
Northern Cat-Eyed Snake	*Leptodeira septentrionalis*	Threatened
Salina Mucket	*Potamilus metnecktayi*	Threatened
Mexican Fawnsfoot	*Truncilla cognata*	Threatened

Source: TPWD, 2024

The Migratory Bird Treaty Act (MBTA) prohibits the taking of any migratory birds, their parts, nests, or eggs except as permitted by regulations and does not require intent to be proven. According to the USFWS IPaC, there is the potential for nine migratory bird species to be found at the Airport, see **Table 1-15** or a complete list.[10]

Table 1-15:
Migratory Birds with Potential to Occur within Airport Property

Common Name	Scientific Name	Breeding Period in Laredo
Brownsville Curve-billed Thrasher	*Toxostoma curvirostre oberholseri*	February 15 to August 15
Chihuahuan Raven	*Corvus cryptoleucus*	April 1 to August 31
Chimney Swift	*Chaetura pelagica*	March 15 to August 25
Eastern Meadowlark	*Sturnella magna*	April 25 to August 31
Lesser Yellowlegs	*Tringa flavipes*	Breeds elsewhere
Long-billed Curlew	*Numenius americanus*	Breeds elsewhere
Orchard Oriole	*Icterus spurius*	June 10 to August 15
Painted Bunting	*Passerina ciris*	April 25 to August 15
Pectoral Sandpiper	*Calidris melanotos*	Breeds elsewhere

Source: USFWS, 2024

1.10.4 Climate

Relevant federal laws, regulations, and EOs that relate to climate include:

- CAA (42 U.S.C. §§ 7408, 7521, 7571, 7661 et seq.)
- EO 13514, *Federal Leadership in Environment Energy and Economic Performance* (74 FR 52117);
- EO 13653, *Preparing the United States for the Impacts of Climate Change* (78 FR 66817); and
- EO 13693, *Planning for Federal Sustainability* (80 FR 15869).

Research has shown there is a direct correlation between fuel combustion and GHG emissions. According to the USEPA, the transportation sector accounts for 28 percent of U.S. GHG emissions, with aircraft representing 9 percent of this total.[11] The International Civil Aviation

10 Texas Park and Wildlife Department. Rare, Threatened, and Endangered Species of Texas. Accessed December 2024: https://tpwd.texas.gov/gis/rtest/.

11 U.S. Environmental Protection Agency. (2024, June). Fast Facts on Transportation Greenhouse Gas Emissions. Retrieved December 2024, from EPA: https://www.epa.gov/greenvehicles/fast-facts-transportation-greenhouse-gas-emissions

Organization (ICAO) estimates that GHG emissions from aircraft account for roughly three percent of all anthropogenic GHG emissions globally.[12]

1.10.5 Coastal Resources

The primary statutes, regulations, and EOs that protect coastal resources include:

- Coastal Barrier Resources Act (16 U.S.C. § 3501 et seq.);
- Coastal Zone Management Act (CZMA) (16 U.S.C. § 1451-1466);
- National Marine Sanctuaries Act (16 U.S.C. §1431 et seq.);
- EO 13089, *Coral Reef Protection* (63 FR 32701); and
- EO 13547, *Stewardship of the Ocean, Our Coasts, and the Great Lakes* (75 FR 43021-43027).

According to the Texas General Land Office, the Airport is not located within the state's coastal zone and, therefore, is not included in the Texas Coastal Management Program.[13] In addition, the Airport is not located near any National Marine Sanctuary (NMS) or Coastal Barrier Resource System (CBRS) unit. Flower Garden Banks is the closest NMS, located about 340 miles east of the Airport.[14] Kleberg Point (TX-21) is the closest CBRS unit, located about 110 miles east of the Airport.[15]

1.10.6 Department of Transportation, Section 4(f)

Relevant federal laws, regulations, and EOs that protect Section 4(f) resources include:

- U.S. Department of Transportation (USDOT) Act, Section 4(f) (49 U.S.C. § 303.);
- Land and Water Conservation Fund Act of 1965 (16 U.S.C. §§ 4601-4604 et seq.);
- Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) – Section 6009 (49 U.S.C. § 303.); and
- U.S. Department of Defense Reauthorization (Public Law (P.L.) 105-185, Division A, Title X, Section 1079, November 18, 1997, 111 Stat. 1916).

The USDOT Act, Section 4(f) provides that no project that requires the use of any land from a public park or recreational area, wildlife and waterfowl refuge, or historic site be approved by the Secretary of Transportation unless there is no viable alternative and provisions to minimize any possible harm are included in the planning. Similarly, the Land and Water Conservation Fund (LWCF) Act prevents the conversion of lands purchased or developed with Land and Water Conservation funds to non-recreation uses, unless the Secretary of the Interior, through the

12 Melrose, Alan, European ATM and Climate Adaptation: A Scoping Study, ICAO Environmental Report, 2010. Accessed: http://www.icao.int/environmental-protection/Documents/EnvironmentReport-2010/ICAO_EnvReport10-Ch6_en.pdf, May 2021.

13 Texas General Land Office. The Texas Coastal Zone. Retrieved December 2024, from GLO: https://www.glo.texas.gov/coast/coastal-management/forms/files/CoastalBoundaryMap.pdf

14 National Oceanic and Atmospheric Administration. (2024, December). Maps. Retrieved December 2024, from National Marine Sanctuaries: https://sanctuaries.noaa.gov/about/maps.html

15 U.S. Fish and Wildlife Service. (2024, December). Coastal Barrier Resources System Mapper. Retrieved December 2024, from USFWS: https://fwsprimary.wim.usgs.gov/CBRSMapper-v2/

National Park Service, approves the conversion. Conversion may only be approved if it is consistent with the comprehensive statewide outdoor recreation plan when the approval occurs. Additionally, the converted property must be replaced with other recreation property of reasonably equivalent usefulness and location, and at least equal fair market value.

There are no Section 4(f) resources located within the Airport's boundaries. The nearest historic resource listed on the National Register of Historic Places (NRHP) is the Pan-American Courts and Café, located about 1.8 miles west of the Airport.[16] The nearest LWCF resource is Lake Casa Blanca International State Park, located eastwardly adjacent to the Airport across Bob Bullock Loop.[17] According to the City, the nearest recreational facilities to the Airport are the Base Community Sports Complexes and Thomas Tennis Courts and Pool, all located about within 500 feet to the west of the Airport.[18] In addition, there are existing trails located west of the Airport, west of Bartlett Avenue, and the closest City park is Robert DeLlano Park, located about 0.75 mile west of the Airport (see **Figure 1-15**).[19]

1.10.7 Farmlands

The following statutes, regulations, and guidance pertain to farmlands:

- Farmland Protection Policy Act (FPPA) (7 U.S.C. §§ 4201-4209); and
- CEQ Memorandum on the Analysis of Impacts on Prime or Unique Agricultural Lands in Implementing the National Environmental Policy Act (45 FR 59189).
- Pollution Prevention Act (42 U.S.C. §§ 13101-13109);
- Toxic Substances Control Act (TSCA) (15 U.S.C. §§ 2601-2697);
- Resource Conservation and Recovery Act (RCRA) (42 U.S.C. §§ 6901-6992k);
- EO 12088, *Federal Compliance with Pollution Control Standards* (43 FR 47707);
- EO 12580, *Superfund Implementation* (52 FR 2923), (63 CFR 45871), and (68 CFR 37691);
- EO 13423, *Strengthening Federal Environmental, Energy, and Transportation Management* (72 FR 3919); and
- EO 13514, *Federal Leadership in Environmental, Energy, and Economic Performance* (74 FR 52117).

The FPPA of 1981 regulates federal actions that have the potential to convert farmland to non-agricultural uses. According to the U.S. Department of Agriculture (USDA) Wet Soil Survey, there are no prime farmlands within LRD property. [20]

16 U.S. Department of the Interior. (2024). National Register of Historic Places. Retrieved December 2024, from National Park Service: https://www.nps.gov/maps/full.html?mapId=7ad17cc9-b808-4ff8-a2f9-a99909164466

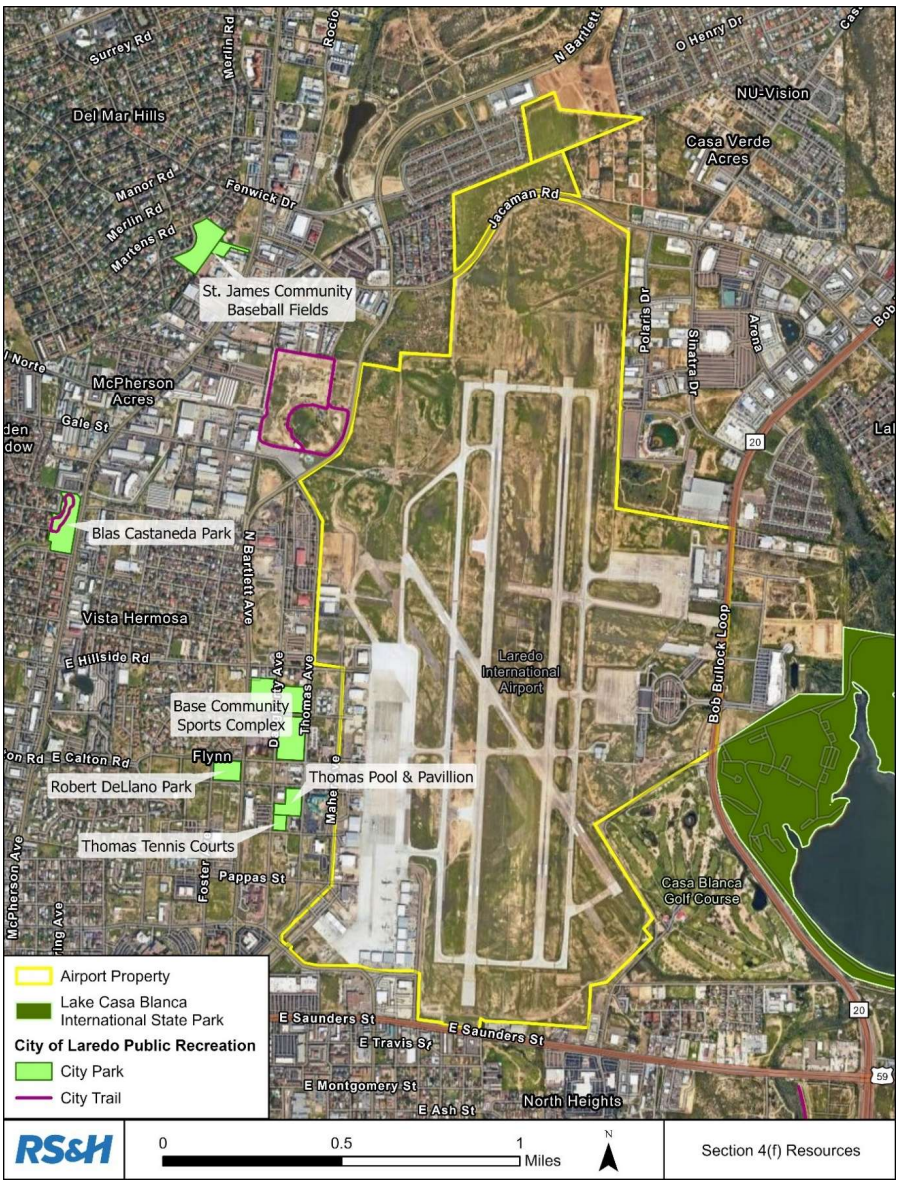
17 Trust for Public Land. (2024). Past Projects. Retrieved December 2024, from The Land and Water Conservation Fund: https://lwcf.tplgis.org/mappast/

18 City of Laredo. (2024). Parks & Recreation. Retrieved December 2024, from City of Laredo - Open Data GIS Portal: https://maps.openlaredo.com/apps/76f17a4985d943beb0419e355820d43f/explore

19 Ibid.

20 United States Department of Agriculture. (2024). Web Soil Survey. Retrieved December 2024, from Natural Resources Conservation Service: https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx.

Figure 1-15:
Existing Section 4(f) Resources



Source: City of Laredo, 2021; TPWD, 2022; RS&H, 2024.

1.10.8 Hazardous Materials

In a regulatory context, the terms "hazardous wastes," "hazardous substances," and "hazardous materials" are defined as:

- **Hazardous Wastes.** Subpart C of the RCRA defines hazardous wastes (sometimes called characteristic wastes) as solid wastes that are ignitable, corrosive, reactive, or toxic. Examples include waste oil, mercury, lead, or battery acid. In addition, Subpart D of the RCRA contains a list of specific types of solid wastes that the USEPA has deemed hazardous (sometimes called listed wastes). Examples include degreasing solvents, petroleum refining waste, or pharmaceutical waste.
- **Hazardous Substances**. Section 101(14) of the CERCLA defines hazardous substances broadly and includes hazardous wastes, hazardous air pollutants, or hazardous substances designated as such under the Clean Water Act and TSCA and elements, compounds, mixtures, solutions, or substances listed in 40 CFR Part 302 that pose substantial harm to human health or environmental resources. Pursuant to the CERCLA, hazardous substances do not include any petroleum or natural gas substances and materials. Examples include ammonia, bromine, chlorine, or sodium cyanide.
- **Hazardous Materials.** According to 49 CFR Part 172, hazardous materials are any substances commercially transported that pose unreasonable risk to public health, safety, and property. These substances include hazardous wastes and hazardous substances, as well as petroleum and natural gas substances and materials. As a result, hazardous materials represent hazardous waste and substances. Examples include household batteries, gasoline, or fertilizers.

Aircraft fuel constitutes the largest quantity of hazardous substances stored and consumed at the Airport. Fuel is stored at the fuel farm on LRD property in aboveground storage tanks and fuel trucks are used to fuel aircraft. include "all pasturelands, croplands, and forests (even if zoned for development) considered to be prime, unique, or statewide or local important lands.[21]

1.10.9 Hazardous Materials, Solid Waste, and Pollution Prevention

Federal laws, regulations, and EOs that relate to hazardous materials, solid waste, and pollution prevention include:

- Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) (42 U.S.C. §§ 9601-9765)
- Emergency Planning and Community Right to Know Act (42 U.S.C. §§ 11001-11050);
- Federal Facilities Compliance Act (42 U.S.C. § 6961);
- Hazardous Materials Transportation Act (49 U.S.C. §§ 5101-5128);
- Oil Pollution Prevention Act of 1990 (33 U.S.C. §§ 2701-2762);

21 Federal Aviation Administration, 1050.1F Desk Reference, February 2020. Accessed: May 2021.

According to USEPA, the nearest brownfield site is Chacon Creek Lake Killam Lake (EPA ID: 110040823311), located about 0.9 mile south of the Airport.[22] In addition, there are no superfund sites[23] or RCRA facilities[24] within the Airport's property.

1.10.9.1 Solid Waste

Solid waste generated at the Airport is taken to the City of Laredo Landfill, located about 4 miles southeast of the Airport.[25] The City of Laredo Landfill has an expected remaining lifespan of five years.[26] Nonetheless, there is another landfill in the vicinity of the airport called Ponderosa Regional Landfill, located about 4.5 miles southwest of the Airport, which has a capacity for 75,331 years of operation.

1.10.9.2 Pollution Prevention

The Airport does not operate under a Texas Pollutant Discharge Elimination System Permit (TPDES) General Permit, Spill Prevention Control and Countermeasure (SPCC) plan, or Stormwater Pollution Prevention Plan. Instead, the Airport has implemented the following practices to control and manage the potential for hazardous spills and prevent contamination of water resources.: ~~[insert]~~

Commented [VLH12]: What goes here?

1.10.10 Historical, Architectural, Archaeological, and Cultural Resources

The National Historic Preservation Act (NHPA) (54 U.S.C. §§300101 et seq.) establishes the Advisory Council on Historic Preservation (ACHP). The ACHP oversees federal agency compliance with the NHPA. The NHPA also established the NRHP that the National Park Service (NPS) oversees. Other applicable statues and EOs include:

- American Indian Religious Freedom Act (42 U.S.C. § 1996)
- Antiquities Act of 1906 (54 U.S.C. §§320301-320303)
- Archeological and Historic Preservation Act (54 U.S.C. §§ 312501-312508)
- Archeological Resources Act (16 U.S.C. §§ 470aa-470mm)
- USDOT Act, Section 4(f) (49 U.S.C. § 303)
- Historic Sites Act of 1935 (16 U.S.C. §§ 461-467)

22 U.S. Environmental Protection Agency. (2024). FRS Facility Detail Report. Retrieved December 2024, from Cleanups in My Community: https://frs-public.epa.gov/ords/frs_public2/fii_query_detail.disp_program_facility?p_registry_id=110040823311.

23 U.S. Environmental Protection Agency. (2024). Cleanups in My Community. Retrieved December 2024, from EPA: https://map22.epa.gov/cimc/TX.

24 U.S. Environmental Protection Agency. (2024). RCRAINFO Search. Retrieved December 2024, from EPA: https://enviro.epa.gov/envirofacts/rcrainfo/search/results?q=N4Ig7gIgJg5gpgFwMIEMA2aQC4Bm6DOcANCFBPgA5ooCeSAThAnIytsAL4l4DGAynDRweCCAHsAduxBiKoyQJT0eACwAqNCnGwgARnBgQJAdSYqQXEPDEx6KCipqLI5rKBRQo9OPnzSAXhAUSGJQ2IggICQeXj74ADJG4ZEkPEw0OvFKcFBiUSA8YgCuEggZEcZwurr5%2BAgozNKFYTpqABr5Yfg8jHLiUhFqcAAeKH6WMfTOqhpaOvqGJmYWJBJUOisgEigQPPjTrqCy8hIHs8kLRqYI5pYlEABuB9LH-TromCSvkgBq6EXJbb5b6nOBKGaaC4GK7LCYYAAK9DEPDiPiQKmEAGsctgEPQASQKEiUb4fNgANogAAiAHYAJz5KkADgADIymQBGdkAJnZAGZGXSGSQ%2BCyuSKWbyJQKJQAWfKigCsCpZADYFUL8moxVrJbqZSBtfKSGpWVrOeapYamQbTcbrcqTUz1U6aeamebhYa6WyTXTxd6rWo6ba6fa2jqSBGrRGDRHw5qALokfBMOAAeT6kneIke2hTYJcfzQAJ0RJsAEkJDg8hwgA

25 City of Laredo. (2024). City of Laredo Landfill. Retrieved December 2024, from Laredo Solid Waste Services: https://www.laredosolidwaste.com/.

26 Texas Commission on Environmental Quality. (September 2024). Municipal Solid Waste in Texas: A Year in Review – 2023 Data Summary and Analysis. Retrieved December 2024, from TCEQ: https://www.tceq.texas.gov/downloads/permitting/waste-permits/publications/municipal-solid-waste-in-texas_-a-year-in-review-2023-data-summary-and-analysis.pdf.

- Native American Graves Protection and Repatriation Act (25 U.S.C. §§ 3001-3013)
- Public Building Cooperative Use Act (40 U.S.C. §§ 601a, 601a1, 606, 611c, and 612a4)
- EO 11593, *Protection and Enhancement of the Cultural Environment* (36 FR 8921)
- EO 13006, *Locating Federal Facilities on Historic Properties in Our Nation's Central Cities* (61 FR 26071)
- EO 13007, *Indian Sacred Sites* (61 FR 26771)
- EO 13175, *Consultation and Coordination with Indian Tribal Governments* (65 FR 67249)
- Executive Memorandum, Government-to-Government Relations with Native American Tribal Governments (April 29, 1994)
- Executive Memorandum on Tribal Consultation (Nov. 5, 2009) (65 FR 67249); and
- USDOT Order 5650.1, *Protection and Enhancement of the Cultural Environment.*

The nearest historic resource listed on the NHRP is the Pan-American Courts and Café, located about 1.8 miles west of the Airport.[27]

1.10.11 Land Use

Various statutes, regulations, and EOs relevant to land use include:

- The Airport and Airway Improvement Act of 1982, and subsequent amendments (49 U.S.C. 47107(a)(10));
- The Airport Improvement Program (49 U.S.C. 47106(a)(1);
- The Airport Safety, Protection of Environment, Criteria for Municipal Solid Waste Landfills (40 CFR § 258.10); and
- State and local regulations

The Airport is located entirely in the City of Laredo in Webb County, Texas. Land uses within the immediate vicinity of the Airport include light and heavy commercial, light and heavy industrial, and low density residential (see **Figure 1-16**).[28] The Airport is currently zoned for light manufacturing (M-1) and single family residential (R-1) use[29]. Although its operational area has been designated for light and heavy industrial, low density residential, and light commercial land use, the Airport is currently used for airport-related development. In addition, the Airport is included in the City's Airport Noise Overlay District.[30]

1.10.12 Natural Resources and Energy Supply

Statutes and EOs that are relevant to natural resources and energy supply include:

27 U.S. Department of the Interior. (2024). National Register of Historic Places. Retrieved December 2024, from National Park Service: https://www.nps.gov/maps/full.html?mapId=7ad17cc9-b808-4ff8-a2f9-a99909164466

28 City of Laredo. (2024). OL Zoning Districts. Retrieved December 2024, from City of Laredo – Open Data GIS Portal: https://maps.openlaredo.com/maps/12bd84a356ef440883f54265c6f1ebbc/about

29 Ibid.

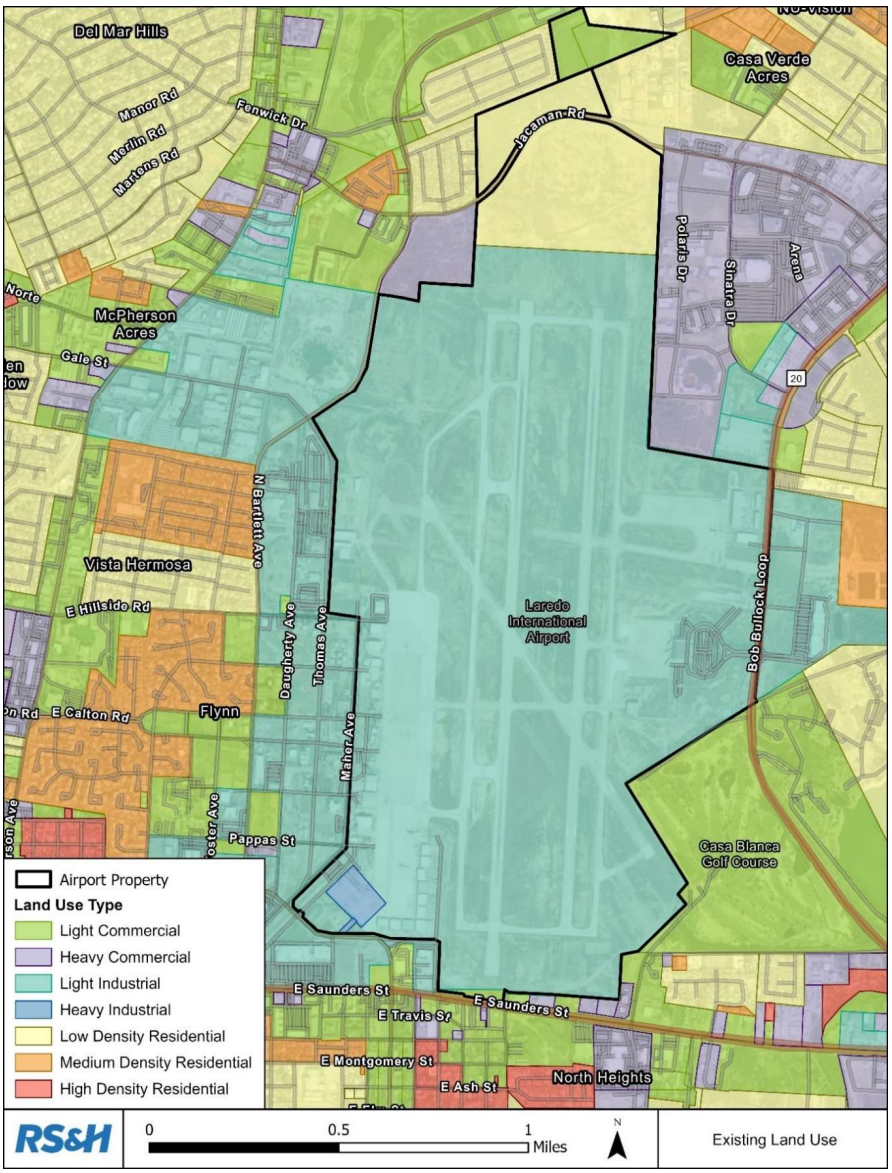
30 City of Laredo. (2024). Laredo Unified Development Code – Article 2 Zoning Districts. Retrieved December 2024, from: https://www.cityoflaredo.com/home/showpublisheddocument/2276/638109412707000000

- Energy Independence and Security Act (42 U.S.C. § 17001 et seq.);
- Energy Policy Act (42 U.S.C. § 15801 et seq.);
- EO 13423, *Strengthening Federal Environmental, Energy, and Transportation Management* (72 FR 3919); and
- EO 13514, *Federal Leadership in Environmental, Energy, and Economic Performance* (74 FR 52117).

Natural resources (e.g., water, asphalt, aggregate, etc.) and energy use (e.g., fuel, electricity, etc.) at an airport is a function of the needs of aircraft, support vehicles, airport facilities, support structures, and terminal facilities. Airport personnel and tenants regularly use consumable materials to maintain various airside and landside facilities and services. Those materials may include asphalt, concrete, aggregate for sub-base materials, various metals associated with such maintenance, and fuels associated with the operation of aircraft and vehicles.

Energy use at the Airport is primarily in the form of electricity required to operate airport-related facilities (e.g., terminal building, hangars, airfield lighting) and fuel for aircraft, aircraft support vehicles/equipment, and airport maintenance vehicles/equipment. Electrical power is necessary to keep the LRD operational and safe. The Airport receives electricity supplies from American Electric Power (AEP) Texas. The City of Laredo supplies the Airport with water and sewage utility. Lastly, Trashco Inc. provides the Airport with garbage disposal services.

Figure 1-16:
Existing Land Use



Source: City of Laredo, 2021; RS&H, 2024.

1.10.13 Noise and Noise-Compatible Land Use

Statutes and EOs relevant to noise and noise-compatible land use include:

- The Control and Abatement of Aircraft Noise and Sonic Boom Act of 1968 (49 U.S.C. § 44715)
- The Noise Control Act of 1972 (42 U.S.C. §§ 4901-4918)
- Aviation Safety and Noise Abatement Act of 1979 (49 U.S.C. § 47501 et seq.)
- Airport and Airway Improvement Act of 1982 (49 U.S.C. § 47101 et seq.)
- Airport Noise and Capacity Act of 1990 (49 U.S.C. §§ 47521-47534, §§ 106(g)
- Section 506 of the FAA Modernization and Reform Act of 2012, *Prohibition on Operating Certain Aircraft Weighting 75,000 Pounds of Less Not Complying with Stage 3 Noise Levels* (49 U.S.C. §§ 47534); and
- State and local noise laws and ordinances.

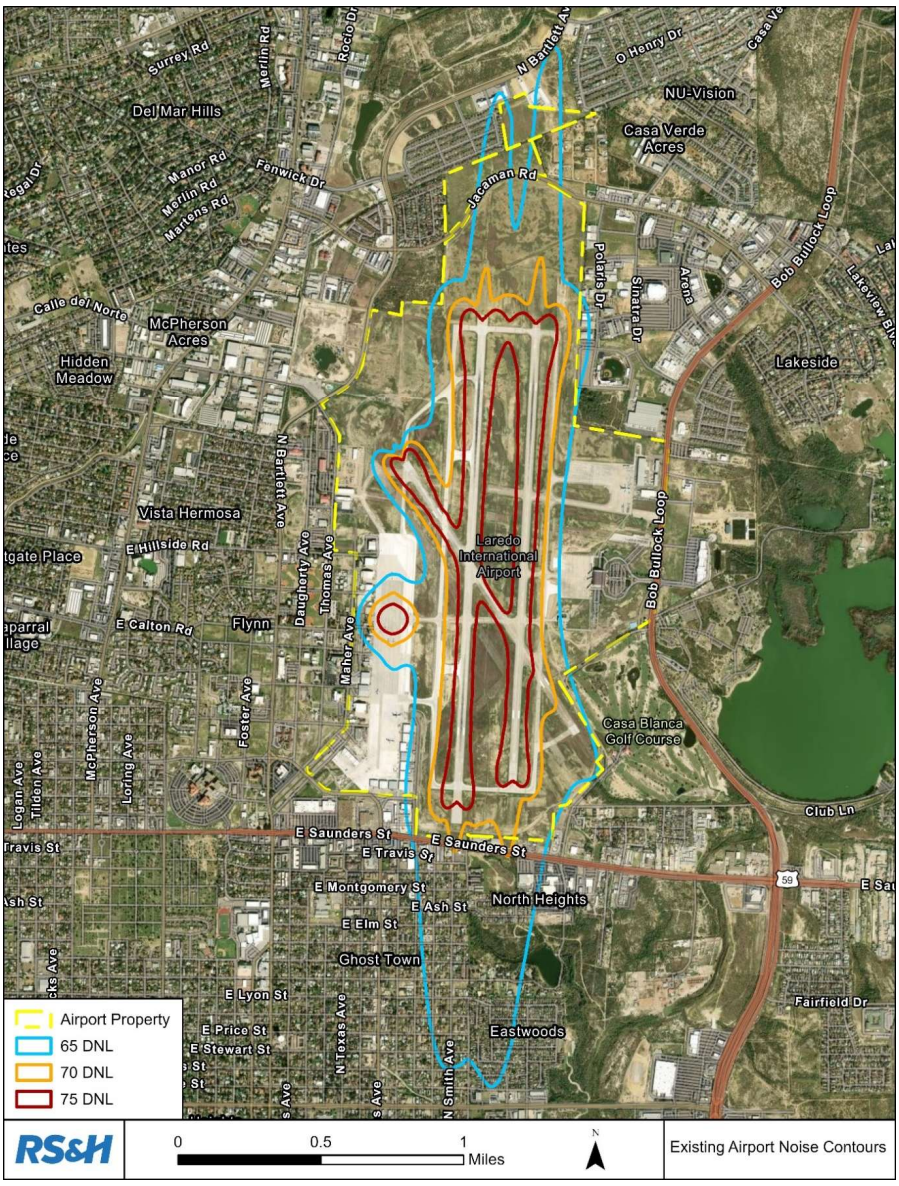
Day-Night Sound Level (DNL) is based on sound levels measured in relative intensity of sound (decibels or dB) on the "A-weighted scale" or dBA over a time-weighted average normalized to a 24-hour period.[31] DNL has been widely accepted as the best available method to describe aircraft noise exposure. The USEPA identifies the DNL as the principal metric for airport noise analysis. The FAA requires DNL as the noise descriptor for aircraft noise exposure analysis and noise compatibility planning. DNL levels are commonly shown as lines of equal noise exposure, like terrain contour maps, referred to as noise contours. All residential areas are considered compatible with cumulative noise levels below 65 DNL. See **Figure 1-17** for the existing noise contours at the Airport.

As defined in Paragraph 11-5.b.(8) of FAA Order 1050.1F, a noise sensitive area is "an area where noise interferes with normal activities associated with its use. Normally, a noise sensitive area includes residential, educational, health, and religious structures and sites, and parks, recreational areas, areas with wilderness characteristics, wildlife refuges, and cultural and historical sites." As described above in **Section 1.10.11**, there are single and multi-family residential land uses near the Airport. Noise sensitive areas are typically north and south of the Airport and are included in the Airport's updated 65 dBA noise contour.

There are no residential areas within the Airport's Operational Area (AOA). The nearest residential area to the Airport is located north of LRD property, north of Jacaman Road and south of Bartlett Avenue. However, all homes located within the City's Airport Overlay Zone are required to follow building requirements outlined in the City of Laredo's Land Development

31 Federal Aviation Administration, Technical Support for Day/Night Average Sound Level (DNL) Replacement Metric Research, Final Report, June 14, 2011. Accessed: May 2021.

Figure 1-17:
Existing Airport Noise Contours



Source: RS&H, 2024.

Code, Appendix N[32] – *Noise Attenuation Performance Standards for Structures Located in Airport Noise Specific Use Overlay Zoning Districts* to ensure they meet the 45 DNL interior noise requirements. In addition, the Airport had previously conducted a 14 CFR Part 150 study and Noise Compatibility Program (NCP) in 2014 and proposed various noise abatement measures to reduce land use incompatibility with aircraft noise around the Airport. The Airport is in the process of completing an updated NCP.

1.10.14 Socioeconomic, Environmental Justice, and Children's Environmental Health and Safety Risks

The primary considerations of socioeconomics analysis are the economic activity, employment, income, population, housing, public services, and social conditions of the area. The Uniform Relocation Assistance and Real Property Acquisitions Policy Act of 1970 (42 U.S.C. § 61 et seq.), implemented by 49 CFR Part 24, is the primary statute related to socioeconomic impacts. Statutes, EOs, memorandums, and guidance that are relevant to environmental justice and children's environmental health and safety risks include:

- Title VI of the Civil Rights Act, as amended (42 U.S.C. §§ 2000d-2000d-7);EO 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* (59 FR 7629);
- Memorandum of Understanding on Environmental Justice and EO 12898;
- USDOT Order 5610.2(a), Environmental Justice in Minority and Low-Income Populations (77 FR 27534);
- CEQ Guidance: *Environmental Justice: Guidance Under the National Environmental Policy Act*;
- Revised USDOT Environmental Justice Strategy (77 FR 18879); and
- EO 13045, *Protection of Children from Environmental Health Risks and Safety Risks* (62 FR 19885).

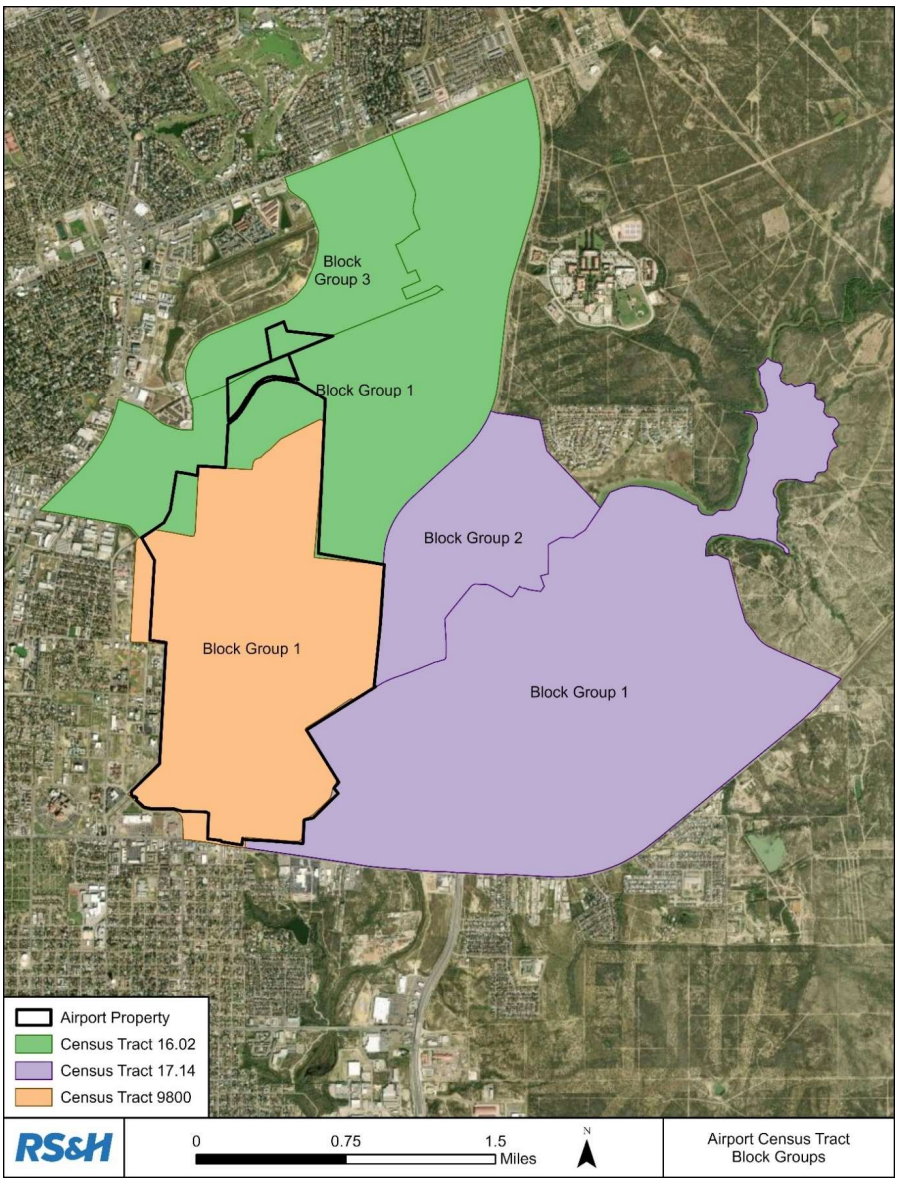
Census data was obtained from the U.S. Census Bureau provided by the 2022 American Community Survey, 5-Year Estimates.

According to the U.S. Census Bureau, the Airport is located entirely within the City of Laredo and within the following census tract block groups[33] (see **Figure 1-18**): Census Tract 9800, Block Group 1, Census Tract 16.02, Block Groups 1 and 3, and Census Tract 17.14, Block Groups 1 and 2. These census tracts were used to describe the socioeconomic, environmental justice, and children's environmental health and safety risk resources in the Airport area compared to the City of Laredo and State of Texas. Census tracts are small subdivisions of a county. Census tract

32 City of Loredo. 2021. Land Development Code Book, Appendix N: Noise Attenuation Performance Standards for Structures Located within Airport Noise Specific Use Zoning Overlay Districts. Retrieved October 30, 2024 from https://www.cityoflaredo.com/home/showpublisheddocument/908/638101091990530000

33 U.S. Census Bureau. (2024). Census Bureau Maps. Retrieved December 2024, from : https://data.census.gov/map/1500000US484790016011,484790016021,484790016023,484799800001?layer=VT_2020_150_00_PY_D1&basemap=detailed&loc=27.5581,-99.4680,z12.1141

Figure 1-18:
Airport Census Tract Block Groups



Source: U.S. Census Bureau, 2020; RS&H, 2024.

and block group boundaries do not fit exactly to the Airport boundary; therefore, a census tract block group was included for analysis if all or a portion of the block group was within the Airport boundary.

1.10.14.1 Socioeconomic

Table 1-16 shows the population and housing data for the Airport property block groups, City of Laredo, Webb County, and State of Texas. The Airport property block groups have a total of 8,445 people, 2,593 households (of which 67.8 percent are occupied[34]), and an average of 2.26 persons per household.[35] The Airport property block groups have slightly higher average persons per household than the City of Laredo, Webb County, and the State of Texas.

Table 1-16:
Population and Housing Characteristics

Population and Housing Characteristics	Airport Block Groups	City of Laredo	Webb County	State of Texas
Total Population	8,445	255,293	267,282	29,243,342
Households	2,593	80,644	85,296	11,654,971
Percent Occupied	67.8%	92.2%	91.2%	90.0%
Average Persons per Household	2.26	3.26	3.26	2.62

Source: American Community Survey, 2022; RS&H, 2024.

Table 1-17 shows the employment data for the Airport property block groups compared to the City of Laredo, Webb County, and State of Texas.[36] The Airport property block groups have a lower unemployment rate than the City of Laredo, Webb County, and the State of Texas.

34 U.S. Census Bureau. (2022). Occupancy Status. American Community Survey, ACS 5-Year Estimates Detailed Tables, Table B25002. Retrieved December 10, 2024, from https://data.census.gov/table/ACSDT5Y2022.B25002?q=B25002:%20Occupancy%20Status&g=040XX00US48_050XX00US48479_1500000US484790016011,484790016021,484790016023,484799800001_160XX00US4841464.

35 U.S. Census Bureau. (2022). Household Type by Household Size. American Community Survey, ACS 5-Year Estimates Detailed Tables, Table B11016. Retrieved December 10, 2024, from: https://data.census.gov/table/ACSDT5Y2022.B11016?q=B11016:%20Household%20Type%20by%20Household%20Size&g=040XX00US48_050XX00US48479_1500000US484790016011,484790016021,484790016023,484799800001_160XX00US4841464 .

36 U.S. Census Bureau. (2022). Employment Status for the Population 16 Years and Over. American Community Survey, ACS 5-Year Estimates Detailed Tables, Table B23025. Retrieved December 10, 2024, from https://data.census.gov/table/ACSDT5Y2022.B23025?t=Employment&g=040XX00US48_050XX00US48479_1500000US484790016011,484790016021,484790016023,484799800001_160XX00US4841464.

Table 1-17:
Employment Characteristics

Employment Characteristics	Airport Block Groups	City of Laredo	Webb County	State of Texas
Percent Unemployed	2.78%	5.87%	5.93%	5.18%

Source: American Community Survey, 2022; RS&H, 2024.

1.10.14.2 Environmental Justice

There are no inhabitants within the Airport's operational area. The closest residential neighborhood is located directly north of Airport property, north of Jacaman Road and South of Bartlett Avenue. In total 6,811 people live within the Airport's property block groups.

Table 1-18 shows the environmental justice characteristics of the Airport property block groups compared to the City of Laredo, Webb County, and State of Texas. There is a higher percentage of minority population within the Airport's property block groups (55.6 percent) compared to the City of Laredo, Webb County, and State of Texas.[37] On the other hand, there is a smaller percentage of people living below the poverty line within the Airport's property block groups (10.0 percent) compared to the City of Laredo and Webb County; however slightly higher than the overall percentage within the State of Texas (13.9 percent).[38]

Table 1-18:
Environmental Justice Characteristics

Environmental Justice Characteristic	Airport Block Groups	City of Laredo	Webb County	State of Texas
Percent Minority	55.6%	46.6%	46.3%	40.9%
Percent Living Below Poverty Line	10.0%	21.0%	21.4%	13.9%

Source: American Community Survey, 2022; RS&H, 2024.

37 U.S. Census Bureau. (2022). Race. American Community Survey, ACS 5-Year Estimates Detailed Tables, Table B02001. Retrieved December 10, 2024, from https://data.census.gov/table/ACSDT5Y2022.B02001?g=040XX00US48_050XX00US48479_1500000US484790016011,484790016021,484790016023,484799800001_160XX00US4841464.

38 U.S. Census Bureau. (2022). Poverty Status of Individuals in the Past 12 Months by Living Arrangement. American Community Survey, ACS 5-Year Estimates Detailed Tables, Table B17021. Retrieved December 10, 2024, from https://data.census.gov/table/ACSDT5Y2022.B17021?t=Poverty&g=040XX00US48_050XX00US48479_1500000US484790016011,484790016021,484790016023,484799800001_160XX00US4841464.

1.10.14.3 Children's Health and Safety Risks

Table 1-19 shows the children age distribution with the Airport's property block groups, the City of Laredo, Webb County, and State of Texas.[39] The Airport's property block groups' population has a lower percentage of children (31.6 percent) than the City of Laredo and Webb County but higher than the State of Texas.

Table 1-19:
Children Age Group Distribution

Children Age Group	Airport Block Groups	City of Laredo	Webb County	State of Texas
Under 5 years	853	21,540	22,590	1,923,422
5 to 9 years	912	22,225	23,187	2,027,737
10 to 14 years	823	23,778	24,972	2,169,603
15 to 17 years	540	13,628	14,368	1,275,366
Total	3,128	81,171	85,117	7,396,128
Percent of Population below 18 years of Age	31.6%	31.8%	31.9%	25.3%

Source: American Community Survey, 2022; RS&H, 2024.

Regarding children's environmental health and safety risks, there are 29 daycares[40], six schools[41], and two hospitals located within one mile of the Airport (see **Figure 1-19**).

1.10.15 Visual Effects

There is no federal statutory or regulatory requirement for adverse effects resulting from light emissions or visual impacts. FAA Order 1050.1F describes factors to consider regarding light emissions and visual resources/visual character. A project's potential impact from light emissions includes the annoyance or interference with normal activities, as well as effects to the visual character of the area due to light emissions, including the importance, uniqueness, and aesthetic value of the affected visual resources.

39 U.S. Census Bureau. (2022). Sex by Age. American Community Survey, ACS 5-Year Estimates Detailed Tables, Table B01001. Retrieved December 10, 2024, from https://data.census.gov/table/ACSDT5Y2022.B01001?t=Age andSex&g=040XX00US48_050XX00US48479_1500000US484790016011,484790016021,484790016023,484799800001_160XX00US4841464.

40 Texas Health and Human Services. (2024). Child Care Search Results. Retrieved December 2024, from: https://childcare.hhs.texas.gov/Public/ChildCareSearchResults

41 Texas Education Agency. (2024). Schools 2023 to 2024. Retrieved December 2024, from Texas Education Agency Public Open Data Site: https://schoolsdata2-tea-texas.opendata.arcgis.com/datasets/3bbafea2252246bb887cf28336a2ca69_0/explore?location=27.542783%2C-99.448770%2C14.22

1.10.15.1 Light Emissions

Various lighting features currently illuminate LRD facilities for the safe and secure movement of people and vehicles (e.g., aircraft, passenger cars, etc.). Airport lighting is characterized by airfield lighting (i.e., runway, taxiway, approach, and landing lights) and landside lights (i.e., security lights, building interior lights, parking lot lights, and signage). The Airport can currently be seen from residential areas located directly north of the AOA, north of Jacaman Road, and by those driving along the roads that border the Airport, such as the following: Bob Bullock Loop, North Bartlett Avenue, Thomas Avenue, Maher Avenue, and

Figure 1-19:
Existing Children's Resources

Source: TEA, 2024; THHS, 2024; RS&H, 2024.

Saunders Avenue. Nonetheless, airfield lighting is typically dim and low-lying, and landside lighting is typically downward-facing and focused on movement areas.

1.10.15.2 Visual Resources and Visual Character

The visual character of the Airport can be described as light industrial used for airport-related development. Structures at the Airport include, but are not limited to, fixed based operators, air cargo carriers, hangars, air traffic control tower, terminal, and maintenance buildings. As previously mentioned, the Airport is designated for light industrial land uses, and the development of the Airport's visual character is consistent with its designation. Residential properties located north and west of the Airport have a direct line of sight of the Airport.

1.10.16 Water Resources

Water resources include wetlands, floodplains, surface waters, groundwater, and wild and scenic rivers. These resources typically function as a single, integrated natural system that are important in providing drinking water in supporting recreation, transportation and commerce, industry, agriculture, and aquatic ecosystems.

1.10.16.1 Wetlands

Statutes and EOs that are relevant to wetlands include:

- EO 11990, *Protection of Wetlands* (42 FR 26961);
- Clean Water Act (33 U.S.C. §§ 1251-1387);
- Fish and Wildlife Coordination Act (16 U.S.C. § 661-667d) ; and
- USDOT Order 6660.1A, *Preservation of the Nation's Wetlands*.

The Clean Water Act defines wetlands as "…those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions." [42] Wetlands have three necessary characteristics:

- Water: presence of water at or near the ground surface for a part of the year;
- Hydrophytic Plants: a preponderance of plants adapted to wet conditions; and
- Hydric Soils: soil developed under wet conditions.

According to the U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory, there are 3.5 acres of freshwater forested/shrub wetlands on the Airport's property[43] (see **Figure 1-20**).

42 U.S. Environmental Protection Agency, Section 404 of the Clean Water Act. Accessed: https://www.epa.gov/cwa-404/section-404-clean-water-act-how-wetlands-are-defined-and-identified, March 2022.

43 U.S. Fish and Wildlife Service. (2024). National Wetlands Inventory. Retrieved December 2024, from: https://fwsprimary.wim.usgs.gov/wetlands/apps/wetlands-mapper/

Figure 1-20:
Existing Wetlands

Source: USFWS, 2024; RS&H, 2024.

1.10.16.2 Floodplains

Statues and EOs that are relevant to floodplains include:

- EO 11988, *Floodplain Management* (42 FR 26951);
- National Flood Insurance Act (42 U.S.C. § 4001 et seq.); and
- USDOT Order 5650.2, *Floodplain Management and Protection*.

Floodplains are "…lowland areas adjoining inland and coastal water which are periodically inundated by flood waters, including flood-prone area of offshore islands." Floodplains are often referred to as the 100-year floodplain, rather, the one percent chance of a flood occurring in any given year. The USDOT Order 5650.2 outlines the policies and procedures for ensuring that proper consideration is given to the avoidance and mitigation of adverse floodplain impacts on agency actions, planning programs, and budget requests. Therefore, the objective is to avoid, to the extent practicable, any effects within the 100-year floodplain. Federal Emergency Management Agency (FEMA) defines a "regulatory floodway" as "the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height."[44]

According to the FEMA, the Airport is within flood map 48479C1215C, effective on April 2, 2008.[45] There are no floodplains within Airport property (see **Figure 1-21**).

1.10.16.3 Surface Waters

Statues that are relevant to surface water include:

- Clean Water Act (33 U.S.C. §§ 1251-1387);
- Fish and Wildlife Coordination Act (16 U.S.C. § 661-667d); and
- Rivers and Harbors Act (33 U.S.C. § 401 and 403).

Surface waters include areas where water collects on the surface of the ground, such as streams, rivers, lakes, ponds, estuaries, and oceans.

According to the U.S. Geological Survey (USGS)[46], there are no surface waters within Airport property (see **Figure 1-22**).

44 Federal Emergency Management Agency, Glossary. Accessed: https://www.fema.gov/about/glossary, April 2022.

45 Federal Emergency Management Agency. (2024). FEMA Map Service Center: Search By Address. Retrieved on December 2024, from FEMA: https://msc.fema.gov/portal/search?AddressQuery=Laredo%20International%20Airport%2C%20Laredo%2C%20Texas

46 U.S. Geological Survey. (2023). USGS National Hydrography Dataset Best Resolution (NHD) for Hydrological Unit (HU) 8 - 13080002 (published 20231220). Retrieved December 2024, from TNM Download (v2.0): https://apps.nationalmap.gov/downloader/.

Figure 1-21:
Existing Floodplains

Source: FEMA, 2024; RS&H, 2024.

Figure 1-22:
Existing Surface Waters

Source: USGS, 2023; RS&H, 2024.

1.10.16.4 Groundwater

Statues relevant to groundwater include:

- Safe Drinking Water Act (42 U.S.C. §§ 300(f)-300j-26).

Groundwater is described as the "subsurface water that occupies the space between sand, clay, and rock formations."[47] The Airport is located within the Rio Grande River Basin and within the Chacon Creek-Rio Grande watershed.[48] There is no major or minor aquifer underlying the Airport property, and there are no groundwater wells located on Airport property.[49]

1.10.16.5 Wild and Scenic Rivers

Statues relevant to wild and scenic rivers include:

- Wild and Scenic Rivers Act (16 U.S.C. §§ 1271-1278).

Wild and scenic rivers are defined as "outstanding natural, cultural, and recreational values in a free-flowing condition for the enjoyment of present and future generations."[50]

According to the National Park Service, there are no rivers listed in the Nationwide Rivers Inventory (NRI) or categorized as a Wild and Scenic River (WSR) within or near the Airport. The nearest river segment listed on the NRI is the Sabinal River, located about 120 miles north of the Airport.[51] The nearest WSR is the Rio Grande, located about 107 miles northwest of the Airport.[52]

47 Federal Aviation Administration, 1050.1F Desk Reference, Section 14.4 Groundwater.

48 Texas Parks and Wildlife Department. (2024). Texas Watershed Viewer. Retrieved December 2024, from: https://tpwd.maps.arcgis.com/apps/Viewer/index.html?appid=2b3604bf9ced441a98c500763b8b1048

49 Texas Water Development Board. (2024). Groundwater Data Viewer. Retrieved December 2024, from Water Data Interactive: https://www3.twdb.texas.gov/apps/WaterDataInteractive/GroundwaterDataViewer/?map=sdr

50 National Wild and Scenic Rivers System, About the WSR Act. Retrieved December 2024, from: https://www.rivers.gov/wsr-act.php,

51 U.S. Department of the Interior. (2024). Nationwide Rivers Inventory. Retrieved December 2024, from National Park Service: https://www.nps.gov/maps/full.html?mapId=8adbe798-0d7e-40fb-bd48-225513d64977

52 National Park Service. (2024). Rivers in Texas. Retrieved December 2024, from National Wild and Scenic Rivers System: https://www.rivers.gov/rivers/texas.

1.10.17 Inventory Conclusion

This comprehensive inventory of Laredo International Airport has been compiled based on the guidelines outlined in FAA Advisory Circular 150/5070-6B. This critical step has established a detailed baseline of the Airport's existing infrastructure, operational capabilities, and financial standing. Through site inspections, stakeholder consultations, and meticulous review of Airport and city documentation, a precise representation of LRD's current state has been developed.

This inventory serves as the foundational element for further analysis within the master planning process. It provides the necessary data to assess capacity, identify future requirements, and develop strategic recommendations for LRD's continued growth and development. The information compiled will directly inform the remainder of the planning process, ensuring that future improvements align with the evolving needs of the region and the Airport's stakeholders.